

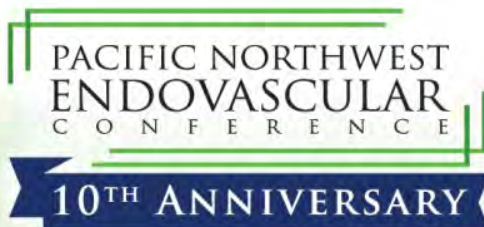
# Collection and Use of Patient Reported Outcome (PRO) Measures in Vascular Surgery

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# DISCLOSURES

Benjamin Brooke, MD, PhD

- No relevant financial relationship reported



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**CUSTOMER SERVICE:**

Excellent



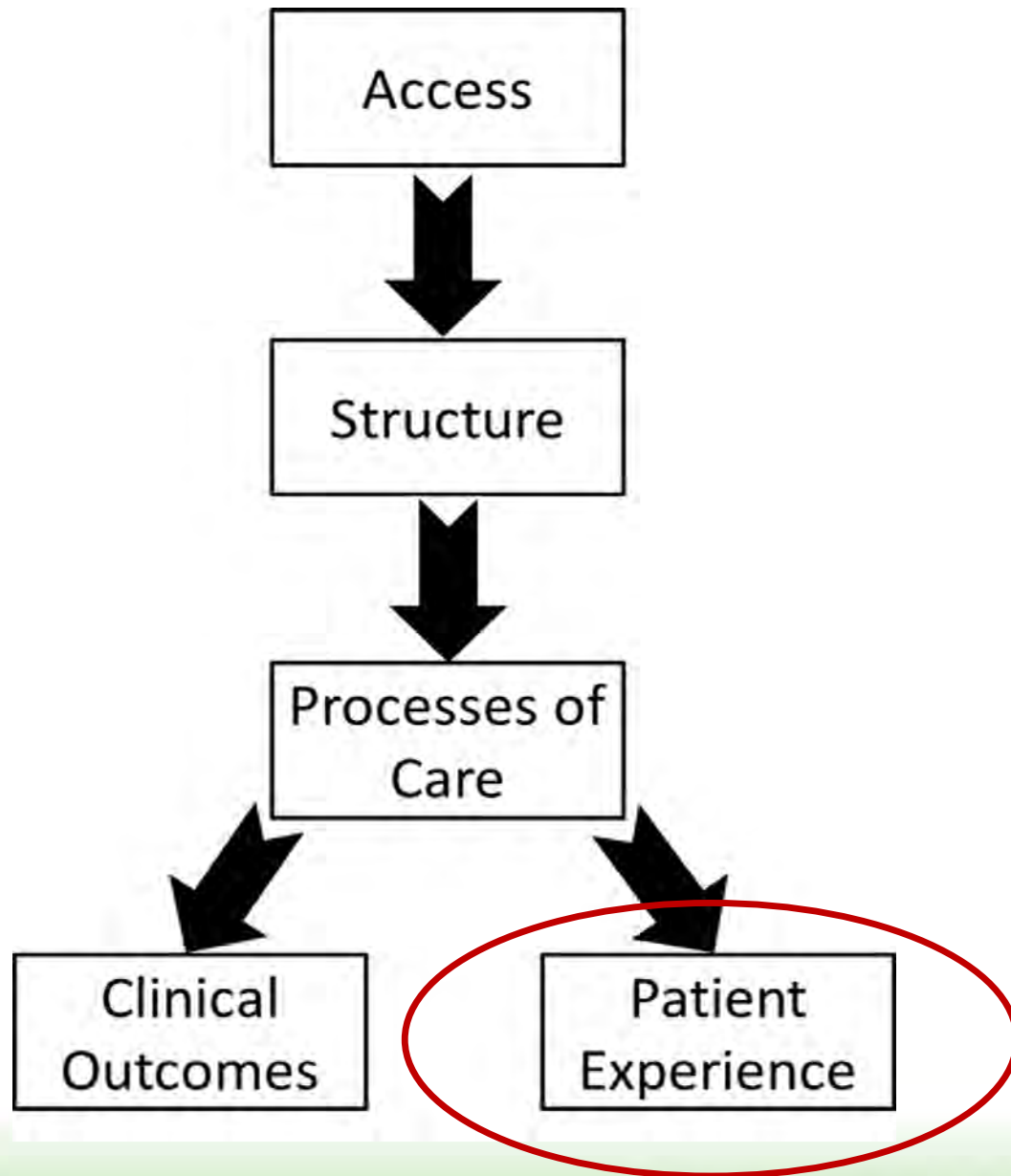
Average



Poor



**Model for  
Measuring  
Quality of Care  
in Surgery**



# Patient Experience = Reimbursement<sup>†</sup>



<sup>†</sup> CMS. Hospital inpatient value-based purchasing program. *Fed Regist.* 2011;76(88):26490-26547  
Hanauer DA, et al. *JAMA.* 2014;311(7):734-735.

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# Patient-Reported Outcomes (PRO)

- **What are PROs?**

- “Any report of the status of a patient’s health condition that comes directly from the patient, without interpretation of the patient’s response by a clinician or anyone else.”

- U.S. FOOD AND DRUG ADMINISTRATION, *Federal Register* 2009;74(35):65132-133

- **How do we measure PROs?**

- Traditional forms or questionnaires
- “Legacy” scales (e.g. SF-36)





# Commonly Used PRO Tools for PAD

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Tool	Year	# Items	# Domains
VascuQoL	2001	25	5
VascuQoL-6	2014	6	5
PAQ	2004	20	7
WIQ	1990	22	4
CLAU-S	1995	47	5
PAVK-86	1995	86	7
SIP <sub>IC</sub>	1975	12	6
ICQ	2002	16	1
FLeQKI	2007	35	7
WHO/Rose Questionnaire	1962	8	1
Edinburgh Claudication Questionnaire	1992	6	1

Source: Hicks CW & Lum YW, *Semin Vasc Surg.* 2015; 28(2):122-33



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# How Do We Make PRO Assessment Vascular Surgeon Friendly?



# How Do We Make PRO Assessment Vascular Surgeon Friendly?



**PROMIS<sup>®</sup>**

**Computerized Adaptive Testing (CAT)**

**HIT / EHR Automation**

# Patient Reported Outcomes Measurement Information System

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- Online Repository of validated instruments to measure patient's assessment of physical, social and mental health across a range of different disease conditions
- Developed and validated with NIH Funding - publicly available



*<http://www.healthmeasures.net/explore-measurement-systems/promis>*

# Available PROMIS Measures

<b>Domains</b>	<b>Topic</b>	<b># of Measures</b>
<b>Global Health</b>	<b>Overall evaluation of mental &amp; physical health</b>	<b>3</b>
<b>Mental Health</b>	<b>Alcohol Use</b>	<b>5</b>
	<b>Cognitive Function</b>	<b>2</b>
	<b>Emotional Distress</b>	<b>3</b>
	<b>Psychosocial Illness Impact</b>	<b>2</b>
	<b>Self Efficacy</b>	<b>6</b>
	<b>Smoking Behavior</b>	<b>6</b>
	<b>Physical Health</b>	<b>Dyspnea</b>
<b>Cancer Fatigue</b>		<b>1</b>
<b>Gastrointestinal</b>		<b>8</b>
<b>Pain</b>		<b>5</b>
<b>Physical Function</b>		<b>4</b>
<b>Sexual Function &amp; Satisfaction</b>		<b>17</b>
<b>Sleep</b>		<b>2</b>
<b>Social Health</b>		<b>Companionship</b>
	<b>Emotional Support</b>	<b>1</b>
	<b>Informational &amp; Instrumental Support</b>	<b>1</b>
	<b>Satisfaction with Social Roles &amp; Activities</b>	<b>4</b>

# Why Use PROMIS ?

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1. Comparability—measures are standardized so there are common domains and metrics across conditions, allowing for comparisons across domains and diseases.
2. Reliability & Validity—all metrics for each domain have been rigorously reviewed and tested
3. Inclusiveness—PROMIS encompasses all patients, regardless of literacy, language, or physical function.
4. Flexibility & Efficiency—PROMIS can be administered in a variety of ways, including short forms and using computerized adaptive testing (CAT)

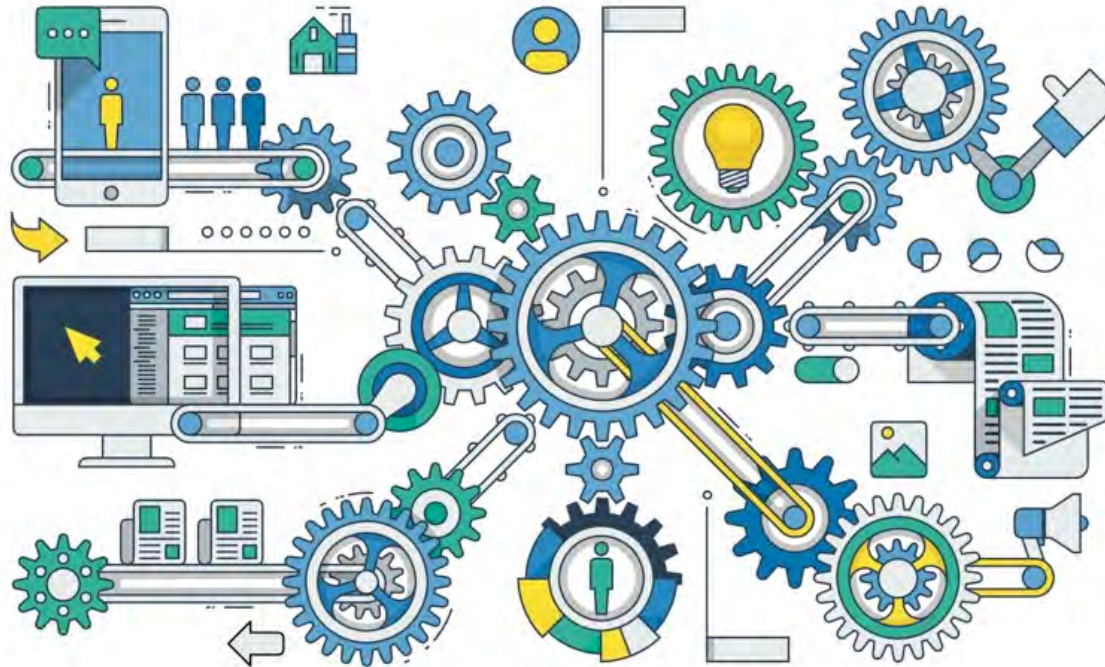
# Computerized adaptive testing (CAT)

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- Each subsequent question is based on the response to the previous question
- Limits questions to only those that are relevant
- CAT shortens time to complete a survey > 50%
  - For example, with just 4 to 8 questions you can get the same precision of an instrument using 50 questions.

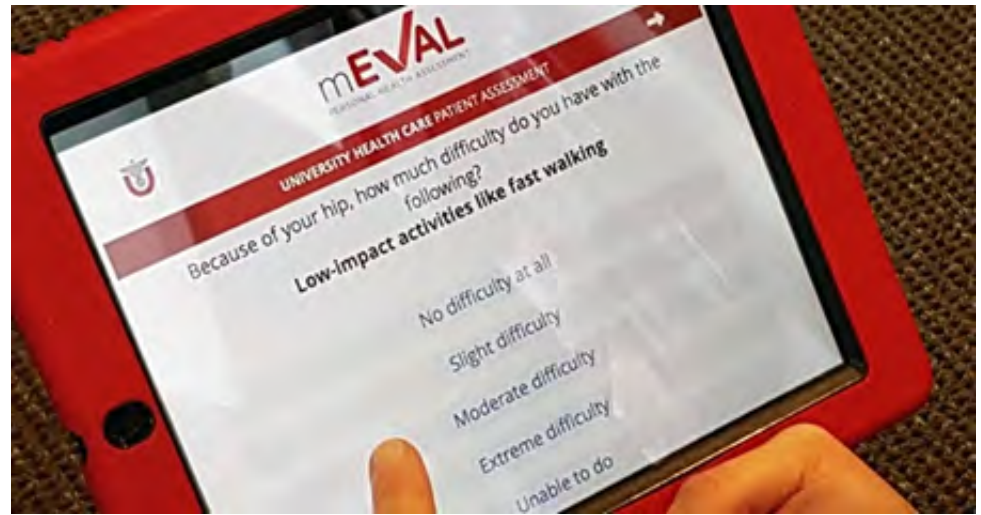


# How Does This All Work in the Workflow of a Vascular Surgery Practice?



# Health Information Technology



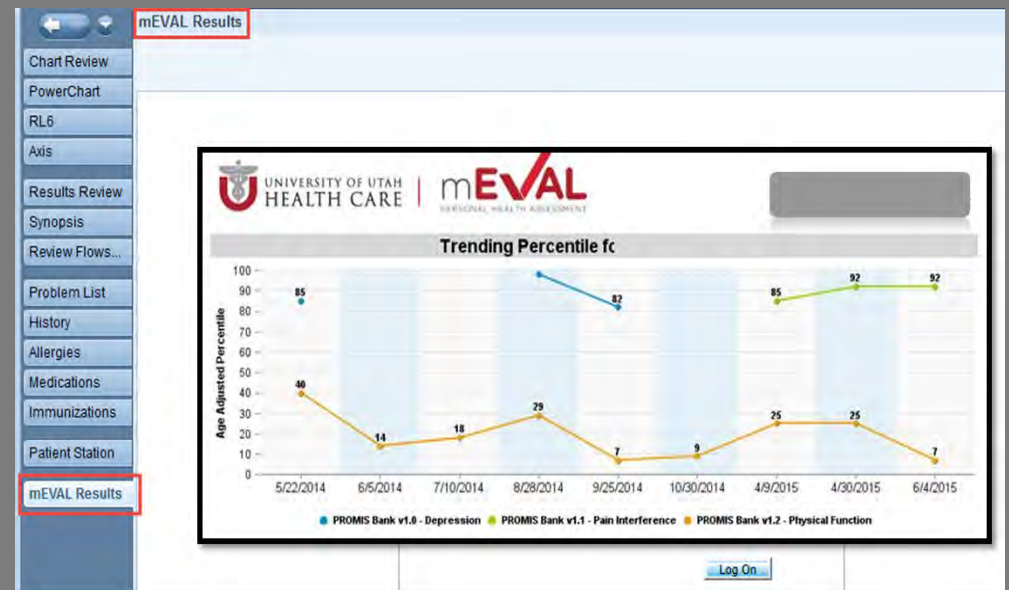
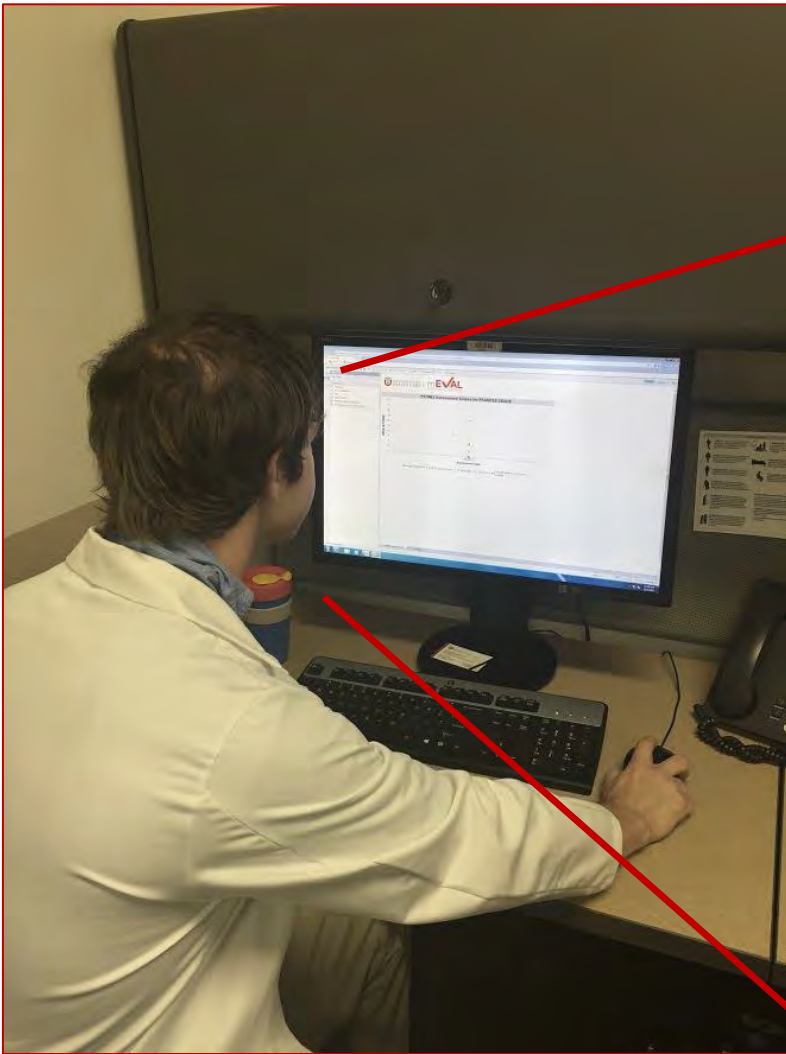


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# Data Accessed within the patient's EHR (Epic®)

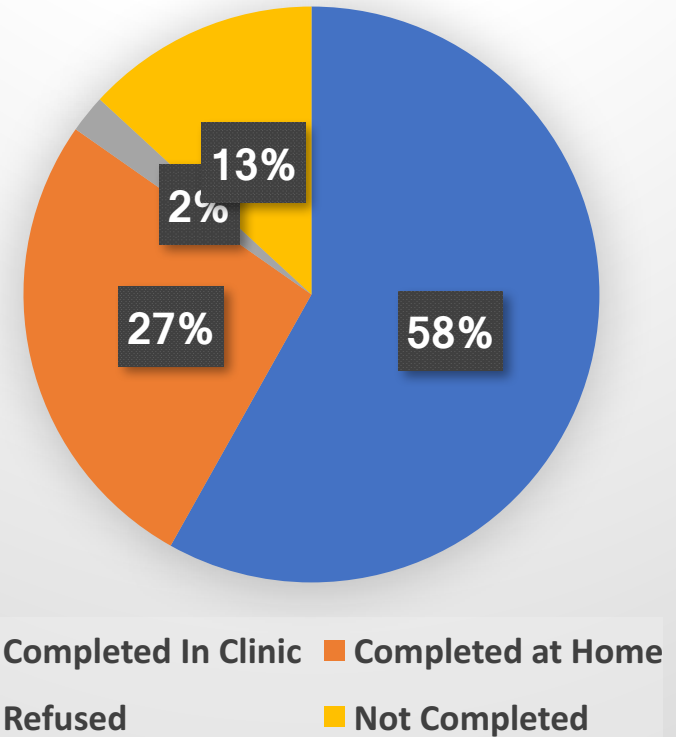


\*\*\*Data can be graphed, used in synopsis, and pulled into your clinic note

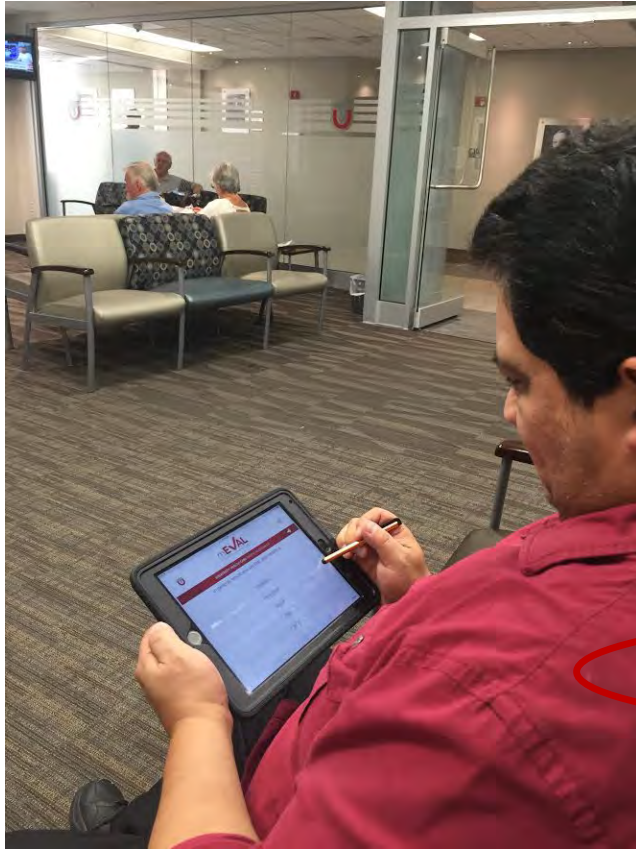
# Vascular Surgery MeVAL Program

- Launched January 2016
- Completed assessments- **1,894**
- Unique Patients- **1,569**
- PRO Measures Assessed
  1. PROMIS General Health
  2. PROMIS Depression
  3. PROMIS Physical Function
  4. PROMIS Social Activities
  5. Frail Non-Disabled [FiND] instrument

Vascular MeVAL Patient Assessment Status

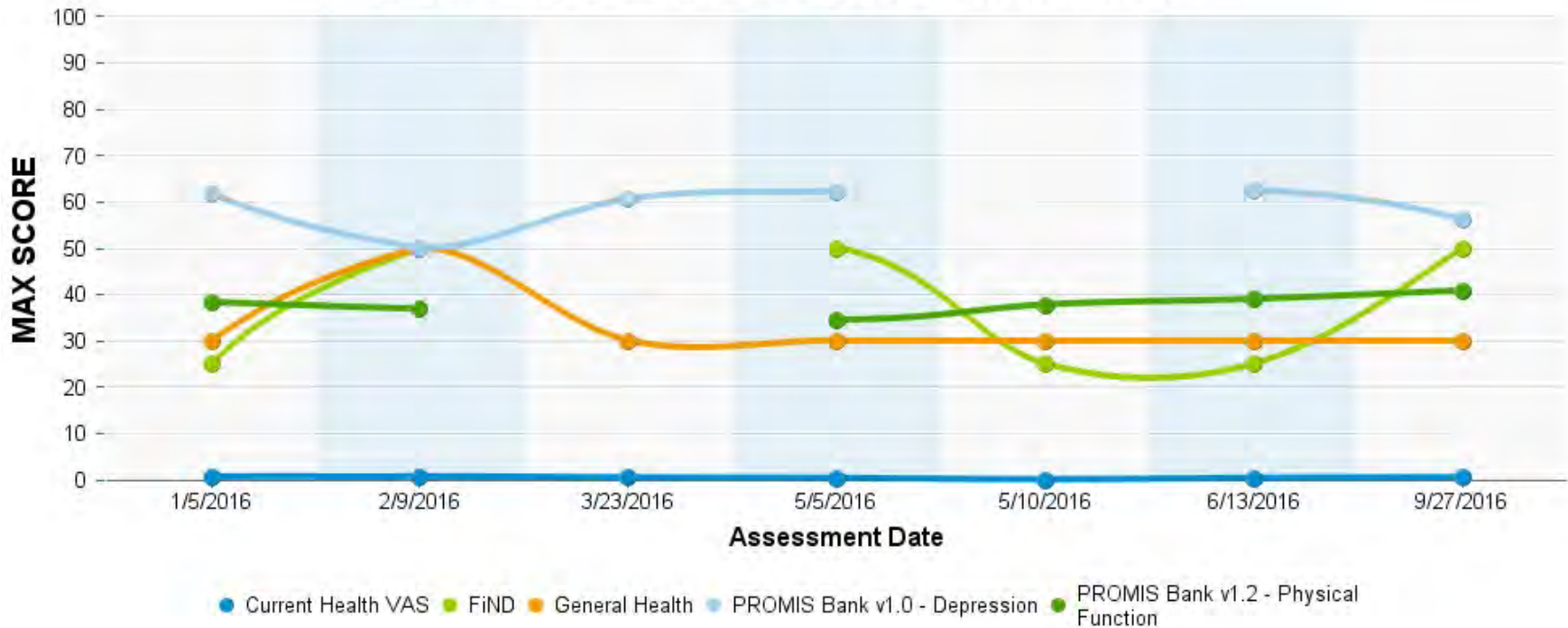


# Vascular Surgery MeVAL Program

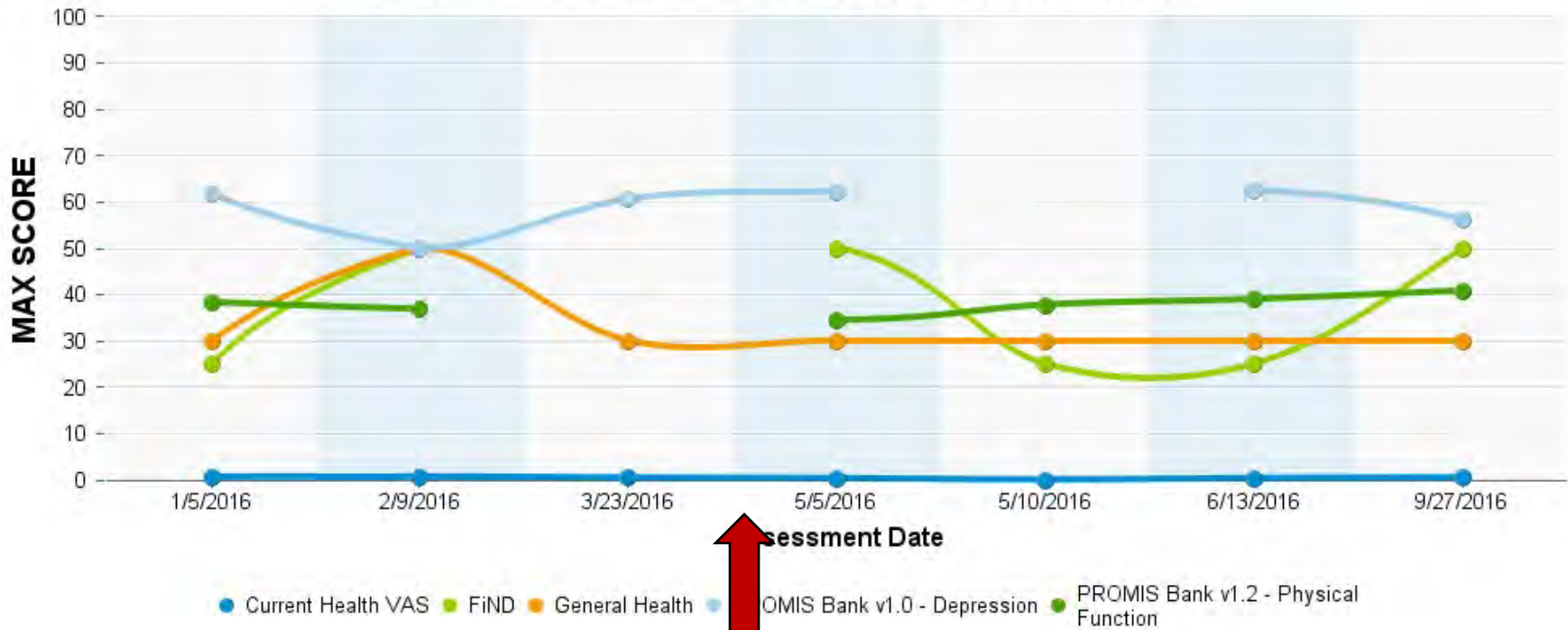


Instrument	Median Time to Complete (min)
UUHC Intro	0.31 min
Current Health VAS	0.38 min
General Health	0.20 min
PROMIS v1.0 - Depression	0.66 min
PROMIS v1.2 – Physical Function	0.88 min
FiND	0.90 min
<b>Total</b>	<b>3.35 min</b>

**PROMIS Assessment Scores for [REDACTED]**



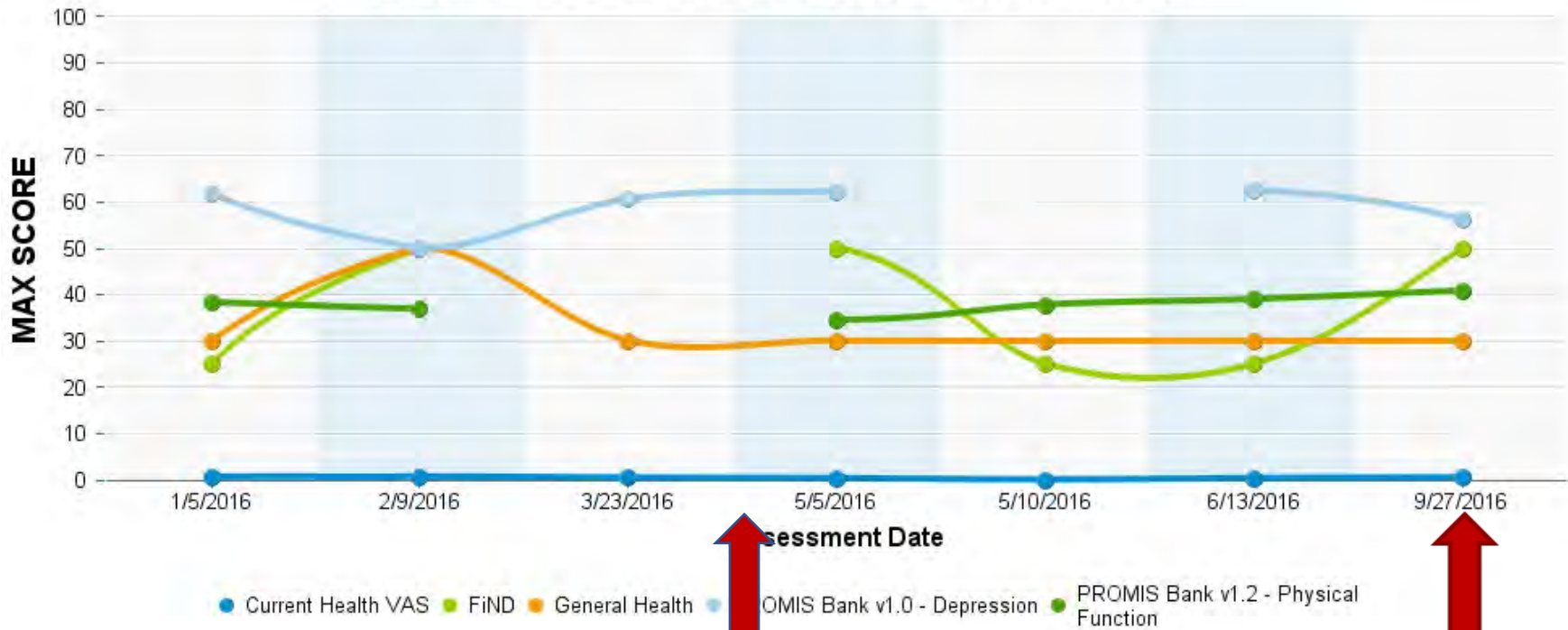
**PROMIS Assessment Scores for [REDACTED]**



LE Bypass Surgery



**PROMIS Assessment Scores for [REDACTED]**



↑  
 Assessment Date  
 LE Bypass Surgery

↑  
 Clinic Visit

# Summary

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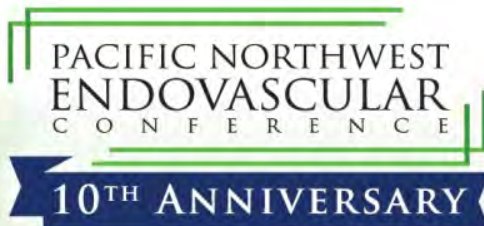
- PRO assessment is another important metric for assessing quality of care in vascular surgery.
- Numerous advances in PRO assessment over the past decade have allowed it to become quick, reliable, automated, and most-important.... surgeon friendly.
- PRO assessment can be customized for your specific EHR and clinical setting

# Thank You



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