



# OPTIMIZING THE USE OF YOUR ELECTRONIC HEALTH RECORD

A collaborative training offered by Highmark and the Pittsburgh Regional Health Initiative

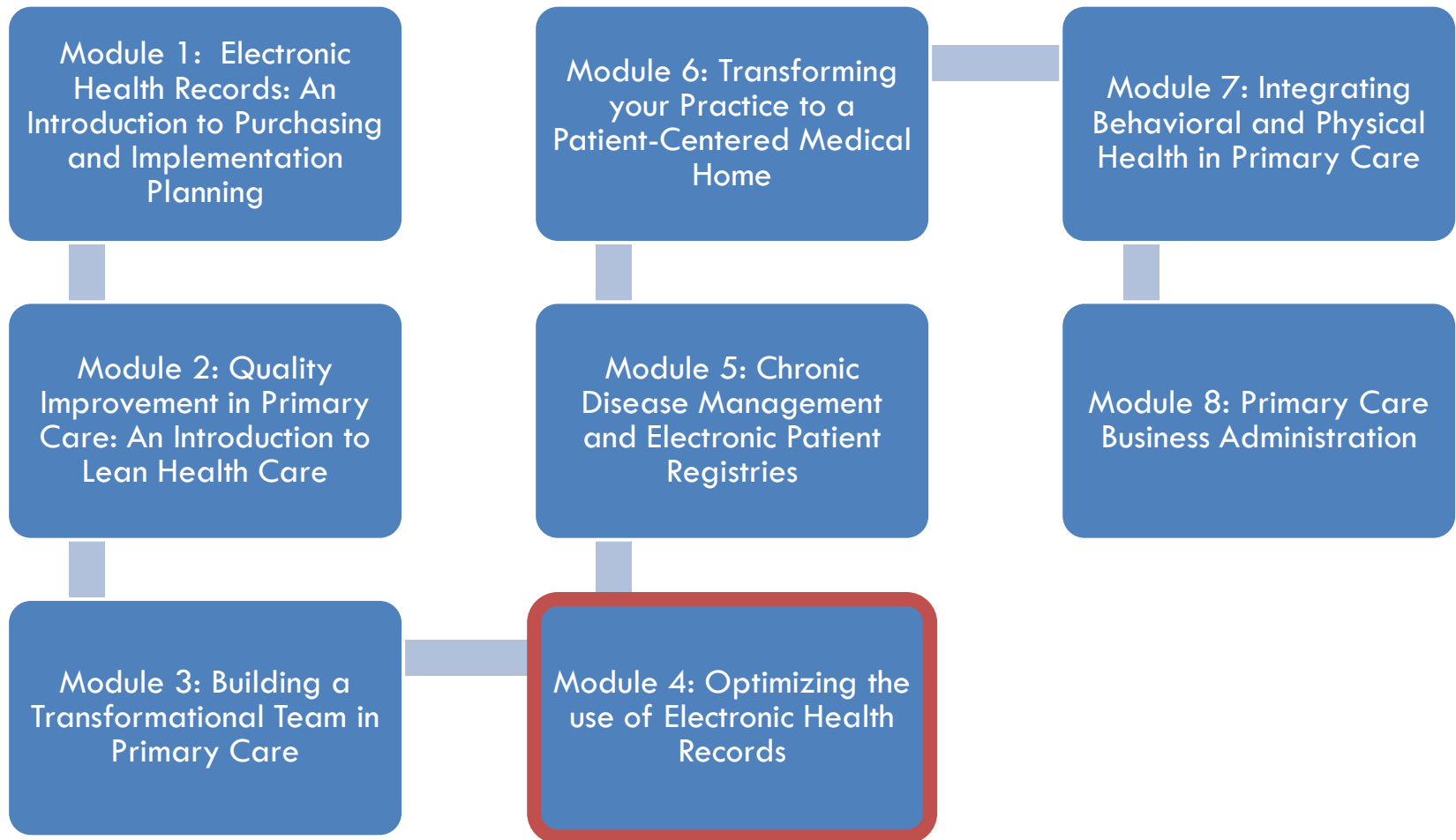
# Introductions



# Disclosures

- Successful completion of training
  - ▣ Participation for full 2 hours
- Conflicts of Interest
  - ▣ All planners and presenters have signed Conflict of Interest Disclosures
  - ▣ No conflicts declared
- Commercial Support
  - ▣ No commercial support has been received
- No recording of any kind, please

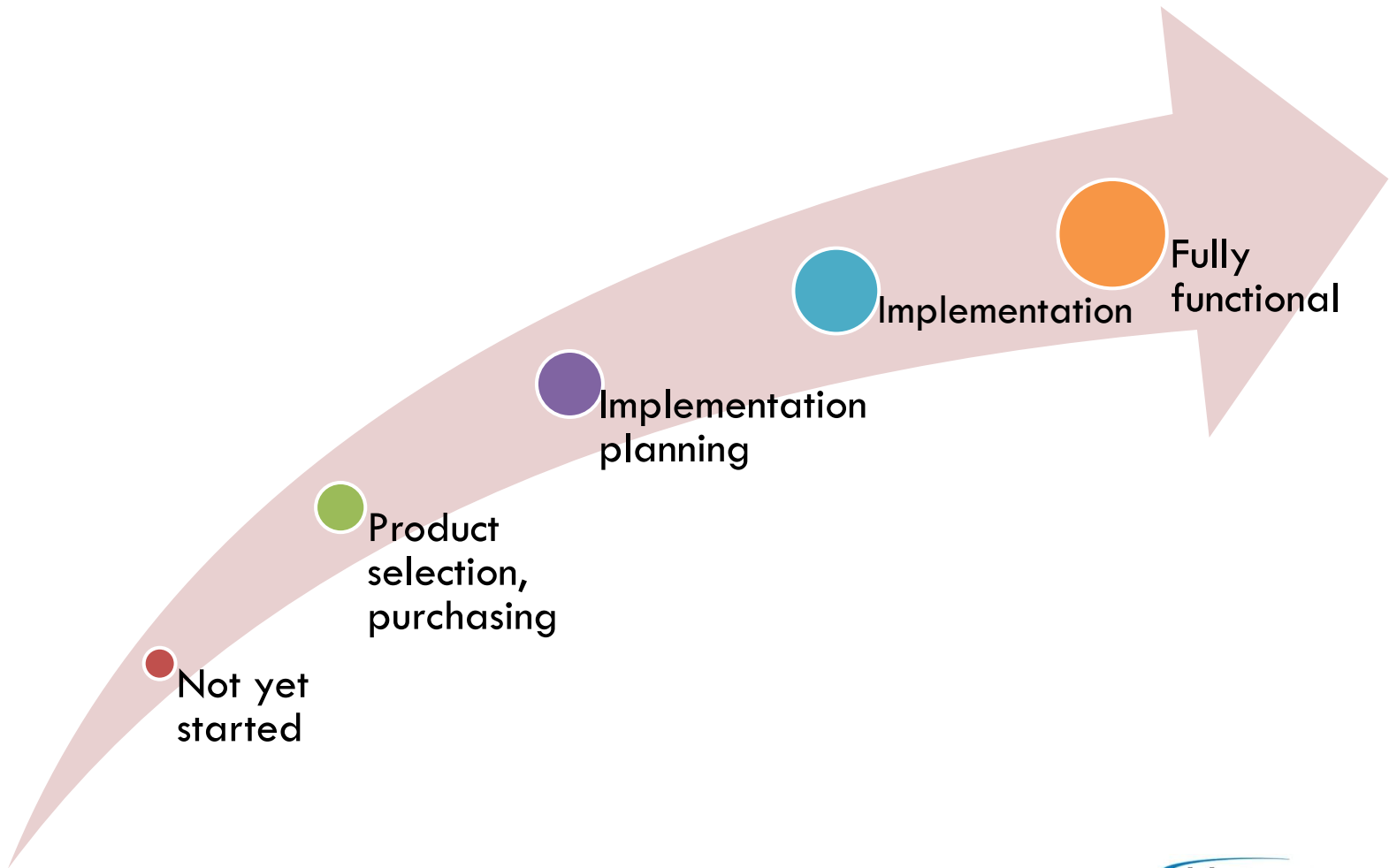
# Transforming Care in Provider Practice: Offerings



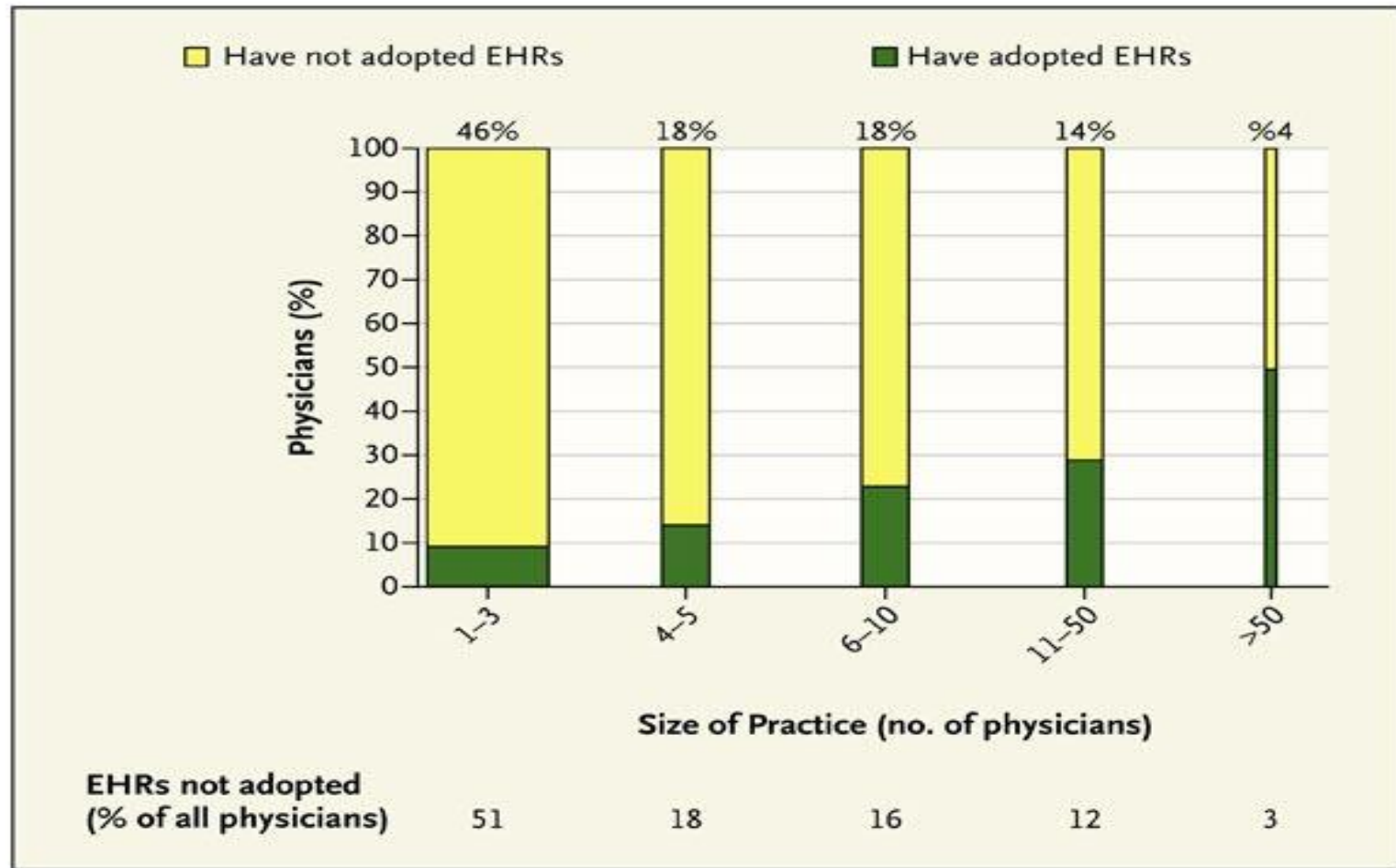
# Objectives

- Define the current national and regional landscape related to EHR adoption and reasons to optimize use of functionality.
- Define meaningful use standards.
- Discuss the current condition of EHR optimization in your practice.
- Recognize common challenges to and improvement strategies for optimizing the use of functionality.

# Where are you on the Implementation Spectrum?



# EHR Implementation: National Perspective

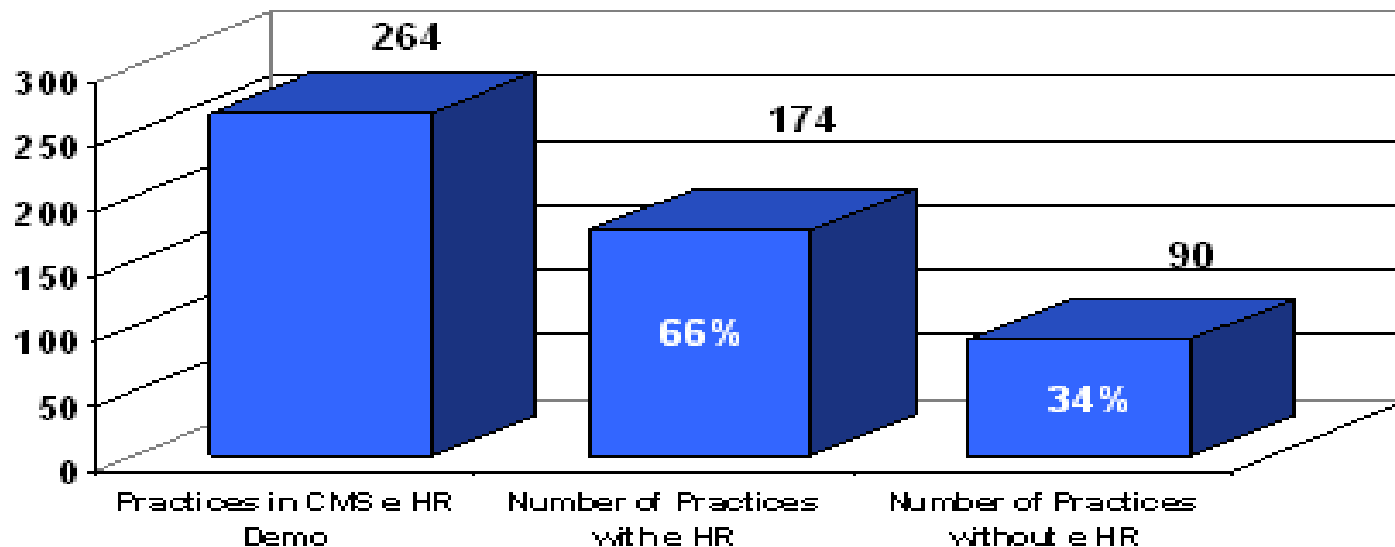


Shea & Hripcsak (2010). NEJM, 362 (3)

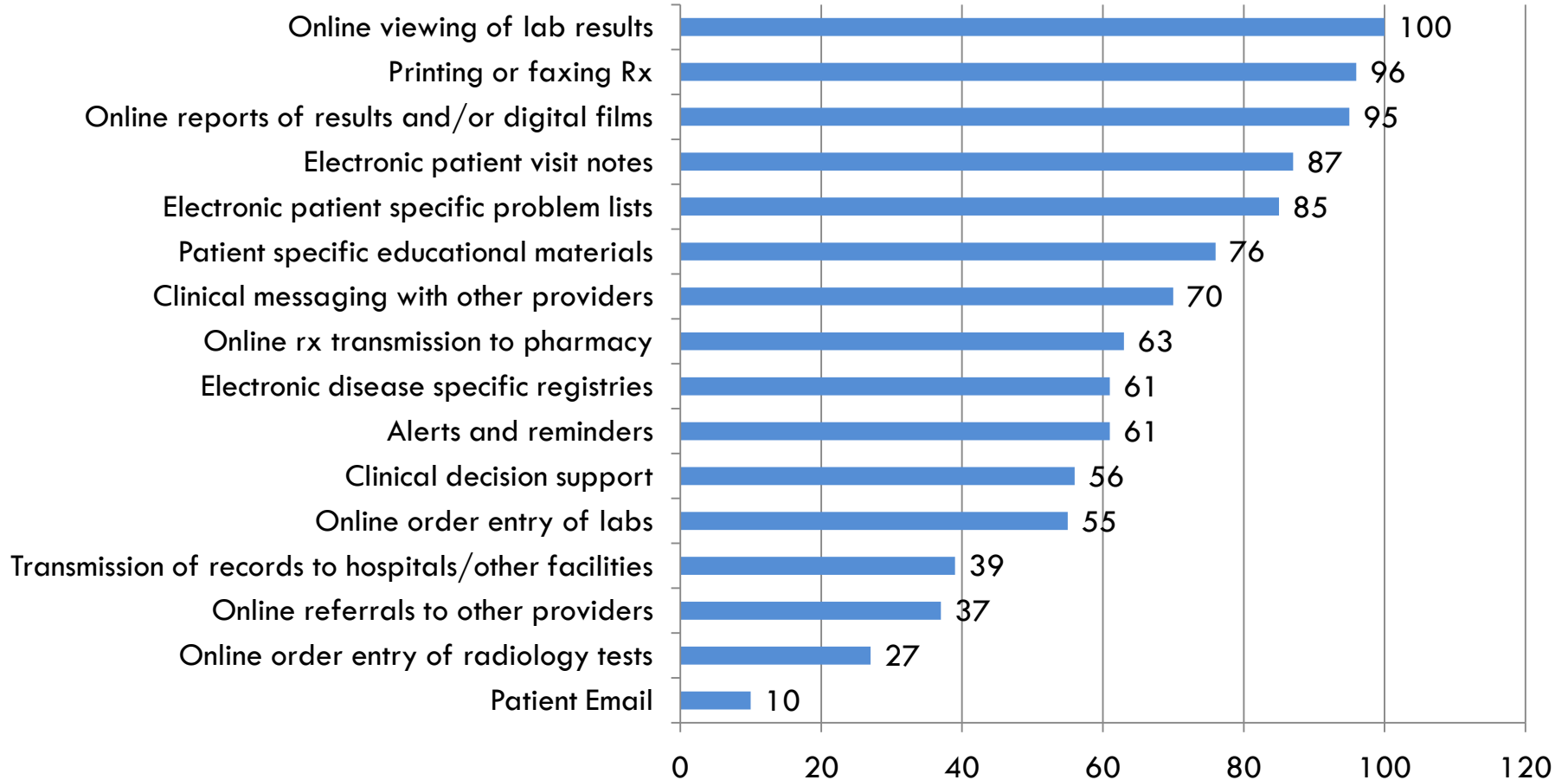
# EHR Implementation: The Regional Perspective

## Highmark Western PA Network

Highmark Network Practices in CMS Demonstration Project



# Regional Use of EHR Functionality



CMS EHR demo application results, Fall 2008

# Why Optimize?

- Improved quality, safety and efficiency
- Financial incentives for optimizing
- Future financial disincentives for failing to optimize



# Improved Quality and Efficiency

- 78% of primary care physicians with high IT capacity report feeling well prepared to care for patients with multiple chronic diseases, vs. 66% of those without high IT capacity

Davis et al, 2008

- Efficiency and safety savings of \$142 billion in U.S. physician offices and \$371 billion in U.S. Hospitals over the next 15 years

Anderson et. al, 2006

# Improved Patient Safety

- EHR functionalities, particularly e-prescribing, have significant implications for patient safety
  - Potential avoidance of more than 2 million adverse drug events annually (130,000 of which are life threatening)
  - Patients getting e-prescriptions had less severe potential drug/drug interactions

AHRQ (2008) Pub No 08-PFS015

# Financial Incentives: The National Landscape

- Centers for Medicare and Medicaid (CMS) Electronic Health Records Demonstration
- American Reinvestment and Recovery Act (ARRA)
- Payer incentives
- Hospital incentives

# CMS EHR Demonstration: Overview

- 5-year pay-for-performance demonstration, began May 2009
- Goal: Accelerate adoption of EHRs and maximize use to enhance quality of care and patient outcomes
- Southwestern PA is one of 4 regions in the country selected for participation
- 280 participating practices
  - 1/2 treatment group—eligible for financial incentives
  - 1/2 control group—not eligible for financial incentives

# CMS EHR Demonstration: Financial Incentives

- 2 separate per-beneficiary incentive payments:
  - Health Information Technology (HIT) incentive as measured by completion of the Office Systems Survey (OSS)
    - MUST be a CCHIT-certified EHR system
  - Quality incentive payment for reporting and performance on 26 clinical measures
    - Diabetes
    - Congestive Heart Failure
    - Coronary Artery Disease
    - Preventive Services

# CMS Demonstration: Maximum Potential Incentive Payments

| Year | EHR Adoption (OSS) | Reporting of Clinical Measures | Performance on Clinical Quality Measures | Maximum/ Provider | Maximum/ Practice |
|------|--------------------|--------------------------------|--|-------------------|-------------------|
| 1    | \$5,000            | n/a                            | n/a                                      | \$5,000           | \$25,000          |
| 2    | \$5,000            | \$3,000                        | n/a                                      | \$8,000           | \$40,000          |
| 3    | \$5,000            | n/a                            | \$10,000                                 | \$15,000          | \$75,000          |
| 4    | \$5,000            | n/a                            | \$10,000                                 | \$15,000          | \$75,000          |
| 5    | \$5,000            | n/a                            | \$10,000                                 | \$15,000          | \$75,000          |

**TOTAL:    \$58,000                    \$290,000**

# Next Steps for CMS EHR Demo Treatment Group Practices

- Complete the Office Systems Survey (OSS)
  - To qualify for an incentive payment you must be using a CCHIT-certified EHR for minimal core functionality
    - Clinical notes
    - Recording laboratory orders and entering lab results
    - Recording imaging orders and entering imaging results
    - Recording prescriptions
- The more advanced use of functionality, the higher your score on the OSS

# CMS EHR Demo: Year 1 Incentive Payment Calculation

- Practices will be paid a maximum of \$45 per assigned beneficiary with a chronic condition

$$\text{Incentive payment} = \text{\# of beneficiaries} \times \text{OSS score} \times \$45$$

# National Investment in HIT: American Recovery and Reinvestment Act (ARRA)

The Health Information Technology for Economic and Clinical Health (HITECH) provisions of ARRA appropriate \$2 billion to “jump start” funding to the Office of the National Coordinator for Health Information Technology.

# ARRA: Who Gets What?

- \$300 million for Health Information Exchange initiatives
- \$20 million to the National Institute for Standards and Technology (data standards)
- \$5 million for Administration

# ARRA: Who Gets What?

- Remaining \$1.7 billion:
  - Developing Certified Electronic Health Records software (if the private market cannot meet provider needs)
  - Training and support
  - Infrastructure creation & telemedicine
  - Promoting interoperability of clinic data (repositories or registries)
  - Expanding the use of Information Technology (IT) in Public Health Departments

# ARRA: How Will the Money be Distributed?

- Most at the state level via grants and initiatives
- The law doesn't specifically state that providers will get grants or loans—but it is implied
- Initiatives for federal and state programs to offer loan programs to physicians to access capital

# ARRA: How Will the Money be Distributed?

- \$100 million to train IT professionals to work in health care
- \$70 million grant to community colleges for healthcare IT training

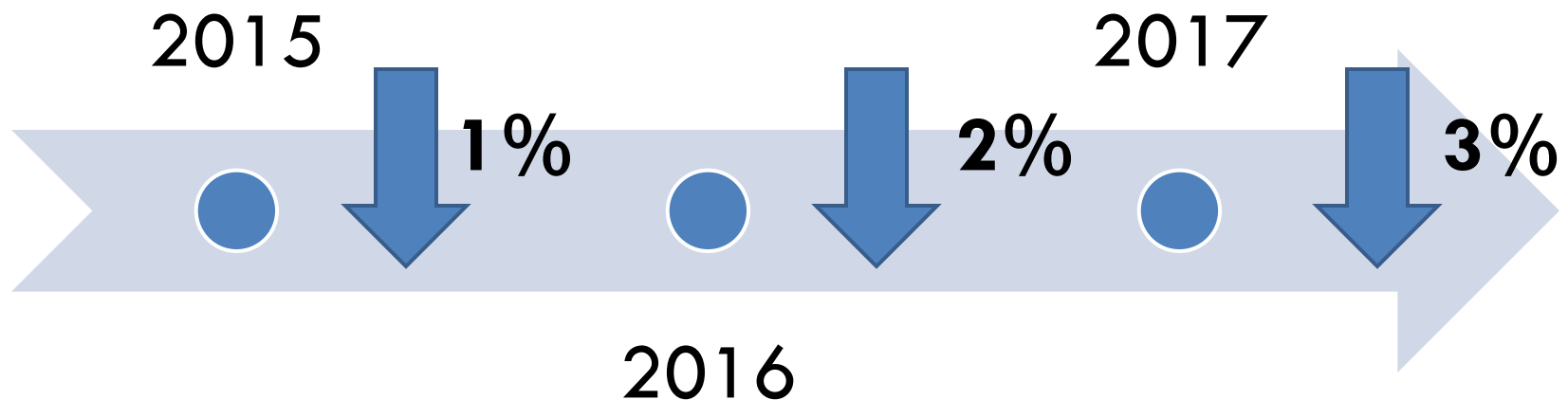


# The Medicare Incentives for Meaningful Use

- “Meaningful use” of EHRs will yield up to \$44,000/provider over 5 years
  - Year 1: \$18,000/provider (2011 or 2012)
  - Year 2: \$12,000/provider
  - Year 3: \$8,000/provider
  - Year 4: \$4,000/provider
  - Year 5: \$2,000/provider

# The Medicare *Disincentives*

The law also mandates decreasing Medicare payments to physicians that fail to “meaningfully use” EHRs



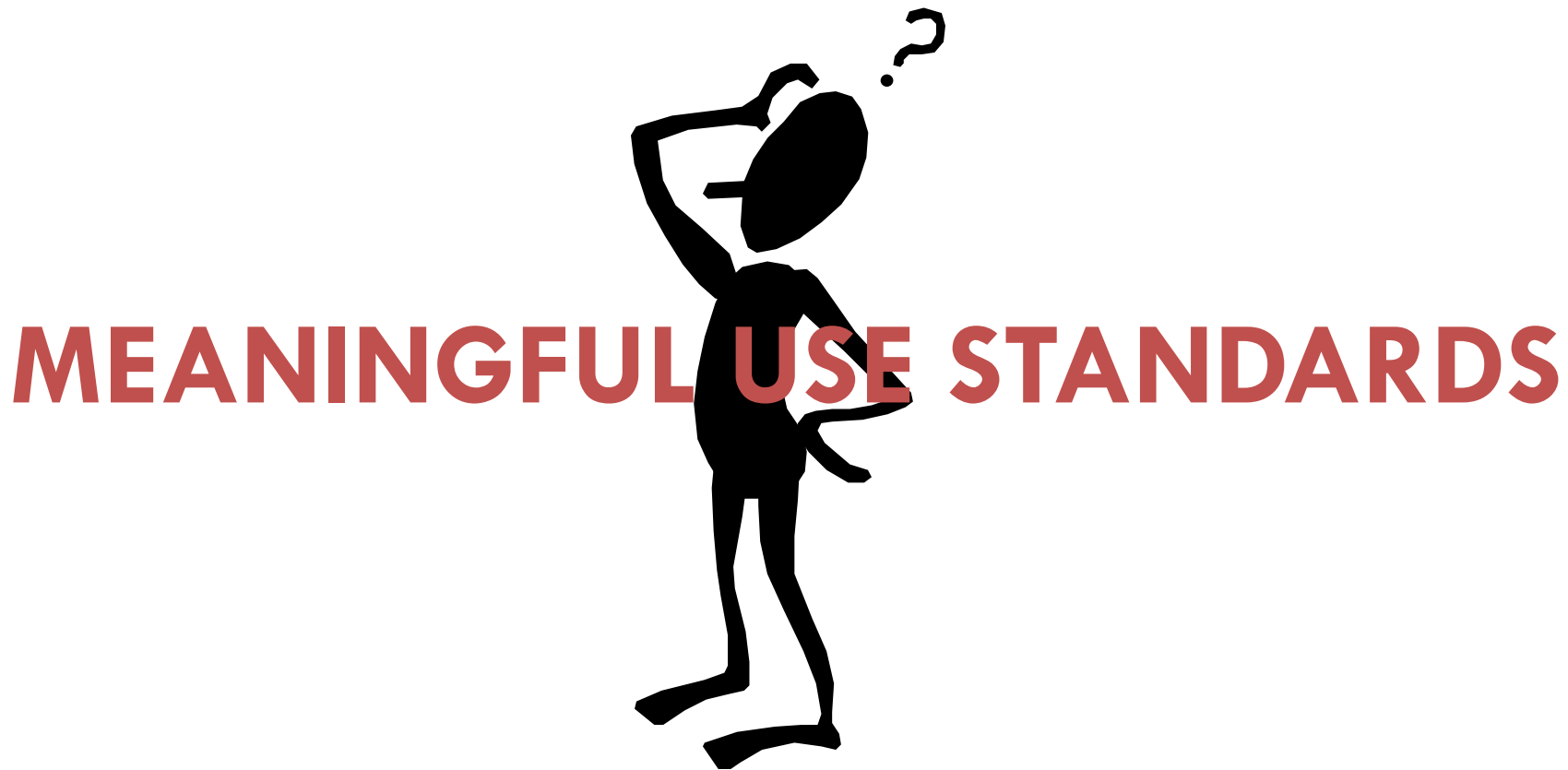
# The Medicaid Incentives for Meaningful Use

- To qualify for Medicaid incentives you must be a:
  - ▣ Physician
  - ▣ Nurse Practitioner
  - ▣ Certified Nurse Midwife
  - ▣ Dentist
  - ▣ FQHC
  - ▣ Pediatrician
- AND have 30% volume Medicaid patients (20% for pediatrics)

# Medicaid Incentives

- Potentially as high as \$63,750/provider over 6 years
- Medicaid Incentives differ from Medicare incentives
  - ▣ Broader range of qualifying providers
  - ▣ No disincentives for not adopting HIT
  - ▣ Potentially higher payments
  - ▣ Potentially longer time frame (2021 vs. 2016)
- Note that providers will need to choose Medicare OR Medicaid incentives—not eligible for both

# What Does it Mean to Optimize Your EHR in this Landscape?



# What is “Meaningful Use?”

- Using a certified EHR system to:
  - ▣ Improve quality, safety and efficiency
  - ▣ Engage patients and families in their health care
  - ▣ Improve care coordination
  - ▣ Improve population and public health
  - ▣ Ensure adequate privacy and security



# Meaningful Use—the Big Picture

Computerized Physician  
Order Entry (CPOE)

Drug-drug & drug-allergy  
checks, formulary checks

Maintain updated problem,  
meds and allergies list

e-prescribing

Record key demographics  
and clinical data

Vital signs, including height,  
weight and blood pressure

Send reminders to patients  
for preventive/follow up care

Use of evidence-based  
order sets

Chronic care management  
using registries and decision  
support tools

Use of clinical decision  
support at point of care

Report to external disease  
or device registries

Achievement of minimal  
performance levels on quality,  
safety & efficiency measures

Implement clinical decision  
support for high priority  
conditions

Medical device interoperability  
Multi-media support (e.g. x-rays)



**2011**



**2013**



**2015**

ONCHIT Policy Committee, draft, December 2009

# Meaningful Use: The Details

Improve  
quality,  
safety and  
efficiency  
and  
reduce  
health  
disparities

- ❑ CPOE
- ❑ Drug-drug, drug-allergy & drug-formulary checks
- ❑ Problems, meds & allergy lists
- ❑ ePrescribing
- ❑ Record demographics
- ❑ Record and chart changes in vitals
- ❑ Record smoking status
- ❑ Incorporate lab results as structured data

# Meaningful Use: The Details

Improve  
quality,  
safety and  
efficiency  
and  
reduce  
health  
disparities

- ❑ Generate patient lists by specific conditions
- ❑ Report ambulatory quality measures to CMS or the state
- ❑ Send reminders to patients for preventive/follow-up care
- ❑ Implement 5 decision support rules and ability to track compliance with rules
- ❑ Check insurance eligibility electronically
- ❑ Submit claims electronically

# Meaningful Use: The Details

Engage patients and families in their health care

- Provide patients with an electronic copy of their health information
- Provide patients with timely electronic access to their health information
- Provide clinical summaries to patients for each office visit

# Meaningful Use: The Details

Improve  
care  
coordination

- ❑ Electronically exchange key clinical information (e.g. problem, med & allergy lists, test results) with care providers
- ❑ Perform medication reconciliation at relevant encounters and each transition of care
- ❑ Provide summary care record for each transition of care and referral

# Meaningful Use: The Details

Improve  
population  
and public  
health

- Submit electronic data to immunization registries where required and accepted
- Electronic submission of syndromic surveillance data to public health agencies according to applicable law and practice

# Meaningful Use: The Details

Ensure  
adequate  
privacy and  
security  
protections  
for personal  
health  
information

- Protect electronic health information maintained using certified EHR technology through the implementation of appropriate technical capabilities

# Other Incentive Programs

- Highmark Quality Blue
  - ▣ ePrescribing and EHR components
  - ▣ Quality incentives for chronic disease management (e.g. diabetes, cholesterol) and preventive care (e.g. breast cancer, cervical cancer screening)
  - ▣ \$3, \$6, and \$9 per eligible E&M encounter
- Other payer quality incentives
- Hospital-funded support for EHR adoption
  - ▣ Software discounts
  - ▣ Hosting options
  - ▣ Implementation support

# Discussion

A photograph of four people (two men and two women) sitting in a circle on white chairs, engaged in a discussion. The text 'WHERE ARE WE NOW?' is overlaid in large blue letters across the center of the image.

**WHERE ARE WE NOW?**

# Time for a Break!

Please return promptly in ten minutes.

Thanks!



# Common Barriers to Optimization



# Work Design

## Common Challenges

- ❑ Limited understanding of workflow prior to implementation
- ❑ Failure to fully integrate EHR into workflow
- ❑ Failure to reassess & redesign post implementation

## Common Outcomes

- ❑ Inefficiencies
- ❑ Duplicate Work
- ❑ Frustration

# Work Design: Improvement Strategies

- Observe your existing EHR workflow to understand:
  - ▣ What's working well
  - ▣ What's not working well
  - ▣ Opportunities for Improvement
  - ▣ Who interacts with the EHR? In what ways?
- Use observation data to perform Process Mapping

# Process Mapping: A Tool for Understanding Workflow

- A process map is a visual depiction of the current state that identifies:
  - ▣ Roles—people who complete activities
  - ▣ Activities—steps in the process
  - ▣ Problems—opportunities for improvement
  - ▣ Strengths—what's working well

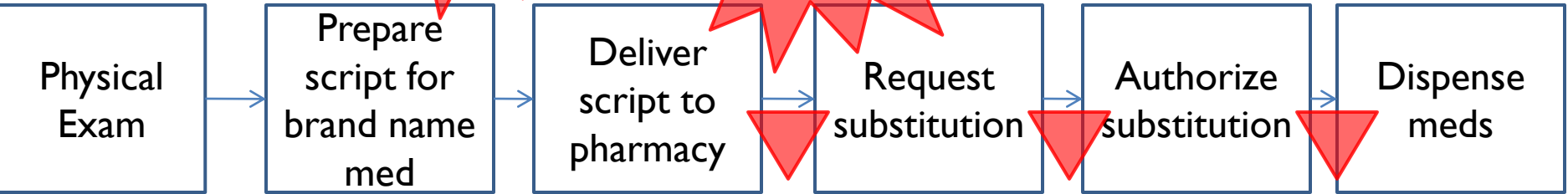


# Example of a Process Map: Prescribing Meds Without ePrescribing Functionality

Double work documenting script

Med not in formulary

Rework for provider and pharmacist



- |                 |                 |                                    |  |  |                             |
|-----------------|-----------------|------------------------------------|--|--|-----------------------------|
| <u>MD/NP/PA</u> | <u>MD/NP/PA</u> | <u>Patient</u>                     | <u>Pharmacist</u>  | <u>MD/NP/PA</u>                                      | <u>Pharmacist</u>           |
| Record in EHR:  | •Write script   | •Present script and insurance card | •Call answering service to clarify script, wait for call | •Clarify script                                      | •Revise script              |
| •Allergies      | •Give to pt     |                                    |  | •Decide upon appropriate substitution, revise script | •Dispense meds              |
| •Problems       | •Record in EHR  |                                    |  |  | •Advise pt. of substitution |
| •Clinical notes |                 |                                    |  |  |                             |

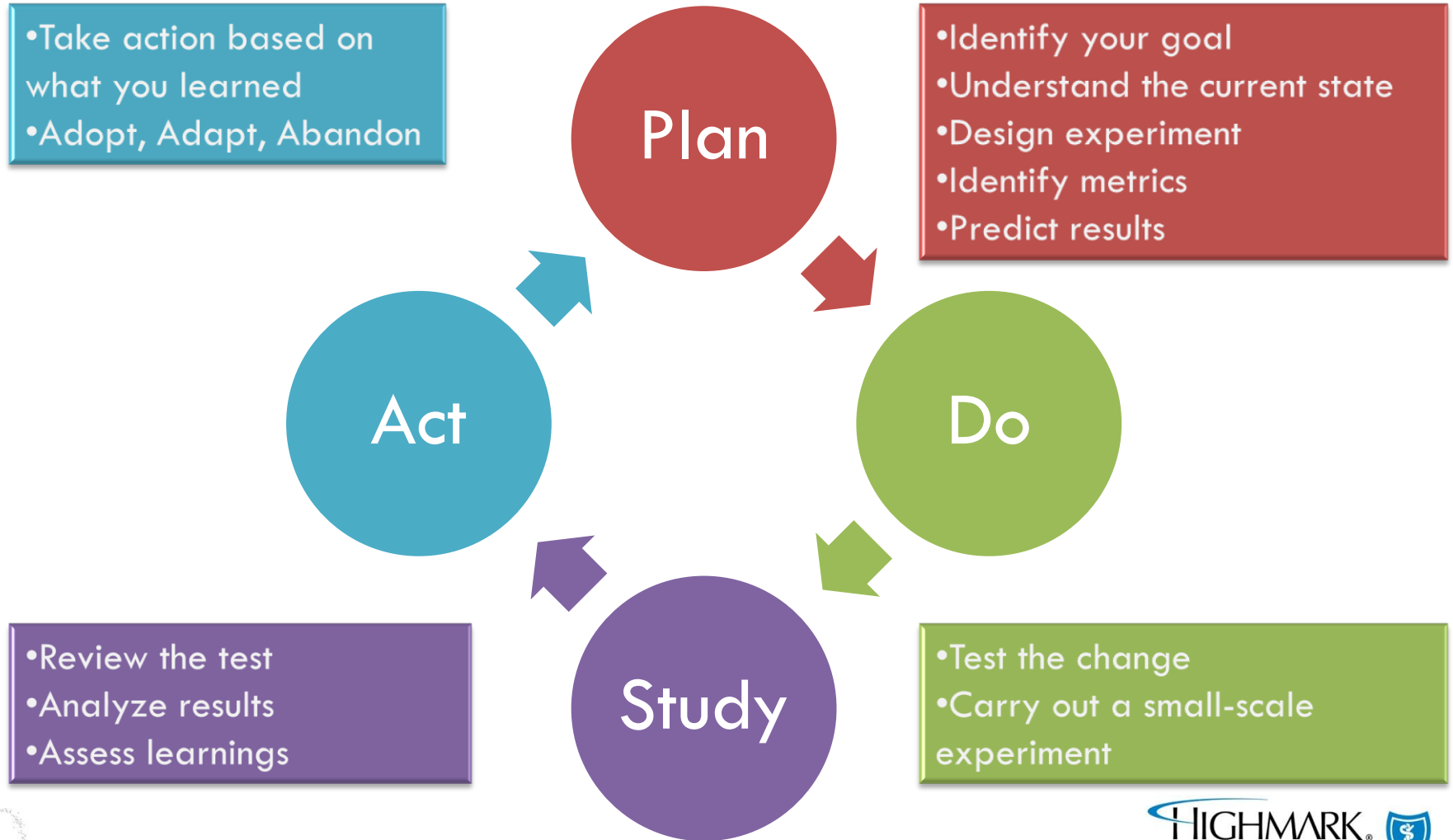
Illegible handwriting back from provider

Real-time documentation in EHR

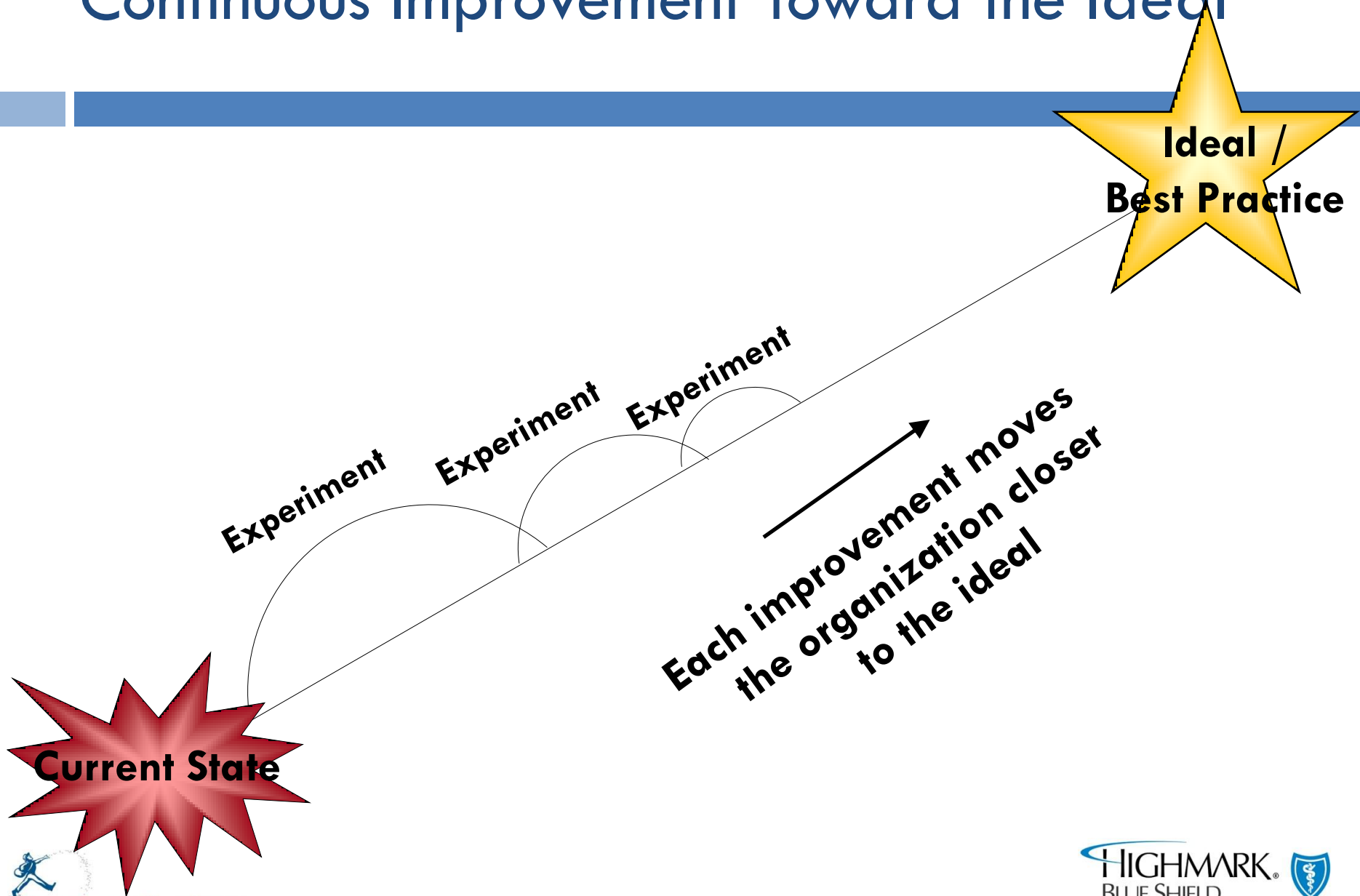
# Continuous Quality Improvement to Optimize Your EHR

- Use data to understand the current state
- Make incremental improvements to move closer to the ideal
- Measure success of the improvements—do the improvements move you closer to the ideal?
- Use tools to make work easier and processes flow more smoothly
- Involve the people who do the work—“the experts”—in work redesign

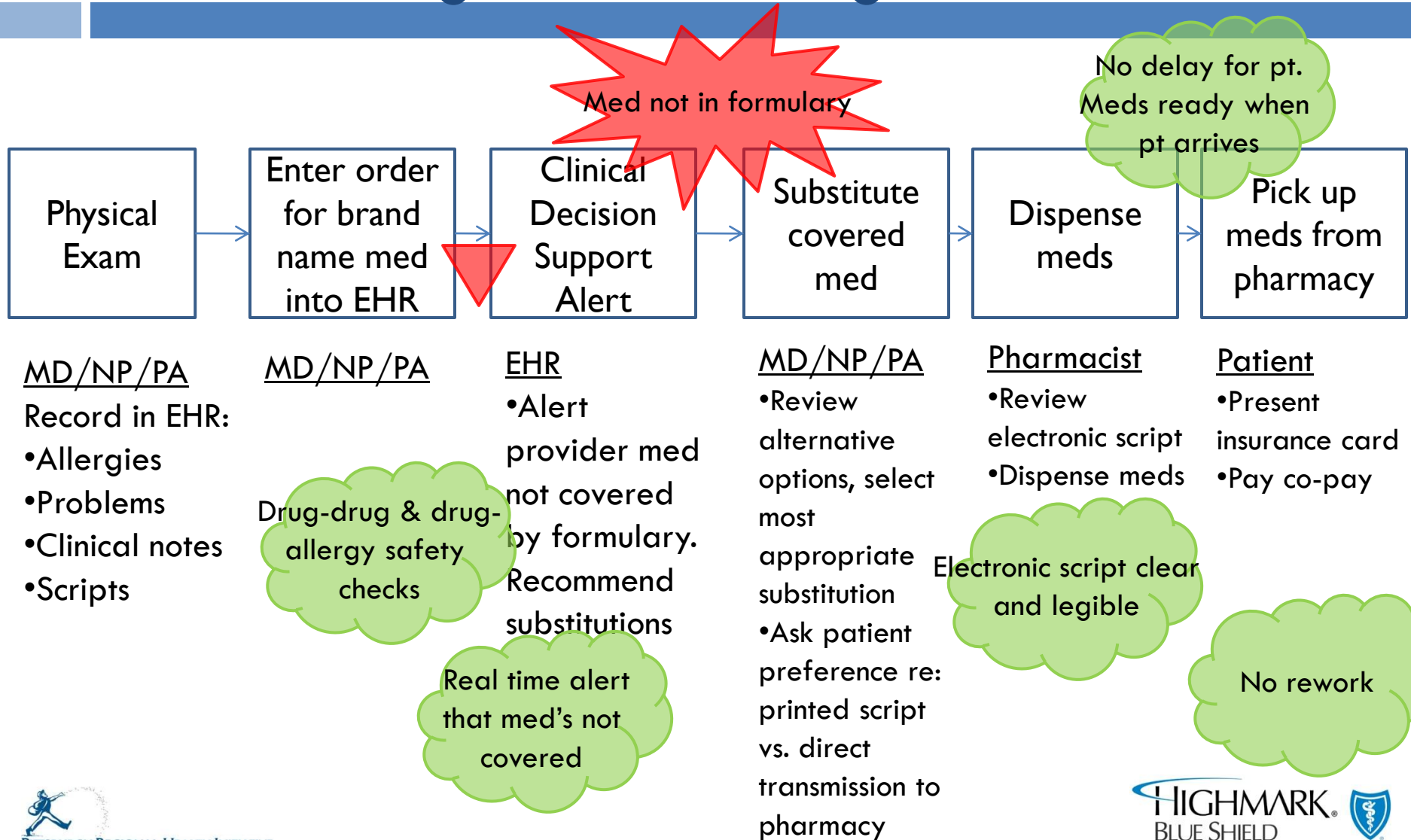
# Plan-Do-Study-Act Cycle



# Continuous Improvement Toward the Ideal



# Example of a Process Map: Prescribing Meds Using ePrescribing



MD/NP/PA  
Record in EHR:  
•Allergies  
•Problems  
•Clinical notes  
•Scripts

MD/NP/PA  
Drug-drug & drug-allergy safety checks

EHR  
•Alert provider med not covered by formulary. Recommend substitutions

Real time alert that med's not covered

MD/NP/PA  
•Review alternative options, select most appropriate substitution  
•Ask patient preference re: printed script vs. direct transmission to pharmacy

Pharmacist  
•Review electronic script  
•Dispense meds

Electronic script clear and legible

Patient  
•Present insurance card  
•Pay co-pay

No rework

# Organizational Culture, Attitudes and Behaviors

## Common Challenges

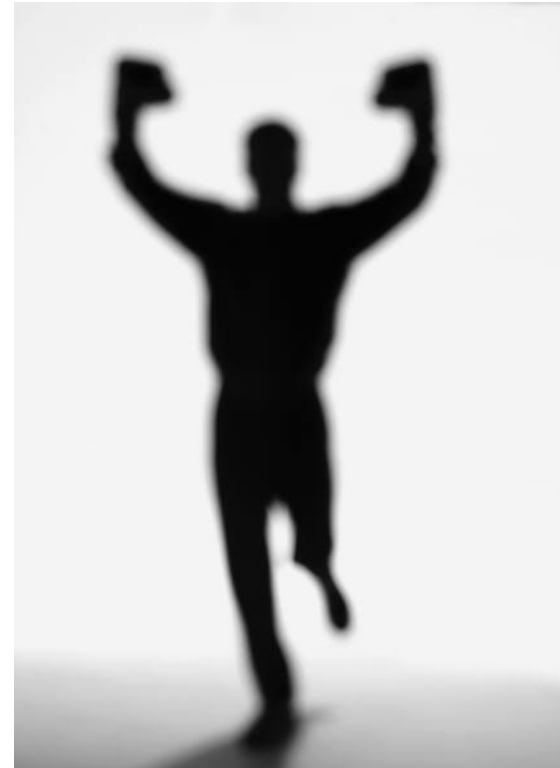
- ❑ Technical competency
- ❑ Resistance to the “new way of doing things”
- ❑ Inertia—not wanting to make changes & improvements post-implementation
- ❑ Competing demands
- ❑ Finite Resources
- ❑ Changing Roles

## Common Outcomes

- ❑ Inefficiency
- ❑ Inconsistency of usage among providers/staff
- ❑ Limited use of advanced functionality

# Organizational Culture: Improvement Strategies

- Identify and mobilize a leader/champion to maintain momentum for change
  - Someone who is respected by the practice team
  - A good communicator
  - A die-hard supporter
  - Someone who will continually drive change

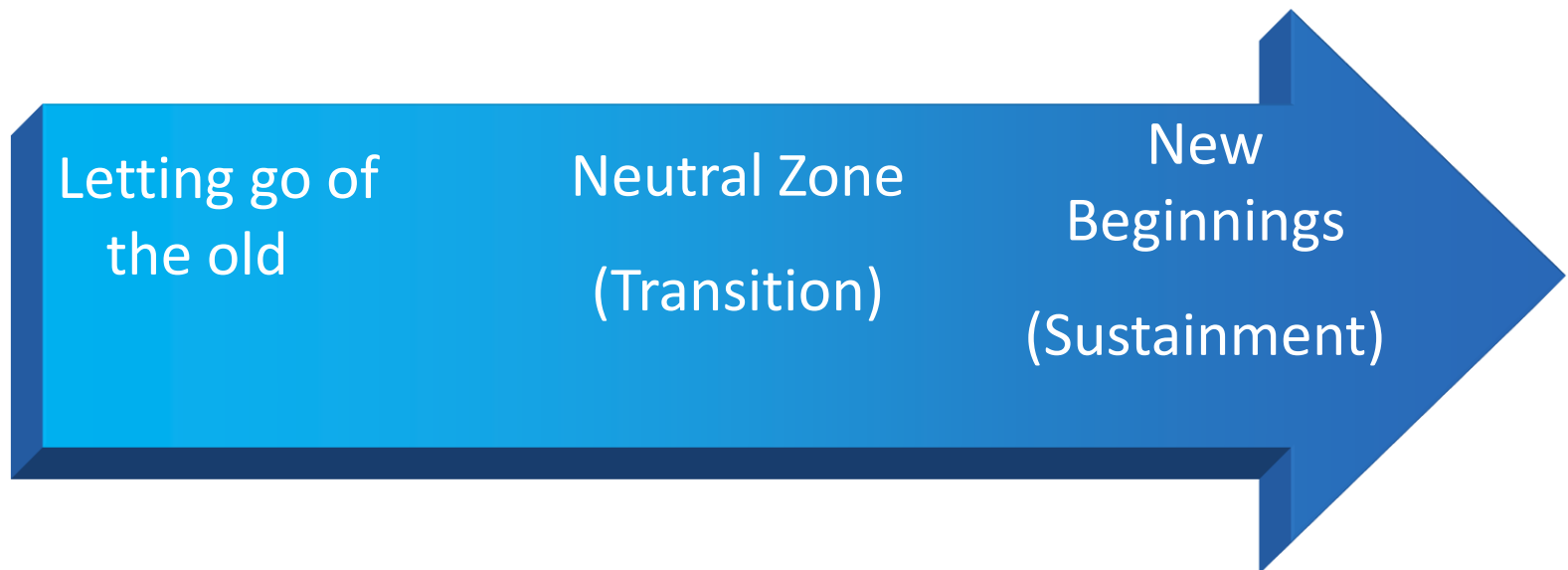


# Organizational Culture: Improvement Strategies

- Ongoing computer competency training
  - ▣ If you didn't assess staff & provider competency/comfort level using computers prior to implementation, assess it now
  - ▣ If you did assess, reassess
  - ▣ Identify training and support needs and training resources

# Organizational Culture: Improvement Strategies

- Recognize the need for ongoing change management—implementation is just the beginning!



# Technology

## Common Challenges

- ❑ Insufficient technical support
- ❑ Inadequate data exchange and fragmentation
- ❑ Customization (or lack thereof)
- ❑ Underdeveloped interoperability

## Common Outcomes

- ❑ Limited use of advanced functionality
- ❑ Duplicate work
- ❑ Manual data entry

# Technology: Improvement Strategies

- Work with vendor to secure ongoing technical support
- Consider 3<sup>rd</sup> party technical support
- Work with vendor to customize templates and workflow
- Participate in your vendor's user groups
- Take advantage of technical support and interfaces that may be available through your local hospital

# Survival of the Fittest

“It is not the strongest of the species that survives, nor the most intelligent that survives. It is the one that is the most adaptable to change.”

Charles Darwin

# Discussion and Questions

