

# Using Health Information Technology to Reduce Disparities in Shared Decision Making About Birth After Cesarean

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**Women should have the opportunity  
to make informed  
and supported choices  
about their pregnancy and birth,  
using the best available evidence about the  
probable outcomes of their choices**



# Once a cesarean ...



**Often a decision dilemma for women and providers**

# Shared Decision Making During Pregnancy

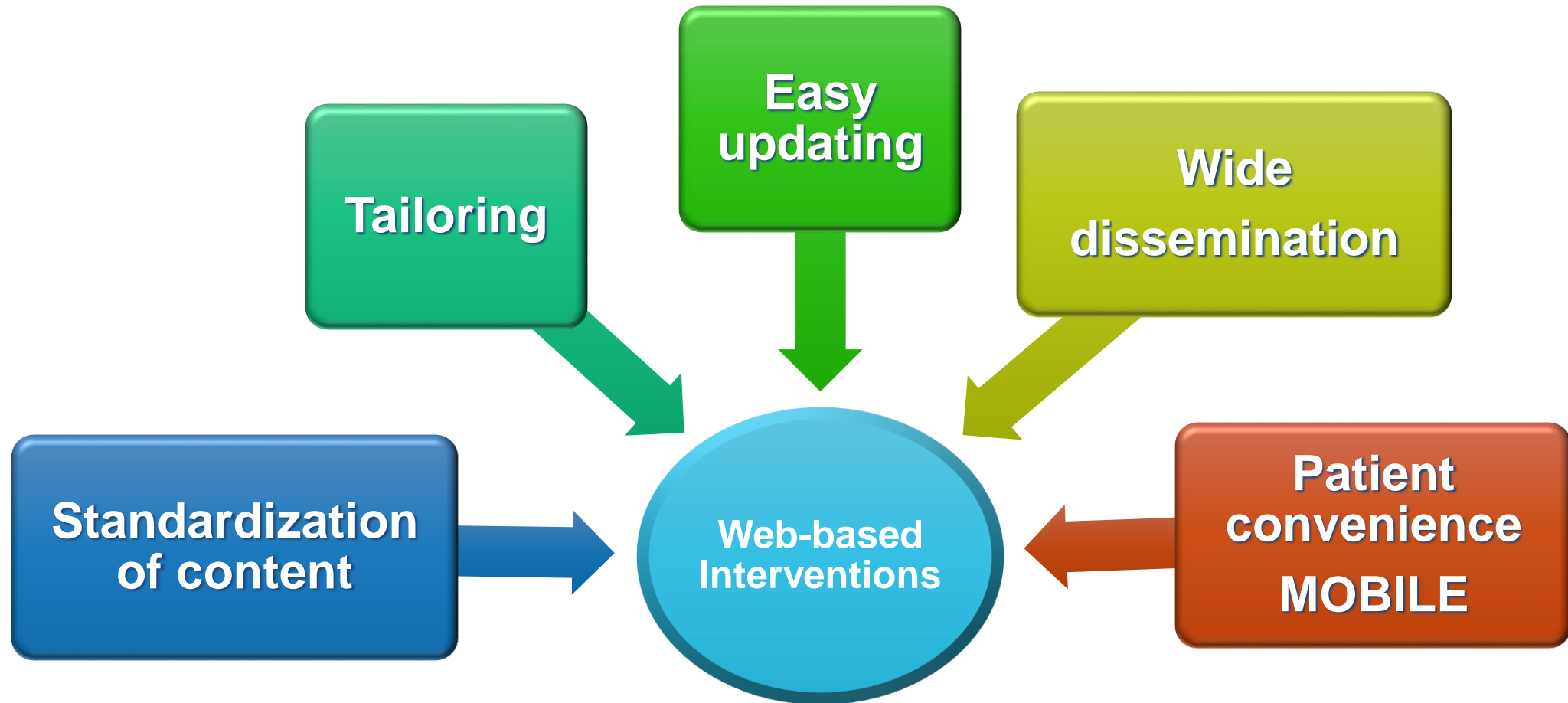
- Shared decision making (SDM) using evidence-based decision aids is recommended for routine prenatal care.
- Effective decision aids have been developed for decision making during pregnancy.
- Few decision aids have been effectively integrated into systems of care, serving women from diverse groups.



## STUDY AIM:

To implement a web-based decision aid to support SDM about birth after previous cesarean for women from racially/ethnically diverse backgrounds and their providers, in urban, high volume primary care settings.

# Benefits of Interactive Web-based Decision Aids



# Birth Choices Health IT Research Team Members

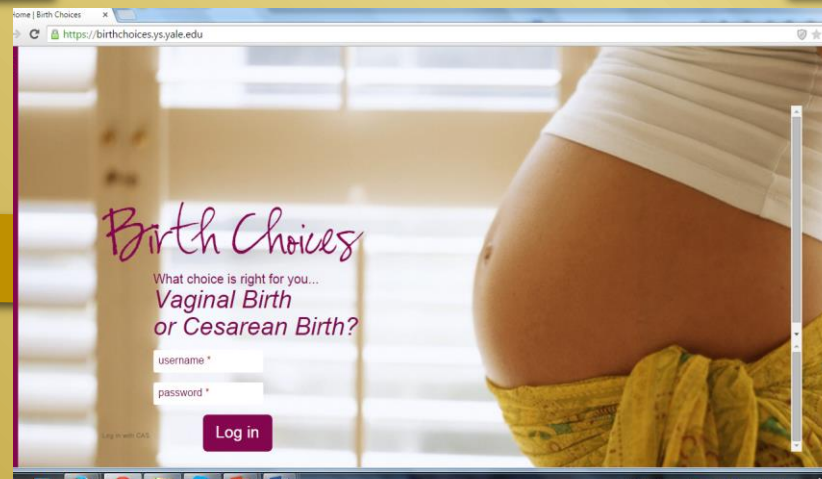
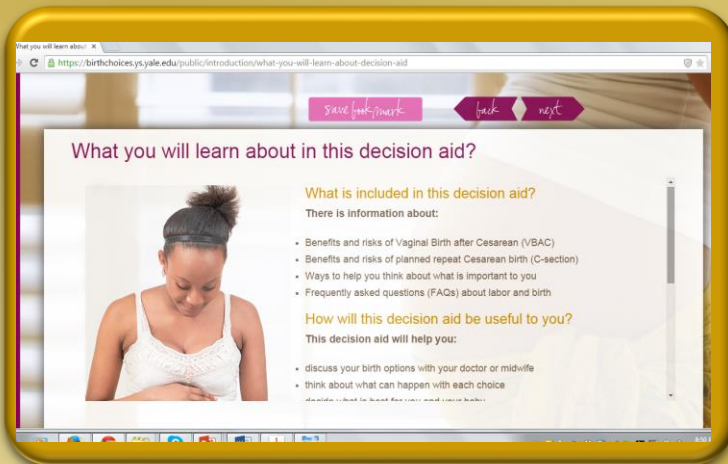
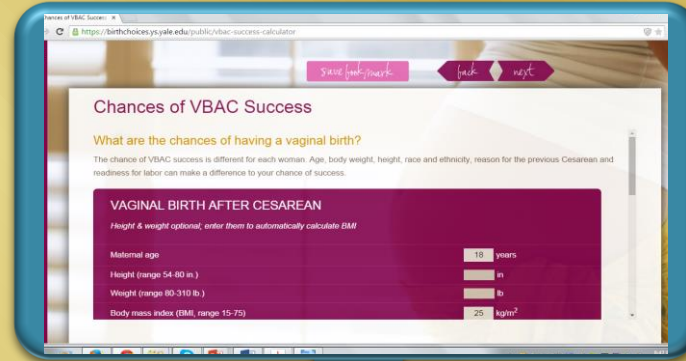
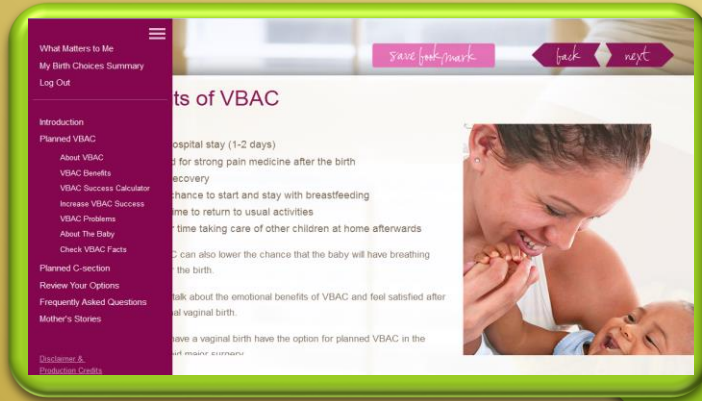
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**Shorten, A., et al(2015) Developing an Internet-Based Decision Aid for Women Choosing Between Vaginal Birth After Cesarean and Repeat Cesarean Birth. *Journal of Midwifery and Women's Health.***

# Birth Choices Selected Screen Shots





# Feasibility Implementation Study

- *Birth Choices* was integrated into clinical practice within two busy, urban, pregnancy care services.
- 70 pregnant women with one previous C-section, eligible to consider planned VBAC.

**Knowledge** + **Decisional Conflict** + **Choice** +  
**Outcome** + **Satisfaction** + **Experience**

# Before and After Measures



**Table 1: Participant Characteristics  
(n=66)\***

Characteristic	(%)
Age (mean)	29.3 years
Gestation (mean)	19.8 weeks
<u>Education</u>	
Middle School	4.5
High School	39.4
Trade School	18.2
College	37.6
<u>Race/ethnicity</u>	
Black	46.2
Hispanic	35.4
White	13.8
Other	4.6
<u>Previous C-Section</u>	
Emergency	84.8
Elective	12.1
Don't Know	3.0

\*n=2 S1 characteristics not provided

## Feasibility Study Protocol

Eligible women recruited at 12-28 weeks of pregnancy

Assess Knowledge, Decisional Conflict, Birth Preference

Women will use the decision aid during pregnancy on computer, phone or ipad

Women discuss birth choice at 32-38 weeks with provider.  
Assess Knowledge, Decisional Conflict, Birth Choice.

Follow-up 4-8 weeks after the birth  
1:1 interviews with a sub-set of women and providers

# Change in Knowledge and DCS Scores (n=52)

			Mean Change	p <sup>a</sup>	FDR <sup>b</sup>	d <sup>c</sup>
Mean Scores	Survey 1	Survey 2				
<b>Knowledge /15</b>	6.54	9.12	2.58	<.001*	<.001*	0.87(0.46,1.27)
<b>DCS /5.0</b>	0.86	0.41	-0.45	<.001*	<.001*	0.69(0.29,1.09)

a=Wilcoxon signed-rank test p-value, b = False Discovery Rate; c= Cohen's d effect size with 95% CI

# Birth Choices Acceptability (n=39)

How much did the Birth Choices web-site help you...	A lot/ a great deal n (%)
organize your own thoughts about your birth decision?	21 (53.8)
consider the pros and cons of each option?	27 (69.2)
identify the questions you needed to ask?	23 (60.5)
<b>consider how involved in the decision you wanted to be?</b>	<b>27 (71.1)</b>
discuss your options with your family?	26 (66.7)
<b>help you discuss your options with your doctor/ midwife?</b>	<b>28 (71.8)</b>
prepare you to make a decision?	26 (66.7)
<b>help you know what to expect from your birth choice?</b>	<b>28 (71.8)</b>
<b>help you feel satisfied with the birth decision?</b>	<b>28 (71.8)</b>

# Lessons Learned



- ✦ *Birth Choices* was acceptable and feasible to use in practice.
- ✦ Mobile health IT has potential to support women from ethnically diverse populations in SDM.
- ✦ Health IT offers new possibilities for delivery of tailored information and decision support, using interactive elements to help women engage with best evidence about their birth options
- ✦ Implementation studies are needed to develop effective strategies for scale-up in diverse practice settings.

# References

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