

# บูรณาการระบบข้อมูลสุขภาพ: คานงัดของระบบบริการสุขภาพที่เน้นคุณค่า

## Integrated Health Information Systems : the leverage of Value Base Healthcare

PA2 : การปฏิรูประบบสารสนเทศเพื่อการจัดบริการสุขภาพปฐมภูมิแบบครบวงจร  
13.00-14.30 น. 11 ตุลาคม 2559 ห้องประชุม 208

การประชุมวิชาการระดับชาติด้านหลักประกันสุขภาพของประเทศไทย

“Universal Health Coverage: Value Base Healthcare”

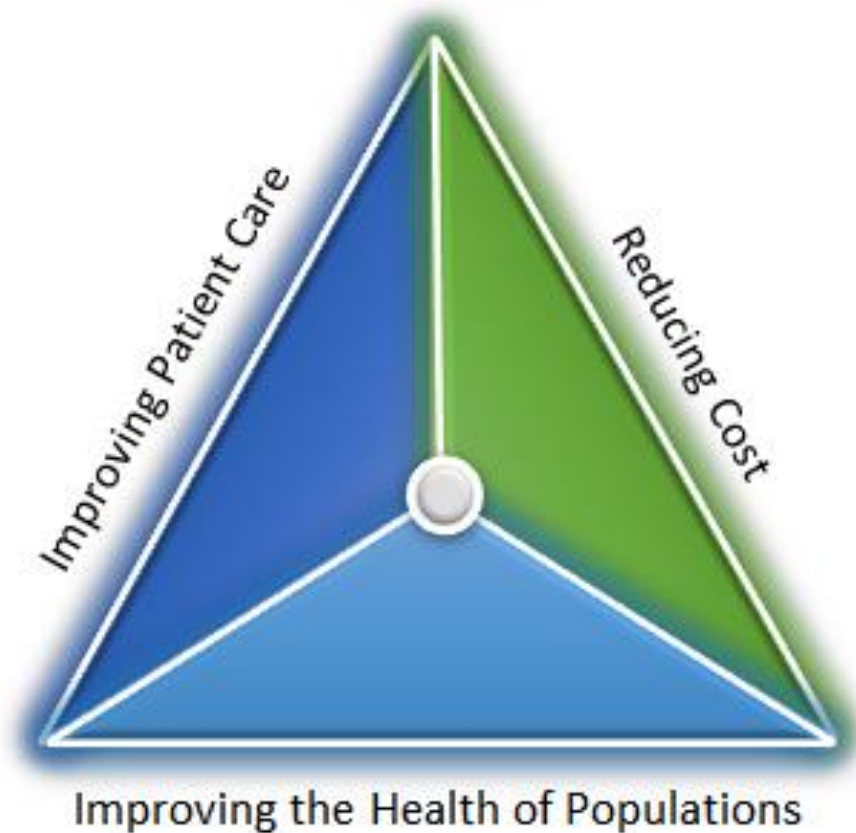
ศูนย์ประชุมวายุภักษ์ โรงแรมเซ็นทรา ศูนย์ราชการเฉลิมพระเกียรติฯ กรุงเทพมหานคร



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## Triple Aim



# IHI Triple Aim

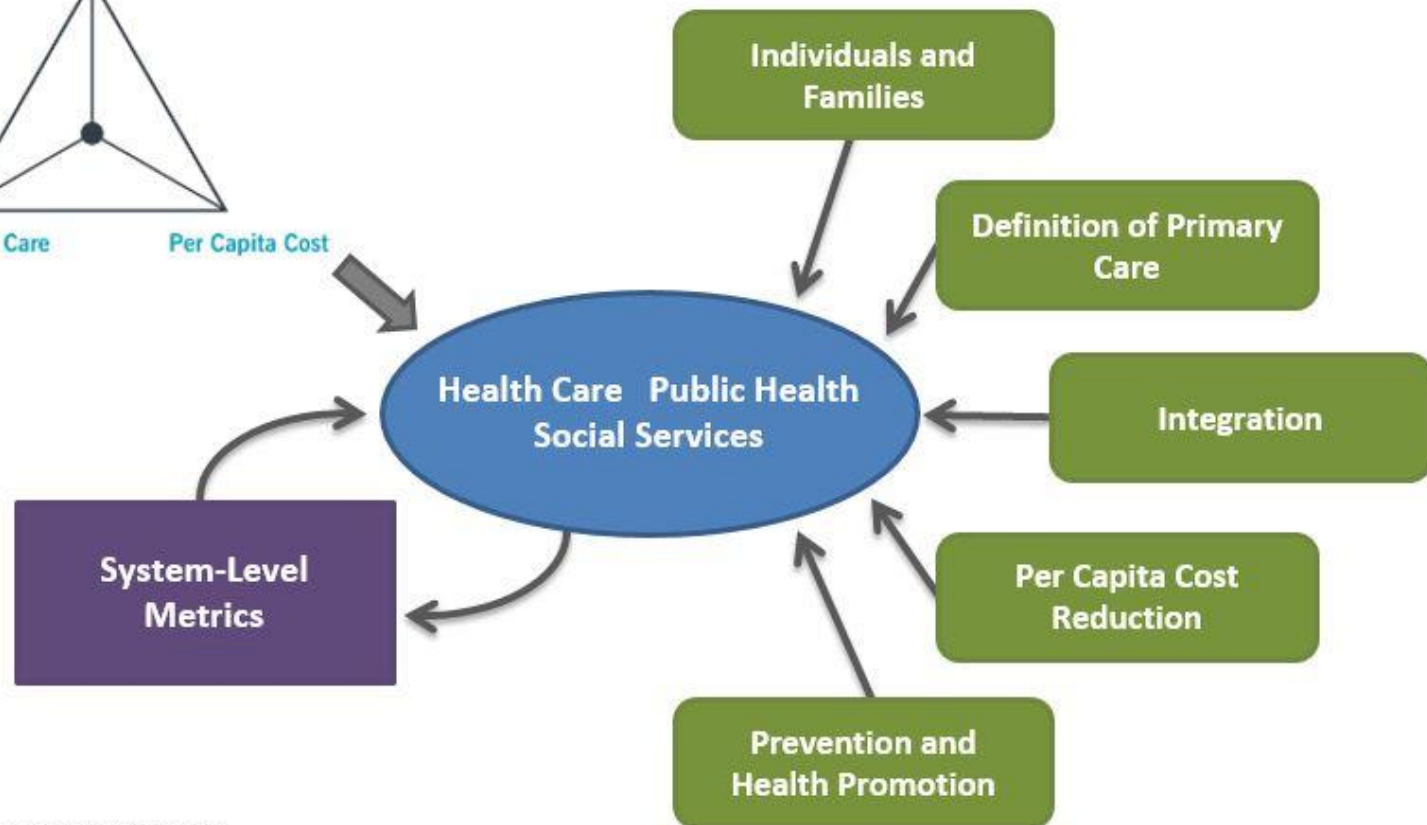
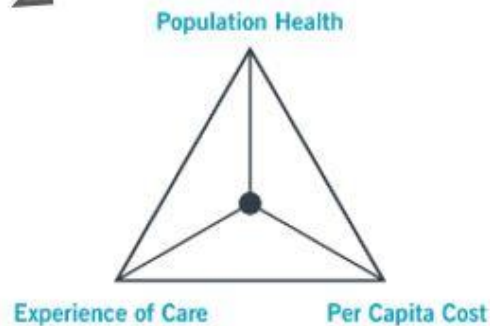
The IHI Triple Aim is a framework developed by the Institute for Healthcare Improvement that describes an approach to optimizing health system performance.

# Design of a Triple Aim Enterprise

Define "Quality" from the perspective of an individual member of a defined population



The IHI Triple Aim




ECONOMICS & SOCIETY

# We Won't Get Value-Based Health Care Until We Agree on What "Value" Means

by Robert C. Pendleton

FEBRUARY 27, 2018

:%20c.%20pendleton



# Creating a Value-Based Health Care Delivery System

1. Organize Care into Integrated Practice Units (IPUs) around Patient Medical Conditions
  - For primary and preventive care, organize to serve distinct patient segments
2. Measure Outcomes and Costs for Every Patient
3. Move to Bundled Payments for Care Cycles
- 4. Integrate Care Delivery Systems**
5. Expand Geographic Reach
- 6. Build an Enabling Information Technology Platform**

# Build an Enabling Information Technology Platform

Utilize information technology to enable **restructuring of care delivery** and **measuring results**, rather than treating it as a solution itself

- Common **data definitions**
- Combine **all types of data** (e.g. notes, images) for each patient
- Data encompasses the **full care cycle**, including care by referring entities
- Allow access and communication among **all involved parties**, including with patients
- **Templates** for medical conditions to enhance the user interface
- **“Structured”** data vs. free text
- Architecture that allows easy extraction of **outcome measures**, **process measures**, and **activity-based cost measures** for each patient and medical condition
- Interoperability standards enabling communication among **different provider** (and payor) **organizations**

# 4 เสาหลักของ การดูแลสุขภาพที่เน้นคุณค่า

Figure 1: A Comprehensive Framework for a Value-Based Health System



Source: BCG analysis

From: [http://www3.weforum.org/docs/WEF\\_Insight\\_Report\\_Value\\_Healthcare\\_Laying\\_Foundation.pdf](http://www3.weforum.org/docs/WEF_Insight_Report_Value_Healthcare_Laying_Foundation.pdf)

การดูแลสุขภาพที่เน้นคุณค่า  
Value Based Healthcare



บูรณาการระบบการดูแลสุขภาพ  
Integrated healthcare Delivery



ระบบข้อมูลสุขภาพที่บูรณาการ  
Integrated health information  
systems



การเชื่อมโยงระบบสารสนเทศ  
สุขภาพ  
Health Information Exchange



การเชื่อมโยงระบบสารสนเทศสุขภาพ  
(Health Information Exchange)

การบูรณาการข้อมูลสุขภาพ  
Integrated Health Information



การทำงานร่วมกันได้ของระบบข้อมูล  
Health Information Interoperability

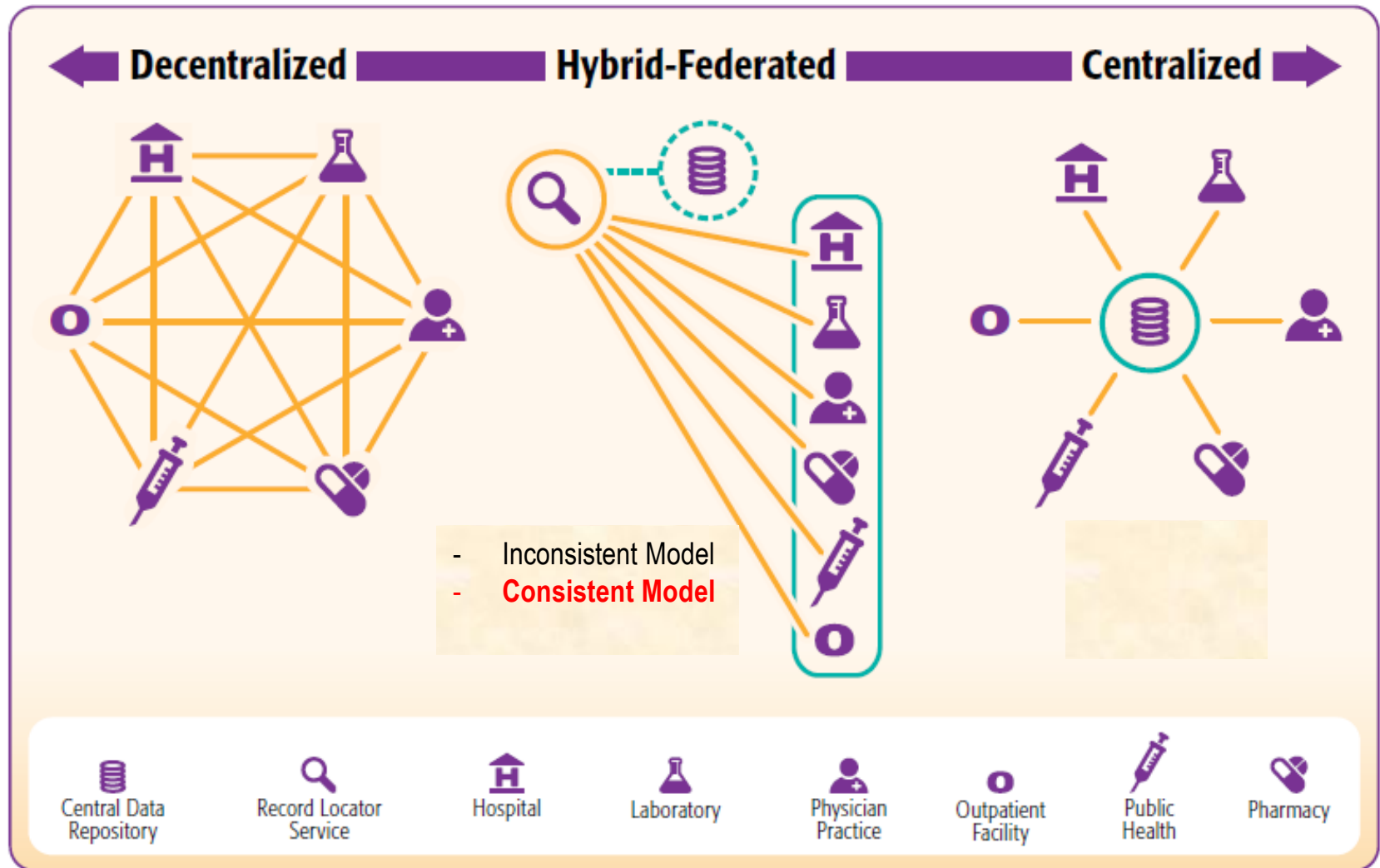


มาตรฐานข้อมูลสุขภาพ  
Health Information Standards

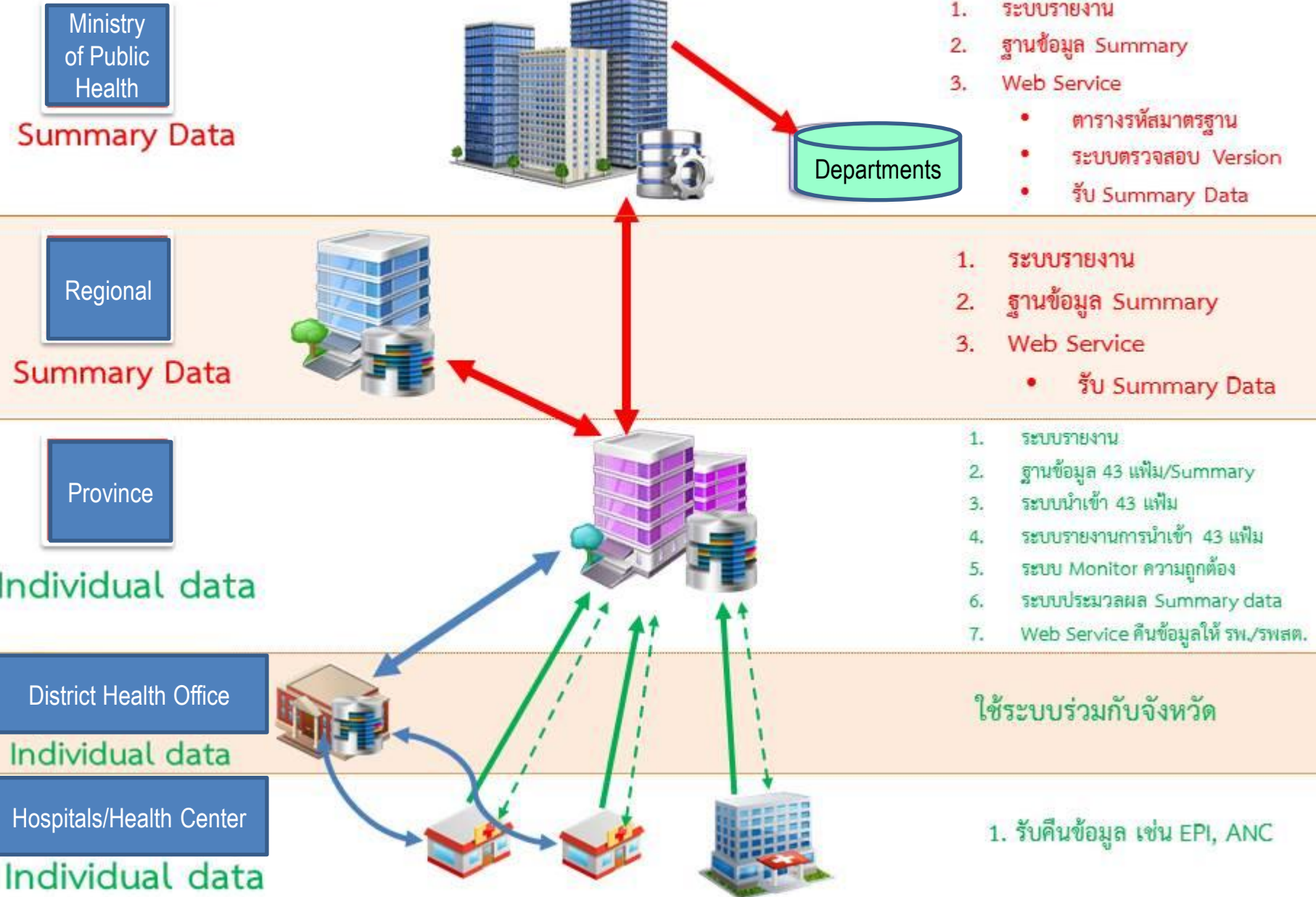
# What is HIE?

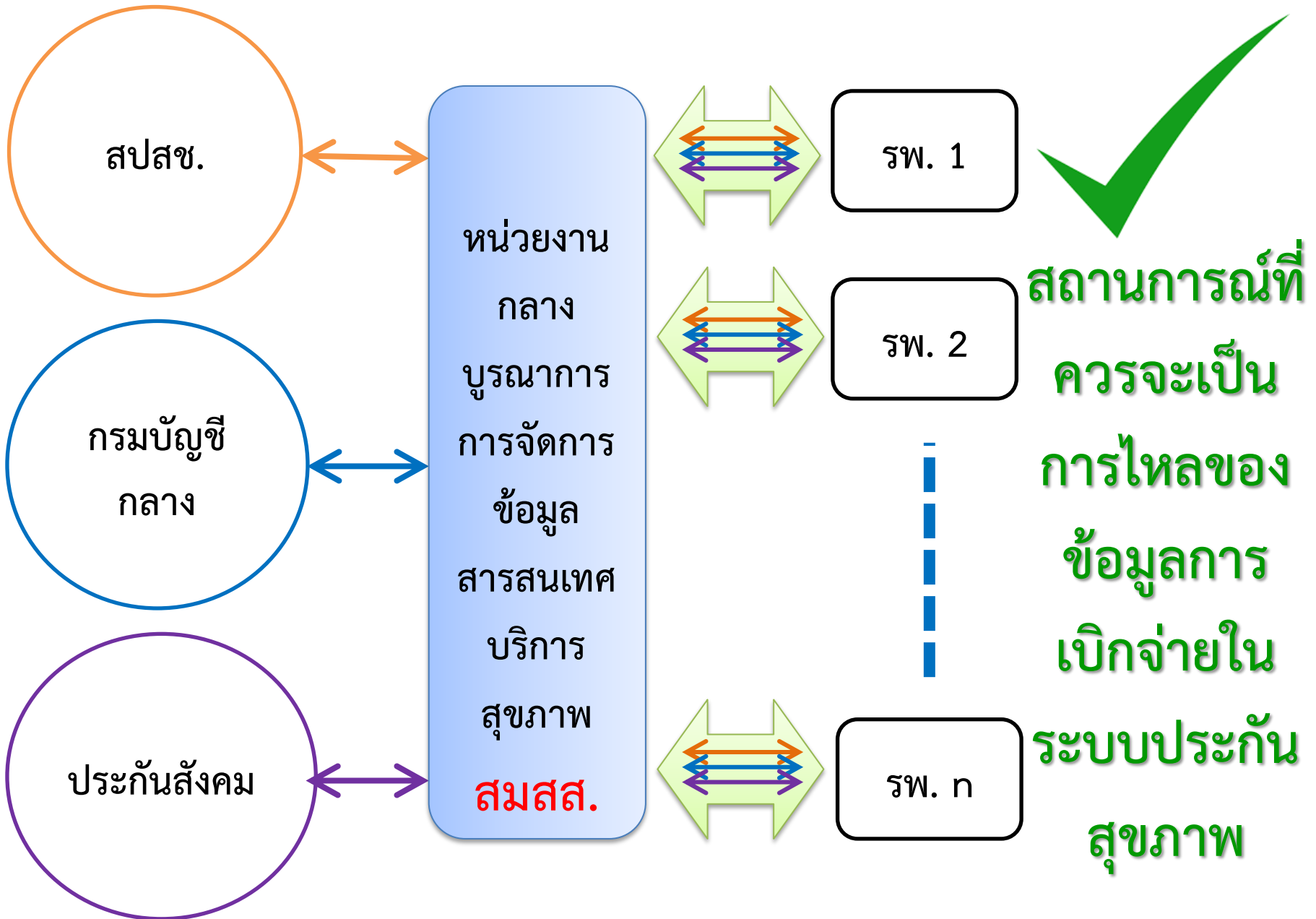
is defined as the **electronic transfer of clinical and/or administrative information across diverse and often competing health care organizations**

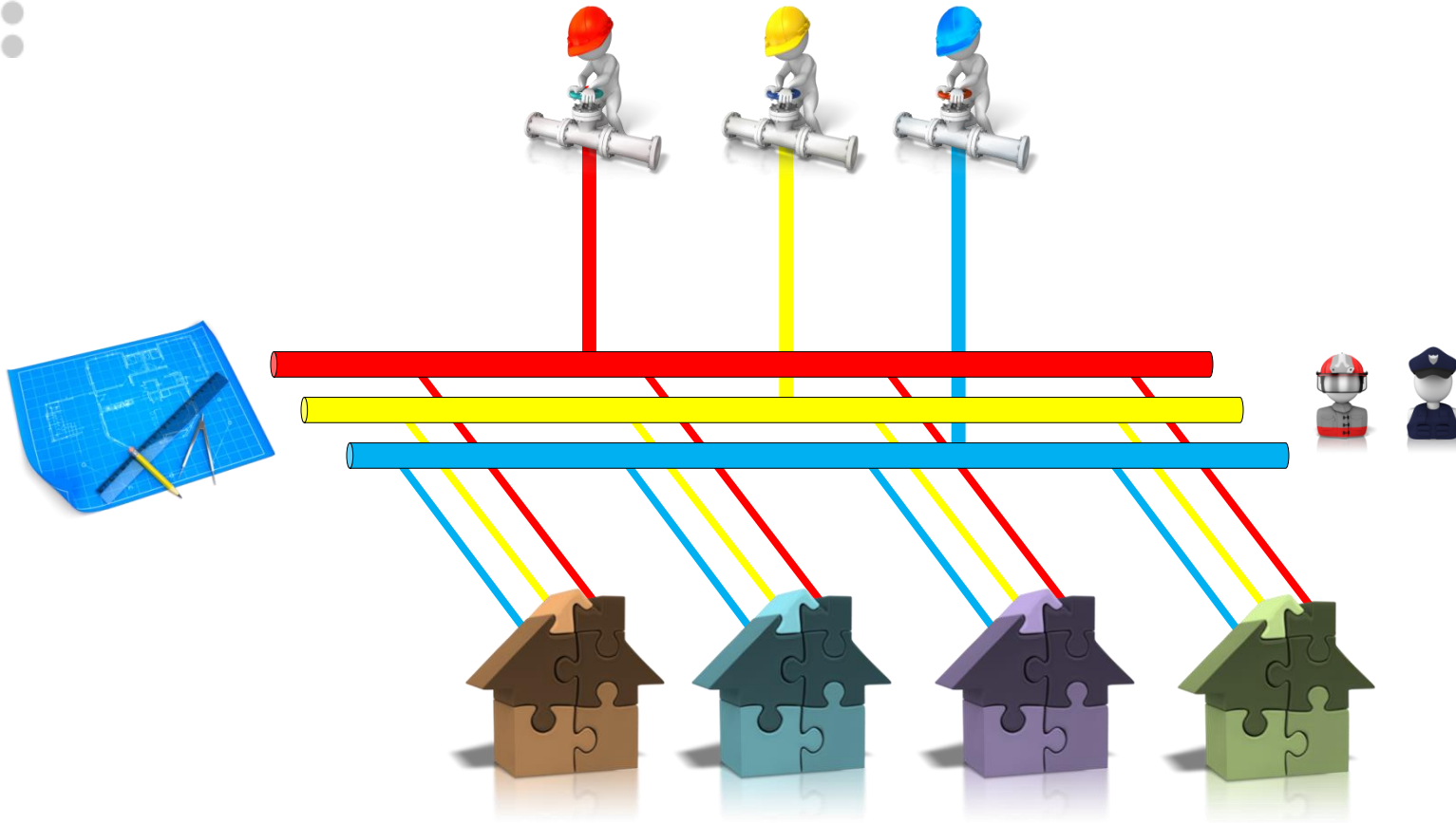
# Type of HIE Architecture

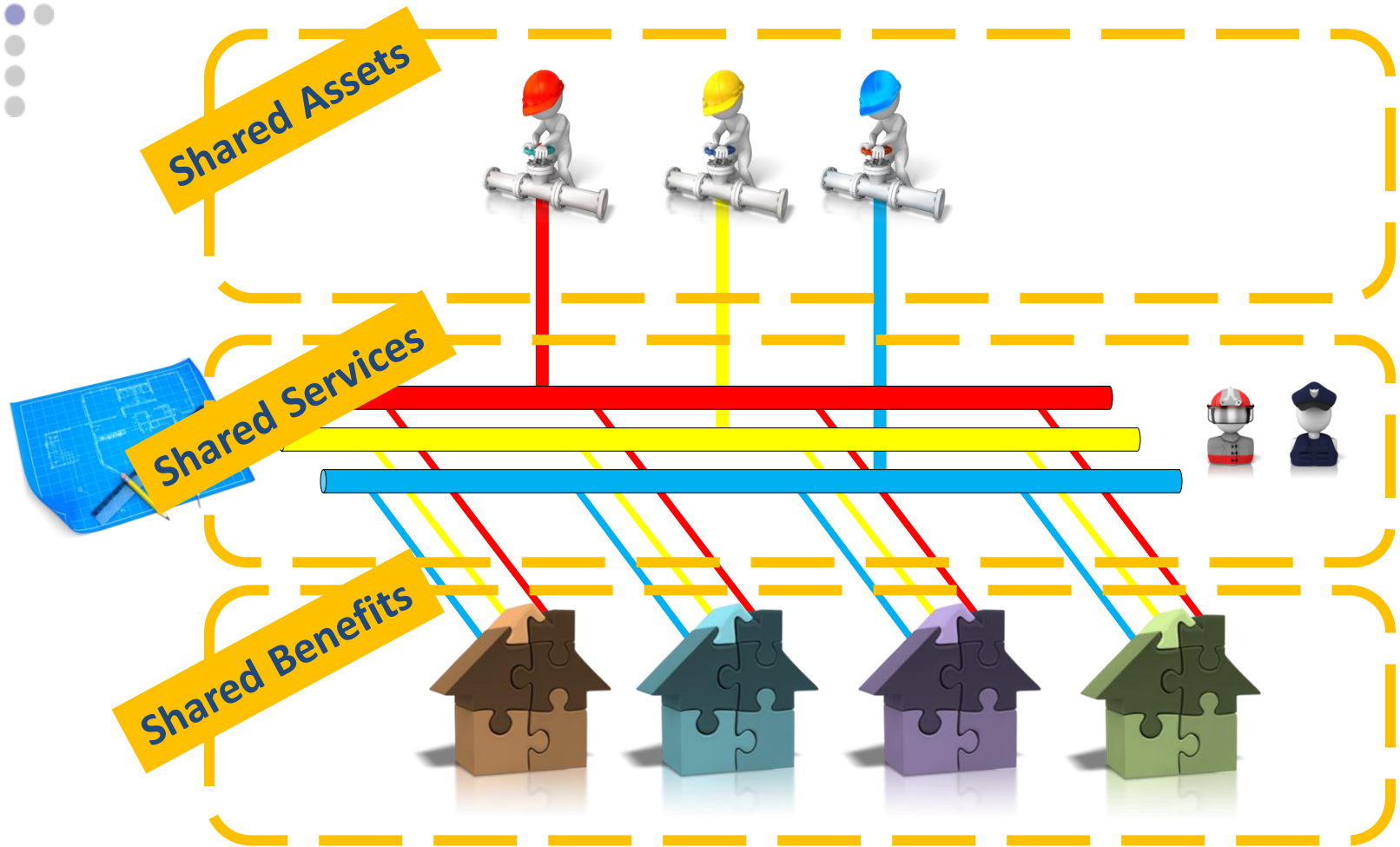


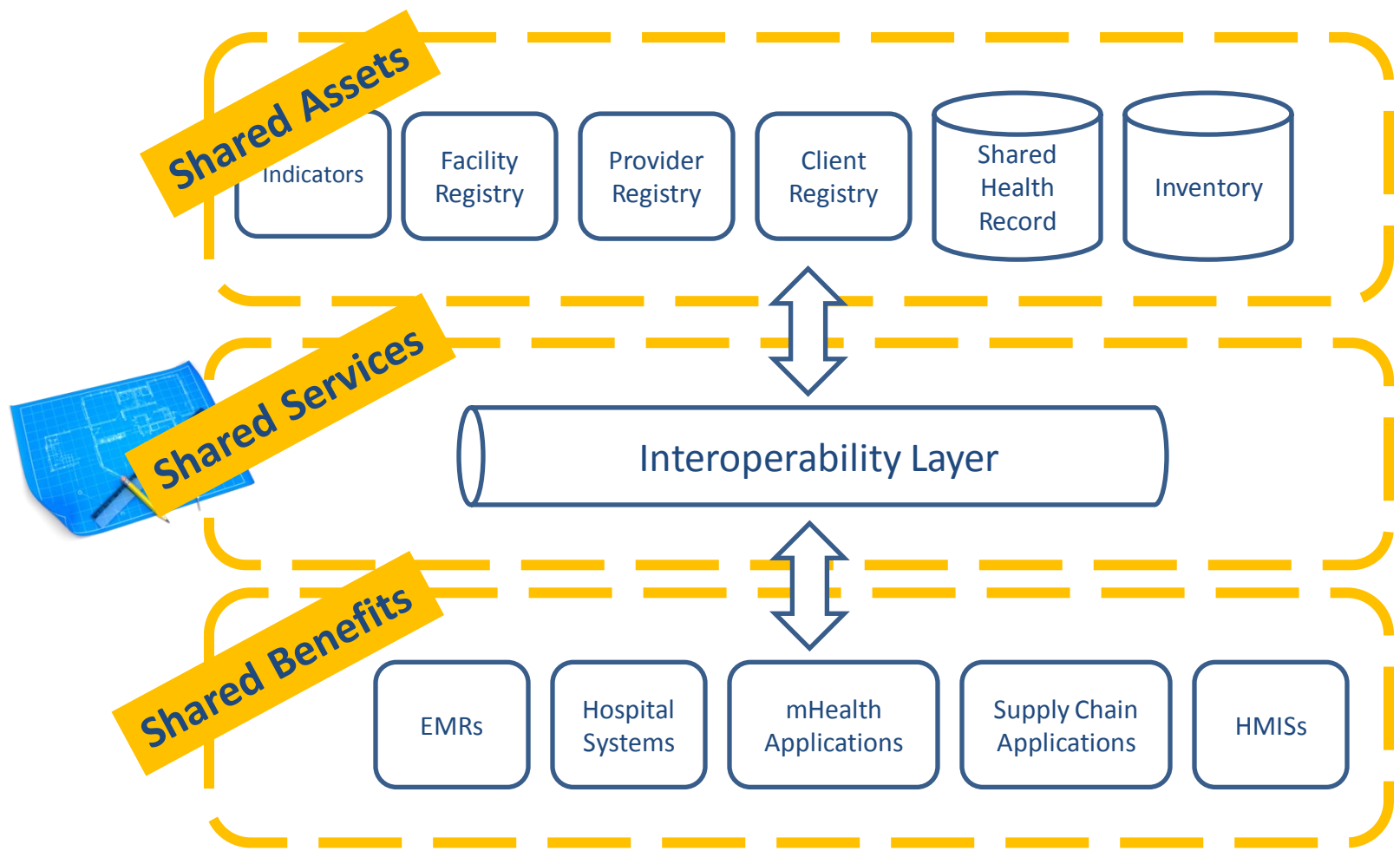
# Health Data Center (HDC) Information Flow











**Shared Assets**

**Shared Services**

**Shared Benefits**

Indicators

Facility Registry

Provider Registry

Client Registry

Shared Health Record

Inventory

Interoperability Layer

EMRs

Hospital Systems

mHealth Applications

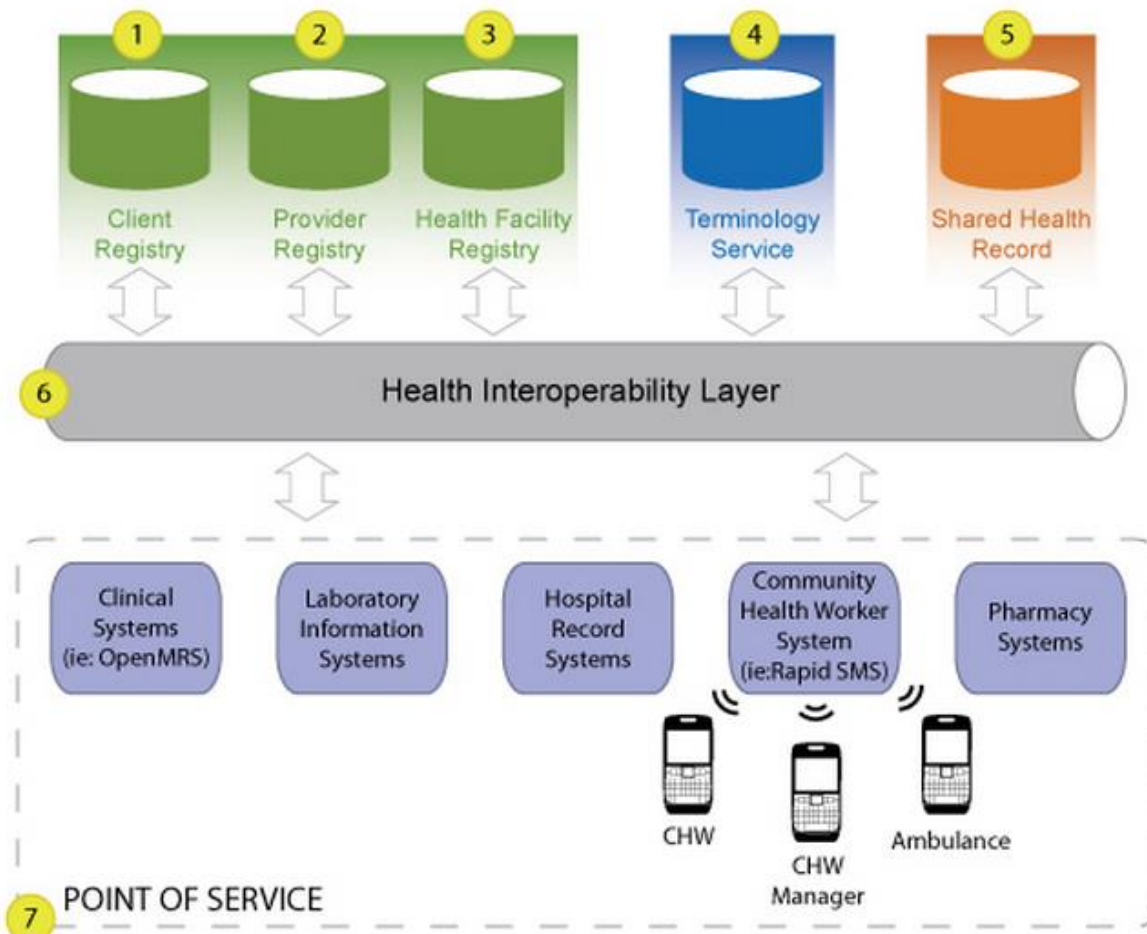
Supply Chain Applications

HMISs



# National Health Information Systems Blueprint (the Architecture)

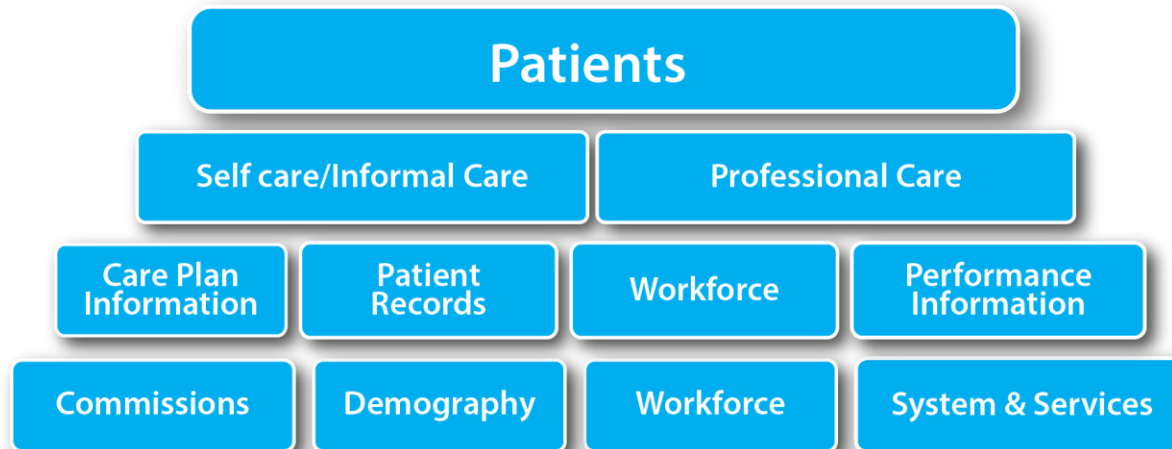
A Health Information Exchange (HIE) makes the sharing of health data across information systems possible



- 1) who received health services
- 2) who provided those services,
- 3) where did they receive the services
- 4) what specific care did they receive.

From: <http://ohie.org/architecture/>

# Landscape of Health Data Standards



*From: Standards – Yesterday, Today and Tomorrow: Integrating the Standards for Healthcare presentation  
, Ken Lunn, 17 October 2011*

# Categories of Health Information Standards



# Level of Interoperability & Standards

## Process/Service Interoperability

- Clinical Practice Guideline, Similar Claim Rules (DRG), HIPAA

## Semantic Interoperability

- Citizen ID, ICD 10, TMT, LOINC, SNOMED-CT

## Syntactic Interoperability

- HL7 message, HL7 CDA, DICOM

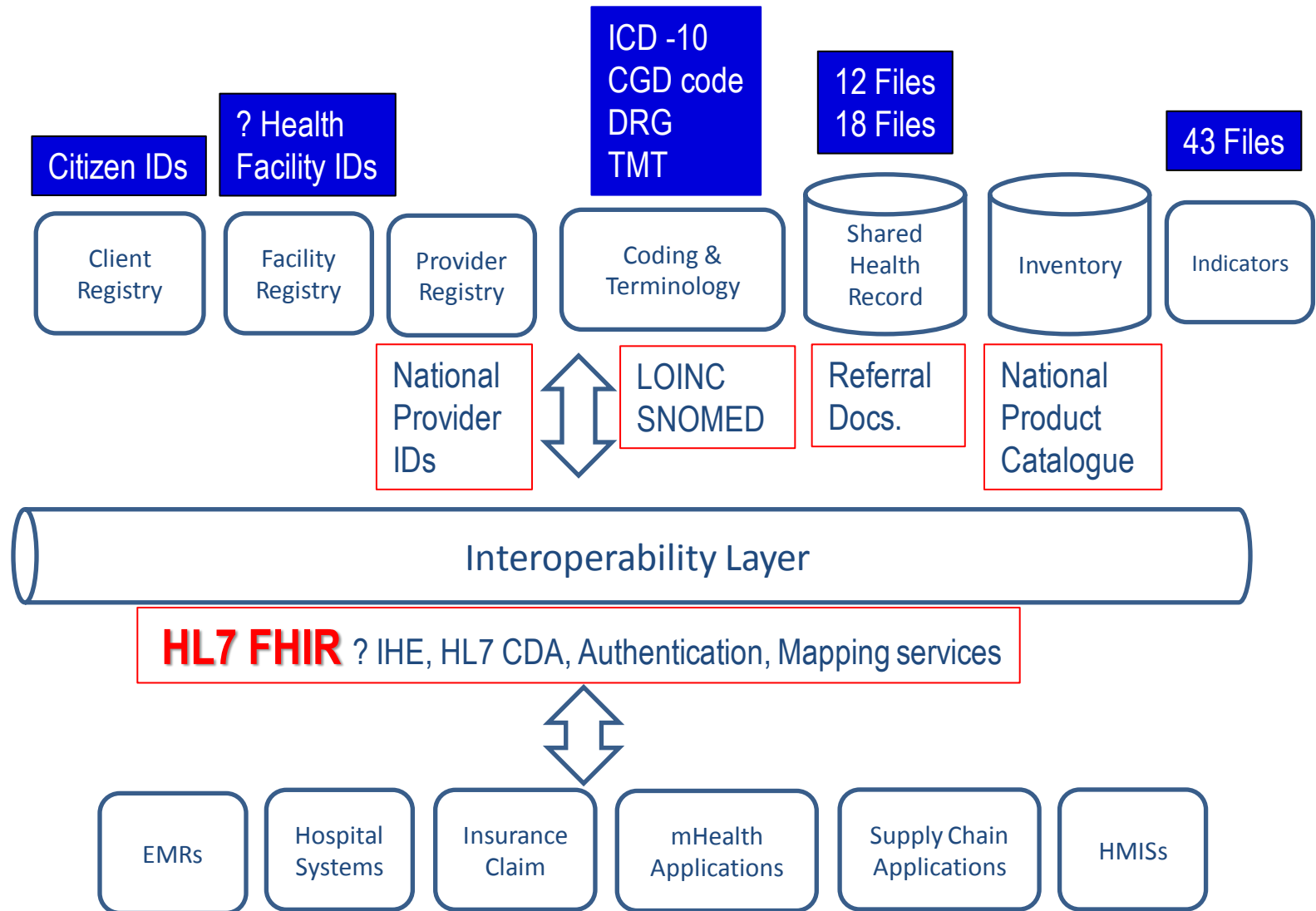
## Structure Interoperability

- Standards Dataset : Discharge Summary, Prescription

## Technical Interoperability

- XML, PKI, SSL , Web Service

# Thailand Approach to Health Data Standards



CGD = Comptroller General Department, TMT = Thai Medicines Terminology, DRG = Diagnosis Related Group, IHE = Integrating the Healthcare Enterprise

**Q & A**

# **Connecting People to a Healthy Future**

# HealthConnect from Kaiser Permanente

A US-based healthcare consortium that connects

- 630 medical offices
- 38 hospitals
- 10.6 million members.

the system enables collaborative, team-based approaches to care.

- increasing convenience
- reducing medication errors,
- reduce coronary artery disease deaths by 73%



<http://this.or.th/interopbook.pdf>

