National Committee on Vital and Health Statistics

Glide Path for Meaningful Use of EHR in Medicaid : 2011 and Beyond

Anthony Rodgers, Director
Arizona Health Care Cost Containment System
April 29, 2009

Vision of the Transformation of Medicaid

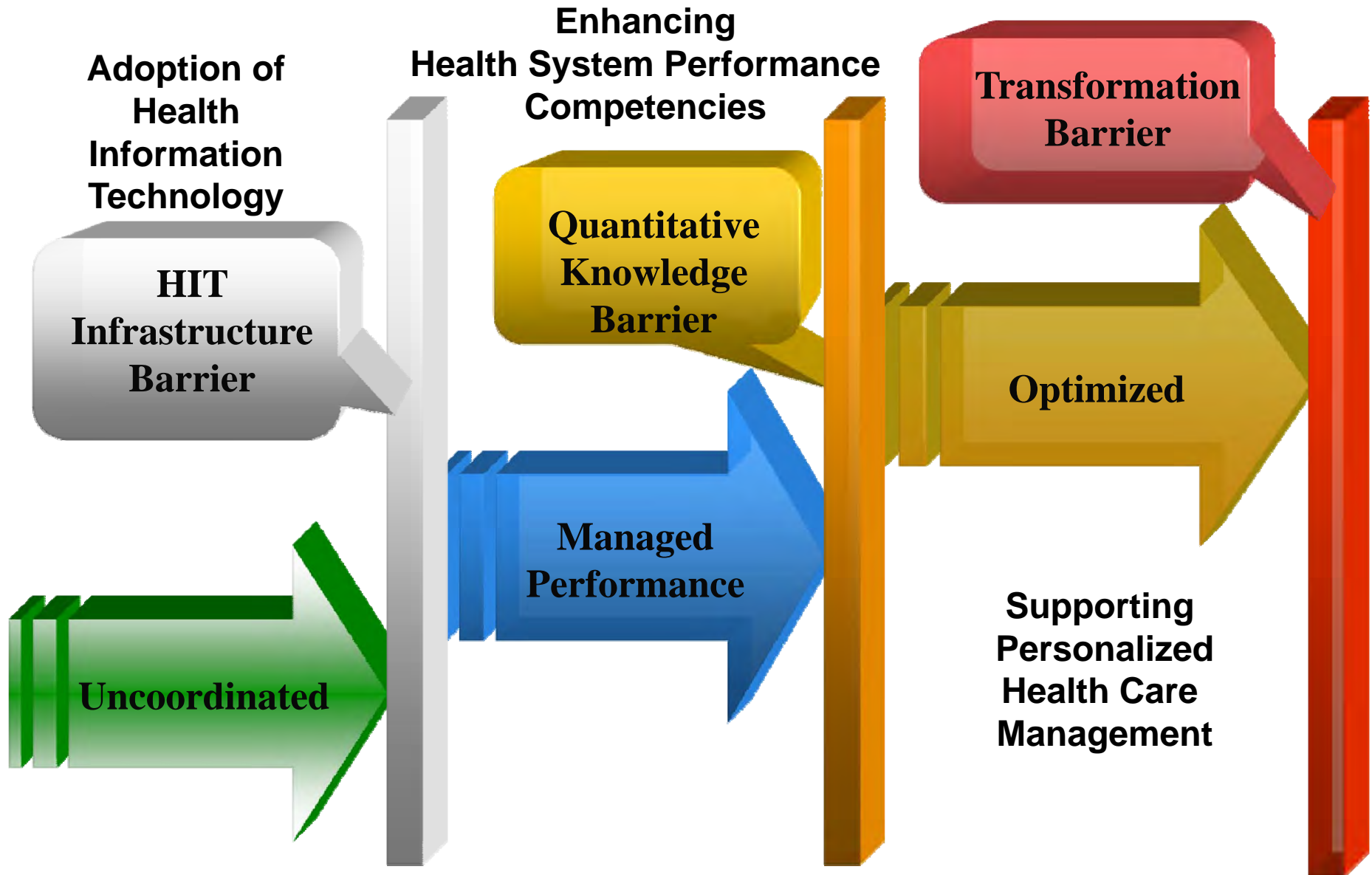**Electronic Health Record**

Informed, Activated Patient

Productive Interactions

Prepared Clinical Team

Clinical and Value Decision Support Tools

Overcoming Barriers in Medicaid Health System To Achieve Health Care Transformation Maturity
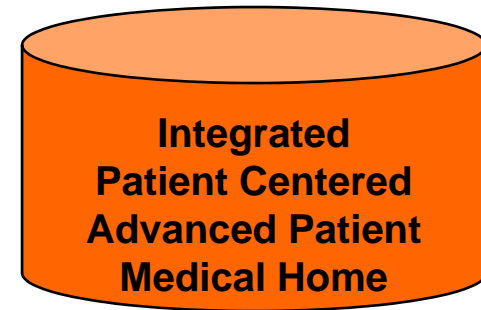
Adoption of Health Information Technology

Enhancing Health System Performance Competencies

Transformation Barrier

HIT Infrastructure Barrier

Quantitative Knowledge Barrier

Optimized

Managed Performance

Uncoordinated

Supporting Personalized Health Care Management

Upgrading the Health System

Health System 1.0

Health System 2.0

Health System 3.0

Initial Infrastructure

Performance Management

Optimized Performance Management

Encounter based Uncoordinated Care

Proactive Quality And Cost Performance Management

Integrated Patient Centered Advanced Patient Medical Home
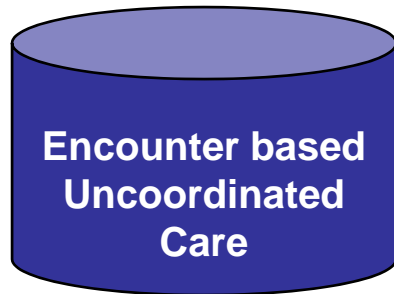
Driving Health System Performance Through Meaningful Use of EHR

Health System Performance Metrics

Medical Cost Trends

- Medical Cost
- Utilization
- Medical Errors
- Cost per episode of care

Manpower

- Staffing
- Competency
- Knowledge

Quality

- HEDIS
- Contractual
- Managed Care

System Capacity

- Volume
- Productivity
- Access to care
- Units of service

Operations

- Efficiency
- Timeliness
- Cycle times

Compliance

- Licensure
- Contractual
- HIPAA

Performance Focus

Health Care Delivery System :

OPS/ER

- Med. cost per unit
- Patient Safety
- Care Coordination
- Quality
- Cost Effectiveness

Hospitals

- **Cost per day**
- **Error rates**
- **Patient Safety**
- **Quality Performance**

Community Providers & Others

- **Care Management**
- **Care Coordination**
- **Patient Safety**
- **Quality performance**
- **Availability**

Consumer/ Patient

- Compliance
- Satisfaction
- Health Behaviors

Payers

- Medical cost
- .Quality of Care
- Compliance
- Payment timeliness

Synergies

HIT Strategies

Private Sector

HIT Adoption

Public Sector

Glide Path To Meaningful Use

Structural Development Phase
Initial Use Phase
Optimized Use Phase

Structural Development Phase 2010 thru 2011

- Acquisitions and Installation of a certified EHR
  - E-prescribing
  - Computerize order entry results reporting
  - Quality reporting capabilities
  - Clinical Decision Support capability
- Ability to exchange continuity of care documents (CCD) at each patient care delivery point
- Clinical Data Repository
- Practice business process reengineering and EHR integration

HIT Structural Development Requirements

- Health System strategic HIT plan
  - Approaches, methods, and timelines for organized EHR adoption assistance and financial support
  - HIE network infrastructure and EHR interface design development
  - Clinical Data Repositories data architecture design and development and data flows
- System acquisition, upgrade, or integration
- On-going technical support and assistance centers
- Practice reengineering support
- Clinical practice staff training and EHR competency development
- Clinical Decision Support integration
- Public Health Alert and Monitoring system integration
- Case management and MCO systems integration
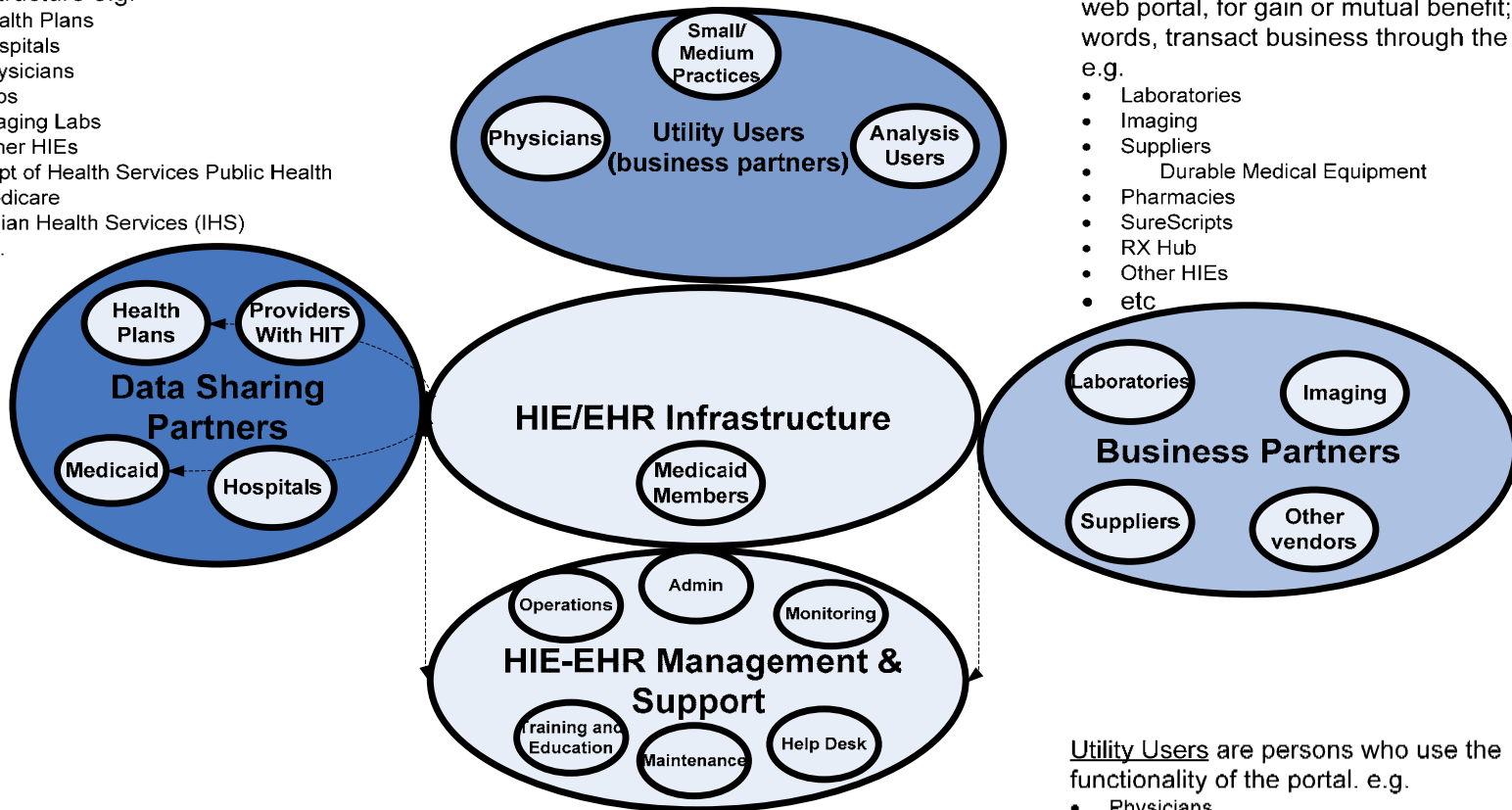- Integration of patient decision support tools

Relationship Development in the Structural Phase

Data Partners are organizations that share or exchange data through the HIE-EHR Infrastructure e.g.
- Health Plans
- Hospitals
- Physicians
- Labs
- Imaging Labs
- Other HIEs
- Dept of Health Services Public Health
- Medicare
- Indian Health Services (IHS)
- etc.

Business Partners are organizations that expose web content and applications through the Utility web portal, for gain or mutual benefit; in other words, transact business through the Utility. e.g.
- Laboratories
- Imaging
- Suppliers
-     Durable Medical Equipment
- Pharmacies
- SureScripts
- RX Hub
- Other HIEs
- etc

Utility Users (business partners)
- Small/Medium Practices
- Physicians
- Analysis Users

Data Sharing Partners
- Health Plans
- Providers With HIT
- Medicaid
- Hospitals

HIE/EHR Infrastructure
- Medicaid Members

Business Partners
- Laboratories
- Imaging
- Suppliers
- Other vendors

HIE-EHR Management & Support
- Operations
- Admin
- Monitoring
- Training and Education
- Maintenance
- Help Desk

Utility Users are persons who use the functionality of the portal. e.g.
- Physicians
- Small/medium Practices
- Analysis users (TBD)
- Emergency Depts
- Dept of Public Safety
- Department of Health Services
- etc

Administrative and management users use the portal to access administrative and management applications supported by the portal.

EHR "Initial Use" Phase 2011 thru 2012

- Building EHR Meaningful Use Competency (System Burn In)
- Technical assistance and support for provider practice
- Focus on productivity improvement
- Data conversion assistance and support
- EHR system failure "risk reduction" strategies
- External data sources and HIE interface connectivity
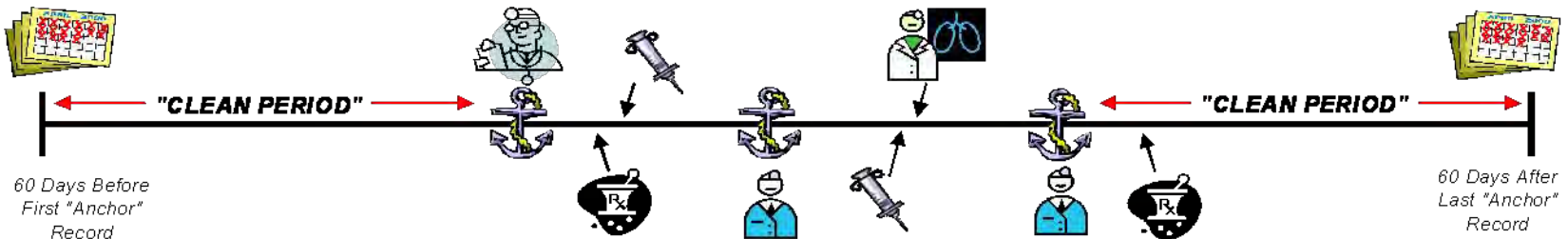
Medical Home 1.0
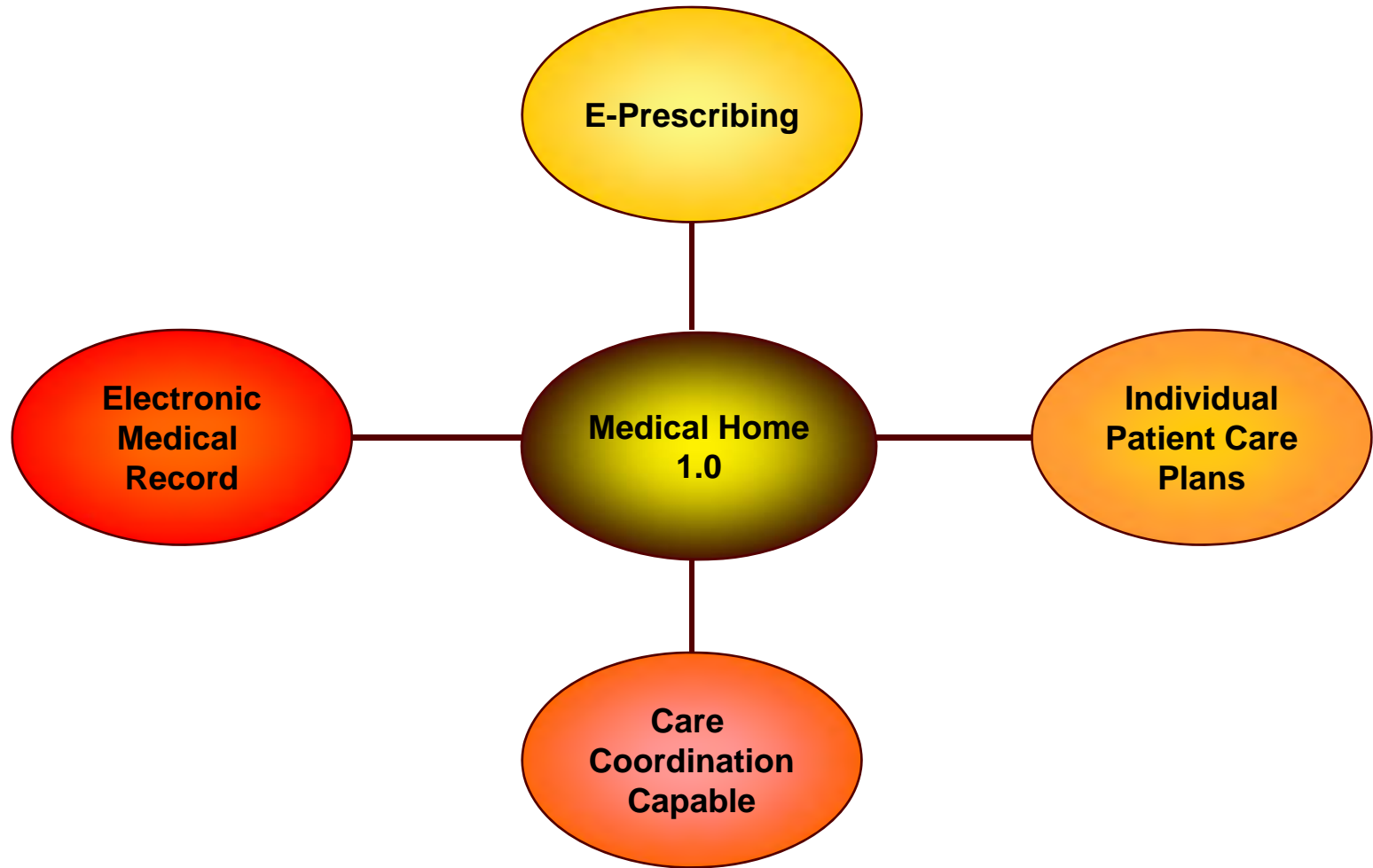
EHR Managed Performance Phase

- Participation in quality networks for comparable performance analysis and improvement
- Configuration and effective use of clinical decision support
- Web connectivity with patients for compliance management (electronic reminders, messaging, and telehealth)
- Use of health e-learning tools for patient health literacy and compliance
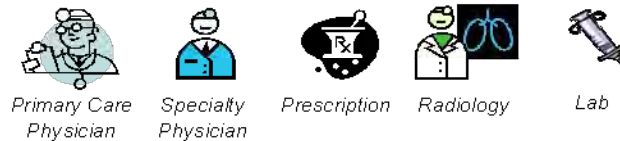- Electronic performance reporting
- Disease registries

Cost and Quality Performance Management Episode of Care Tracked through an EHR

THE LIFE OF A CHRONIC SINUSITIS (w/o SURGERY) EPISODE

Outcome Cost = $1,020

"CLEAN PERIOD"

"CLEAN PERIOD"

60 Days Before First "Anchor" Record

60 Days After Last "Anchor" Record

Predicted Cost = $950

Primary Care Physician   Specialty Physician   Prescription   Radiology   Lab

First Anchor: You visit your Primary Care Physician for sinusitis. He gives you a prescription and orders blood work. He is concerned that you have a history of sinus infections, so he refers you to an ENT. The PCP visit becomes the first anchor and, because it has been more than 60 days since you have visited him for sinusitis, it begins the episode. The PCP visit, prescription and lab work together form a cluster within the episode.

Second Anchor: You visit the ENT. She orders a sinus X-ray and more blood work. You schedule a follow-up appointment. The ENT visit, X-ray and lab work form another cluster within the same episode.

Third Anchor: You visit the ENT for your follow-up appointment. She tells you that the results of the tests came back negative. She prescribes a preventative medication to help reduce the occurrence of sinusitis. The ENT visit and prescription form another cluster within the same episode.

Conclusion: The medication worked and you have not been back to either doctor within 60 days from your last visit for this illness. Since it has been 60 days since the last anchor record for this illness, the episode is now considered concluded.

Performance Management

- High performing self correcting health systems
- Cost and quality transparent
- Vertically and horizontally integrated care process
- Patient centered
- Patient and family actively engaged
- Reduced cycle time between clinical discovery and comparative effectiveness information and wide spread community practice
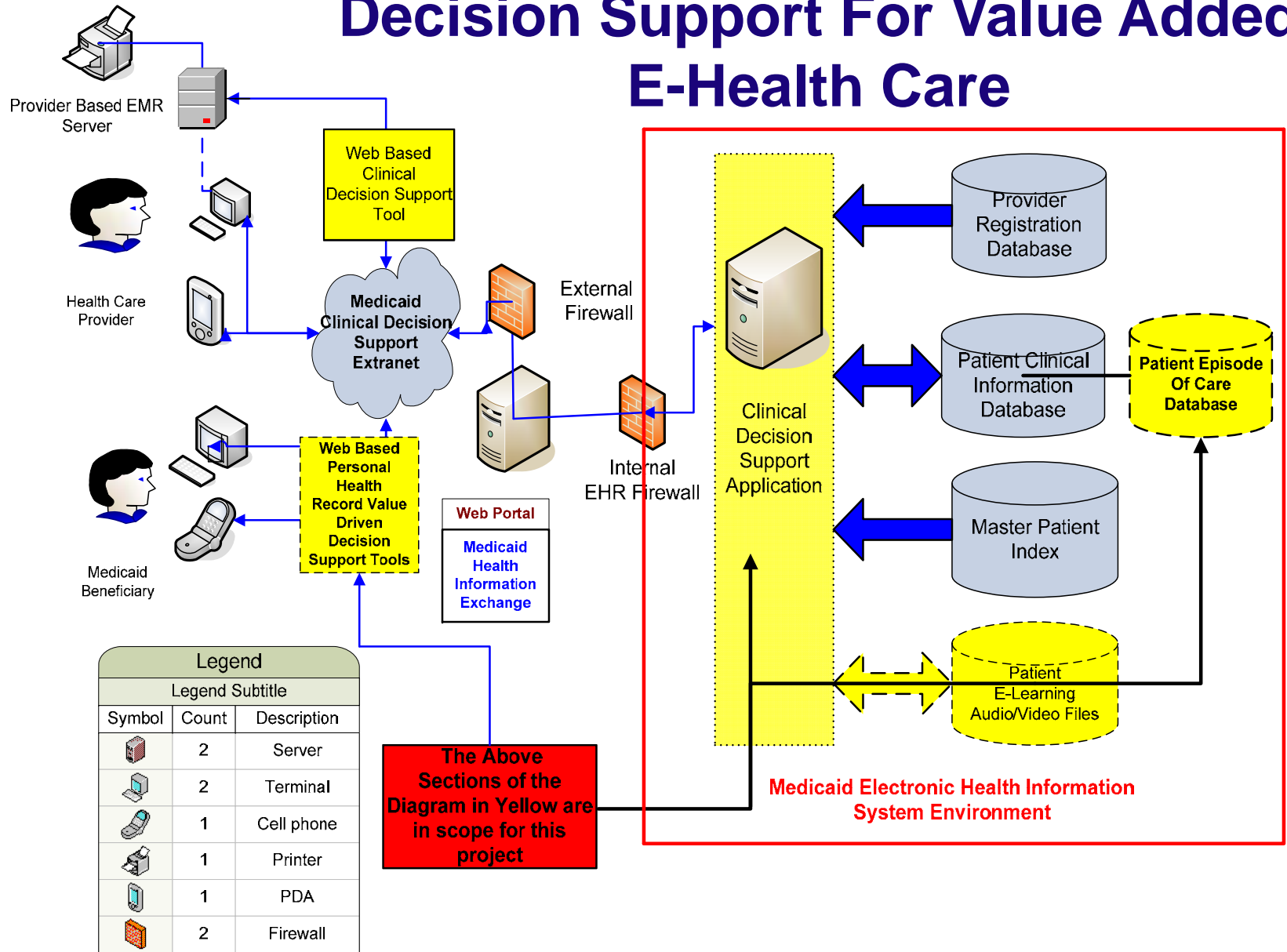
Medical Home 2.0
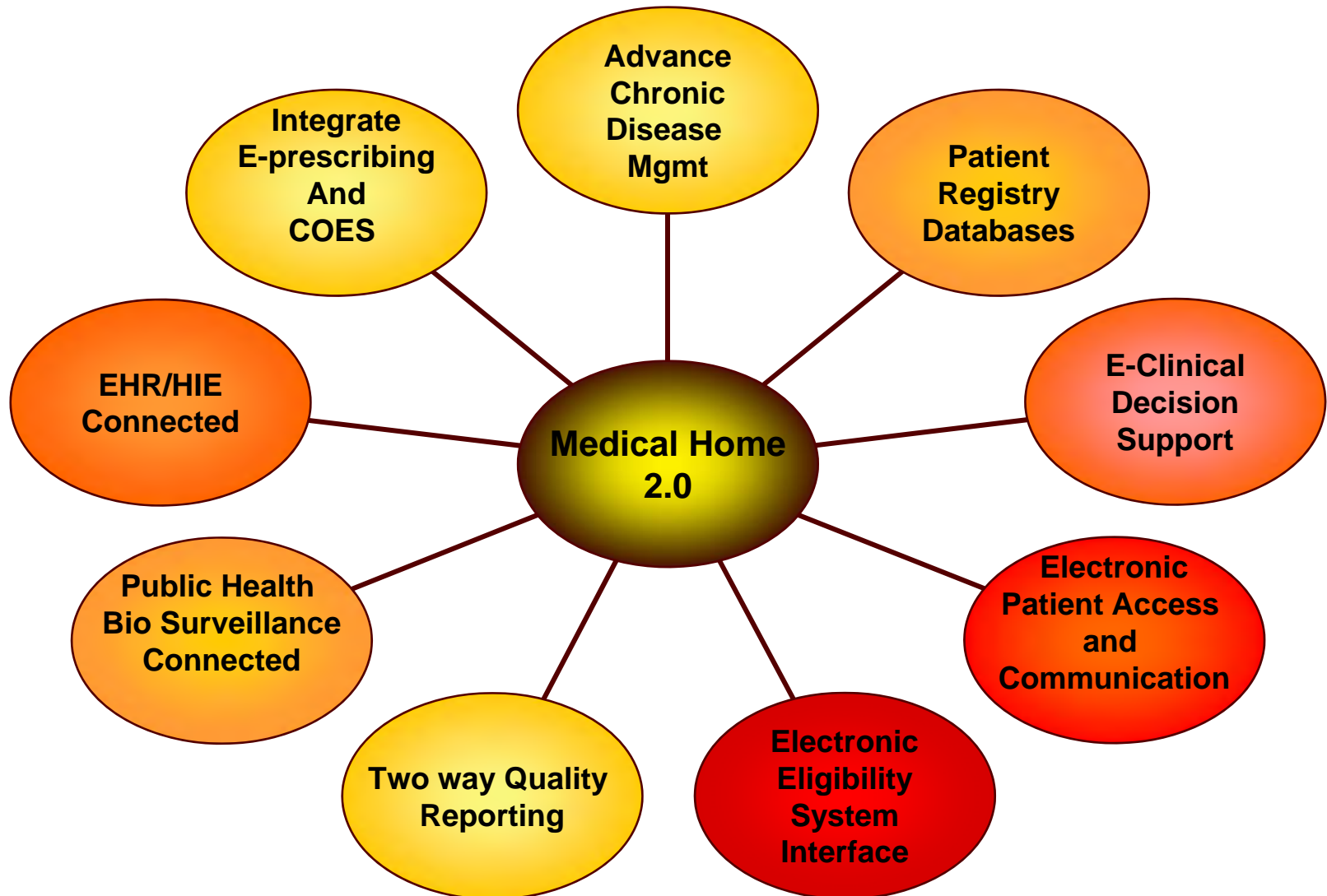
EHR "Optimized Use" Phase 2013 and Beyond

- System configuration for optimization of patient management
  - Optimization analysis and system configuration
  - Training and support
  - Best practice
- Personal Electronic Health Record Extensions from the EHR
- Advanced messaging and alerts
- Integration of Web 2.0 functionality for patient support and care management
- Integration of remote monitoring tools, telemedicine, telehealth and health e-learning functionality and tools
- Integrated with health plan care management systems
- Translational research participation and quality network infrastructure

Integrating Clinical and Patient Decision Support For Value Added E-Health Care


Provider Based EMR Server

Web Based Clinical Decision Support Tool

Health Care Provider

Medicaid Clinical Decision Support Extranet

External Firewall

Web Based Personal Health Record Value Driven Decision Support Tools

Medicaid Beneficiary

Internal EHR Firewall

Web Portal

Medicaid Health Information Exchange

Clinical Decision Support Application

Provider Registration Database

Patient Clinical Information Database

Patient Episode Of Care Database

Master Patient Index

Patient E-Learning Audio/Video Files

Medicaid Electronic Health Information System Environment

The Above Sections of the Diagram in Yellow are in scope for this project

Legend		
Legend Subtitle		
Symbol	Count	Description
	2	Server
	2	Terminal
	1	Cell phone
	1	Printer
	1	PDA
	2	Firewall

21st Century Organizational Competency In Medicaid

Customer Care	Operations	Medical Management	Financial Management
Web based Electronic Eligibility Screening integrated with EHR	Electronic Claims EDI integrated with EHR	Utilization Management integrated with EHR	Expenditure management
Web based Provider Information Access and Administrative Functions	Contracting & Network Mgmt Tools with EHR requirements	Quality Improvement Management	Rate Setting Reimbursement Management
Web based Member Communications and Feedback and Compliance management	Health Information Exchange/ Electronic Health Records/E-Prescribing Integration	Disease Management integrated with clinical decision support	Policy Modeling and Planning
Electronic Customer Relations Management Integrated with CDS	Data Warehouse and Decision support tools	Case Management integrated with EHR	Financial Performance Reporting
Web Based wellness and health e-learning	Electronic Quality Reporting	Predictive Modeling and Medical Risk Management	Fraud and Abuse Monitoring

Medicaid e-Health
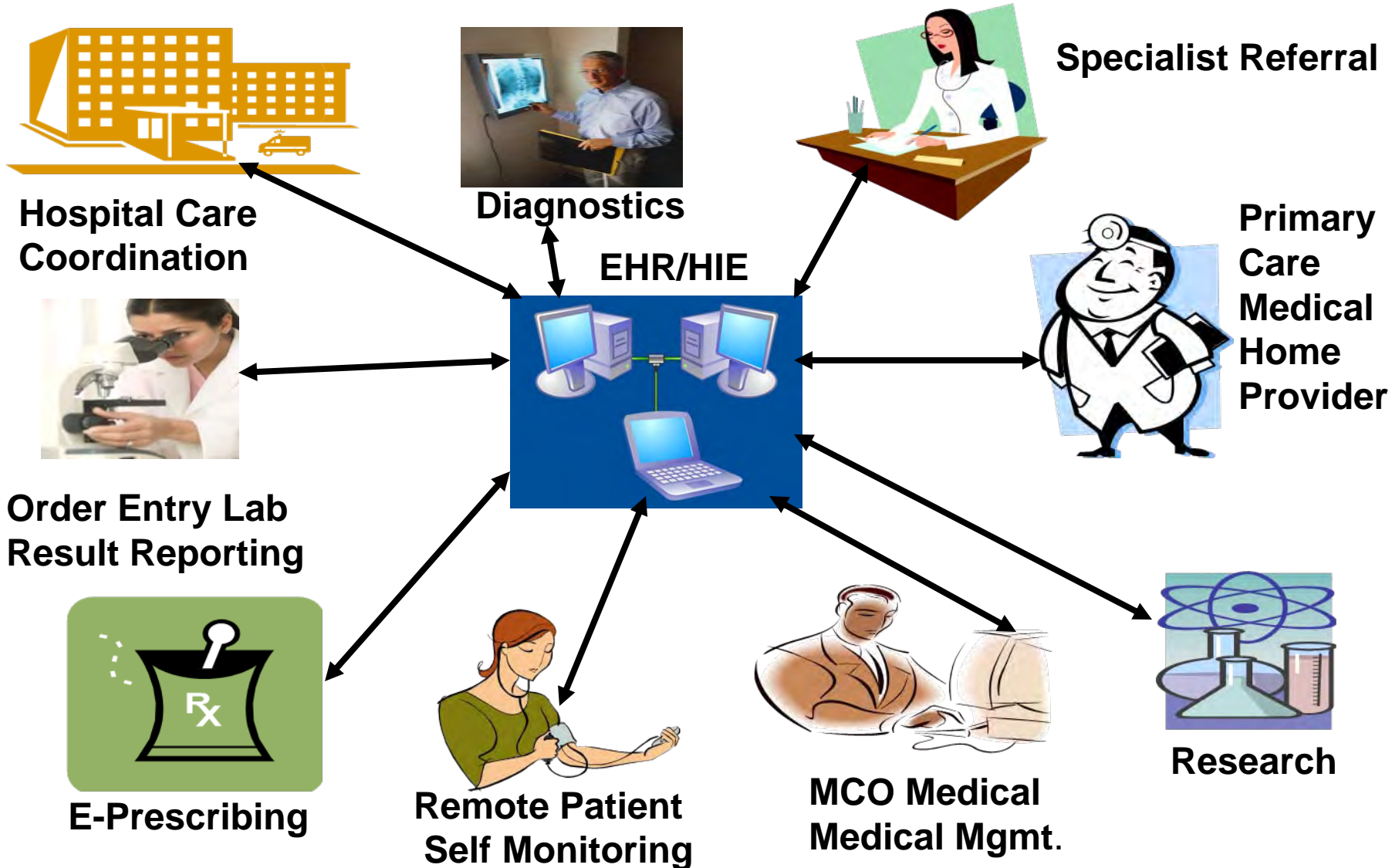# Information Technology Environment
2011 and Beyond
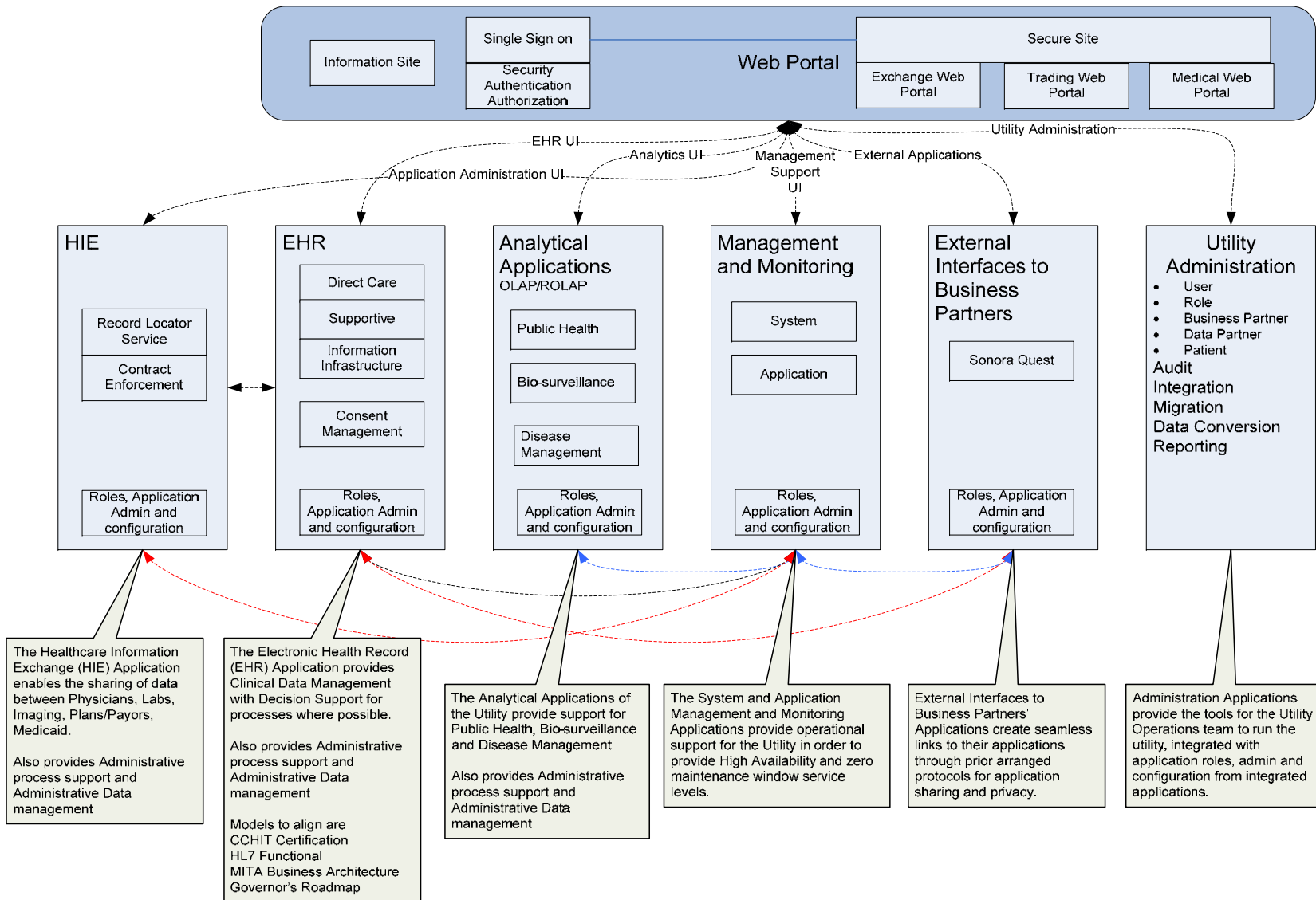
Medical Home 3.0
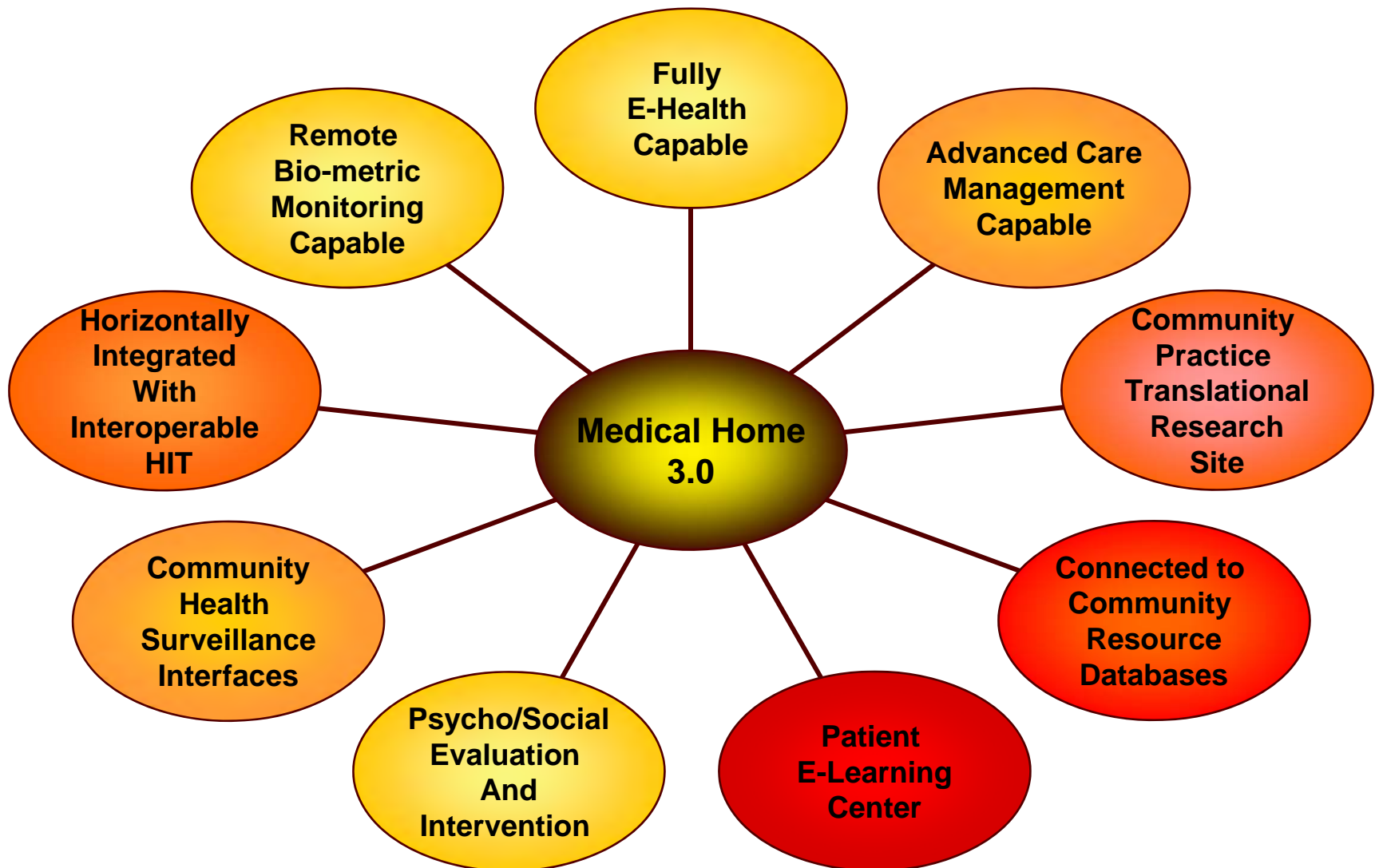
Optimized Healthcare System 3.0 Maturity

- **Fully integrated and coordinated patient centered health systems** including prevention, primary care, specialty care, hospital/institutional, population, and community health;
- **Performance focused on individual, family, population, community, and environmental** factors that impact health and wellbeing;
- **Comparable quality and cost performance** at individual, population, community, state, and national level;
- **Health care networks resources designed and organized around the individual** health care plan and population health care needs including health, psychosocial, and community resources;
- **Aligned clinical decision support and patient decision support tools** that automatically update clinical and patient decision support applications and information and that are integrated with knowledge resources;
- **electronic health record exchange capabilities** that reliably and securely move information among health systems and networks to optimize care coordination;
- **Accountable systems that optimize health care system efficiency, effectiveness, and quality**, increase health system capacity clinical care, and drive new best practices and clinical discoveries.

The E-Health Connected Medicaid Health System

Questions?