



**Pharmacy e-Health Information  
Technology Collaborative**

**The Medical Neighborhood: HIT  
Enablement of Medication-Related  
Care Coordination**

# Collaborative Members

## Founding Organizations

- 9 Professional Pharmacy Associations
- Represents over 250K members in all practice settings

## Founding Members

- AACP-ACCP-ACPE-AMCP-APhA-ASCP-ASHP-NASPA-NCPA

## Associate Members

- Surescripts
- NCPDP
- RelayHealth

# Primary Goal – Why the Collaborative Exists

## Effective Medication Use

- To assure the meaningful use of standardized electronic health records (EHR) that supports safe, efficient, and effective medication use, continuity of care, and provides access to the patient-care services of pharmacists with other members of the interdisciplinary patient care team.

## Pharmacist's Role in HIT

- To assure the pharmacist's role of providing patient-care services is integrated into the National HIT interoperable framework

# Collaborative's Primary Goal for Patient Centered Medical Home (PCMH)

- To assure the pharmacists providing patient care services, particularly as members of the inter-professional teams supporting PCMH and ACO structures, are integrated from a technology standpoint

# Education and Outreach

## Inside

- Pharmacists-Faculty-Students-Pharmacy Staff

## Ancillary

- Providers-vendors-networks-payers
- Researchers

## Outside

- Policymakers-healthcare providers
- Patients-consumer organizations

# PCPCC Medication Management – Resource Guide

- "Integrating Comprehensive Medication Management to Optimize Patient Outcomes"
- <http://www.pcpcc.net/content/medication-management>

# The Need for Comprehensive Medication Management Services

- *“More than 3.5 billion prescriptions are written annually in the US*
- *Four out of five patients who visit a physician leave with at least 1 prescription*
- *Medications are involved in 80% of all treatments and impact every aspect of a patient’s life “*

# The 10 Steps to Achieve Comprehensive Medication Management

1

- Identify patients that have not achieved clinical goals of therapy

2

- Understand the patient's personal medication experience/history and preferences/beliefs

3

- Identify actual use patterns of all medications including OTCs, bioactive supplements, and prescribed medications

Source: "Integrating Comprehensive Medication Management to Optimize Patient Outcomes" Section 4 page 14 <http://www.pcpcc.net/content/medication-management>



# The 10 Steps to Achieve Comprehensive Medication Management

4

- Assess each medication (in the following order) for appropriateness, effectiveness, safety (including drug interactions), and adherence, focused on achievement of the clinical goals for each therapy

5

- Identify all drug therapy problems (the gap between current therapy and that needed to achieve optimal clinical outcomes)

Source: "Integrating Comprehensive Medication Management to Optimize Patient Outcomes" Section 4 page 14 <http://www.pcpcc.net/content/medication-management>

# The 10 Steps to Achieve Comprehensive Medication Management

6

- Develop a care plan addressing recommended steps, including therapeutic changes needed to achieve optimal outcomes

7

- Patient agrees with and understands care plan, which is communicated to the prescriber/provider for his/her consent/support

8

- Document all steps and current clinical status versus goals of therapy

Source: "Integrating Comprehensive Medication Management to Optimize Patient Outcomes" Section 4 page 14 <http://www.pcpcc.net/content/medication-management>

# The 10 Steps to Achieve Comprehensive Medication Management

9

- Follow-up evaluations with the patient are critical to determine effects of changes, reassess actual outcomes, and recommend further therapeutic changes to achieve desired clinical goals/outcomes

10

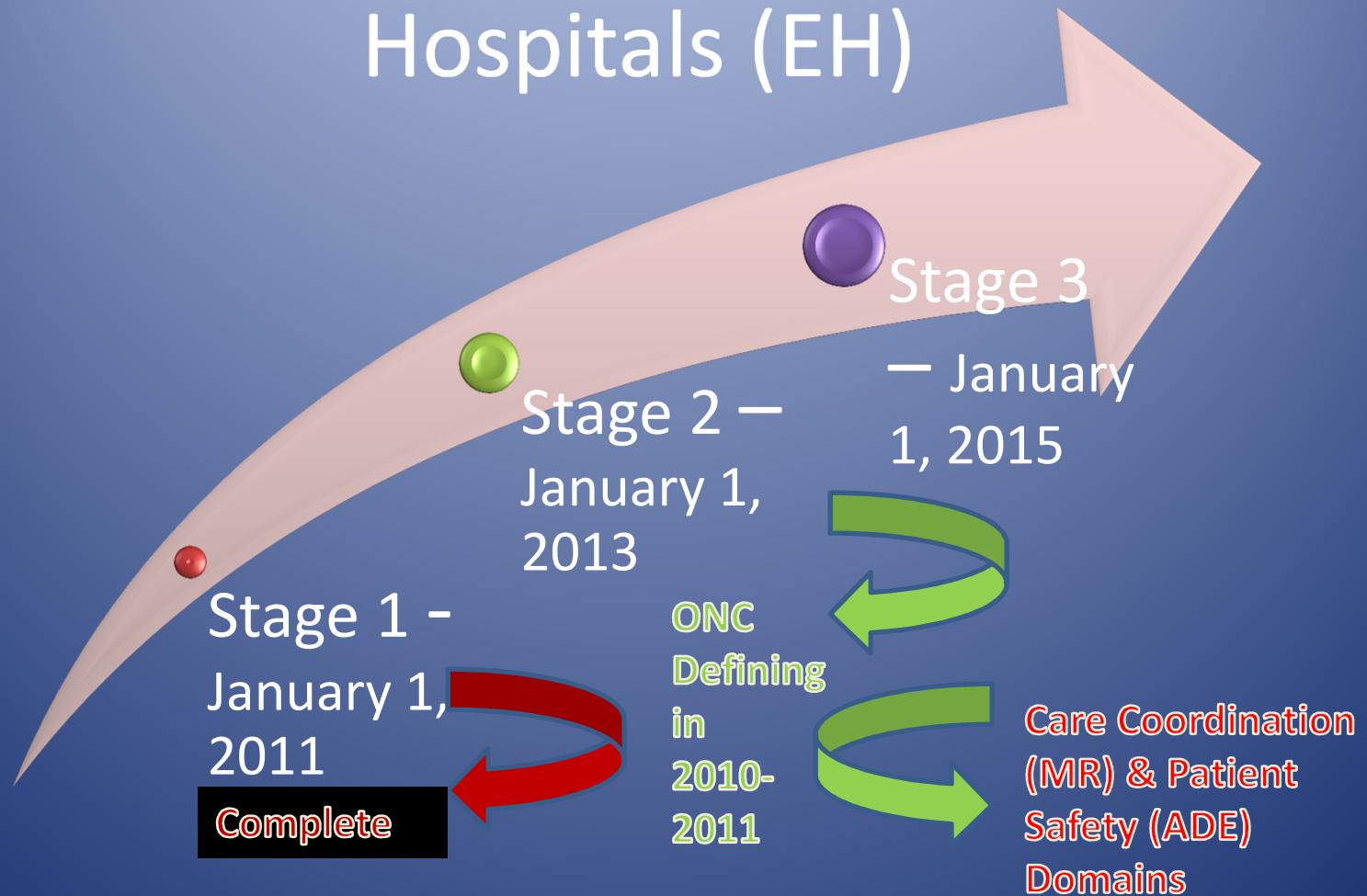
- Comprehensive medical management is a reiterative process—care is coordinated with other team members and personalized (patient unique) goals of therapy are understood by all team members

Source: "Integrating Comprehensive Medication Management to Optimize Patient Outcomes" Section 4 page 14 <http://www.pcpcc.net/content/medication-management>

# Medical Neighborhood

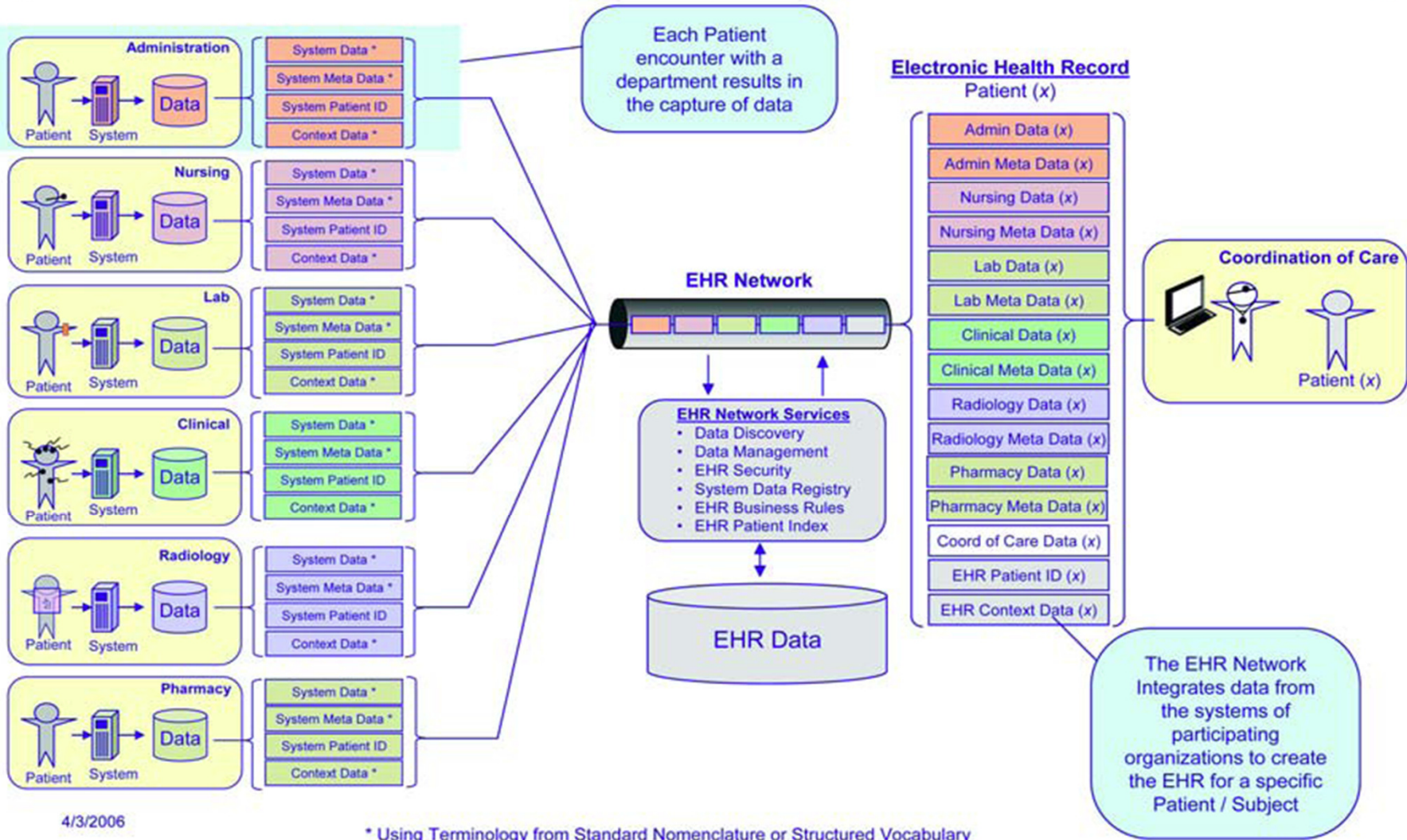


# MU of EHR – CMS Incentives for Eligible Professionals (EP) and Eligible Hospitals (EH)



# Electronic Health Record – Concept Overview

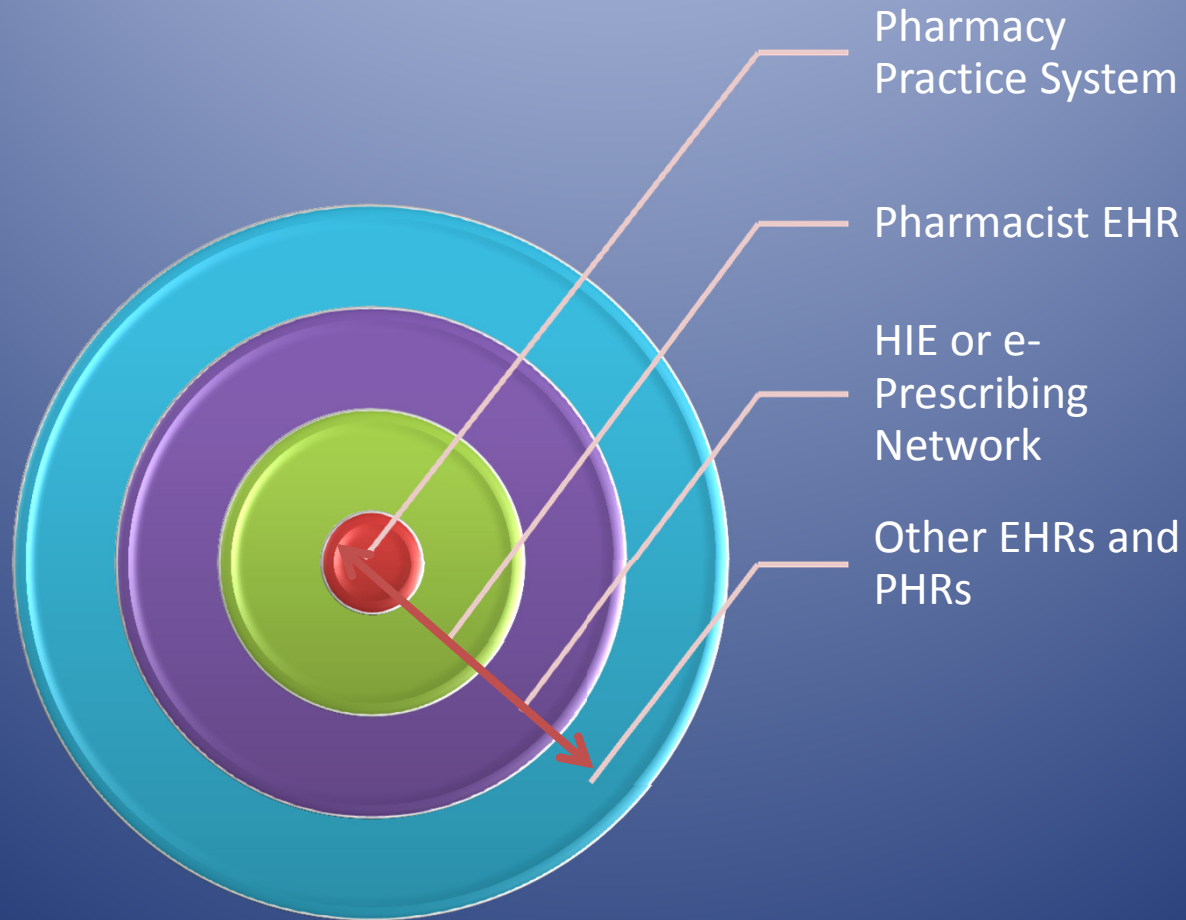
The EHR represents the integration of healthcare data from a participating collection of Systems for a single patient.



4/3/2006

\* Using Terminology from Standard Nomenclature or Structured Vocabulary

# Pharmacist EHR Information Exchange Model



# HL7 EHR Functional Profile

Direct Care

Supportive

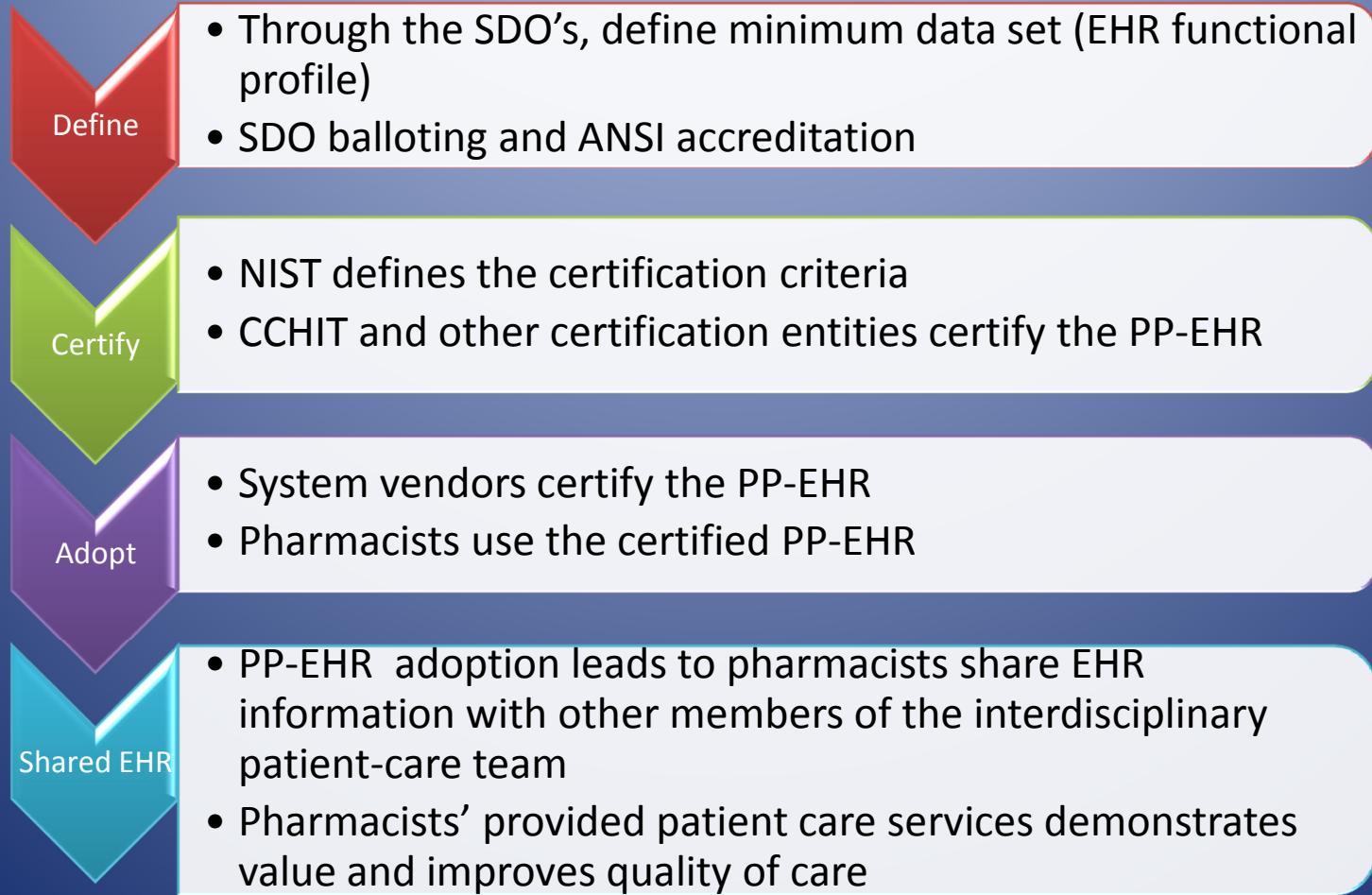
Information  
Infrastructure



# Pharmacist EHR Functionality Example

ID#	Type	Name	Statement/Description	See Also	Conformance Criteria
DC.1.8.4	F	Manage Patient Clinical Measurements  <a href="#">EN</a>	<p><b>Statement:</b> Capture and manage patient clinical measures, such as vital signs, as discrete patient data.</p> <p><b>Description:</b> Within the context of an episode of care, patient measures such as vital signs are captured and managed as discrete data to facilitate reporting and provision of care. Other clinical measures (such as expiratory flow rate, size of lesion, etc.) are captured and managed, and may be discrete data.</p>	IN.2.5.1 IN.2.5.2	<ol style="list-style-type: none"> <li>1. IF required by the scope practice, THEN the system <b>SHALL</b> capture patient vital signs such as blood pressure, temperature, heart rate, respiratory rate, and severity of pain as discrete elements of structured or unstructured data.</li> <li>2. IF required by the scope of practice, THEN the system <b>SHALL</b> capture psychiatric symptoms and daily functioning as structured or unstructured data.</li> <li>3. The system <b>SHOULD</b> capture other clinical measures such as peak expiratory flow rate, size of lesions, oxygen saturation, height, weight, and body mass index as discrete elements of structured or unstructured data.</li> <li>4. The system <b>SHOULD</b> compute and display percentile values when data with normative distributions are entered.</li> <li>5. The system <b>MAY</b> provide normal ranges for data based on age and other parameters such as height, weight, ethnic background, gestational age.</li> </ol>

# Pharmacist/Pharmacy Provider EHR (PP-EHR) Process



# Medication Management Value Set

Define

- Gap analysis on the MTM Reasons-Actions-Results proposed codes to SNOMED- CT

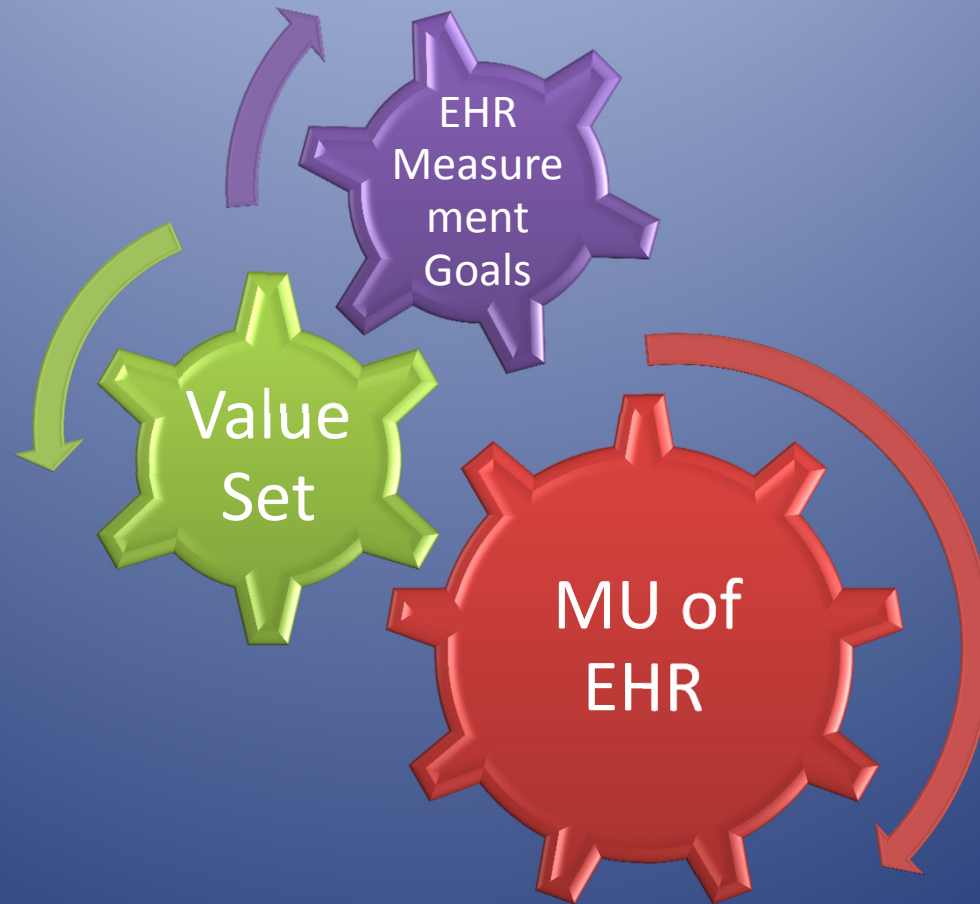
Create Value Set

- Create an MTM “Value Set”

Ongoing

- Provide ongoing mechanism for identifying SNOMED-CT codes that don't have codes

# MU of EHR



# Items Necessary for Comprehensive Medication Management

Pt's Med Experience Record

Medication Allergies & Adverse Reactions

Med History (including Immunizations)

Current Med Record

Active Drug Therapy Problem List

Therapeutic Treatment Plans shared with Pt and Practitioner

# Shared Information Available Using HIT Necessary for Comprehensive Medication Management

Connect indication for medication (reason for use)



Identify, resolve, and prevent drug therapy problems: Appropriateness, Effectiveness, Safety and Adherence



Record and evaluate drug therapy outcomes therapy; personalized therapy goals against each medical condition outcome; graph lab levels against drug changes; and record outcomes changes in med details



Provide post-marketing surveillance on appropriateness, effectiveness, safety, and adherence variables

# Shared Information Available Using HIT Necessary for Comprehensive Medication Management (cont.)

Record drug therapy problems specific to drug product, medical condition, and patient parameters



Offer clinical decision support and analysis



Support Pt participation and decision making in drug therapy



Provide Pts with individualized med information that complements the therapeutic care plan



Provide a Web site for Pts to participate in managing their meds

# Pharmacists' Activities in InterProfessional Patient Care

- E-Prescribing
- Pharmacist/Pharmacy Provider EHR (PP-EHR)
- Bi-directional exchange of clinical information
  - Meaningful Use (MU) of EHR measurement goals
  - Immunizations
  - Patient Care Services
    - The 10 Steps to Achieve Comprehensive Medication Management
    - Medication reconciliation at transitions of care
  - Quality/outcomes performance measures
    - MTM Value Set

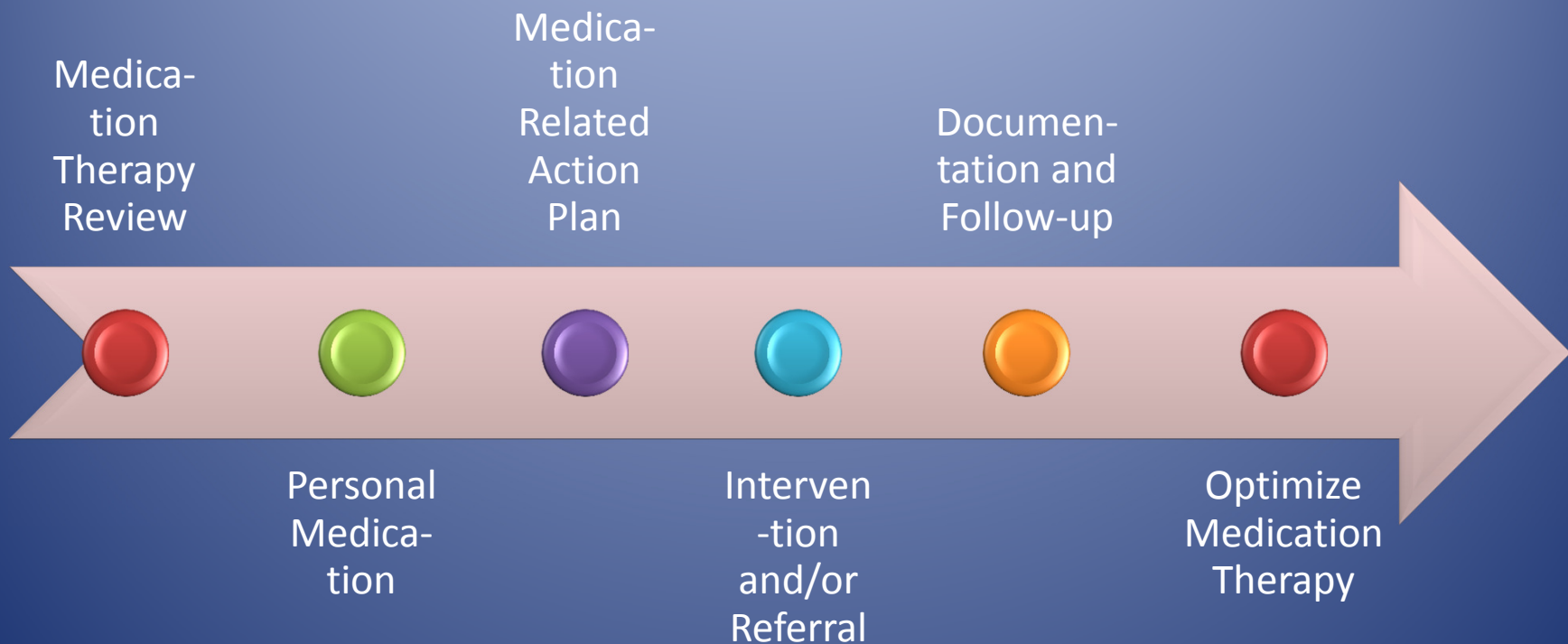


# Medication Adherence

- PCPCC – recommends all providers shouldn't look at medication adherence apart from total medication use process
- *“MTM services evaluate a patient's comprehensive active medication list for medication appropriateness, effectiveness, safety, and adherence (in this sequence).”*
- Access to EHR (not eRX alone) equals better access to medication adherence outcomes, target medication related problems and improves patient care

Source: Patient Centered Primary Care Collaborative (PCPCC). Accessed April 19, 2011: <http://www.pcpcc.net/>

# Pharmacists' MTM Process



Source: Medication Therapy Management in Pharmacy Practice: Core Elements of MTM Service Model; Version 2.0; March 2005;  
<http://www.pharmacist.com/AM/Template.cfm?Section=Pharmacists&TEMPLATE=/CM/ContentDisplay.cfm&CONTENTID=19013>

# The 10 Steps to Achieve Comprehensive Medication Management



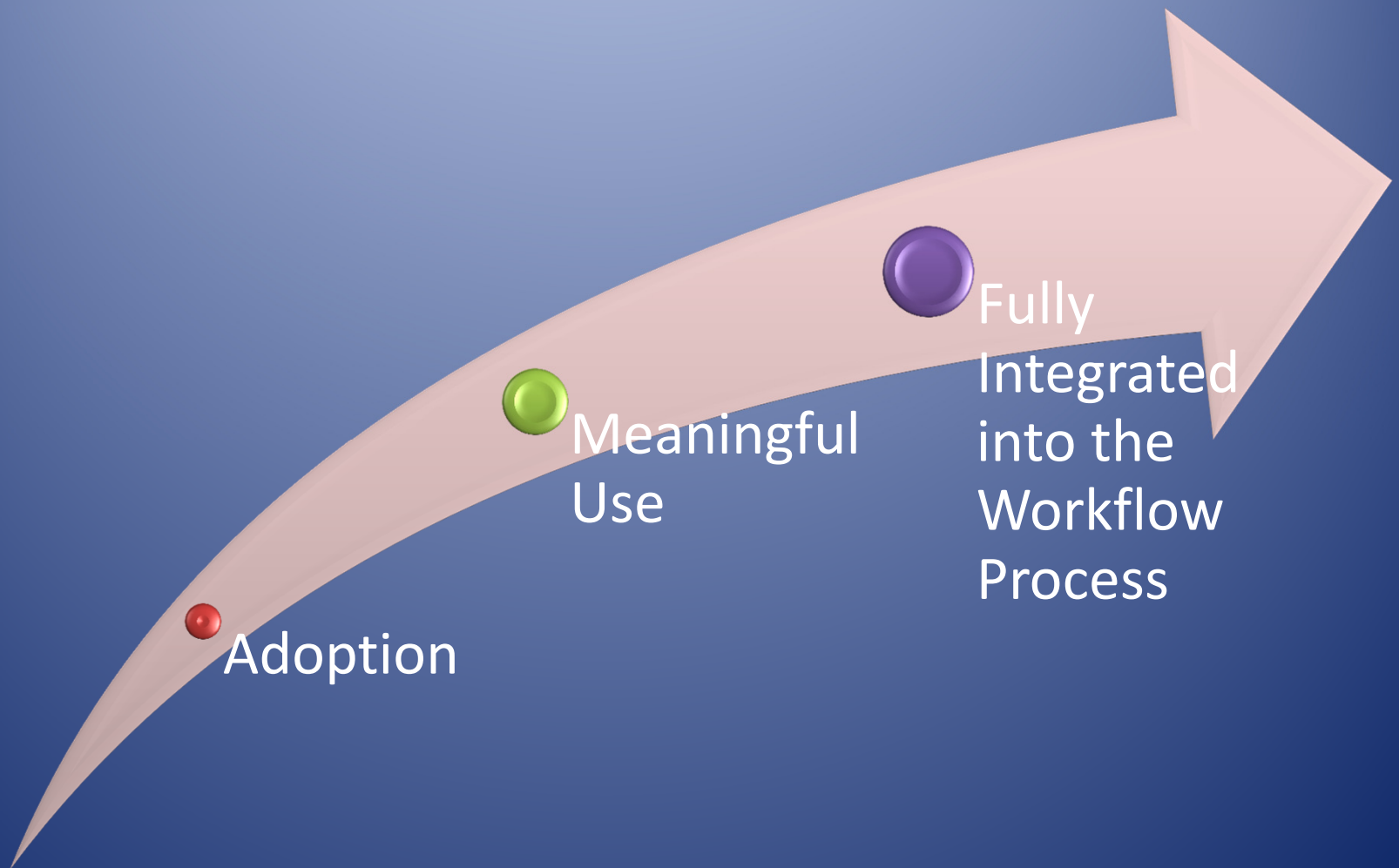
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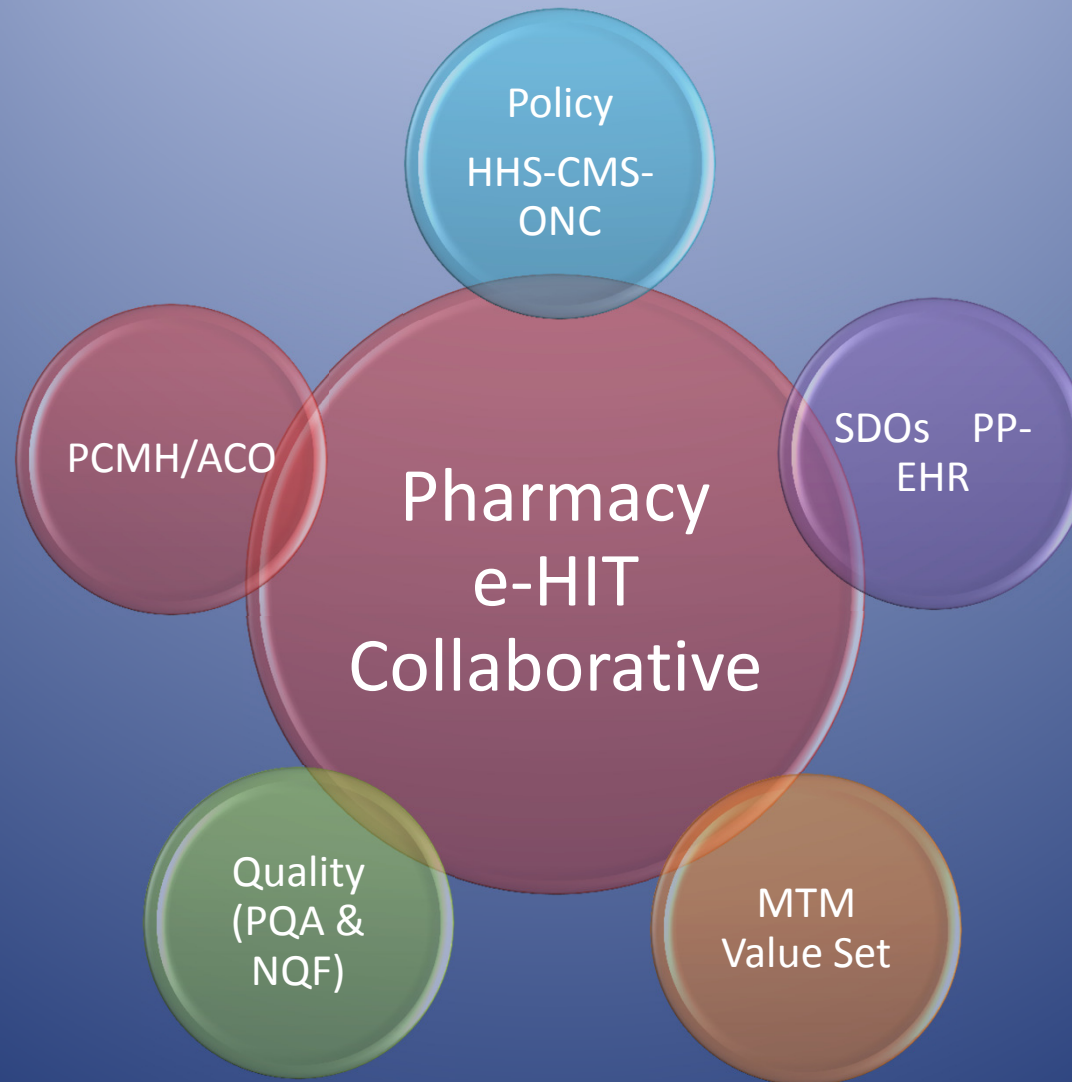
# Cultural Diffusion



Adoption

Meaningful  
Use

Fully  
Integrated  
into the  
Workflow  
Process



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