



Celebration Webinar

Presented by the Florida Perinatal Quality Collaborative December 17, 2024





Welcome!



Please mute yourself



If you have a question, please enter it in the chat or raise your hand (Reactions)



This webinar is being recorded



Welcome Hospitals

AdventHealth Altamonte

AdventHealth Celebration

AdventHealth Daytona Beach

AdventHealth Fish Memorial

AdventHealth Heart of Florida

AdventHealth Ocala

AdventHealth Orlando

AdventHealth Winter Park

Ascension Sacred Heart Hospital (Pensacola)

Ascension Sacred Heart on the Emerald Coast

Baptist Hospital of Miami Inc.

Bayfront Baby Place (St. Pete)

Boca Raton Regional Hospital

Bravera Health Hospital - Spring Hill

Broward Health Medical Center

Cape Coral Hospital Lee Memorial

Good Samaritan Medical Center

Halifax Health Medical Center

HCA Florida Capital Regional Medical Center

HCA Florida Citrus Memorial Hospital

HCA Florida Fort Walton-Destin Hospital

HCA Florida Gulf Coast Hospital

HCA Florida Mercy Hospital

HCA Florida North Florida Hospital

HCA Florida Oak Hill Hospital

HCA Florida Osceola Regional Medical Ctr

HCA Florida Oviedo Medical Center

HCA Florida University Hospital

HCA Florida West Hospital

HCA Kendall Regional Medical Center

HCA Medical Center Of Trinity

HCA Memorial Hospital Jacksonville

HCA Northwest Medical Ctr

HCA Palms West Hospital

HCA St Lucie Medical Center



Welcome Hospitals

HCA St Petersburg General Hospital

Healthpark Medical Center: Lee Memorial Hospital

Homestead Hospital

Jupiter Medical Center

Lakeland Regional Medical Center

Lakewood Ranch

Lower Keys Medical Center

Manatee Memorial Hospital

Mease Countryside Hospital

Memorial Regional Hospital

Morton Plant Hospital

Mount Sinai Medical Center

NCH North Hospital

Palmetto General Hospital

Santa Rosa Medical Center

Sarasota Memorial Hospital

Sarasota Memorial Hospital – Venice Campus

South Florida Baptist Hospital

South Lake Hospital

South Miami Hospital, Inc

St Joseph's Hospital - North

St Joseph's Hospital - South

St Joseph's Women's Hospital

St Mary's Medical Center

Steward Rockledge Hospital

Tampa General Hospital

UCF Lake Nona Medical Center

UF Health Jacksonville (Shands Jacksonville)

UF Health Leesburg Hospital

Wellington Regional Medical Center

West Boca Medical Center

Winter Haven Women's Hospital (Regency Medical Center)







67 Florida Hospitals:

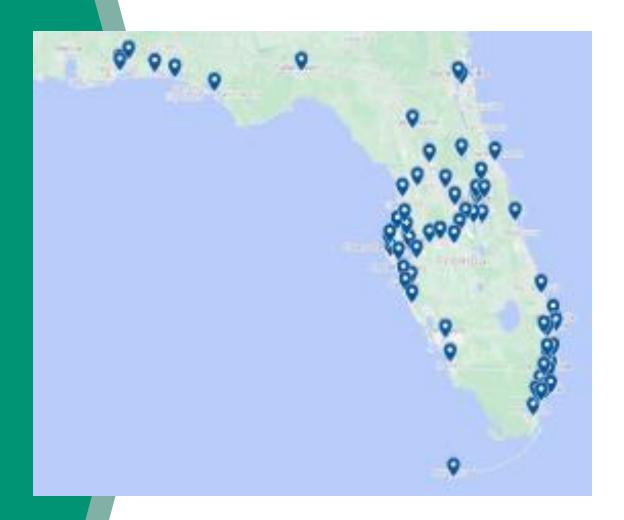
- 64% of maternity hospitals
- 68% of births







Centers for Disease Control and Prevention



Data Insights and Milestones



Patient Characteristics



67 reporting hospitals (July 2023 – Dec 2024)



5,044 postpartum women

Spanish speaking: 23%

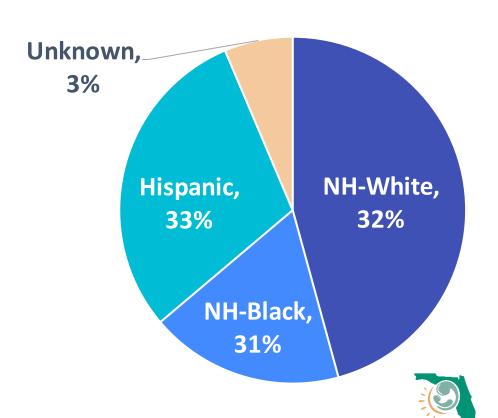
Medicaid-covered: 64%



No Prenatal Care: 10%

Unknown PNC: 10%

Unknown ethnicity: 3%



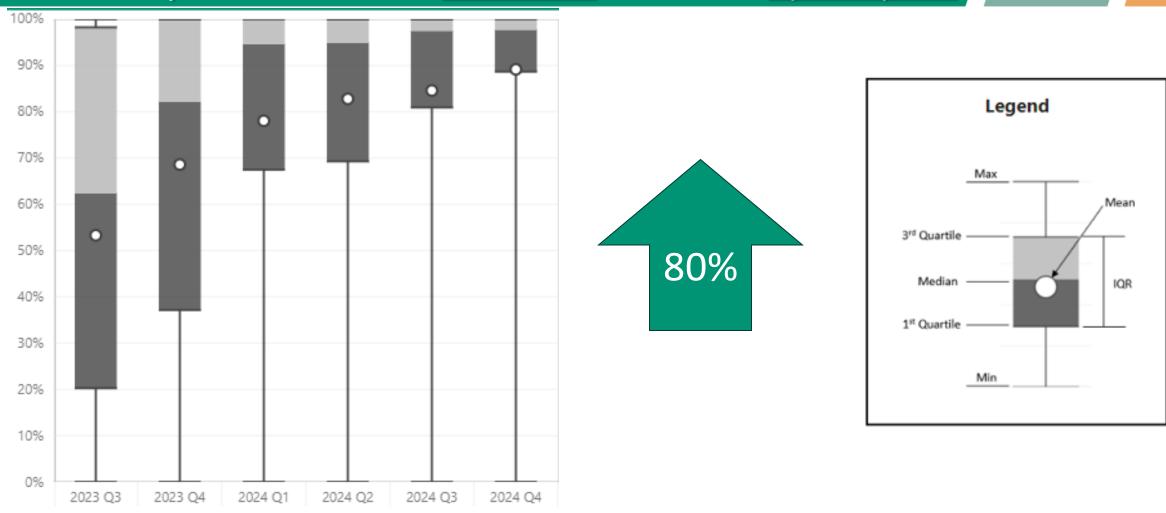
Aims

By 12/2024, each hospital will:

- 1) Achieve a 20% increase from baseline in the % of patients with a positive SDOH screen who were referred to appropriate services
- 2) Have 80% of providers and nurses attend an RMC training since January 2023



% of all Postpartum Patients <u>Screened</u> for SDOH <u>by Hospital</u>



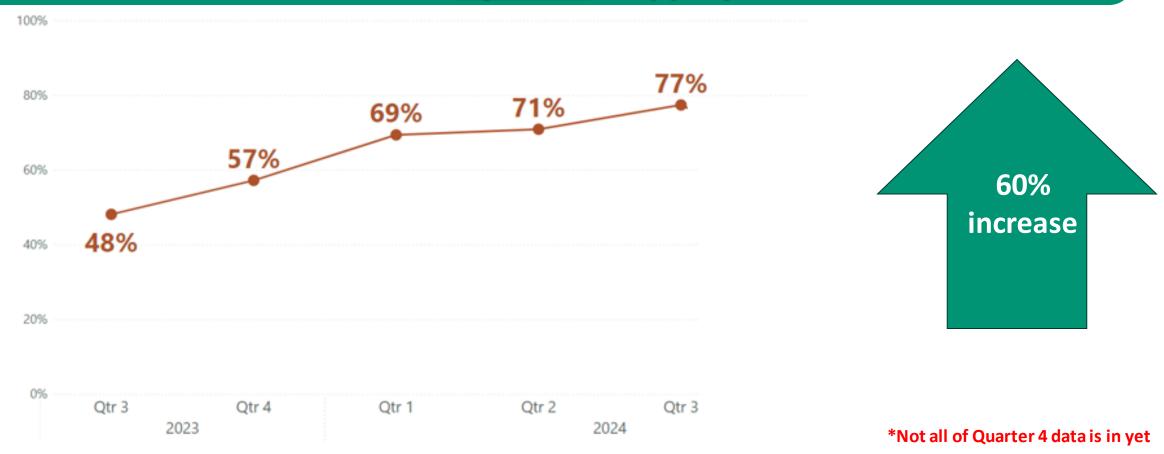
SDOH screening increased from 51% at baseline to 92% at the end of the initiative



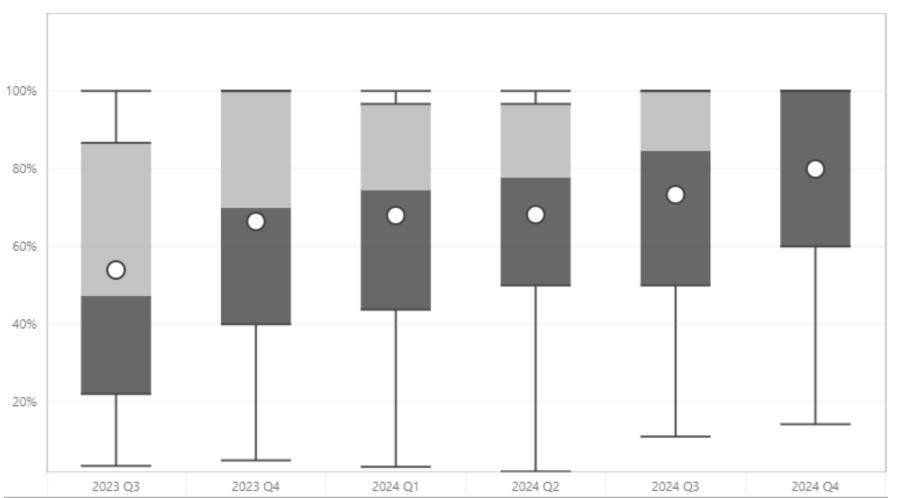
MFC Aim

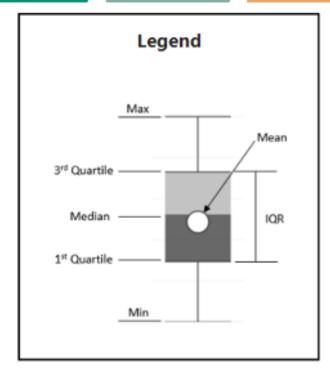
By 12/2024, each hospital will:

1) Achieve a 20% increase from baseline in the % of patients with a positive SDOH screen who were <u>referred</u> to appropriate services



% of Patients with Positive SDOH that were Appropriately Referred



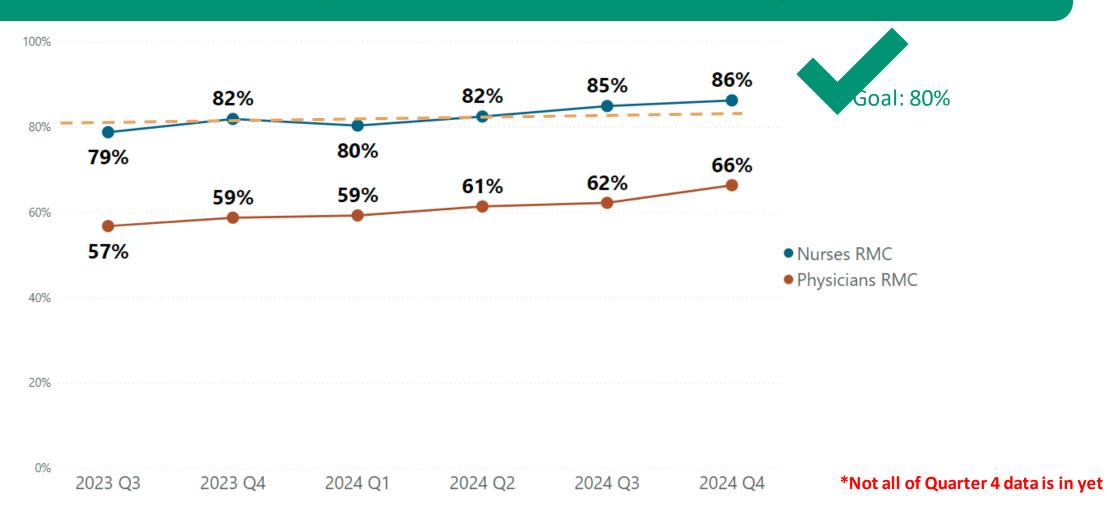


The appropriate referral for patients with a positive SDOH screening increased from 48% at baseline to 77% at the end of the initiative

*Not all of Quarter 4 data is in yet FPQC

MFC Aim

By 12/2024, MFC hospitals will have 80% of providers and nurses attend an RMC training and commit to Respectful Care Practices since January 2023





Global Aim: Improve maternal health by transforming hospital culture and environments to respectfully serve all mothers and their families, by helping them meet needs related to social determinants of health.

Aim

By 12/2024, each hospital will:

- 1) Achieve a 20% increase from baseline in the % of patients with a positive SDOH screen who were referred to appropriate services
- 2) Have 80% of providers and nurses attend an RMC training since January 2023

Respectful care is a universal component of every driver & activity

Primary Key Drivers

Data Insights: maternal characteristics, risk factors, & outcomes across social determinants

Respectful Maternity Care (RMC)

Universal SDOH Screening & Linkage to Services/Resources

Family & Community Engagement in QI Work

Hospital Level Structural and Process Measures

67 hospitals

	Baseline	End of MFC
Process Map for Collecting Demographic	10%	82%
Questions		
Process to Collect & Correct Pt. Self	18%	81%
Reported Demographics and SDOH		
Strategy to Answer Pt. Questions about	6%	70%
Demographic and SDOH data		
Policy, Protocol, or Guidelines for	12%	75%
Referring Pts. To Appropriate Services		

Hospital Level Structural and Process Measures

67 hospitals

	Baseline	End of MFC
Strategy for Sharing Respectful Care for Patients and Providers	0%	60%
Implement Respectful Care Survey	4%	69%
Implement Written Action Plan to Address Health Disparity	1%	58%
QI Team and Leadership Educated on Importance of Family & Community Advisors	1%	19%

Hospital Level Structural and Process Measures

67 hospitals

	Baseline	End of MFC
Family Advisor part of QI Team	1%	19%
Community Advisor part of QI Team	7%	45%



Mother Focused Care: Focus Group Work

Working with a group of 12 women who've just delivered babies in throughout the state of Florida within the one year of the initial project launch.

The focus groups shared their personal experiences with us and worked on the following:

- Reviewing and providing feedback for toolbox components
 - Revised logo
 - Survey
 - Respectful Maternity Care materials

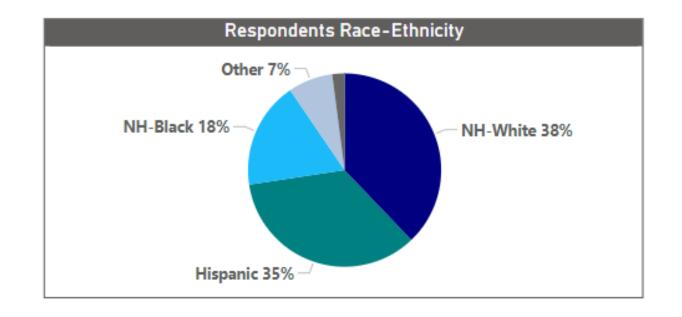


Respectful Maternity Care (RMC) Survey

• 47 Mother-Focused Care (MFC) hospitals have used the RMC Survey to gather feedback from postpartum patients on respectful care during their hospital stay.

3822 # total surveys

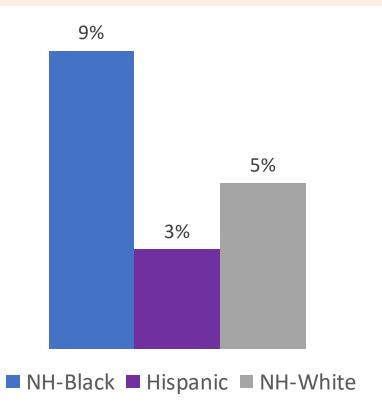
Survey language	% Respondents ▼
English	83.44%
Spanish	11.96%
Haitian Creole	4.60%





6% of patients reported feeling pressured into unwanted or unclear care

Differences by race and ethnicity





RMC Survey: Feedback for Improvement

Communication and Privacy Issues:

- Feeling dismissed/intimidated
- Aggressive/pushy approach by specific person in care team
- Communication gaps (no anticipatory guidance, language barriers)
- Privacy concerns (team didn't knock, interrupted while breastfeeding)



RMC Survey: Feedback for Improvement

Support and Guidance:

- Insufficient guidance on baby care for unsupported/new moms
- Lack of support for dad (bed/food)
- Limited dietary options
- Unexperienced RN (struggling with: IV placement, equipment, organization)
- Limited access to alternative pain management beyond epidural
- Mom feeling neglected post-birth as attention shifted solely to the baby



RMC Survey: Feedback for Improvement

Most open feedback highly praised medical team around the following areas:

Team Collaboration and Support: Recognition of coordinated efforts for a smooth childbirth experience.

Exceptional Care During Difficult Circumstances: Gratitude for professionalism, competence, and compassion.

Personalized and Informative Support: Recognition of staff who tailored care to individual needs.

Positive Impact on Patient Experience: Acknowledgment of the hospital's welcoming and empowering environment.

Specific recognition: Gratitude for nurses and doctors who demonstrated exceptional professionalism, kindness, and expertise throughout labor, delivery, and postpartum care.



Secondary Drivers



Questions? Up Next: Sharing Results



Sharing your Results/Sustainability



Think MOCHA for Sustainability

Measurement

What will we continue to measure?What can we stop measuring?



Ownership

• Who owns the program? How are clinicians and parents educated? How is competency maintained?

Communication

- How will we communicate?
 - Visually
 - Daily

Hardwire the process

- Standardize the process
 - Make it easy to do the process!

Assessment of ongoing success

- How will we know we are sustaining the gains?
- Use PDSA as a problem-solving technique

MOCHA is a mnemonic from the IHI for use in sustainability planning. For more information go to ihi.org/QI



One-pager





Beginning in January 2023, The Centers for Medicare and Medicaid Services (CMS) rolled out new requirements for hospitals to screen patients for social determinants of health (SDOH) and ensure respectful care. This aligns with recommendations from other leading clinical organizations to inquire about and document health-related social needs, and prioritize respectful care. Additionally, starting in January 2024, hospitals must document the percentage of patients with identified needs who are referred for appropriate services. Addressing maternal and family needs related to housing, food, transportation, utility services, and safety can help to improve health outcomes. Mother-Focused Care was designed to help hospitals identify those needs in a framework of respectful care, and to help assure timely referral to appropriate services.

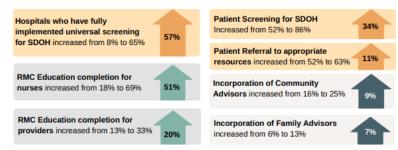
WHAT IS THE MOTHER-FOCUSED CARE INITIATIVE (MFC)?

- A hospital orientation meeting was held in April 2023, with hospitalbased kickoff of the Initiative in July 2023.
- · MFC offers participating hospitals:
 - Tools to delve into data about their patients to discover unwanted variations,
 - Approaches to enhancing respectful maternity care (RMC) and education.
 - Techniques to improve screening and linkage to resources for patients in need, and
- Strategies to improve efforts at engaging families and community members in hospital quality improvement.
- · View these resources at FPQC.org/MFC-toolbox.

67 MFC Hospitals 64% of Birthing Hospitals 68% of Births

KEY IMPROVEMENTS

From baseline (July-September 2023) to the last three months (March-May 2024), MFC hospitals have shown significant improvements across several key metrics:



Target for Improvement: Despite a significant increase in the percentage of positive SDOH patients referred to appropriate services, there has been **little to no change in referrals for housing insecurities.**

RESPECTFUL MATERNITY CARE (RMC)

While RMC is now a universal component of all FPQC initiatives, MFC was the first FPQC initiative to include RMC as a primary driver. Some of the RMC activities implemented in MFC included the following:

FPQC offered in-person statewide train-the-trainer

workshops as one option for teams to satisfy the RMC training requirement. Those who completed the training returned to their hospitals with the tools to teach their entire clinical team.

FPQC created samples of RMC commitments for hospitals. Hospitals then used creative strategies to customize for their clinical setting, including banners for all team members to sign, t-shirts, buttons, pledge cards, and badge buddies.

FPQC developed a RMC Survey to assess birthing experience from the patient perspective. Twenty-nine MFC hospitals have implemented the survey. Over 95% of the responses received have been positive, however, opportunitie: to evaluate and enhance care practices were also identified.



CENTERING PATIENT VOICES

In addition to the RMC Survey and promoting the incorporation of community and family advisors into QI efforts, FPQC collaborated with Florida Association of Healthy Start Coalitions and researchers at the University of South Florida College of Public Health for statewide interviews with mothers who had given birth within the past two years. The "Listening to Mothers' Voices" recordings were provided to local coalitions throughout the state who in turn shared with hospitals in their communities. These listening sessions sparked conversations about how hospitals can contribute to improved quality of care in their area.



Learn more about how FPQC and our partners are centering patient voices!

ONGOING OPPORTUNITIES FOR HOSPITALS

Keep collaborating with your clinical teams to ensure that all patients are screened for SDOH and referred for needed services.
Work with FPQC to create an impact statement to share with your team and C-Suite.
Plan for future initiatives: FPQC will be launching the <u>P</u> regnancy- <u>R</u> elated <u>O</u> ptimal <u>M</u> anagement of Hy <u>PerI</u> ension (PROMPT) Initiative in the fall of 2024, building upon important lessons learned from screening/referrals for SDOH, incorporating patient advisors, respectful care education, and from our <u>P</u> ostpartum <u>A</u> ccess and <u>C</u> ontinuity of <u>C</u> are (PACC) Initiative that concluded in June 2024. More details to come!

Thanks to the Florida Department of Health and the Florida Maternal Mortality Review Committee for providing the data





What is an Impact Statement?

An impact statement outlines the **achieved outcomes, their significance, and the benefits** of an initiative or action in a concise and clear manner **Importance:**



- ✓ Communicate results (C-suite, leadership team, bedside clinical team)
- ✓ Demonstrate value why QI efforts matter/how changes help patients, staff and the hospital
- ✓ Secure funding/support (sustainability/future initiatives)
- ✓ Find template here: qrco.de/PACC_TOOLBOX



Health Impact Statement Example





Problem

Social determinants of health (SDOH) greatly influence maternal and infant health outcomes, yet hospitals face challenges in universal SDOH screening and connecting patients with local resources. Leading organizations, like Centers for Medicare & Medicaid Services, now mandate that hospitals screen for these factors, document health-related social needs (HRSN), and refer patients to appropriate resources. Addressing essential needs such as housing, food, transportation, utilities, and safety, can significantly improve the health and well-being of mothers and families.

Intervention

In July 2023, [hospital name] joined 67 maternity hospitals in the Mother-Focused Care Initiative (MFC) led by the Florida Perinatal Quality Collaborative (FPQC). The initiative aimed to help hospitals and providers transform their culture in order to respectfully serve all mothers and their families. By implementing a multidisciplinary team approach, hospitals would be able to support all pregnant and postpartum families, with emphasis placed on those patients with HRSN.

Throughout the initiative our hospital actively engaged in monthly coaching calls, attended two in-person FPQC MFC meetings, and received peer mentorship. We diligently tracked data to support our efforts. FPQC facilitated our progress by supplying an evidence-based toolkit, resource directory, and monthly QI reports to track improvement.

Insert own hospital image

Health Impact

(This is just an example; please add your hospital's data/information about metrics your hospital focused on)

Between July 2023 and December 2024, [hospital name] has improved substantially across multiple measures: patient screening for SDOH increased from __% to __% and patients referred to appropriate resources increased from __% to __%. Referrals for food insecurity saw the biggest increase from __% to __%. Our hospital also engaged a patient advisor in the quality improvement team to gain family perspective and partnered with community partners to connect families to SDOH resources.

Our hospital implemented Respectful Maternity Care (RMC) through the FPQC training. RMC education completion increased from __% to __% for nurses and from __% to __% for providers. With support from our staff, we have



Questions? Up Next: Stars!



MFC hospitals receive a star for each met metric:





Meeting Participation



- ≥80% active participation: attendance at monthly coaching calls, mid-initiative meeting, periodic webinars, <u>and</u>
- Quarterly presentation of applied QI tool related to MFC in coaching calls

Meeting Participation Measure Improvement



AdventHealth Altamonte

AdventHealth Celebration

AdventHealth Daytona Beach

AdventHealth Heart of Florida

AdventHealth Ocala

AdventHealth Orlando

AdventHealth Winter Park

Ascension Sacred Heart on the Emerald Coast

Baptist Hospital Of Miami Inc

Boca Raton Regional Hospital

Cape Coral Hospital Lee Memorial

Halifax Health Medical Center

HCA Florida Capital Regional Medical Center

HCA Florida Gulf Coast Hospital

HCA Florida North Florida Hospital

HCA Florida Osceola Regional Medical Center

HCA Florida Oviedo Medical Center

HCA Florida West Hospital

HCA Kendall Regional Medical Center

HCA St Lucie Medical Center

HealthPark Medical Center Lee Memorial

Hospital

Jupiter Medical Center

Lakeland Regional Medical Center

Mease Countryside Hospital

Memorial Regional Hospital

Morton Plant Hospital

Mount Sinai Medical Center

NCH North Hospital

Sarasota Memorial Hospital

Sarasota Memorial Hospital –

Venice Campus

South Florida Baptist Hospital

South Lake Hospital

South Miami Hospital, Inc

St Joseph's Hospital - North

St Joseph's Hospital - South

St Joseph's Women's Hospital

St Mary's Medical Center

Tampa General Hospital

UF Health Jacksonville (Shands

Jacksonville)

Wellington Regional Medical Center

West Boca Medical Center

Winter Haven Women's Hospital

(Regency Medical Center)



Data Collection & Reporting

- Complete submission of monthly and quarterly data (no more than a quarter-lag at any point), and
- Implement a strategy to share data (e.g., impact statement, share QI progress in OB-GYN meetings/grand rounds, post data, etc.)

Data Collection & Reporting Measure Improvement



AdventHealth Celebration

AdventHealth Daytona Beach

AdventHealth Heart of Florida

AdventHealth Orlando

AdventHealth Winter Park

Ascension Sacred Heart on the Emerald

Coast

Lakeland Regional Medical Center

Baptist Hospital Of Miami Inc

Halifax Health Medical Center

HCA Florida Gulf Coast Hospital

HCA Kendall Regional Medical Center

HCA Northwest Medical Center

Healthpark Medical Center Lee Memorial Hospital

Lakeland Regional Medical Center

Mease Countryside Hospital

Morton Plant Hospital

Mount Sinai Medical Center

Sarasota Memorial Hospital

South Florida Baptist Hospital

South Lake Hospital

St Joseph's Hospital - North

St Joseph's Hospital - South

St Joseph's Women's Hospital

St Mary's Medical Center

Steward Rockledge Hospital

UF Health Jacksonville (Shands Jacksonville)

Wellington Regional Medical Center

West Boca Medical Center





Hospital Capacity Fully implement at least 6 MFC structural measures

Develop a process map of key personnel, activities/steps, tools, information systems and timing to collect, correct, and document demographic intake questions

Implement a process to collect, document, and correct patient self-reported race, ethnicity, primary language, other patient characteristics, and SDOH

Implement a strategy to provide information to patients who have questions on why race, ethnicity, language, and SDOH data are being collected (script, brochure, video, etc.)

Implement a hospital written action plan to address at least one identified healthcare disparity

Create a strategy for sharing expected respectful care practices with delivery staff and patients including appropriately engaging support partners and/or doulas

Implement the Respectful Maternity Care (RMC) survey to obtain feedback from postpartum patients on respectful care practices and a process to review and share results

Implement a protocol, process, or guideline for screening patients for SDOH during delivery admission

Implement a protocol, process, or guideline for referring patients to available community resources and services

Implement a strategy to educate QI Team and Leadership about family and community advisor involvement

Engage a family advisor to provide ongoing input

Engage a community advisor to provide ongoing input

Hospital Capacity Measure Improvement



AdventHealth Altamonte

AdventHealth Celebration

AdventHealth Daytona Beach

AdventHealth Fish Memorial

AdventHealth Heart of Florida

AdventHealth Ocala

AdventHealth Orlando

AdventHealth Winter Park

Ascension Sacred Heart Hospital (Pensacola)

Ascension Sacred Heart on the Emerald Coast

Baptist Hospital Of Miami Inc

Boca Raton Regional Hospital

Cape Coral Hospital Lee Memorial

Halifax Health Medical Center

HCA Florida Capital Regional Medical Center

HCA Florida Citrus Memorial Hospital

HCA Florida Fort Walton-Destin Hospital

HCA Florida Gulf Coast Hospital

HCA Florida North Florida Hospital

HCA Florida Oak Hill Hospital

HCA Florida Osceola Regional Medical Ctr

HCA Florida Oviedo Medical Center

HCA Florida West Hospital

HCA Kendall Regional Medical Center

HCA Northwest Medical Ctr

HCA Palms West Hospital

HCA St Lucie Medical Center

HealthPark Medical Center Lee Memorial

Hospital

Homestead Hospital

Jupiter Medical Center

Lakeland Regional Medical Center

Lower Keys Medical Center

Mease Countryside Hospital

Memorial Regional Hospital

Morton Plant Hospital

Mount Sinai Medical Center

NCH North Hospital

Sarasota Memorial Hospital

Sarasota Memorial Hospital – Venice Campus

South Florida Baptist Hospital

South Lake Hospital

South Miami Hospital, Inc

St Joseph's Hospital - North

St Joseph's Hospital - South

St Joseph's Women's Hospital

St Mary's Medical Center

Steward Rockledge Hospital

Tampa General Hospital

UF Health Jacksonville (Shands Jacksonville)

Wellington Regional Medical Center

West Boca Medical Center

Winter Haven Women's Hospital (Regency

Medical Center)



Referral to services for patients screening positive for SDOH needs

 Improvement is determined by 20% improvement from baseline or surpassing the goal.
 Improvement must be continued and sustained until the end of the initiative

Referrals for SDOH Positive Patients



AdventHealth Altamonte

AdventHealth Daytona Beach

AdventHealth Fish Memorial

AdventHealth Heart of Florida

AdventHealth Orlando

AdventHealth Winter Park

Ascension Sacred Heart Hospital (Pensacola)

Baptist Hospital Of Miami Inc

Bayfront Baby Place (St. Pete)

Boca Raton Regional Hospital

Broward Health Medical Center

Good Samaritan Medical Center

Halifax Health Medical Center

HCA Florida Capital Regional Medical Center

HCA Florida Fort Walton-Destin Hospital

HCA Florida West Hospital

HCA Kendall Regional Medical Center

HCA Memorial Hospital Jacksonville

HCA Northwest Medical Ctr

HCA St Lucie Medical Center

Jupiter Medical Center

Lakeland Regional Medical Center

Mease Countryside Hospital

Memorial Regional Hospital

Morton Plant Hospital

Mount Sinai Medical Center

Sarasota Memorial Hospital

Sarasota Memorial Hospital – Venice Campus

South Florida Baptist Hospital

St Joseph's Hospital - South

St Joseph's Women's Hospital

St Mary's Medical Center

Steward Rockledge Hospital

Tampa General Hospital

UCF Lake Nona Medical Center

UF Health Jacksonville (Shands Jacksonville)

Wellington Regional Medical Center

West Boca Medical Center

Winter Haven Women's Hospital (Regency Medical Center)



Provider and Nurse RMC Training



 Improvement is determined by surpassing the goal (≥80%). Improvement must be continued and sustained until the end of the initiative

Provider and Nurse RMC Training



AdventHealth Altamonte

AdventHealth Daytona Beach

AdventHealth Fish Memorial

AdventHealth Heart of Florida

AdventHealth Orlando

AdventHealth Winter Park

Ascension Sacred Heart Hospital (Pensacola)

Ascension Sacred Heart on the Emerald Coast

Baptist Hospital Of Miami Inc

Bayfront Baby Place (St. Pete)

Boca Raton Regional Hospital

Broward Health Medical Center

Good Samaritan Medical Center

Halifax Health Medical Center

HCA Florida Capital Regional Medical Center

HCA Florida Fort Walton-Destin Hospital

HCA Florida West Hospital

HCA Kendall Regional Medical Center

HCA Memorial Hospital Jacksonville

HCA Northwest Medical Ctr

HCA St Lucie Medical Center

Homestead Hospital

Jupiter Medical Center

Lakeland Regional Medical Center

Mease Countryside Hospital

Memorial Regional Hospital

Morton Plant Hospital

Mount Sinai Medical Center

Sarasota Memorial Hospital

Sarasota Memorial Hospital – Venice Campus South Florida Baptist Hospital

St Joseph's Hospital - South

St Joseph's Women's Hospital

St Mary's Medical Center

Steward Rockledge Hospital

Tampa General Hospital

UCF Lake Nona Medical Center

UF Health Jacksonville (Shands Jacksonville)

Wellington Regional Medical Center

West Boca Medical Center

Winter Haven Women's Hospital (Regency Medical Center)



MOTHER-FOCUSED CARE

HOSPITAL ALL-STAR



FLORIDA PERINATAL QUALITY COLLABORATIVE PROUDLY AWARDS:

Sample Hospital

For achieving excellence across five quality measures in supporting health-related social needs and ensuring respectful care

Lori Reeves

FPQC Executive Director

Margie Boyer

Molloger MS, RNC

FPQC Nurse Lead

Karen Harris

FPQC Physician Lead

Jessica Brumley

FPQC CNM Lead



Thank you, Coach-Mentors !!!



FLORIDA PERINATAL QUALITY COLLABORATIVE PROUDLY AWARDS:

Star Coach-Mentor

For demonstrating excellence as a Coach-Mentor in the Mother-Focused Care (MFC) Initiative

Lori Reeves

FPQC Executive Director

Margie Boyer

FPQC Nurse Lead

Maya Balakrishnan

FPQC Associate Director for Clinical & Quality Management



Thank You to our Nurse & Physician Coach-Mentors:

Pat Durant & Alyssa Brown

Sharmane Andrews & Cole Greves

Stephanie Little & Jessica Brumley

Nancy Travis & Vanessa Hux

Minyon Outlaw & Karen Harris

Rosalina Mallar & Christina Bennett-Wiley

Kylie Rowlands Perez & Andrea Friall





Mother-Focused Care

YOU ARE THE BEST!



Facebook.com/TheFPQC/



@TheFPQC



Join our mailing list at FPQC.org



E-mail: FPQC@usf.edu

