

Promoting Primary Vaginal Deliveries Initiative

Finding your Cesarean Reduction Opportunities

PROVIDE Collaborative Session Webinar

Partnering to Improve Health Care Quality for Mothers and Babies

Welcome!

- Please join by telephone to enter your Audio PIN on your phone or we will be unable to un-mute you for discussion.
- If you have a question, please enter it in the Question box or Raise your hand to be unmuted.
- This webinar is being recorded.
- Please provide feedback on our post-webinar survey.



Webinar Agenda

November 9, 2017

- Introductions
- IRB Approval
- Baseline data collection and submission
 - Questions
- Prospective data collection and submission
 - Questions
- Sample monthly reports
 - Questions





PROVIDE's Goal: To improve maternal and newborn outcomes by applying evidence-based interventions to promote primary vaginal deliveries at Florida delivery hospitals and ultimately reduce NTSV cesareans.

Partnering to Improve Health Care Quality for Mothers and Babies

Your Institution's IRB Approval?

- PROVIDE Initiative is a quality improvement project and not generally considered human subjects research requiring IRB approval.
- USF's IRB has officially designated the PROVIDE Initiative as QI and does not require IRB approval.
- However, each institution is generally required to make its own determination.
- Email <u>FPQC@health.usf.edu</u> if you need us to send you are IRB submission materials for use with your institution.



Baseline Data Collection

- Collect baseline data for July, August & September 2017
- Identify primary cesarean births, but then only audit those that are NTSV.
- Audit up 20 NTSV cesarean births per month for all reasons for a total of up to 60 charts.
- We recommend the first 20 of each month so your audit is not biased.



Baseline Data Collection, cont.

- Complete audit form for each NTSV birth. You only need to answer questions related to the C/S Category selected after the first (white) section.
- Enter forms into the online PROVIDE data portal by Dec 1st
 - You are guaranteed to receive your hospital's report before the end of December if you submit by this deadline





CHART AUDIT SHEET HAS BEEN UPDATED since the Kick Off!

Please see the webinar email or PROVIDE online Tool Box for the most updated version.

health.usf.edu/publichealth/chiles/fpqc/provide/toolbox

FPQC PROVIDE Initiative Chart Audit Sheet Study ID #: Complete only for Nulliparous Term Singleton Vertex Cesarean Sections Baseline data collection: Complete form for up to 20 NTSV C-sections per month for 3 months to determine hospital's main focus area(s) Prospective data collection: Hospital to audit up to 20 cases per month on 1 (or more if you choose) of the 3 primary indication areas Patient Status: C/S Category Gestation ____ weeks □ Admitted already in labor Oxytocin □ Induction □ None utilized □ Induced □ Labor Dystocia Membranes on Admission □ Induction ☐ Indicated augmented labor ☐ FHR Concerns □ Intact □ Augmentation at cm □ Not in labor: spontaneous rupture of membranes □ Other □ Ruptured □ Previously admitted antepartum INDUCTION CASE AUDIT Sample of cases that are NTSV per TJC and were induced labor and had a cesarean birth for labor arrest, excluding those with birth weight ≥ 4250g or with ICD-10 codes for: •Fetal heart rate concern or •Medical indication for cesarean section Cervix Bishop Score as Event Dilation Effacement noted on chart consistency At Start of unknown unknown unknown unknown Induction Last Exam before unknown unknown Delivery Yes Was Cervix 6 cm or greater at time of Cesarean? A. If <6 cm, unable to generate regular contractions (every 3 ■ No ☐ If No, go to A. minutes) and cervical change after oxytocin administered for If Yes, go to B. ☐ Unknown at least 12-18 hours after membrane rupture? Yes B. If ≥6cm, was there at least 4h with adequate uterine activity If Bishop score ≤ 8 at start of induction, was ☐ Yes ☐ No or at least 6h with inadequate uterine activity and with ☐ No cervical ripening used? □ N/A Completely dilated at time of Were there 3 hours or more in Second ☐ No ☐ unknown No If Yes → Stage (4 hours with epidural)? LABOR DYSTOCIA/FAILURE TO PROGRESS CASE AUDIT Sample of cases that are NTSV per TJC and were spontaneous labor and had a cesarean for labor arrest, excluding those with birth weight ≥ 4250g or with ICD-10 codes for: •Fetal heart rate concern or •Medical indication for cesarean section Dilation at time of admission: If Yes, please check the one reason for cesarean that applies: Was Cervix 6 cm or ☐ Membranes ruptured and No cervical change x 4 hrs with Adequate greater at time of ☐ Unknown Uterine activity (e.g., > 200 MVU) Cesarean? Membranes ruptured, Oxytocin administered, and No cervical Dilation at time of cesarean: ☐ Yes change x 6 hrs with Inadequate Uterine activity (e.g., < 200 MVU) ☐ No ■ None of the above unknow Completely dilated at time of Were there 3 hours or more in Second unknown If Yes → Stage (4 hours with epidural)? Cesarean? No FETAL HEART RATE CONCERN/INDICATIONS Sample of cases that are NTSV per TJC and had a cesarean for fetal heart rate (FHR) concern/indications, excluding those with birth weight ≥ 4250g or with ICD-10 codes for: •Labor arrest / CPD What was the FHR concern/indication? Please check all corrective measures that were used: Antepartum testing results which precluded trial of labor Basic resuscitation measures such as: Maternal position change, Category III FHR tracing maternal fluid bolus, and/or administration of O2 Category II FHR tracing (if checked, other conditions below?) Reduced or stopped oxytocin or uterine stimulants Clinically significant variable decelerations ☐ Used Amnioinfusion after other measures failed Minimal or absent FHR variability ☐ Elicited stimulation (scalp, vibroacoustic, or abdominal wall) Other concern: Corrected uterine tachysystole: decrease or Other labor issues:

discontinue uterine stimulants, fluid bolus,

terbutaline or nitroglycerin and/or other?

Did the mother have uterine tachysystole?

Yes

No

☐ Yes ☐ No

See back of the chart audit sheet for helpful definitions

Definitions and Clinical Criteria

NTSV = ≥37 weeks, parity 0, single gestation pregnancy, vertex fetal presentation

<u>Study ID</u> = Begins with 001 & numbers the patient charts consecutively. On site log, record patient's medical record number or identifying number next to the corresponding Study ID# to keep track and return for any needed case review.

<u>CS Category</u> = If the cesarean delivery has fetal heart rate concerns requiring delivery, then label "FHR Concerns." If not and had an induction, then "Induction." If neither of these and had labor dystocia, then "Labor Dystocia." Otherwise, mark the form as "Other."

Medical Indication for Cesarean (chart review exclusion criteria, or "Other") include:

- 1. Maternal or fetal hemorrhage
- 2. Hypertensive emergencies not responding to treatment
- 3. Abnormalities of placenta or umbilical cord
- 4. Fetal or maternal conditions that obstruct the pelvis
- Active HSV lesions or HIV viral load>1000copies/ml
- Other maternal medical indications (cardiac, neurological, orthopedic, pulmonary, malignancy, previous uterine surgery) that preclude vaginal delivery

Primary Indication for NTSV Cesarean	Fall out if these not met:	Reference
Labor Dystocia/Failure to Progress	Chart Review: looking for Yes answers to the following (a no answer would indicate inconsistency with the ACOG guidelines): If <6cm dilated, automatic fallout If 6-10cm dilated, was there at least 4h with adequate uterine activity or at least 6h with inadequate uterine activity and with oxytocin? If completely dilated, was there 3h or more in Second Stage (4h with epidural)?	ACOG/SMFM criteria (Ob Gyn 2014;123:693- 711) -CMQCC
Induction	Chart Review: looking for Yes answers to the following (a no answer would indicate inconsistency with the ACOG guidelines): If <6cm dilated, were there at least 12 hours of oxytocin after rupture of membranes? If 6-10cm dilated, was there at least 4h with adequate uterine activity or at least 6h with inadequate uterine activity and with oxytocin? (identical to the question for Labor arrest/CPD above)	ACOG/SMFM criteria (Ob Gyn 2014; 123:693– 711) CMQCC
Fetal Heart Rate Concern	If completely dilated, was there 3h or more in Second Stage (4h with epidural)? Cesarean deliveries performed for "fetal heart rate concern" using listed resuscitation techniques listed below based on the FPQC FHR Concern algorithm: Antepartum testing which preclude labor: no techniques required. All Cat. II and III FHR concerns should use some techniques listed under "any intrauterine resuscitation efforts." Category Cat. II FHR concerns should also use additional techniques if the following: Receiving oxytocin—reduced or stopped oxytocin Clinically significant variable decelerations—possibly Amnioinfusion (not required) Minimal/absent variability—elicited stimulation Uterine tachysystole—any combination listed to correct	Spong et al (Ob Gyn 2012; 120:1181-93) Clark et al (AJOG 2013; 209:89-97 ACOG/SMFM criteria (Ob Gyn 2014; 123:693- 711) CMQCC FPQC

How to Calculate a Bishop Score:

	Points				
Cervical Exam	0	1	2	3	SUBSCORE
Dilation	Closed	1-2 cm	3-4 cm	≥5 cm	
Effacement	0-30%	31-50%	51-80%	≥80%	
Station	-3	-2	-1, 0	+1, +2	
Consistency	Firm	Medium	Soft		
Position	Posterior	Mid	Anterior		
	-			Rishon's Score =	

NTSV?

Nulliparous—woman with a parity of zero

Term—≥37 weeks gestation using best estimate

Singleton—single gestation pregnancy

Vertex—fetal presentation where the head presents first in pelvic inlet.

ACOG/AIM



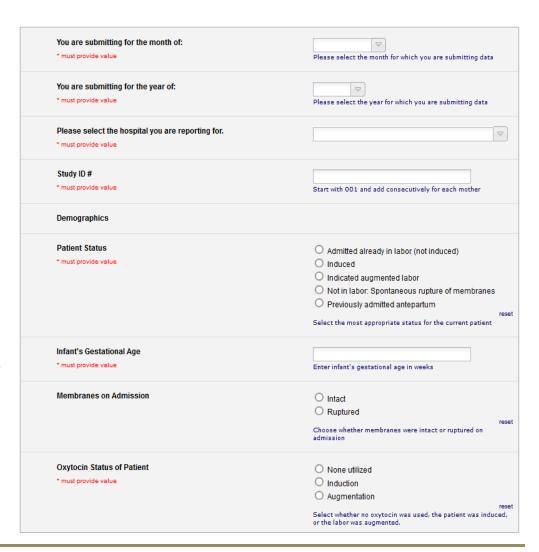


Each hospital lead will receive the REDCap hyperlink for data submission

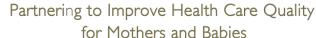




- After submitting the month, year and hospital name, REDCap form will follow your physical audit form







What do I do with the Study ID#?

	FPQC PROVIDE Initiative C Complete only for Nulliparous Term Singlet ction: Complete form for up to 20 NTSV C-sections per modification: Hospital to audit up to 20 cases per month on 1	on Vertex Cesarean Sections onth for 3 months to determin	
C/S Category	Patient Status: Admitted already in labor	Gestation weeks	Oxytocin
□ Labor Dystocia □ FHR Concerns □ Other	□ Induced □ Indicated augmented labor □ Not in labor: spontaneous rupture of membranes □ Previously admitted antepartum	Membranes on Admission □ Intact □ Ruptured	□ None utilized □ Induction □ Augmentation at cm

- Start at 001 and add sequentially
 - E.g. 001-060 for Baseline

Every patient chart that you include for PROVIDE data submission should get a **hospital assigned** Study ID number.





FPQC PROVIDE Initiative Chart Audit Sheet Study ID #: Complete only for Nulliparous Term Singleton Vertex Cesarean Sections Baseline data collection: Complete form for up to 20 NTSV C-sections per month for 3 months to determine hospital's main focus area(s) Prospective data collection: Hospital to audit up to 20 cases per month on 1 (or more if you choose) of the 3 primary indication areas Patient Status: C/S Category Gestation weeks Admitted already in labor Oxytocin □ Induction □ None utilized □ Induced □ Labor Dystocia Membranes on Admission □ Induction □ Indicated augmented labor □ FHR Concerns □ Intact □ Augmentation at □ Not in labor: spontaneous rupture of membranes □ Other □ Ruptured □ Previously admitted antepartum

- This helps keep track of which data entry form belongs to which patient on your end
- If you need us to change a patient's data submission, this number is how you match data form with patient chart.
- Some sites choose to keep a log or excel spreadsheet to match Study ID# to Patient Chart #



Which C/S Category to Choose?

Select which case audit type(s) you are submitting for	☐ Induction
* must provide value	☐ Labor Dystocia/Failture to Progress
	Fetal Heart Rate (FHR) Concern
	☐ Other
	Select one or more of the case audit types for which you are submitting data

- If there is a cesarean for fetal heart rate concerns, then select "FHR concerns."
- If not and mother induced, then select "Induction"
- If neither and cesarean for labor dystocia, then select "Labor Dystocia."
- Otherwise, select "Other."





Inductions?

- No ACOG definition for "failed induction"
- We have removed the term "failed." Abstractors do not need to determine whether a failed induction or not.
- If there are no fetal heart rate concerns and there is an induction, choose "Induction."
- Abstractors will only assess whether ACOG labor duration guidelines were followed or not.



- Other" is only available to select during Baseline
- Other reasons includes birth weights ≥4,250g, medical indication (birth defect, macrosomia or trauma) and maternal request cesarean delivery

Select which case audit type(s) you are submitting for * must provide value	☐ Induction ☐ Labor Dystocia/Failture to Progress ☐ Fetal Heart Rate (FHR) Concern ☐ Other
	Select one or more of the case audit types for which you are submitting data





Select which case audit type(s) you are submitting for * must provide value	 ✓ Induction Labor Dystocia/Failture to Progress Fetal Heart Rate (FHR) Concern Other Select one or more of the case audit types for which you are submitting data
Induction Case Audit Include your sample of cases that are NTSV per TJC and were induce EXCLUDING those with birth weight ≥4250g or with ICD-10 codes for: F cesarean section.	
Bishop Score Calculation - At Start of Induction The following questions will prompt you to enter the points assigned t Effacement, Station, Cervix Position, and Cervix Consistency noted on these components, you will be asked to enter the overall Bishop Score	the patient's chart at the start of induction. After answering
Is the overall Bishop Score at the time of induction known for this patient? * must provide value	○ Yes ○ No
Is the Bishop Score at the last exam before delivery known for this patient? * must provide value	○ Yes ○ No
Process Measures: Induction Case Audit	
Please select cervix dilation at time of cesarean. * must provide value	





Labor Dystocia/Failure to Progress Audit				
Include your sample of cases that are NTSV per TJC and were spontaneous labor and had a cesarean for labor arrest, EXCLUDING those with birth weight ≥4250g or with ICD-10 codes for: Fetal Heart Rate (FHR) Concern or Medical Indication for Cesarean Section.				
Please select cervix dilation at the time of admission. * must provide value	○ < 6cm ≥ 6cm Full Dilation reset Enter the dilation of the patient upon admission in centimeters			
Please select cervix dilation at the time of cesarean. * must provide value				
If ≥6cm dilated, check only one reason for the cesarean that applies to the patient. * must provide value	Membranes ruptured and no cervical change x 4 hours with adequate uterine activity (e.g. > 200 MVU) Membranes ruptured, oxytocin administered, and no cervical change x 6 hours with inadequate uterine activity (e.g. < 200 MVU) None of the above reset Enter the one reason why the patient was given a cesarean section			



Select which case audit type(s) you are submitting for *must provide value	☐ Induction ☐ Labor Dystocia/Failture to Progress ☑ Fetal Heart Rate (FHR) Concern ☐ Other Select one or more of the case audit types for which you are submitting data
Fetal Heart Rate (FHR) Concern Audit	
Include your sample of cases that are NTSV per TJC and had a cesare with birth weight ≥4250g or with ICD-10 codes for: Labor arrest/CPD	an for fetal heart rate concern, EXCLUDING those
Select the Fetal Heart Rate (FHR) Concern category that the patient falls under * must provide value	Antepartum testing results which precluded trial of labor Category III FHR tracing Category II FHR tracing Prolonged deceleration not responding to measures Other
Please check all corrective measures that were used.	Basic rescuscitation measures such as: Maternal position change, maternal fluid bolus, and/or administration of O2 Reduced or stopped oxytocin or uterine stimulants Used amniofusion after other measures failed Elicited stimulation (scalp, vibroacoustic, or abdominal wall)
Did the mother have uterine tachysystole? * must provide value	O Yes O No
Corrected uterine tachysystole: decrease or discontinue uterine stimulants, fluid bolus, terbutaline or nitroglycerin, and/or other? * must provide value	○ Yes ○ No



- Email our Data Analyst Paige Alitz <u>alitzp@health.usf.edu</u> and she will help you!
- You may either submit the survey or save & return to finish the survey later

Contact Information				
Questions? E-mail FPQC Data Analyst Paige Al	itz at: alitzp@health.usf.edu			
	Submit Save & Return Later			



What Next?

- You will receive a Baseline data report that includes:
 - Hospital-wide graphs of cesarean deliveries among: all NTSV births and all NTSV inductions from Jan 2016-April 2017
 - Hospital-specific and initiative-wide graphs for induction,
 labor dystocia, & fetal heart rate baseline audit percentages
 - Pre-initiative structural measures being implemented in your hospitals
- We will review a sample report with you today.
- Review this report with your QI team
 - If you have trouble interpreting your data, do not hesitate to reach out to us!







Questions on BASELINE DATA collection/submission?

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Prospective Data

- After choosing 1 (or more) focus area(s)
 - Complete audit form for up to 20 NTSV C-sections per month for each focus area(s) you have chosen
- Follow the same REDCap hyperlink
- Complete the REDCap form in the same manner as Baseline
- Other" will not be an option for prospective data



Structural Measures (Yes/No) Collected Every 6 months by Survey

- Patient, Family & Staff Support
- Shared Decision Making
- Unit Policy & Procedures (6 categories)
- EHR Integration (6 categories)
- Multidisciplinary Case Review (3 categories)
- Staff Education (Providers, Nurse, Topics)



PROVIDE Outcome Measures

#	Outcome Measures	Description
1	Severe Maternal Morbidity	Numerator: Among the denominator, all cases with any SMM code Denominator: All mothers during their birth admission, exclude ectopics and miscarriages
2	Severe Maternal Morbidity (excluding transfusion codes)	Numerator: Among the denominator, all cases with any non-transfusion SMM code Denominator: All mothers during their birth admission, exclude ectopics and miscarriages
3	C/S Delivery Rate among Nulliparous, Term, Singleton, Vertex (NTSV) Population	Numerator: Among the denominator, all cases with a cesarean birth Denominator: Women with live births who are having their first birth ≥37 weeks and have a singleton in vertex (Cephalic) position.
4	C/S Delivery Rate among Nulliparous, Term, Singleton, Vertex (NTSV) Population after Labor Induction	Numerator: Among the denominator, all cases with a Cesarean birth Denominator: Women with live births who are having their first birth ≥37 weeks and have a singleton in vertex (Cephalic) position AND with a labor induction

We will calculate these measures for you from birth certificate & hospital discharge data



Cesarean Rate Definitions

Primary Cesarean Rate

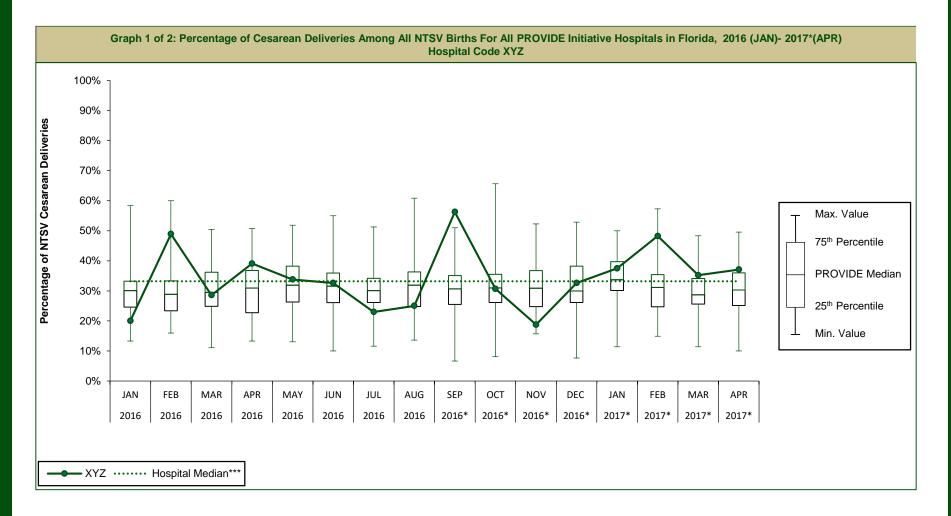
Number of births with a first cesarean delivery divided by number of births to women who never had a cesarean before.

NTSV Cesarean Rate (Nulliparous, term, singleton & vertex)

- Number of NTSV cesareans divided by the total number of NTSV births to women.
 - Joint Commission—Based on a sample of chart audits with minor exclusions
 - FPQC—Based on all birth certificates with no exclusion besides NTSV

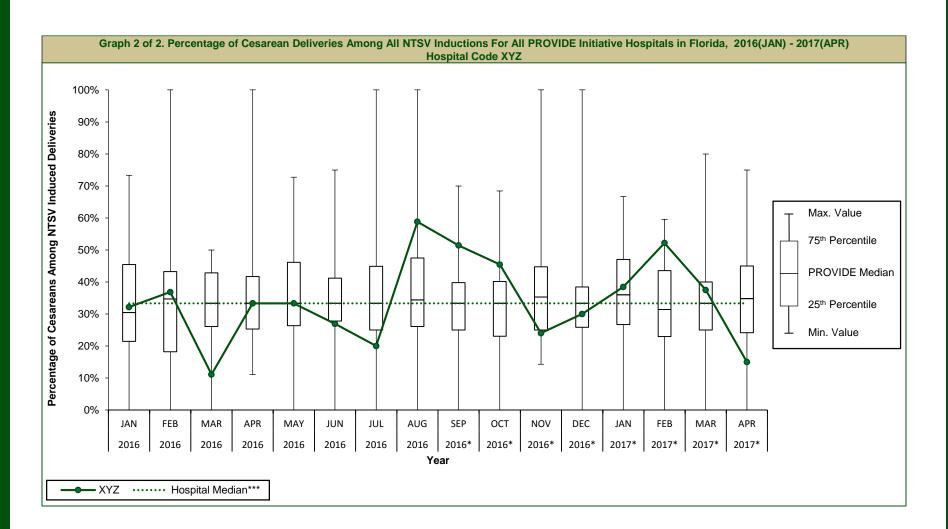


Sample Outcome Graph





Sample Outcome Graph





Balancing Measures

- 5 min. Apgar ≤ 5 with NTSV Vaginal Births (Birth Cert)
 - FPQC will provide monthly with outcome measures
- 3rd & 4th Degree Lacerations with NTSV Vaginal Births (Hosp Dis)
 - FPQC will provide periodically with outcome measures
- Severe Unexpected Newborn Complications with NTSV Vaginal Births (Hosp Dis)
 - FPQC will provide <u>periodically</u> with outcome measures





PROVIDE—Accuracy of Birth Certificate Data

- Number now living or dead
- Induction of labor
- Fetal presentation at birth
- Final route and delivery method
- Obstetric estimate of gestation
- Plurality
- Apgar Score

New Completion Guide





SECTION	ITEM	SUBITEM	SOURCES
Pregnancy History	Previous Live Births		 1st Prenatal care record 2nd Labor and delivery nursing admission triage form 3rd Admission history and physical (H&P)
		Number Now Dead	 1st Prenatal care record 2nd Admission history and physical (H&P)
Medical and Health Information	Characteristics of Labor and Delivery	Induction of labor	 1st Delivery record 2nd Physician progress note 3rd Labor and delivery nursing admission triage form
		Augmentation of labor	1st Delivery record under:2nd Physician progress note
	Method of Delivery	Fetal presentation at birth: - Cephalic - Breech - Other	1st Delivery record
		Final Route and method of delivery - Vaginal/Spontaneous - Vaginal/Forceps - Vaginal/Vacuum - Cesarean	 1st Delivery record under 2nd Newborn admission H&P 3rd Recovery room record



	DEFINITION	BC ITEM	# TIPS FOR ENTRY	KEYWORDS AND ABBREVIATIONS	NCHS RECOMMENDED SOURCE
1.	Previous Live Birth				
a.	Number now living- total number of previous live-born infants who are still living.	# 42a	DO NOT include this child Do not include abortions (spontaneous miscarriages or therapeutic or elective abortions), fetal deaths/stillbirths. For multiple deliveries: Include all live-born infants before this infant in this pregnancy. If the first born, do not include this infant. If the second born, include the first born, etc. If no previous live-born infant now alive enter 00.	T–Term– Delivered at 37 to 40 weeks gestation	 1st Prenatal care record under: Intake information Gravida section—L (living)— last number in series Para section—L—last number in series Pregnancy history information Previous OB history Past pregnancy history 2nd Labor and delivery nursing admission triage form Patient data 3rd Admission history and physical-H&P







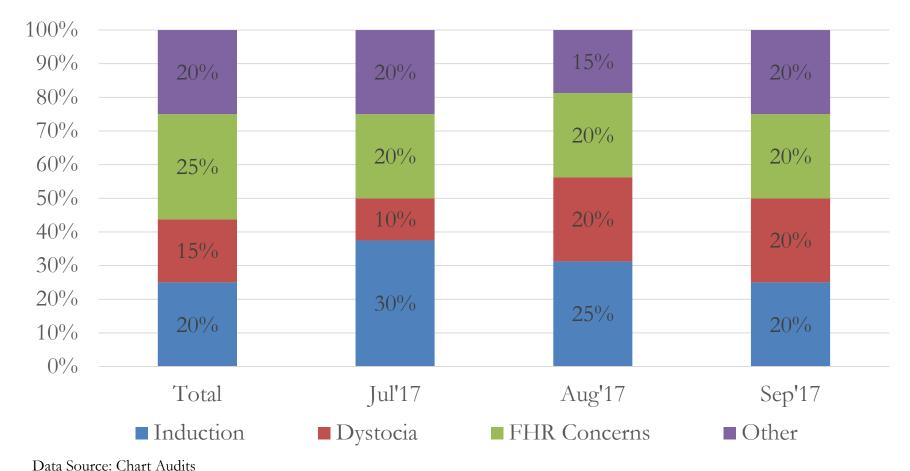




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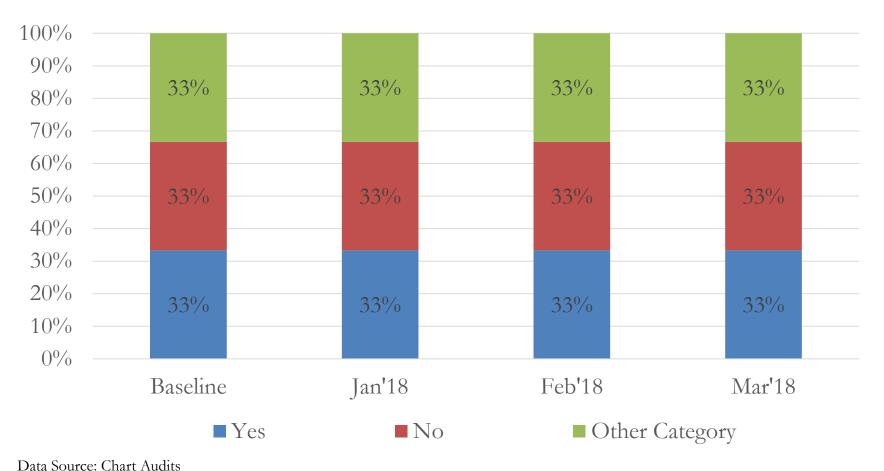
Sample Data Report

Overall 1: Percent of All Cesarean Deliveries Performed by Category During Baseline Assessment





Overall 2: Percent of All Cesarean Deliveries Performed that Met Criteria During Baseline Assessment

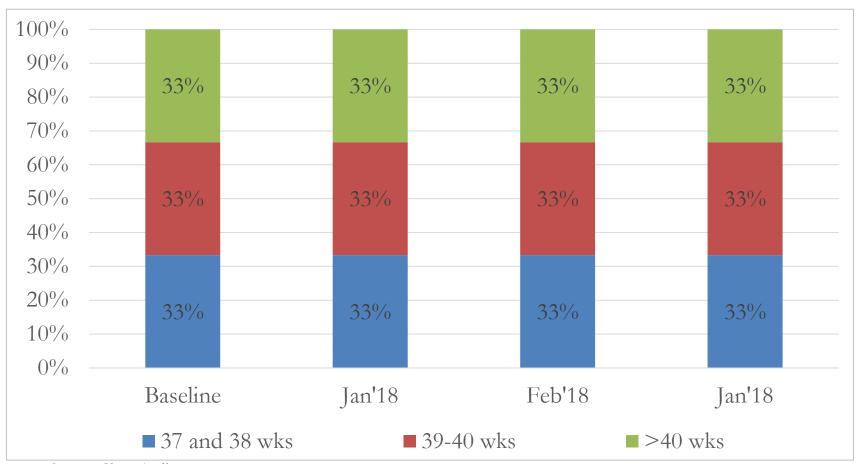


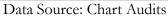




INDUCTION CASE AUDIT

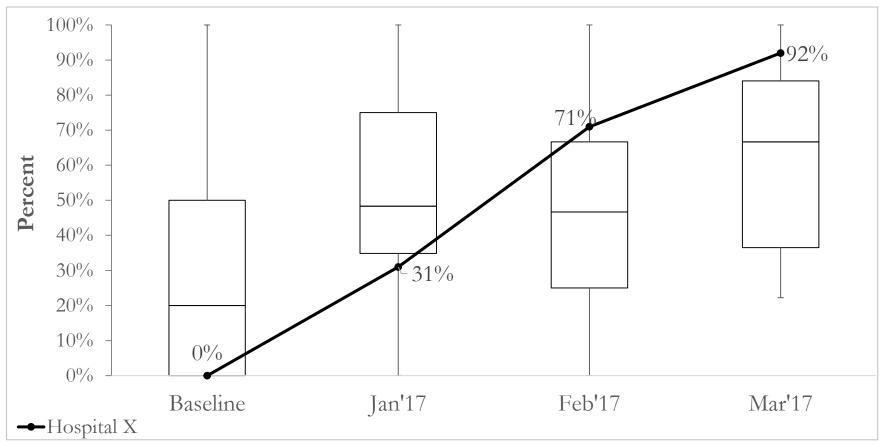
I-1: Percent of NTSV Cesarean Deliveries with Induction by Gestational Age

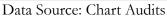






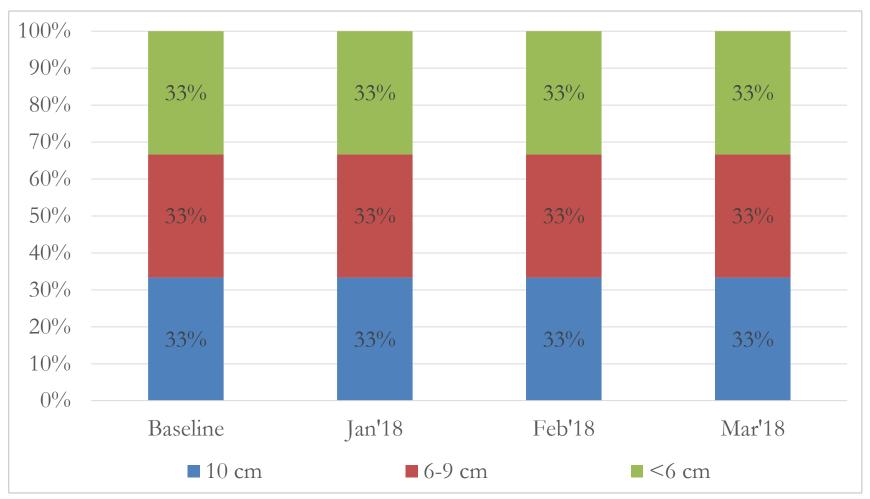
I-2: Percent of NTSV Cesarean Deliveries with Induction that Met ACOG/SMFM Criteria

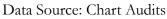






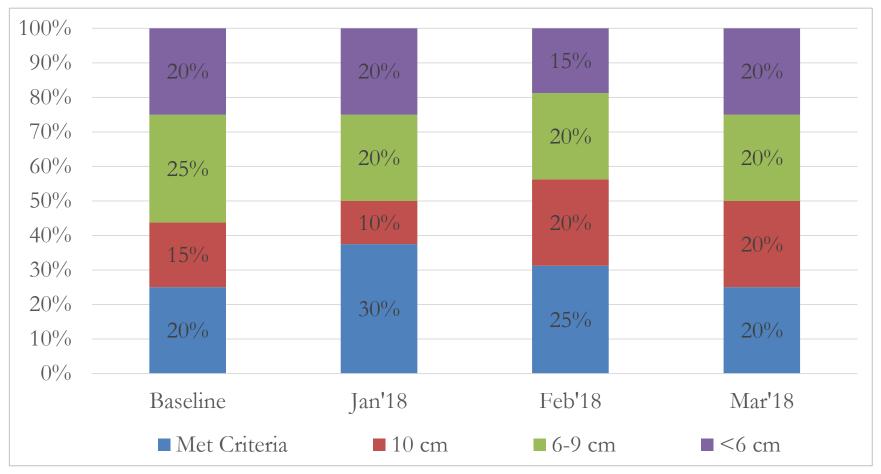
I-3. Percent of NTSV Cesarean Deliveries with Induction by Cervix Dilation at Delivery







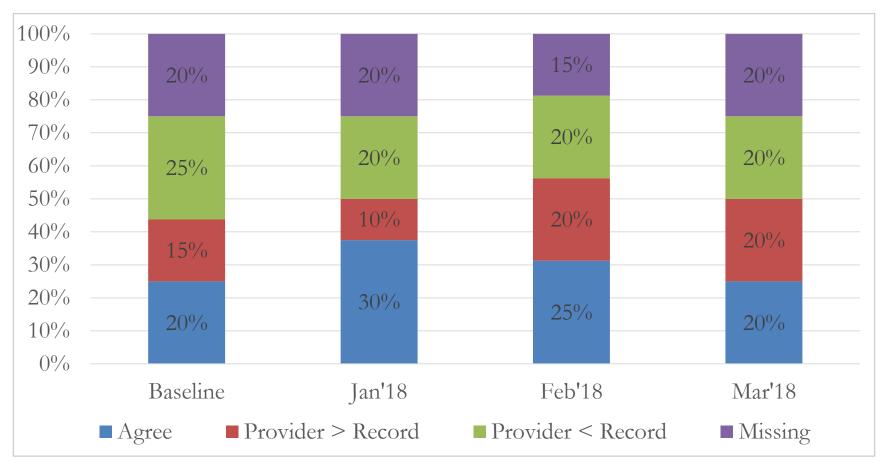
I-4: Percent of Cesarean Deliveries with Induction that Did Not Meet ACOG/SMFM Criteria by Cervical Dilatation







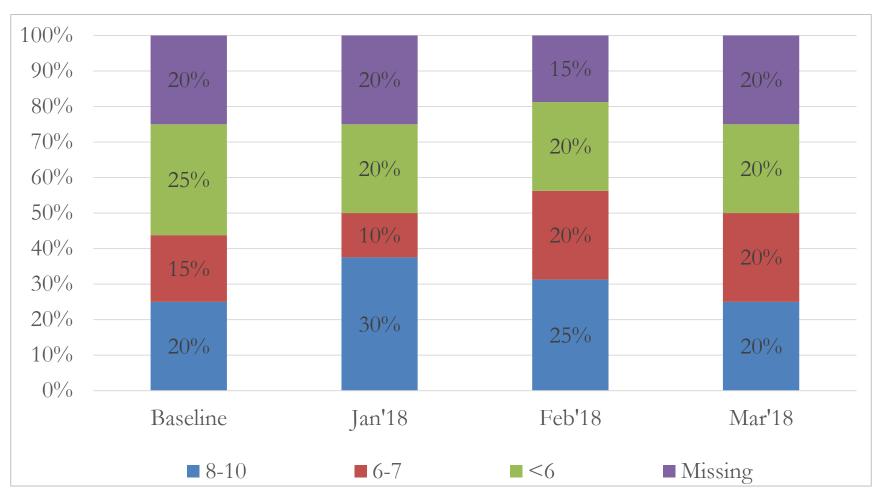
I-8: Percent of NTSV Cesarean Deliveries with Induction by Bishop Score Agreement at Time of Induction between Provider and Hospital Record

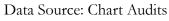


Data Source: Chart Audits



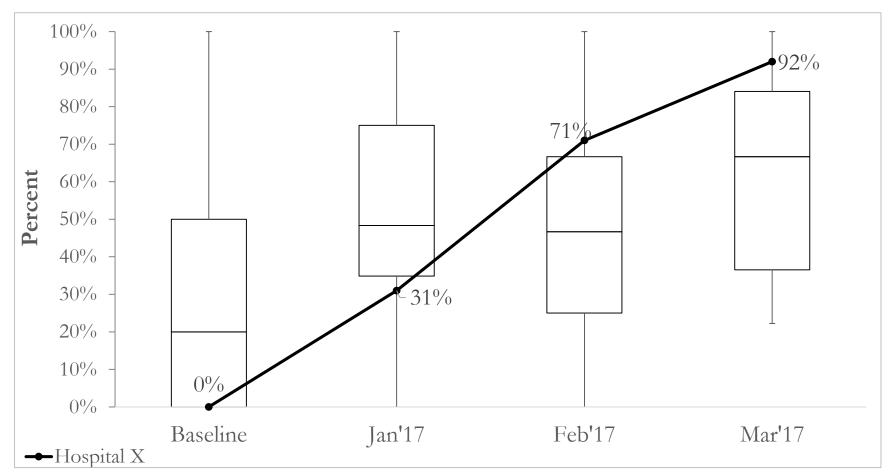
I-9: Percent of NTSV Cesarean Deliveries with Induction by Bishop Score at Time of Induction

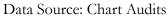






I-10: Percent of All NTSV Cesarean Deliveries with Induction and a Bishop Score <8 with Cervical Ripening Agent Used



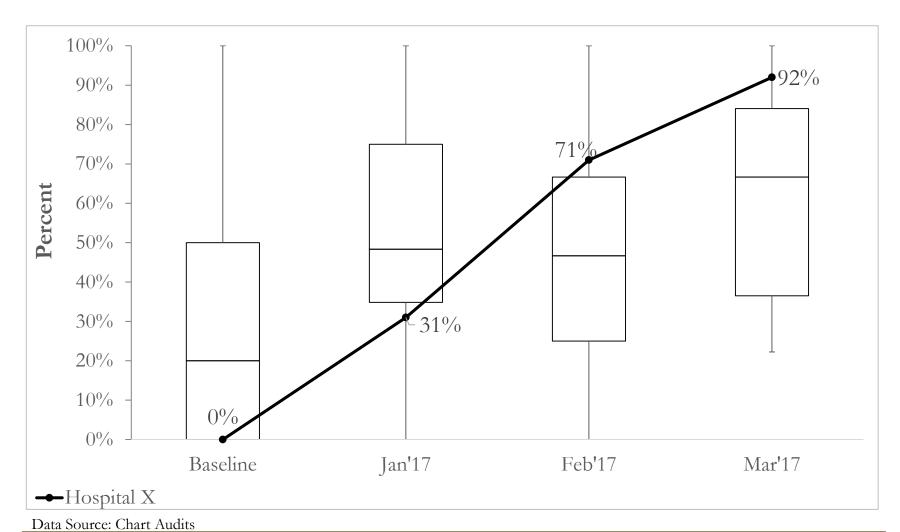






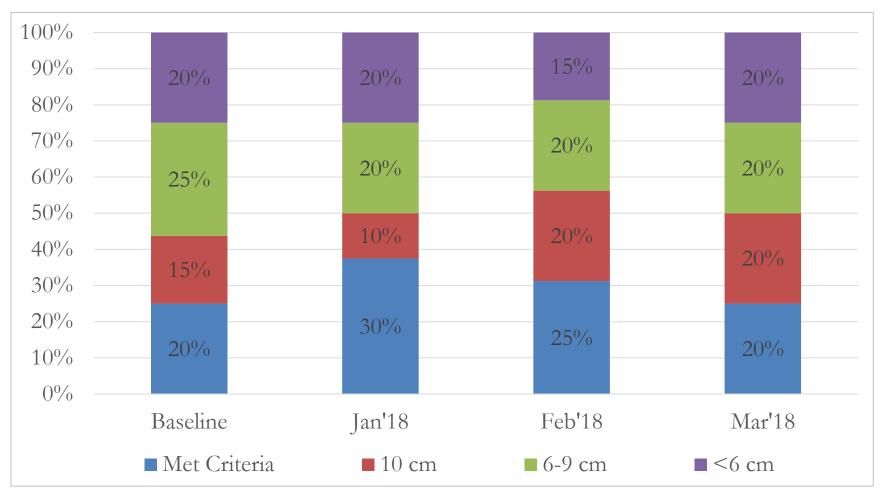
LABOR DYSTOCIA/FAILURE TO PROGRESS AUDIT

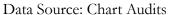
D-1: Percent of NTSV Cesarean Deliveries with Dystocia that Met ACOG/SMFM Criteria





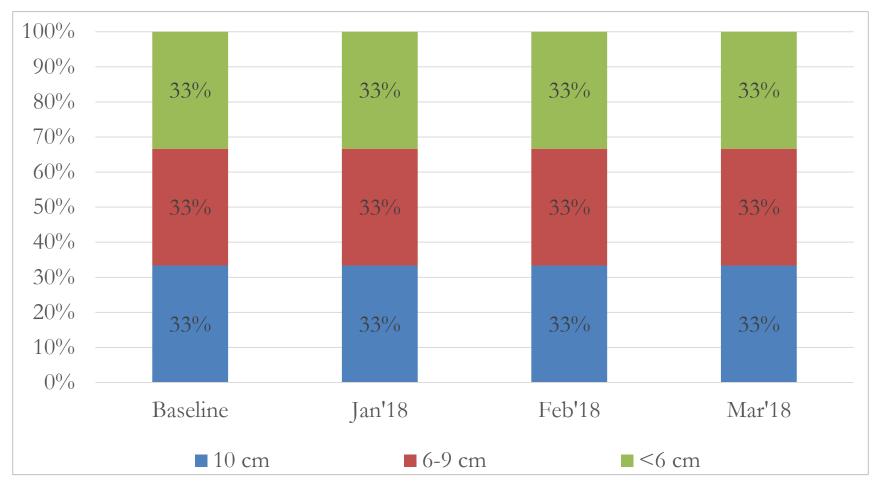
D-2: Percent of NTSV Cesarean Deliveries with Dystocia that Did Not Meet ACOG/SMFM Criteria by Cervical Dilatation

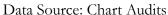






D-3. Percent of NTSV Cesarean Deliveries with Dystocia by Cervix Dilation at Time of Delivery



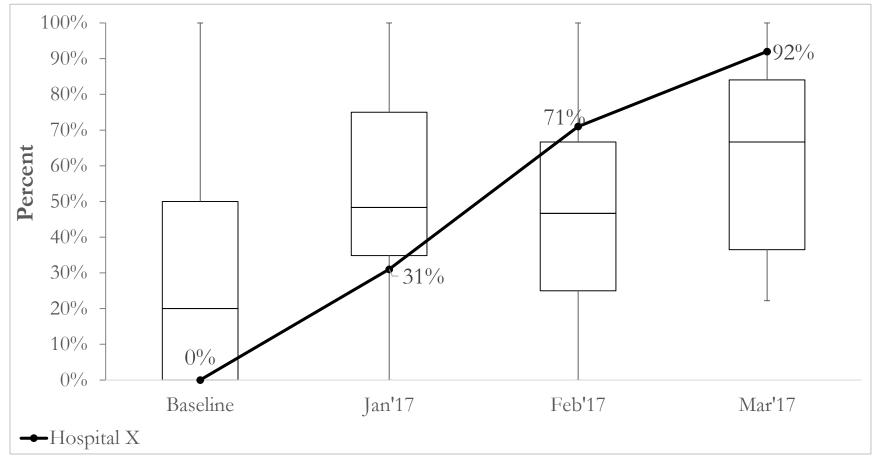


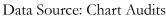




FETAL HEART RATE CONCERN AUDIT

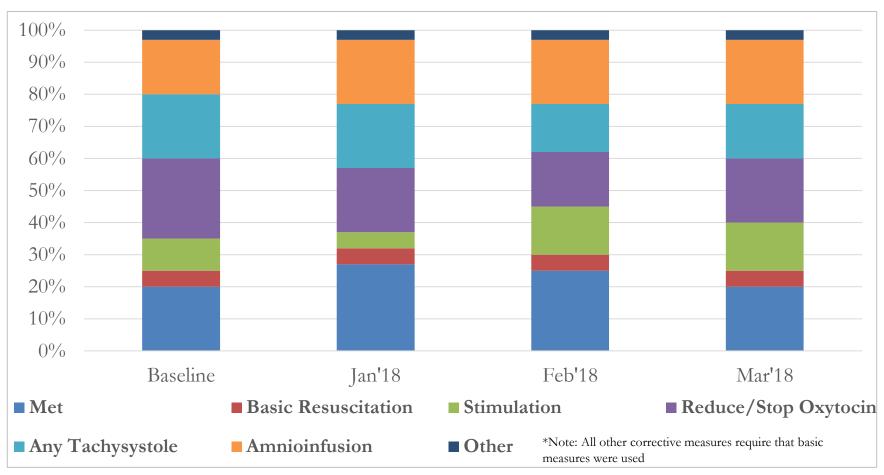
FHR-1: Percent of NTSV Cesarean Deliveries with Fetal Heart Rate Concerns that Met FPQC Criteria for Corrective Measures

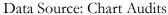






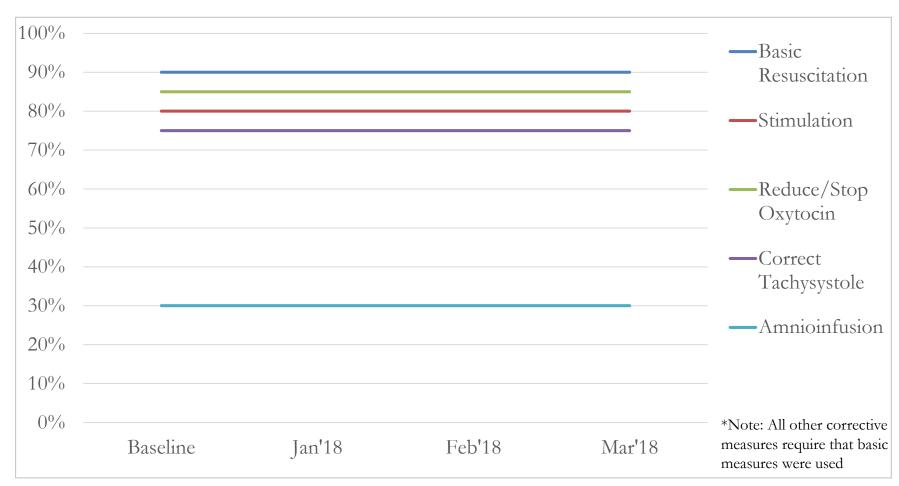
FHR-2: Percent of Cesarean Deliveries with Fetal Heart Rate Concerns that Did Not Meet FPQC Criteria by Corrective Measure

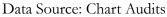






FHR-3: Percent of Cesareans with Category 2 Fetal Heart Rate Concerns that Met FPQC Criteria by Corrective Measure









QUESTIONS?



WRAP UP