



Implementation of findings from PCORI funded studies

Implementation of Childbirth-Specific Patient-Reported Outcome (PROs) Measures in the Hospital Setting... Is There an Opportunity to Improve Patient Satisfaction?

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November 1, 2018

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Disclosures

Relationship	Company(ies)
Speakers Bureau	March of Dimes (MOD) Preterm Birth Prevention
Advisory Committee	California Technology Assessment Forum (CTAF); Office Research Women's Health Advisory Board
Consultancy	N/A
Review Panel	AHRQ EPC Achieving Health Equity in Preventive Services; National Quality Forum Reproductive Health Measures; CDC Prevention Network
Board Membership	Essential Access Health
Honorarium	CTAF, CDC, ACOG, MOD
Ownership Interests	N/A

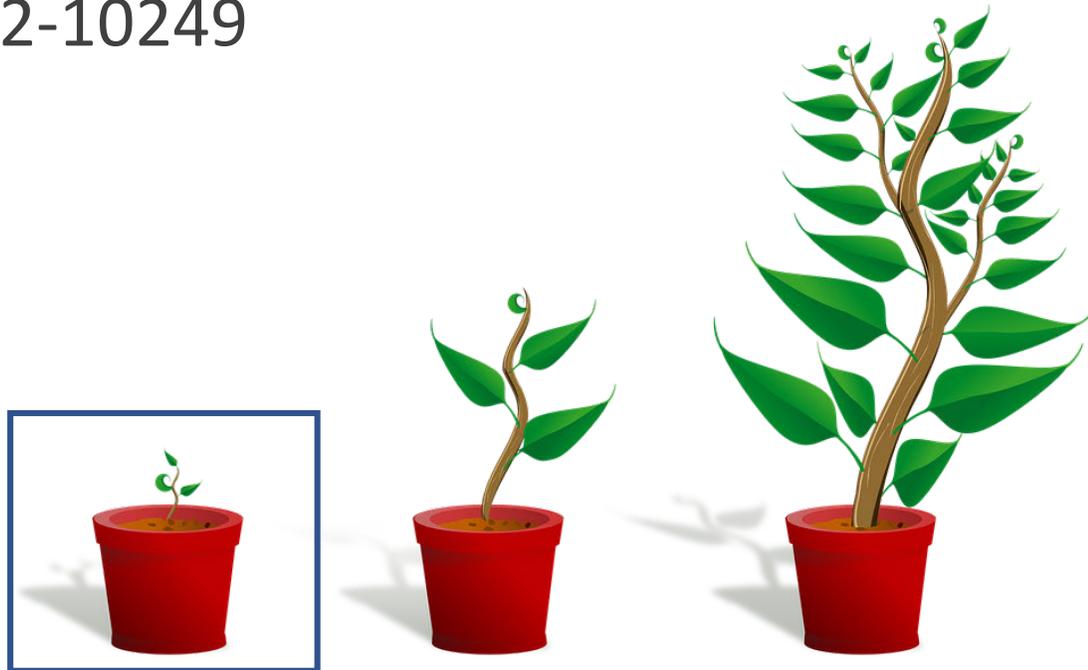
Objectives

At the conclusion of this activity, the participant should be able to:

- Describe the pathway/vision of taking a Methods project to D&I phase
 - Online PROs can be used to generate hospital-specific survey reports to change/improve care processes
- Describe why “childbirth-specific” PROs should matter to hospitals
 - Value-based purchasing is tied to hospital satisfaction
- Describe why “childbirth-specific” PROs matter to patients
 - What do women want, and how often do they get it?

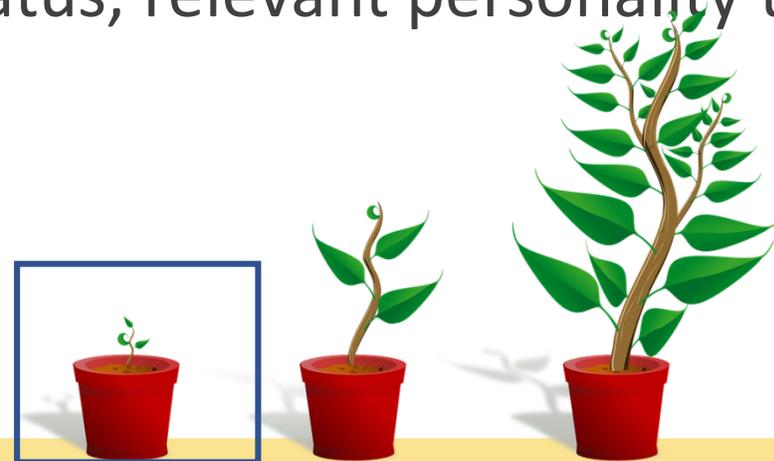
Pathway from Methods to D&I

- 1st PCORI Project: PROMIS Method
- Expanding PROMIS[®] item bank development to the pregnant population
 - PCORI Award ID: ME-1402-10249
 - HSRProj ID: 20152288



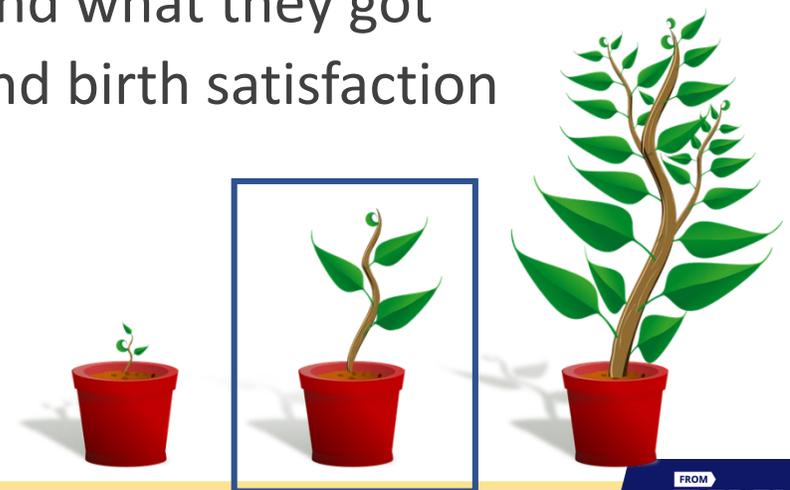
Overview of Methods (PCORI I: PROMIS Methods)

- ***Develop a conceptual framework for Childbirth Patient Reported Outcomes (PROs)***
- Literature review and item selection
- Conducted a national cross-sectional online survey (antepartum); 2700 women
 - Who wants what?
 - Who: demographics, clinical status, relevant personality traits, beliefs and experiences
 - What: PROs



Overview of Methods (PCORI I: PROMIS Methods)

- ***Develop a conceptual framework for Childbirth Patient Reported Outcomes (PROs)***
- Supplemental funding from PCORI and The Cohen Family Foundation
- Conducted a follow-up survey (postpartum); 800 women
 - Did they get what they wanted? How satisfied were they with their hospital and birth experience
 - A) describe women's experiences and outcomes of childbirth (PROs)
 - B) Determine "gaps" in what women wanted and what they got
 - C) Determine which PROs predicted hospital and birth satisfaction



2nd PCORI Project: Dissemination & Implementation

- Implementing Childbirth-specific PROs in Hospital Setting: Feasibility Project
- PCORI Award ID: DI-2017C1-6489
- HSRProj ID: pending



2nd PCORI Project: Dissemination & Implementation

- Overview of methods
- Shortened survey; mobile version and web version;
- Childbirth Experience Survey (CBEX 2.0)
- Feasibility study
 - Goal 3,000 women; 10 diverse hospitals in CA
 - Demonstrate differences in hospital satisfaction across sites
 - Provide summary report in aggregate re: what women want and how satisfied they are
 - Develop report for opportunities for improvement in childbirth services
 - Provide hospital-specific recommendations for opportunities to improve patient satisfaction with care



Why should hospitals care about childbirth-specific PROs?

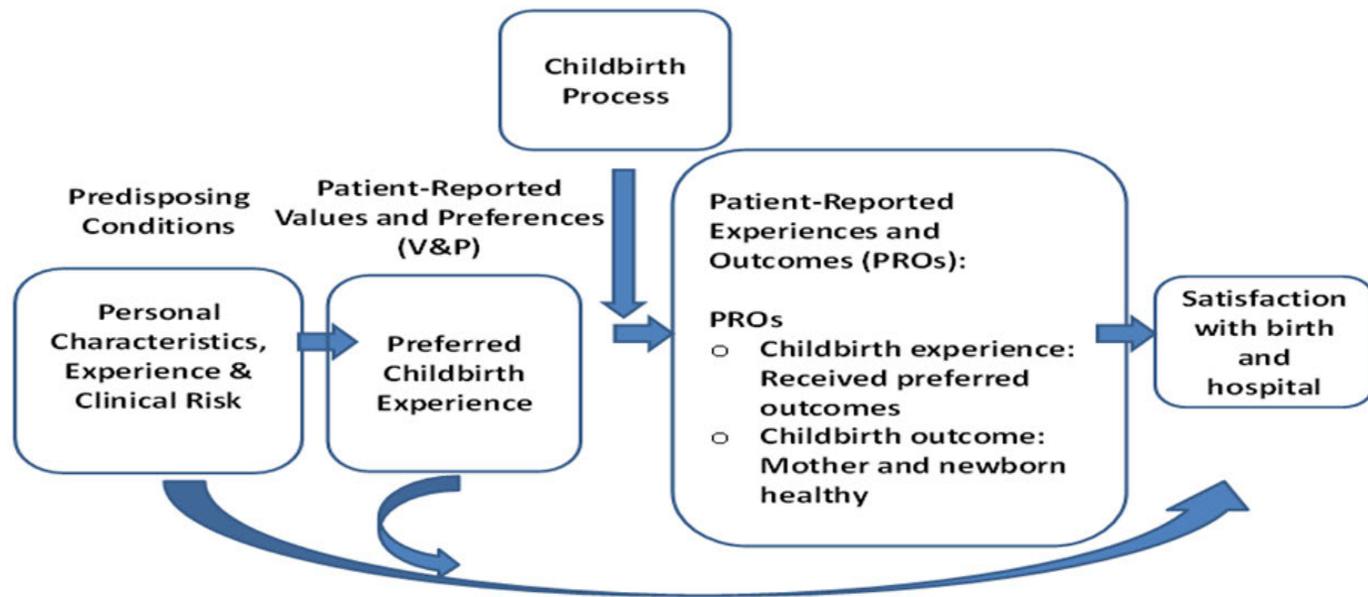
- 2% withhold from CMS as part of value-based care (\$1.9 billion)
- Relies on responses to the Hospital Consumer Assessment of Healthcare Providers & Systems (HCAHPS): 25% of the withhold
- Childbirth is the # 1 reason for hospitalization (~4 million/year)
 - There are **NO** childbirth-specific questions on HCAHPS
 - Many families' first interaction with a hospital is during childbirth
 - Women commonly select/direct healthcare providers for family members
 - Hospitals may be missing an opportunity to impress an important customer

Why do childbirth-specific PROs matter to patients?

- 90% of US women expect to give birth at least once during their lifetime
- Increasing concern about rising maternal morbidity and mortality rates, and disparities in these rates (patient safety)
- Growing demand for:
 - Alternative birth sites (home births, birth centers)
 - Doulas
 - “Physiologic births”
 - Birth plans to personalize and protect the birth experience

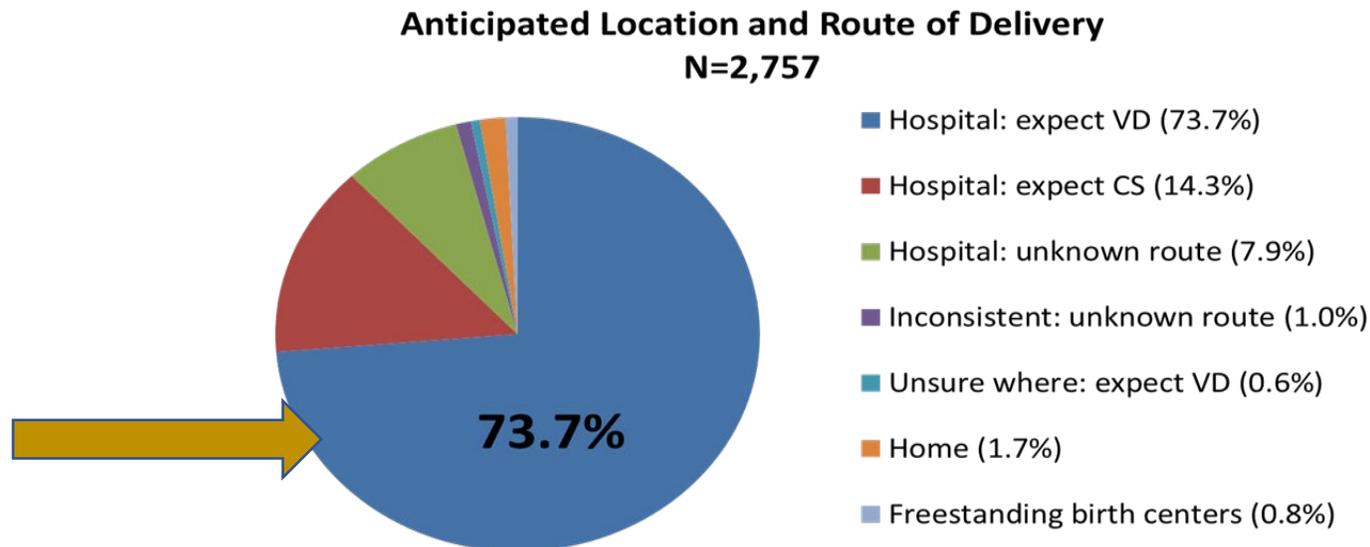
Why do childbirth-specific PROs matter to patients?

- The goal of Childbirth Experience Survey (CBEX) is to identify patient Values and Preferences (V&Ps) and PROs that are strongly related to women's satisfaction with hospital childbirth services
- Data at the hospital level can be used to generate reports and recommendations to improve hospital-specific satisfaction scores and value-based payments



National survey administration to pregnant women

- Survey was translated into Spanish and piloted with 4 focus groups
- The Nielsen Company administered the survey using its online panels
- Women 18+ years, 20+ weeks of gestation, US resident
- 2757 responses in 2 weeks
- Nielsen provided weights for a “nationally representative sample”



How do we get there from here?

Results from PCORI 1

- 39 PROs; 19 domains
- PROs vary by patient characteristics and V&Ps
- Two types of PROs
- 1. Universal PROs (items that everybody would most likely want)
 - Example: safety, courtesy, respect
- 2. Specific PROs (items likely to vary by patient characteristics)
 - Example: wanting childcare information may vary depending on whether this is your first or second child

Childbirth PROs by parity (1st child vs. more than one)

- Women having their first child are more likely to want:
 - To avoid intervention
 - To receive information regarding baby care, feeding
 - To receive practical support regarding feeding
 - To breastfeed
 - To have a female provider available
 - To talk with the family first regarding decisions in labor and delivery
 - Multiple pain management options: breathing techniques, massage, mental strategies, nitrous oxide, shower/tub, TENS, walking

Childbirth PROs by race/ethnicity

- **White women**
 - More likely to want: epidural, narcotics; have baby stay with them
 - Less likely to want: postpartum info regarding newborn care, tubal sterilization
- **Black women**
 - More likely to want: to avoid continuous fetal monitoring, to have spiritual/cultural needs respected, to have baby placed skin to skin, to use mental strategies for pain management
- **Hispanic women**
 - More likely to want
 - Massage
 - To use mental strategies for labor pain management
 - To avoid continuous Electronic Fetal Monitoring (EFM)
 - Less likely to want
 - To avoid other interventions such as IV, cesarean or vacuum/forceps delivery
- **Asian Women**
 - More likely to want to breastfeed

These are all things hospitals
Can do to improve satisfaction

Developed models for PROs

Example: model for “want skin to skin” at birth

Patient characteristic	Adjusted Odds Ratio (95% CI)	Interpretation
Birth plan	1.38 (1.04-1.83)	More likely
Confidence high	1.96 (1.47-2.61)	More likely
Confident filling out medical forms (literacy)	1.80 (1.31-2.47)	More likely
Believe will cope well with pain	1.86 (1.35-2.58)	More likely
Plan to have a support person	2.30 (1.11-4.80)	More likely

- 72% of respondents anticipating labor said they “want skin to skin”
- Example of interpretation:
 - Women who planned to have a support person were 2.3x more likely than women who did not plan to have a support person to want the baby placed “skin to skin”

Understanding the gaps

- Didn't want, didn't get
- Didn't want, got it anyway
- Wanted, didn't get
- Wanted, got

Pattern Gap#1: Wanted But Didn't Get the Service

- For these PROs, it helps to know in advance if a patient wants these options
 - (examples: reassurance from provider, pain treatment [narcotics], information about newborn care)

Gap for: "Reassurance from provider"	Percent Satisfied with hospital	P value
Didn't want, didn't get	52.3%	0.0022
Didn't want, got anyway	48.2%	
<i>Wanted, didn't get</i>	<i>29.6%</i>	
Wanted, got	63.4%	

Pattern Gap#2: Didn't Want But Got the Service

- For these PROs, it helps to know in advance if a patient **does not** want these options
 - (examples: partner in the room, breastfeeding encouragement, pain treatment [acupuncture])

Gap for "Partner in Room"	Percent Satisfied with hospital	P value
Didn't want, didn't get	0%	0.0704
<i>Didn't want, got anyway</i>	<i>28.2%</i>	
Wanted, didn't get	67.1%	
Wanted, got	61.4%	

Pattern Gap#3: Wanted and Got the Service

- For these PROs, it helps to know in advance if a patient wants these options
 - (examples: pain treatment [massage, shower/tub], able to feed with breastmilk, postpartum length of stay [LOS] <24 hours)

Bonus: “Pain Treatment: Massage”	Percent Satisfied with hospital	P value
Didn't want, didn't get	60.1%	0.0048
Didn't want, got anyway	59.9%	
Wanted, didn't get	53.0%	
<i>Wanted, got</i>	<i>77.3%</i>	

Pattern Gap#4: Did Not Get the Service

“Universal PRO”

- For these PROs, not important to ask in advance—these are **services you need to provide regardless of patient preferences**; these women were very dissatisfied
 - (examples: practical support newborn feeding, debrief after childbirth, skin to skin, pain treatment [involved in decisions])

Potential Universal PRO: GAP for “Feeding, practical support”	Percent Satisfied with hospital	P value
<i>Didn't want, didn't get</i>	31.1%	<0.0001
Didn't want, got anyway	61.6%	
<i>Wanted, didn't get</i>	31.0%	
Wanted, got	66.7%	

Patient Characteristics Associated with Hospital Satisfaction

Red=less satisfied

- ***Maternal mental health reported as poor/fair***
 - Overall health reported as poor/fair and complicated pregnancy were not associated with hospital satisfaction
- High confidence
- High confidence in filling out medical forms (literacy)
- ***History of discrimination***
- Had immediate help (social support)
- ***Had negative memories from previous childbirth***
- ***Most days reported as stressful***
- ***Worried about birth***
- Wanted shower/tub for pain treatment

Universal PROs associated with hospital satisfaction

<ul style="list-style-type: none"> • Coped well with pain OR pain relief adequate 	<ul style="list-style-type: none"> • Had adequate space/food for support person
<ul style="list-style-type: none"> • <i>Lost control</i> 	<ul style="list-style-type: none"> • Was satisfied with the support from their partner/support person
<ul style="list-style-type: none"> • Had doula in the room 	<ul style="list-style-type: none"> • Had newborn placed skin to skin
<ul style="list-style-type: none"> • Had choice for who was in the room for procedures 	<ul style="list-style-type: none"> • Felt comfortable/safe holding the baby
<ul style="list-style-type: none"> • Had assistance with labor/delivery positions 	<ul style="list-style-type: none"> • Had debriefing by provider after birth
<ul style="list-style-type: none"> • Used labor stool 	<ul style="list-style-type: none"> • Had provider talk to them regarding feelings after birth
<ul style="list-style-type: none"> • Had continuous electronic fetal monitoring (probable proxy for face-time with provider) 	<ul style="list-style-type: none"> • Childbirth went smoothly
<ul style="list-style-type: none"> • Had spiritual/cultural needs respected 	<ul style="list-style-type: none"> • Felt safe during childbirth
<ul style="list-style-type: none"> • Was involved in decisions regarding labor pain management 	<ul style="list-style-type: none"> • Left choices to provider (trust)
<ul style="list-style-type: none"> • Was told of labor progress 	<ul style="list-style-type: none"> • Had practical assistance with feeding newborn
<ul style="list-style-type: none"> • <i>Felt pressure by the providers, family or friends to have a CS</i> 	<ul style="list-style-type: none"> • Got information regarding daily care of newborn, vaccines, or sleep position
<ul style="list-style-type: none"> • <i>Had a postpartum LOS < 24 hours</i> 	

Antepartum PROs associated with hospital satisfaction

- Wanted/got massage: “bonus,” i.e., especially satisfied
- Wanted/got nurse comfort
- Wanted/got tubal sterilization (especially satisfied)
- *Wanted/didn't get narcotics*
- *Got too much breastfeeding encouragement from the provider*
- *Did not want partner in the room*

Current D&I Project: Implementation of Childbirth-specific Patient Reported Outcome Measures in the Hospital Setting

- Demonstration and feasibility project to implement Childbirth Experience Survey (CBEX) in 10 sites
- Demonstrate differences in hospital satisfaction across sites
- Develop report for opportunities for improvement in childbirth services

D&I: Key things we have learned so far...

- **Be adaptable...within reason**

- Every site has some unique “ask”; be prepared for it
- Try to accommodate globally, but not at the expense of the integrity of the project
 - Example: Catholic hospitals can not ask about tubal ligations
 - Fix: two versions of the survey
 - Example: hospital X wants to know about the postpartum visit
 - Fix: added a question about PPV, but with global responses that would be pertinent across sites
 - Example: hospital Y seeking “magnet recognition”; need to get RN’s involved in research
 - Fix: include RN’s in engagement process; offer opportunities to collaborate, assist with publications
 - Example hospital Z wanted Mandarin and Farsi version
 - Fix: “no can do...not this time around”

Future: Begin to define improvement strategies

Examples

- Provide universal PROs to all women
- Use antepartum survey data in toolkits to improve performance on these PROs; ask about preferences directly
- Identify vulnerable patients based on antepartum survey and develop training or educational programs for staff to help women get what they want
- Develop referral options for patients for whom the hospital cannot meet requests



Potential next steps

- Integrate PROs into EMR or develop childbirth registry
- Have providers intervene directly with vulnerable patients
- Further refine and validate, propose as an NQF performance measure
 - Completed Step 1 of 5 Steps in the PROMIS Pathway
 - Childbirth-specific set of PRO domains and preliminary item bank
 - Currently working on Steps 6&7 of the NQF Pathway: evaluating PRO measure in the target population, comparing aggregate data across hospitals



Objectives

At the conclusion of this activity, the participant should be able to:

- Describe the pathway/vision of taking a Methods project to D&I phase
 - *Online PRO's (or integrated into the EMR) can be used to generate hospital-specific survey reports to change/improve care processes*
- Describe why “childbirth-specific” PROs should matter to hospitals
 - *Value-based purchasing is tied to hospital satisfaction; hospitals should want to satisfy their number 1 customer (reason for admission)*
- Describe why “childbirth-specific” PROs matter to patients
 - *Women know what they want, they don't always get it, and not getting it matters*

Learn More

- www.pcori.org
- info@pcori.org
- [#PCORI2018](https://twitter.com/PCORI2018)

Questions?

Thank You!

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