



# PROVIDE 2.0

Promoting Primary Vaginal Deliveries



*“The Final Push!”*





## Cesarean: Maternal Risks

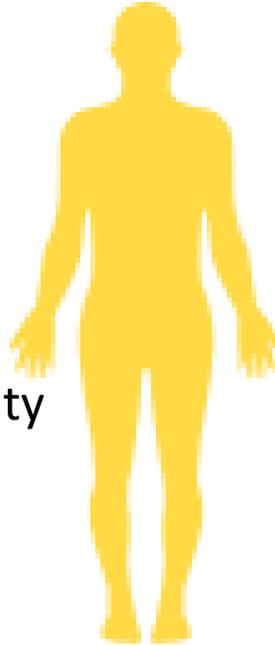
### Acute

Common:

- Longer hospital stay
- Increased pain and fatigue
- Postpartum hemorrhage (transfusions ~2%)
- Slower return to normal activity and productivity
- Delayed or difficult breastfeeding

1/100 to 1/1000

- Anesthesia complications
- Wound infection
- Deep vein thrombosis



### Long Term & Subsequent Births

1/100 to 1/1000

- Abnormal placentation (previas and accretas)
- Uterine rupture
- Surgical adhesions
- Bladder surgical injury
- Bowel surgical injury
- Bowel obstruction

***And, we perform over 80,000 Cesareans every year in Florida!***

# PROVIDE Goal

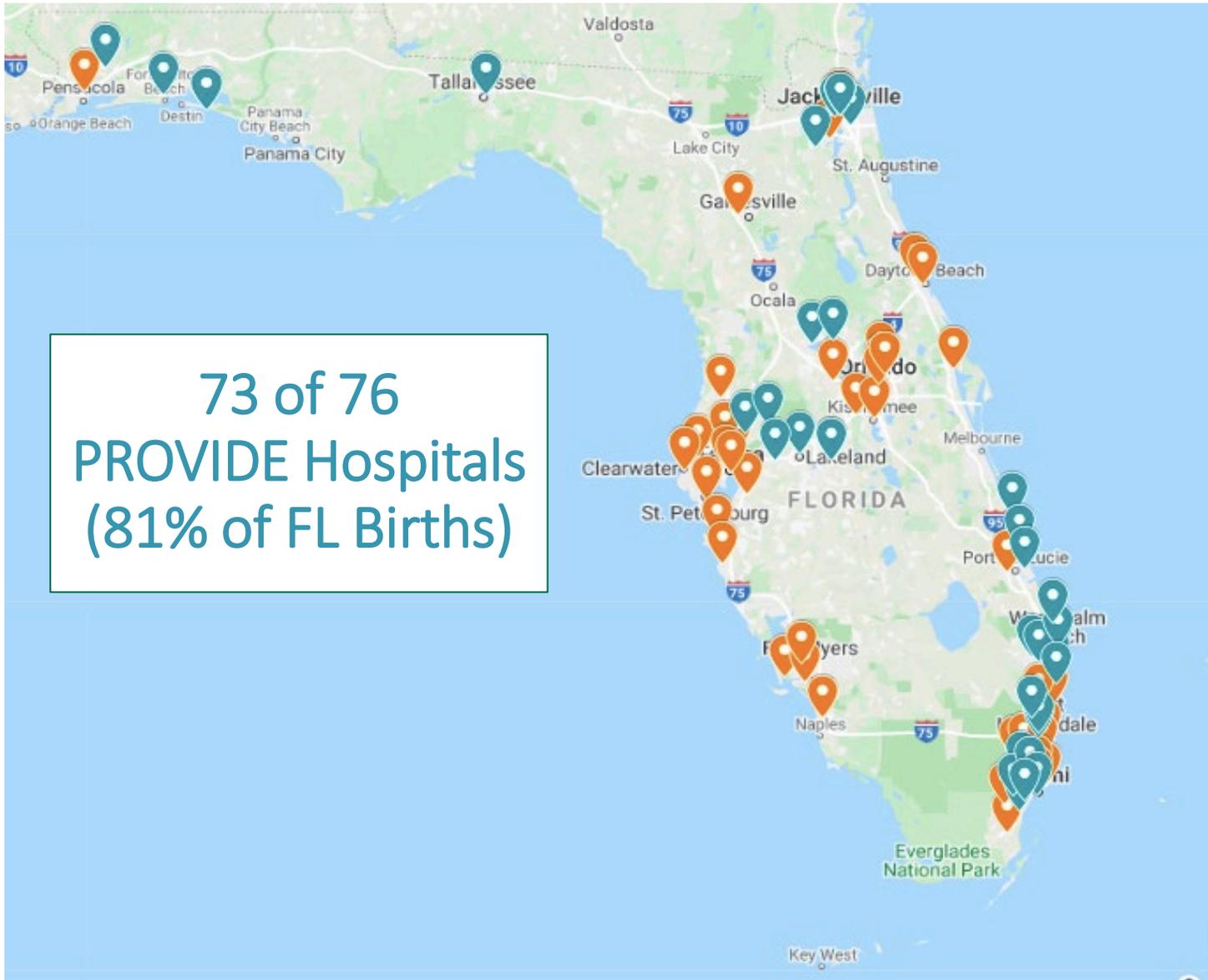
The PROVIDE Initiative goal is to improve maternal and newborn outcomes by applying evidence-based interventions to promote primary vaginal deliveries at Florida delivery hospitals and ultimately reduce NTSV cesareans.

NTSV = Nulliparous Term Singleton Vertex

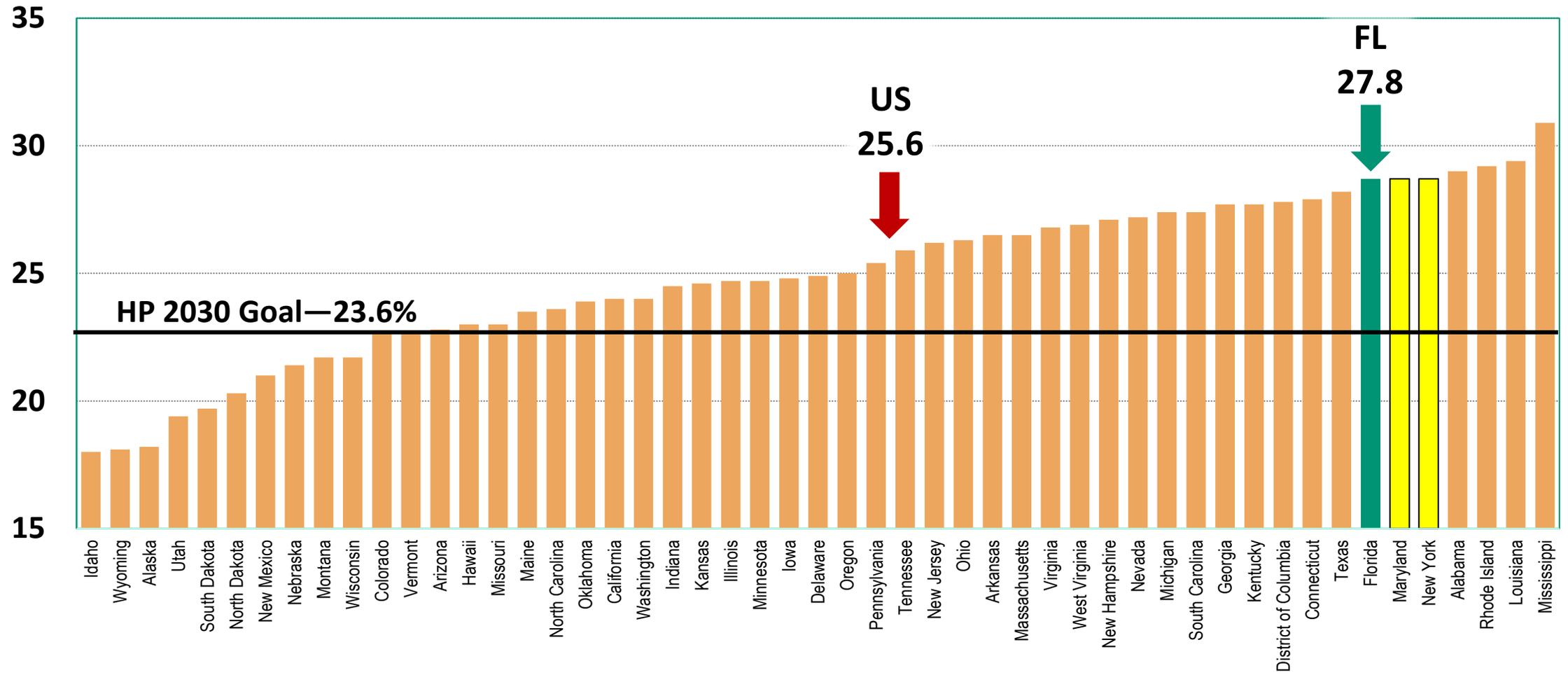
# PROVIDE 2.0 Kickoff



73 of 76  
PROVIDE Hospitals  
(81% of FL Births)



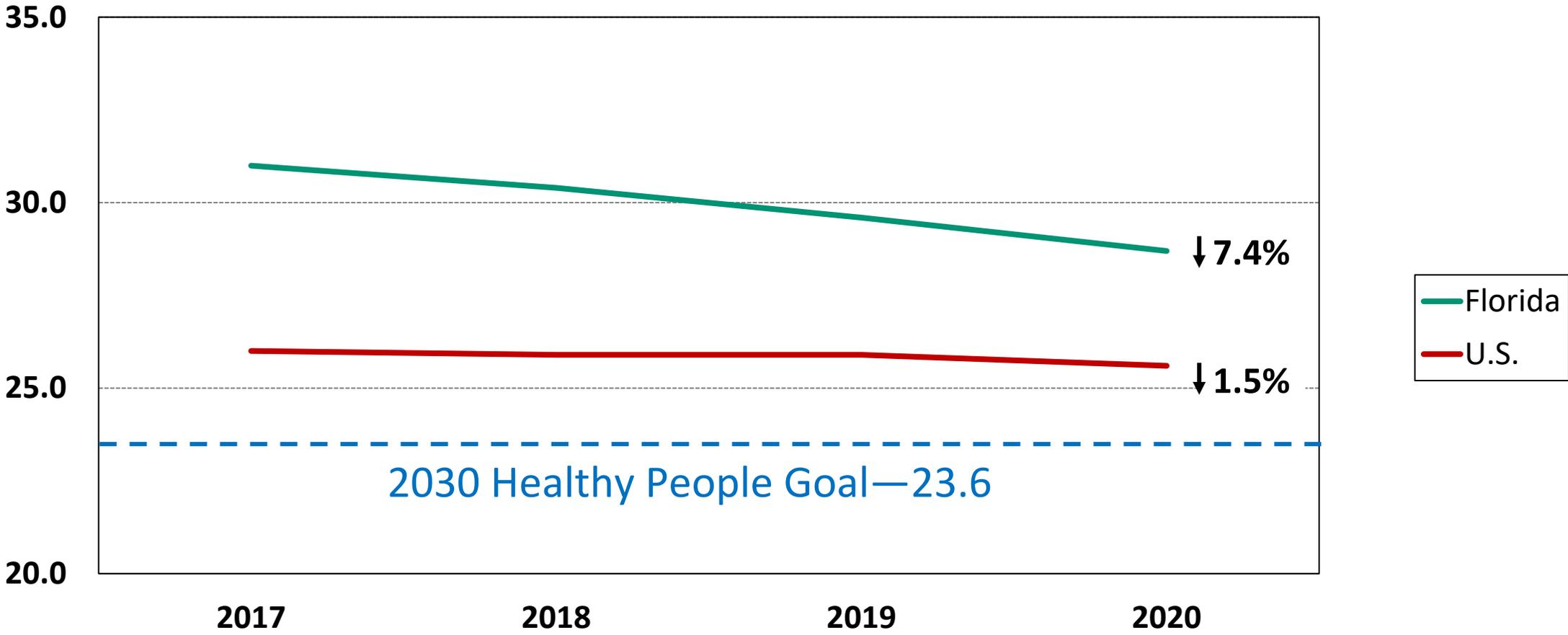
# NTSV Cesarean Rates, U.S. States, 2020



Source: NCHS (2021) Provisional Birth Data 2020

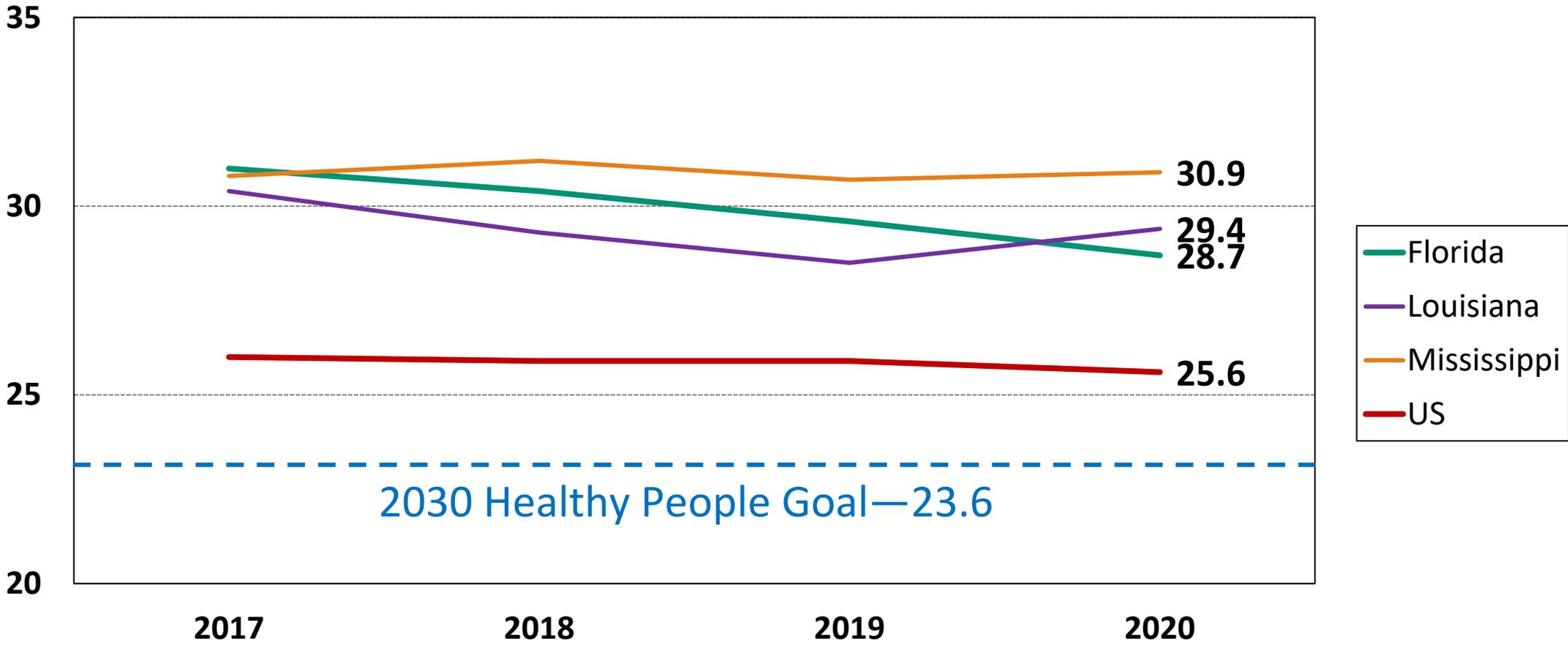


# NTSV Cesarean Rates



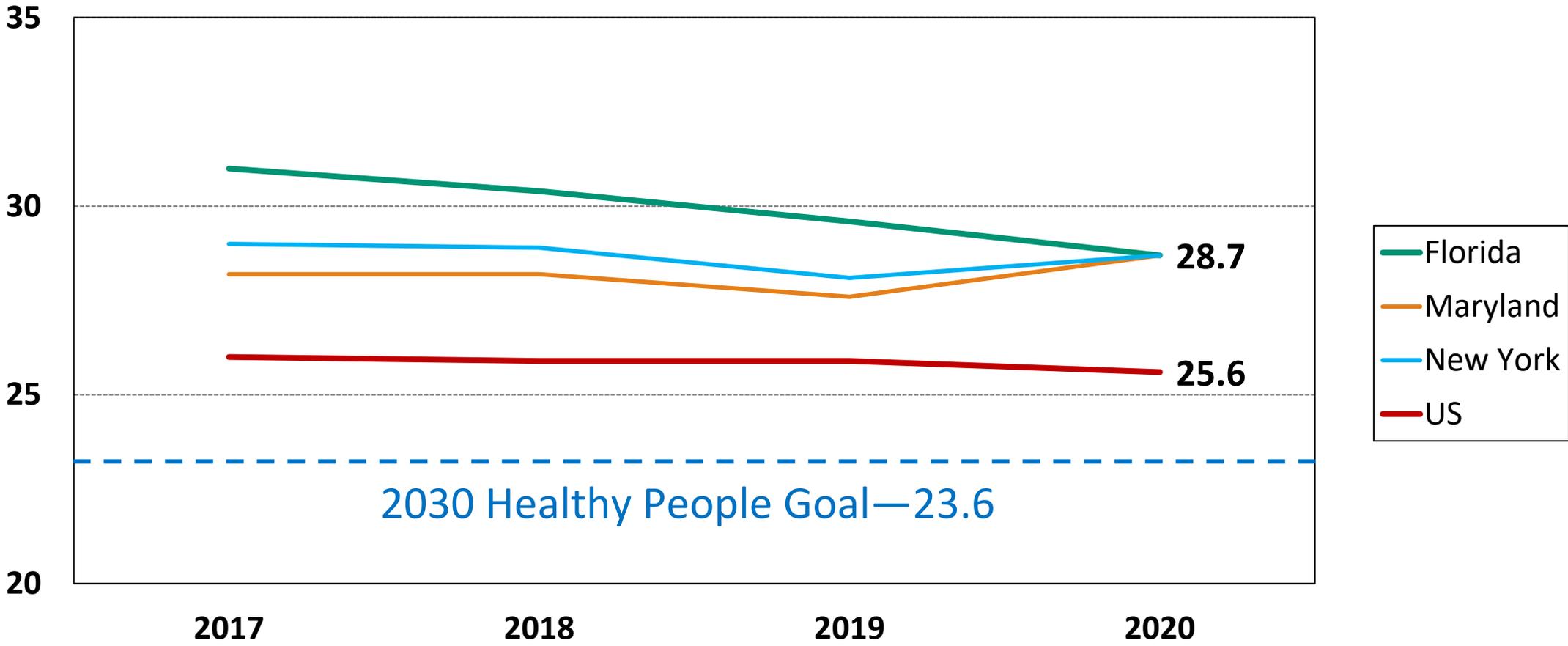
Source: NCHS, CDC Birth Data

# NTSV Cesarean Rates



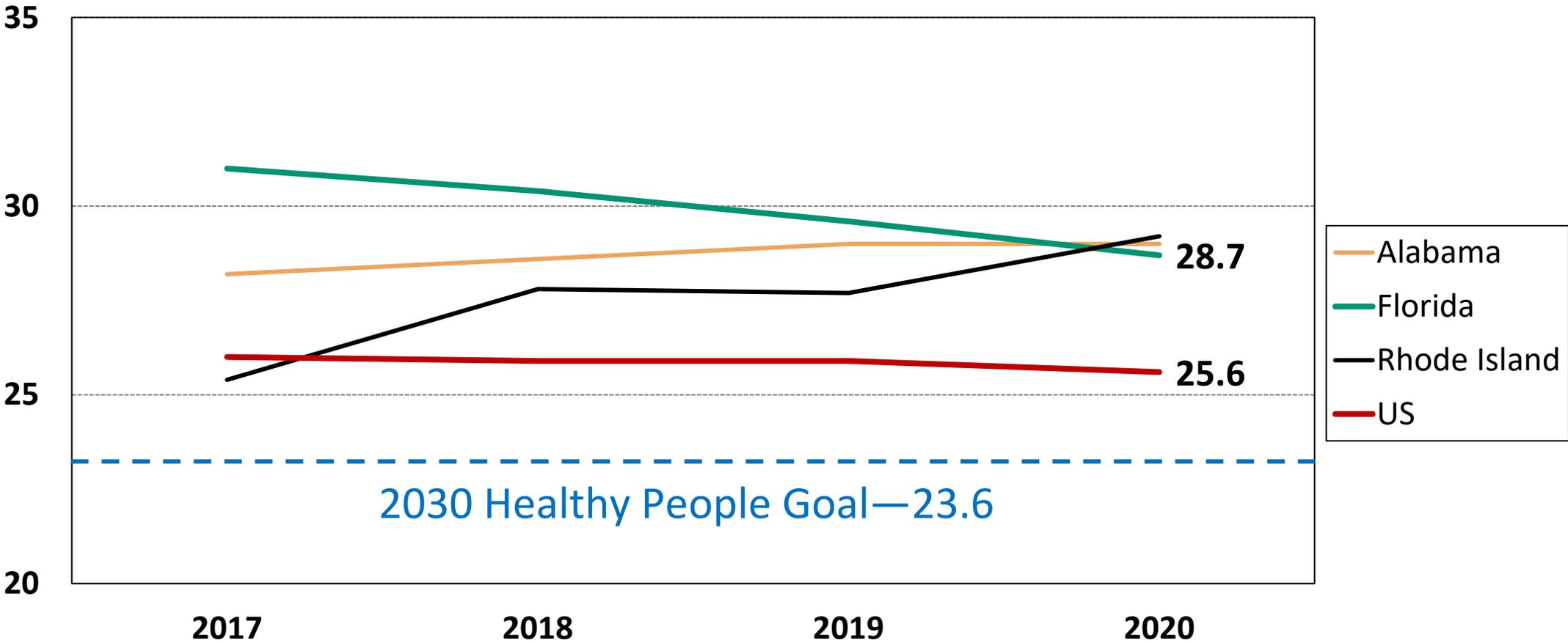
Source: NCHS, CDC Birth Data

# NTSV Cesarean Rates



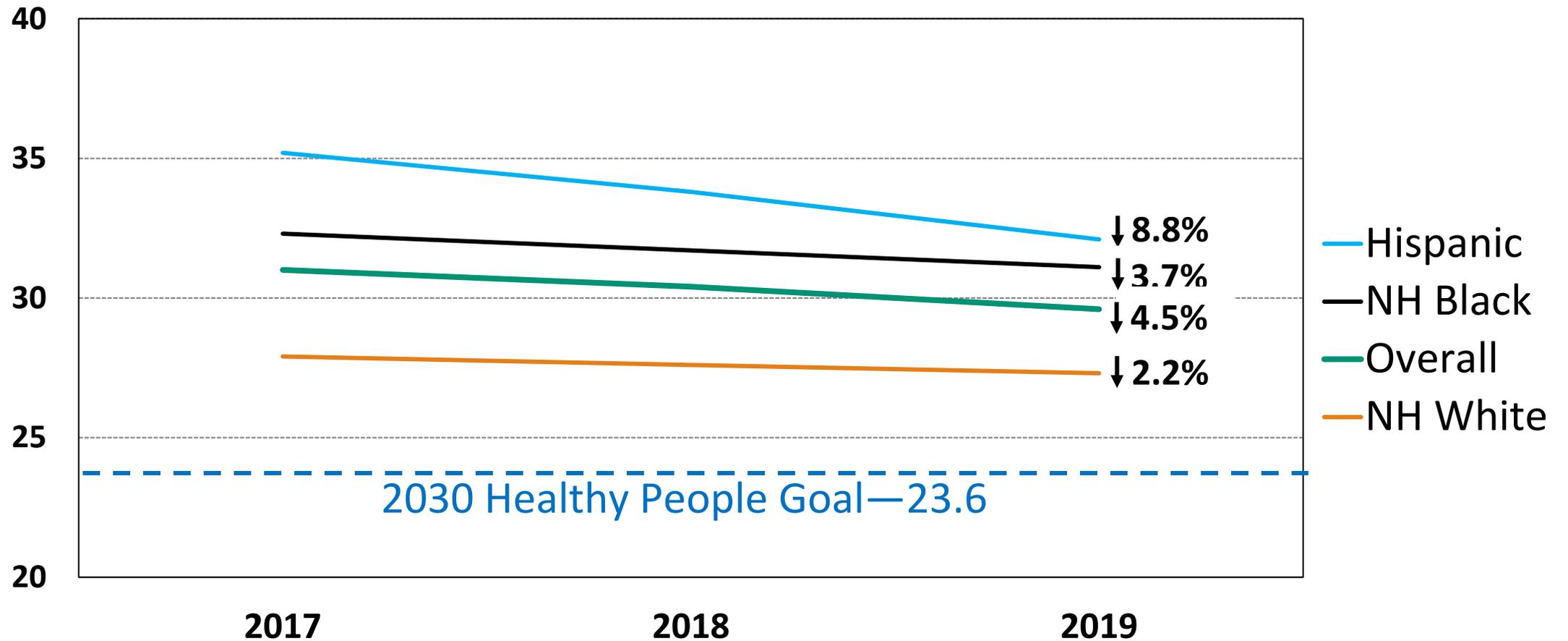
Source: NCHS, CDC Birth Data

# NTSV Cesarean Rates



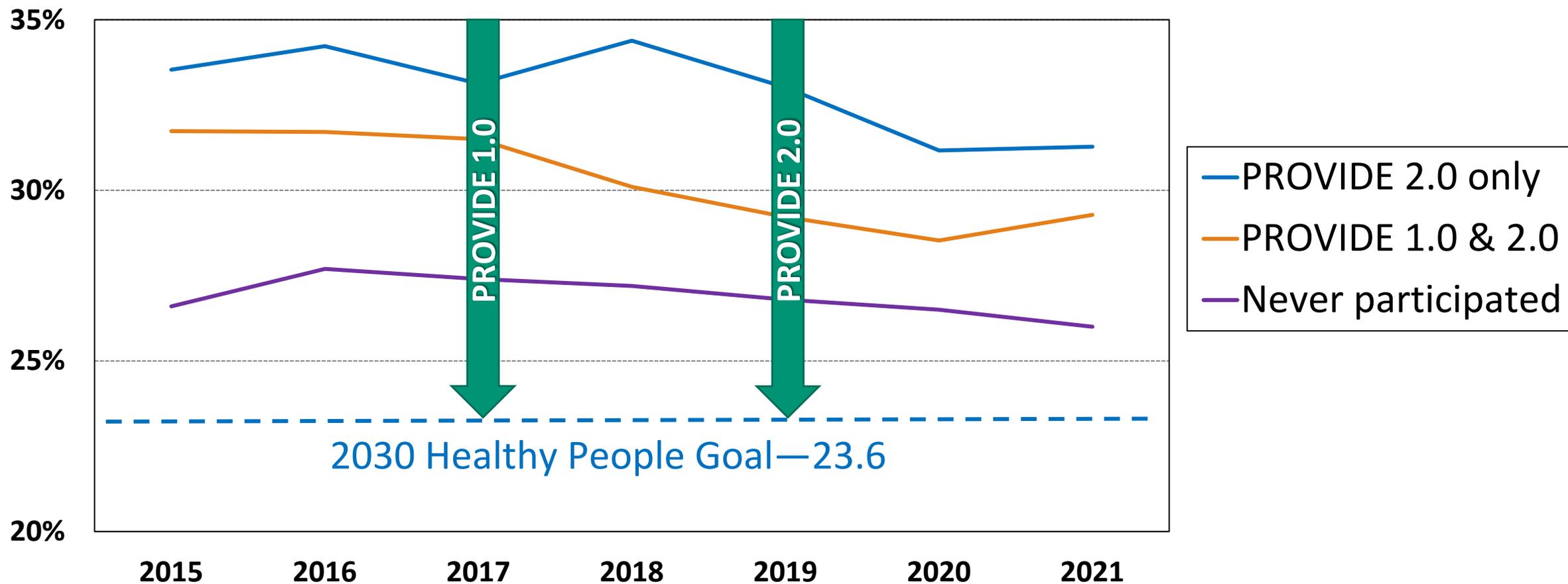
Source: NCHS, CDC Birth Data

# Florida NTSV Cesarean Rates by Race/Ethnicity



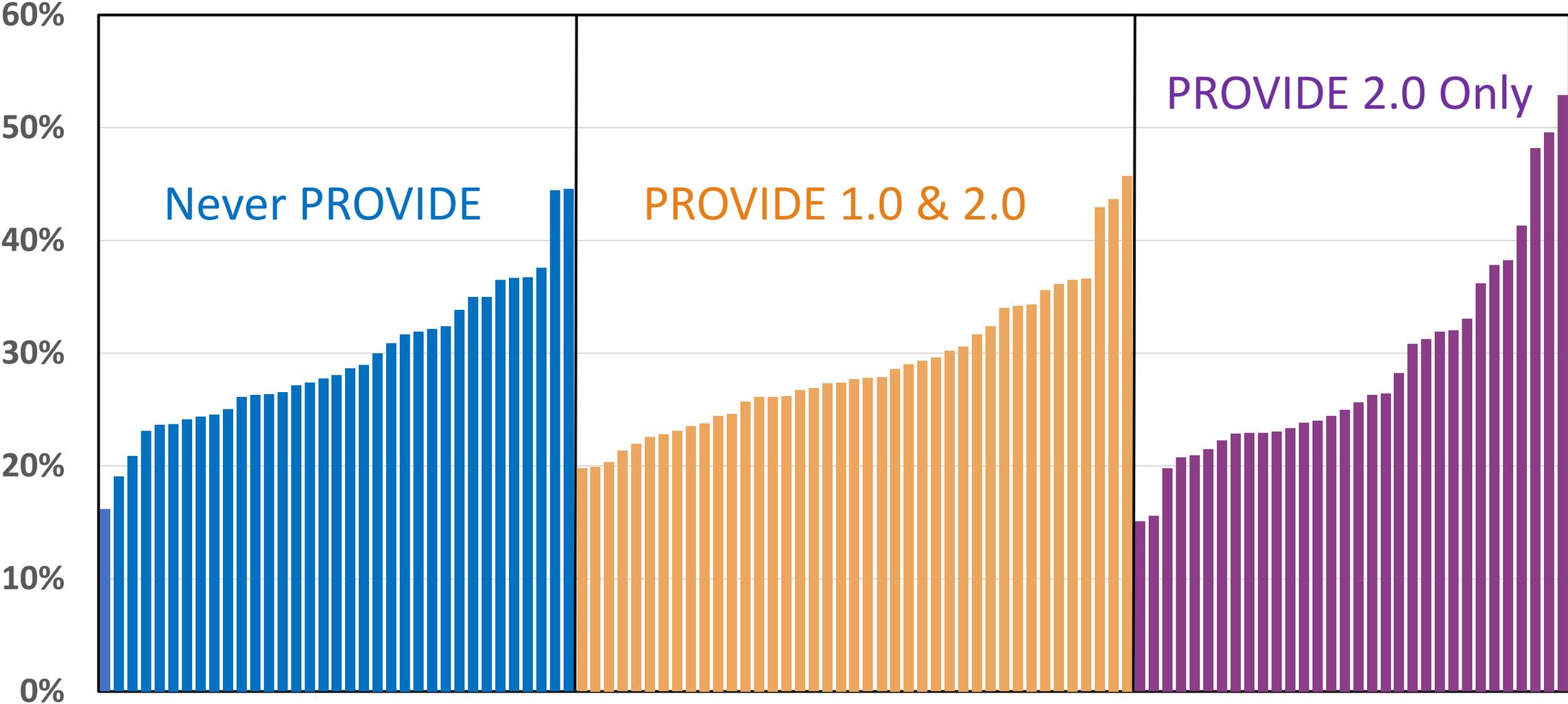
Source: NCHS, CDC Birth Data

# NTSV Cesarean Rates by PROVIDE Hospitals

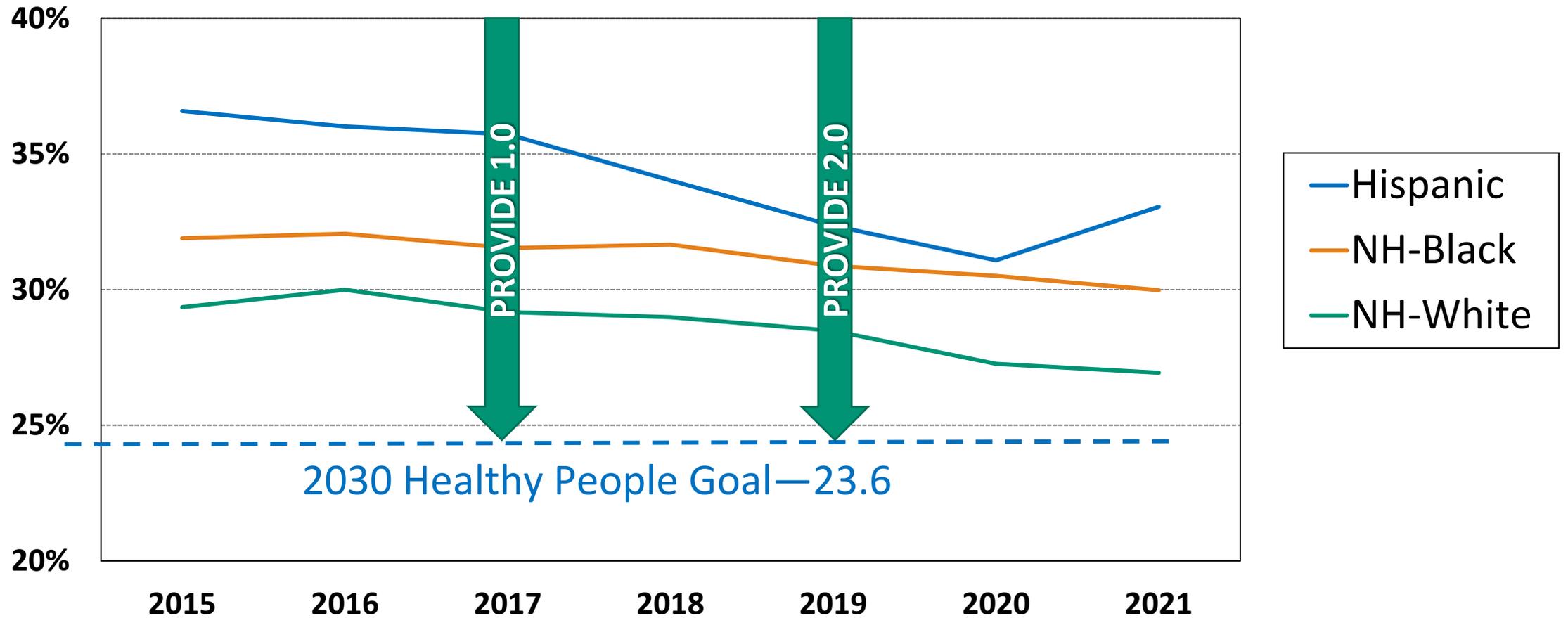


Source: FPQC PROVIDE (Birth Certificates)

# NTSV Cesarean Rates by PROVIDE Hospitals, Florida 2020



# NTSV Cesarean Rates for PROVIDE Hospitals by Race/Ethnicity



Source: FPQC PROVIDE (Birth Certificates)

# But this only uses birth certificate data?

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## Birth Certificate Data

- Timely within 2 weeks
- Fairly accurate



What about Joint Commission and Society of Maternal Fetal Medicine Low Risk Cesarean measures and their exclusions?

# Why Cesarean Comparative Measures?

## FPQC measure

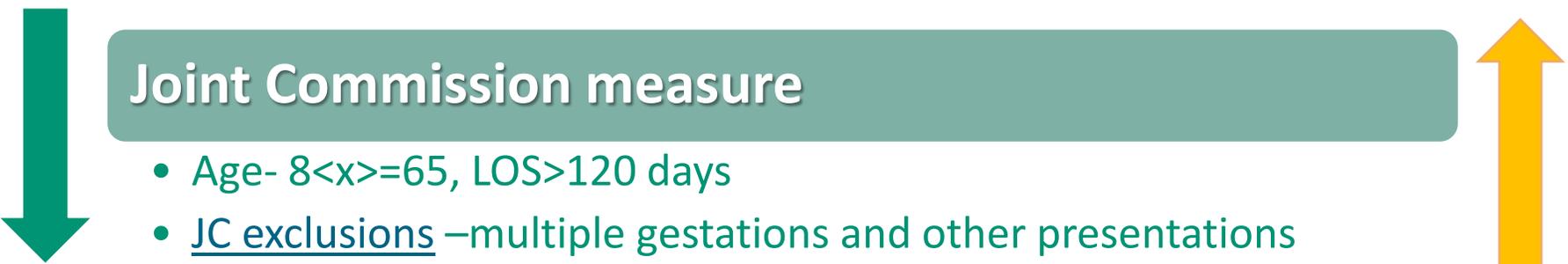
- NTSV as defined in the Birth Certificate

## Joint Commission measure

- Age-  $8 < x <= 65$ , LOS  $> 120$  days
- JC exclusions –multiple gestations and other presentations

## SMFM measure

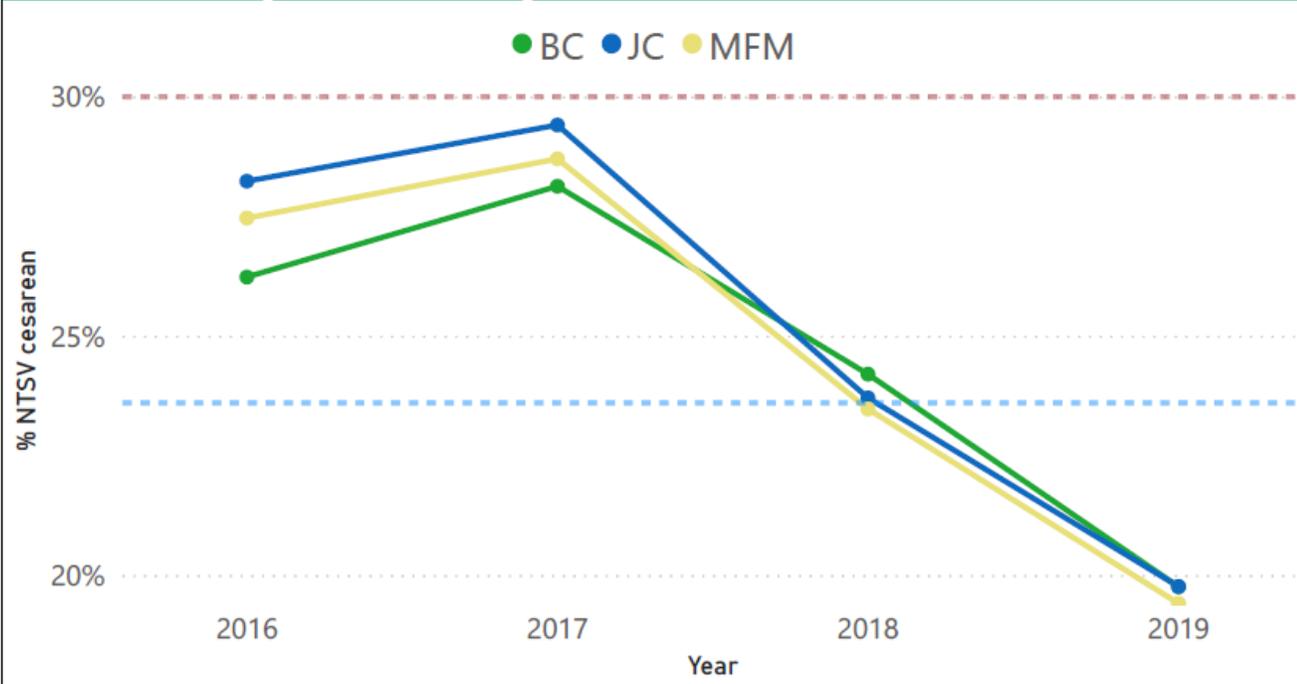
- MFM Exclusions:
- Multiple gestations and other presentations
- Maternal factors; preterm birth; fetal factors; stillborn; uterine /placental factors; conduct of labor



Compare the quality of data used (BC) to other sources

Compare accuracy of NTSV cesarean indicator between the FPQC measure (using BC only) to the adjusted measures

# Your Hospital Comparative NTSV Cesarean Rate



	2016	2017	2018	2019
NTSV cs rate - BC	26.2%	28.1%	24.2%	19.8%
NTSV cs rate - JC	28.2%	29.4%	23.7%	19.8%
NTSV cs rate - MFM	27.5%	28.7%	23.5%	19.4%

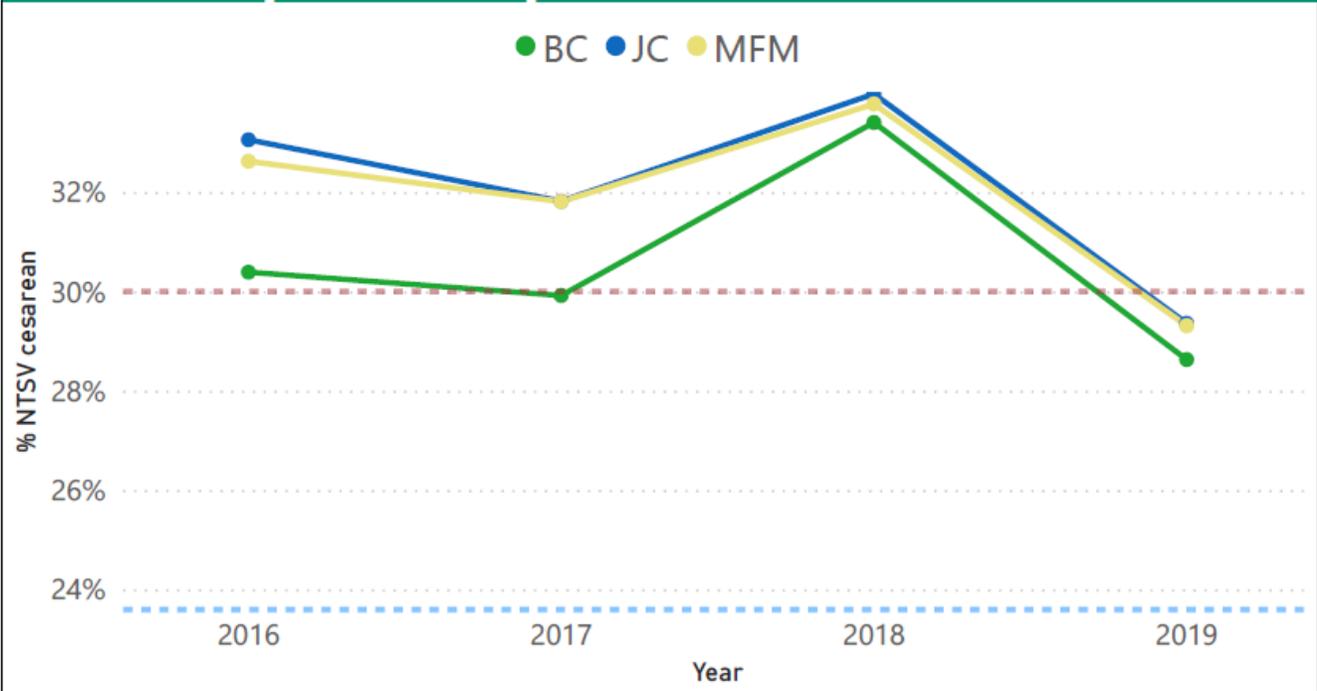
## Your 2019 NTSV Cesarean Rate

BC	JC	MFM
19.8%	19.8% ▲	19.4% ▼

## Your 2019 NTSV Cesarean Rate Rank

BC	JC	MFM
8	8 ▶	8 ▶

# Your Hospital Comparative NTSV Cesarean Rate



	2016	2017	2018	2019
NTSV cs rate - BC	30.4%	29.9%	33.4%	28.6%
NTSV cs rate - JC	33.1%	31.8%	34.0%	29.4%
NTSV cs rate - MFM	32.6%	31.8%	33.8%	29.3%

## Your 2019 NTSV Cesarean Rate

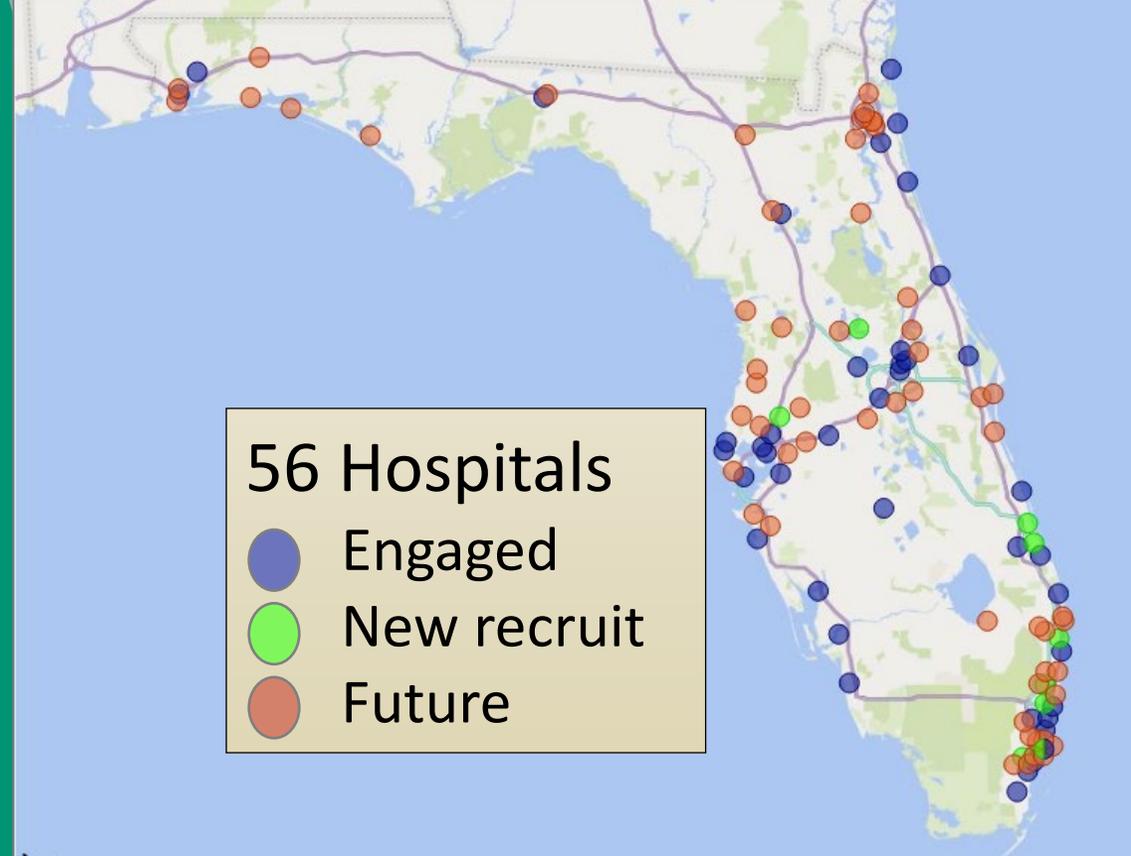
BC	JC	MFM
28.6%	29.4% ▲	29.3% ▲

## Your 2019 NTSV Cesarean Rate Rank

BC	JC	MFM
56	69 ▲	71 ▲



# Hospital Perinatal QI Indicators



- ✓ *No charge to participate*
- ✓ *No data submission*
- ✓ *Receive free every six months*

# PQI SUMMARY DASHBOARD

Last 12 months of available data

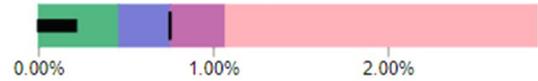
Your Hospital %

% of Severe Maternal Morbidity



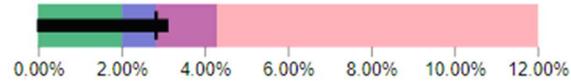
1.80%

% of Severe Maternal Morbidity excluding blood transfusions



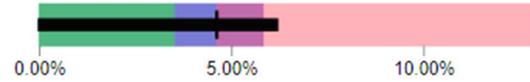
0.22%

% of Severe Hypertension - Preeclampsia



3.10%

% of Obstetric Hemorrhage



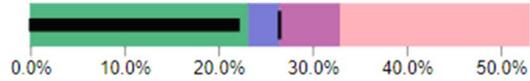
6.20%

% Neonatal Abstinence Syndrome



0.3%

% of NTSV Cesareans



22.1%

**Your Hospital %**

Your hospital is among...

- The highest 25% of hospitals
- The highest 50% of hospitals
- The lowest 50% of hospitals
- The lowest 25% of hospitals

| Median

**NICU LEVEL**

- 1
- 2
- 3

**Race-ethnicity**

- NH-White
- NH-Black
- Hispanic
- Unknown
- Other

# PROVIDE 2.0-

*Where are we now?*

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*“The Final Push!”*



# Number of hospitals reporting for PROVIDE

Baseline



Re-commitment

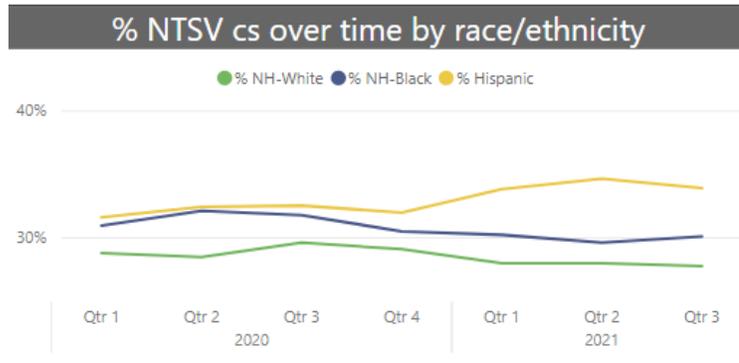
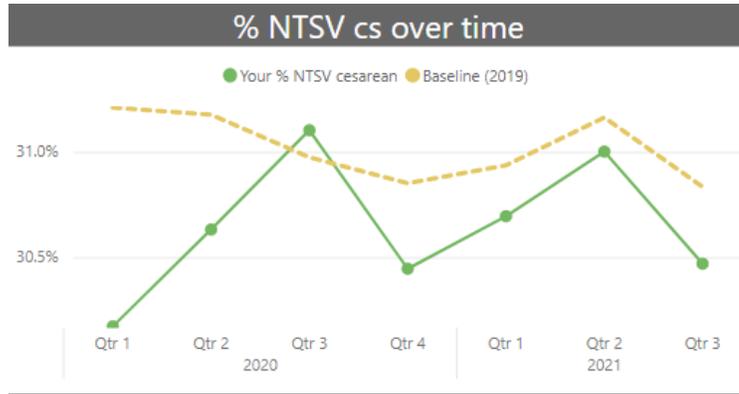


	Q3 2019	Q1 2020	Q2 2020	Q3 2020	Q4 2020	Q1 2021	Q2 2021	Q3 2021
<b>Total Hospitals Reporting</b>	74	74	74	71	68	68	67	51
<b>Induction</b>	59	57	56	53	54	53	51	38
<b>Labor Dystocia</b>	41	39	32	32	31	28	33	20
<b>FHRC</b>	18	17	17	22	20	20	16	8

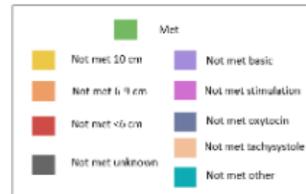
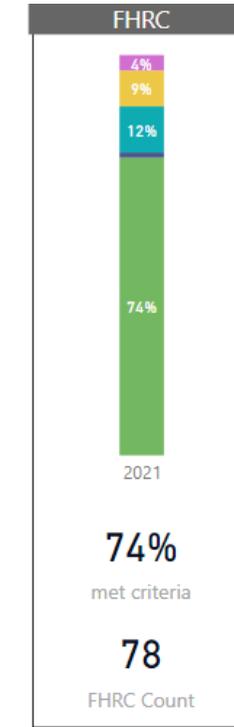
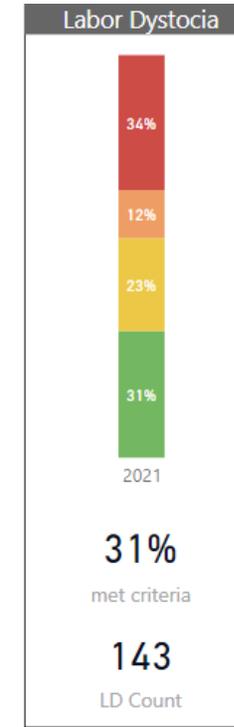
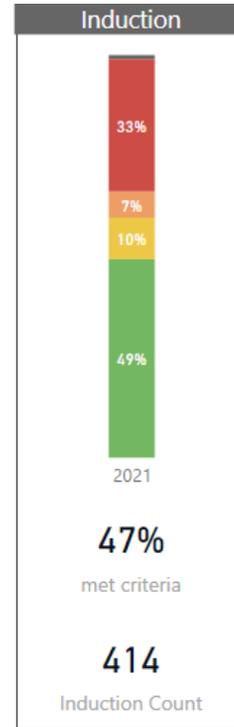
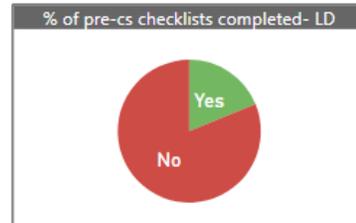
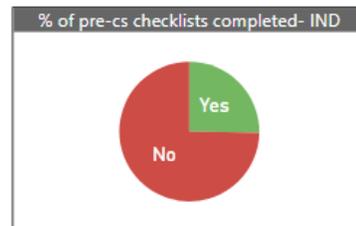
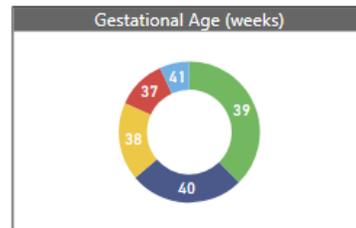
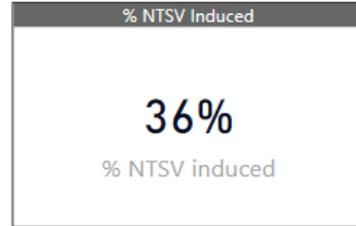


FL COVID-19 Case Spikes

# Initiative-Wide PROVIDE Dashboard



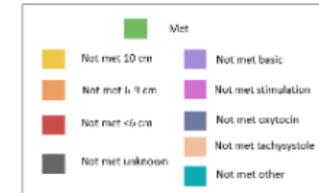
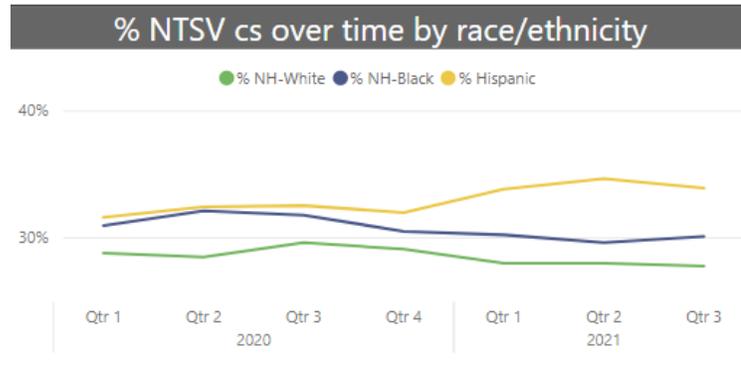
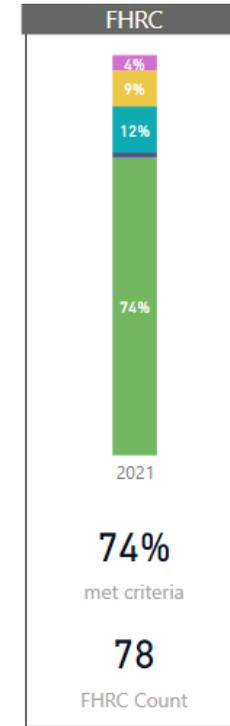
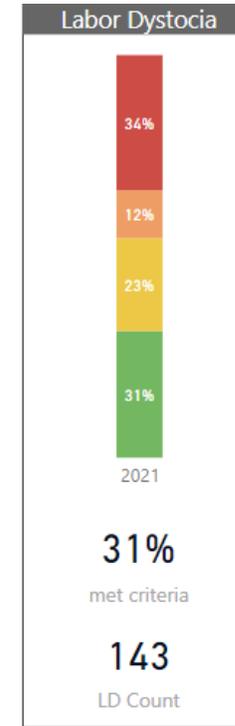
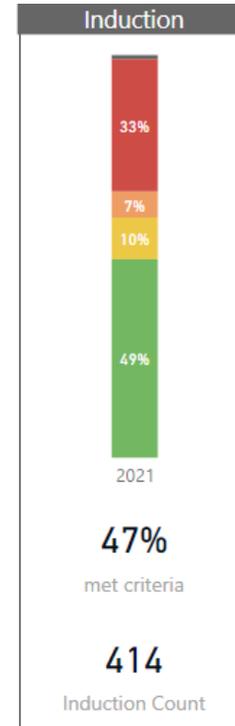
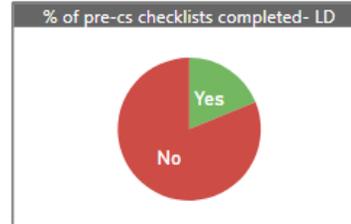
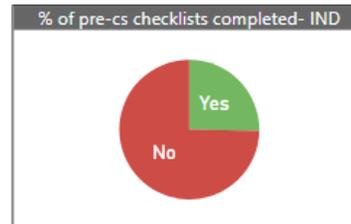
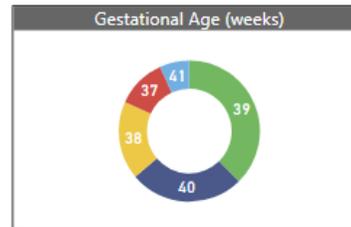
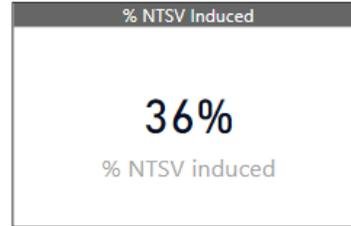
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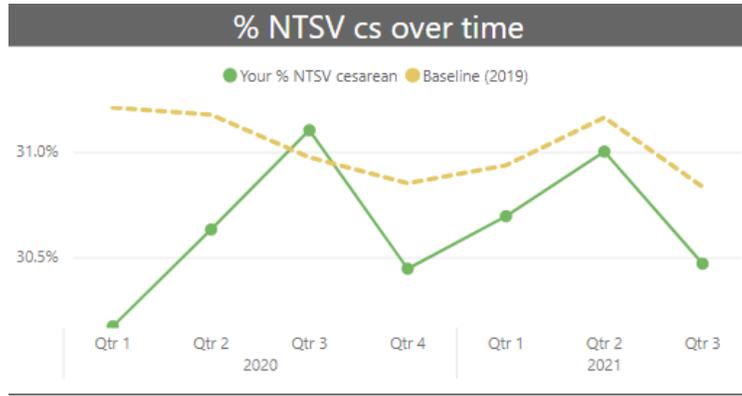
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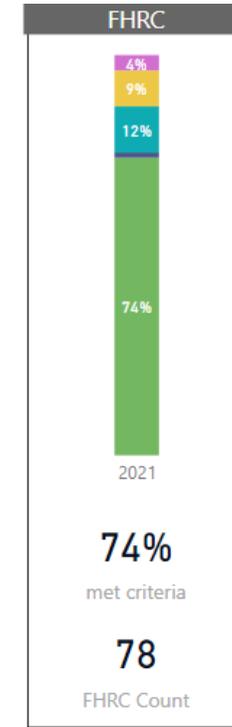
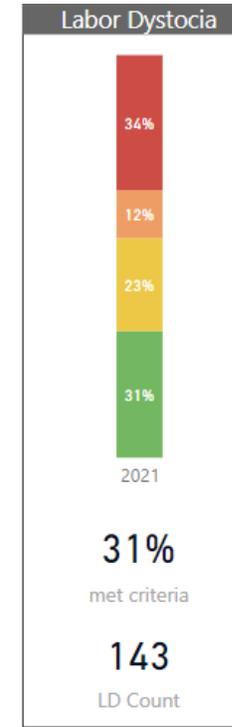
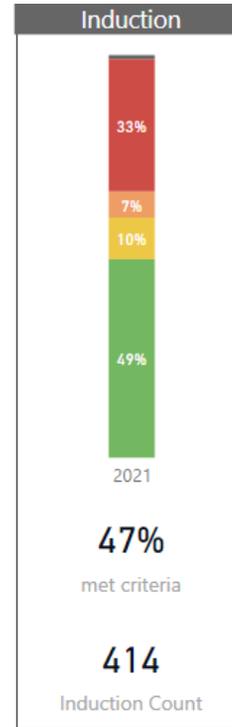
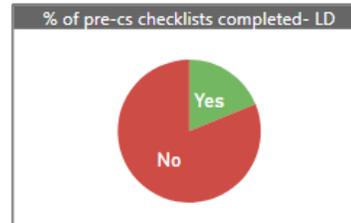
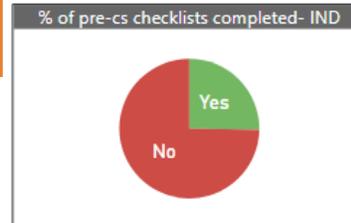
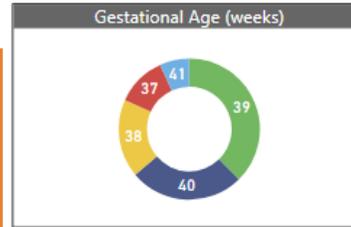
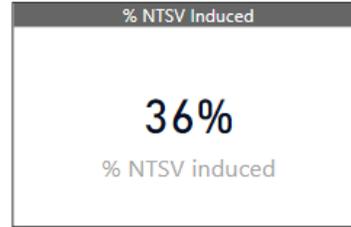
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# Initiative-Wide PROVIDE Dashboard



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### # NTSV counts

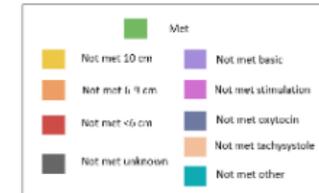
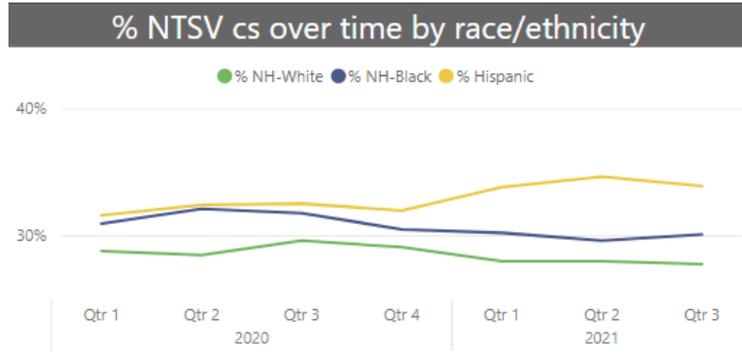
**2324**  
# NTSV cesareans

**7650**  
# NTSV births

### 3 month rolling % NTSV cs

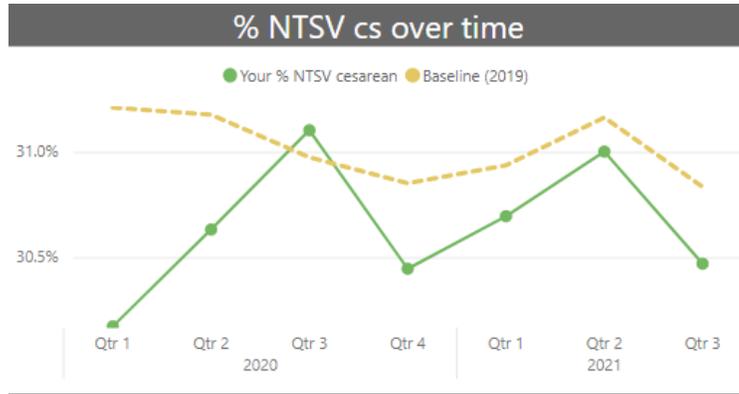
**30.4%**  
Last 3 months

**23.6%**  
Healthy People 2030 goal

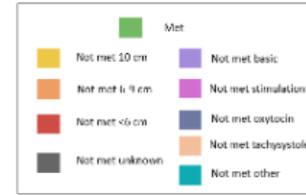
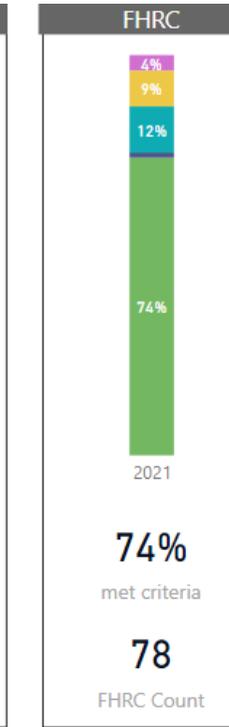
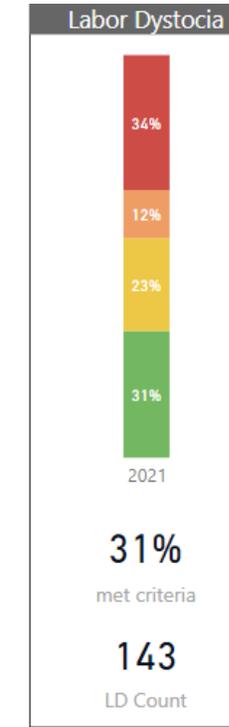
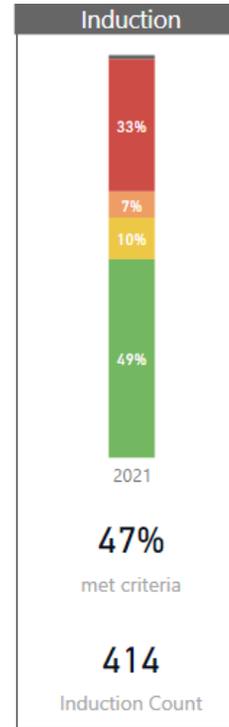
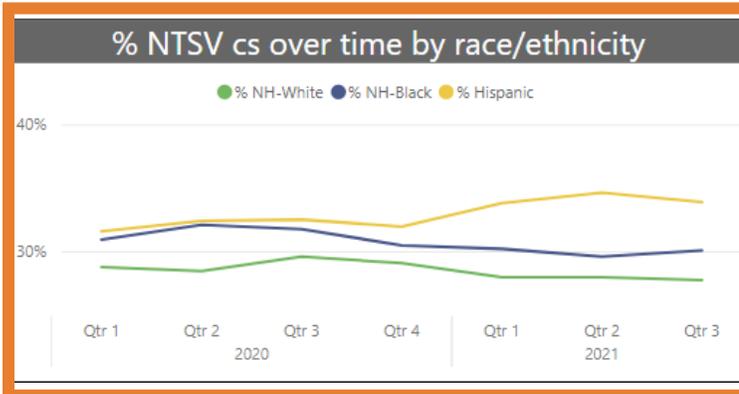
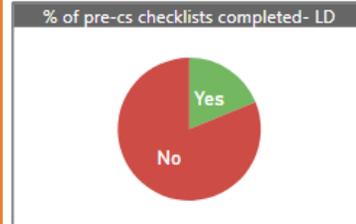
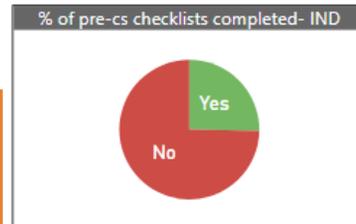
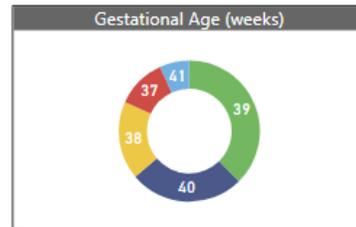
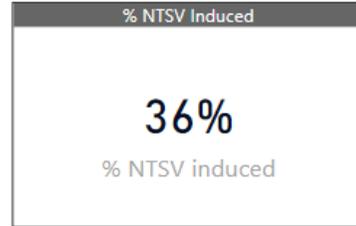


Overall	Overall Count
<b>47%</b> met criteria	<b>635</b> Overall NTSV Audits

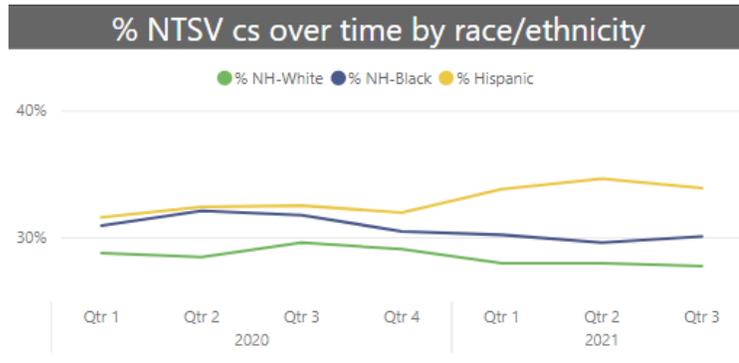
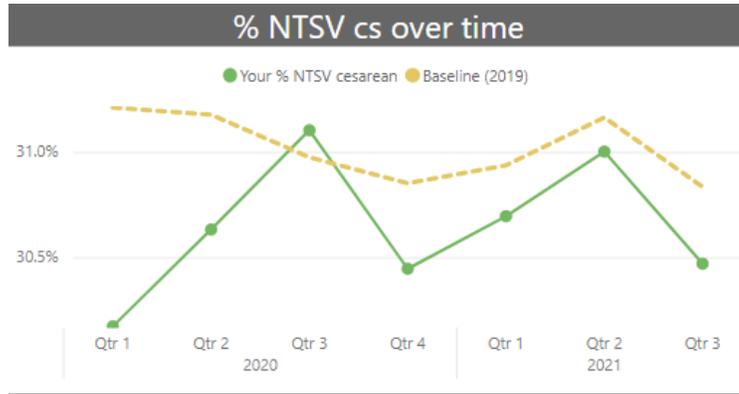
# Initiative-Wide PROVIDE Dashboard



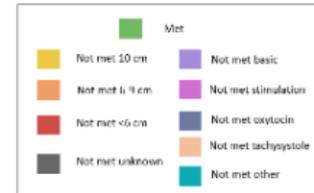
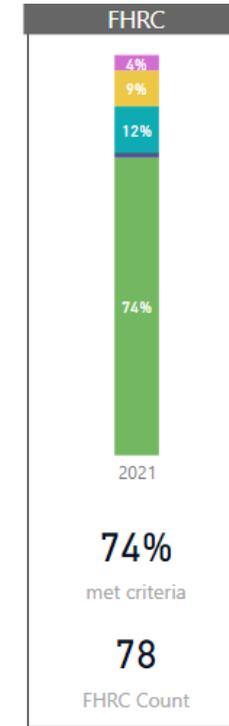
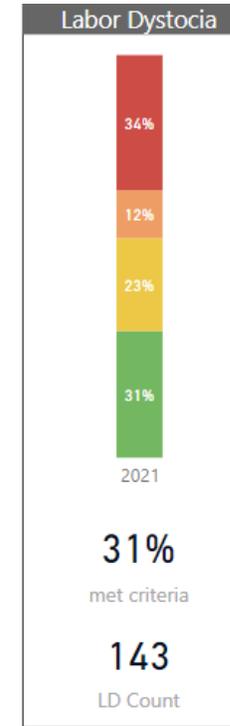
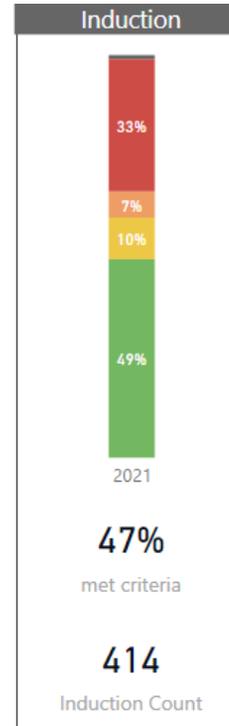
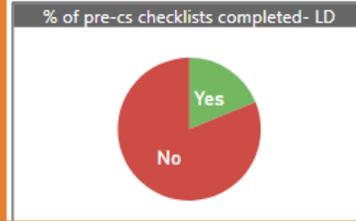
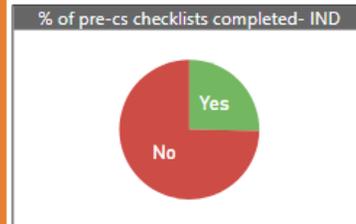
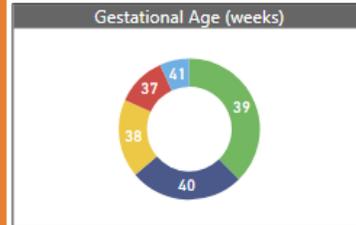
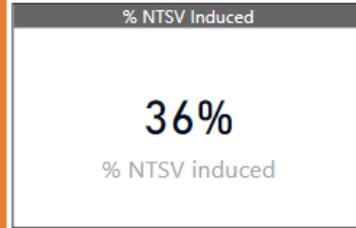
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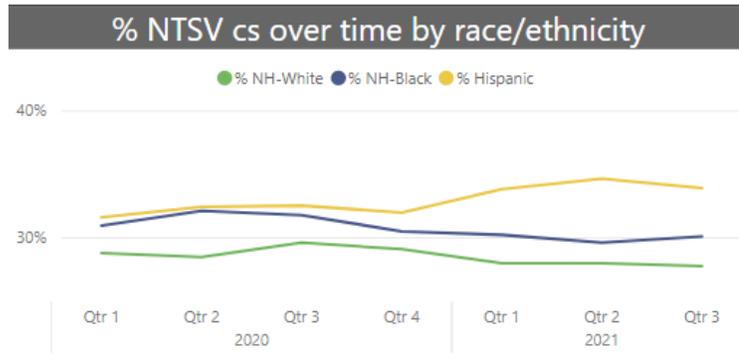
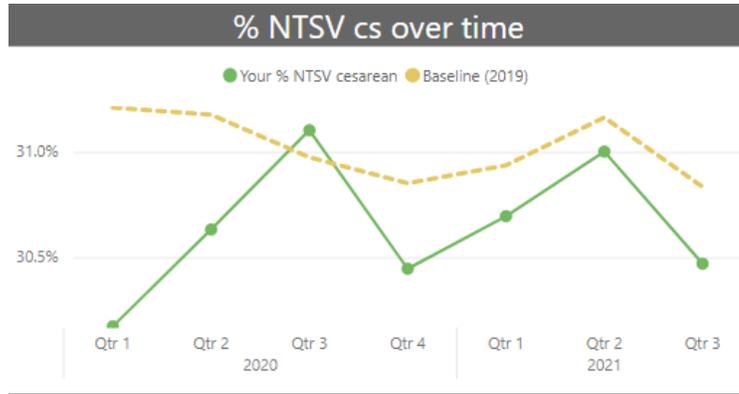
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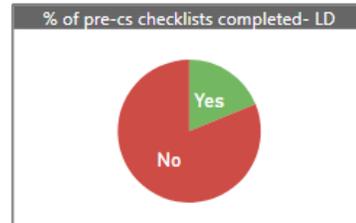
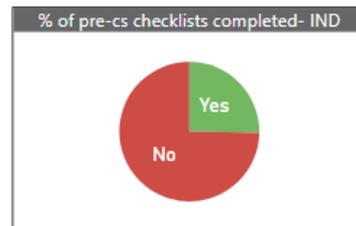
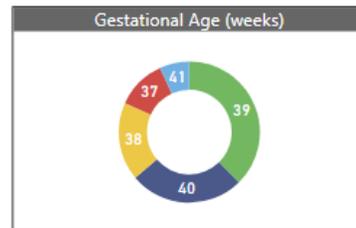
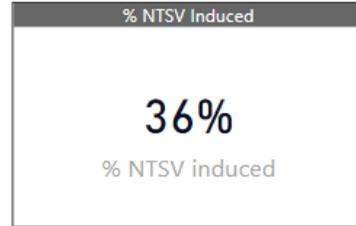
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# Initiative-Wide PROVIDE Dashboard



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#### Induction

**47%**  
met criteria

**414**  
Induction Count

#### Labor Dystocia

**31%**  
met criteria

**143**  
LD Count

#### FHRC

**74%**  
met criteria

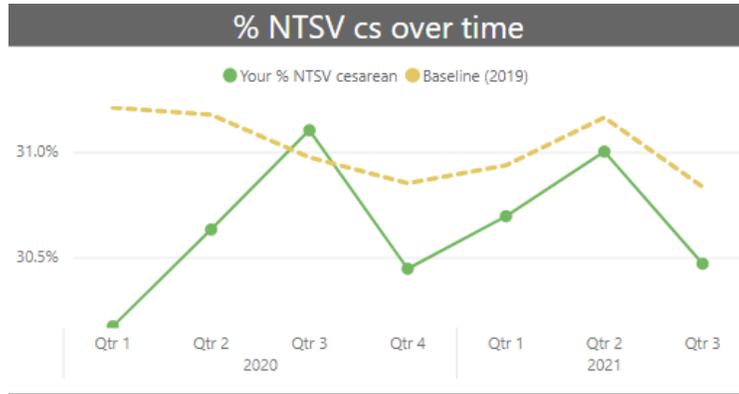
**78**  
FHRC Count

Overall	Overall Count
<b>47%</b> met criteria	<b>635</b> Overall NTSV Audits

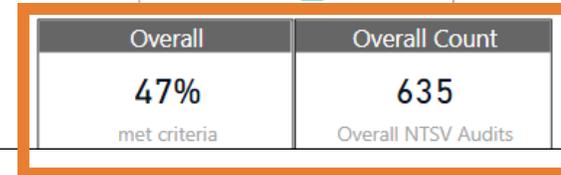
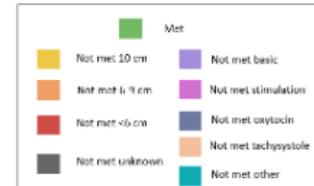
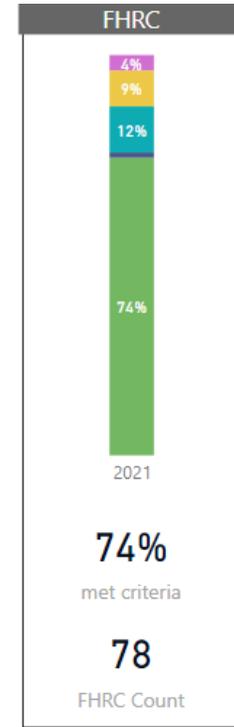
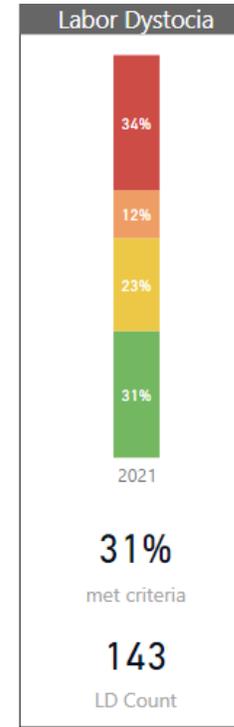
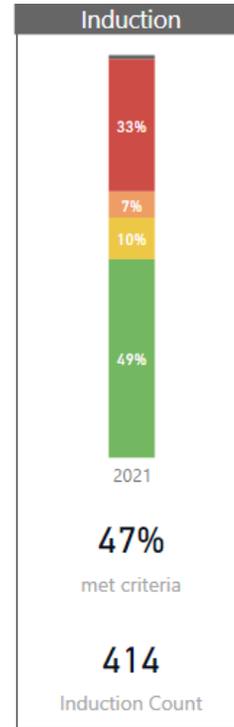
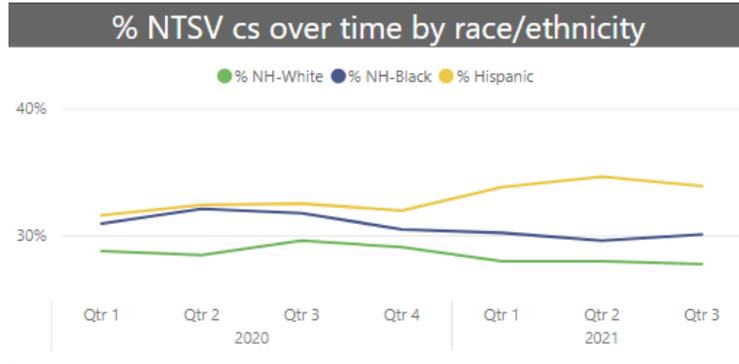
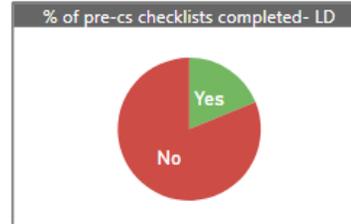
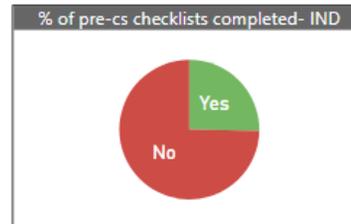
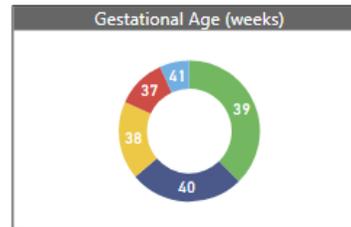
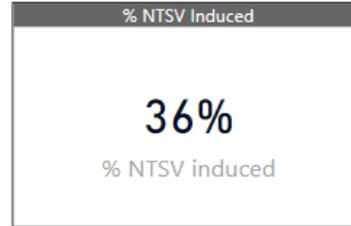
**Legend:**

- Met (Green)
- Not met 10 cm (Yellow)
- Not met 9 cm (Orange)
- Not met <6 cm (Red)
- Not met unknown (Grey)
- Not met basic (Purple)
- Not met stimulation (Pink)
- Not met oxytocin (Blue)
- Not met tachypnoea (Light Blue)
- Not met other (Cyan)

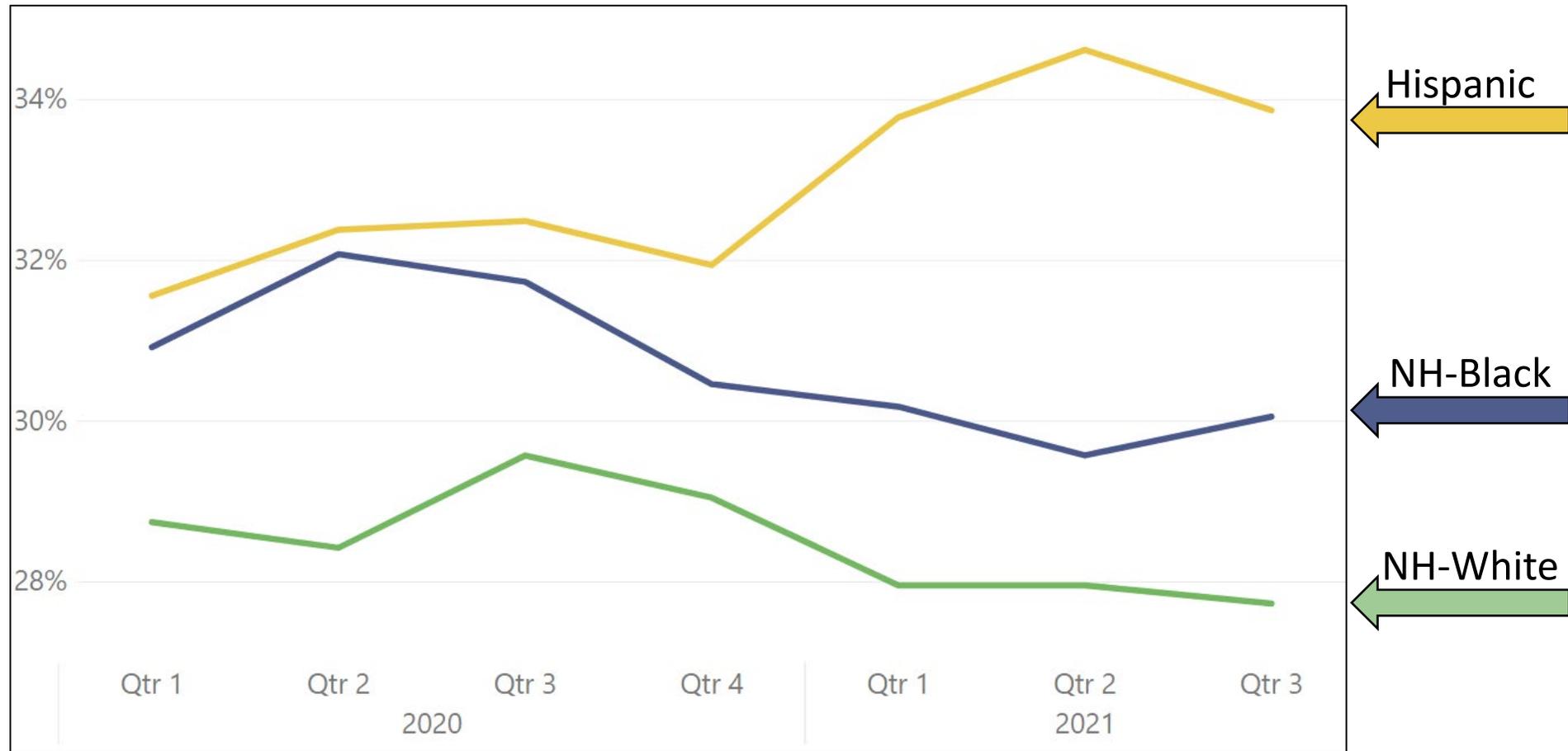
# Initiative-Wide PROVIDE Dashboard



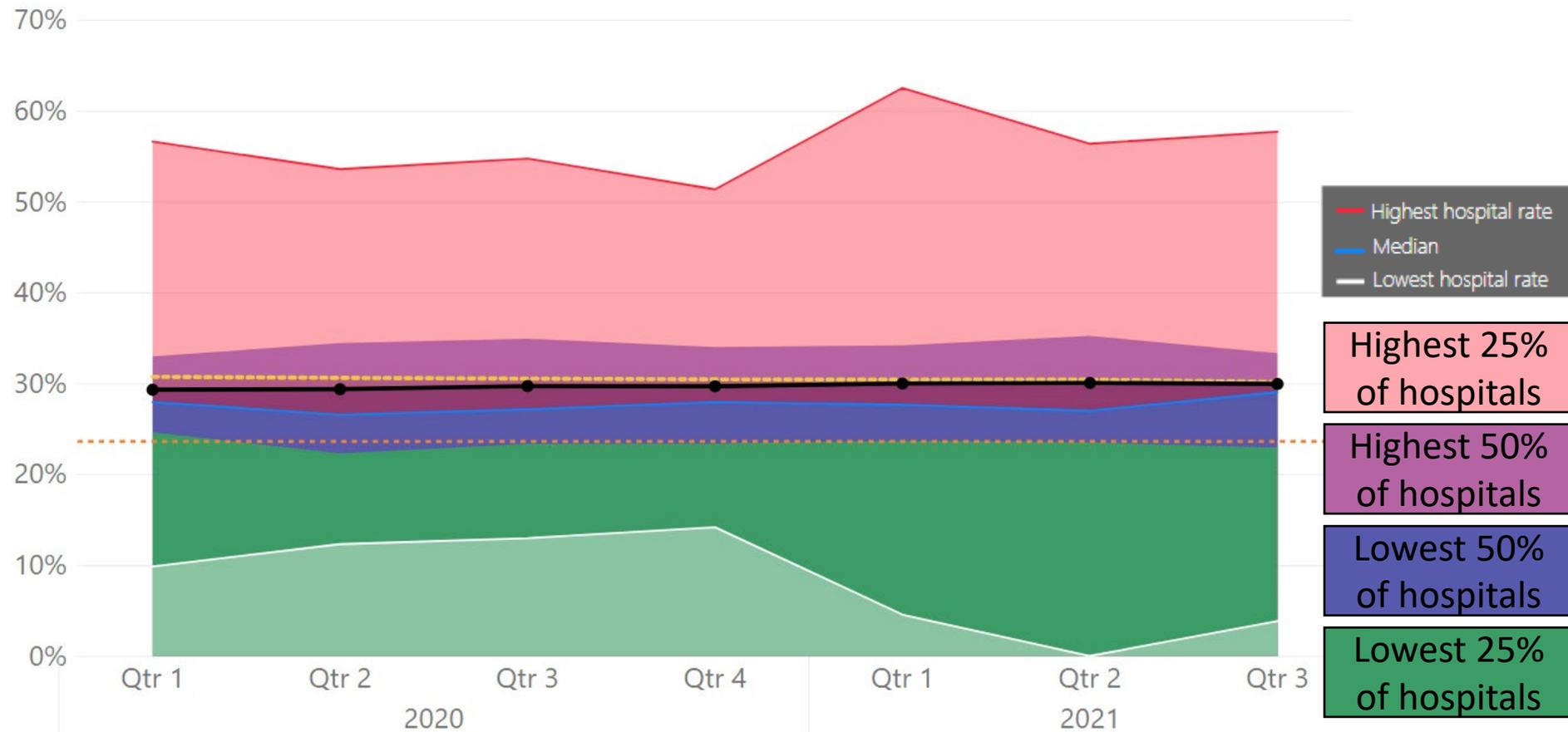
Data on this page is from the last three calendar months



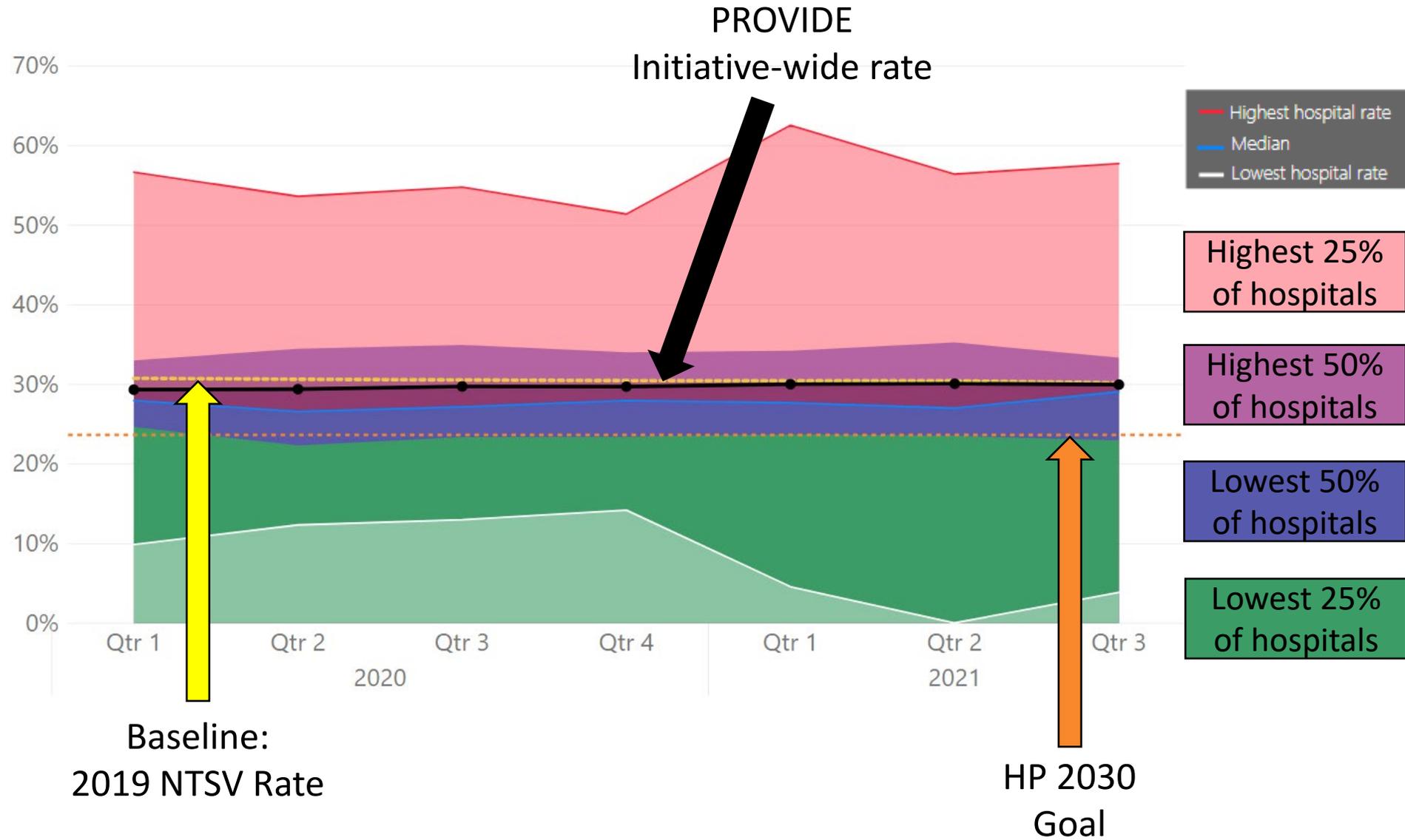
# % NTSV Rates by Race/Ethnicity, PROVIDE Hospitals



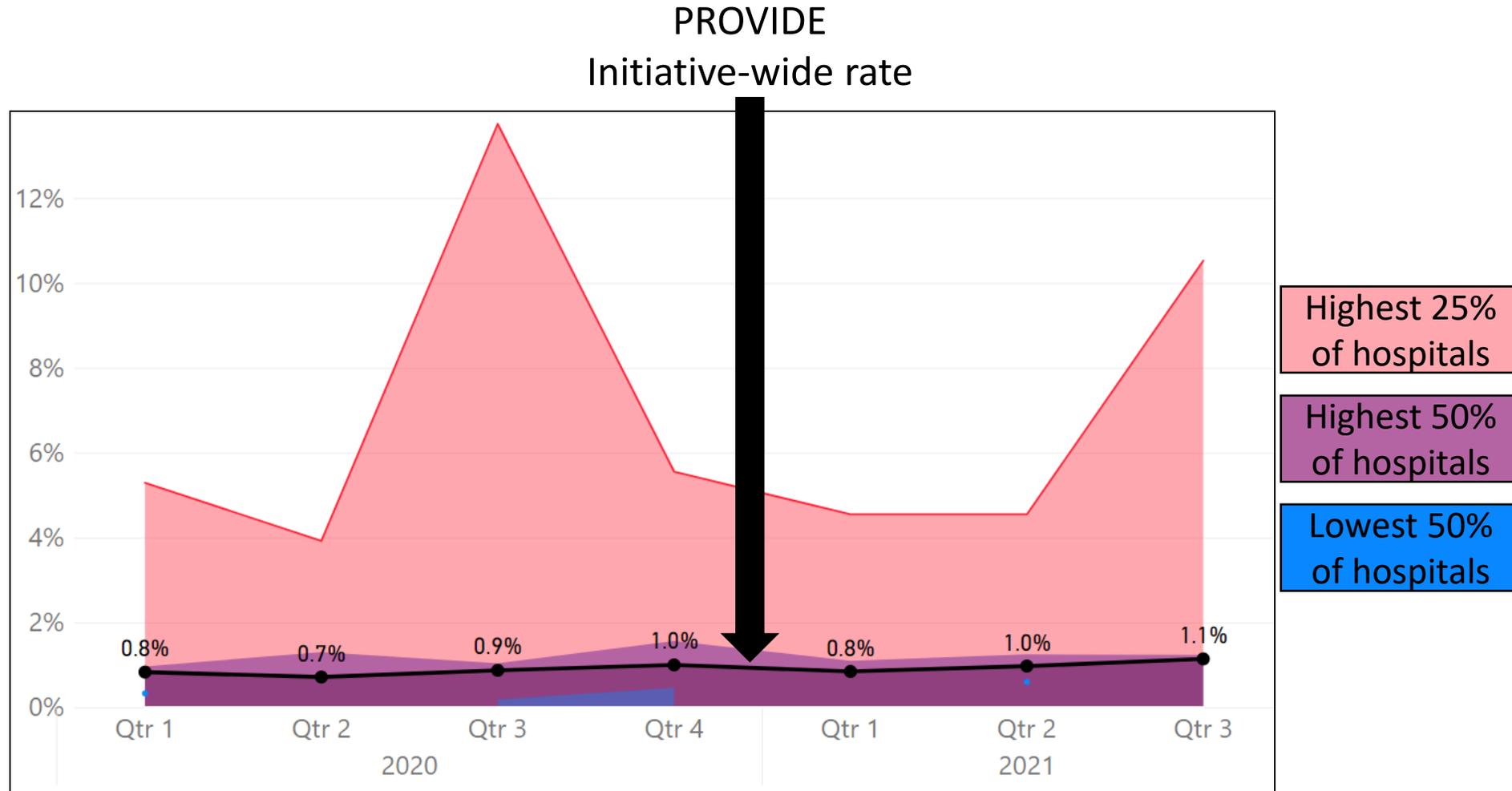
# % NTSV Rate for ALL PROVIDE hospitals, 2020-2021



# % NTSV Rate for ALL PROVIDE hospitals, 2020-2021

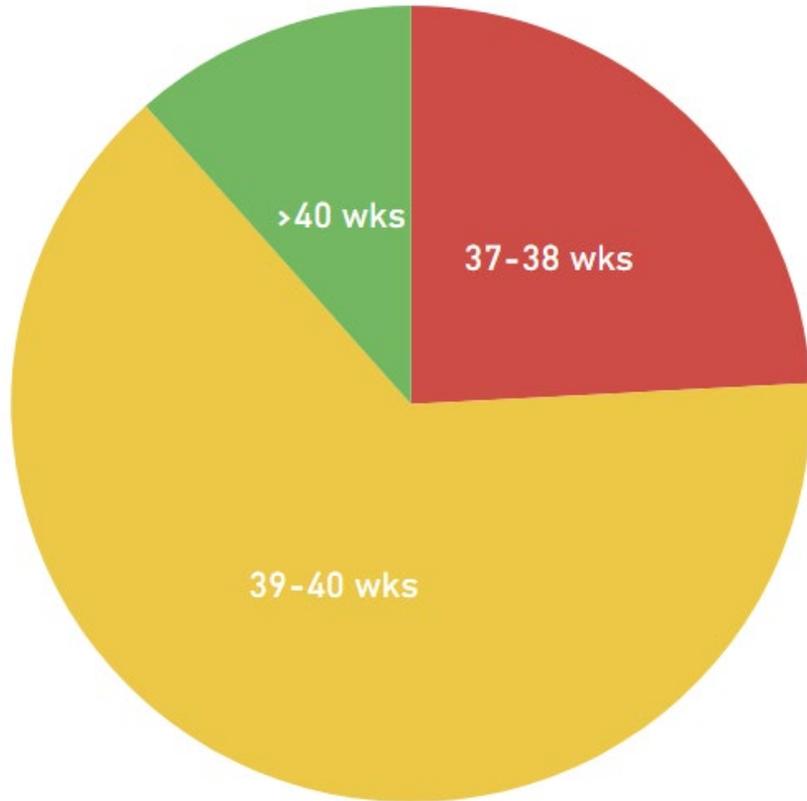


# % Low APGAR Scores among NTSV Vaginal Births for ALL PROVIDE hospitals, 2020-2021

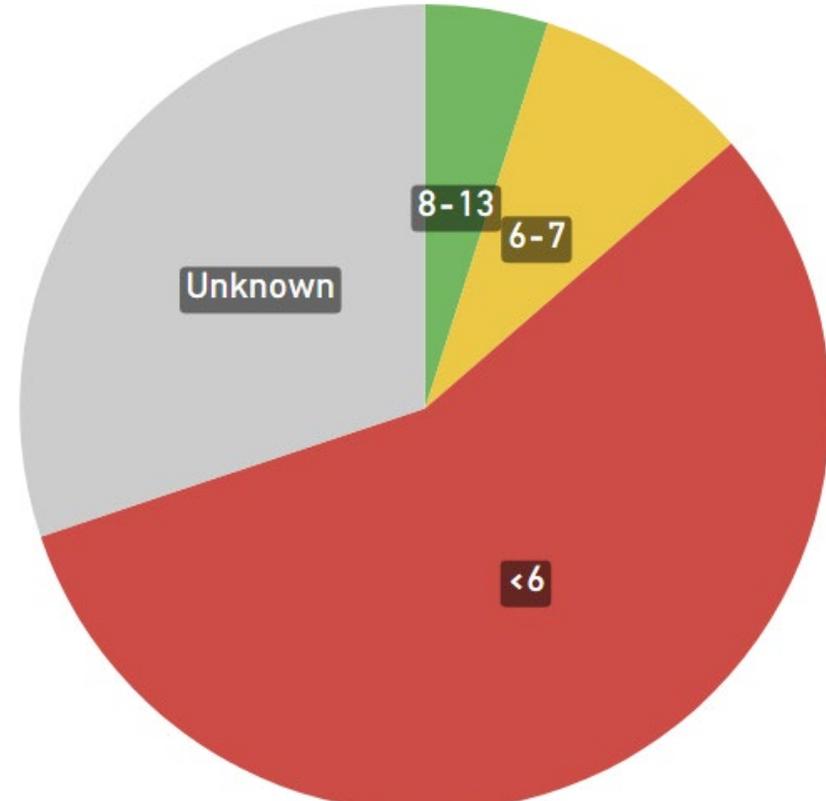


# Induction NTSV c/s Characteristics

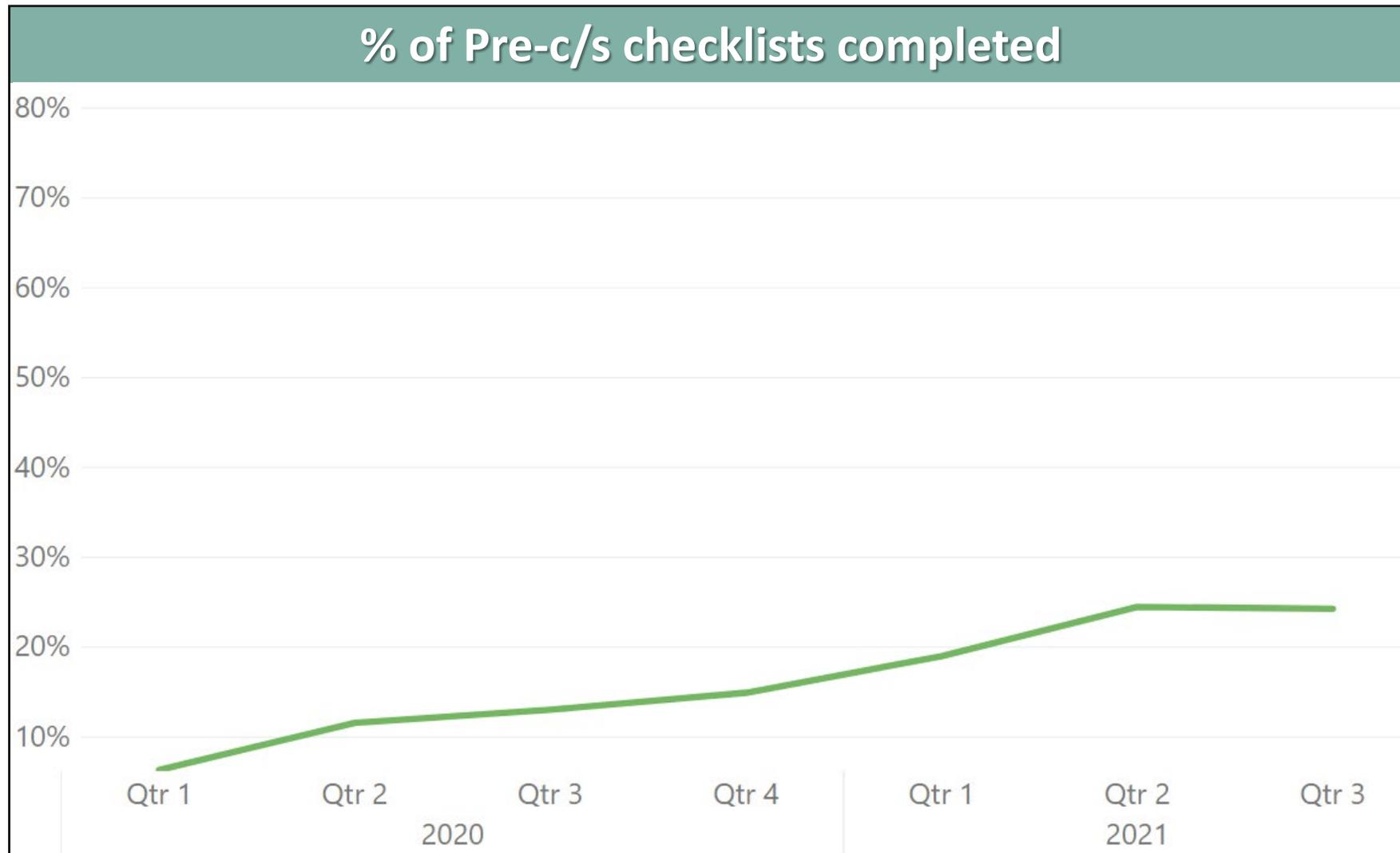
NTSV c/s after Induction by Gestational Age



NTSV c/s after Induction by Bishop Score

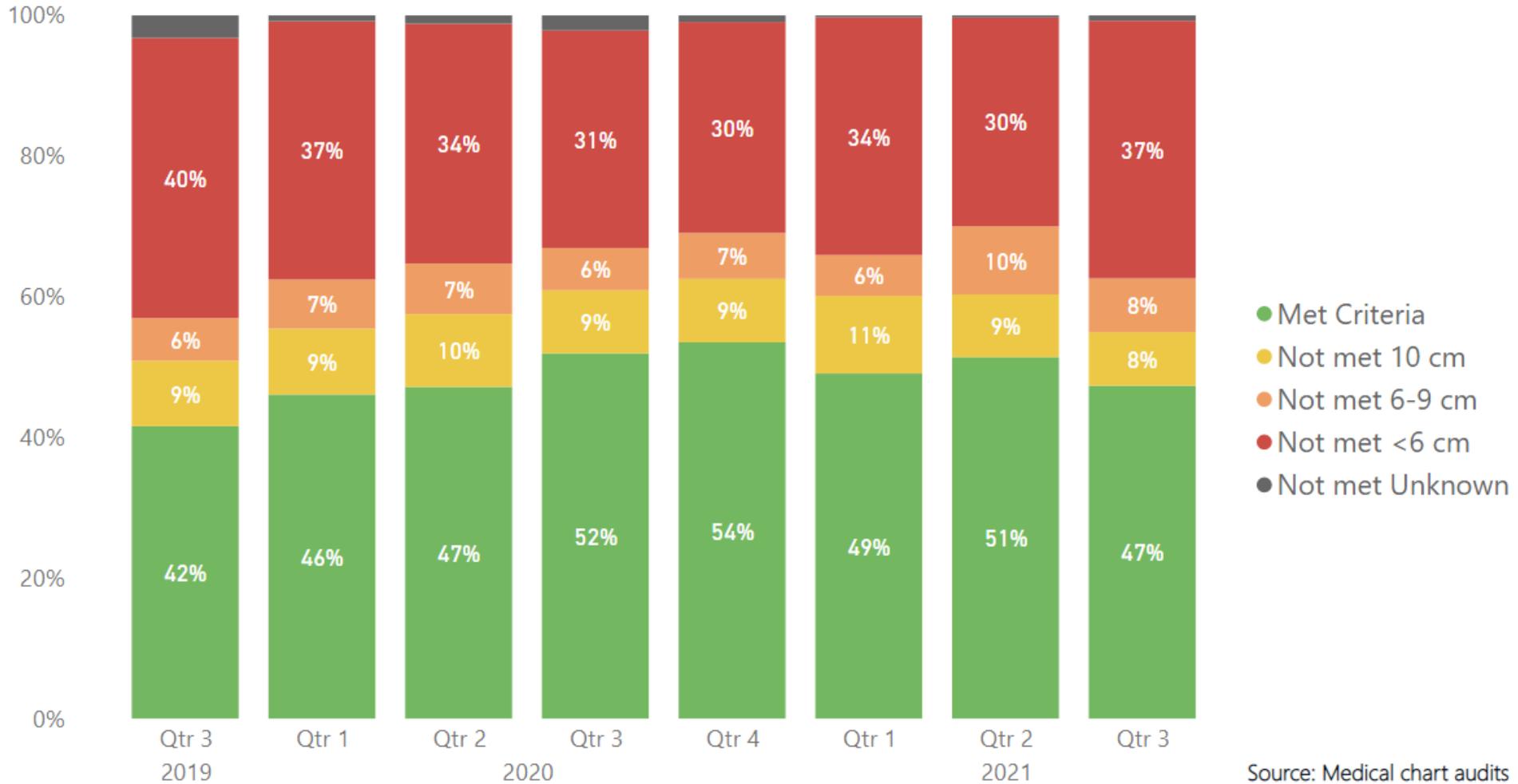


# Induction- Pre-c/s Checklists Completed

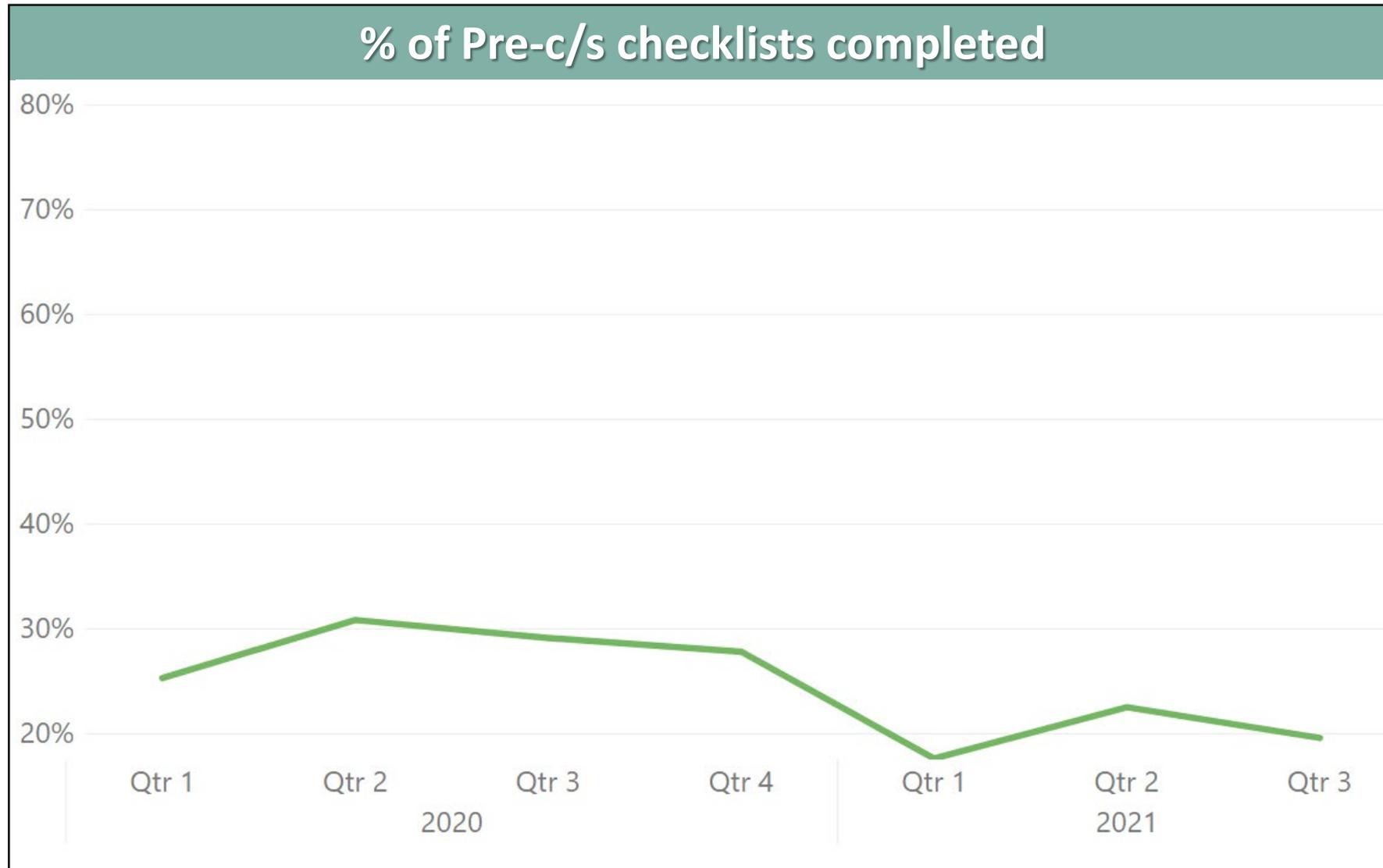


# Induction- Met or did not Meet Criteria

% NTSV Cesareans after Induction that Did NOT Meet ACOG/SMFM Criteria by Cervical Dilation

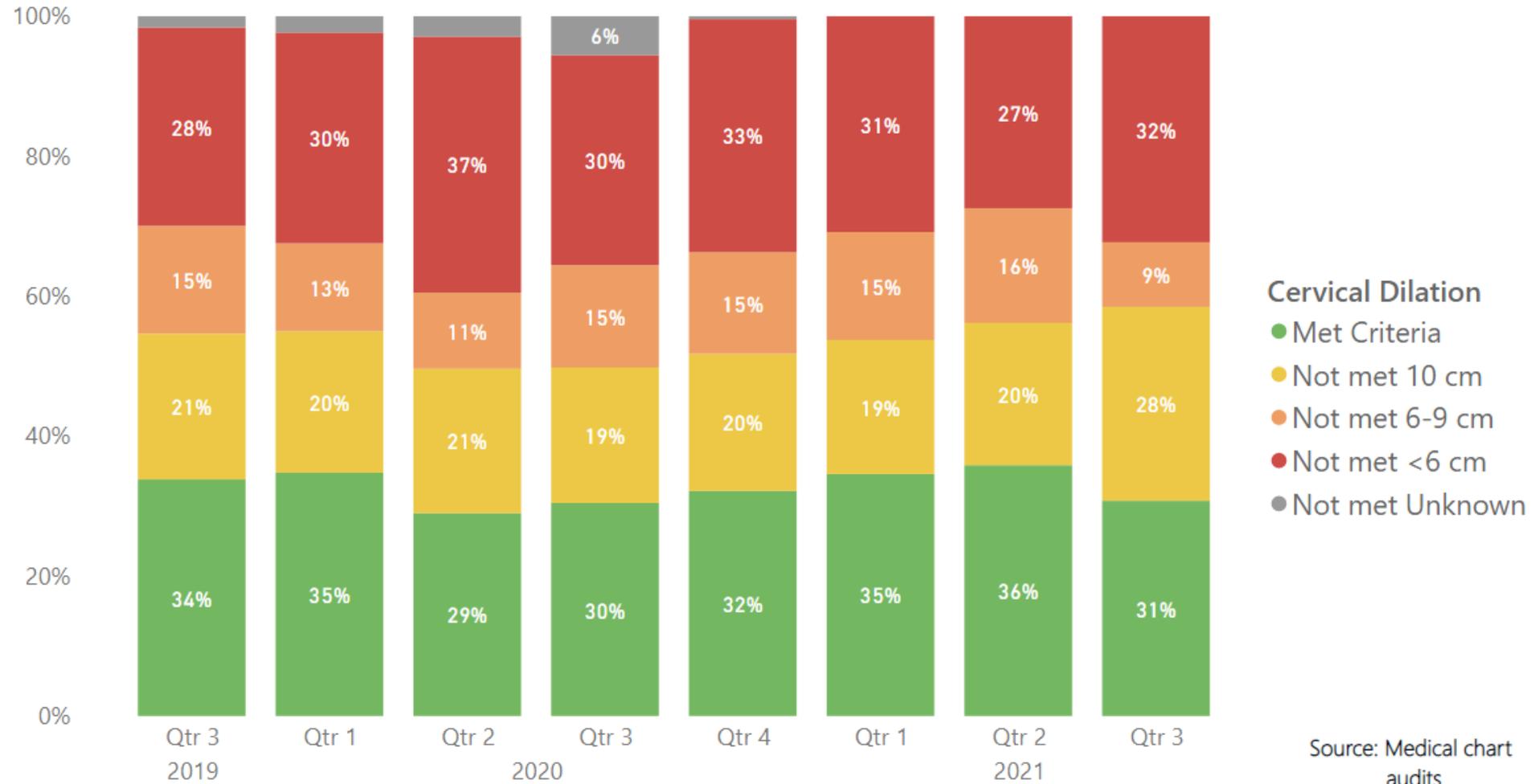


# Labor Dystocia- Pre-c/s Checklists Completed

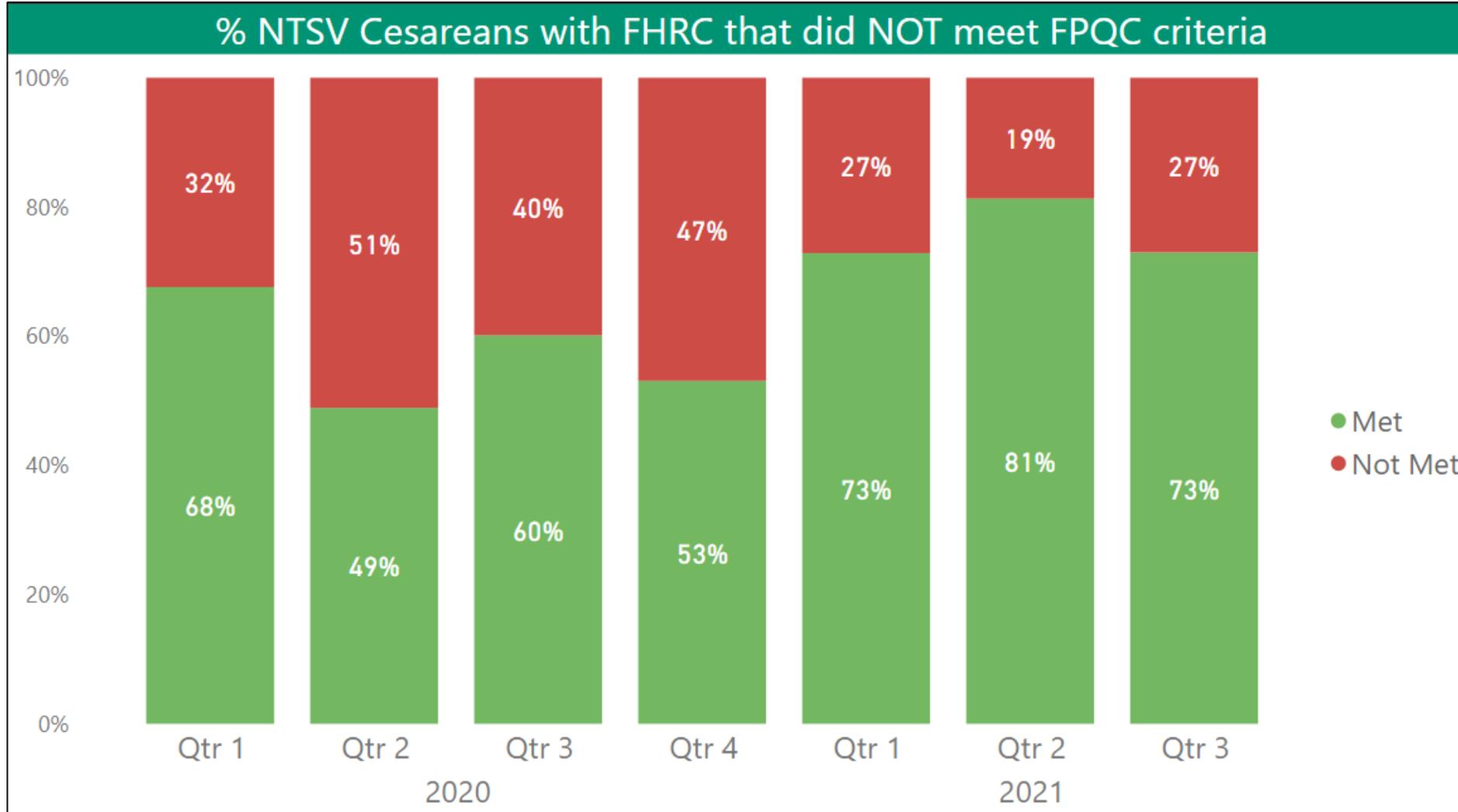


# Labor Dystocia- Met or did not Meet Criteria

% NTSV c/s with Dystocia that Did NOT Meet ACOG/SMFM Criteria by Cervical Dilation



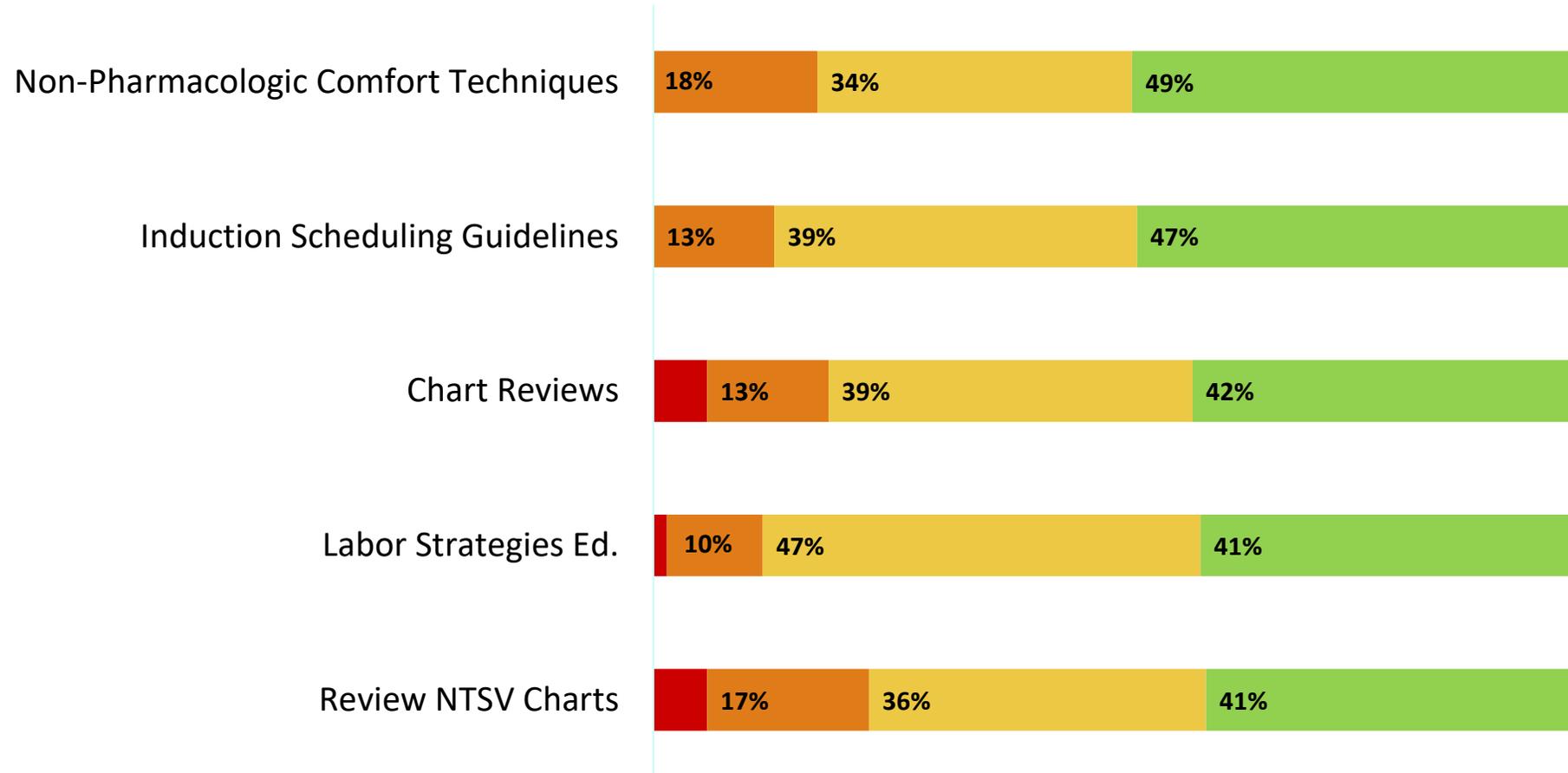
# Fetal Heart Rate Concerns Met or did not Meet Criteria



# Hospital-Level Measures

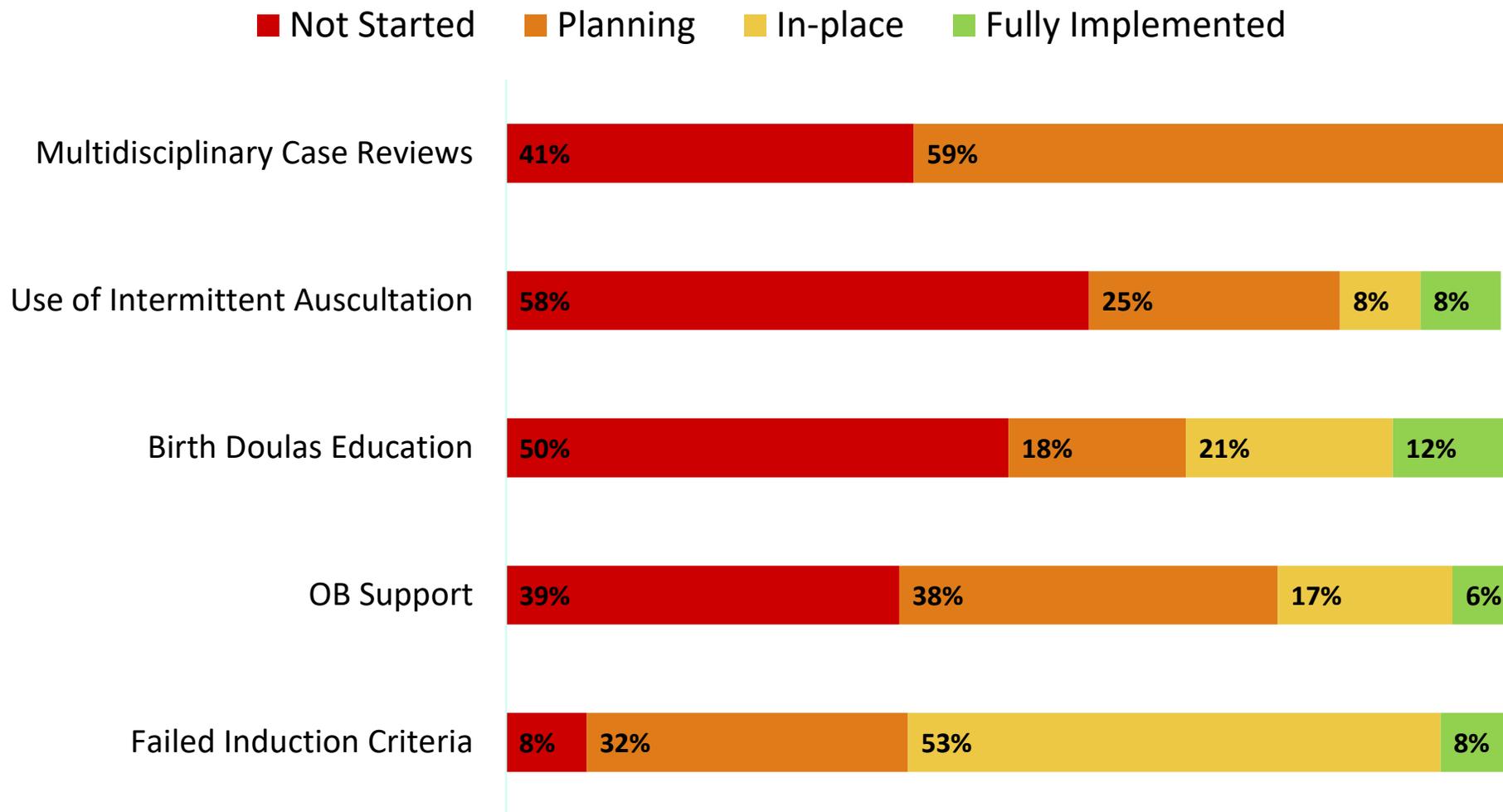
## “Most Improved Change Components”

■ Not Started ■ Planning ■ In-place ■ Fully Implemented



# Hospital-Level Measures

## “Least Improved Change Components”



# Hospital-Level Measures

## “Most Improved % Physician Education”

Physician Education	Q1 2020	Aug 2021
Intermittent Auscultation	0%	59%
Labor Support	20%	34%
Pain Management	29%	43%
Shared Decision Making	27%	41%
Standardized FHRC Response	25%	38%

# Hospital-Level Measures

## “Least Improved % Physician Education”

Physician Education	Q1 2020	Aug 2021
Failed Induction Criteria	54%	54%
Second Stage Criteria	45%	47%
Labor Progress	43%	45%
Completed Ed. program on labor mgmt. guidelines	26%	30%
Appropriate Admission Criteria	45%	49%

# Hospital-Level Measures

## “Most Improved % Nurse Education”

Nurse Education	Q1 2020	Aug 2021
Standardized FHRC Response	38%	81%
Shared Decision Making	42%	76%
Appropriate Admission Criteria	49%	75%
Completed Ed. program on labor mgmt. guidelines	36%	54%
Pain Management	59%	72%

# Hospital-Level Measures

## “Least Improved % Nurse Education”

Nurse Education	Q1 2020	Aug 2021
Active Labor Management	77%	78%
Appropriate Induction Scheduling	80%	82%
Labor Progress	70%	76%
Second Stage Criteria	62%	72%
Intermittent Auscultation	25%	35%

# Take-Home Messages

- COVID-19 remains a challenge with hospital QI work
- Despite challenges, NTSV Cesarean rates are declining among participating hospitals
- Several evidence-based change components have not been implemented by many hospitals—opportunity!
- Physician education gaps are frequently seen in essential areas that need to be addressed—opportunity!
- QI is about making small tests of changes over time and learning early: “small change is good change!”

# Questions?

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Florida Perinatal  
Quality Collaborative

Research

JAMA | **Original Investigation**

## Hospital Quality Improvement Interventions, Statewide Policy Initiatives, and Rates of Cesarean Delivery for Nulliparous, Term, Singleton, Vertex Births in California

Melissa G. Rosenstein, MD, MAS; Shen-Chih Chang, MS, PhD; Christa Sakowski, MSN; Cathie Markow, RN, MBA; Stephanie Teleki, PhD; Lance Lang, MD; Julia Logan, MD, MPH; Valerie Cape, BSBA; Elliott K. Main, MD

**IMPORTANCE** Safe reduction of the cesarean delivery rate is a national priority.

**OBJECTIVE** To evaluate the rates of cesarean delivery for nulliparous, term, singleton, vertex (NTSV) births in California in the context of a statewide multifaceted intervention designed to reduce the rates of cesarean delivery.

**DESIGN, SETTING, AND PARTICIPANTS** Observational study of cesarean delivery rates from 2014 to 2019 among 7 574 889 NTSV births in the US and at 238 nonmilitary hospitals providing maternity services in California. From 2016 to 2019, California Maternal Quality Care Collaborative partnered with Smart Care California to implement multiple approaches to decrease the rates of cesarean delivery. Hospitals with rates of cesarean delivery greater than 23.9% for NTSV births were invited to join 1 of 3 cohorts for an 18-month quality improvement collaborative between July 2016 and June 2019.

**EXPOSURES** Within the collaborative, multidisciplinary teams implemented multiple strategies supported by mentorship, shared learning, and rapid-cycle data feedback. Partnerships among nonprofit organizations, state governmental agencies, purchasers, and health plans addressed the external environment through transparency, award programs, and incentives.

**MAIN OUTCOMES AND MEASURES** The primary outcome was the change in cesarean delivery

← Editorial page 1616

+ Supplemental content

+ CME Quiz at  
[jamacmelookup.com](http://jamacmelookup.com)

Research

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*What Can  
Florida Do  
to Have  
CA's  
Results?*

# State Level?



## What Can Florida Do to Have California's Results\* in Reducing Low Risk (NTSV) Cesarean Births?

CA	FL	State Level
✓	✓	Annual state recognition of hospital reaching the national goal for NTSV cesarean rates
✓	✓	Online education of mothers on cesarean births and birth preferences: My Birth Matters
✓		Current publicly available NTSV cesarean rates shown by hospital for easy patient access
✓		Multiple private health insurance companies/plans incentivizing hospital participation and reducing rates
✓		Medicaid/Medicaid plans incentivizing hospitals to address overuse of cesarean delivery

# FPQC Level?



CA	FL	Perinatal Quality Collaborative Level
✓	✓	Encouraging use of the CMQCC toolkit
✓	✓	Participating in Alliance for Innovation in Maternal Health (AIM), the national organization supporting perinatal quality collaboratives in this quality improvement effort.
✓	✓	Individualizing hospital education and support thru consultation, site visit and grand rounds
✓	✓	Identifying of individual hospital issue drivers based on baseline assessment
✓	✓	Providing rapid cycle hospital QI data sharing
✓	✓	Providing hospitals with identified obstetrical provider NTSV cesarean rates
	✓	Supporting coaching calls with hospital groups using volunteer physician and nurse mentors
✓		Using paid mentors for coaching calls with 6 to 8 hospitals compared to 20+ hospitals
✓		Providing peer-to-peer education for obstetrical providers through academic detailing
✓		Offering initiatives over time in phases in order to work with fewer hospitals at one time
✓		Ongoing assessment of individual hospital performance with individualized coaching
✓		Perform individual hospital culture surveys with tailored action planning

\*Rosenstein MG, Chang SC, Sakowski C, *et al.* (2021) Hospital quality improvement interventions, statewide policy initiatives, and rates of cesarean delivery for nulliparous, term, singleton, vertex births in California. *JAMA* 325(16):1631-1639.



# Hospital Level?



## What Did California's Maternity Hospitals Do to Get Their Results\* In Reducing Low Risk (NTSV) Cesarean Births?

CA	Yours	Hospital Level
99%	<input type="checkbox"/>	<b>CLINICAL EDUCATION</b>
98%	<input type="checkbox"/>	Physician or nurse educational presentation
45%	<input type="checkbox"/>	Manual rotation of occiput posterior
NA	<input type="checkbox"/>	Supporting safe vaginal birth training
90%	<input type="checkbox"/>	<b>LABOR SUPPORT ACTIVITIES</b>
53%	<input type="checkbox"/>	Peanut balls
33%	<input type="checkbox"/>	Doula program
86%	<input type="checkbox"/>	<b>LABOR MANAGEMENT</b>
65%	<input type="checkbox"/>	Labor dystocia checklist
45%	<input type="checkbox"/>	Active phase huddle
45%	<input type="checkbox"/>	Latent labor management
24%	<input type="checkbox"/>	Electronic medical record order sets
85%	<input type="checkbox"/>	<b>SHARING OF UNBLINDED PHYSICIAN-LEVEL NTSV CESAREAN RATES</b>

How much of a “final push” can you and other PROVIDE teams make these next 9 months to reduce our NTSV cesarean rates the same as California?

- **Strong effort**
- **Moderate effort**
- **Some effort**
- **Not sure**

# YOU ARE THE BEST!

## LET'S MAKE THE FINAL PUSH!



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