Pharmacy Health Information Exchange

The promise. The reality. The future.

Regulatory and Law Conference
September 9-10, 2017

Your HIE Preacher:
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- Served as the Technical and Operations Lead and HIE Project Manager Florida Health Information Exchange

- Served as the Interim Program Director for Center for the Advancement of Health IT (AHIT) - Florida's largest ONC Regional Extension Center (REC)

- Consultant and Subject Matter Expert for HIT, HIPAA, e-Prescribing, and HIE initiatives in FL, GA, KY, TN, OH, MI and VA

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Disclosures

- I declare no conflicts of interest, real or apparent, and no financial interests in any company, product, or service mentioned in this program

ePrescribe Florida Fall Summit, November 30 – December 2, 2007

Learning Objectives

1. Describe the current state of electronic clinical exchange between pharmacies, physicians and other medical providers

2. Provide an overview of the existing methods of electronic connections within the pharmacy/provider community such as electronic prescribing

3. Discuss the evolving foundations for better engaging Health Information Exchange (HIE) for clinical information flow that can support Medication Therapy Management to optimize drug therapy and improve therapeutic outcomes for patients

HIE The Promise

The Promise - Question 1

Is Health Information Exchange a:

A. Verb

B. Noun

C. Both

D. Neither

The Promise - Question 2

Which of these is not a value of HIE:

A. Providing more accurate information

B. Enabling decision support

C. Enabling better faxed data

D. Reducing costs of paper documents

E. All are values

The Promise - Question 3

Electronic Prescribing is an example of what type of HIE:

A. Query-based Exchange

B. File Transfer Protocol (FTP)

C. Directed Exchange

D. Both A and B

E. Both A and C

What is Health Information Exchange?

- Electronic Health Information Exchange (HIE) is both a noun and a verb

- Refers to the technical and operational infrastructure and the process of actually exchanging information
  - HIE (the verb) is the process of connecting and exchanging patient information between authorized healthcare and related organizations
  - HIEs (the noun) are networks of unaffiliated healthcare entities and/or other third parties that share/exchange patient clinical/administrative data

Why Health Information Exchange?

- The goal of HIE is to enable stakeholders to better leverage information to facilitate patient care and therapeutic outcomes

  - Electronic health information exchange (HIE) allows physicians, hospitals, nurses, pharmacists, labs, payers, other health care related organizations and patients to appropriately access and securely share vital health care information

  - Enables real-time decision support at point of care

    Right Information…   at the right time…

    for the right person… to the right person!!

Value of HIE

- Enabling decision support at the point of care such as e-Prescribing

- Connecting patient records and data sources for more coordinated, efficient care to effectively diagnose patients, reduce medical errors, and provide safer care

- Providing more accurate, up-to-date and complete information about patients

- Reducing costs and improved safety through; better information, decreased paper flow, reduced duplication of testing and lost or misplaced paper documents and faxes

But What About Paper and Faxes?

- Excessive costs of manual medical records

- Fragmentation caused by paper records

- Lost and misplaced records

- Accessibility of paper medical records

- Quality of manual medical records

- Lost productivity from paper records

Any doctor can tell you they are buried in faxes. The worst part is that faxes don't go through often, or they get dropped or lost. This is a technology that should have disappeared along with beepers.[1]
- Dr. P.J. Parmar, Ardas Family Medicine, October 2, 2014

[1] http://www.kevinmd.com/blog/2014/10/still-uses-faxes-medical-industry.html

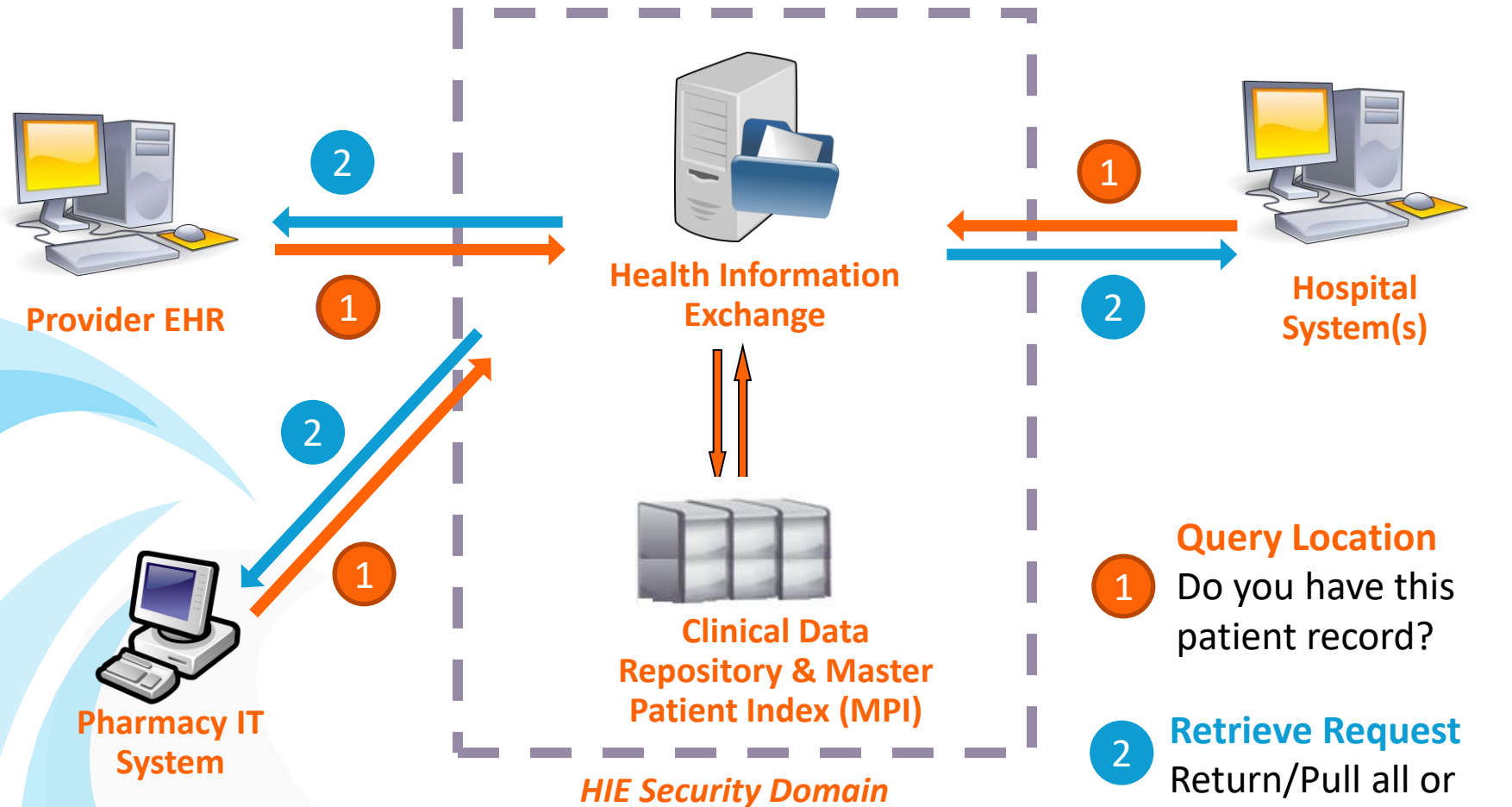# Don't Have to be an HIE to do HIE!
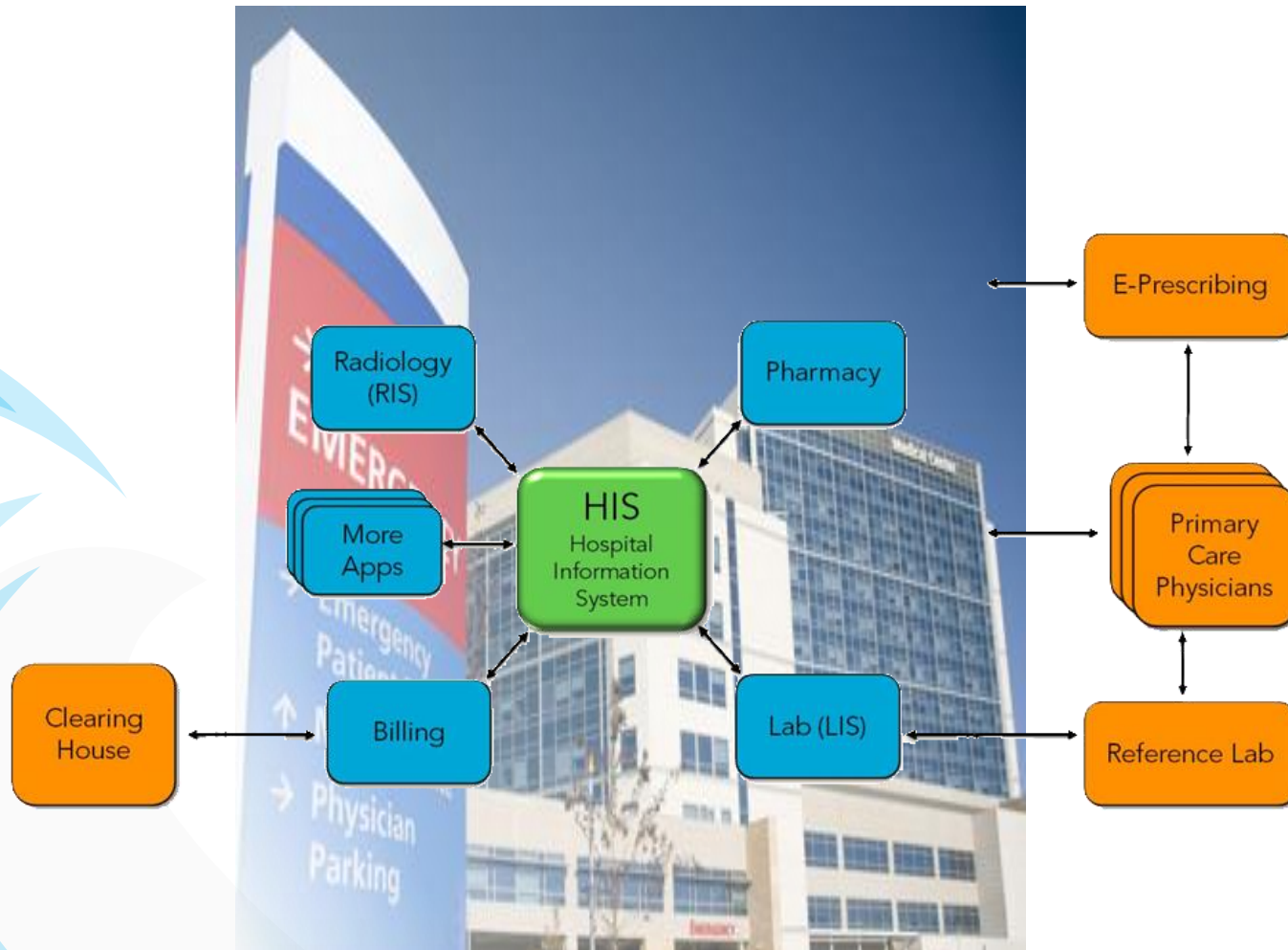
Types of Health Information Exchange

- While there are variations and hybrid versions of these, there are typically three basic forms of HIE[2]

  - **Query-based Exchange:** ability to find and/or request information on a patient from healthcare providers and other data sources, often used for unplanned care

  - **Directed Exchange:** ability to send (PUSH) and receive secure information electronically between authorized organizations to support coordinated care

  - **Consumer Mediated Exchange:** ability for patients to aggregate and control the use of their health information among providers and consumer health-IT

14

[2] https://www.healthit.gov/providers-professionals/health-information-exchange/what-hie

Query Based – Central Repository

Provider EHR

Health Information Exchange

Hospital System(s)

Pharmacy IT System

Clinical Data Repository & Master Patient Index (MPI)

HIE Security Domain

Query Location
1 Do you have this patient record?

Retrieve Request
2 Return/Pull all or specific information

Share Data
S Data sources provide health information

15

Query Based – Federated Repositories

Clinical Data Repository + MPI

2

1

Provider EHR

1

Pharmacy IT System

2

Clinical Data Repository + MPI

Health Information Exchange

HIE Security Domain

Hospital System(s)

2

1

Clinical Data Repository + MPI

1 **Query Location**
Do you have this patient record?

2 **Retrieve Request**
Return/Pull all or specific information

16
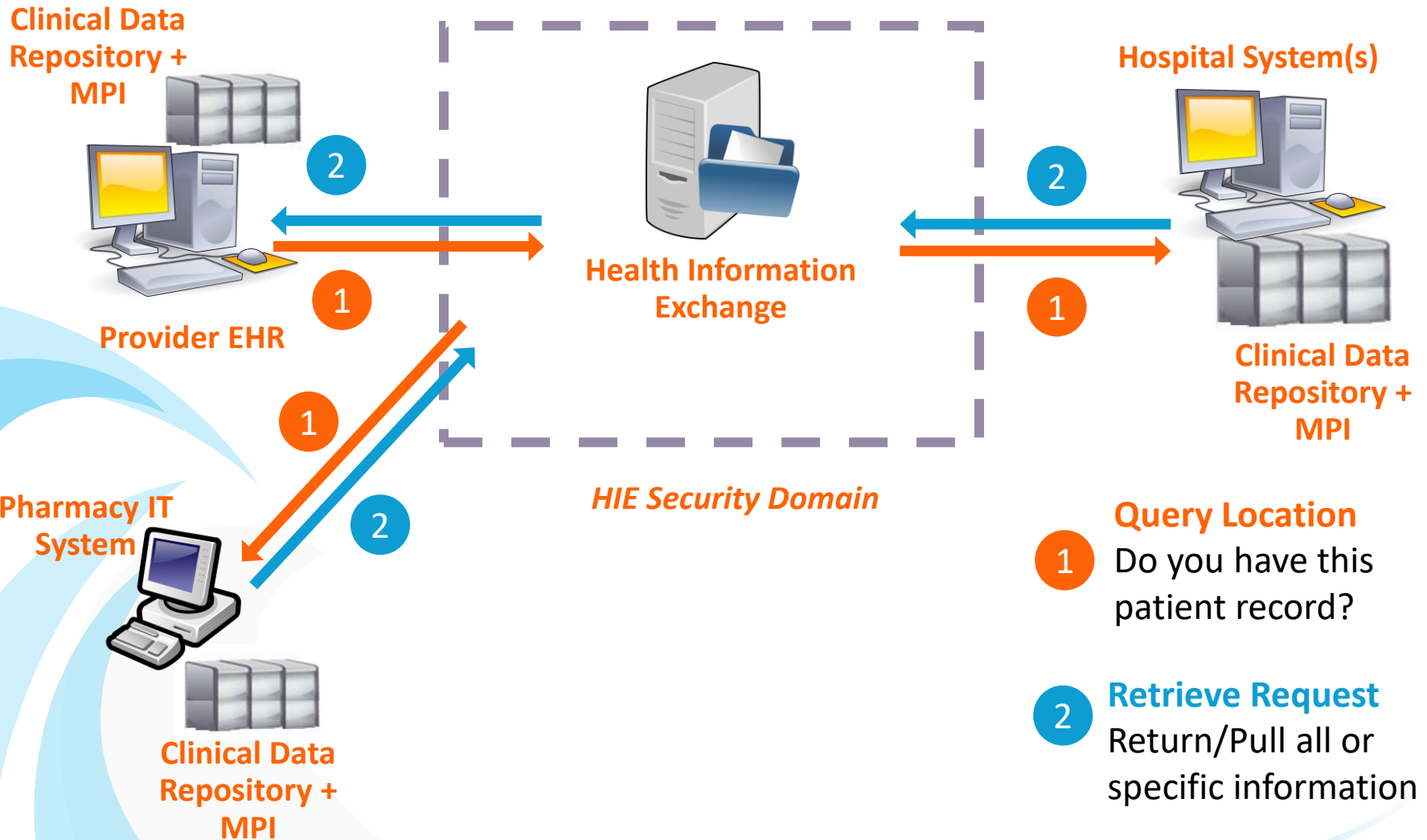
When you have seen one HIE...
You have seen one HIE!

Centralized Model
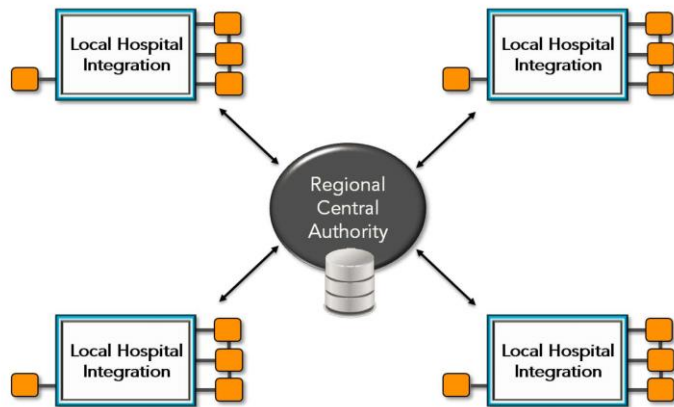
Federated Model

Hybrid Model

Office of the National Coordinator (ONC)
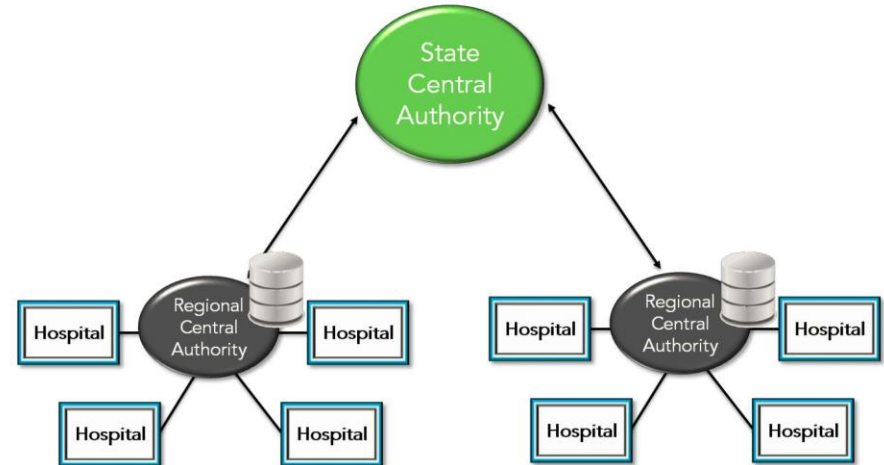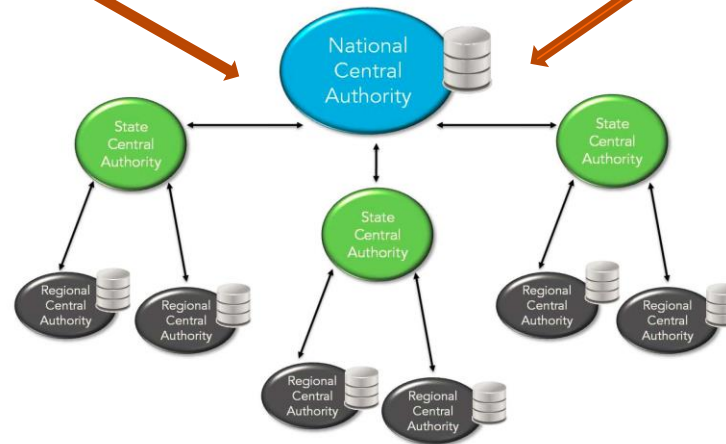
Query National Standard CONNECT

- CONNECT is a dynamic, open source platform for the secure exchange of health information[3]

- Result of an extensive collaboration effort between the Federal Health Architecture (FHA) and its federal partners including:
  - Health and Human Services
  - Office of the National Coordinator for Health IT
  - Department of Defense
  - Department of Veterans Affairs
  - Social Security Administration
  - Centers for Medicare & Medicaid Services

CONNECT

Federal Health Architecture

- Powers the national eHealth Exchange formerly the Nationwide Health Information Network (NHIN)

18

[3] https://www.healthit.gov/policy-researchers-implementers/nationwide-health-information-network-nwhin
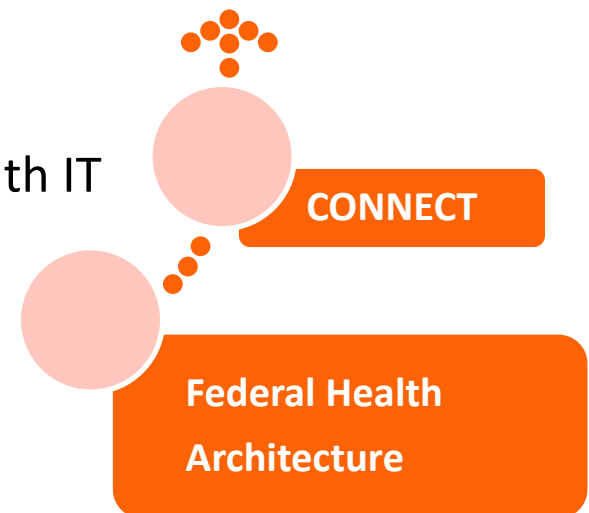
Push National Standard DIRECT

- DIRECT specifies a simple, secure, scalable, flexible and standards-based way to exchange encrypted health information with known and trusted recipients[4]

- DIRECT functions like regular e-mail with additional security measures and delivery notifications to ensure messages arrive and only accessible to the intended recipient per the Health Insurance Portability and Accountability Act (HIPAA)

- Message contents can be structured or unstructured information and data

  D.Houser@direct.ahospital.org

  - PDFs, Images, Office documents

  - Consolidated CDA (CCDA), CCD, CCR

  - HL7 lab results, RxNorm, DICOM

  Brenda.Welby@direct.aclinic.org

- **CMS Certified Electronic Health Record (EHR) systems are required to demonstrate DIRECT messaging capability**[4]
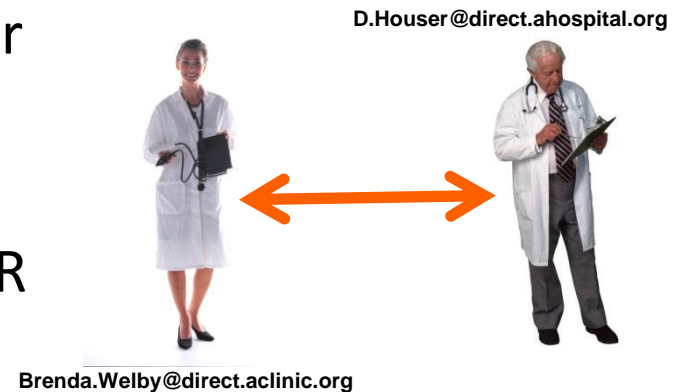
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DIRECT Flexibility and Extensibility
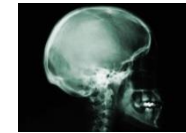
DIRECT Communication

Between People

Between People and Computers

Between Computers

DIRECT Content

I've attached the x-ray and study of Mr. Culbertson. Thanks for seeing him.

Readable by People

I've attached an electronic record and x-ray for Mr. Culbertson

EVN|A28|20060501140008|||000338475^Culbertsonr^Walt^^^^ ^RegionalMPI&2.16.840.1.113883.19.201&ISO^L|20060501140008<cr>

Readable by People and Computers

EVN|A28|20060501140008|||000338475^Culbertsonr^Walt^^^^ ^Regional MPI&2.16.840.1.113883.19.201&ISO^L|20060501140008<cr>
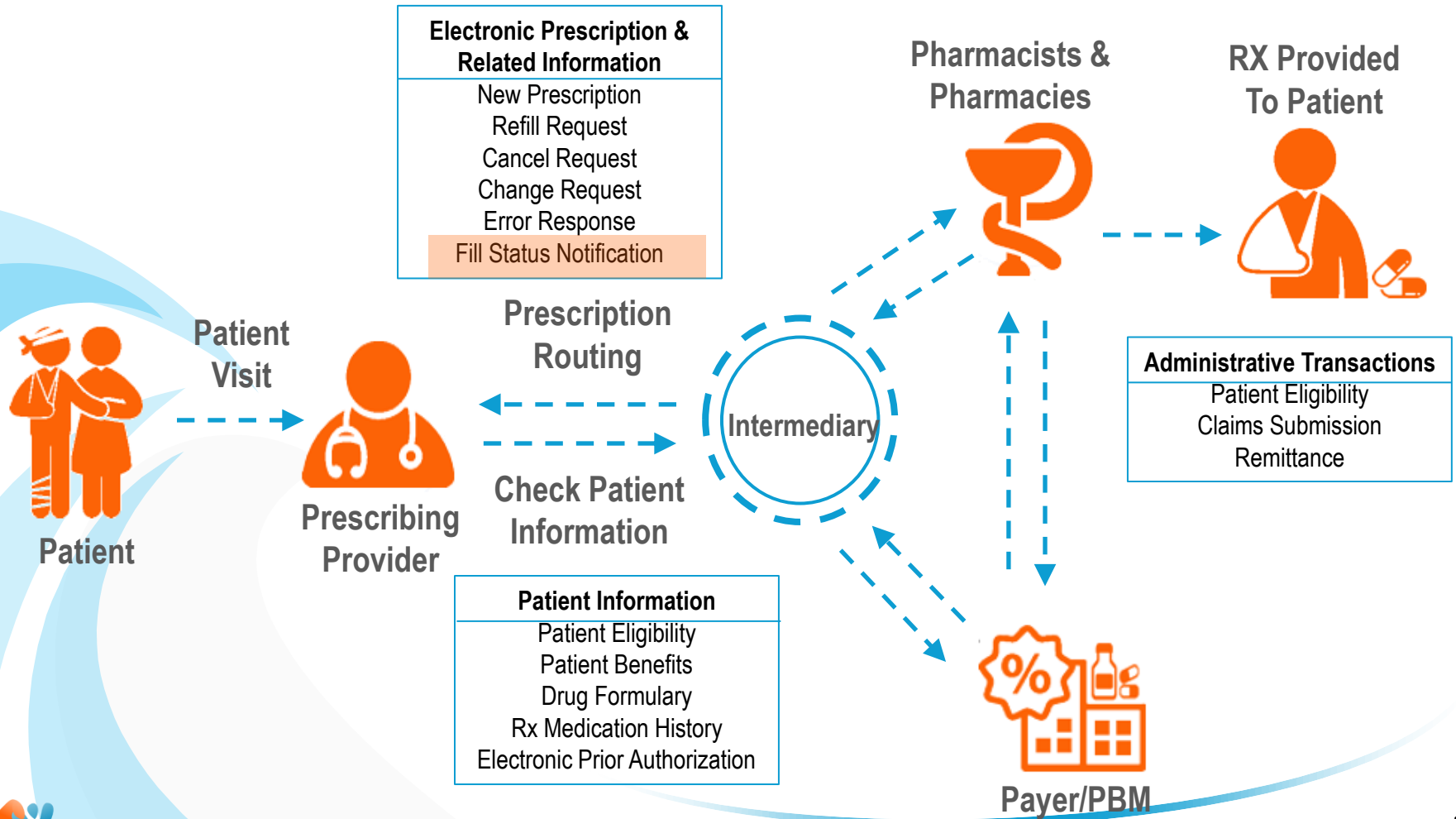PID|||000197245^^^NationalPN&2.16.840.1.113883.19.3&ISO^PN~4532^^

Readable by Computers

So How Does e-Prescribing HIE Work?
Combination of Query and Directed Exchange

Electronic Prescription & Related Information
New Prescription
Refill Request
Cancel Request
Change Request
Error Response
Fill Status Notification

Pharmacists & Pharmacies

RX Provided To Patient

Patient Visit

Prescription Routing

Intermediary

Administrative Transactions
Patient Eligibility
Claims Submission
Remittance

Check Patient Information

Patient

Prescribing Provider

Patient Information
Patient Eligibility
Patient Benefits
Drug Formulary
Rx Medication History
Electronic Prior Authorization

Payer/PBM

HIE Powers ePrescribing

1. Select patient

2. Select Drug and Decision Support

3. Send to Pharmacy or Print

Source: ePrescribe Florida

HIE Powers - Decision Support

Show patient specific drug interactions based on local and PBM-provided drug history

Show patient reported drug allergy information and warnings

Source: ePrescribe Florida

23

HIE Powers - eScript Transmission

Can transmit prescription electronically (always preferred) or print paper Rx or patient copy

Source: ePrescribe Florida

HIE The Reality

The Reality - Question 1

All HIE is local:

A.   Yes
B.   No

The Reality - Question 2

What type of Health Exchange did Florida build with Federal funding:

A. Prescription Monitoring Exchange

B. Insurance Exchange

C. Information Exchange

D. Patient Exchange

E. None of the above

The Reality - Question 3

Florida Hospitals are prohibited from sharing admissions, discharge and transfer data (ADTs) with:

A. Health Plans

B. Accountable Care Organizations

C. Providers

D. All the Above

E. None of the Above

HIE is Local, Regional, State and National

- HIE exists in my forms and at many levels
- Local and regional hospital systems have established capability to exchange patient information with community providers
- Independent vendors provide services to help with exchange of information
- Florida established a state-wide exchange to connect local networks
- A national network was created to connect states and federal government entities

State of Florida HIE Services

- Florida e-FORCSE - Prescription Drug Monitoring Program

- Florida Health Information Exchange (FL-HIE) Core Services

  - Query - Patient Look-Up (PLU)

  - Push - Direct Messaging Service (DMS)

  - Push - Event Notification Service (ENS)

Florida eFORCSE

- The purpose of the PDMP is to provide the information collected in the database to health care practitioners to guide their decisions in prescribing and dispensing highly-abused prescription drugs[5]

- Impacts all dispensers of scheduled controlled substance prescription in schedules II, III & IV starting September 1, 2011

[5] https://www.deadiversion.usdoj.gov/mtgs/pharm_awareness/conf_2012/march_2012/rposton_0329.pdf
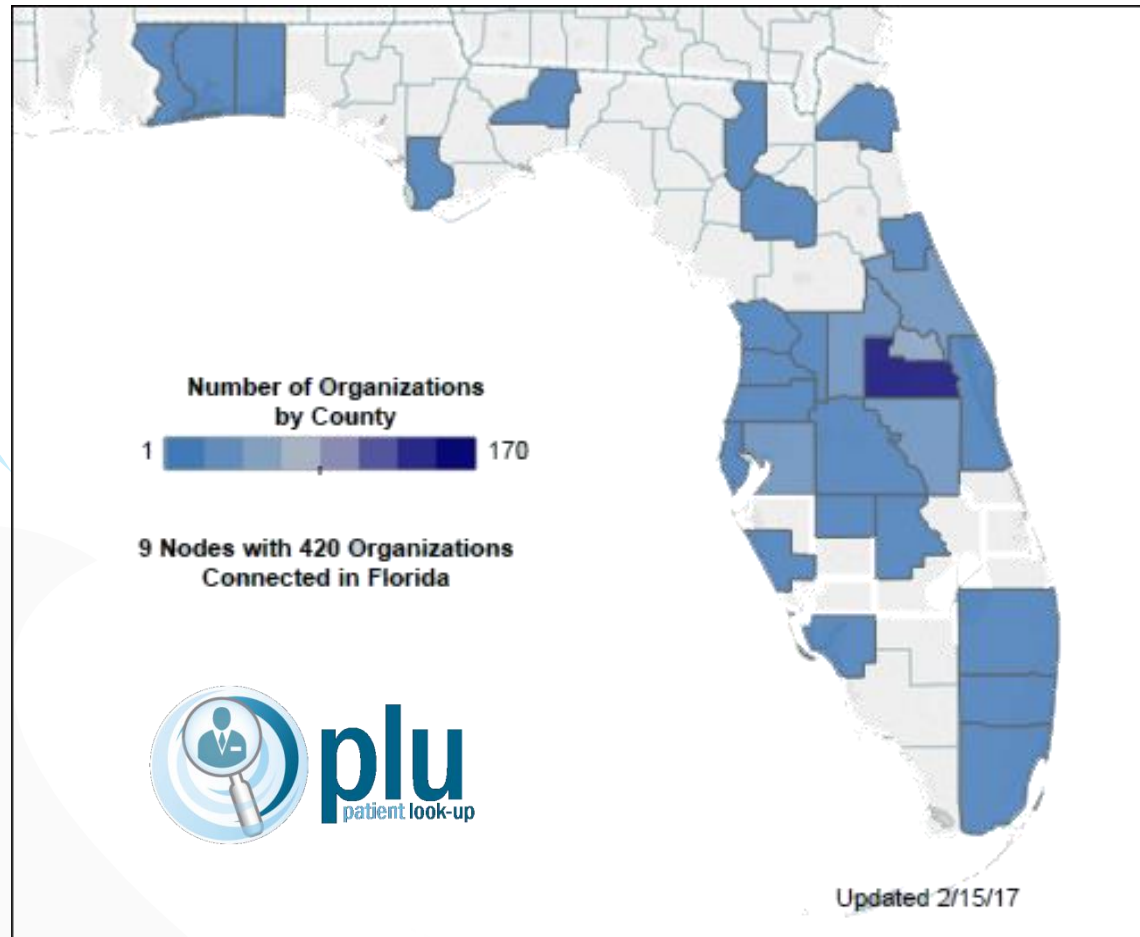
FL-HIE Patient Look-Up

- Connects local, regional and national HIE services through a **federated** model using the national standard (CONNECT) for patient record query and retrieval (network of networks)
  - No centralized state database or patient index
  - Each PLU participant (node) maintains its own records
  - Each participant required to have safeguards in place
  - Each participant is responsible for vetting user access
  - Connected to the national eHealth Exchange
- Allows users to search participating health care organizations for individual patient records
  - Must have the patient's consent

FL-HIE Network of Networks
PLU Participants as of February, 15 2017[6]

Number of Organizations by County

1 ▬▬▬▬▬▬▬ 170

9 Nodes with 420 Organizations Connected in Florida

Updated 2/15/17

[6] http://www.fhin.net/kms/graphs/plucoverage.shtml

FL-HIE Direct Messaging

- DMS is a secure email message service that can be used via an online portal or through Trust services for Health Information Service Providers (HISPs) using the national DIRECT standard for secure messaging
    - DMS provides an **online portal** for providers with or without an electronic health record (EHR) system, the capability to electronically exchange protected health information[7]
    - DMS allows for simple, HIPAA-compliant, encrypted transmission of Protected Health Information
    - Transitions of care and referrals, orders, records, results, and any other patient related documents can be easily and securely transmitted
    - *Affordable - $8 per mailbox per month*[7]

34

[7] https://www.florida-hie.net/Files/dmbrochure.pdf

FL-HIE Event Notification Service

- Provides payers, ACOs and providers with electronic notice of patients' hospital admissions, discharges, transfers (ADTs) and emergency department visits[8]
  - Alerts delivered via DMS or other DIRECT message account
  - Safeguards prevent self-pay information from being provided
  - Speeds up the existing process for notifying stakeholders of patient treatment at participating hospitals
- Stakeholders can use the information to ensure appropriate follow up care coordination
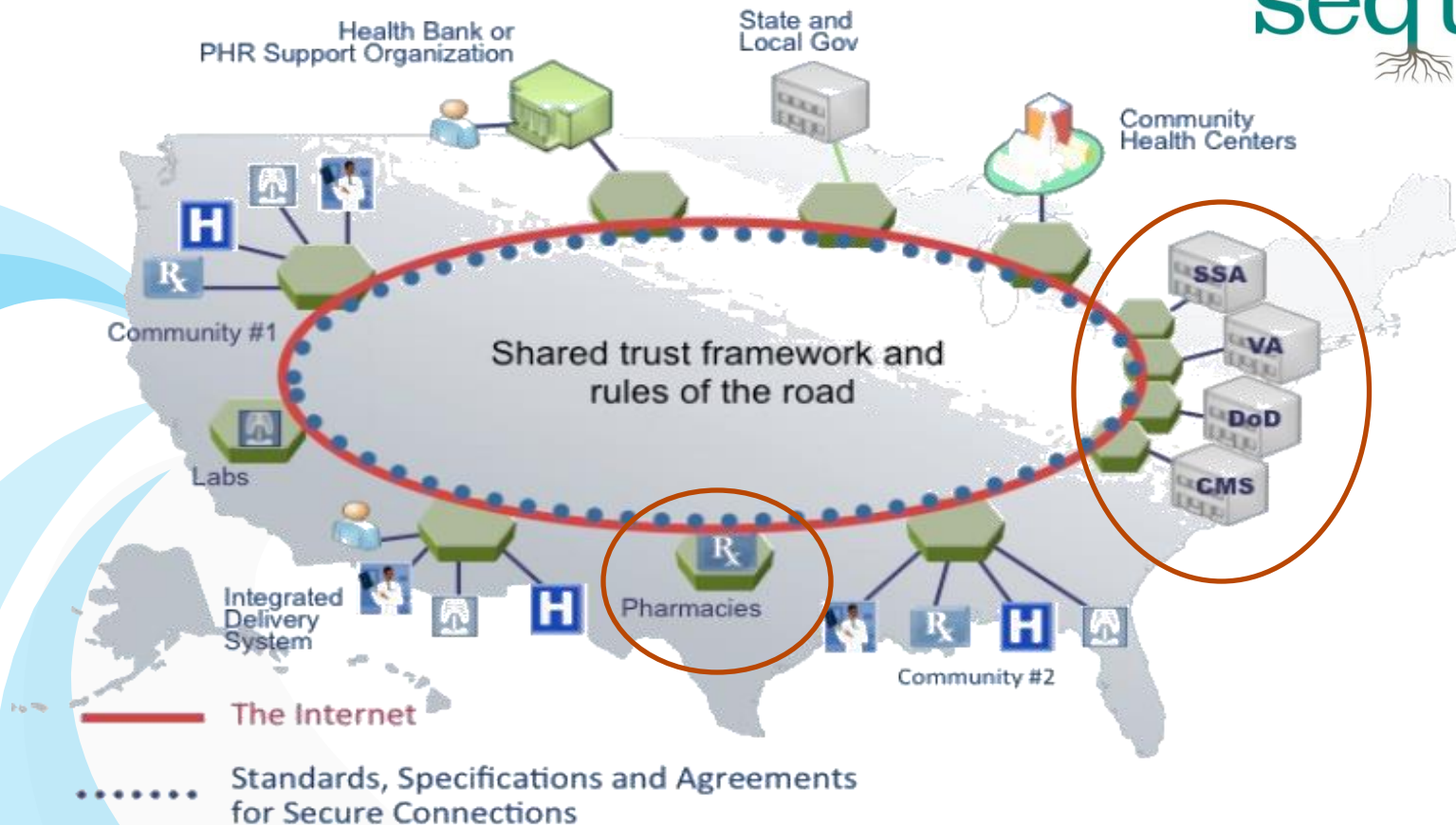- Hospitals receiving Low Income Pool (LIP) funding are required to participate as data sources

[8] https://www.florida-hie.net/ENS/index.html

National Health Information Network

9 https://www.healthit.gov/policy-researchers-implementers/nationwide-health-information-network-nwhin

HIE The Future

The Future - Question 1

Health Plans were the first to support real-time clams adjudication:

A. True

B. False

The Future - Question 2

MTM stands for:

A. Medication Therapy Management

B. Medical Team Management

C. Medication Therapy Model

D. Model Therapy Management

E. None of the above

The Future - Question 3

The Pharmacists role on the health care team is:

A. Limited

B. Central

C. Remote

D. Changes

E. All of the above

Pharmacy Leads the Way!

- Throughout the evolution of adopting health information technology, pharmacy has often led the way:
  - The pharmacy industry has traditionally been an early adopter of HIE
  - Pharmacy was the first to have real-time claim submission and adjudication
  - Pharmacy led the way in receiving orders electronically (e-Prescribing)
  - Pharmacy adopted technology to facilitate patient communication (refill reminders and requests)

Pharmacists Role in Patient Care

- The Pharmacist's role in health care delivery has been evolving in a variety of expanding settings given medication complexity, inventory and frequency of use

- Leveraging Pharmacists' knowledge and patient interactions requires continued and new innovation to leverage the benefits of HIE:

  - Medication therapy management (MTM) and care coordination

  - Care coordination for chronic disease management programs

  - Team-based and patient centered care

42

Pharmacists Serve Critical Care Role

- Pharmacists are critical members of the patient's health care team

- Pharmacists make meaningful medication management contributions and decisions

- Pharmacists are **central** to the health care team model and are positioned to participate in HIE that will ensure more coordinated and complete medical care such as:

    – Medication reconciliation

    – Medication compliance and adherence

ePrescribing Was Only the FIRST Step

- Electronic prescribing (e-prescribing) was the first step in creating interoperability between pharmacists and prescribers

- As interoperable prescription information improves from a one-direction transaction to a bidirectional exchange of information (with the help of DIRECT), the prescription process will become more seamless

- The ability to exchange clarification requests with prescribers in real time will save pharmacists' time and may decrease the risk of medication error

Opportunity: More Than Prescription Data

- While many consider electronic prescribing to be the primary form of health information exchange (HIE), there is much more information that can be shared by pharmacists and other providers:
  - Lab values
  - Immunization administration records
  - Allergy and adverse event reporting
  - Documentation of care provided such as medication management counseling

What's Next?

- As Pharmacy organizations continue their efforts to comply with regulatory requirements, such as moving to the next version of SCRIPT, this will allow for more efficient exchange of:

  - **Allergy/adverse event information:** between prescribers and pharmacies

  - **Risk Evaluation and Mitigation Strategy (REMS):** information between prescribers. providers and REMS administrators before prescription arrives at pharmacy

  - **Fill status notification:** between pharmacies and prescribers, with the prescriber able to specify when they want to receive the notice

Medication Therapy Management

- Medication Therapy Management (MTM) services can lead to overall cost reductions and improved health outcomes

- MTM Core Elements Service Model recommends the patient record contain the following information:

  – Patient medication experience

  – Potential problems

  – Comprehensive and accurate medication list, including OTCs

  – Medication-related action plans

APhA/NACDS Core Elements of An MTM Service Model ver. 2.0
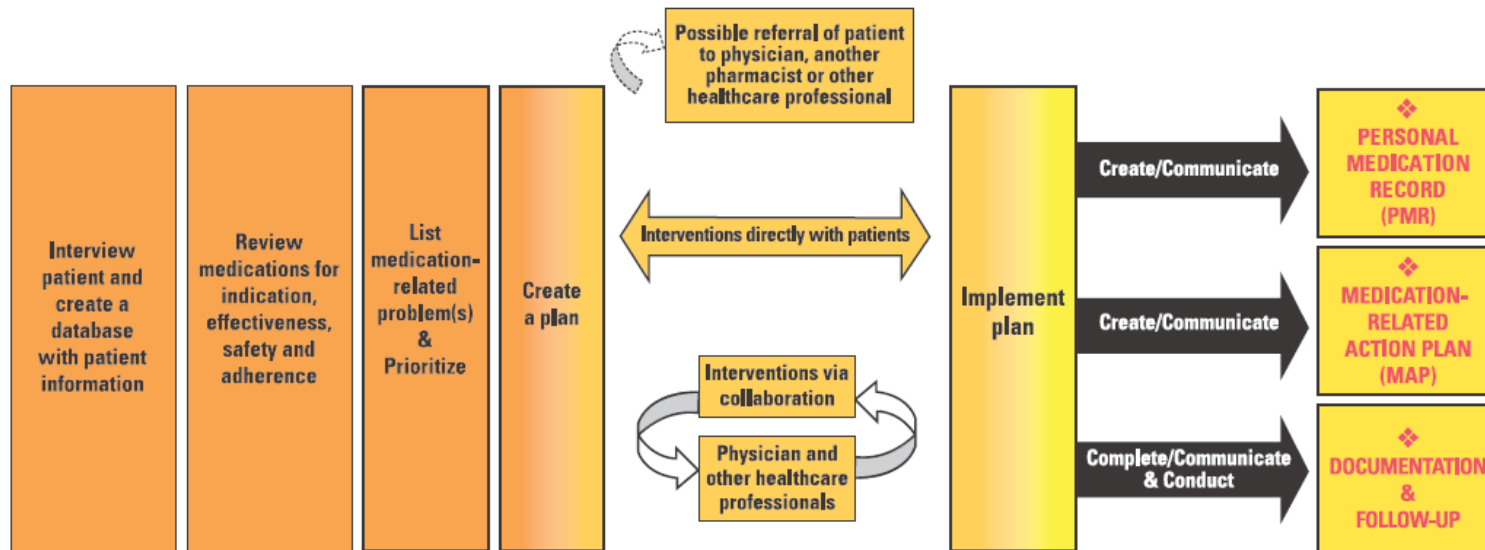
47

MTM Core Elements

The Medication Therapy Management Core Elements Service Model

The diagram below depicts how the MTM Core Elements (❖) interface with the patient care process to create an MTM Service Model.

Academy of Managed Care Pharmacy
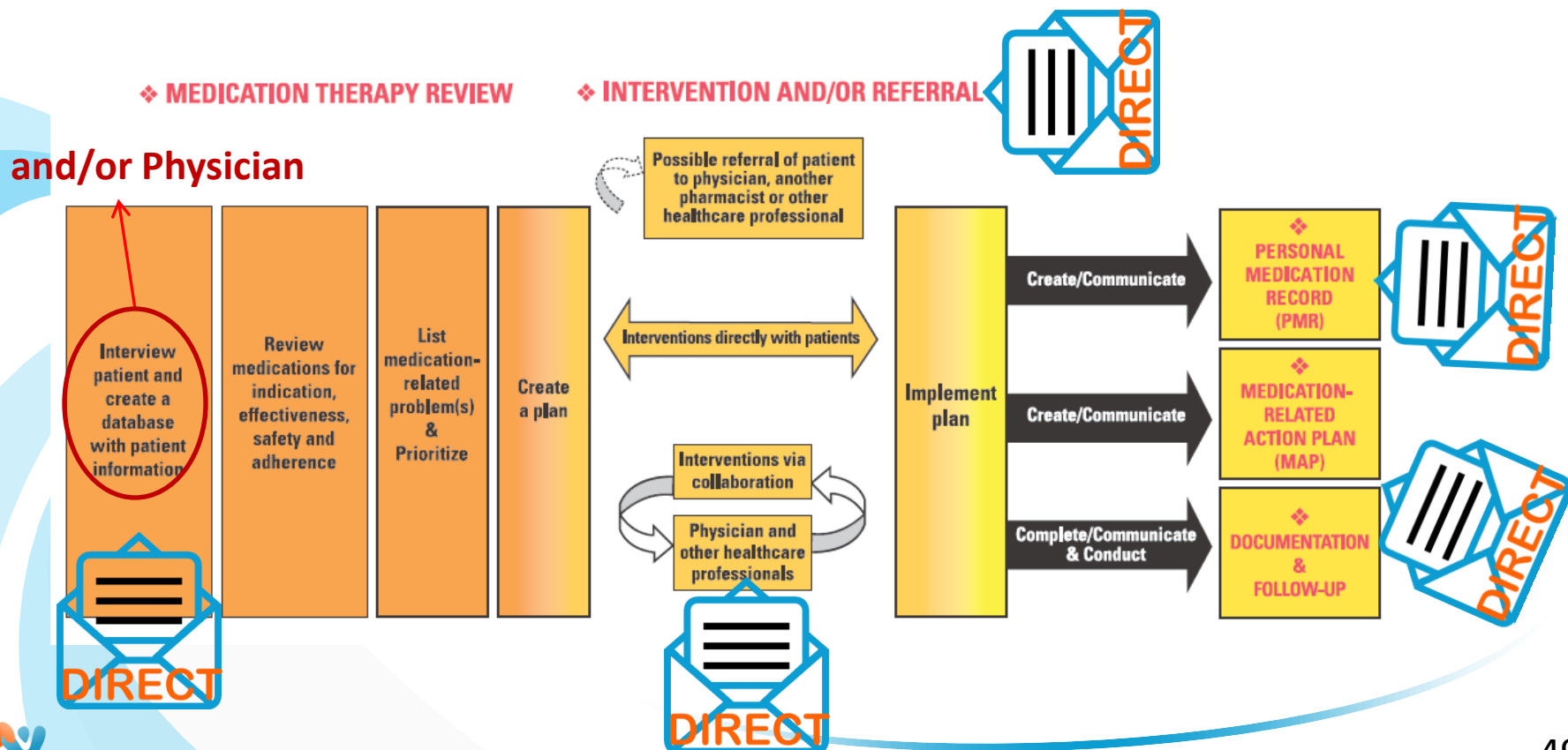
[10] http://www.amcp.org/MTMResources/

Enhancing Pharmacy Communications With DIRECT Messaging

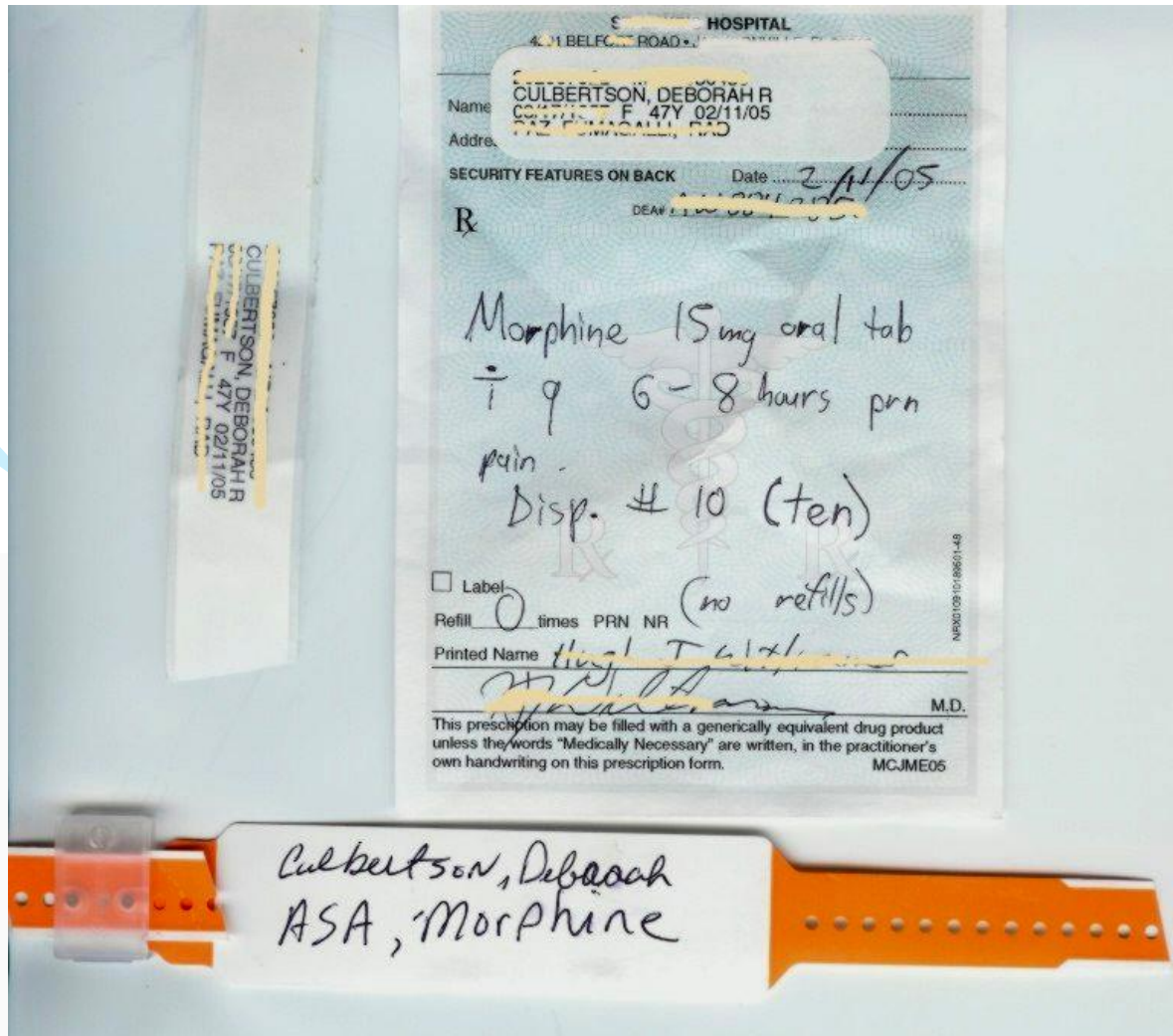The Medication Therapy Management Core Elements Service Model

The diagram below depicts how the MTM Core Elements (❖) interface with the patient care process to create an MTM Service Model.

It's a Wrap!

Why We Are HERE!

Have Questions?

Visit our Website,
send us an email,
or give us a call!

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