



# State of CME: US and Global

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**First**



European CME Forum

4<sup>th</sup> November 2008

London, UK

Many Thanks To The Organisers For Inviting Me

# Who Am I?

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- President and CEO (~15 yrs in CME overall)



- Fellow, Past MECCA Leader, ACWG



- Clinical Instructor – Emergency Medicine



- Contributing Author

# Disclaimer

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- I am not here to tell you that CME in the US is better than anywhere else in the world nor am I here to tell you about my own organisation
- I am here as an educator...

# In One Minute or Less Please

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- Shout out what ‘GOOD CME’ looks like

# In Another One Minute or Less Please

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- Shout out what ‘BAD CME’ looks like

# Before We Begin – Validating/Identifying YOUR Needs

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- What do you want me to tell you in my 30 minutes?

# Before We Begin – Validating/Identifying YOUR Needs

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- What do you want me to tell you in my 30 minutes?
- Ooops I meant 10 minutes
- I am happy to talk informally should you wish to during breaks/meals...



# Three Key Points to Remember

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- CME is about the LEARNER
- CME is about IMPROVING PATIENT CARE
- CME is not CM€

# The CME Reporter Model in PAH

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- Who – have the needs; sees the patient
- What – is the current standard of care/algorithm; are the knowledge levels
- Where – is the patient treated; should the education take place
- When – is the optimal time for clinical/educational interventions
- Why – is PAH under recognized; not top of mind
- How – can we improve competence/performance/patient outcomes through RELEVANT<sup>1</sup> education

# RELEVANT CME

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**R**eaches all potential target audiences

**E**ducation is the foundation and remains so

**L**earner-centric

**E**asily understood

**V**aries based on needs and preferences

**A**dult learning principles used

**N**eeds continually assessed

**T**ime-course continuum considered

# The Current CME Environment - Global

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- The need exists
  - ◆ Lifelong learning commitment of MDs
- The learners are there
- No consistency intra-country regarding
  - ◆ Regulations
  - ◆ Guidelines
  - ◆ Physician requirements
- Funding varies

# The Current CME Environment - Global

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- Lack of accreditation standardization
- Barriers
  - ◆ Overcoming time zone challenges
  - ◆ Language disparities
  - ◆ Varying treatment availability
  - ◆ Varying skill and sophistication levels
  - ◆ Ability for changes to be implemented

# The Current US CME Climate

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**LAW &**  
**ORDER** : CME

# The Current CME Environment - US

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- Primarily single-supported CME activities
- Shotgun approach
- CME is missing the “E”
- Outcomes – no agreement of what should be measured
  - ◆ Has improved greatly over the last 3 years
- Commercial support is an issue

# The Current CME Environment in the US - II

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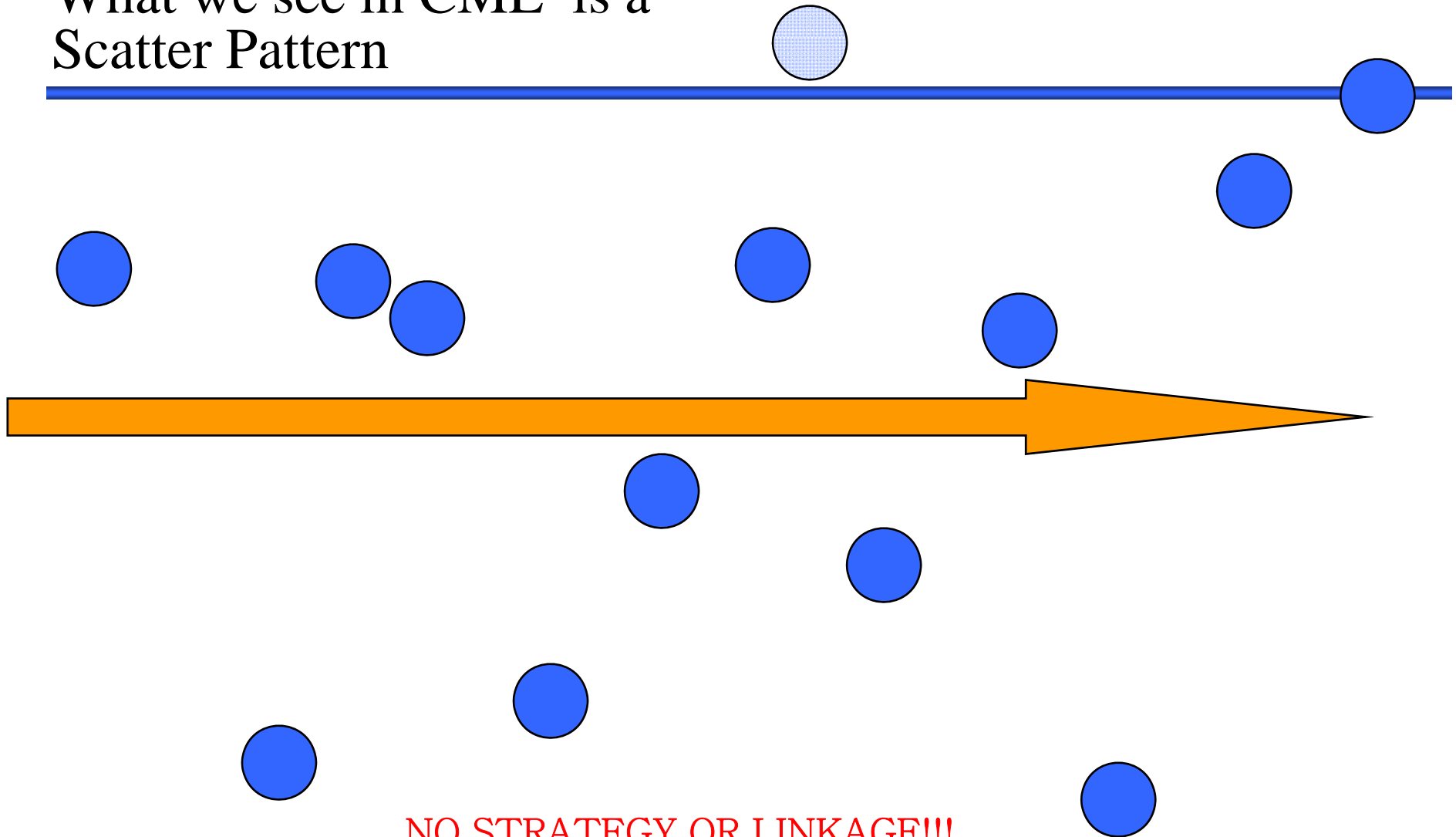
- CME too focused on individual conditions and not realistic patient presentation
  - ◆ Co-morbidities covered broadly
- Most data-intensive with little appropriate interactivity
  - ◆ Lack of appropriate use of Adult Learning Principles<sup>1</sup>
- Little if any time course management
  - ◆ Learning objectives without changes from year to year – WHY?
- Performance Improvement CME is developing into the model of the future<sup>2</sup>

<sup>1</sup>Example of an overused phrase in CME

<sup>2</sup><http://www.ama-assn.org/ama1/pub/upload/mm/455/cppd22.pdf>



# What we see in CME is a Scatter Pattern



NO STRATEGY OR LINKAGE!!!

Reinvention of the wheel over and over...

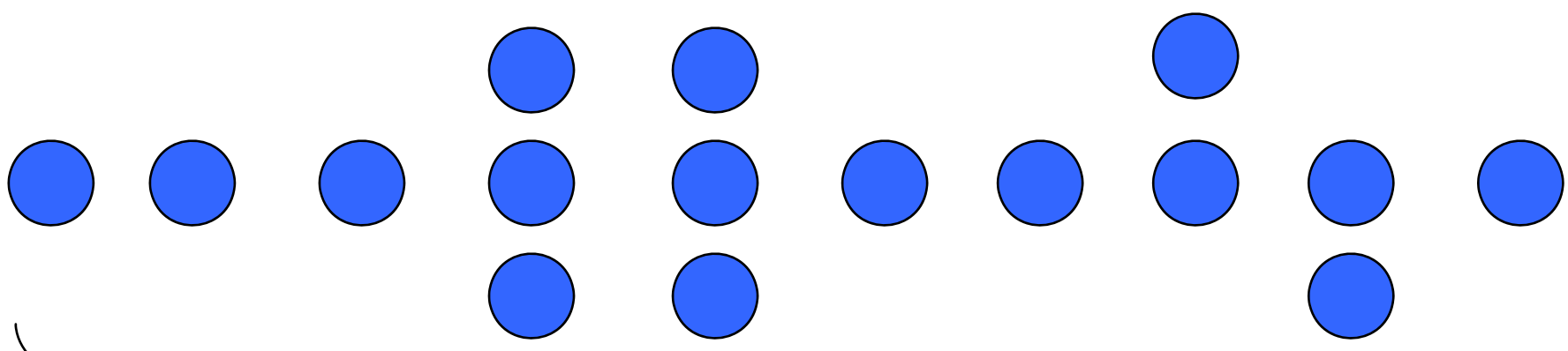
# What we SHOULD see is a Pattern Driving to Strategic Approach

“The end is the Beginning”

Needs Assessment

Continuous Assessment

Outcomes



Linking activities to curriculum approach based on Needs Assessment  
Mixed media based on learners' preferences, cognizant of distribution opportunities  
Adaptation over time

# Overall Needs

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- We are in need of an overall CME needs assessment
- We have seen an overall CME effectiveness review
  - ◆ AHRQ Publication 07-E006 January 2007<sup>1</sup>
  - ◆ A good start, but the paucity of literature to review spoke volumes
  - ◆ A need exists to continue this process
  - ◆ PI CME must continue to evolve
- There is a need for global advocacy and advocates
- These needs are global

<sup>1</sup><http://www.ahrq.gov/downloads/pub/evidence/pdf/cme/cme.pdf>. Accessed 22 May 2008

# Addressing Global “Best Practices<sup>1</sup>”

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- Subjective vs. objective
- Lack of “fruit equality”
- Will certainly mean different things to different stakeholders
- Can we really find all practices so that the best can truly be identified?
- Can we learn as much from worst practices?
- What is the prize for being named “Best in Show”?



<sup>1</sup>Another example of an overused phrase in CME

# The 4 C's Have Been Missing!

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- Collaboration
- Collegiality
- Coordination
- Consistency



# Best Practices in CME Needs Assessment, Educational Methodology, and Outcomes

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# Needs Assessment “Best Practices”

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- Elements and qualities
  - ◆ Multi-faceted
  - ◆ Uses frameworks or theory
  - ◆ Exploring various perspectives
  - ◆ Use of objective and subjective data
  - ◆ Primary and secondary sources of information
  - ◆ Identified educable gaps
  
- “Needs Assessment” means different things to different people – so “Best Practices” vary
  - ◆ And that’s OK!

# The Needs Assessment

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- Must go far beyond literature review
- Validation of educational methodology
- Rationale for recommendation of tactic(s)
- Don't just ask academics/KOLs
- Look for geographic needs and variations
- Assess learning preferences
  - ◆ Channel preferences are key
  - ◆ Real-time vs. archived



# The Components

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- Evidence
  - ◆ Literature
  - ◆ Interviews
  - ◆ Evaluations
  - ◆ Medical records
  
- Preferences
  - ◆ Media
  - ◆ Modalities
  - ◆ Channels
  
- Environment
  - ◆ Competitive activities
  - ◆ Non-competitive activities

# What Should a Needs Assessment Contain?

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- Educational gaps
- Disparities
- Learning style preferences
- Where the learners are or where they go for education
- Geographic variations
- Clinical and non-clinical information
- Competitive CME landscape
- Are other activities working?
  - ◆ Why or why not?
- Who should teach
- Who should not teach
- Who needs to learn and how
- When should the activity take place



# Assessing Practice Variation

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- Inappropriate practice variation contributes to medical errors, excessive health care costs, concerns over patient safety, and poor outcomes.
  
- Variation in care have been associated with internal and external factors
  - Practice characteristics
    - Years in practice
    - Specialty
    - Gender
    - Practice Type
    - Geographic location
  - Attitudes & Perceptions

Veloski, Jon, Stephen Tai, Adam S. Evans, and David B. Nash. "Clinical vignette-based surveys: a tool for assessing physician practice variation." *American Journal of Medical Quality* 20.3 (May-June 2005): 151(7).

Diehr, P., Cain K., Connell F., and Volinn E. What is too much variation? The null hypothesis in Small-Area Analysis. *Health Services Research* 1990;24(6): 741-71.

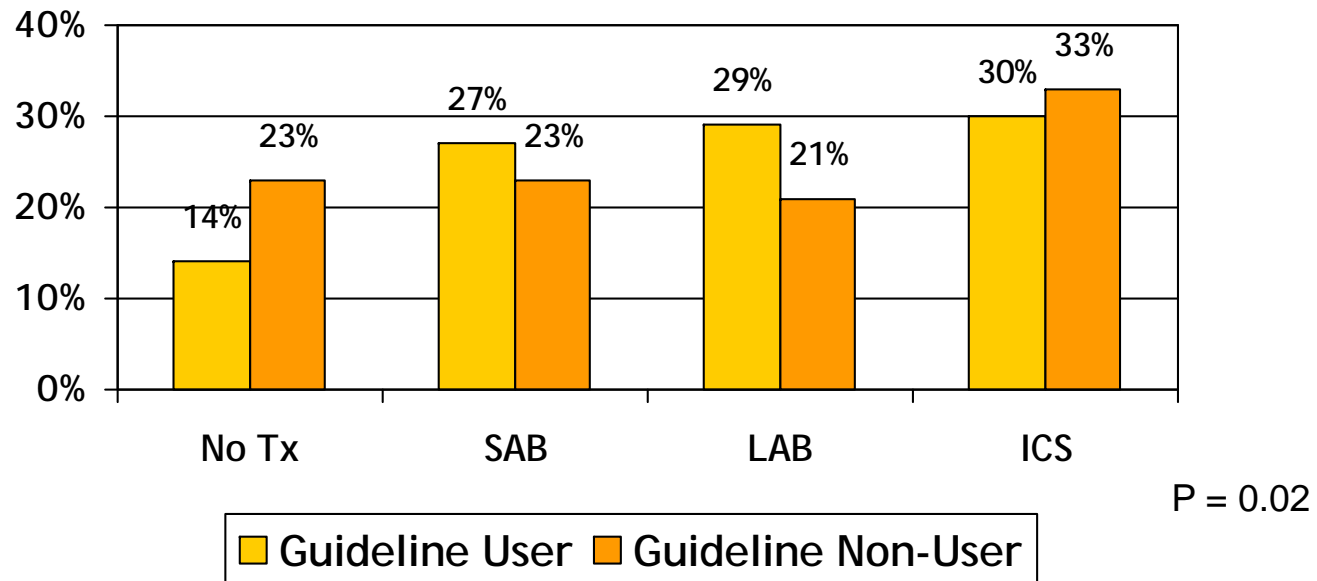
# Methods for Assessing Practice Variation

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	<b>Pros</b>	<b>Cons</b>
Administrative Data	<ul style="list-style-type: none"> <li>■ Readily available</li> <li>■ Objective data</li> </ul>	<ul style="list-style-type: none"> <li>■ Low correlation with practice</li> <li>■ Usually unable to obtain at provider level</li> </ul>
Chart Data	<ul style="list-style-type: none"> <li>■ Objective data</li> <li>■ Rich information</li> </ul>	<ul style="list-style-type: none"> <li>■ HIPAA concerns</li> <li>■ Control for co-variates</li> </ul>
Standardized Patients	<ul style="list-style-type: none"> <li>■ Valid and reliable data</li> <li>■ Can be used for variety of clinical areas</li> </ul>	<ul style="list-style-type: none"> <li>■ Costly</li> <li>■ Implementation very difficult</li> </ul>
Case-vignettes	<ul style="list-style-type: none"> <li>■ Measurement of process of care</li> <li>■ Cost effective and valid method</li> <li>■ Control for co-variates</li> </ul>	<ul style="list-style-type: none"> <li>■ Not all patient scenarios can be evaluated</li> <li>■ Case and question design critical</li> </ul>

# Survey Finding: Clinical Decision-Making

## Initial Pharmacotherapy for Mild COPD

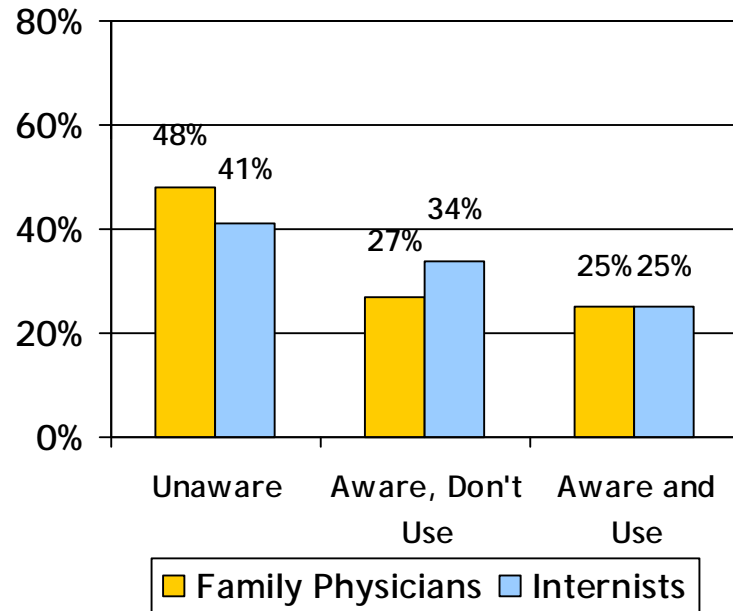


**PCPs most commonly chose an inhaled corticosteroid as initial therapy for a patient with mild COPD. This choice that would be guideline consistent for asthma, but not COPD, suggesting confusion about key differences between these 2 common lung diseases.**

**PCPs who are guideline users appear more likely to offer treatment and utilize long-acting bronchodilators for patients with mild COPD.**

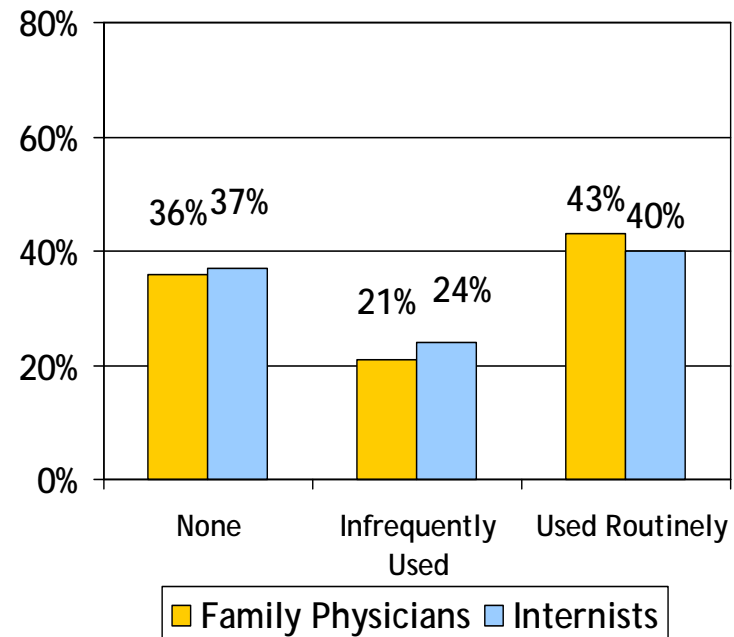
# Survey Findings: Perceptions, Resources

## Guideline Awareness & Use



More than 1/3 of PCPs are unaware of either GOLD or ATS/ERS guidelines for COPD. Only half of those who are aware actually use guidelines in decision making

## Office Spirometry Availability & Use

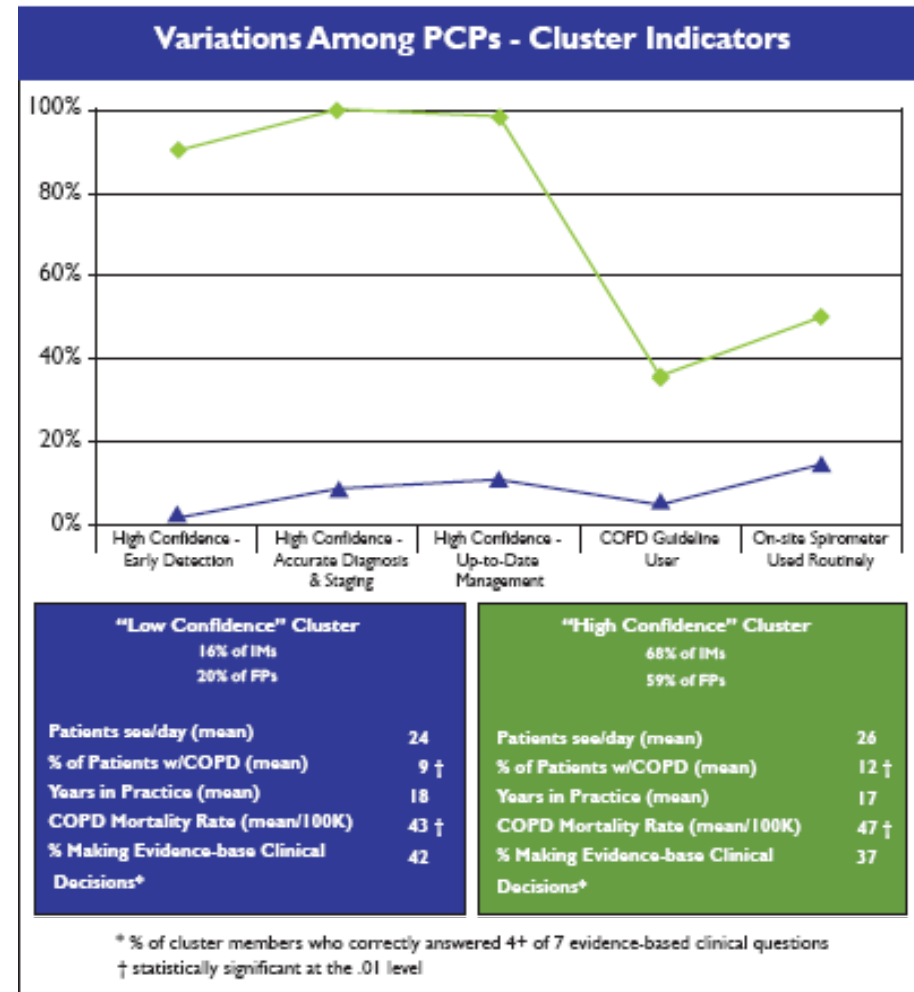


A majority of PCPs have a spirometer in their office, but a third of office spirometers are rarely unused.

# Practice Variation and Clusters

- High confidence levels were associated with
  - Guideline usage
  - Spirometry usage
  
- Majority of low confidence PCPs practice in Northeast were pulmonologists are relatively abundant
  - Lower access to specialists
  - Lower number of patients seen

## Results: Cluster Characteristics

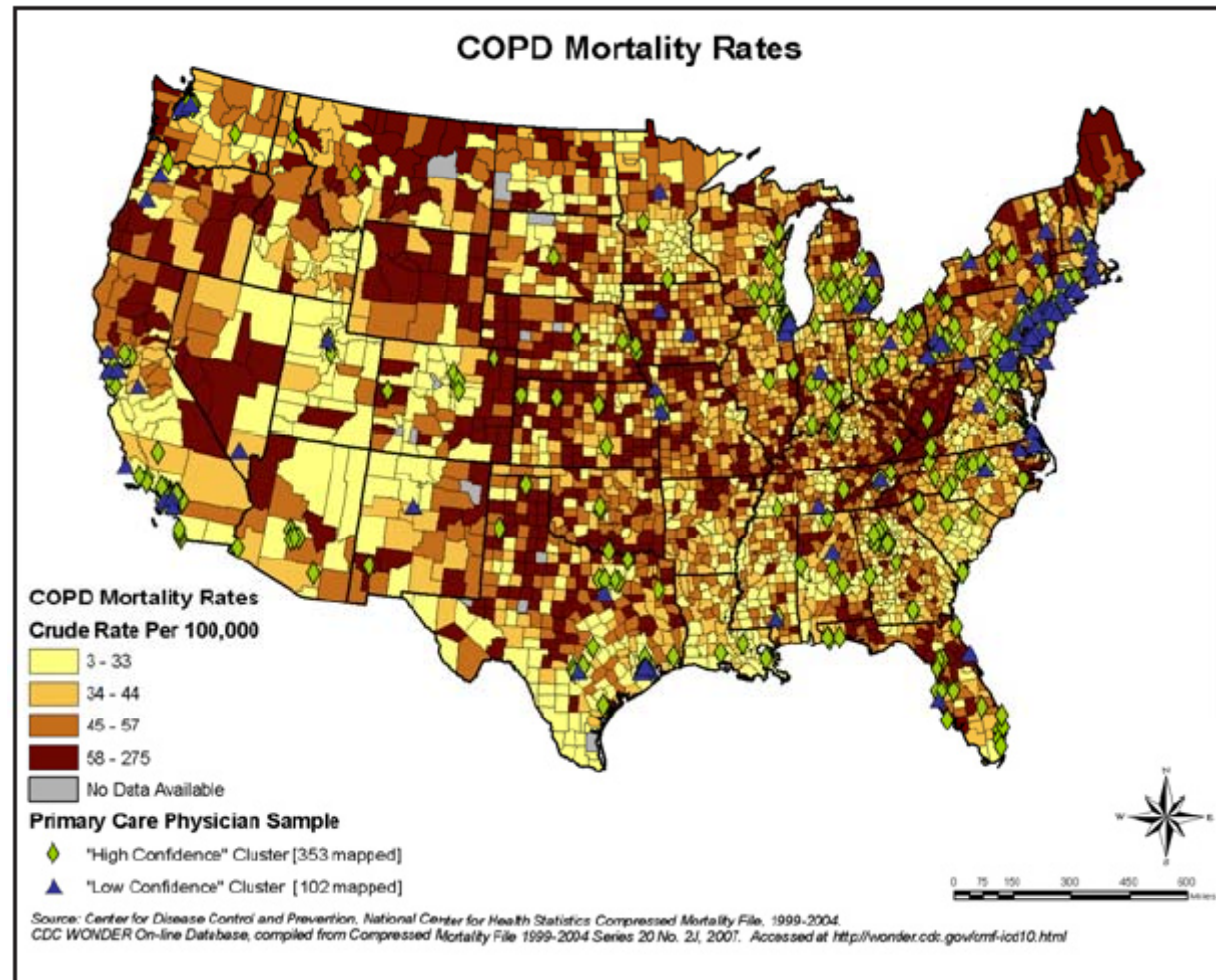


\*Data being presented at ATS Annual meeting May 24, 2008

# Geographic Analysis

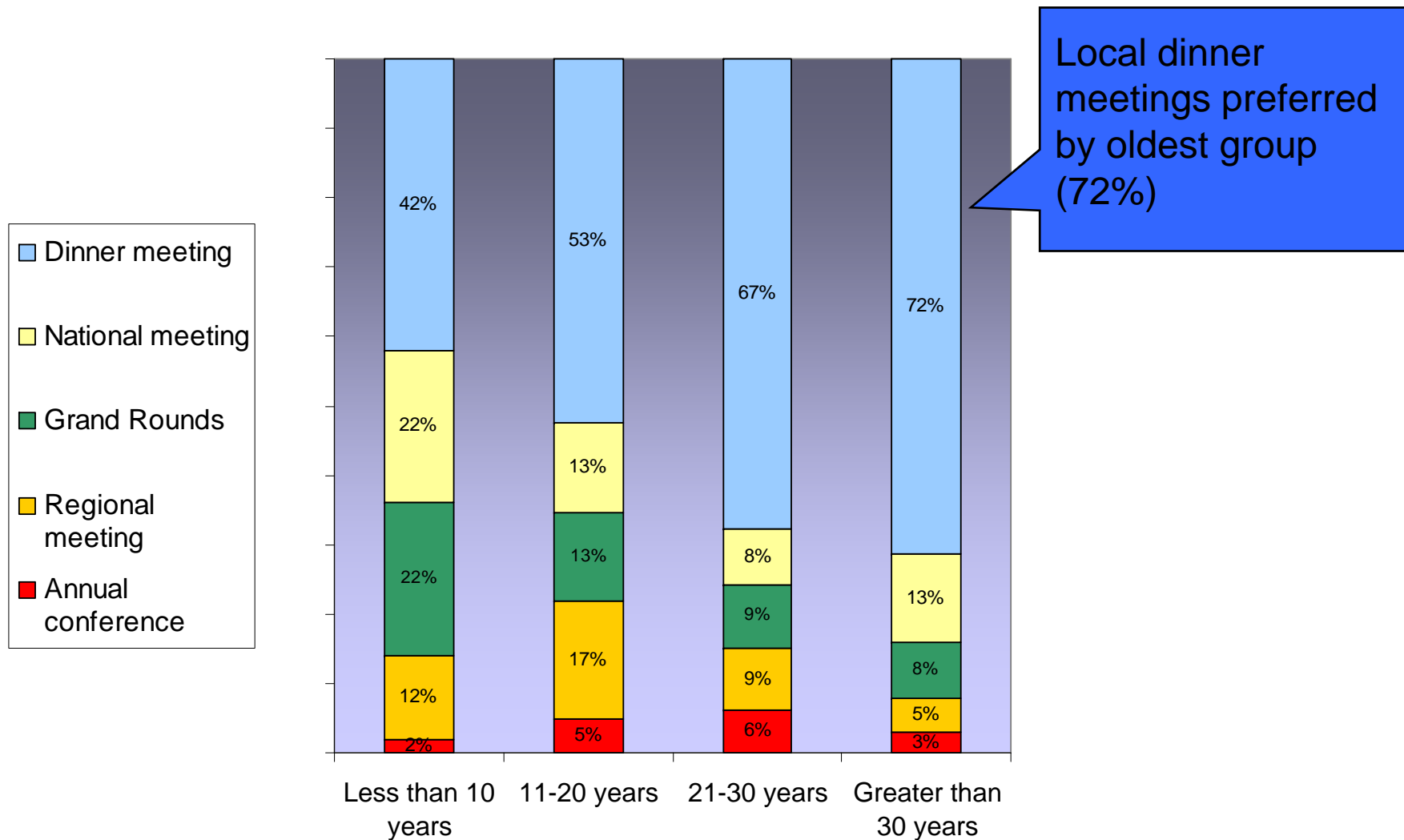
- **Positive relationship between practice location and confidence**
  - ◆ Higher use of guidelines in areas with High COPD mortality
  - ◆ However little difference in ability of PCPs to identify and diagnose mild-moderate COPD

## Geographic Variation





# Preferences of Live Meetings By Age Group



# Delivery Channels – Live II

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- Promoting interactivity
  - ◆ Appropriate use of ARS
    - Laptops and PDAs vs. traditional keypads
  - ◆ Get groups to move about the room
    - Even a dinner meeting can have movement
      - Main session – all together
      - Breakout groups – split evenly
        - MP4 case discussions
        - Virtual posters
        - Multi-disciplinary faculty chats
  - ◆ Cater to all learning styles
    - Auditory, visual, kinesthetic
    - Pre-contemplative through action

# Delivery Channels – Live III

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- Collaborative forums
  - ◆ Involve two (or more) of the specialties involved in the patient care
  - ◆ Address challenges each group faces
  
- Collaborate with different stakeholder organisations
  
- Everything live should live on...

# Delivery Channels – Enduring

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- Traditional venues
  - ◆ Print
- Online portals
- Non-traditional venues
  - ◆ Discovery Channel
  - ◆ Haoyisheng
- Non-traditional content
  - ◆ Build-a-case
  - ◆ Branched learning
  - ◆ Multiple activities for Prochaska self-selection



# Strategic Recommendations Based on Needs Assessments Done Collaboratively

- Mix of media, venue and channels
  - ◆ Even video games and television
- Involve all collaborative partners from the beginning
- Constantly reassess



CME HPV-Cercical Cancer30.mov

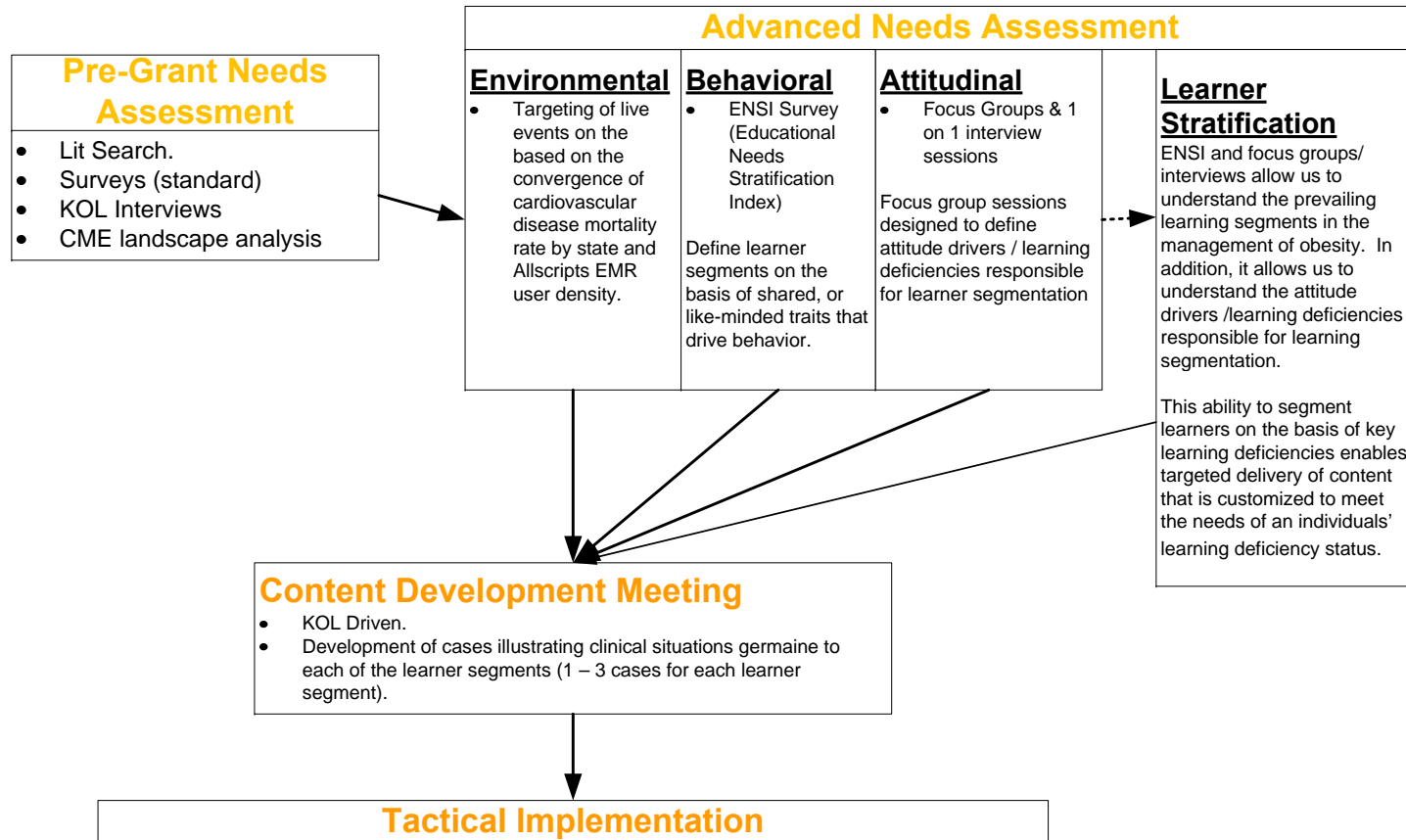
# PDA- Based – Point of Care CME

## Dyslipidemia and Cardiac Risk

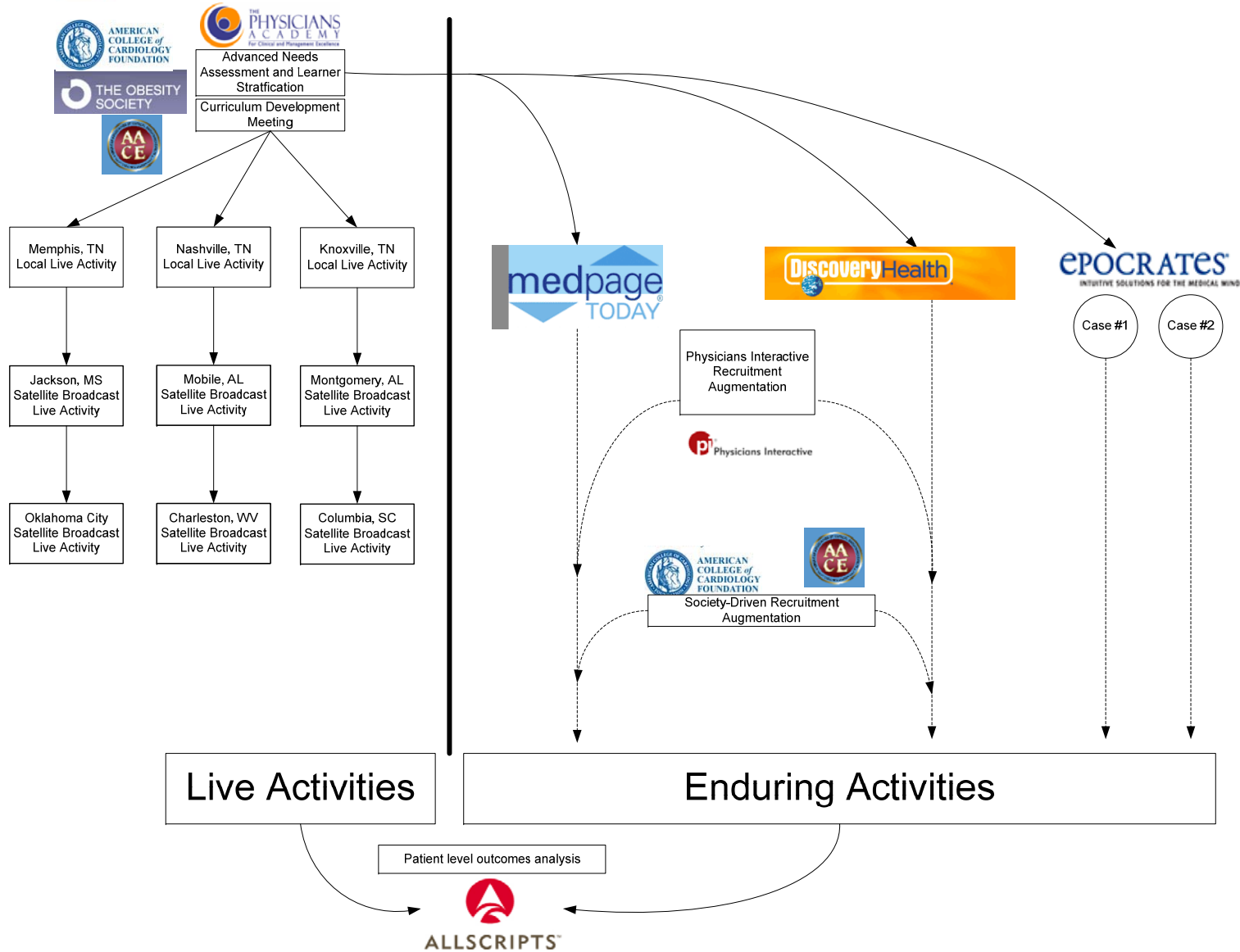
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# Serial Educational Approach Recently Proposed...Part 1



# Part 2...





# Outcomes Discussion

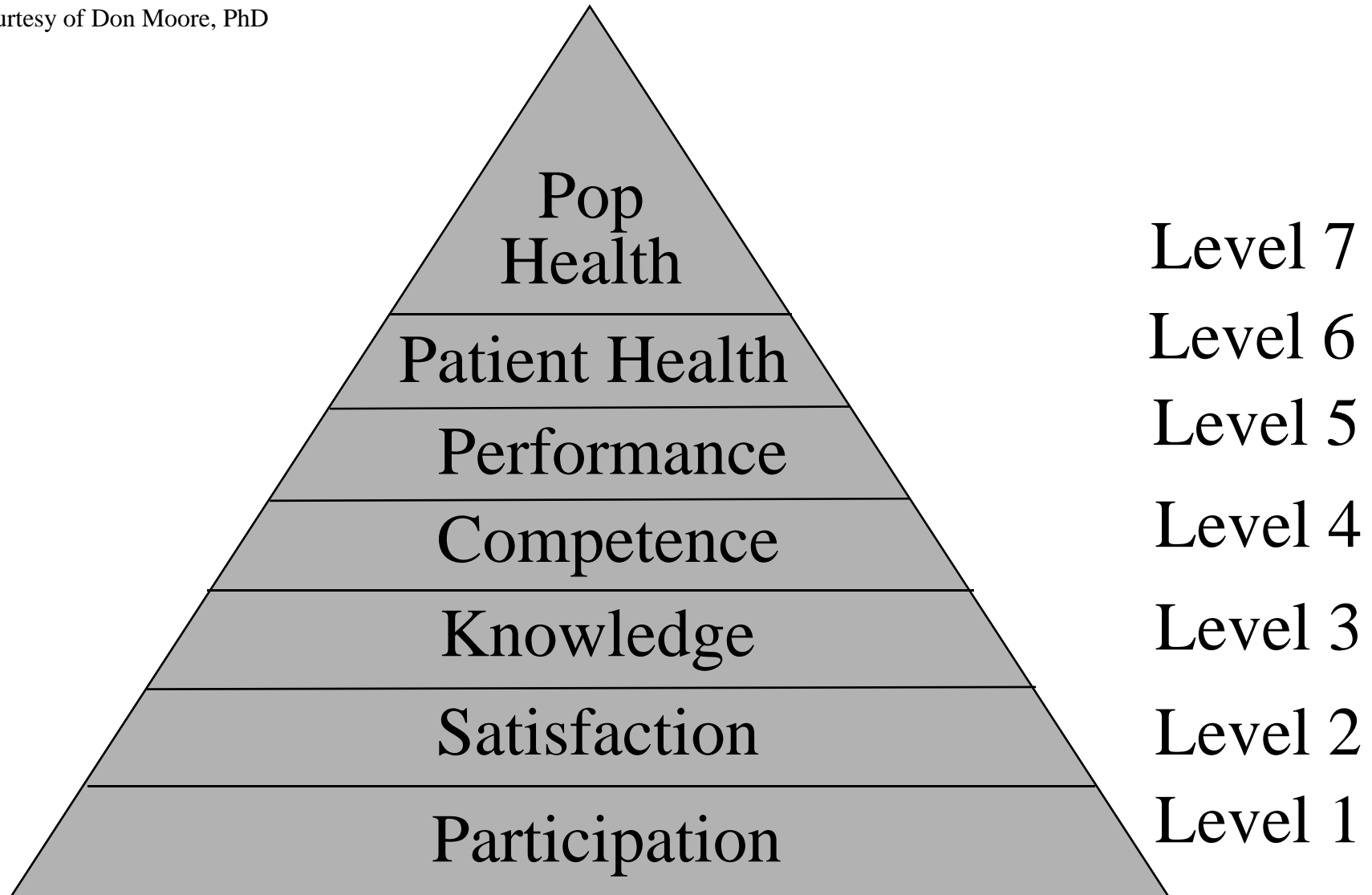
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- What is meant by “CME Outcomes?”
- Have we always measured CME Outcomes?
- What are examples of best practices?

# Updated Outcomes Model

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Courtesy of Don Moore, PhD



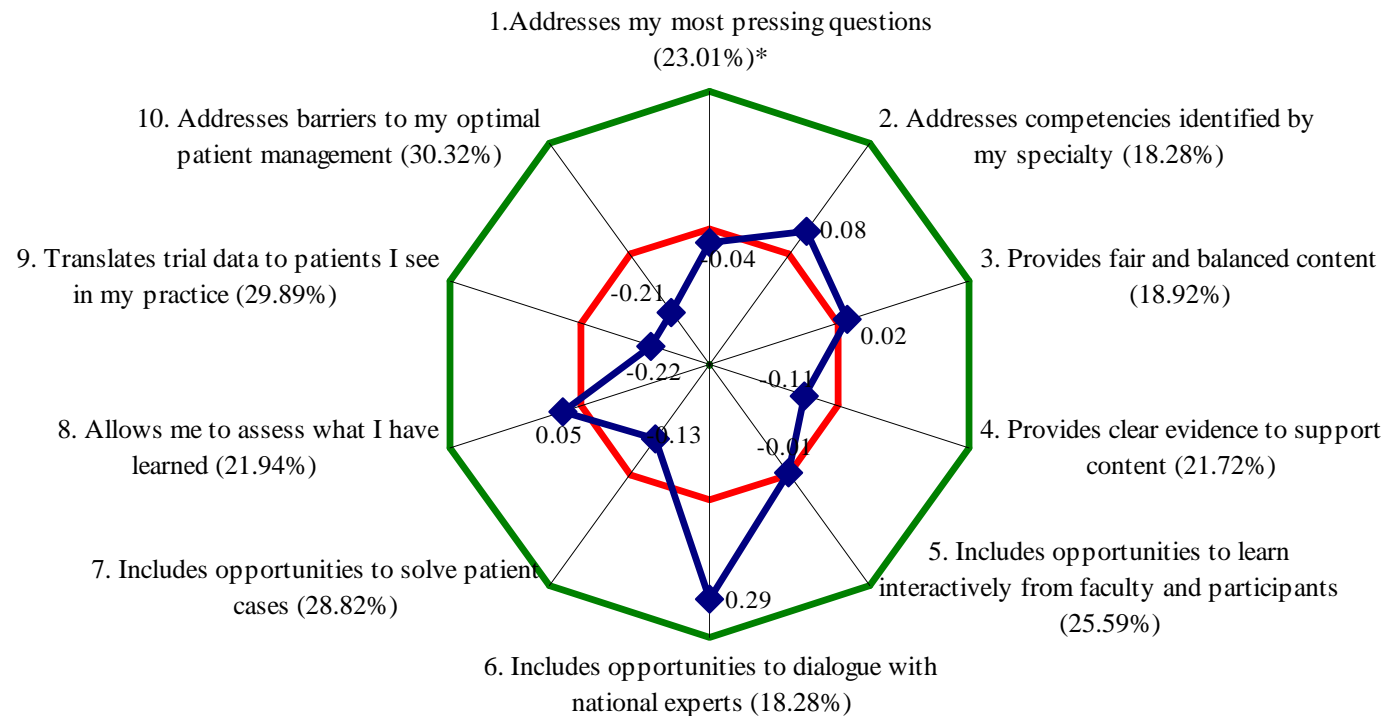
# Levels of Outcomes-based CME Evaluation Model\*

Level	Outcome	Definition
1	Participation	Number of physicians/others who registered and attended
2	Satisfaction	Degree to which participant expectations about the setting/delivery of CME activity were met
3	Learning	Changes in knowledge, skills, and/or attitudes of the participants
4	Competence	Changes knowledge, skills and behavior utilized to improve performance
5	Performance	Changes in practice performance as a result of the application of what was learned.
6	Patient Health	Impact on patient health status due to practice behavior changes
7	Population Health	Impact on population health status due to changes in practice behavior

\*Davis, D, Barnes, BE, & Fox, R (2003). *The Continuing Professional Development of Physicians, From Research to Practice*. AMA Press. P.251

# Level One and Two Example

## Performance Perceptions (met expectations) Minus Expectations (importance) for 10 CME Programs



Note:\* Percentage of CME participants experiencing negative disconfirmation (i.e. Perception (met expectations) ratings less than Expectations (importance)).

# Rethinking outcomes

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1. Participation: how many attended?
2. Satisfaction: did they like it?
3. Knowledge: did anybody learn?
  - ◆ Declarative knowledge (knows what should be done)
  - ◆ Procedural knowledge (knows how it should be done)
4. Competence: can anybody do what they learned?
  - ◆ Shows how to do it in an educational setting
5. Performance: did behavior change?
  - ◆ Actually does it in practice
6. Patient health: did it improve?
7. Population health: did it improve?

# What's done now?

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1. Participation: how many attended?
2. Satisfaction: did they like it?
3. Knowledge: did anybody learn?
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  - ◆ Procedural knowledge (knows how it should be done)
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# What the ACCME wants

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1. Participation: how many attended?
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3. Knowledge: did anybody learn?
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# Outcomes Measurement Techniques

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- Evaluation/Surveys
  - ◆ Standardization
  
- Live meeting example(s)
  - ◆ Pre- and post-activity questioning
  - ◆ Post-activity surveys
  
- Case-control matching
  - ◆ Live activities
  - ◆ Enduring materials
  - ◆ eCME
  - ◆ mCME
  
- Patient-level data evaluation



# Linking Needs Assessments to Outcomes

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- Can outcomes be measured for all activities?
  - ◆ Yes!
- All CME activities have learning objectives
- Outcomes measurements assess how well learning objectives were met – or not!
- Standardization of evaluation forms between providers would allow for interactivity comparisons and aggregate data evaluation
- Developing an outcomes plan

# Moving to More Sophisticated Approaches

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- Physicians fall into several categories of learners
  - ◆ Pre-contemplation (not going to change soon)
  - ◆ Contemplation (able to change ~6 mos)
  - ◆ Preparation (ready to change ~1 mo)
  - ◆ Action (have already changed)
  - ◆ Maintenance (a bit slower and need reinforcement)
- Education should be developed to address all audience needs and outcomes will improve
- Movement can be seen within all groups

# What to Expect as a Result...

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- Comprehensive evaluation and analysis
  - ◆ What worked, what didn't and why?
  - ◆ Next steps as a result of the analysis
  - ◆ Are there needs that continues to exist despite repeated interventions?
  - ◆ What delivery channels were most effective within the individual audiences

# Conclusion

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- There are opportunities for CME to improve globally
- Best practices and worst practices exist around the world
  - ◆ From needs through outcomes
- CME must have the ultimate goal of improving physician performance and patient health
- CME must be education

# Two Meetings Worth Noting

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The 5th Annual  
**World Health Care Congress**  
Europe 2009

*Public and Private Initiatives to Improve European Health Care Delivery*

13-14 May 2009 • Bedford Hotel & Congress Centre Brussels, Belgium



**GAME** GLOBAL ALLIANCE  
FOR MEDICAL EDUCATION

**Merci beaucoup**

**Schön dank**

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**ευχαριστώ**

**Muito obrigado**

**Dekuji**

**спасибо**

**Dank U**

**Thank you**

**Tack**

**Muchas gracias**

**Dakujem**

**Grazie mille**

**Köszönöm**

**Kiitos**

**Hvala**