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Using Health Information Technology to  
Transform Medicaid Into  
*21<sup>st</sup> Century Medicaid Healthcare  
System*

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Anthony Rodgers, Director  
Arizona Health Cost Containment System  
Monday September 15, 2008  
3:30 to 5:00 pm

***“It's hard to lead a cavalry charge if you think you look funny on a horse.” ADLAI STEVENSON***

# **Understanding the new world of Health Information Technology and HIE/EHR**



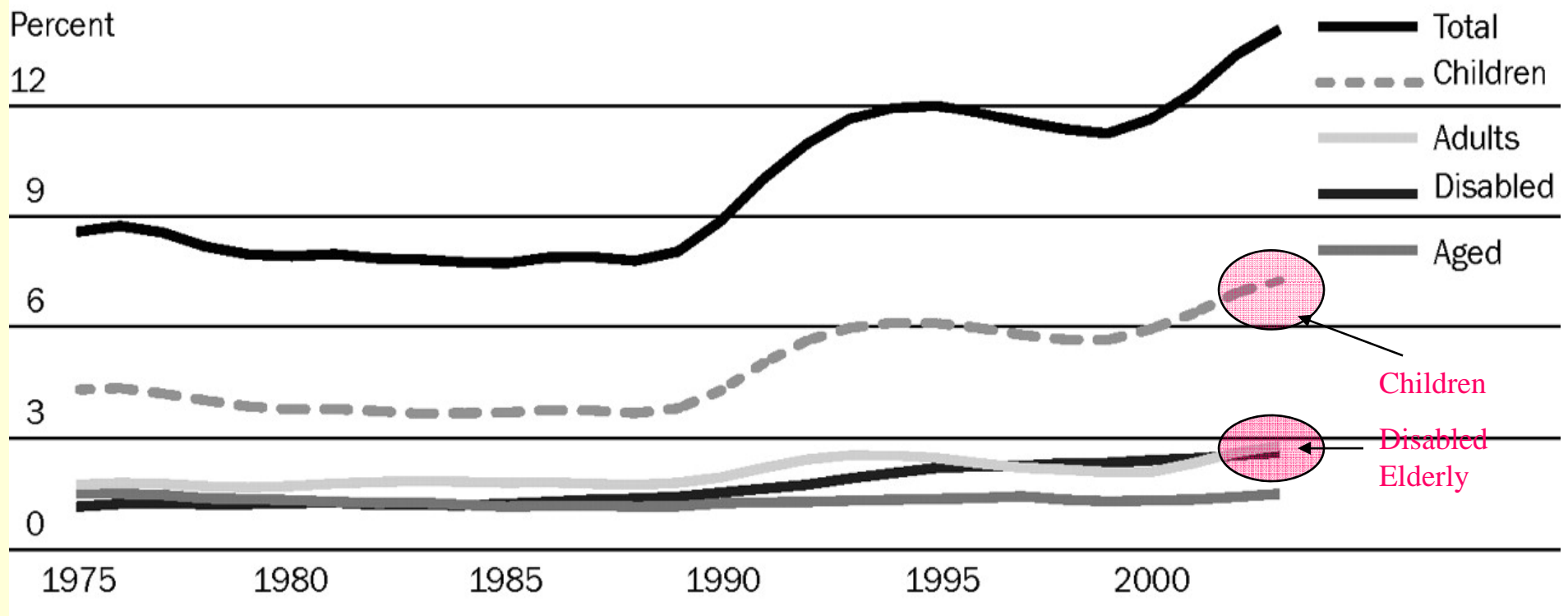
# **Leadership in Stormy Times Requires Great Vision and Know How**



**Can you see what's on the horizon?**

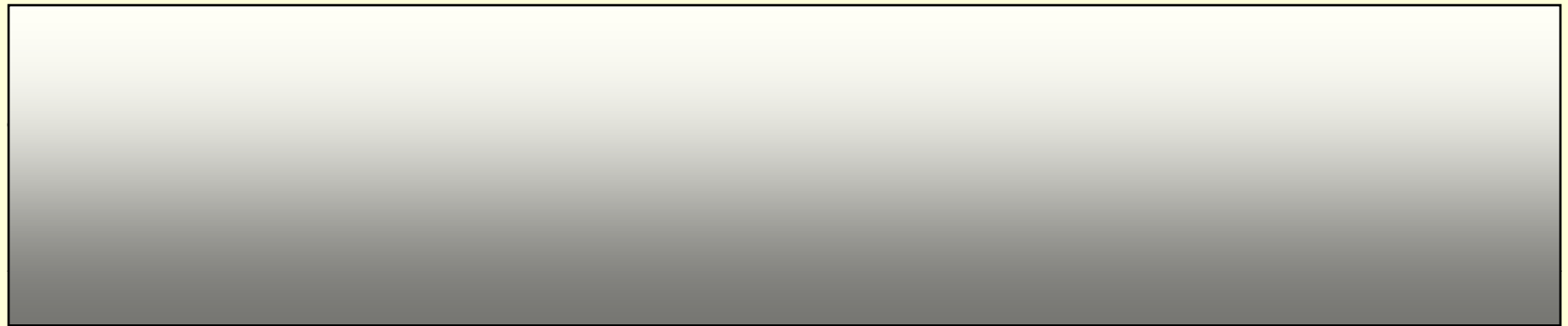
# Medicaid Enrollment Compared to U.S. Population

**Medicaid Enrollment As A Share Of The U.S. Population, By Category Of Assistance, 1975-2003**

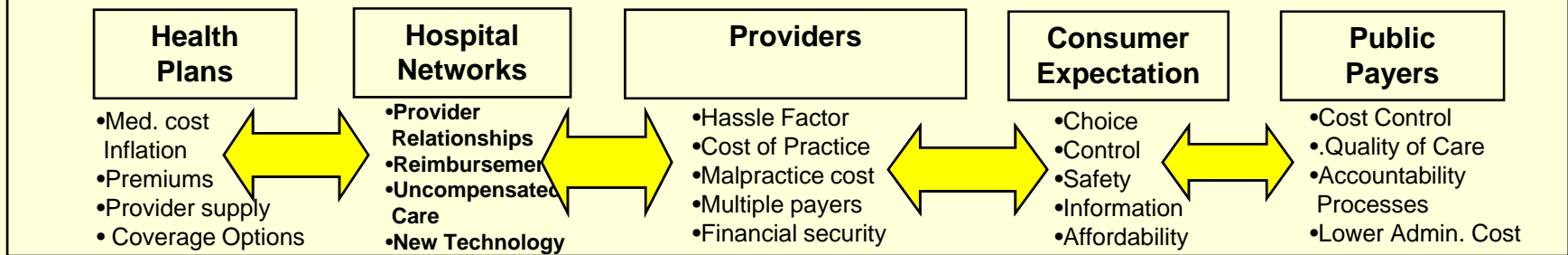


**SOURCE:** Authors' analysis of data from HCFA/CMS-64; HCFA-2082; Medicaid Statistical Information System (MSIS); Centers for Medicare and Medicaid Services (CMS) Office of the Actuary, National Health Accounts; and *Medicare and Medicaid Statistical Supplement*.

# Scan of State Health Care Environments



## Strategic transformation Issues:



Synergies

## State based Strategic HIT Initiatives:



# Key Organizational Strategic Focus Areas for Medicaid

|  |  |
|--|--|
| <b>Strategic Focus # 1:<br/>Cost Containment</b>   | Medicaid is under greater pressure to contain cost.  |
| <b>Strategic Focus #2:<br/>Quality and Access</b>  | Improve health care quality, access to primary care services and community based health care options to reduce overall cost, reduce health disparities, enhance beneficiary wellness, and improve quality of life.   |
| <b>Strategic Focus #3:<br/>Uninsured</b>   | Medicaid is under greater pressure to reduce the number of uninsured to minimize the economic and health impact on the community.  |
| <b>Strategic Focus #4:<br/>Program Effectiveness<br/>and Organizational<br/>Capability</b> | <p>Medicaid is expected to assure program integrity and effectiveness and optimize health care value for tax payer dollars.</p> <p>Medicaid must enhance organization's technology, information system infrastructure, and essential organizational core competencies and program capacity to remain relevant as health care coverage organizations.</p> |

# **Medicaid Health System Transformation Performance Metrics**

- **Lower pharmacy PMPM cost**
- **Lower Diagnostic PMPM cost**
- **Higher percentage of LTC members in home and community based settings**
- **Lower bed days and admissions per 1000**
- **Lower cost overall for long term care PMPM cost**
- **High member satisfaction**
- **High provider satisfaction**
- **Lower number of emergency room visits per 1000**
- **Greater healthcare access and quality of care**
- **Greater costs transparency and MCO program compliance accountability**
- **Reduce provider cost administrative cost**

# Historic Barriers to System Transformation

**Lack HIT Enabler Technologies**

**Lack of Public Private Synergy**

**Lack Financial Investment**

**Misaligned Incentives**

**Organizational Competencies**



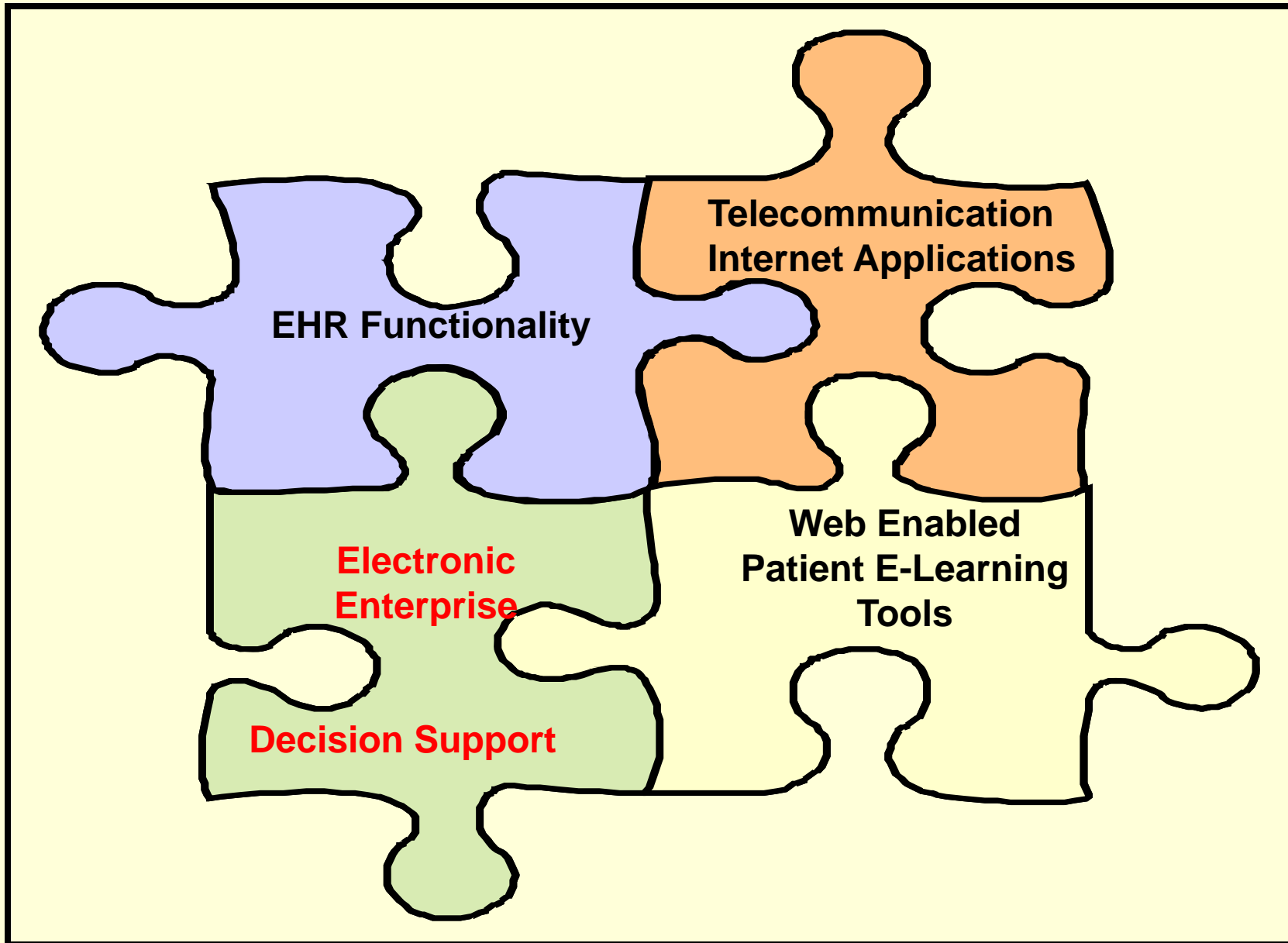
# **The Purpose of Transforming the Medicaid Health Care System**

***To improve the healthcare systems' efficiency, patient care quality, foster the rapid and continuous adoption of clinical best practices, and improve public health's emergency and disaster response.***

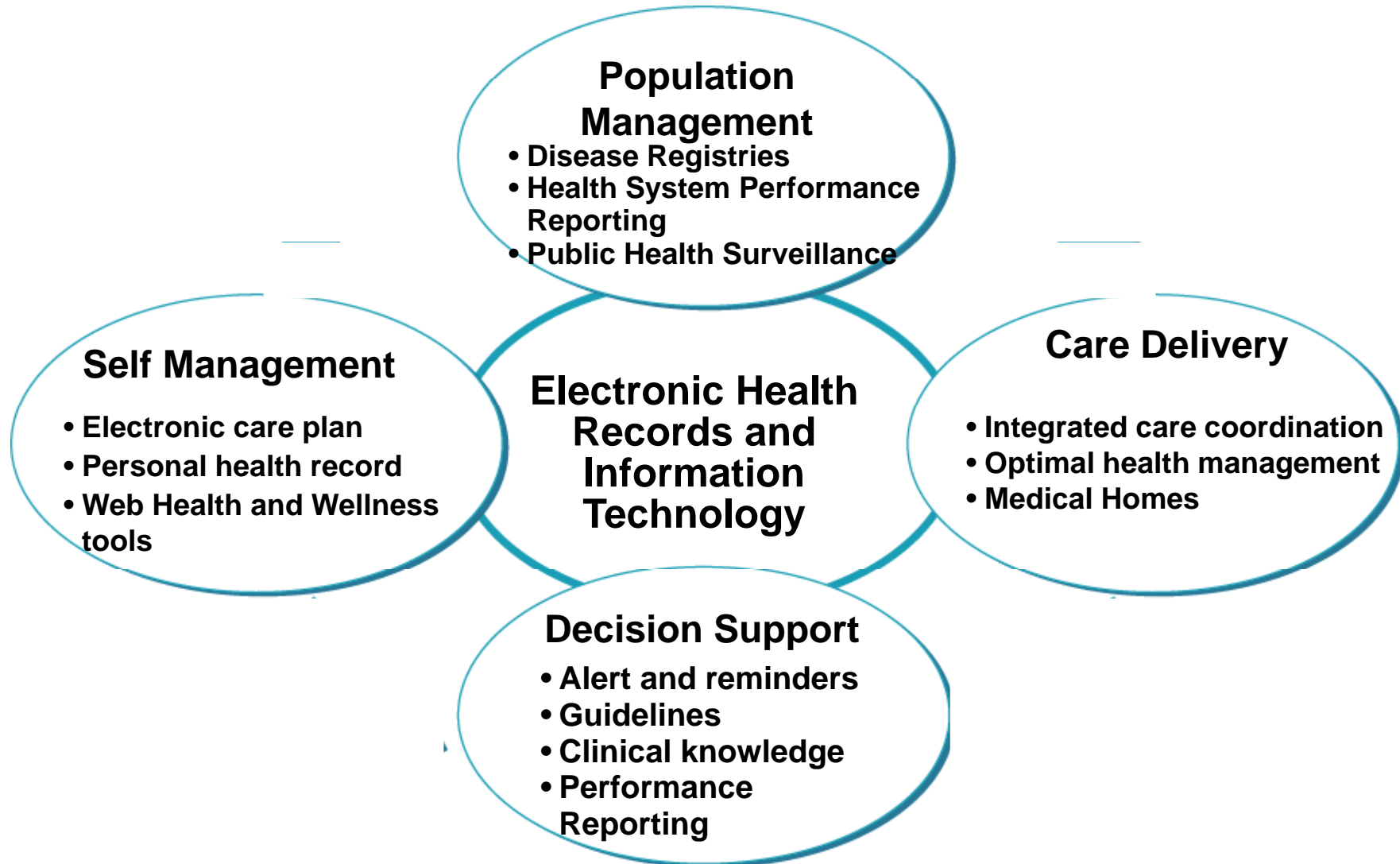
# Elements of a Transformed Medicaid Healthcare System

- **Virtually integrated healthcare systems** able to access and exchange secure sources of the patient health information.
- **Web accessible health information and tools** that supports the productive interaction between health care provider and patient.
- User “friendly” web accessible **health and wellness information and tools that raises Medicaid member health literacy** and supports them in active participation in their care management.
- Health care system that has **cost and quality transparency**.
- **Widespread adoption of health information technologies** that facilitate and supports the provision of evidence based, cost effective, and quality care management.

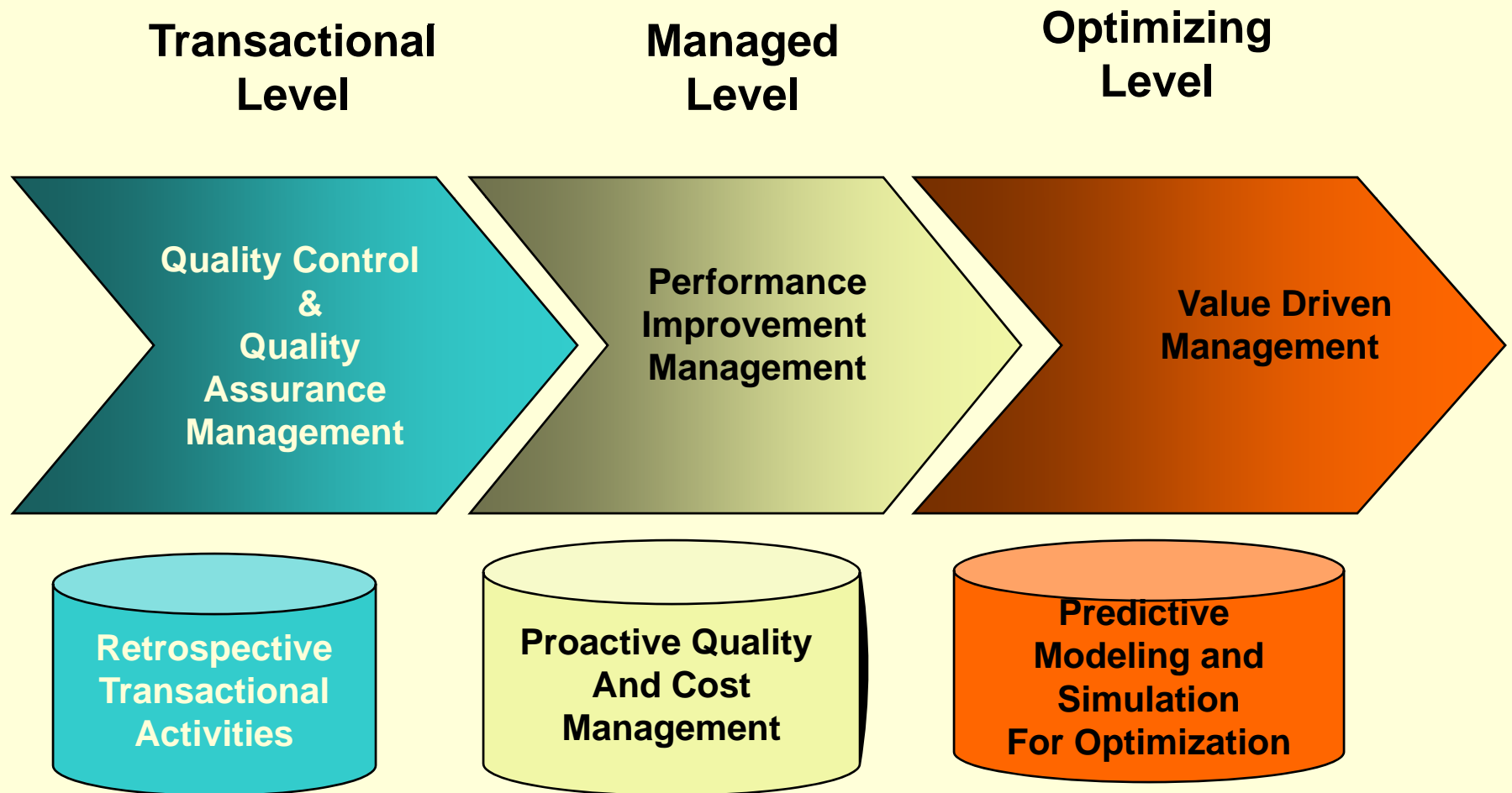
## Pieces to the Puzzle for a 21<sup>st</sup> Century Medicaid Health System



# Electronic Health Records System Transformation Enabler



# Maturing Medicaid Healthcare System Capability



# Health Care Transformation Maturity Model



# 21<sup>st</sup> Century Organizational Core Capabilities and Competencies In Medicaid

| Customer Care  | Operations   | Medical Management                              | Financial Management                  |
|--|--|---|---------------------------------------|
| Web based Electronic Eligibility Screening and Processing          | Electronic Claims EDI  | Utilization Management                          | Expenditure management                |
| Web based Provider Information Access and Administrative Functions | Contracting & Network Mgmt Tools                                     | Quality Improvement Management                  | Rate Setting Reimbursement Management |
| Web based Member Communications and Feedback                       | Health Information Exchange/ Electronic Health Records/E-Prescribing | Disease Management                              | Policy Modeling and Planning          |
| Electronic Customer Relations Management Tools                     | Data Warehouse and Decision support tools                            | Case Management                                 | Financial Performance Reporting       |
| Web Based wellness and health promotion                            | Electronic Encounter Reporting                                       | Predictive Modeling and Medical Risk Management | Fraud and Abuse Monitoring            |

# Medicaid E-Health Information Infrastructure

| <b>Infrastructure Requirements</b>  | <b>Agency or Managed Care Organization</b>   | <b>Healthcare System</b>   |
|---|--|--|
| <b>Reimbursement System</b>   | Set Reimbursement Schedule, MH monthly PMPM capitation, MH and member incentive programs   | Practice management system that support assigned patient panel management, member incentives program mgmt. |
| <b>Telecommunication<br/>Customer Relations Management<br/>Patient Relations Management</b> | 24 hour call center, nurse help line, member communications to support medical home  | Telecommunication systems that support patient reminders, instant messaging, 24 provider coverage          |
| <b>Clinical Intelligent Decision Support</b>  | Data Warehouse and Enterprise Decision support tools: Episode of Care and Predictive Modeling tools  | Clinical Decision Support Application and software integrated with EMR/EHR                                 |
| <b>Medical Management</b>   | Disease management systems, Utilization mgmt systems   | Patient Registries and population health management analysis and reporting                                 |
| <b>Medical Case Management</b>  | Patient Tracking and Case Management Records   | Patient care planning and tracking system  |
| <b>Electronic Health Information Repository and Exchange</b>                                | Facilitate the exchange of data between medical home and other providers, support data warehouse of administrative, and clinical care management information | Interface Medical Home EHR with health information exchange  |
| <b>Web enabled patient self support tools</b>   | Provide e-learning and web based wellness information to patient that support of member health literacy enhancement and health promotion                     | Provide member access to web based e-learning and health and wellness information.                         |

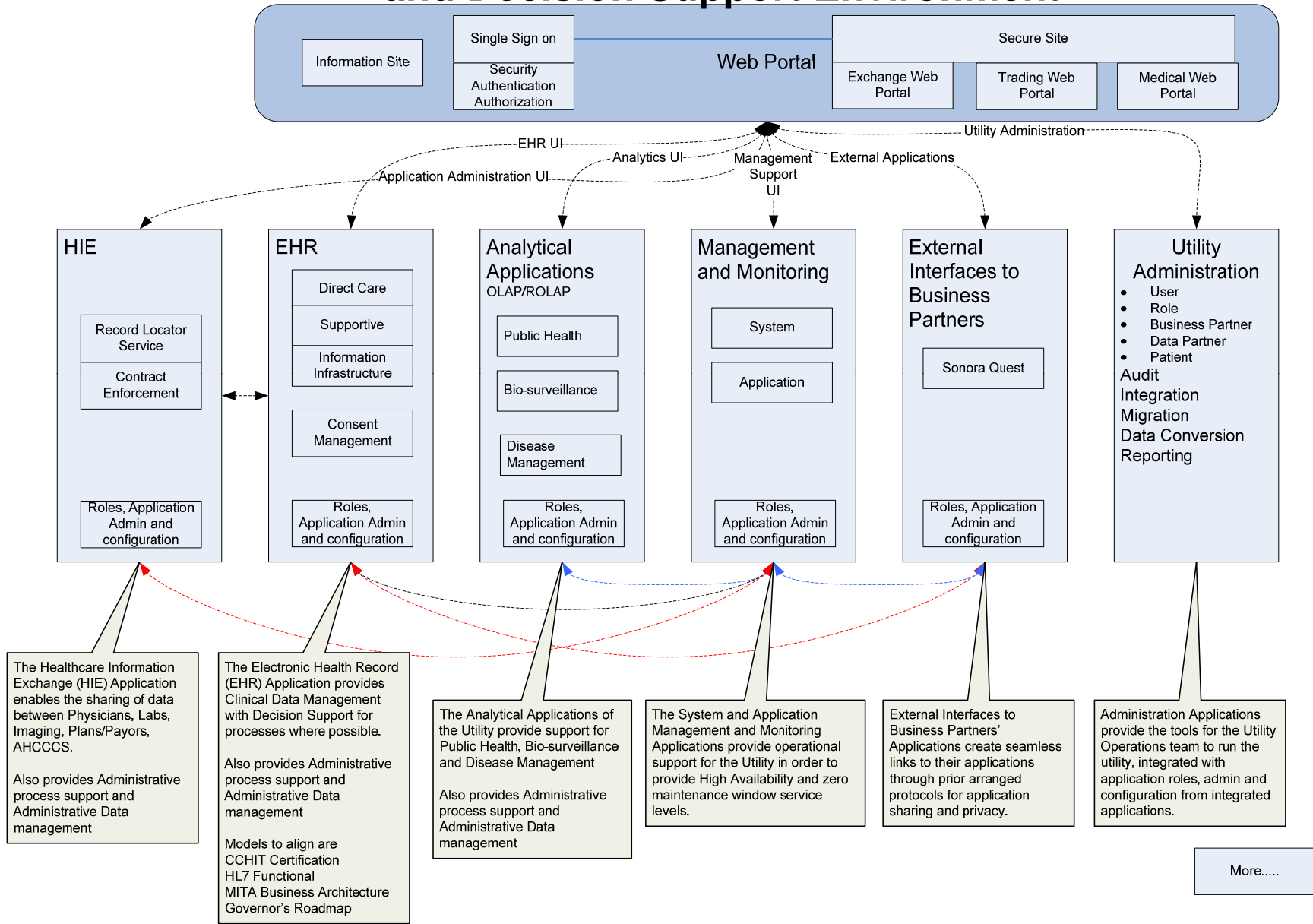
# **The 21<sup>st</sup> Century Medicaid Enterprise Organizational Competency Challenge**

- ❖ We live in the age of electronic information and multi-channels of communications that requires more rapid understanding and information driven decision making.*
- ❖ Medicaid organizations must develop the organizational competency and system capability to efficiently convert large health data sets to useful information, health information to knowledge, and knowledge to action.*
- ❖ Enterprise level decision support tools must be aligned with new clinical decision intelligence solutions to maximize effectiveness of performance based incentives in Medicaid.*

# **System Design Requirements for Medicaid E-Health Information Enterprise & Clinical Decision Support**

- Use common data architecture for enterprise & clinical data repositories
- Use common data standards (e.g., HL7) and definitions (LOINC, NCPDP, SNOMED)
- Common basic functionality
- Integrate with the EHR
- Integrate evidence-based medical protocols
- Allow both simple and complex configuration of decision support modules and underlying decision support rules engine
- Portable, “write once, run anywhere, executable medical knowledge
- Web-accessible with common viewer for providers and contracted health plans

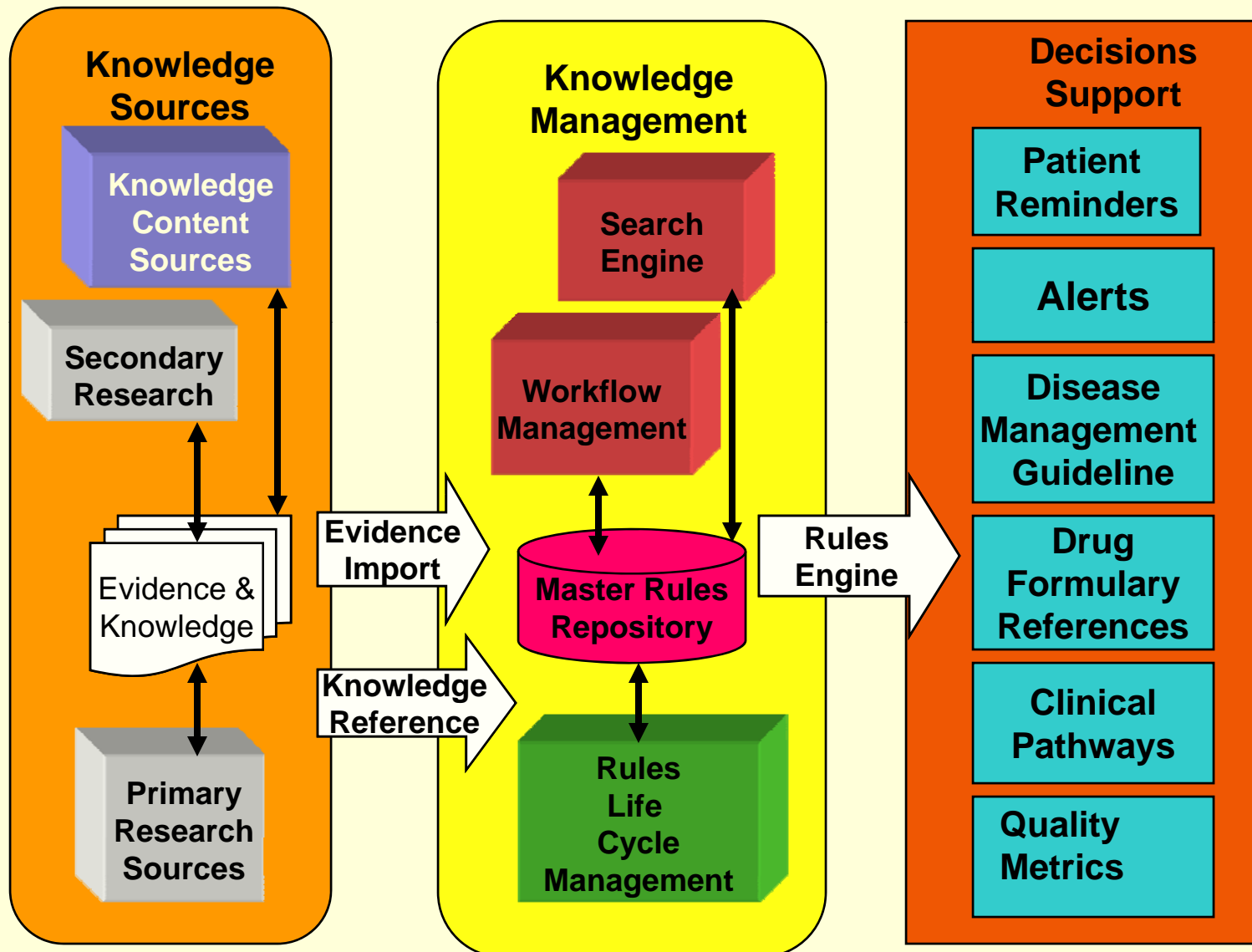
# Enterprise Level E-Health Health Information and Decision Support Environment



# **Electronic Clinical Decision Support and Intelligence Tools Integrated with EHR**

- Drug interaction alerts
- Provider reminders
- Evidence guideline references and patient care management information
- Formulary management references
- Provider case profiles
- Medical management performance metrics reports

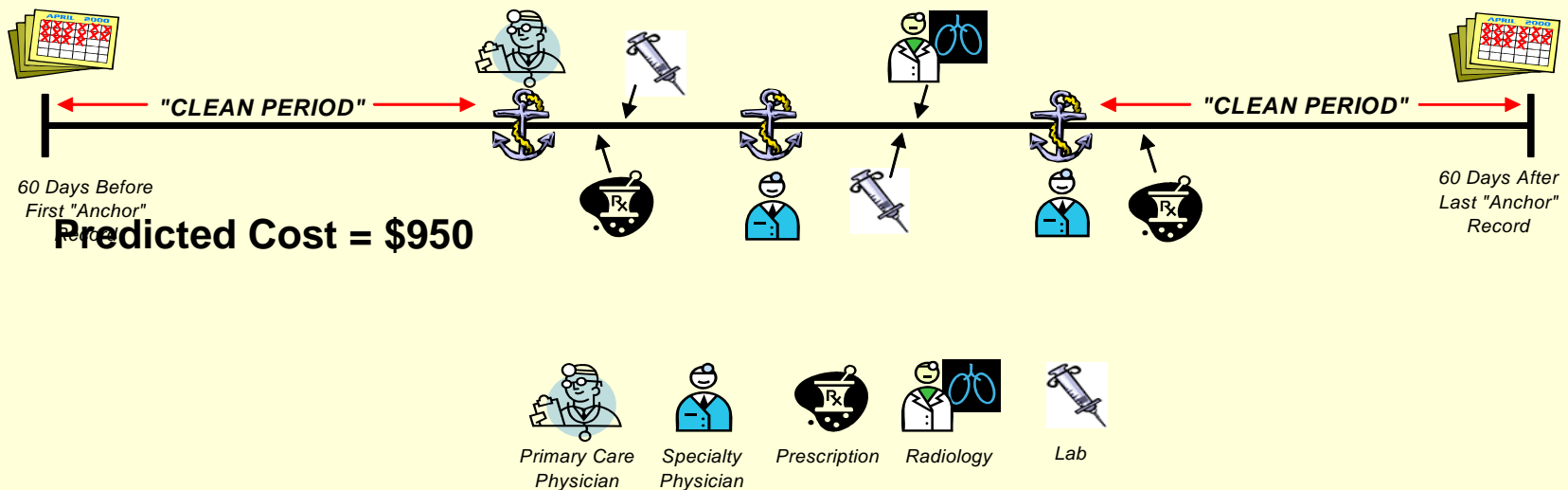
# Clinical Decision Intelligence System



# Transparency of Cost and Quality Episode of Care Tracked through an EHR

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

Outcome Cost = \$1,020



**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.

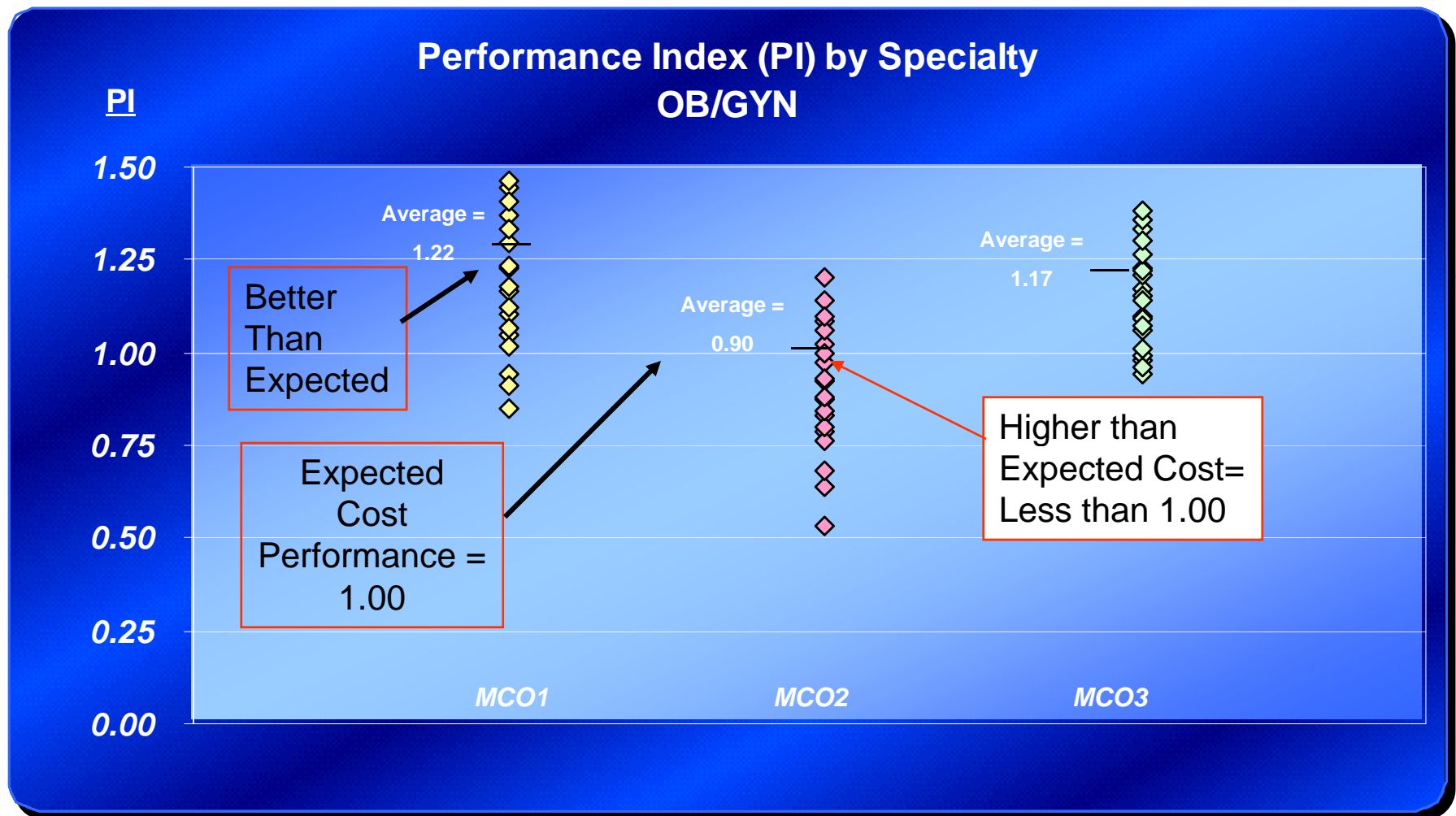
**Third Anchor:** You visit the ENT for your follow-up appointment. She tells you that the results of the tests came back negative. She prescribes a preventative medication to help reduce the occurrence of sinusitis. The ENT visit and prescription form another cluster within the same episode.

**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.

# Using Enterprise Decision Support to Evaluate Provider Performance

Hypothetical Illustration:

Medical Home Cost Performance by Managed Care Organization



\* Performance Index equals the Expected Paid divided by the Actual Paid and is controlled by ETG Case mix.

# MCO Performance Quality and Cost Analysis

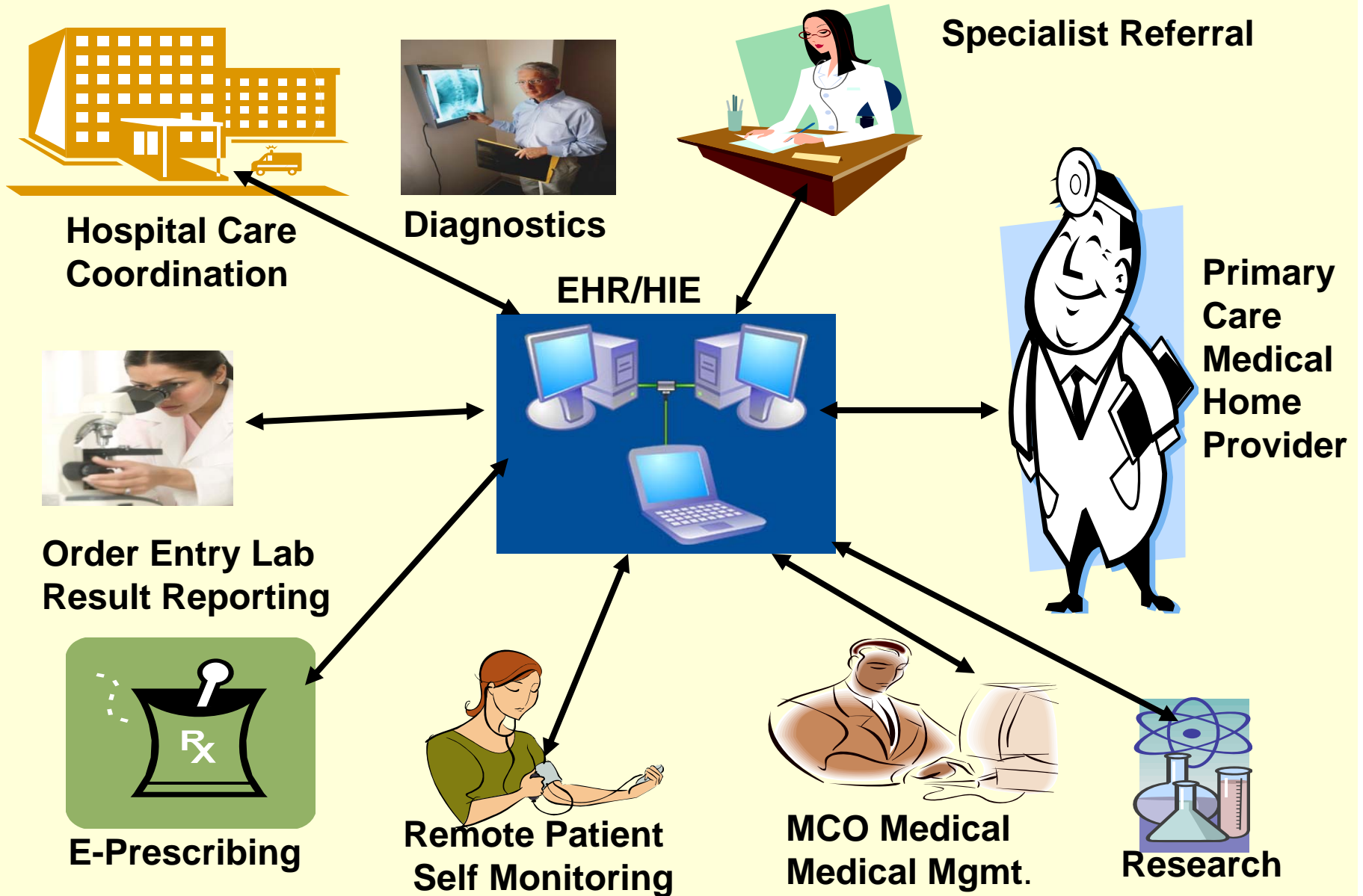
- Assign a score of 0-1-2 or 0-1/2-1 for Routine-Moderate-Highly Effective. Scoring rule depends on the process assessed.
- Total up the scores for each MCO (adjustment for relative

| MCO                           | Pharmacy<br>0 – 4 points | Medical<br>0 – 16 points | Total<br>0 – 20 points |
|-------------------------------|--------------------------|--------------------------|------------------------|
| MCO 1                         | 1.25                     | 4.50                     | 5.75                   |
| MCO 2                         | 2.50                     | 6.50                     | 9.00                   |
| MCO 3                         | 3.50                     | 8.75                     | 12.25                  |
| MCO 4                         | 2.00                     | 6.00                     | 8.00                   |
| MCO 5                         | 3.25                     | 7.75                     | 11.00                  |
| Weighted (based upon revenue) |                          |                          | 10.20                  |

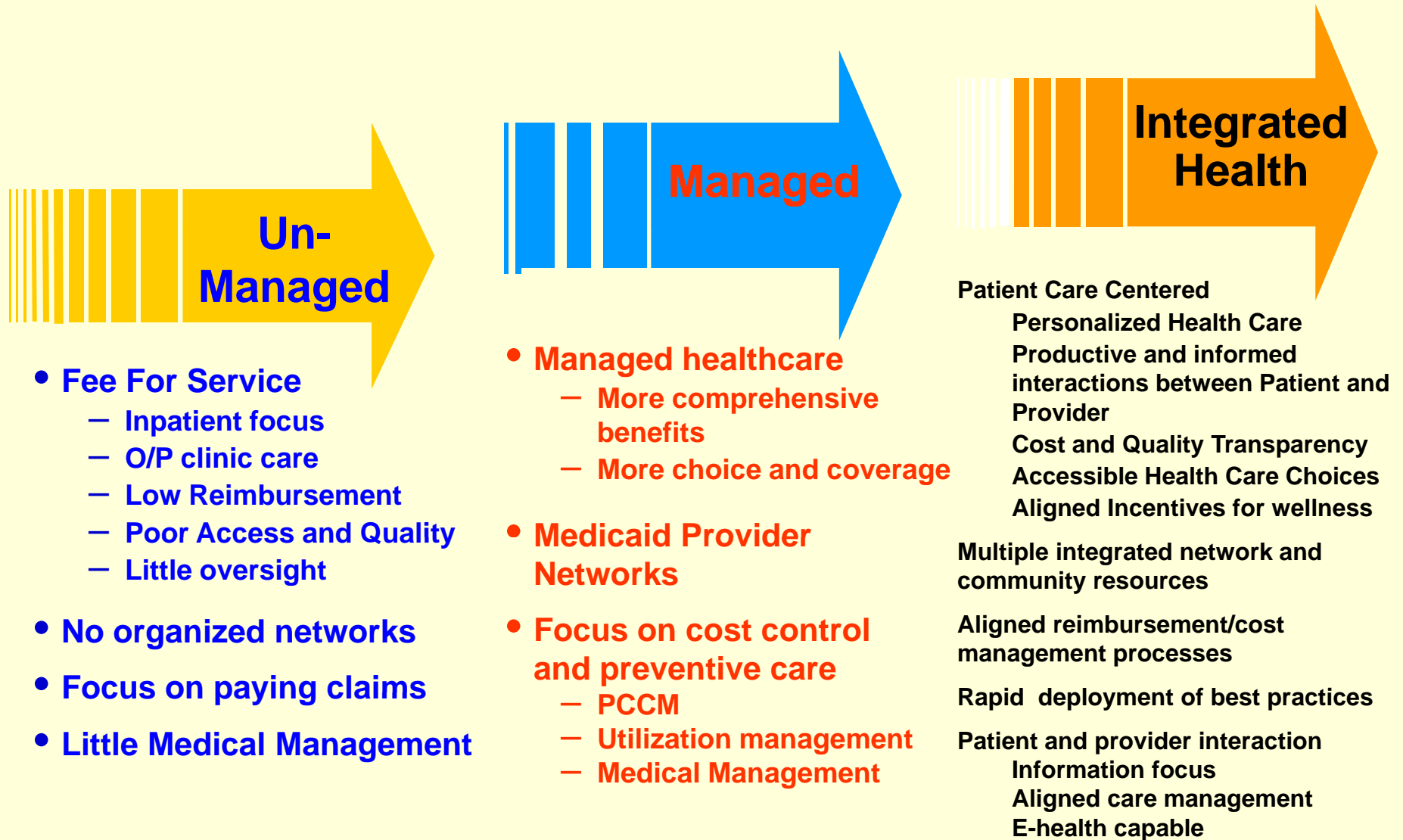
## Point system

- 0 = Routine Med. Man.
- 10 = Enhanced Med. Man.
- 20 = Highly Effective Med. Man.

# The Connected Medicaid Health System



# Medicaid Health System Transformation



# Questions

