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Building the Science of Public Reporting

Brent Sandmeyer, MPH
Agency for Healthcare Research & Quality
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Public Reporting: A Key Strategy in Achieving High Value Health Care

- ACA, NQS, NAM identify public reporting as foundational infrastructure for improving care and lowering costs.

- "*Transparency of process, outcome, price, and cost information, both within health care and with patients and the public, has untapped potential to support continuous learning and improvement in patient experience, outcomes, and cost and the delivery of high-value care.*"[1]

1. Smith et al, eds. (2012). Best Care at Lower Cost: the Path to Continuously Learning Health Care in America. Institute of Medicine.

Building the Science

- 2012-2016: AHRQ & CMS fund 17 studies to improve the design, dissemination, and underlying measures and methods of public reports.

- Studies address many areas of care (e.g. hospitals, home health, nursing homes, surgery), with a focus on vulnerable populations.

- Summaries available here: http://www.ahrq.gov/professionals/quality-patient-safety/quality-resources/tools/sciencepubreport

Decision Points

- Consumer engagement in making health care decisions may be higher for:

  ► "Shoppable" care (maternity, nursing home)

  ► Disruptions (moving, job or insurance change)

  ► Bad experiences (medical errors, arguments)[1]

1. Shaller, Kanouse, Schlesinger (2014). *Context-based Strategies for Engaging Consumers with Public Reports about Health Care Providers.* Medical Care Research & Review.

USING STAR RATINGS IN NURSING HOMES :
A QUANTITATIVE AND QUALITATIVE EVALUATION

Rachel Werner, MD, PhD

With: Tamara Konetzka PhD, Dan Polsky PhD,

Judy Shea PhD, Marilyn Schapira MD

PENN
UNIVERSITY of PENNSYLVANIA

CHERP
CENTER FOR HEALTH EQUITY
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Background: Nursing Home Compare

<u>In 2002</u>:

- CMS began publicly rating nursing homes on
  - 10 individual measures of clinical quality
  - Staffing
  - Deficiencies

<u>In 2008</u>:

- CMS converted to a 5-star rating system
  - Overall star rating
  - Star ratings for clinical quality, staffing, deficiencies
  - Underlying individual measures still available

Example of the 5-star report card

	Nursing Home A	Nursing Home B	Nursing Home C
General Information	**Inspections and Complaints**	**Staffing**	**Quality Measures**	**Penalties**

	Nursing Home A	Nursing Home B	Nursing Home C
Overall Rating	★★★☆☆ Average	★☆☆☆☆ Much Below Average	★★☆☆☆ Below Average
Health Inspection Rating	★★★☆☆ Average	★★☆☆☆ Below Average	★☆☆☆☆ Much Below Average
Staffing Rating	★☆☆☆☆ Much Below Average	★☆☆☆☆ Much Below Average	★★★★☆ Above Average
Quality Measure Rating	★★★★★ Much Above Average	★★★★☆ Above Average	★★★☆☆ Average

Question #1:
Is there a change in admission rates to nursing homes following summary ratings in 2008?

- Are consumers more likely to choose a 5-star facility than a 1-star facility after star ratings were released?

    - If so, presumably consumers (or their agents) use star ratings when using a nursing home

What we do

- Test for changes in choice of NH as a function of star ratings
  - Pre-post design (2005-2008 vs. 2009-2010)

- Estimate whether a patient's choice of nursing home as a function of
  - The nursing home's 5-star rating
  - Whether the admission occurred after the star ratings were available (post-December 2008)
  - The interaction between the two

- Also control for other nursing home characteristics and the driving distance between home and each nursing home option

Data

- OSCAR (2005 to 2010)
  - All Medicare/Medicaid-certified nursing homes
  - Inspection and staffing ratings
  - Facility characteristics
    - Profit status, # beds, chain, hospital based, occupancy, % Medicare, % Medicaid
  - We include all nursing homes included in public reporting
    - **16,147 nursing homes**

- Minimum Data Set (2005 to 2010)
  - All nursing home admissions
  - Detailed clinical data collected at regular intervals
  - Replicate the quality score for Nursing Home Compare
  - We include a 20% random sample of admissions between 2005-2010
    - **2,316,649 nursing home admissions**

Admissions by star ratings
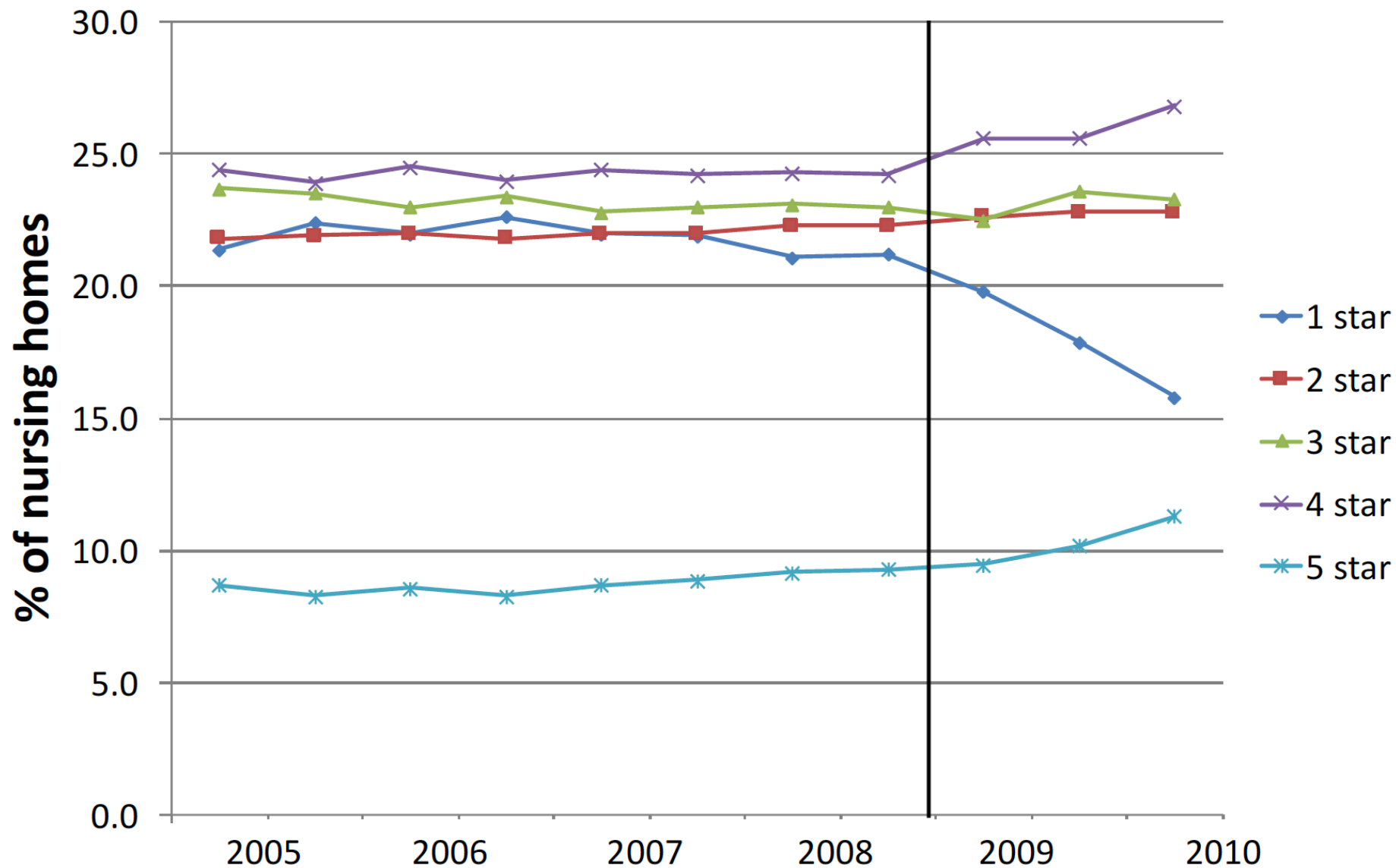
Adjusted changes in admissions by star ratings

	All admissions	Post-acute care	Long-term care
Post 2008*2-star	0.023***	0.024***	0.03*
Post 2008*3-star	0.018***	0.019***	0.008
Post 2008*4-star	0.017***	0.021***	-0.040**
Post 2008*5-star	0.079***	0.082***	0.085***
N	181,148,037	164,741,202	15,406,835

Covariates: driving distance, profit status, number of beds, occupancy rate, % Medicaid, % Medicare

How large is the change in admissions?

- Simulated market with 5 nursing homes

	Pre-2008 market share	Post-2008 market share	Absolute change	Relative change
1 star	20	18.38	-1.62	-8.1%
2 star	20	20.46	0.46	2.3%
3 star	20	19.89	-0.11	-0.5%
4 star	20	19.99	-0.01	-0.1%
5 star	20	21.28	1.28	6.4%

How large is the change in admissions?

	Absolute change in market share in an average market
1 SD improvement in % in pain (2002) 66% to 86%	0.2
1 SD improvement in star rating (2008) 3 to 5 stars	1.3

Question #2:
Do consumers tradeoff between summary and individual ratings?

- Conduct in-depth, structured interviews
- Convenience sample of persons (or caregiver) recently admitted to a nursing home or anticipating nursing home admission
- Assess salience and use of nursing home rankings including star ratings and individual quality measures
- 35 interviews
  - 23% high school education or less
  - 29% black
  - 51% urban

What we found

- Few participants used NHC when choosing a nursing home
- Liked and understood the star ratings
  - Some confusion over how the stars were calculated, particularly when the overall star didn't appear to be an average of the staffing, deficiencies, and quality measure stars
  - Generated some distrust

What we found

- Most also liked the individual quality measures
  - Some confusion high scores indicate higher quality in some and worse quality in others
- Most naturally focused in on the quality measures that were most salient to them
- About 1/3 reported using the star ratings to narrow the choices and the individual measures to choose
- 20% reported that there was too much information
  - Concentrated among low SES subjects
- Most reported the report cards were missing information that was important in their decision
  - Resident/caregiver ratings

Conclusions

- Converting to a summary nursing home quality measure resulted in a relatively large change in consumer demand

- Further improvements in the summary measure could increase its effect

- Summary measures are a complement to, not a substitute for more detailed quality information

No "one size fits all" reporting

Consumer Views of Maternity Care Quality

Maureen Maurer, MPH

Principal Researcher

American Institutes for Research

Objectives Today

- Explore factors that influence the use of public reports for hospital maternity care quality, focusing on:

  - Women's perception and definition of maternity care

  - Information about maternity care quality that women value

  - Women's awareness of current maternity care quality efforts and measures

- Discuss implications for public reporting efforts

What did we do?

- The context: study to test a new approach to attract pregnant women to a hospital-level maternity care quality website

- Conducted focus groups to get input on website development

- Conducted baseline survey for randomized trial
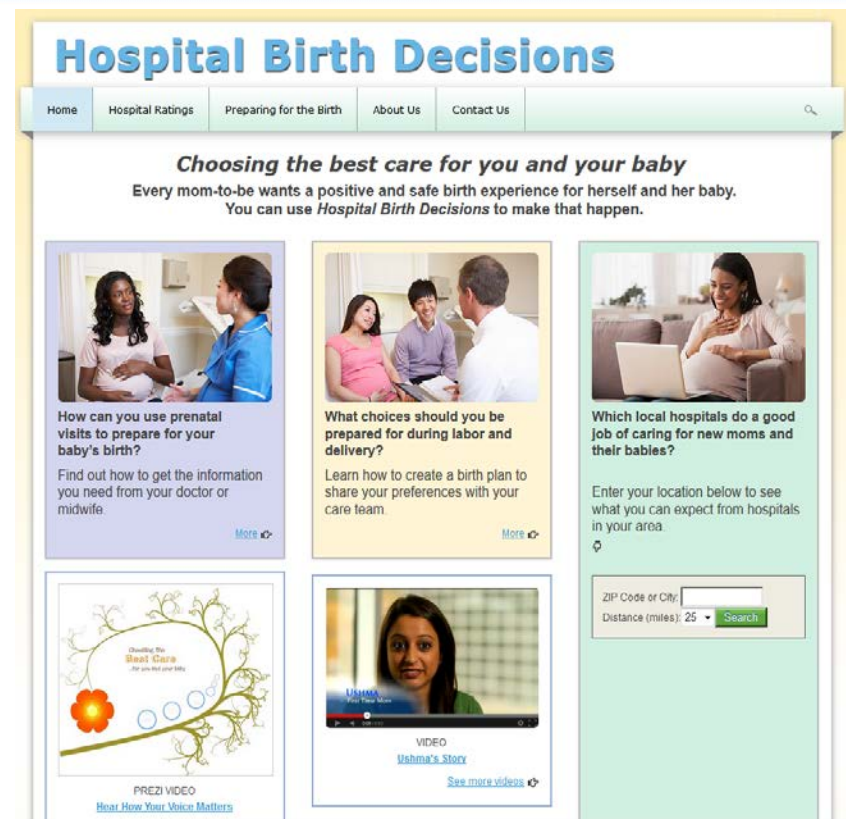
What did we explore?

- Focus groups with women who were currently pregnant, planning to get pregnant or had given birth in the past year, focusing on:

  - How women describe high quality maternity care

  - Relative importance of different quality measures

  - How and when quality information would be used

- Baseline survey of 245 women in North Carolina who were 8-30 weeks pregnant

  - Factors important in choosing a hospital

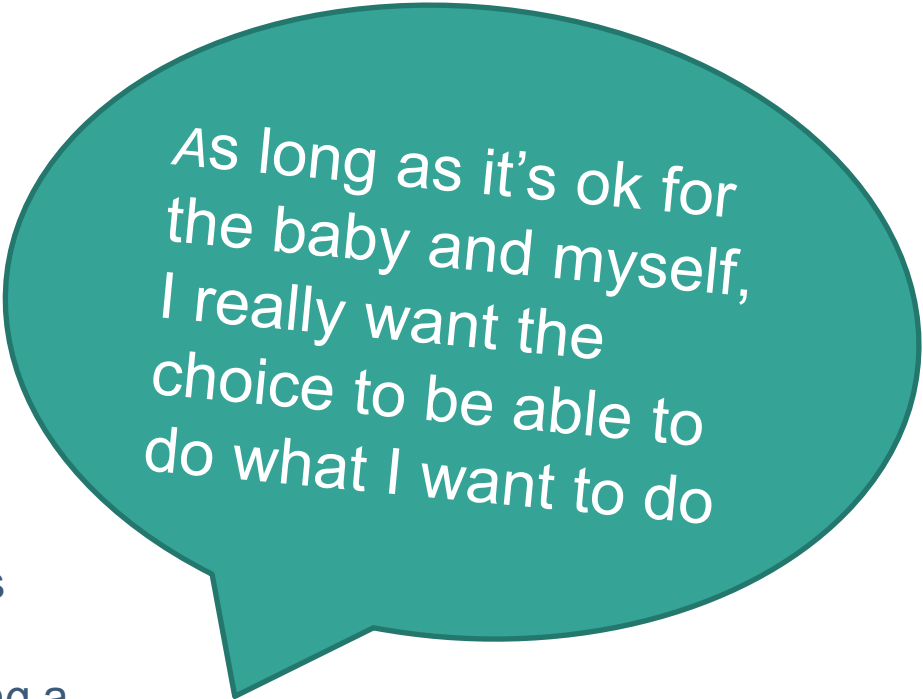 - Awareness of comparative quality information

What quality measures did we discuss?

Quality Measure	Focus Groups	Survey
Incidence of episiotomy	X	X
Appropriate newborn bilirubin screening prior to discharge	X	X
Exclusive breast milk feeding in the hospital	X	X
Early elective delivery (before 39 weeks)	X	X
Appropriate deep venous thrombosis (DVT) prophylaxis in women undergoing C-section	X	X
Use of antenatal steroids for babies at risk of delivering before 34 weeks	X	X
First-time, low risk C-section	X	
Use of prophylactic antibiotics received within one hour prior to surgical incision – C-section	X	
Health care associated bloodstream infections in newborns	X	

What did we learn? Focus groups

- **High quality maternity care focused predominantly on interactions with providers**
  - Individualized care
  - Effective communication
  - Coordinated care
- **Roles & responsibilities**
  - Women = be informed, ask questions, voice preferences
  - Doctor = decides if intervention is medical necessary
  - Hospital = not perceived as having a large role
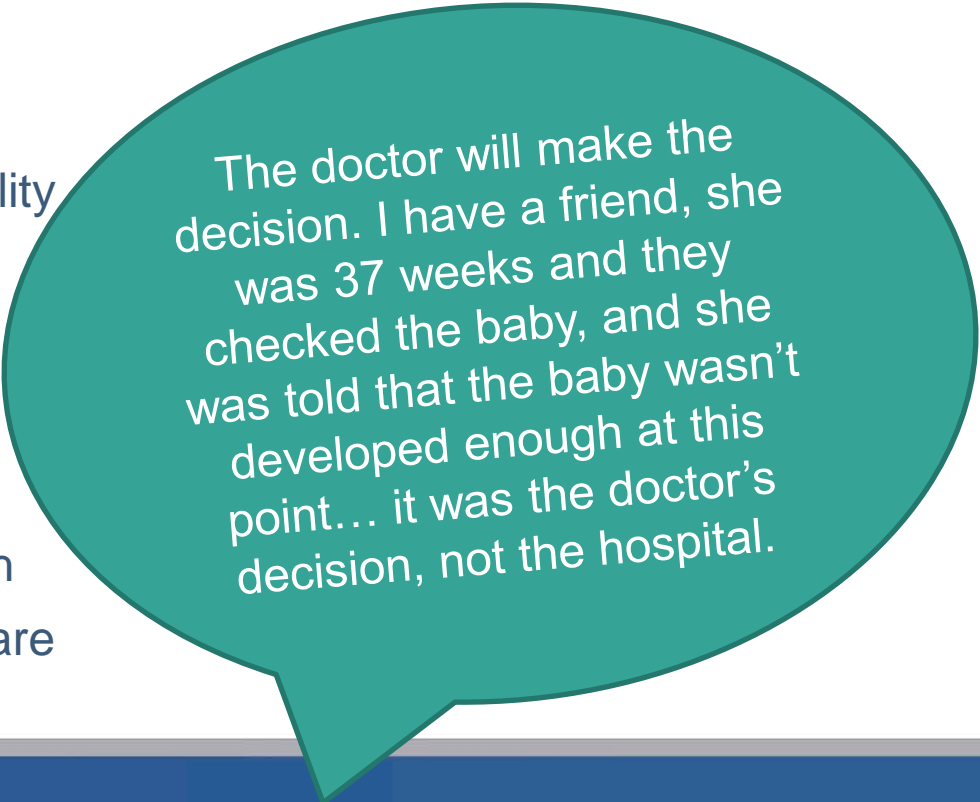
As long as it's ok for the baby and myself, I really want the choice to be able to do what I want to do

What did we learn?
Focus groups

- **Most interested in measures:**
  - Related to babies' health
  - Clearly the hospital's responsibility
  - Part of "standard care" that should happen for all patients
- **Would use quality information to:**
  - Choose provider, if early enough
  - Talk to doctor about quality of care

> The doctor will make the decision. I have a friend, she was 37 weeks and they checked the baby, and she was told that the baby wasn't developed enough at this point… it was the doctor's decision, not the hospital.

What did we learn?
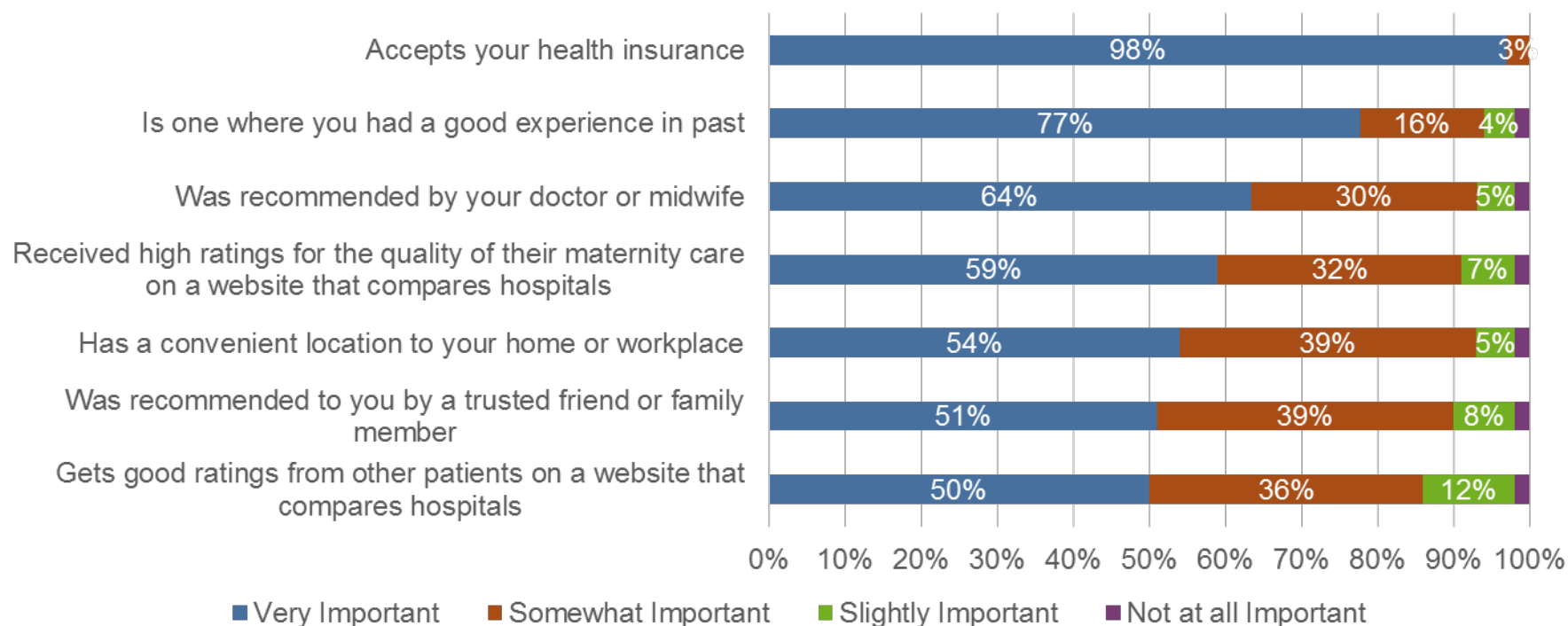## Baseline survey: Important Factors

Factors Important When Choosing a Hospital (n=245)

Factor	Very Important	Somewhat Important	Slightly Important
Accepts your health insurance	98%	3%	
Is one where you had a good experience in past	77%	16%	4%
Was recommended by your doctor or midwife	64%	30%	5%
Received high ratings for the quality of their maternity care on a website that compares hospitals	59%	32%	7%
Has a convenient location to your home or workplace	54%	39%	5%
Was recommended to you by a trusted friend or family member	51%	39%	8%
Gets good ratings from other patients on a website that compares hospitals	50%	36%	12%

Legend: ■ Very Important ■ Somewhat Important ■ Slightly Important ■ Not at all Important
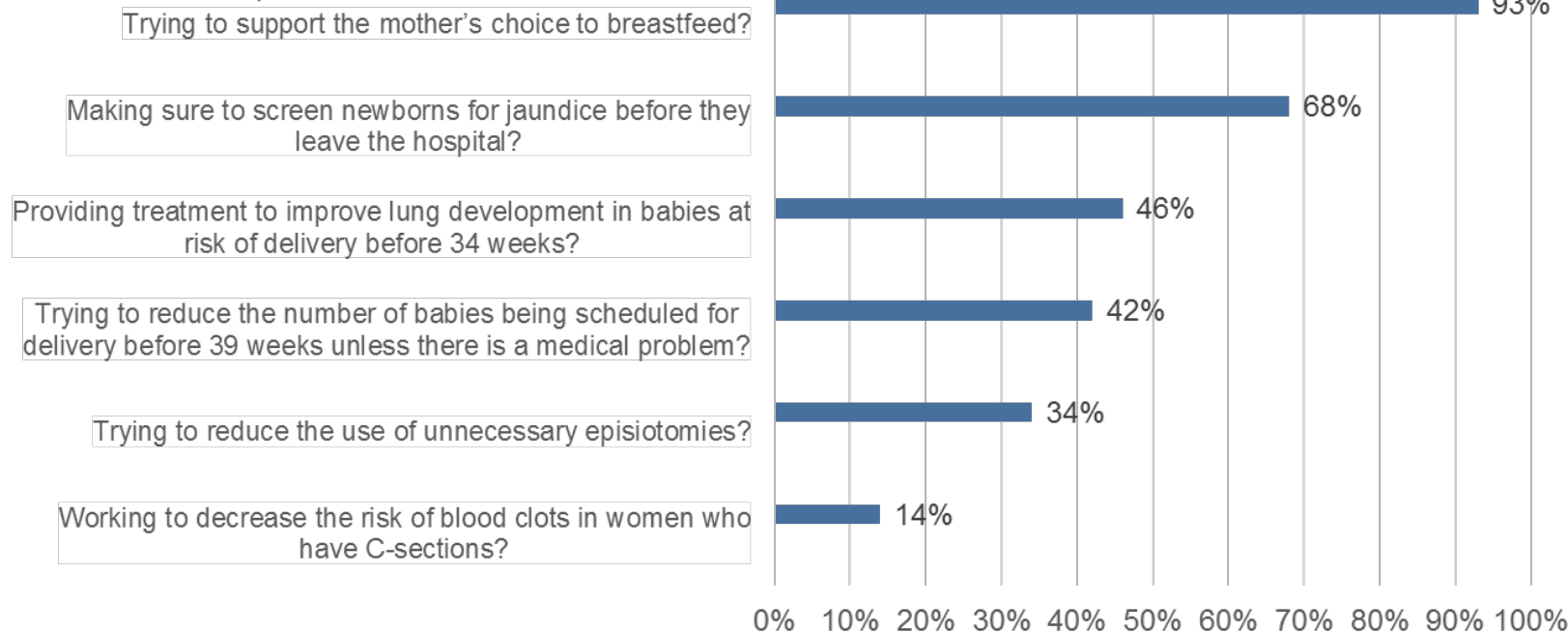
What did we find?
Baseline survey: Awareness

How many were aware of efforts to address quality (n=245)

In thinking about the hospital for your baby's birth, how important is it that the hospital...

- Trying to support the mother's choice to breastfeed? — 93%
- Making sure to screen newborns for jaundice before they leave the hospital? — 68%
- Providing treatment to improve lung development in babies at risk of delivery before 34 weeks? — 46%
- Trying to reduce the number of babies being scheduled for delivery before 39 weeks unless there is a medical problem? — 42%
- Trying to reduce the use of unnecessary episiotomies? — 34%
- Working to decrease the risk of blood clots in women who have C-sections? — 14%

What does this mean for public reporting efforts?

Important context for public reports

- Women are highly motivated to seek information on maternity care quality
- Women have limited awareness of quality measures
- Women have limited understanding of hospital role in ensuring quality
- Pregnancy, labor, and delivery are emotionally charged

What does this mean for public reporting efforts?

Relevance of quality measures

- Most important associated with babies' health (but they were not available for our larger study)

- Communication and respect important (but current measures are not maternity care specific)

- Hospital level reporting available (but women want physician level reporting)

- Insurance and cost an important factor (but we did not have access to information about cost to individuals)

What does this mean for public reporting efforts?

- Short-term:
  - Create connections between current measures and what women are interested in
  - Clarify role of hospital in ensuring quality
  - Test how to frame and label measures to increase understanding and reduce bias
  - Expand how we think about using public reports (to inform care decisions, not just provider selection)

- Long-term: Develop publicly available measures that most closely relate to women's needs across care settings (physician, hospital)

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Contact information:
Maureen Maurer
919-918-2308
mmaurer@air.org
www.air.org

Center for Patient and Consumer Engagement
www.aircpce.org

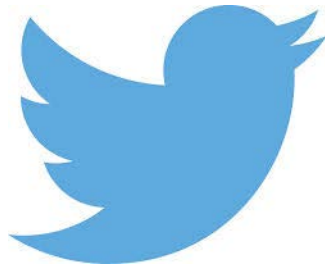**Please click the link below to take our webinar evaluation. The evaluation will open in a new tab in your default browser.**

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