Diabetes Outcomes that Matter to Patients: Use of Patient-Reported Outcome Measures as Educational Tools

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Diabetes Outcomes that Matter to Patients

Use of Patient-Reported Outcome Measures as Educational Tools

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Disclosure Announcement
STFM Lecture-Discussion
Diabetes Outcomes that Matter to Patients
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The presenters have no financial relationships to disclose.

- Beth Careyva, MD
- Arnold Goldberg, MD
- Melanie Johnson, MPA
- Brian Stello, MD
Learning Objectives

- Describe the pragmatic use of Patient-Reported Outcomes (PROs) to facilitate communication and enhance diabetes care
- Appraise PROs within the context of the Triple Aim and the Patient Centered Medical Home
- Employ PROs within the curriculum to emphasize social determinants of health and patient-centered and individualized care
Why diabetes?

- 11.3% of those over the age of 20 with DM2
- WHO estimates 7th leading cause of death by 2030
- More than $300 billion spent on diabetes-related medical costs in 2012


Elizabeth Selvin, PhD, MPH; Christina M. Parrinello, MPH; David B. Sacks, MB, ChB; and Josef Coresh, MD, PhD

Figure 2. Prevalence of total confirmed diabetes and obesity.

Data from U.S. adults aged ≥20 y in NHANES 1988–1994, 1999–2004, and 2005–2010. Total confirmed diabetes was defined as diagnosed diabetes or undiagnosed diabetes with diagnostic levels of both hemoglobin A1c (≥6.5%) and fasting glucose (7.0 mmol/L [≥126 mg/dL]). Obesity was defined as body mass index ≥30 kg/m². 601 persons were missing body mass index data. Prevalence estimates for total confirmed diabetes and obesity were obtained using only the subsample of participants who attended the morning fasting session (7385 participants for 1988–1994, 5680 participants for 1999–2004, and 6719 participants for 2005–2010). The midpoint for obesity prevalence between 1988–1994 and 1999–2004 was calculated as the average of the prevalence of the 2 periods. NHANES = National Health and Nutrition Examination Survey.
Type 2 Diabetes

- Optimal management requires patient activation and patient-clinician partnerships
- Gradual decline of beta cell function over time warrants changes to the care plan
- Model for other chronic disease states
Patient priorities and cost

- Incorporating patient priorities lowered the hemoglobin A1c (0.83%, CI 0.81-0.84%) and decreased costs ($261 USD) after one year.
- Results most notable in those with A1c greater than 8.5%.

PROs for Diabetes

- May address currently unmet need to identify what is most important to patients, such as impact of diabetes on mood, finance, and relationships
- Identifying challenges and priorities in diabetes care may enhance communication and improve outcomes
Patient-Reported Outcomes (PROs) to Facilitate Communication
Patient Reported Outcome Measures (PROs)

- Evidence of health from the patient’s perspective
- Examples include pain scales, PHQ-9 scores, and quality of life indices
- Increasing use across disease states and specialties
Perceptions of Quality of Life from Various Perspectives

Why are PROs Necessary?

Reported Change in Overall Patient Quality of Life

(Jachuck et al., 1982)

From Presentation of San Keller, PhD, PROMIS Webinar, June 24, 2014
Why do we need Patient-Reported Outcome Measures?

- Biomarkers, morbidity, and mortality not adequate measures of health
- Certain outcomes require patient input (i.e., pain)
- Learning what matters to patients may decrease costs
Impact of Patient-Reported Outcomes

- Improve patient-clinician communication\(^1\)
- Increase detection of quality of life issues\(^1\)
- Further study needed to clarify impact on shared decision-making and disease oriented outcomes\(^2\)

Methods to Collect PROs
PRO Collection

- May be collected in a variety of ways
  - Asking patients during visits
  - Survey tools- paper and computerized
- Examples include Beacon PROQOL and PROMIS
- Patients may be more forthcoming when asked via survey outside of the office visit
Patient-Reported Outcome Measure Tools
# Accessing PROMIS Short Form Instruments

Please click on the button to request access to a zip file of selected PROMIS short forms. The zip file will include the instruments listed below.* To view a PROMIS item go to [www.nihpromis.org/](http://www.nihpromis.org/)

* [SampleQuestions](http://www.nihpromis.org/)

## Request PDFs of PROMIS Short Forms

### ADULT
- PROMIS Short Form v1.0 - Physical Function 12a
- PROMIS Short Form v1.0 - Emotional Distress - Anxiety 8a
- PROMIS Short Form v1.0 - Emotional Distress - Depression 8a
- PROMIS Short Form v1.0 - Fatigue 8a
- PROMIS Short Form v1.0 - Sleep Disturbance 8a
- PROMIS Short Form v1.0 - Ability to Participate in Social Roles & Activities 8a
- PROMIS Short Form v1.0 - Pain Interference 12a
- PROMIS Short Form v1.0 - Global Health Scale
- PROMIS -29 Profile v2.0

### PEDIATRIC
- PROMIS Pediatric Short Form v1.0 - Physical Function Mobility 8
- PROMIS Pediatric Short Form v1.0 - Physical Function Upper Extremity 8
- PROMIS Pediatric Short Form v1.0 - Emotional Distress - Anxiety 8
- PROMIS Pediatric Short Form v1.0 - Emotional Distress - Depressive Symptoms 8
- PROMIS Pediatric Short Form v1.0 - Fatigue 10
- PROMIS Pediatric Short Form v1.0 - Peer Relationships 8
- PROMIS Pediatric Short Form v1.0 - Pain Interference 8
- PROMIS Pediatric Short Form v1.0 - Asthma Impact 8

### PARENT PROXY
Beacon PROQOL

http://www.plosmedicine.org/article/info:doi/10.1371/journal.pmed.1001548
Money was the most frequently cited concern (29%)

50% reported problems paying medical bills and 40% had postponed medical care

Other top selections: physical health, emotional health, monitoring health, and health behaviors
Summary: PROs to Facilitate Communication and Enhance Diabetes Care

- Method to systematically assess patient priorities and provide patient centered diabetes care

- May be used to increase and enhance communication both during and in between office visits
Where are PROs used?

**Translational Research**
- T1 -- Clinical Trials
- T2 -- Comparative effectiveness
- T3 – Quality improvement
- T4 – Personalized care

**Population Sciences**
- Registries
- National surveys
- Health and social policy evaluations

From Presentation of San Keller, PhD, PROMIS Webinar, June 24, 2014
Where are PROs used?
PROs within the context of the Triple Aim and PCMH
PROs within Triple Aim
PROs within Triple Aim

- Opportunity to enhance communication and satisfaction for patients and clinicians
- Facilitate delivery of patient-centered and equitable quality care for chronic illness management
- May decrease costs, particularly when used to assess social determinants of health
Quadruple Aim

- Recommendation to increase satisfaction and joy for healthcare personnel\(^1\)

- PROs may help support this objective by fostering relationship-centered care and engaging teams

### PCMH 2014 Content and Scoring

(6 standards/27 elements)

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<td>D. *The Practice Team</td>
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<td>B. Clinical Data</td>
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<td>C. Comprehensive Health Assessment</td>
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<td>D. *Use Data for Population Management</td>
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<td>E. Implement Evidence-Based Decision-Support</td>
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<td>C. Medication Management</td>
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<td>E. Support Self-Care and Shared Decision-Making</td>
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<td>C. Coordinate Care Transitions</td>
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<td>B. Measure Resource Use and Care Coordination</td>
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<td>C. Measure Patient/Family Experience</td>
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<td>D. *Implement Continuous Quality Improvement</td>
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<td>F. Report Performance</td>
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**Scoring Levels**
- Level 1: 35-59 points.
- Level 2: 60-84 points.
- Level 3: 85-100 points.

**Must Pass Elements**
PROs within PCMH

- May be used as part of care planning and self-care support
- Also may be integrated as quality measures for satisfaction and key outcomes
National Standards for Patient-Reported Health Care Quality Measurement

WASHINGTON, D.C. — The latest issue of the Journal of the American Medical Association features a "Viewpoint-Standards for Patient-Reported Outcome-Based Performance Measures," outlining how physician measurement experts, health quality measure developers and quality measure endorsers are working together to promote the use of quality measures based on patients’ reports, currently not often used in clinical practice or reported through health quality measurement.

Phyllis Torda, Vice President of the Quality Solutions Group at the National Committee for Quality Assurance (NCQA), Ethan Basch, MD, director of Cancer Outcomes Research at the University of North Carolina (UNC), and Karen Adams, PhD, of the National Quality Forum are co-authors.

"Learning from patients about how they feel is key to meeting their care needs. These measures will help bring patients’ perspectives to the center of care delivery and support performance measurement and quality improvement," explains Phyllis Torda of NCQA. "In the near future, electronic health records will integrate patient-reported outcomes in order for this important information to be available to guide care and support measurement."
PROs as Quality Measures

- National Quality Forum, National Committee for Quality Assurance, and others working to develop PRO-based performance measures (PRO-PM)

- Example: percentage of patients with elevated PHQ-9 score who have a reduced score after six months of follow up

PROs as Quality Measures

Until now, state and federal governments as well as private payers attempting to assess outcomes have mostly relied on measures of avoidable readmissions, hospital-acquired infections, and mortality. They have also turned to objective measures of improvement such as changes in blood pressure among those with hypertension or hemoglobin A1c levels in diabetics. Patients’ views of their health status have rarely been sought outside of clinical trials for new drugs or medical devices and medical specialties that focus on conditions for which there are few objective measures of improvement. Yet the ultimate measure of health system performance is whether it helps people recover from an acute illness, live well with a chronic condition, and face the end of life with dignity—and people’s reports are the only way to gauge success.

What about time?

- In oncology practices, PROs found to improve efficiency
- More so when collected with computerized tools

Summary: PROs within Triple Aim and PCMH

- May facilitate communication to enhance quality
- Opportunity for use as quality metrics
- Focusing on patient priorities may result in time and cost savings
Teaching Patient Reported Outcome Measures
Training Learners to Use PROs

- PROs may be used to teach importance of social determinants of health
- PROs foster incorporation of patient priorities and concerns
- Training learners to unlock the root cause of health, barriers to health, and patient priorities may improve quality of life and decrease diabetes-related complications, consistent with patient-centered care

Family Medicine Milestones

- **PC-3**: Partners with the patient, family, and community to improve health through disease prevention and health promotion.

- **PC-4**: Partners with the patient to address issues of ongoing signs, symptoms, or health concerns that remain over time without clear diagnosis despite evaluation and treatment, in a patient-centered, cost-effective manner.
PRO Challenges

Themes from a systematic review of qualitative studies addressing PRO implementation

- Practical
- Attitudinal
- Methodological
- Impact
- Conceptual Issues

Future Development of PROs

- PROs will play an increasingly larger role in health care and may be further incorporated into EMRs and quality metrics.

- Being explicit in discussing incorporation of PROs will enhance education and prepare residents for the future health care environment.
Where can PROs be Incorporated into Education?

- Didactics and Workshop Activities
- Precepting
- Team Based Care
- Other Ideas?
Questions?

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