

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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The presenters have no financial relationships to disclose.

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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 DM2¹
- WHO estimates 7th leading cause of death by 2030²
- More than \$300 billion spent on diabetes-related medical costs in 2012³

1. Centers for Disease Control and Prevention. National diabetes fact sheet: national estimates and general information on diabetes and prediabetes in the United States, 2011. Atlanta, GA: U.S. Department of Health and Human Services, Centers for Disease Control and Prevention, 2011.

2. World Health Organization. Diabetes Fact Sheet No. 312. Reviewed October 2013.

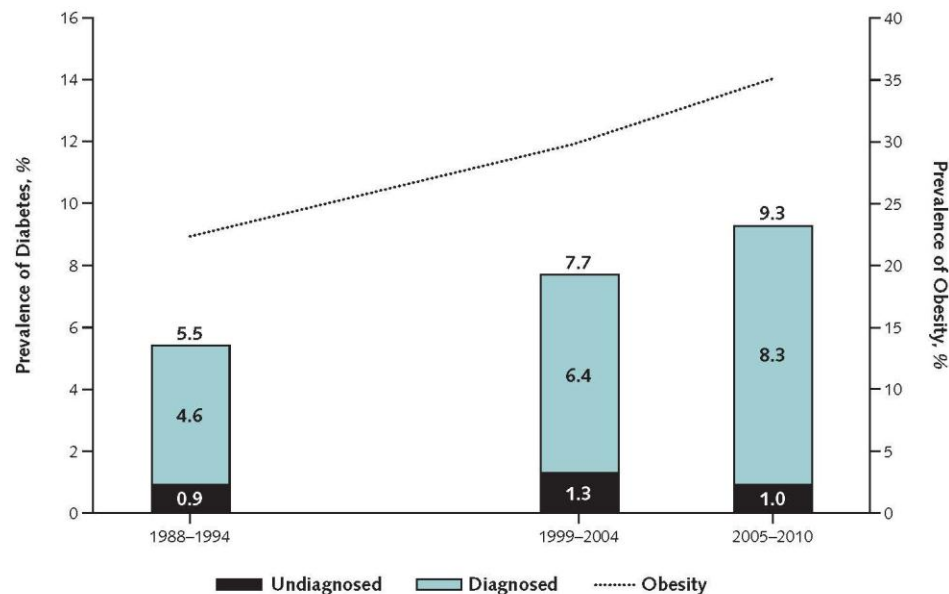
www.who.int/mediacentre/factsheets/fs312/en/. Accessed May 9, 2014.

3. American Diabetes Association. Economic costs of diabetes in the U.S. in 2012. Diabetes Care 2013;36:1033-1046.

Trends in Prevalence and Control of Diabetes in the United States, 1988–1994 and 1999–2010

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 A_{1c} ($\geq 6.5\%$) 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

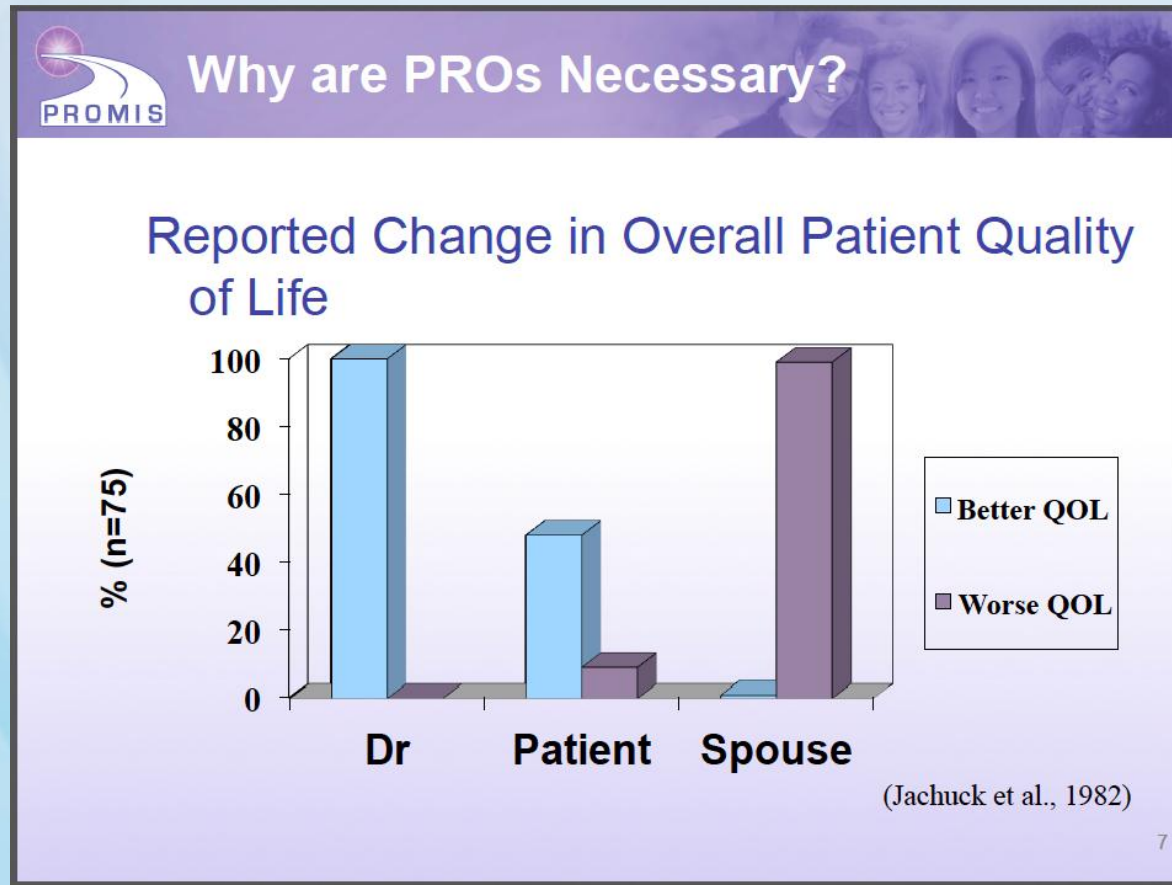
- May address currently unmet need to identify what is most important to patients, such as impact of diabetes on mood, finance, and relationships
- Identifying challenges and priorities in diabetes care may enhance communication and improve outcomes

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



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 (ie. pain)
- Learning what matters to patients may decrease costs

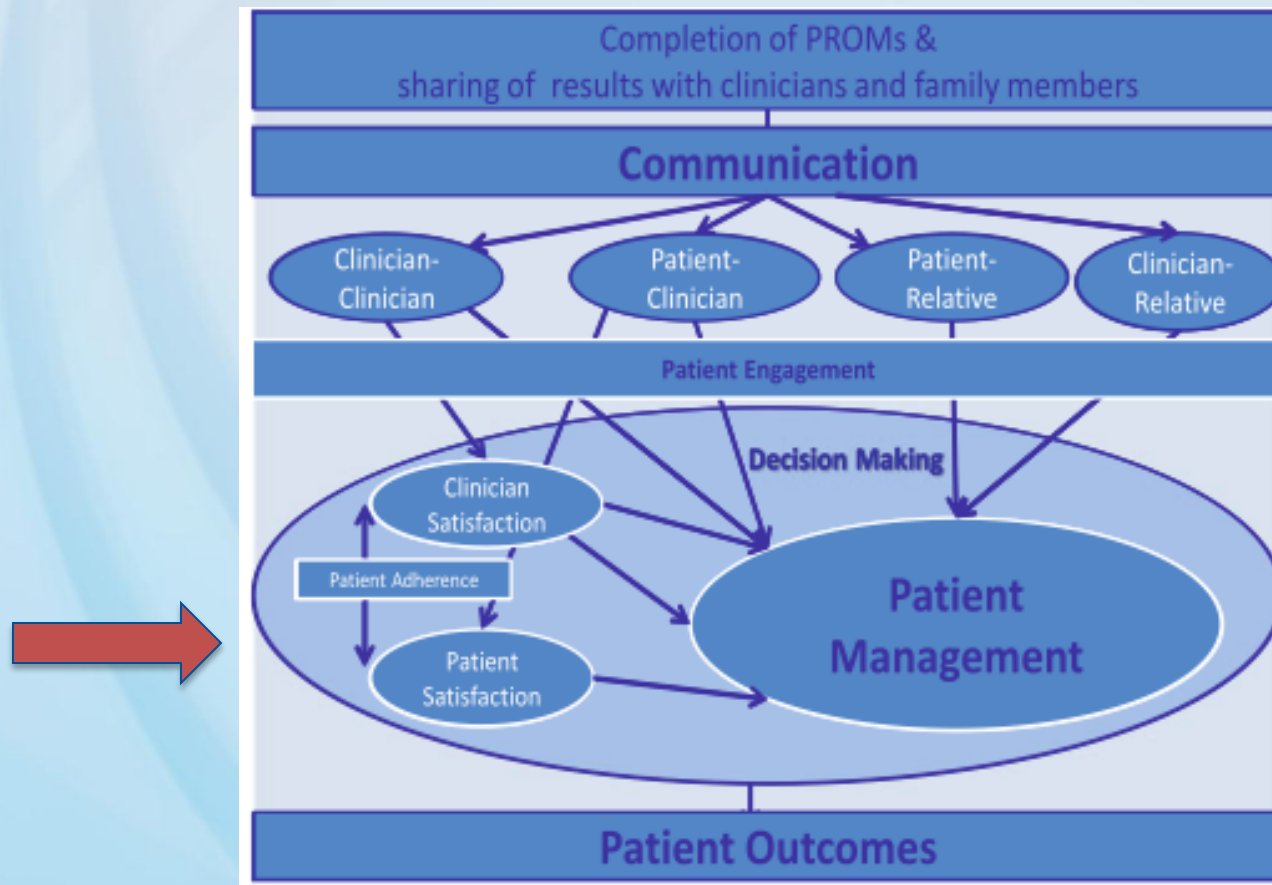
Impact of Patient-Reported Outcomes

- Improve patient-clinician communication¹
- Increase detection of quality of life issues¹
- Further study needed to clarify impact on shared decision-making and disease oriented outcomes²

1. Boyce MB, Browne JP, Greenhalgh J. The experiences of professionals with using information from patient-reported outcome measures to improve the quality of healthcare: a systematic review of qualitative research. *BMJ Qual Saf* 2014;23(6):508-18.

2. Boyce MB, Brown JP. Clinician responses to using patient-reported outcome measures for quality improvement. *Clinician*. 2015. Accessed at <http://www.qualitymeasures.ahrq.gov/expert/printView.aspx?id=48933> on March 27, 2015.

Framework of PROs



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





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New E-Newsletter

The July PROMIS e-newsletter (2014-Issue 3) has been released

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Tweets

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 **PROMIS - NIH** @promisNIH 15 Jul
Study of #PROMIS-43 with patients w/ COPD found to be a valid measure of health-related quality of life.
1.usa.gov/1oEBmOG

Researchers

Provides efficient, reliable, and valid assessments of adult and child (pediatric) self-reported health

- ▶ [FAQs](#)
- ▶ [PROMIS Instruments Selected References](#)
- ▶ [PROMIS In Research](#)
- ▶ [Industry](#)
- ▶ [PROMIS International](#)

Clinicians

Provides data about the effect of therapy that cannot be found in traditional clinical measures

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Patients

Measures what you are able to do and how you feel

- ▶ [More on PROMIS](#)
- ▶ [What Patient Reported Outcomes \(PROs\) Are](#)
- ▶ [PROMIS Measures](#)

Adult and Pediatric PROMIS forms available



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/measures/SampleQuestions

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 v1.1 - Emotional Distress- Anxiety 8
- PROMIS Pediatric Short Form v1.1 - 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

which of the following, if any, represents your single biggest concern right now...

 personal relationships • Family • Friends	 monitoring health • Testing blood sugars • Checking feet	 emotional health • Sad • Anxious • Other emotional concerns	 money • Cost of medicine or supplies • Paying for care	 health behaviors • Diet • Exercise • Sleep
 medicine • Taking medication • Managing side effects	 getting health care • Finding a provider to talk to • Scheduling appointments	 work • Schedule • Environment • Managing your health condition at work	 physical health • Pain • Fatigue • Physical difficulties	 something else

\$ money

Have you recently had any of the following problems or concerns? (Check all that apply)

<input type="checkbox"/>	Problems paying your medical bills
<input type="checkbox"/>	Problems paying for all the care you needed
<input checked="" type="checkbox"/>	Problems paying for all the medicines or supplies that you needed
<input type="checkbox"/>	Not maintaining health insurance coverage
<input type="checkbox"/>	Skipped a recommended test or medical treatment
<input checked="" type="checkbox"/>	Not filled a prescription for a medicine
<input type="checkbox"/>	Cut pills in half or skipped doses of medicine
<input type="checkbox"/>	Skipped dental, vision or mental health care visit because of cost
<input type="checkbox"/>	Put off or postponed getting health care you needed
<input type="checkbox"/>	Something else

← back next →

A Brief Patient-Reported Outcomes Quality of Life (PROQOL) Instrument to Improve Patient Care

Jennifer L. Ridgeway, Timothy J. Beebe, Christopher G. Chute, David T. Eton, Lacey A. Hart, Marlene H. Frost, Daniel Jensen, Victor M. Montori, John G. Smith, Steven A. Smith, Angelina D. Tan, Kathleen J. Yost, Jeanette Y. Ziegenfuss, Jeff A. Sloan 

- 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?



Patient Reported Outcomes: Applications

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?

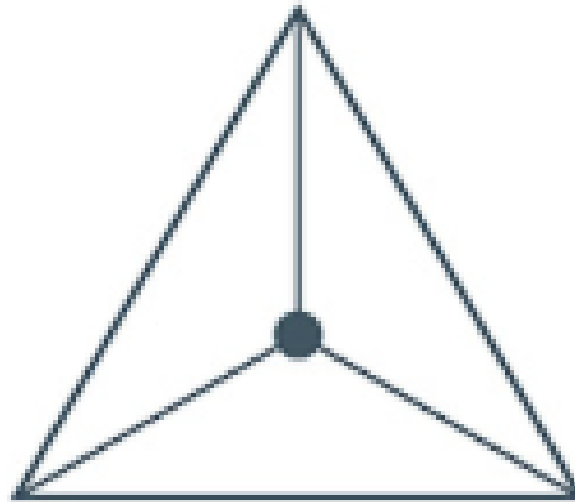


PROs within the context of the Triple Aim and PCMH

Institute for Healthcare Improvement Triple Aim

The IHI Triple Aim

Population Health



Experience of Care

Per Capita Cost

<http://www.ihl.org/Engage/Initiatives/TripleAim/Pages/default.aspx>

PROs within Triple Aim

The screenshot displays the Institute for Healthcare Improvement (IHI) website. At the top, the IHI logo is on the left, and the tagline "Improving Health and Health Care Worldwide" is on the right. Below this is a navigation bar with links: Home (house icon), ABOUT US, TOPICS, EDUCATION, RESOURCES, and REGIONS. A breadcrumb trail reads: Home / Education / Web-based Training / Expeditions for Hospitals / Expedition: Using Patient-Reported Measures to Improve the Value of Care.

The main content area features a teal header for "Web-based Training". Below this, a dark grey banner contains the title "Using Patient-Reported Measures to Improve the Value of Care" in white and teal text. To the left of the banner is a teal circle with the word "Expedition" inside. On the far left, a white sidebar lists the following items with right-pointing chevrons: "Expedition: Using Patient-Reported Measures to Improve the Value of Care" (with a circular arrow icon), "Schedule", "Session Faculty", "Technology", and "Session Materials". At the bottom right of the banner, there are icons for email, print, and a "SHARE" button with a plus sign.

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 personnel¹
- PROs may help support this objective by fostering relationship-centered care and engaging teams

NCQA PCMH 2014

PCMH 2014 Content and Scoring (6 standards/27 elements)

1: Enhance Access and Continuity		Pts	4: Plan and Manage Care		Pts
A. *Patient-Centered Appointment Access		4.5	A. Identify Patients for Care Management		4
B. 24/7 Access to Clinical Advice		3.5	B. *Care Planning and Self-Care Support		4
C. Electronic Access		2	C. Medication Management		4
		10	D. Use Electronic Prescribing		3
			E. Support Self-Care and Shared Decision-Making		5
2: Team-Based Care		Pts			20
A. Continuity		3	5: Track and Coordinate Care		Pts
B. Medical Home Responsibilities		2.5	A. Test Tracking and Follow-Up		6
C. Culturally and Linguistically Appropriate Services (CLAS)		2.5	B. *Referral Tracking and Follow-Up		6
D. *The Practice Team		4	C. Coordinate Care Transitions		6
		12			18
3: Population Health Management		Pts	6: Measure and Improve Performance		Pts
A. Patient Information		3	A. Measure Clinical Quality Performance		3
B. Clinical Data		4	B. Measure Resource Use and Care Coordination		3
C. Comprehensive Health Assessment		4	C. Measure Patient/Family Experience		4
D. *Use Data for Population Management		5	D. *Implement Continuous Quality Improvement		4
E. Implement Evidence-Based Decision-Support		4	E. Demonstrate Continuous Quality Improvement		3
		20	F. Report Performance		3
			G. Use Certified EHR Technology		0
					20

Scoring Levels

Level 1: 35-59 points.

Level 2: 60-84 points.

Level 3: 85-100 points.

*Must Pass Elements

PROs within PCMH

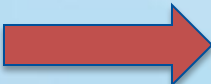
- May be used as part of care planning and self-care support
- Also may be integrated as quality measures for satisfaction and key outcomes

[Newsroom](#) » [News Archive](#) » [2013 News Archive](#) » [News Release: July 18, 2013](#)

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 concerns¹
- 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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