#### Next Steps in Health Outcomes and Behavioral Sciences

Margaret Rothman, Ph.D.

Johnson & Johnson Pharmaceutical Services, LLC

Exploring the Current State and Future Applications of IRT, Item Banks, and CAT

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#### Task

- How will the pharmaceutical industry benefit by incorporating IRT, item banking and CAT?
- What demonstrations are necessary to explore the potential benefits of item banking and CATs to health outcomes measurement in clinical trials?
- What role should industry play to push this arena forward?

## Perspective

 One individual working on measurement issues within one pharmaceutical company

#### Goals

- Discover, develop and bring to market therapeutic products that will improve the health of consumers
- Provide a reasonable return on investment to company stockholders

### **Potential Benefits**

- Improved measurement of trial endpoints
  - Developing more efficient new measures
  - More efficient evaluation of existing measures
  - Revising existing measures to improve sensitivity to small but important differences
- Decreased burden
  - respondents and investigators
- Optimize use of existing data
  - Comparison of findings from trials that used different endpoints

What demonstrations are necessary to explore the potential benefits of item banking and CATs to health outcomes measurement?

## Data must be convincing to key audiences

- Different audiences require different types of information
- Key audiences
  - Regulatory authorities
  - Patients
  - Clinicians
  - Payers

# What role should industry play to push this arena forward?

## History

- History of industry sponsorship of new instruments and innovative measurement techniques
  - Instrument development, e.g., SF-36, EQ-5D, SIP
  - Innovative methods, e.g., e-PRO, formatting of PRO instruments

### Barriers to Implementation

- Communication
  - Complex topic
  - Use of IRT and education terminology
- Clarification of benefit, i.e., score changes
- Access
  - Who owns the instrument or methodology?
  - Who has access how is this decided?
  - Are there legal issues that need to be resolved?

# Potential Contributions of Industry

- Direct support through grants
- Data collection in large populations in longitudinal studies
- Access to existing data bases