



Revolutionary health care transformation



The Hudson Valley Initiative

Lessons from an IPA-led, Multi-Stakeholder Medical Home Initiative

National Medical Home Summit West
September 20-22, 2011
San Francisco, CA

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President
Taconic IPA
Fishkill, NY

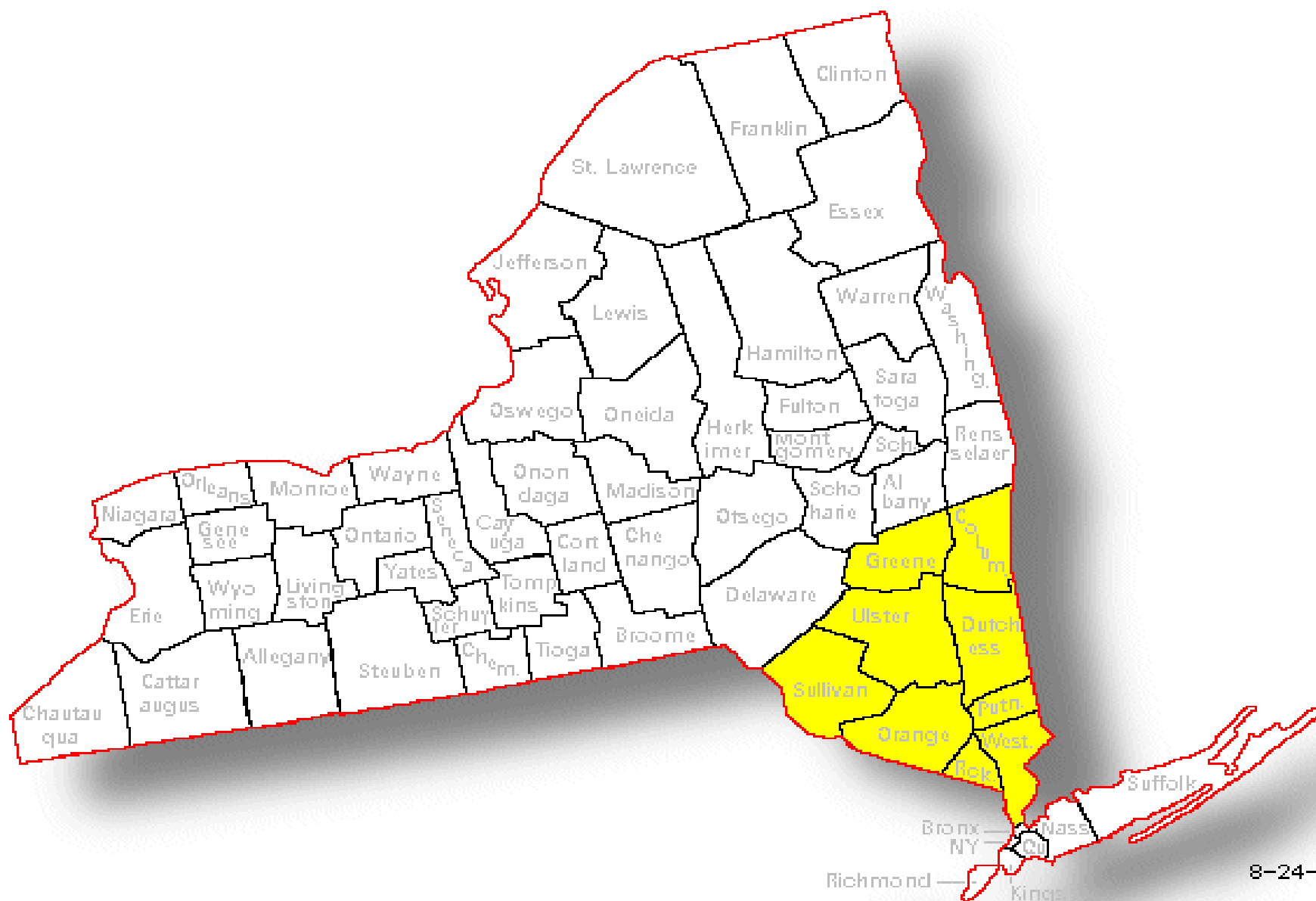
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The Hudson Valley



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What is the HVI?

- 9 counties along the Hudson River
- Population of 2.4 M
- Counties have per capita income ranging from lowest to highest in NYS
- Rural to urban settings
- 4800 total physicians, roughly 1/3 primary care
- PCP/100,000 ratios by county range from 22.31 to 104.20 –(State average 110.59)
- **HVI efforts affect roughly half all physicians and patients in the region**

HVI Organizations



Community Convener

- Non-profit
- Vendor- and payer-neutral
- REC

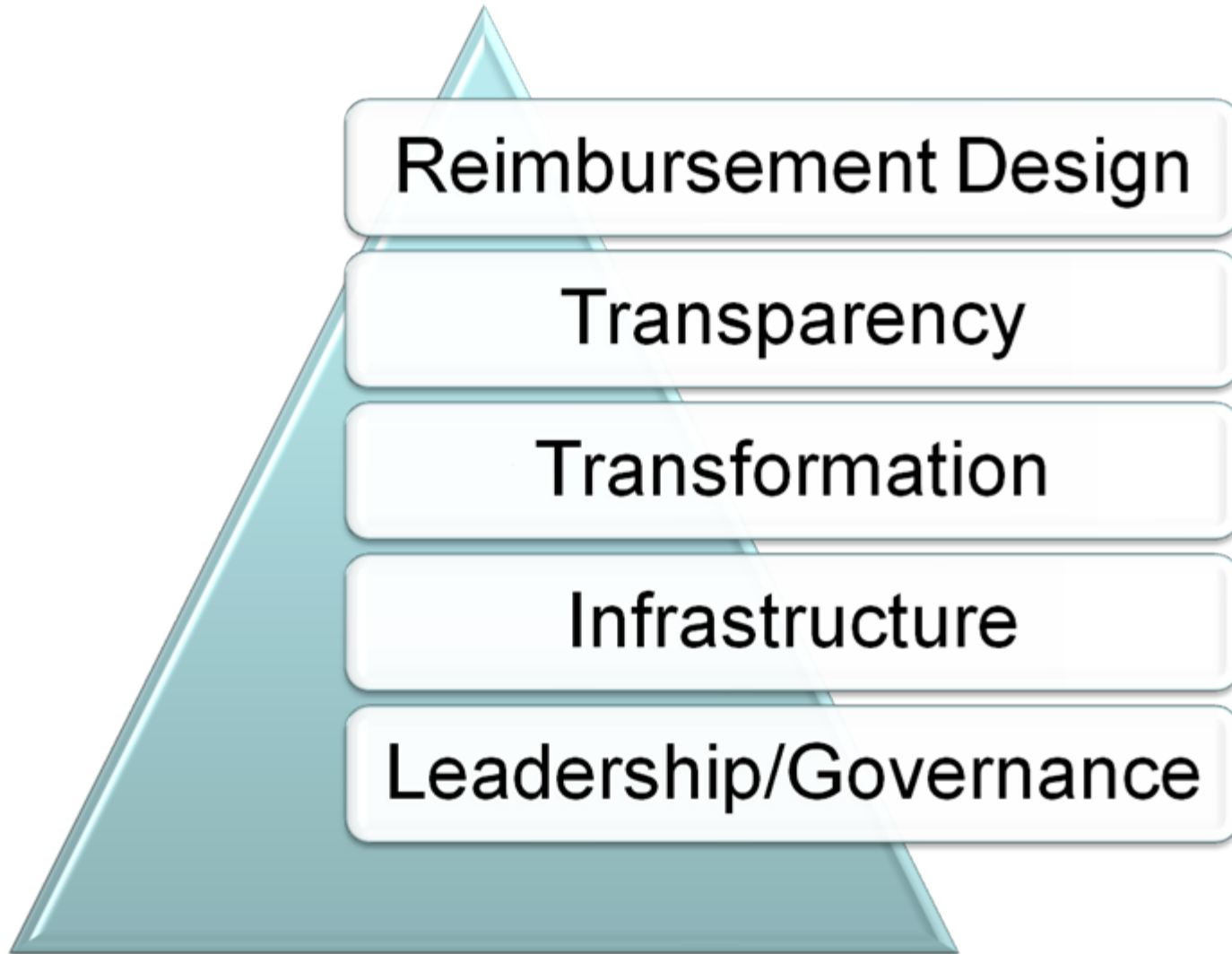
Technology

- Technology implementation and support
- EHRs and HIE
- Sponsor of national ONC Direct Project

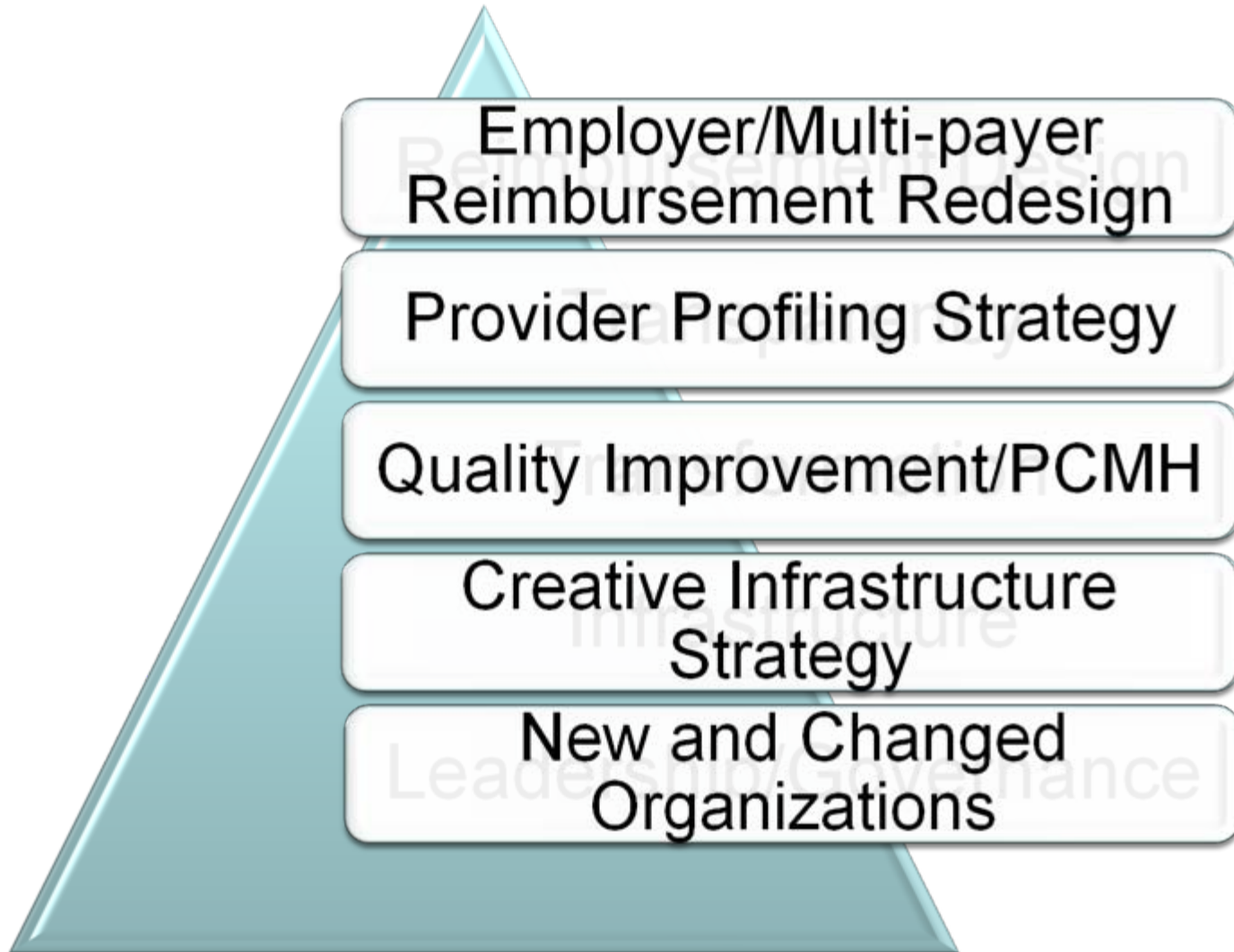
Practice Transformation

- Physician Leadership
- Advanced Primary Care Transformation

Key IDN Components



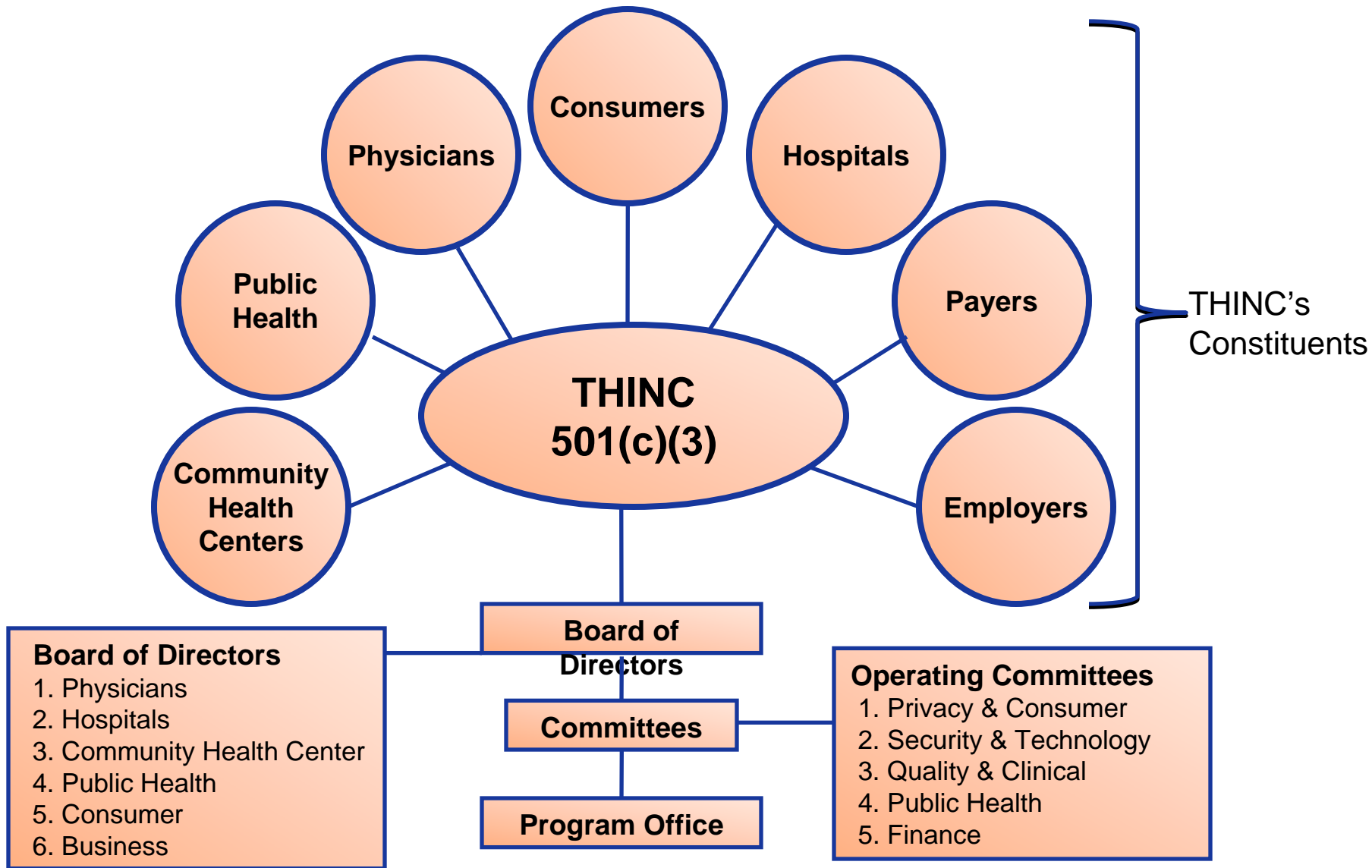
Key Open Community Components



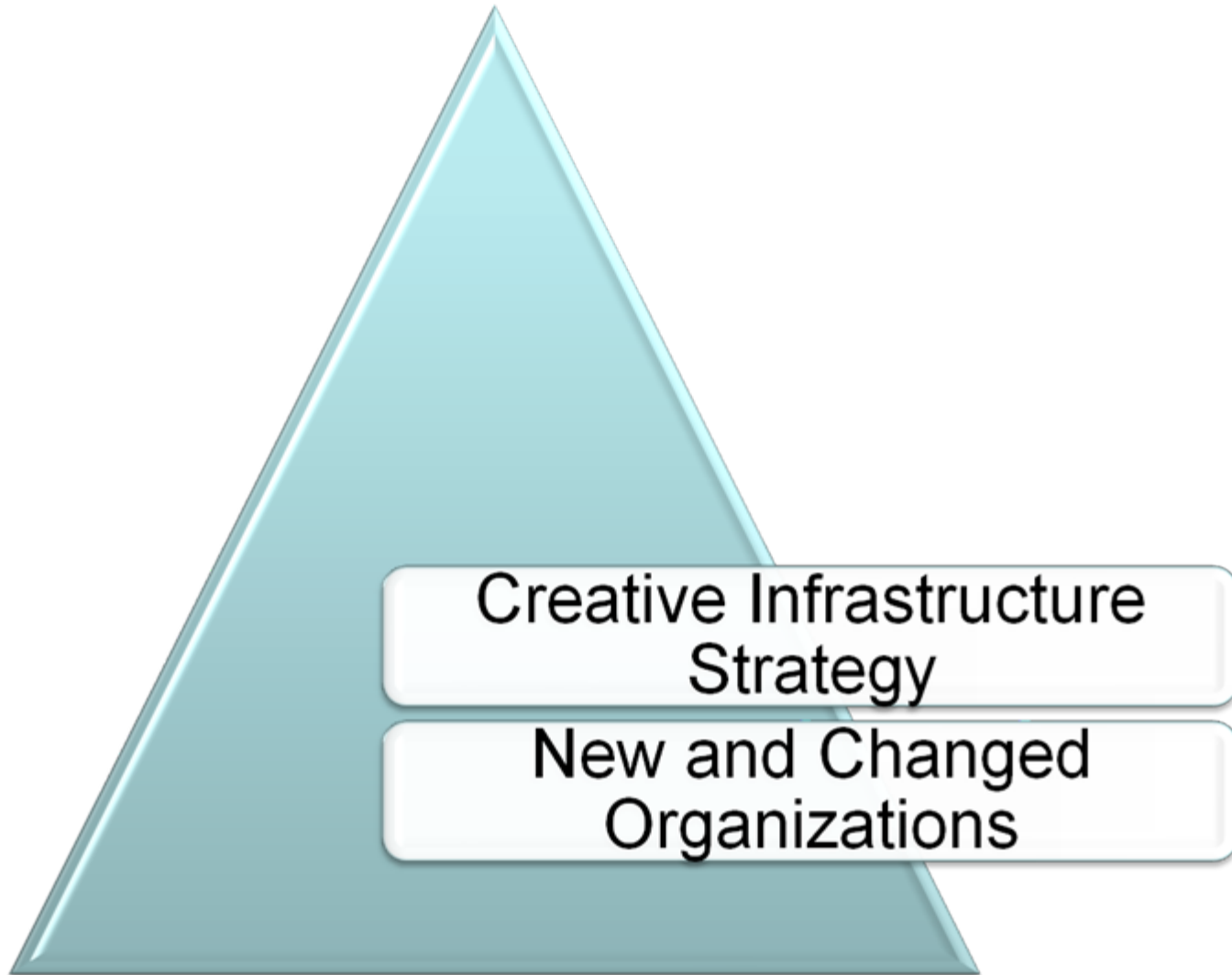
About THINC

- Policy
- Convener
- Leadership
- Culture
- Reimbursement

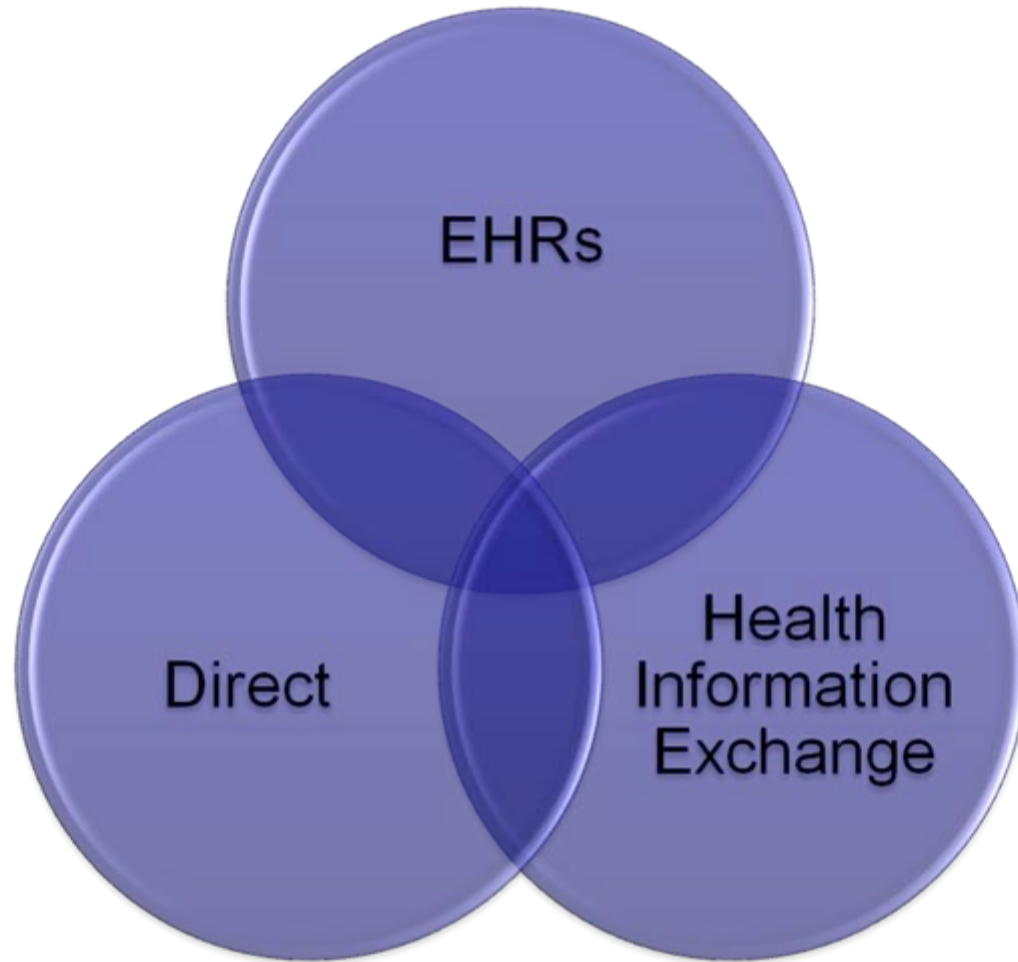
THINC



Key Open Community Components



HVI Technology Infrastructure



MedAllies/REC



Local
experts to
support
clinical
practices

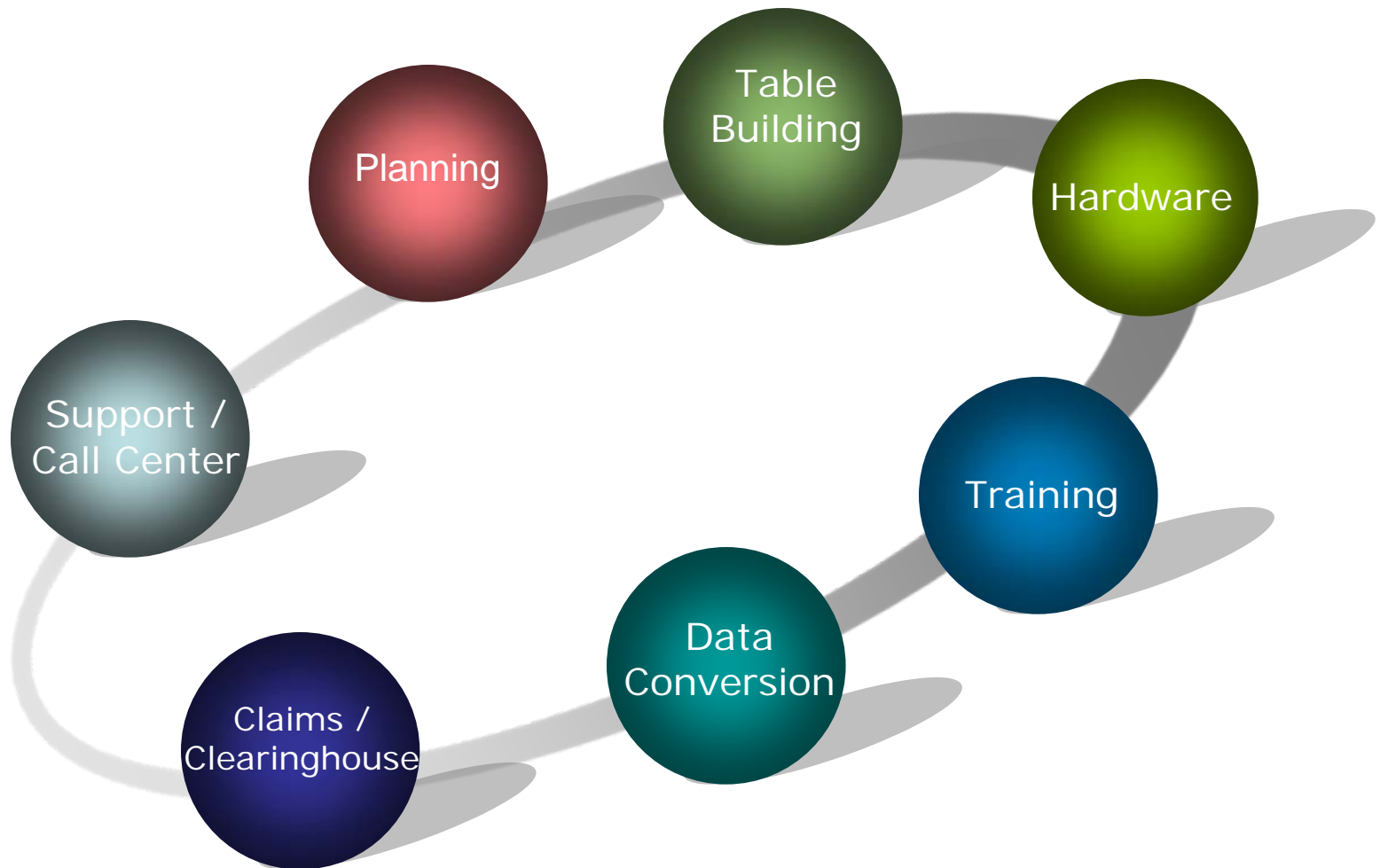
Advances
practices to
highest
level of
utilization of
HIT

Supports
multiple
applications

Connects
third parties

Works to
help
community
achieve
Meaningful
Use

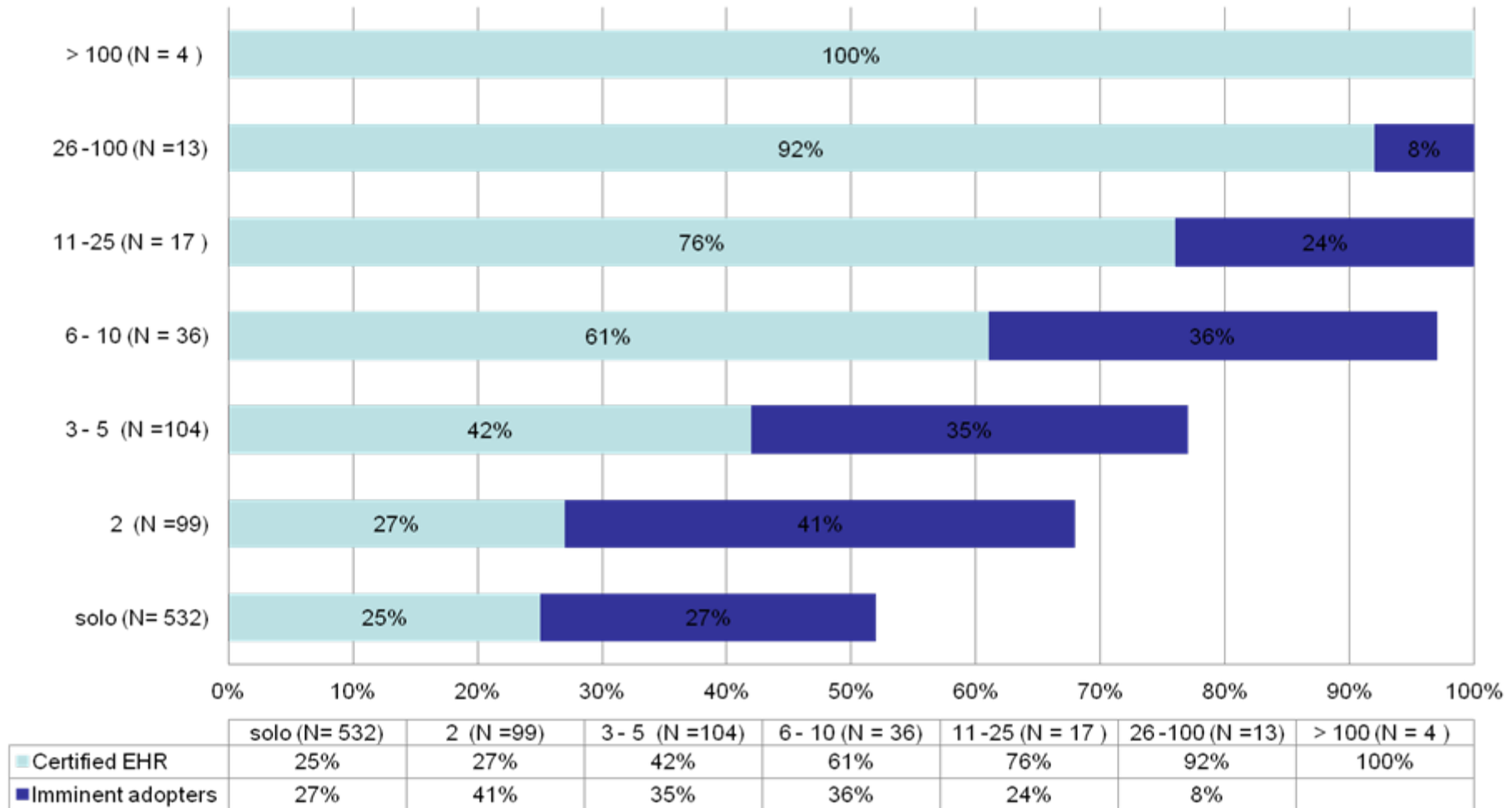
EHR Implementation Process



EHR Adoption in Hudson Valley

(total n surveyed=3133)

EHR adoption by practice size in 1 year



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Next Step: Meaningful Use

File Edit View Window Help

6 / 133

75%

Comment Share

Bookmarks

C1. CPOE Medications

C2. Drug and Allergy Interactions

C3. Problem List

C4. E-Prescribing

C5. Medication List

C6. Allergy List

C7. Demographics

C8. Vitals

C9. Smoking Status

C10. Clinical Quality Measures (CQMs)

C11. Clinical Decision Support

C12. Electronic Copy of Health Information to Patient

C13. Clinical Visit Summary

C14. Electronic Information Exchange

C15. Security Risk Analysis

Menu Set Objectives

Clinical Quality Measures (CQMs)

Excluding Patients From Meaningful Use Measures

Meaningful Use Stage 1 Objectives Practice User's Guide

Core Objectives

EP's must meet all 15 Core Objectives.

C1. CPOE Medications

Objective	Measure
Computerized physician order entry (CPOE) of medications. 170.304(a)	More than 30% of unique patients with at least one medication in their medication list seen by the EP have at least one medication order entered using CPOE

System Set Up
Creation of Order Sets for most commonly used diagnoses. To be completed by practice. Order sets to be added to favorites by clinical users.

Actor: Provider

Add frequently used order sets to your "favorites". From Right Chart Panel>Click on appropriate Order Set>select desired medication(s) by placing checkmark in box> Click "Order" at top of Order Set

Search for Order Sets

ORDER SET: Upper respiratory infection (viral/bacterial) - adult

Select All

Order

MEASURE

QUICK ORDER SET: NO

DIAGNOSES (TRIGGER):

DIAGNOSES (LINKED): (SAME AS TRIGGER)

AGE (TRIGGER): All Age

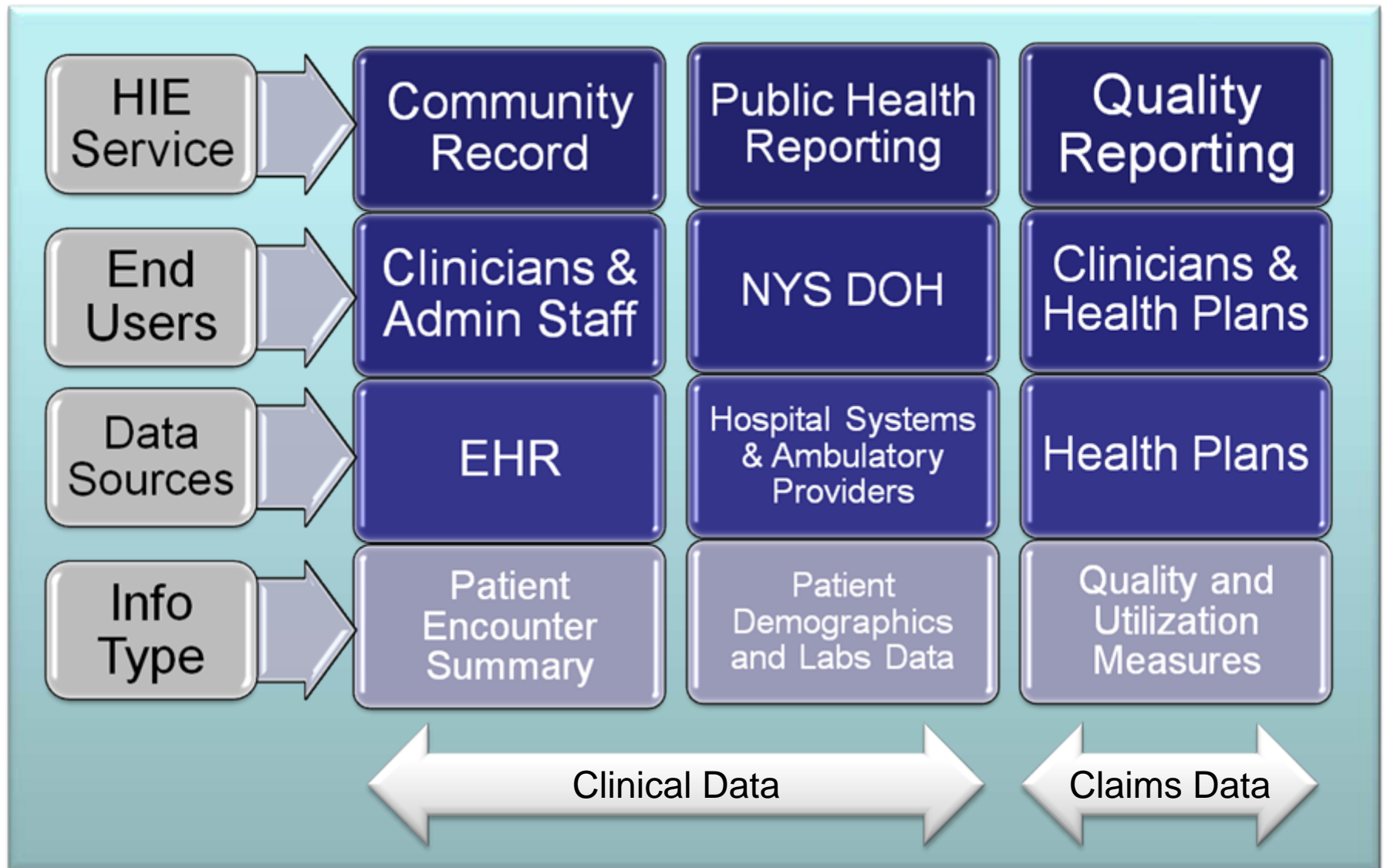
GENDER (TRIGGER): Unknown

Box	Name	Strength	Dose	Freq	Duration	Refills	Route	Formulation	Dispense	Date	Status
<input type="checkbox"/>	Acetaminophen	325 MG	1 tablet as needed	every 4 hrs			Orally	Tablet	-		Other Actions
<input checked="" type="checkbox"/>	Salivasec Cough Cold CP	5-10-100 MG/5ML	as directed				Orally	Liquid	-		Other Actions
<input type="checkbox"/>	12 Hour Cold	120 MG	1 tablet as needed	every 12 hrs			Orally	Tablet Extended Release 12 Hour	-		Other Actions
<input type="checkbox"/>	Salivasec Cold	100-10 MG/5ML	10 ml as needed	every 4 hrs			Orally	Syrup	-		Other Actions
<input type="checkbox"/>	Suphasedol/Codeine Salivasec	25-50 MG	as directed				Orally	Tablet	-		Other Actions
<input type="checkbox"/>	Suphasedol CP Cold Cough	5-10-100-325 MG	as directed				Orally	Tablet	-		Other Actions
<input type="checkbox"/>	Quibron	100 MG/5ML	10 ml as needed for throat congestion	every 4 hrs			Orally	Syrup	-		Other Actions
<input type="checkbox"/>	Acetaminophen/Bronchitol	0.03 %	3 drops in each nostril	Twice a day	30 day(s)		Nasally	Solution	-		Other Actions
<input type="checkbox"/>	Amoxicillin	250 MG	2 capsules	Three times a day	14 day(s)		Orally	Capsule	84	04/26/2011	Ordered
<input checked="" type="checkbox"/>	Amoxicillin-Pot Clavulanate	200-125 MG	1 tablet	every 8 hrs	14 day(s)		Orally	Tablet	42	-	Other Actions

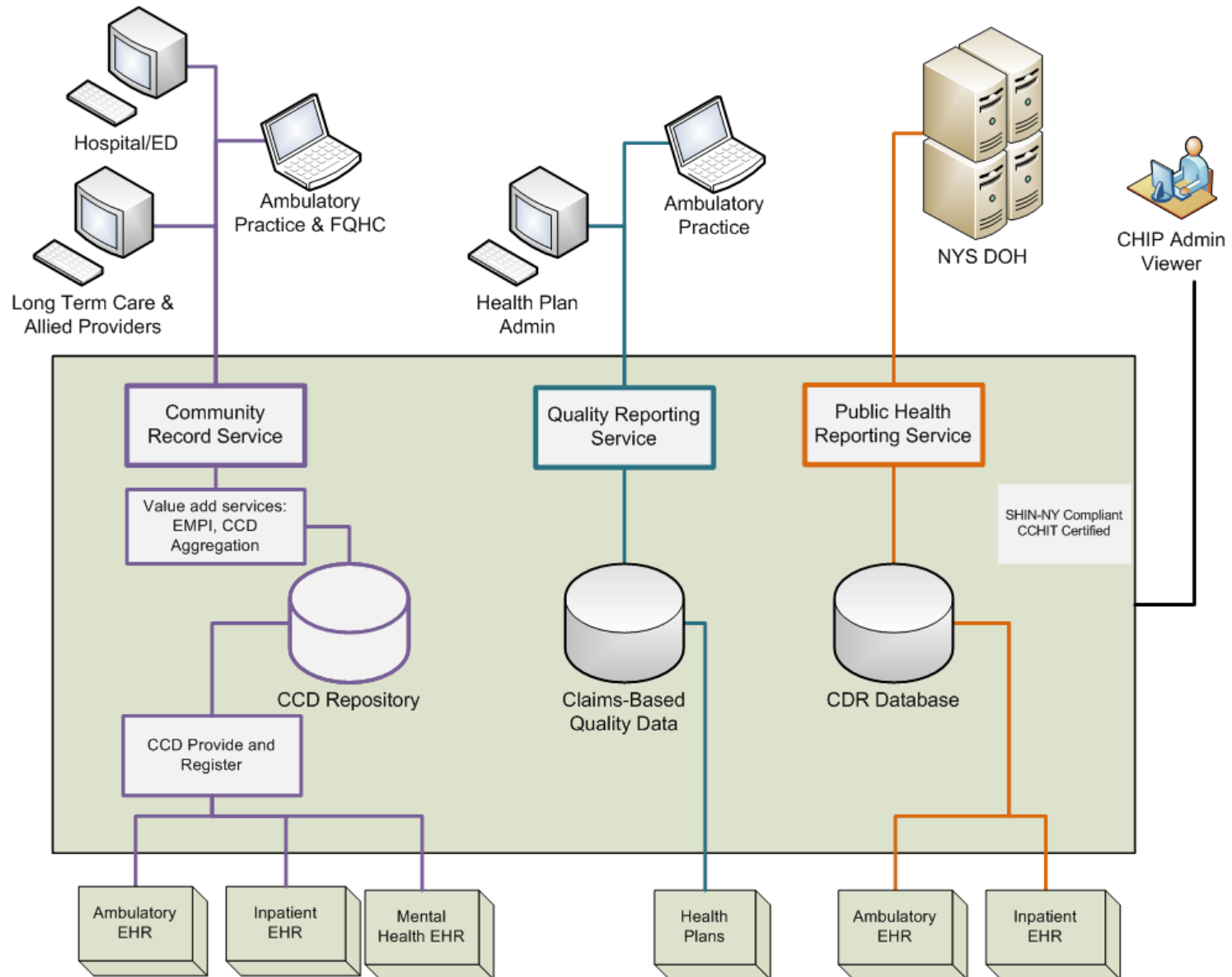
The Hudson Valley Health Information Exchange

- 10+ years experience
- Community Record
- Public Health Reporting
- Quality Reporting

HIE Services: Data Sources and End Users



Technical Diagram



Community Viewer – Patient Search

Portal <https://demo.medallies.com:8882/chipportal/>

CHIP Community Viewer

Organization: New Hospital, Status: Enabled
Community Viewer Home Page Account Management CHIP Admin Home
Logged in: ALUSER Laronne Logout

Recently Viewed

Row	Last Name	First Name	Middle Name	DOB
1		Kevin	Macare	01/01/2000
2		Francis	Macare	01/01/2000
3		Victoria	Macare	01/01/2000
4		Sofia	Macare	01/01/1985
5		Henry		01/01/2006
6		Kiera	Macare	01/01/1985
7		Jasmine	Macare	01/01/2000
8		Scarlett	Macare	01/01/2000
9		Rachel	Macare	01/01/2000
10		Brooke	Macare	01/01/1985
11		Eva	Macare	01/01/1985
12		Isiah	Macare	01/01/2000
13		Phoebe	Macare	01/01/2000
14		Isabelle	Macare	01/01/2000
15		Leah	Macare	01/01/1985
16		Diaz		01/01/1985
17		Abigail	Macare	01/01/1985
18		CCD	Updell	07/29/1974

Search for Patient

Search for Patient

First Name: Middle Name: * Last Name:

Gender: Date of Birth: Telephone #:

Address 1: Address 2:

City: State: Zip Code:

Last Name	First Name	Middle Name	Date of Birth	Gender	Address	Consent to View
	Stephanie		09/27/1987	F	Kingston, NY, 12401	Null
	Kevin	Macare	01/01/2000	M	Brooklyn, NY, 11228	Yes

Community Viewer - Patient Record

http://38.104.130.86:8080/OpenDocument/opensdoc/openDocument.jsp - Windows Internet Explorer
http://38.104.130.86:8080/OpenDocument/opensdoc/openDocument.jsp

Document View 100% Refresh Date Track

THiNC Report Refresh Date: 8/25/11 12:01 PM

Good Health Clinic Continuity of Care Document

Patient Name: [REDACTED] Sex: M
Birth Date Time: 1/1/00
Address: [REDACTED]

Immunization:

Vaccine	Date	Status
influenza virus vaccine		completed
Pneumococcal polysaccharide vaccine		completed
Tetanus and diphtheria toxoids		completed

Procedure:

Procedure	Date of Procedure
Total hip replacement	1/1/98

Encounters:

Encounter	Location	Date of Encounter
Checkup Examination	Good Health Clinic	4/7/00

Medications:

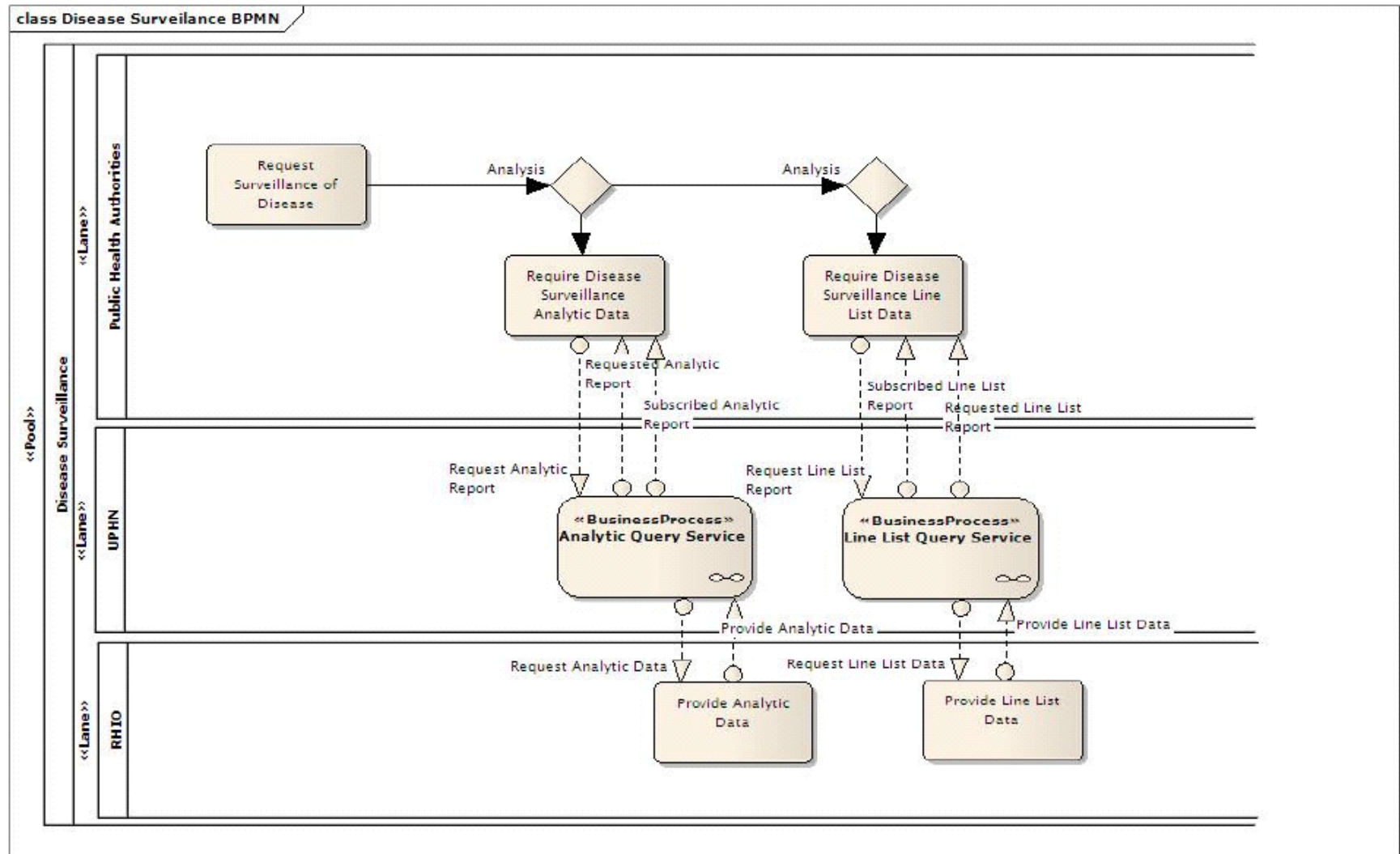
Medication	Dose Qty	Dose Period	Dose Period Value	Start date	Status
Albuterol 0.09 MG/ACTUAT inhalant solution	2	h	6		active
Cephalexin 500 MG oral tablet	1	h	6	3/28/00	completed
Clopidogrel 75 MG oral tablet	1	h	24		active
Metoprolol 25 MG oral tablet	1	h	12		active
Prednisone 20 MG oral tablet	1	h	24	3/28/00	active

CCB 100%

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Example of UPHN process model (Disease Surveillance)



Quality Reporting

THINC

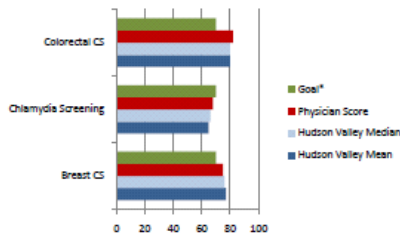
Taconic Health Information Network and Community

MEDICAL HOME PHYSICIAN QUALITY PROFILE

Physician: Gen Eric

1. HEDIS Aggregated Claims Measures: Jan. 01 – Dec. 31, 2008

Preventive Medicine

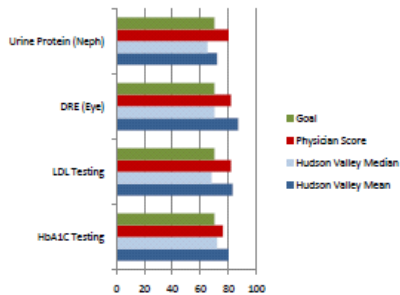


COL - Colorectal Cancer Screening (CS)**: The percentage of members 50–80 years of age who had appropriate screening for colorectal cancer.

CHL - Chlamydia Screening: The percentage of women 16–24 years of age who were identified as sexually active and who had at least one test for Chlamydia during the measurement year.

BCS - Breast Cancer Screening: The percentage of women 40–69 years of age who had a mammogram to screen for breast cancer.

Diabetes



CDC - Comprehensive Diabetes Care - Urine Protein (Neph): The percentage of members 18–75 years of age with diabetes (type 1 and type 2) who had medical attention for nephropathy.

CDC - Comprehensive Diabetes Care - DRE (Eye): The percentage of members 18–75 years of age with diabetes (type 1 and type 2) who had an eye exam (retinal) performed.

CDC - Comprehensive Diabetes Care - LDL Testing: The percentage of members 18–75 years of age with diabetes (type 1 and type 2) who had LDL-C screening.

CDC - Comprehensive Diabetes Care - A1C Testing: The percentage of members 18–75 years of age with diabetes (type 1 and type 2) who had Hemoglobin A1c (HbA1c) testing.

*Goal - The Performance Goal is the percentage score benchmark determined by all participating Health Plans in the THINC RHIO Medical Home program of the Hudson Valley region.

**Only three years of data collected for this measure.

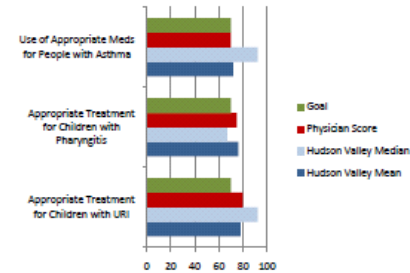
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Respiratory Care



ASM - Use of Appropriate Medications for People with Asthma: The percentage of members 5–56 years of age during the measurement year who were identified as having persistent asthma and who were appropriately prescribed medication during the measurement year.

CWP - Appropriate Treatment for Children with Pharyngitis: The percentage of children 2–18 years of age who were diagnosed with pharyngitis, dispensed an antibiotic and received a group A streptococcus (strep) test for the episode. A higher rate represents better performance (i.e., appropriate testing).

URI - Appropriate Treatment for Children with URI: The percentage of children 3 months–18 years of age who were given a diagnosis of upper respiratory infection (URI) and were not dispensed an antibiotic prescription.

2. NCQA Recognition



Level Awarded: **2**

For more information on NCQA's PPC – Patient Centered Medical Home, please go to <http://www.ncqa.org/tabid/631/Default.aspx>.

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NHIN Direct: Description

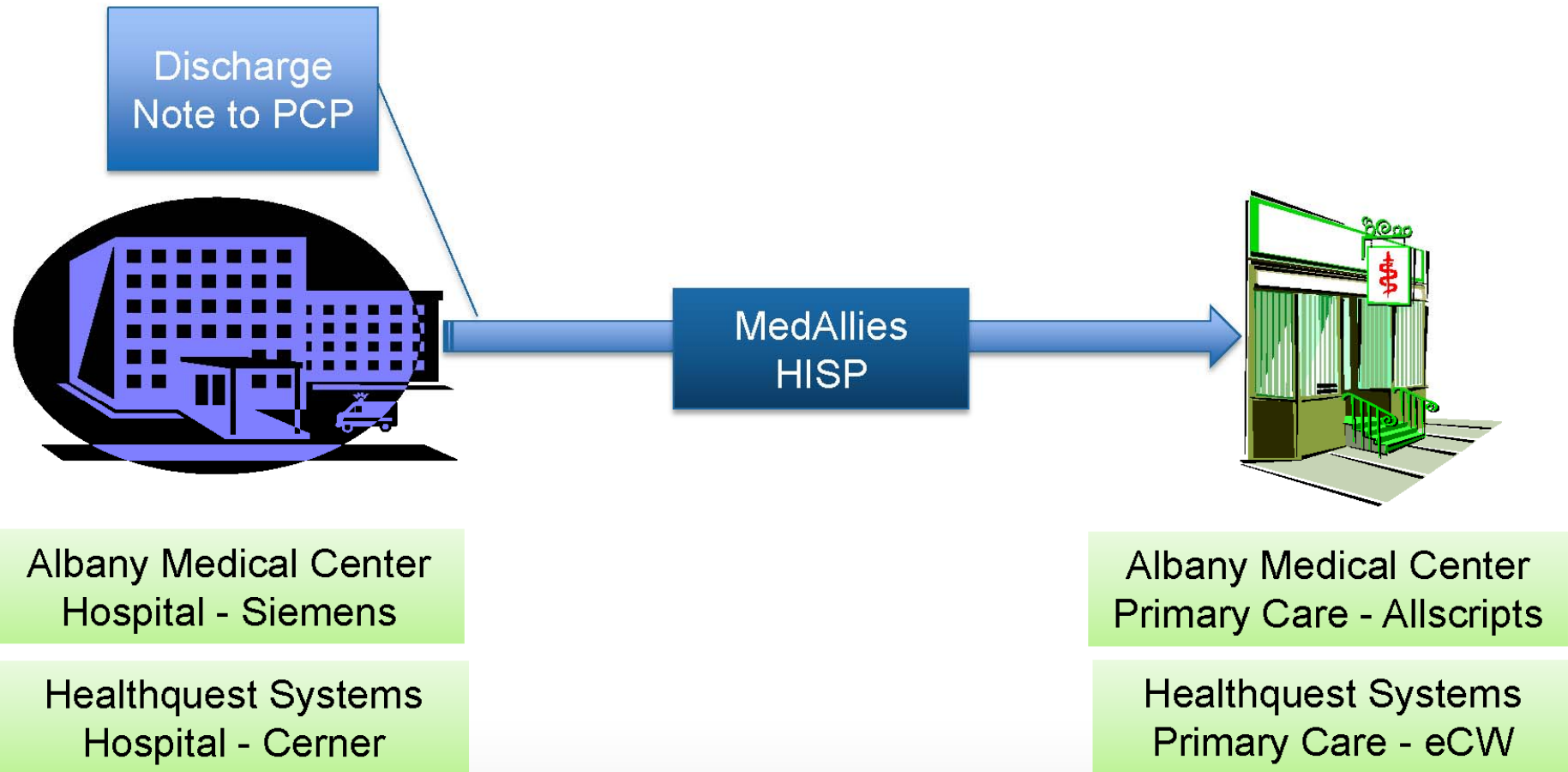


- **Simple.** Connects healthcare stakeholders through universal addressing using simple push of information.
- **Secure.** Users can easily verify messages are complete and not tampered with in travel.
- **Scalable.** Enables Internet scale with no need for central network authority.
- **Standards-based.** Built on common Internet standards for secure e-mail communication.

ONC Reference Implementation for NYS

- Health Information Service Provider (HISP)
 - MedAllies
- Healthcare Organizations
 - Hospitals: Albany Medical Center, Health Quest Systems
 - Primary Care: Albany Medical Center, Community Care Physicians, Health Quest Systems, Institute for Family Health, Scarsdale Medical Group,
 - Specialists: Albany Medical Center, Asthma and Allergy Associates of Westchester
- EHR Vendors
 - Hospital: Siemens, Cerner
 - Primary Care: Allscripts, Epic, NextGen, eClinicalWorks
 - Specialists: Allscripts, Greenway

Direct Use Case: Hospital Discharge



Direct Use Case: Closed Loop Consultation

1) Referral to specialist

Closed Loop Referral (PCP to Specialist & Back)



Primary Care

Albany Medical Center – Allscripts
Institute for Family Health – Epic
Scarsdale Medical Group - NextGen

MedAllies
HISP

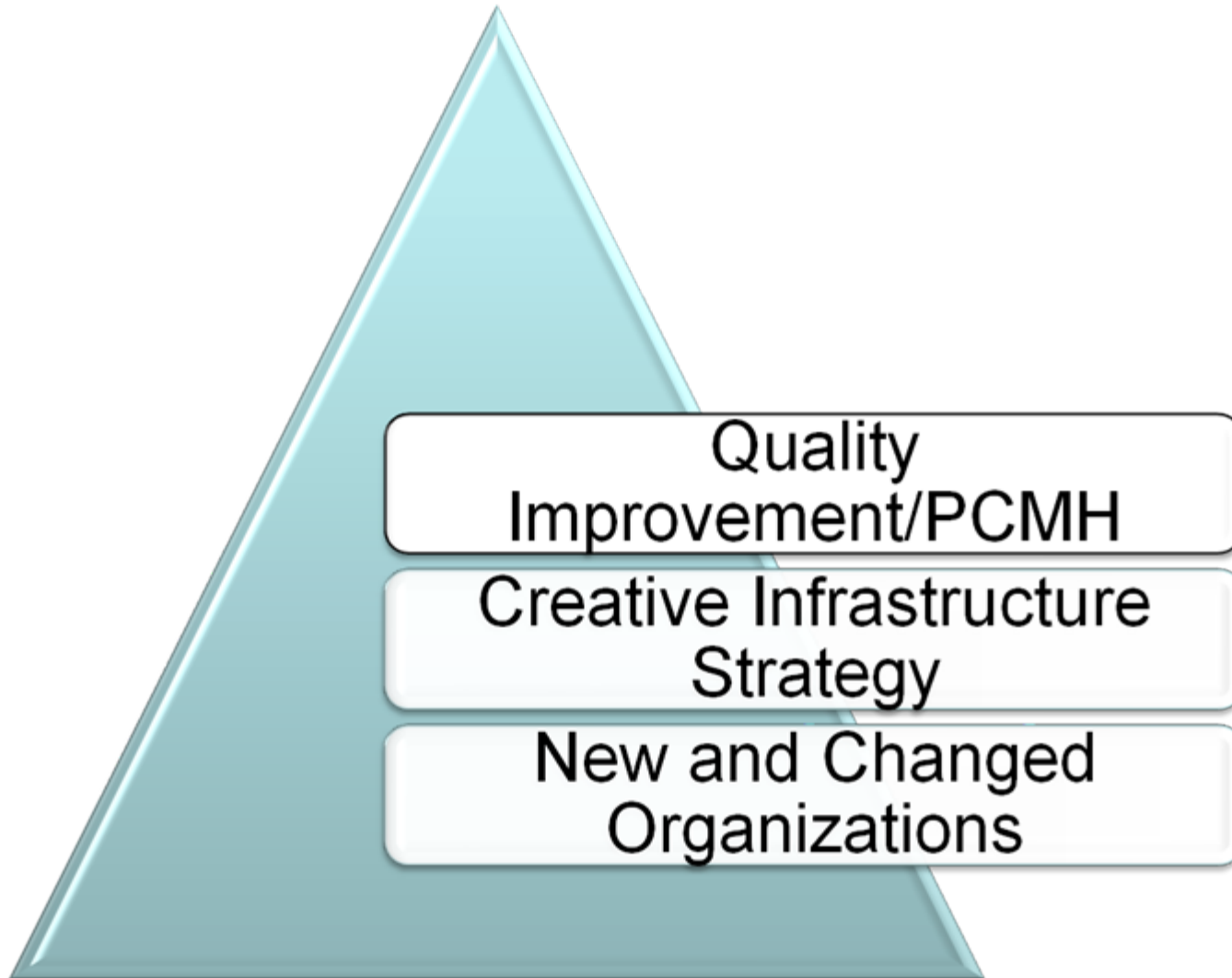


2) Continuity of
Care Document
back to PCP

Specialist

Albany Medical Center - Allscripts
Community Care Physicians – Allscripts
Asthma and Allergy Associates
of Westchester - Greenway

Key Open Community Components



About Taconic IPA

- Not-for-profit
- Established in 1989 by physicians
- Quality improvement organization
- Business model: revenue from health plans and grants
- Network of 4,100 physicians representing ~85% of all physicians in Hudson Valley
- 2008: PCMH project launches
- 2011: Embedded care manager project launches

Community Transformation/PCMH

300+ primary care providers participating

- 64 sites
- Solo providers to 200+ provider groups
- FQHCs
- All recognized at NCQA Level III in 2010/2011

TIPA PCMH Program

Readiness assessment and gap analysis

- Evaluate current practices and performance against NCQA goals.

Optimizing HIT in practice

- Encourage and assist practice in utilizing HIT to fullest extent possible, to including registries, alerts, templates, order sheets, and portals

Workflow

- Redesign as necessary
- Assist practice with workflow to assure enhanced access to care, promote a team environment with an emphasis on patient-centeredness

Webinars

- Recognition process
- NCQA ISS tool training
- Assist with satisfaction surveys

Individualized coaching

- Intended to assist practice with continued workflow improvement, review of documents to be submitted to NCQA for content and completeness on an ongoing basis, and a final department review before submission.

Goals

- Visible and sustainable quality improvement
- Patient and provider satisfaction
- Reduced costs

Embedded Care Manager Program (ECM)

- Complex/multiple co-morbidities
- Avoidable admissions & readmissions
- Seamless transfer of care
 - Inpatient to ambulatory
 - PCP-Specialist-PCP
- Patient Satisfaction
- Reducing unnecessary costs

Characteristics of TIPA ECM Pilot

- 125 patients per RN
- 10 PCPs per RN
- On-site at practice
- IPA employees
- Central infrastructure
- Compliance

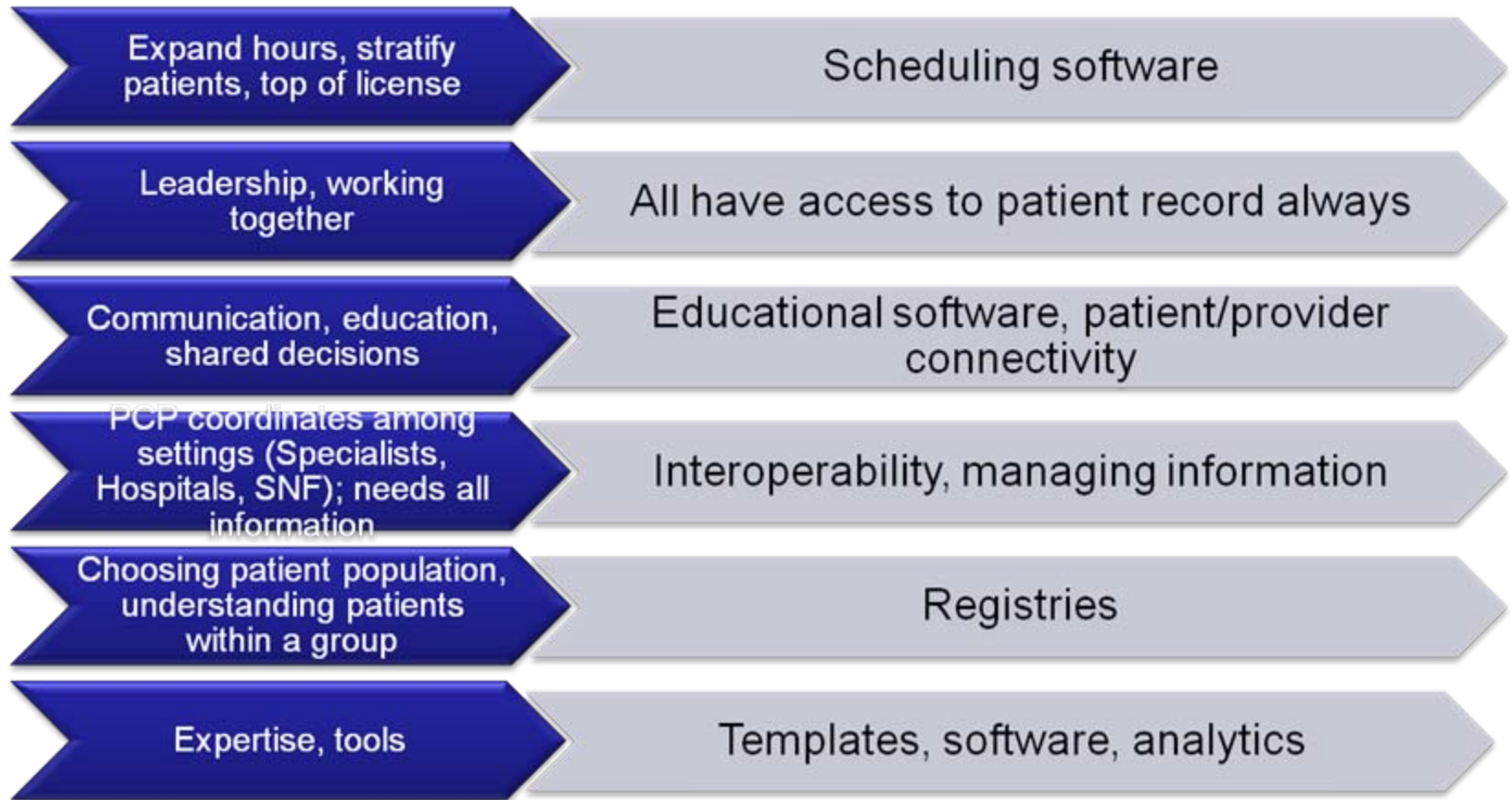
Workforce Considerations of TIPA Case Managers

- Highly experienced RNS in both acute and community care
- Certified in case management
- 8-10 week TIPA training program –includes immersion
- experience at Geisinger ProvenHealth Navigator sites
- Flexible
- Committed
- LOVE WHAT THEY DO!

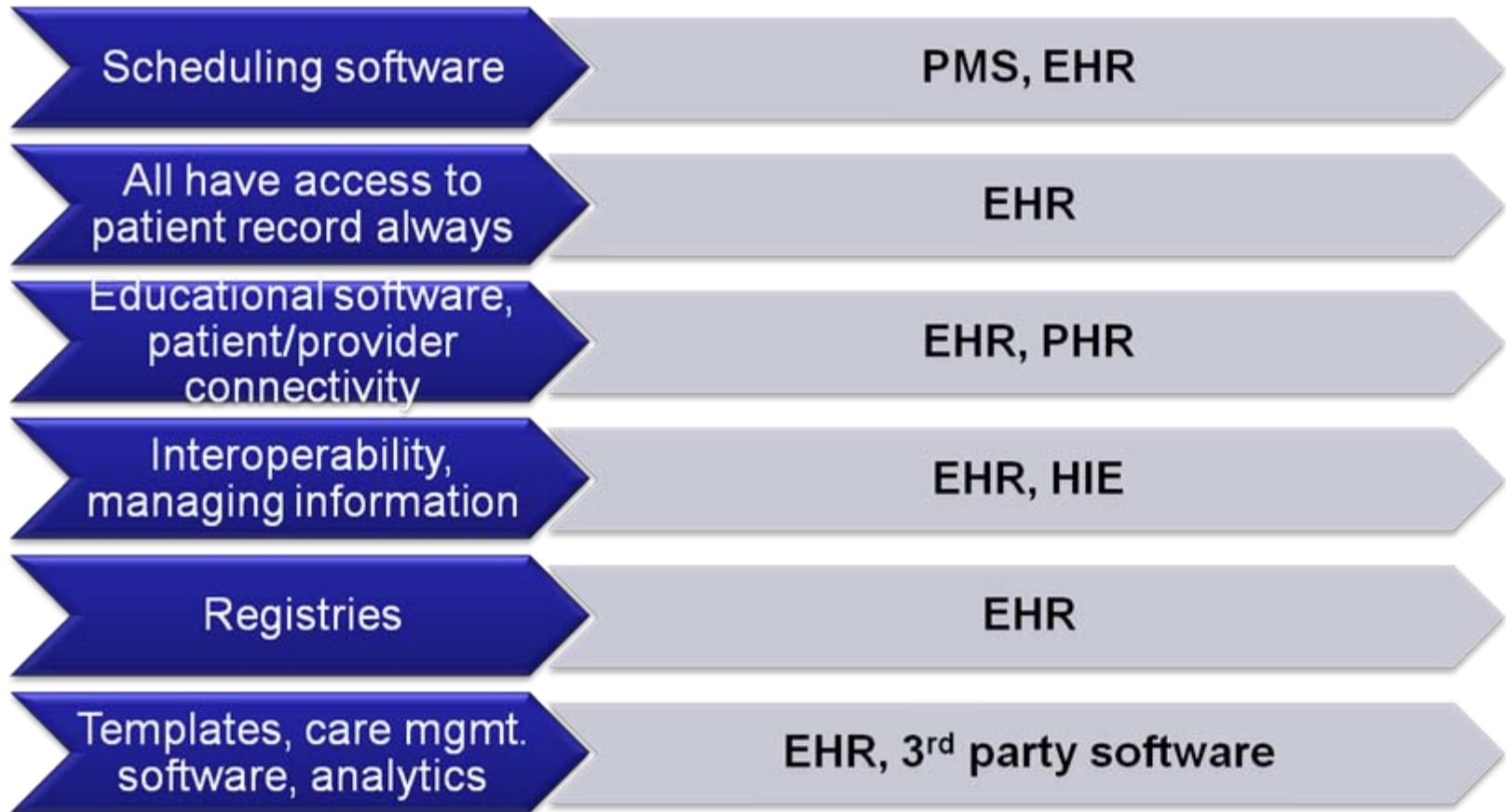
Health IT and the Medical Home



Health IT and the Medical Home



Health IT and the Medical Home



Health IT and the Medical Home



Requirements for Success

EHR

- Configuration
- Workflow
- Monitoring

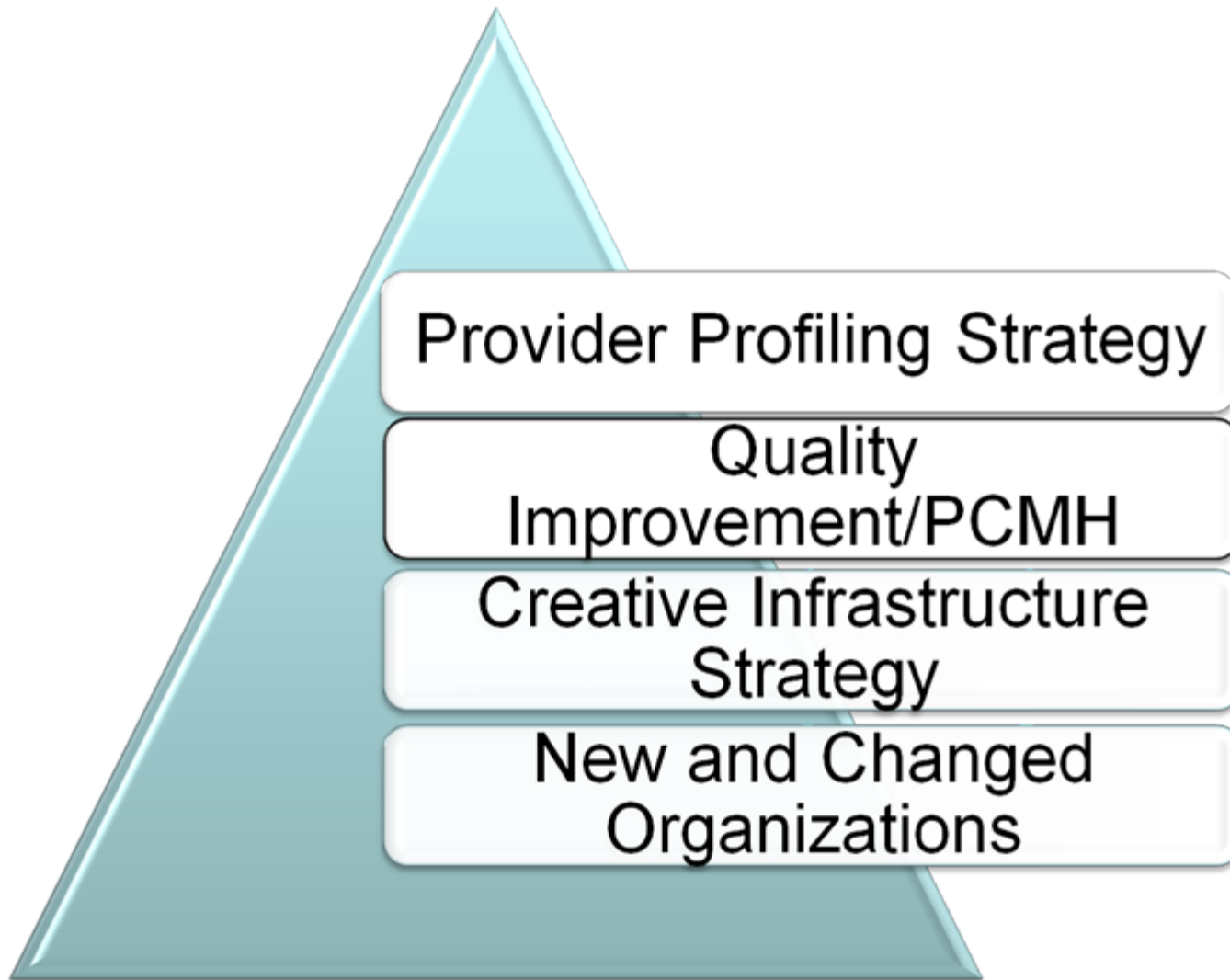
HIE

- real interoperability

PHR

- patient usage

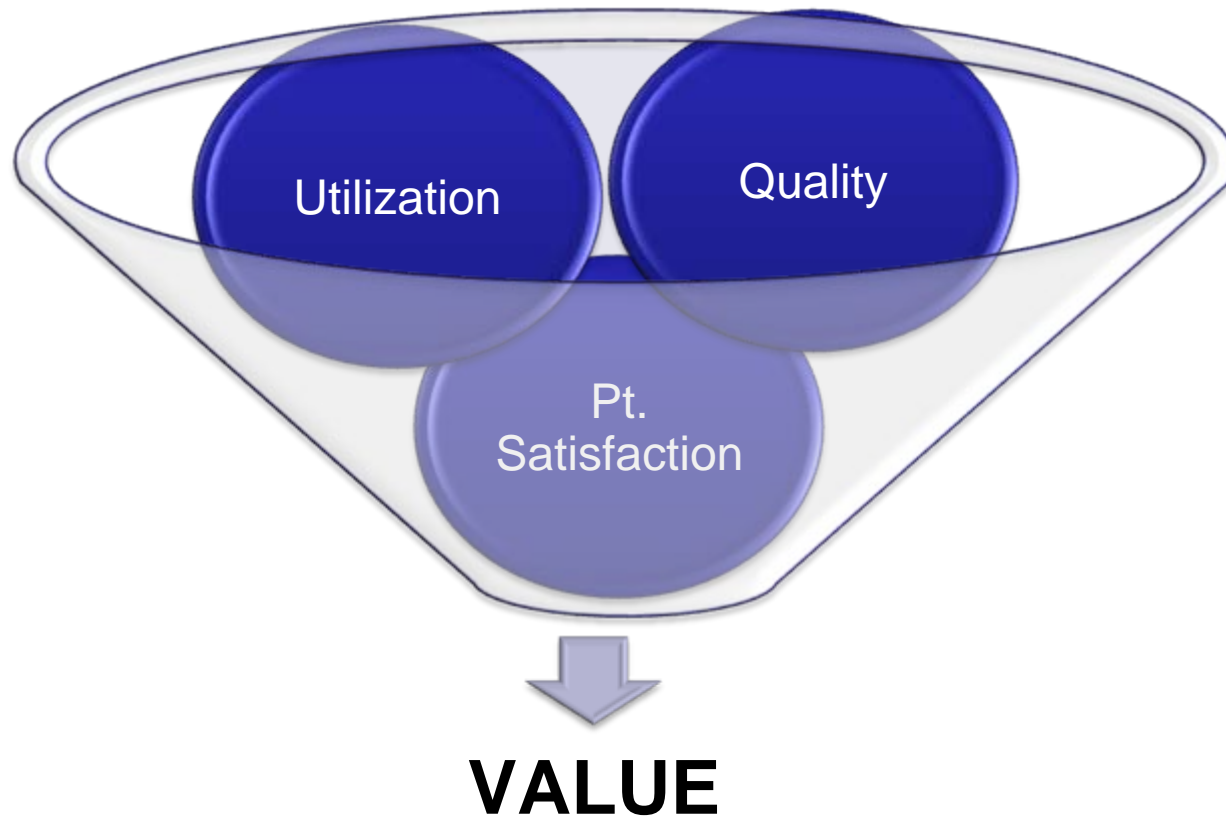
Key Open Community Components



Transparency

- 10 years experience
- Pay-for-performance
- Process
- Outcomes
- Costs

Community Value Profile



Current Data Collection

Data Types	Data Sources
Physician characteristics	Taconic IPA
Quality outcomes (10 HEDIS measures)	Health plans, EHRs
Cost outcomes (comprehensive utilization measures)	Health plans
Consumer experience	CG-CAHPS

- Longitudinal from baseline year (2008)-today
- Compared with national benchmarks

Ongoing Data Collection

- Quality
 - Claims
 - EHR
- Cost and Utilization
 - Claims
 - Utilization Metrics
 - Validation
 - Attribution
 - Total \$

EHR Quality Data

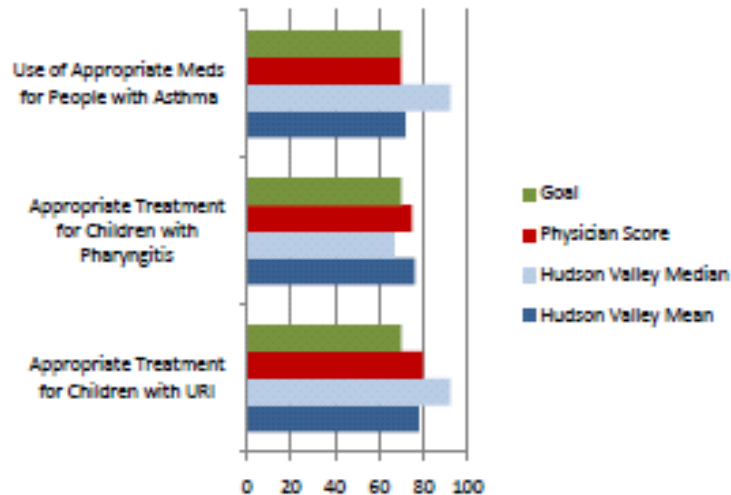
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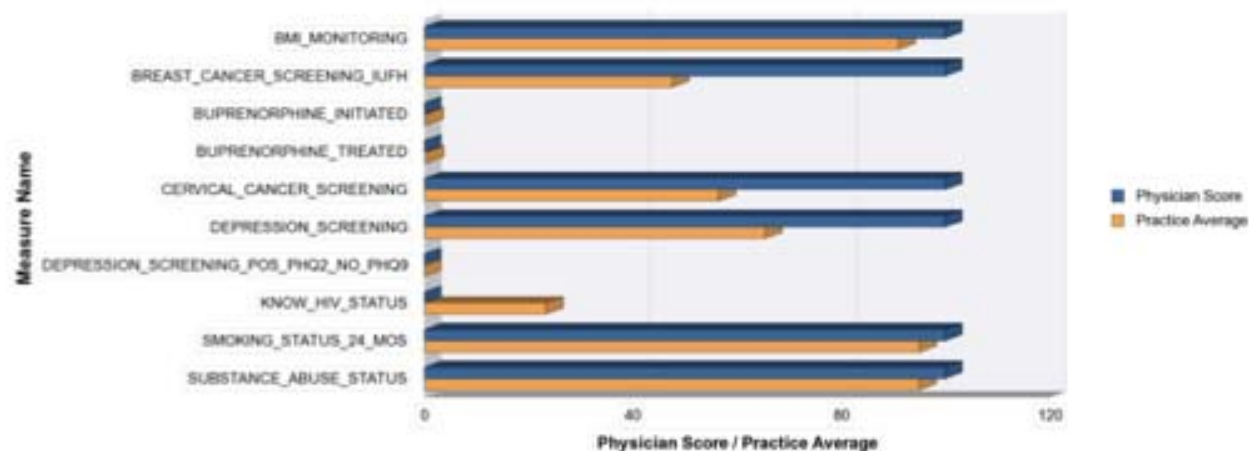
EHR Quality Data



Last Refresh Date: 6/1/11 11:30 AM

Quality Report [REDACTED]: February 2011

Physician: [REDACTED]



Claims Utilization Measures

Outpatient utilization

- Number of office visits with primary care physician
- Number of office visits with specialists
- Number of laboratory tests (blood and urine tests) by the primary care physician
- Number of laboratory tests (blood and urine tests) by specialists
- Number of radiology and other diagnostic tests (not included in laboratory results above) by the primary care physician
- Number of radiology and other diagnostic tests (not included in laboratory results above) by specialists
- Number of ancillary services
- Number of therapeutic services (e.g. PT/OT/Speech)
- Generic prescribing rates

Emergency department and hospital utilization

- Number of emergency department visits
- Number of hospital admissions
- Average length of stay
- Number of readmissions (within 30 days of discharge)
- Number of skilled nursing days
- Number of ancillary services
- Number of therapeutic services (e.g. PT/OT/Speech)

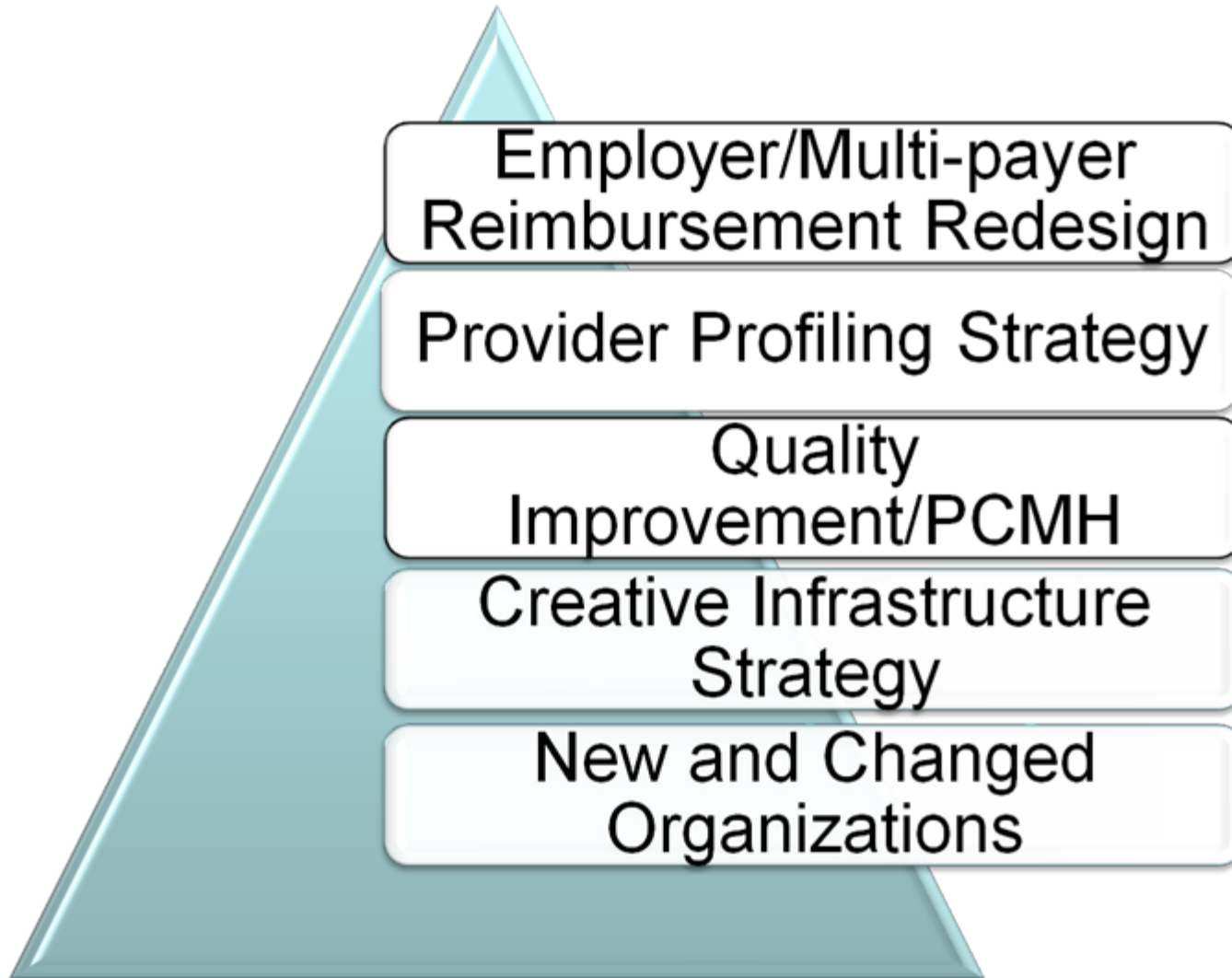
Referral care

- Number of skilled home care visits
- Number of custodial home care services

Patient Satisfaction

- Complete CG-CAHPS 6 point Adult Ambulatory survey (moving to Medical Home version when ready)
- Administered annually to 45 patients per primary care physician
- Patients consented in the offices and then contacted by outside vendor
- Benchmarked to practice, all HVI, and nationally
- Data made available through Portal
- Eventually to be made available to the public

Key Open Community Components



Reimbursement Redesign

- 10 years experience
- Over \$3M distributed in pay-for-performance incentives to date
- Multi-payer
- Employers
- Portal
- E-prescribing
- Embedded Care Managers

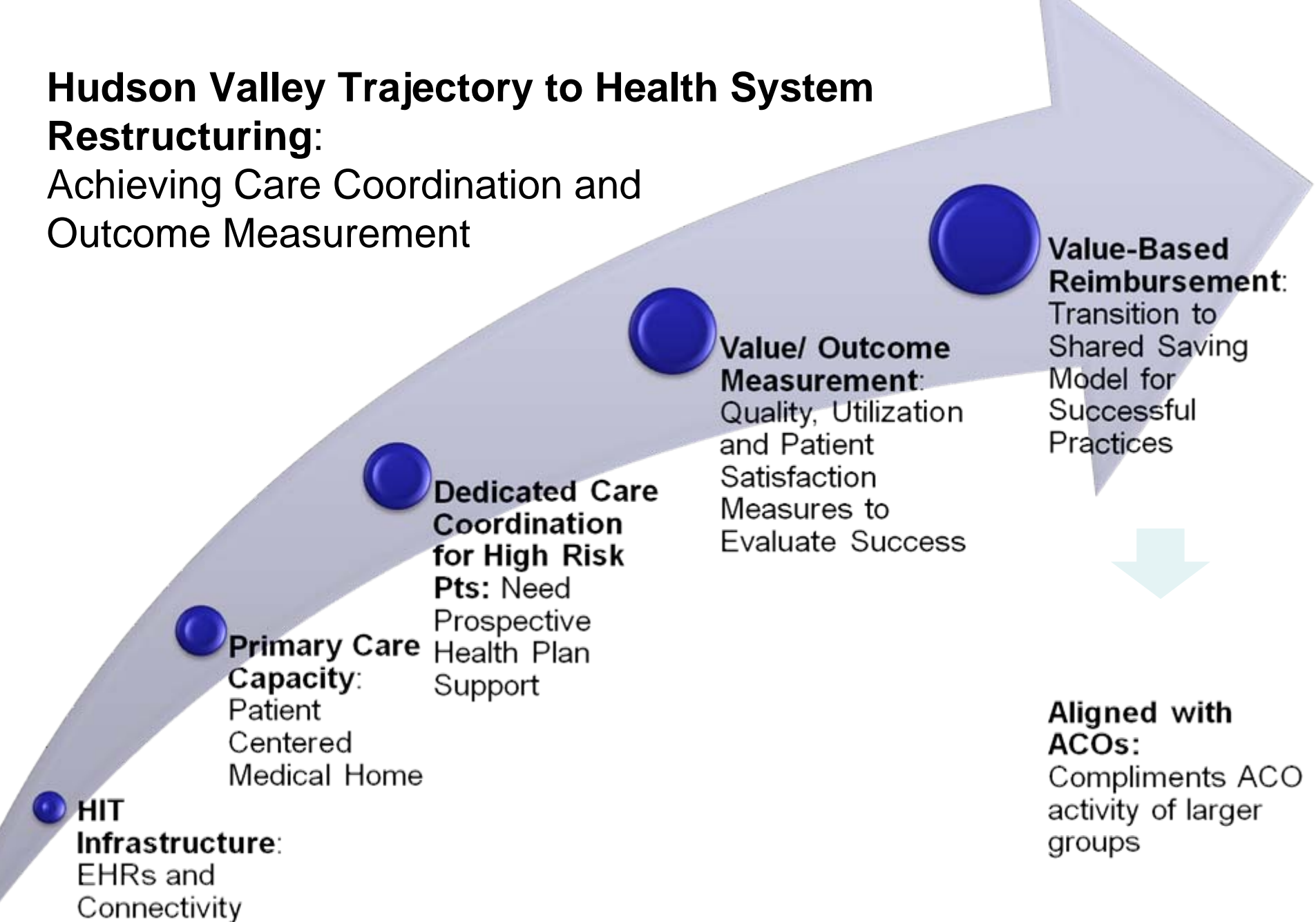
Current Approach

- FFS
- Administration
- Embedded Care Management
- Gainsharing

Hudson Valley Trajectory to Health System

Restructuring:

Achieving Care Coordination and Outcome Measurement



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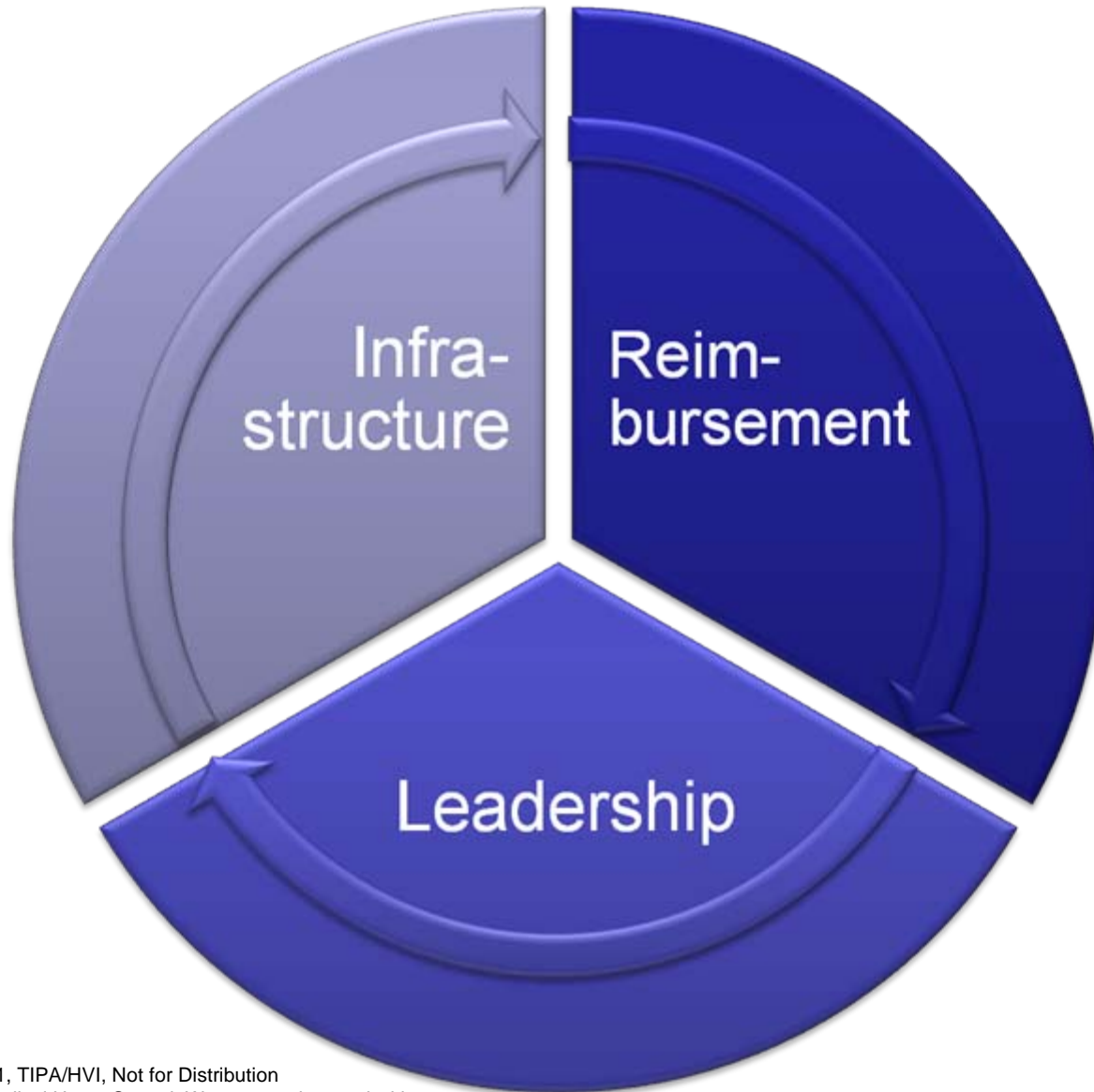
Evaluation

- Currently underway
 - Impact of EHRs and Medical Home on Costs and Quality of Care
 - Impact of Case Management on Costs and Quality of Care
- Planning Stages
 - Medication Reconciliation and Patient Safety
 - Psychosocial Strategies in Pediatric Case Management
 - Impact of Pediatric Case Management on Adult Caregiver Health Literacy

Research-based Proof Points

- *Healthcare Consumers' Attitudes Towards Physician and Personal Use of Health Information Exchange* O'Donnell HC, Patel V, Kern LM, et al. Healthcare Consumers' Attitudes Towards Physician and Personal Use of Health Information Exchange. Journal of general internal medicine 2011.
- *Electronic Prescribing Improves Medication Safety in Community-Based Office Practices* Kaushal R, Kern LM, Barron Y, Quaresimo J, Abramson EL. Electronic prescribing improves medication safety in community-based office practices. Journal of general internal medicine 2010;25:530-6.
- *Measuring the Effects of Health Information Technology on Quality of Care: A Novel Set of Proposed Metrics for Electronic Quality Reporting* Kern, Lisa M.; Dhopeshwarkar, Rina; Barrón, Yolanda; Wilcox, Adam; Pincus, Harold; Kaushal, Rainu Joint Commission Journal on Quality and Patient Safety Volume 35, Number 7, July 2009, pp. 359-369(11)
- *Achieving the Potential of Health Information Technology* Burstin, Helen R. (editorial) Journal of General Internal Medicine J Gen Intern Med 23(4):502–4 DOI: 10.1007/s11606-008-0552-x Society of General Internal Medicine 2008
- *The Approaching Revolution in Quality Measurement* Bates, David W. (editorial) Joint Commission Journal on Quality and Patient Safety Volume 35, Number 7, July 2009, p. 358(1)
- *Electronic Result Viewing and Quality of Care in Small Group Practices* Barron, Yolanda; Blair, A. John; Salkowe, Jerry; Chambers, Deborah; Callahan, Mark A.; Kaushal, Rainu; Kern, Lisa M. JGIM: Journal of General Internal Medicine (0884-8734) 4/1/2008. Vol.23, Iss.4; p.405-410

Lessons Learned



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Revolutionary health care transformation



Discussion

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