Decrease in Florida’s pregnancy-related mortality from 2009 to 2018: reducing the Black-White disparity

OBJECTIVE: The US pregnancy-related mortality ratio (PRMR), defined as the number of deaths per 100,000 live births, has increased with evidence of wide racial disparities.1 Florida’s Pregnancy-Associated Mortality Review Committee is a multidisciplinary team that examines pregnancy-related deaths (PRDs) to recommend and promote actions to address patient and community factors, provider and facility practices, and health system issues to prevent these deaths. A PRD is a death during pregnancy or within 1 year of delivery from a pregnancy-related complication, a chain of events initiated by pregnancy or within 1 year of delivery from a pregnancy-related complication, or the aggravation of an unrelated condition.

STUDY DESIGN: The review committee identifies all pregnancy-associated deaths, deaths from any cause during pregnancy or within 1 year of pregnancy, by linking death certificates of reproductive-aged women to birth and fetal death certificates and Florida-based prenatal screens. From this linkage, possible PRDs are abstracted, reviewed, and assessed. In this study, all the PRDs between 2009 and 2018 were included and analyzed for PRMR trends and for overall causes of death and by race and ethnicity. The data were divided into the following 2 5-year time intervals: PRD occurring between 2009 and 2013 and those occurring between 2014 and 2018. SPSS Statistics version 23 (IBM, Chicago, IL) and OpenEpi were used for analysis.

RESULTS: A total of 2,191,578 live births and 408 PRDs occurred during the study period. Overall, the PRMR in Florida decreased by 29% from the first time period (2009–2013) to the second time period (2014–2018) of this study (P<.001). For non-Hispanic Black women, the PRMR decreased by 37%, from 46.6 to 29.4 deaths per 100,000 live births over the same time period (P=.002). Similarly, the PRMR decreased by 42%, from 12.8 to 7.4 deaths per 100,000 live births in Hispanic women (P=.04). Although not significant, the PRMR among non-Hispanic White women decreased by 8%, from 15.8 to 14.5 deaths per 100,000 live births (See Table). The most common underlying causes of PRDs during the study period included hemorrhage (21.1%), infection (15.4%), hypertensive disorders (11.8%), and other causes; the last 3 showed significant decreases in the ratios over the 2 time periods (each P<.01). Although not significant, the hemorrhage ratio decreased after a previous decade of increase. Among Black women, the highest decreases in cause of death were related to hemorrhage, infection, and hypertensive disorders. Among Hispanics, the highest decreases were related to infection, hypertensive disorders, and cardiovascular disorders.

CONCLUSION: In contrast to the overall PRMR in the United States, Florida’s PRMR has decreased over the past decade with significant improvements among non-Hispanic Black and Hispanic women. In 2017, Florida’s PRMR of 15.7 deaths per 100,000 live births was lower than the US ratio of 17.3 per 100,000 live births.2 We postulate several reasons for this improvement. First, Florida has a robust mortality review committee that comprehensively reviews all PRDs based on good evidence to show that these committees strengthen public health surveillance.3 Florida’s review committee identified hemorrhage and hypertensive disorders as preventative priorities and developed Urgent Maternal Mortality Messages based on the findings and trends and distributed these to obstetrical providers and hospitals throughout the state. In addition, Florida Perinatal Quality Collaborative and other state partners have launched obstetrical hemorrhage and hypertension quality improvement initiatives. Finally, national initiatives are addressing prevention and system improvements to eliminate preventable maternal
Ensuring a multidisciplinary mortality review team and using statewide resources in a multipronged approach has shown to be effective in decreasing Florida’s PRMR.

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REFERENCES
Serial surveillance for SARS-CoV-2 in hospitalized antepartum women

OBJECTIVE: During New York City’s (NYC) first wave of COVID-19 in the spring of 2020, NewYork-Presbyterian Hospital/Columbia University Irving Medical Center instituted universal SARS-CoV-2 testing for all admitted pregnant women. No visitors were permitted on the antepartum unit during the peak of the pandemic. As local infection rates decreased, 1 support person was allowed for each patient. During NYC’s second COVID-19 wave, which began in October 2020, the 1-support-person policy was maintained. Owing to concerns that hospitalized pregnant women could be within the SARS-CoV-2 14-day incubation period on admission or could become infected by asymptomatic support persons, polymerase chain reaction (PCR) testing for SARS-CoV-2 via nasopharyngeal swabs was obtained every 5 days for all women at >23 weeks’ gestation who had prolonged hospitalizations for obstetrical indications. In this letter, we report the outcomes of repeat testing.

STUDY DESIGN: From November 23, 2020, to March 3, 2021, results of all SARS-CoV-2 PCR swabs sent from the antepartum unit were collected. Serial testing was only performed for patients whose admission test was negative and who could require urgent delivery, because an unrecognized SARS-CoV-2 infection could have considerable anesthetic and neonatal implications. Results were evaluated in the context of the local 7-day positivity rate for our hospital’s ZIP code (10032). Our visitor policy is presented in the Table.

RESULTS: A total of 169 swabs were performed on 72 patients. None of these patients became SARS-CoV-2 positive during their hospitalization. Patients were retested an average of 2.34 times (range, 1–13). The 7-day positivity rate for our hospital’s zip code was 5.3% on November 28, 2020 and peaked at 10.2% on January 8, 2020. These rates were higher than the overall positivity rate for Manhattan and all of NYC during the same time.

CONCLUSION: Despite allowing visitors to the antepartum unit during a time of high local positivity rate for SARS-CoV-2, hospitalized pregnant women did not become infected. This may reflect the effectiveness of visitor screening for COVID-19 symptoms upon presenting to the hospital, the self-monitoring of symptoms by our patients’ family members, the enforcement of universal masking of patients and visitors, social distancing, and hand hygiene. This testing practice, intended to promote safety, proved to be costly in terms of testing resources and staff workload without adding clear benefit. In addition, several women refused repeat testing owing to discomfort. Similar findings

| TABLE |
| Visitation guidelines for obstetrical units at NewYork-Presbyterian Hospital/Columbia University Irving Medical Center |
| - Support persons must be 18 y or older. |
| - One designated support person is selected by patient and, when possible, remains the same person throughout the admission. |
| - Upon arrival, support persons undergo temperature and symptom screening, screening for COVID-19 illness within the past 10 d, COVID-19 exposure within the past 14 d, and relevant travel history as per New York State Department of Health restrictions. |
| - Sick visitors are not permitted to enter the hospital. |
| - Upon arrival, support persons perform hand hygiene and must wear a surgical mask throughout their visit. If cloth masks are used, they must be worn over a surgical mask. |
| - Support persons must remain at the patient’s bedside throughout their visit. |
| - Visitation h for obstetrical patients are 24 h a day. |