

# Strengthening the Foundation of Learning: Integrating Outcomes Assessment

ACPE's 14<sup>th</sup> Conference on CPE  
*Building Bridges to Reposition CPE*

Don Moore, PhD  
Vanderbilt University School of Medicine  
September 25, 2011



# *Learning objectives*

**After participating in this session today, you should be able to**

1. Summarize an outcomes framework for conceptualizing and measuring the impact of CPE activities.
2. Identify the importance of “starting with the end in mind”.
3. Discuss how planning for and assessing outcomes coexist along a continuum in achieving your mission.
4. A value proposition for your CPE program.

# Outcomes Framework

**Outcome:** the result of an action or activity.

**Educational outcome:** the result of an educational activity.

**Seven levels of outcomes:**

1. Community Health
2. Patient Health Status
3. Performance
4. Competence
5. Learning
  - a. Declarative Knowledge
  - b. Procedural Knowledge
6. Satisfaction
7. Participation

Community Health

Patient Health

Performance

Competence

Learning

Satisfaction

Participation

Adapted from Moore, Green, Gallis, 2009, who synthesized frameworks from Moore, 2003, Kirkpatrick, 1998, Miller, 1991, Walsh, 1984, Abrahamson and Lloyd, 1979, Dixon, 1978

# *Outcomes-based CPE*

- *Start with the end in mind – outcomes framework*
- Take into account physician stages of learning
- Focus on clinical problems and provide knowledge that can be used in practice.
- Provide opportunities for practice and feedback in authentic settings

Moore DE Jr., Green JS, Gallis HA. *Achieving Desired Results and Improved Outcomes: Integrating Planning and Assessment Throughout Learning Activities*. J Cont Educ Health Prof. 2009;29.1:1-15.

# Start with the End in Mind - Outcomes Framework

## COMMUNITY HEALTH STATUS

1. Starting at the end of the outcomes framework, data may show that the **health status** of the community is **sub-optimal** in asthma:
  - Under use of corticosteroids
  - Exposure to pet dander as an asthma trigger
  - Overuse of short-acting beta agonists
2. Sources of data:
  - Objective: Epidemiological data and reports
  - Subjective: Community self-report

Community Health

Patient Health

Performance

Competence

Learning

Satisfaction

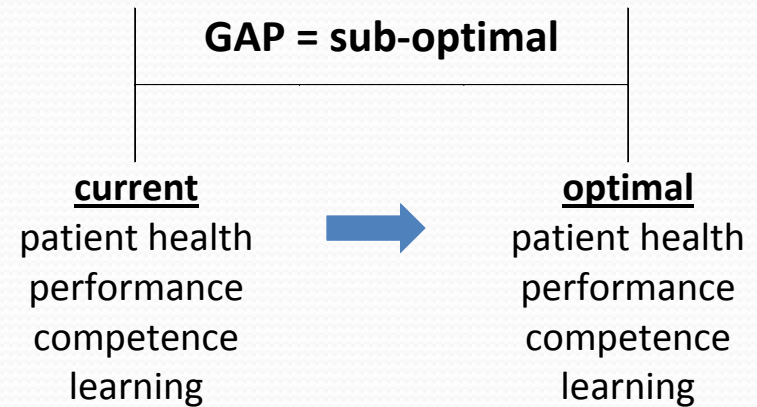
Participation

# Standard 2:

## Educational needs assessment

### Identify gaps

- **Patient Health Status**: improvements in patient health status that result from improved practice behavior
- **Performance**: applying the knowledge gained in the practice setting
- **Competence**: demonstrating capability to apply knowledge in educational setting
- **Learning**: evidence reported in medical literature about what to do, how to do it, and when to do it.



# Start with the End in Mind - Outcomes Framework

## PATIENT HEALTH STATUS

1. Continuing in the outcomes framework, data may show that the **health status** of a group of patients served by a pharmacy is **sub-optimal** in asthma:
  - Under use of corticosteroids
  - Exposure to pet dander as an asthma trigger
  - Overuse of short-acting beta agonists
2. Sources of data:
  - Objective: Health status measures recorded in pharmacy records or administrative databases
  - Subjective: Patient self-report of health status

Community Health

**Patient Health**

Performance

Competence

Learning

Satisfaction

Participation

# Start with the End in Mind - Outcomes Framework

## PHARMACIST PERFORMANCE

1. Continuing in the outcomes framework, data may show that the performance of the pharmacists in the pharmacies that these patients with asthma use **do not consistently** work with patients and physicians to address these problems:
  - Under use of corticosteroids
  - Exposure to pet dander as an asthma trigger
  - Overuse of short-acting beta agonists
2. Sources of data:
  - Objective: Observation of performance in patient care setting; patient charts; administrative databases
  - Subjective: self-report of perform

Community Health

Patient Health

**Performance**

Competence

Learning

Satisfaction

Participation



# Start with the End in Mind - Outcomes Framework

## PHARMACIST COMPETENCE

1. Continuing in the outcomes framework, data may show that the pharmacists who work in the pharmacies that these patients with asthma use **cannot consistently show** that they can work with patients and physicians to address these problems:
  - Under use of corticosteroids
  - Exposure to pet dander as an asthma trigger
  - Overuse of short-acting beta agonists
2. Source of data:
  - Objective: Observation in educational setting
  - Subjective: Self-report of competence; intention to change

Community Health

Patient Health

Performance

**Competence**

Learning

Satisfaction

Participation

# Start with the End in Mind - Outcomes Framework

## PHARMACIST LEARNING (Procedural knowledge)

1. Continuing in the outcomes framework, data may show that the pharmacists who work in the pharmacies that these patients with asthma use **do not consistently know how or when** to work with patients and physicians to address these problems:
  - Under use of corticosteroids
  - Exposure to pet dander as an asthma trigger
  - Overuse of short-acting beta agonists
2. Source of data:
  - Objective: tests of knowledge
  - Subjective: Self-report of knowledge

Community Health

Patient Health

Performance

Competence

**Learning**

Satisfaction

Participation

# Start with the End in Mind - Outcomes Framework

## PHARMACIST LEARNING (Declarative knowledge)

1. Continuing in the outcomes framework, data may show that the pharmacists who work in the pharmacies that these patients with asthma use **do not consistently know what to do** to work with patients and physicians to address these problems:
  - Under use of corticosteroids
  - Exposure to pet dander as an asthma trigger
  - Overuse of short-acting beta agonists
2. Source of data:
  - Objective: Pre- and posttests of knowledge
  - Subjective: Self-report of knowledge

Community Health

Patient Health

Performance

Competence

**Learning**

Satisfaction

Participation

# Outcomes-based CPE

## Start with the end in mind

Stages of learning	Recognizes opportunity for learning	Searches for resources for learning	Engages in learning	Tries out what was learned	Incorporates what was learned into practice
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Instructional Design	Predisposing	Enabling				Reinforcing
		Presentation	Example	Practice	Feedback	

Outcomes Framework	Enroll in CPE Activity	Satisfaction with CPE Activity	Learning Declarative Knowledge	Learning Procedural Knowledge	Competence	Performance	Patient Health Status	Community Health
			Knows what	Knows how and when	Shows how	Does		
	Level 1	Level 2	Level 3a	Level 3b	Level 4	Level 5	Level 6	Level 7

Assessment	← Needs Assessment ←						
	Formative Assessment						
	Summative Assessment						

# ACPE's Standards

## Educational Planning

Assess Educational Needs	Design Educational Activity to Address Need	Develop objectives – what learners should be expected to do	Select Formats that include Active Participation
Performance	Practice-based CPE activity	Use in practice <ul style="list-style-type: none"> <li>• Clinical Practice Guidelines</li> <li>• Consensus Statements</li> <li>• Recently Published Research</li> <li>• Local Best Practice</li> </ul> Consider practice and system issues	Presentation Example <b>Practice Feedback</b>
<b>Competence</b>	<b>Application-based CPE activity</b>	<b>Demonstrate in educational setting capability to use</b> <ul style="list-style-type: none"> <li>• Clinical Practice Guidelines</li> <li>• Consensus Statements</li> <li>• Recently Published Research</li> <li>• Local Best Practice</li> </ul> <b>Describe and discuss practice and system issues</b>	<b>Presentation</b> <b>Example</b> <b>Practice Feedback</b>
Knowledge Skill Attitudes	Knowledge-based CPE activity	Describe and discuss knowledge, skills, and attitudes <ul style="list-style-type: none"> <li>• Declarative (what)</li> <li>• Procedural (how and when)</li> </ul>	Presentation Example <b>Practice Feedback</b>

# *Outcomes-based CPE*

- Start with the end in mind – outcomes framework
- *Take into account physician stages of learning*
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# Outcomes-based CPE

## Consider stages of learning

Stages of learning	Recognizes opportunity for learning	Searches for resources for learning	Engages in learning	Tries out what was learned	Incorporates what was learned into practice			
Instructional Design	→	→	→	→	→	→	→	→
	Predisposing	Enabling					Reinforcing	
		Presentation	Example	Practice	Feedback			
Outcomes Framework	Enroll in CPE Activity	Satisfaction with CPE Activity	Learning <i>Declarative Knowledge</i>	Learning <i>Procedural Knowledge</i>	Competence	Performance	Patient Health Status	Community Health
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# Outcomes-based CPE

## Focus on clinical content

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# Outcomes-based CPE

## Opportunities for Practice and Feedback

Stages of learning	Recognizes opportunity for learning	Searches for resources for learning	Engages in learning	Tries out what was learned	Incorporates what was learned into practice
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# ACPE's Standards

## Educational Planning, Part 1

Assess Educational Needs	Design Educational Activity to Address Need	Develop objectives – what learners should be expected to do	Select Formats that include Active Participation
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4. *A value proposition for your CPE program.*



# What is “value” in health care?

- Value is defined as the *health outcome achieved* per *dollar spent*.
- Achieving *high value for patients* must become the overarching goal of health care delivery.
- Value in health care is *measured by outcomes achieved*
  - Not the volume of services delivered.
  - Not by the process of care used.
  - *Not by the number of CPE activities delivered or the number of credit hours earned.*

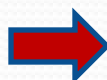
From Porter ME. *What is Value in Health Care?* N Engl J Med 2010;363.26:2477-2481.





# *What is the value proposition for Continuing Pharmacy Education?*

*The value proposition for CPE:* Help the health system that you are working in to achieve the value described in its strategic goals.

- 
- Align CPE programming with the strategic goals of the health system in your mission statement.
  - Follow an **outcomes-based approach** to planning and assessing CPE programming:
    - The results of outcomes-based CPE are more likely to **support performance improvement that will contribute to improved patient outcomes** that are described in the health system's strategic goals.
    - Collaboration is essential.

# Outcomes-based CPE

## Demonstrating value

Stages of learning	Recognizes opportunity for learning	Searches for resources for learning	Engages in learning	Tries out what was learned	Incorporates what was learned into practice
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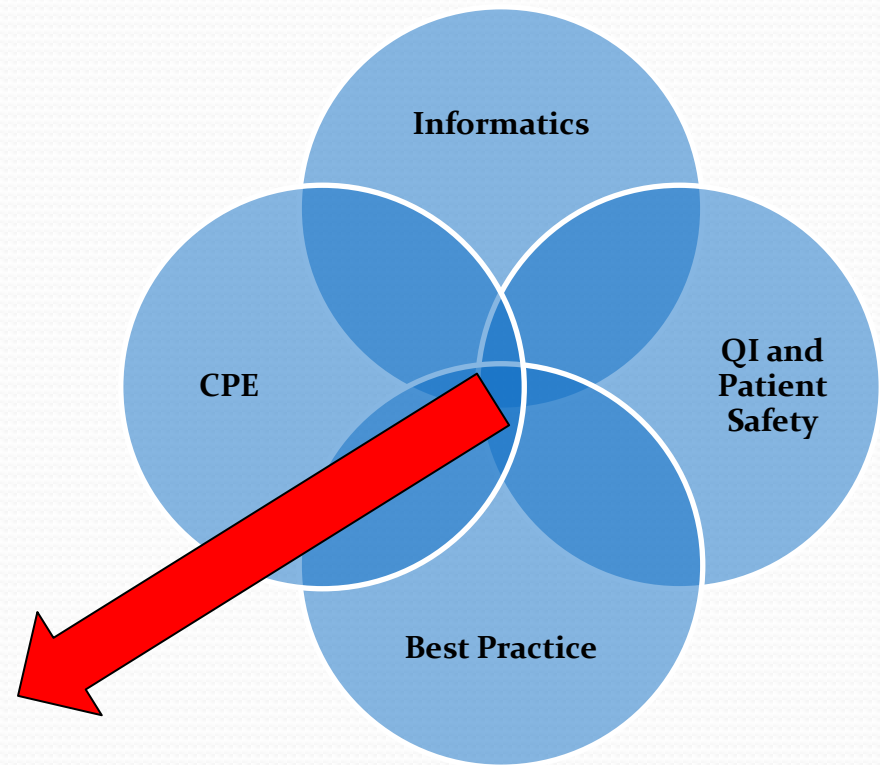


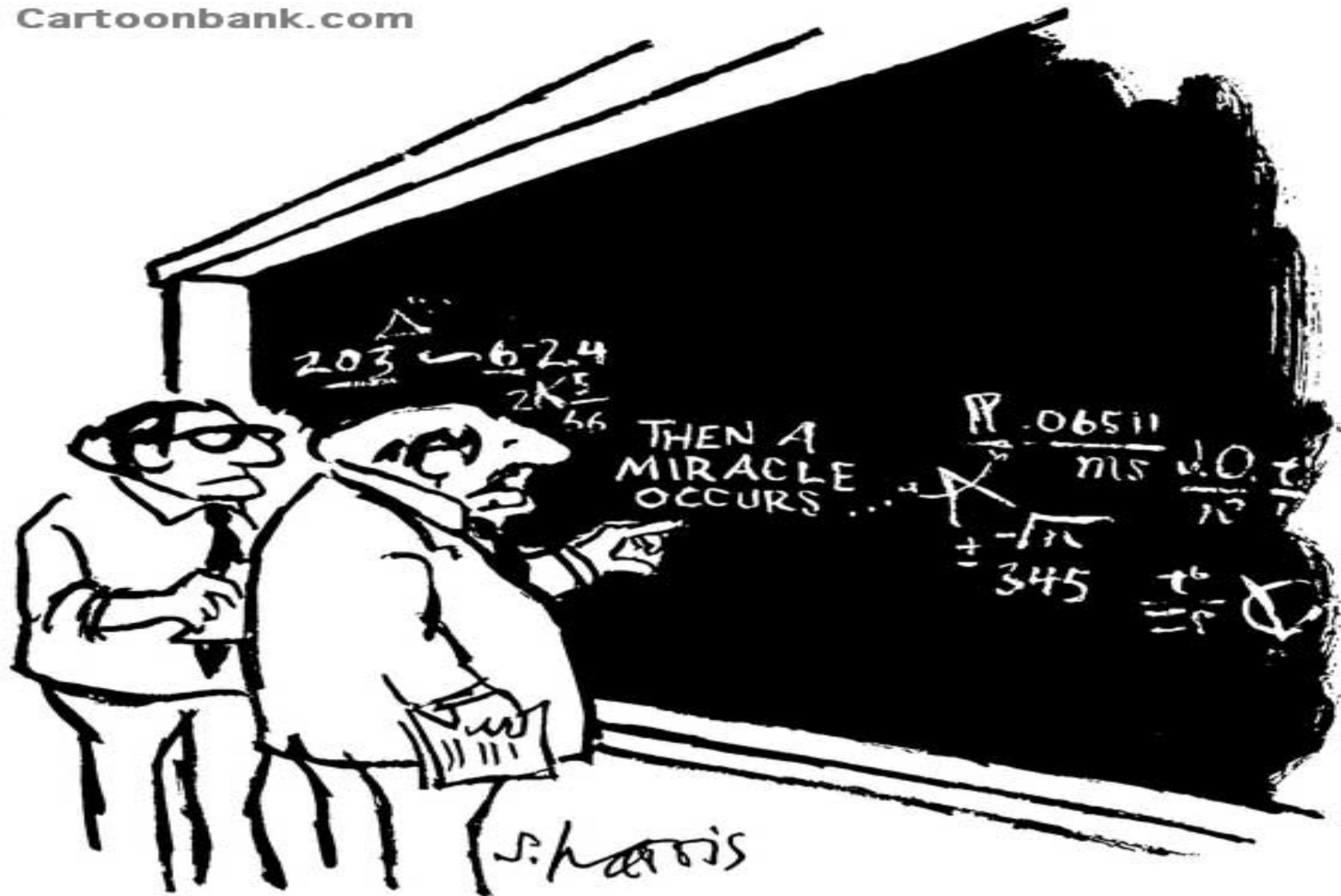
# *Demonstrating the value achieved by the CPE program*

- Evaluation: knowledge → performance
- Evaluation report
  - Summary of activities (Outcomes levels 1, 2, and maybe 3)
  - Summary of initiatives focused on strategic goals
    - What were CPE goals (Outcomes levels 4,5,6)?
    - What were CPE results?
    - How did CPE results contribute to the strategic goals of the health system?
    - What educational interventions/initiatives) did CPE use to get results?
    - What resources did CPE use to accomplish what it did?
    - What are CPE plans for the future?
  - Use evaluation to improve programming and CPE processes
- Involve and inform stakeholders

# What is collaboration in outcomes-based CPE?

- **Continuing Medical Education:** Planned physician learning to reduce and/or eliminate performance gaps
- **Quality Improvement and Patient Safety:** Establish standards and a process for examining health and performance
- **Informatics:** Aggregate data and provide information at point of care
- **Research:** Source of translated evidence for best practice
- **INTERSECTION:** Enhanced *value* to an organization





**"I think you should be more explicit here in step two."**

## *Question #1*

- An outcomes framework helps CPE practitioners clarify the level at which programming might impact pharmacist participants and the patients that they serve.
  - True
  - False

## *Question #1*

- An outcomes framework helps CPE practitioners clarify the level at which programming might impact pharmacist participants and the patients that they serve.
  - **True**
  - **False**

## *Question #2*

- The most important component of an outcomes-based approach to CPE is
  - A. Clearly stated learning objectives
  - B. Interactive audio-visuals
  - C. Handouts for each speaker
  - D. Practice and feedback



## *Question #2*

- The most important component of an outcomes-based approach to CPE is
  - A. Clearly stated learning objectives
  - B. Interactive audio-visuals
  - C. Handouts for each speaker
  - D. Practice and feedback**

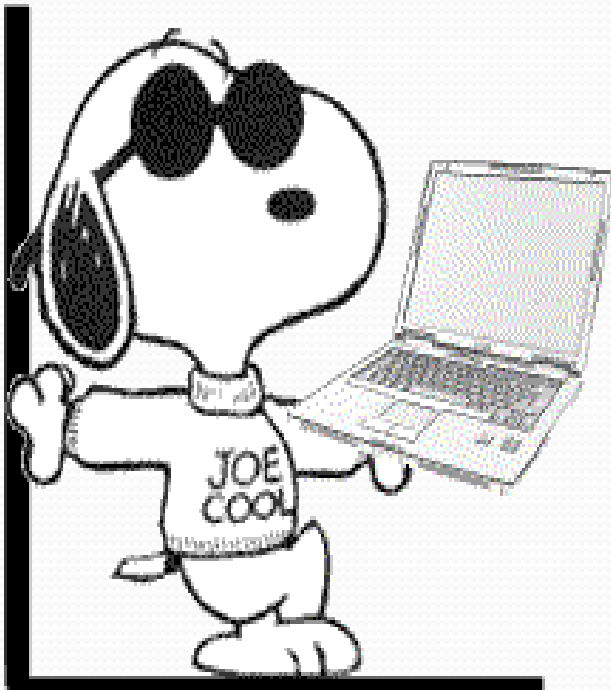
## *Question #3*

- The best way for a CPE program to demonstrate value is to focus some of its programming on the strategic goals of its parent organization.
  - True
  - False

## *Question #3*

- The best way for a CPE program to demonstrate value is to focus some of its programming on the strategic goals of its parent organization.
  - **True**
  - **False**

***Thanks!***



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