

**Background:** Cannabis is the most widely used illicit substance during pregnancy.<sup>1</sup> Yet, the safety of cannabis use during pregnancy remains poorly understood since most of the existing research is based on self-reported data or small studies. Despite the lack of sufficient data, however, cannabis use *in utero* has been linked to neurodevelopmental impairment, cognitive disorders, low birth weight, prematurity.<sup>2</sup>

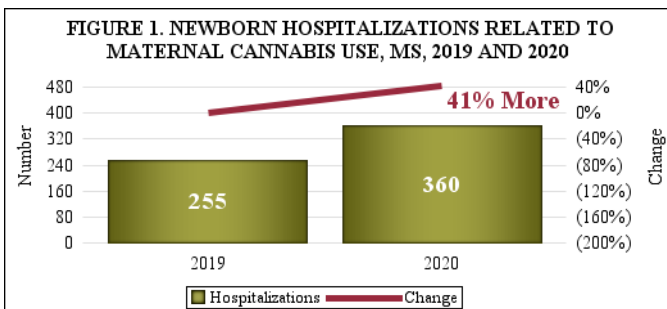
**Data and Objectives:** Growing access to marijuana for medical and recreational consumption calls for additional research on the impact of maternal cannabis use on newborns' well-being. Hospital discharge data (HDD) is a population-level source that contains information on the demographics, diagnostic codes, procedures, and outcomes of care and can be used to study these variables. The goal of this study was to evaluate the demographic and clinical characteristics of Mississippi newborns affected by prenatal cannabis use.

Data for this report were obtained from the statewide hospital discharge data system, a collaborative effort between the Mississippi State Department of Health and the Mississippi Hospital Association. All non-federal hospitals in the state report their discharge data to this system.

**Methods:** To select infant hospitalizations affected by prenatal cannabis use, the ICD-10-CM diagnostic code, P04.81 (newborn affected by maternal use of cannabis) was used. Descriptive and inferential statistical analyses were performed with SAS 9.4 statistical software. Demographic and clinical risk factors were compared with chi-square tests. Odds ratios were calculated with logistic regression.

**Conclusion:** In addition to socioeconomic and racial disparities, we identified high rates of premature births, low birth weight and respiratory distress among newborns impacted by prenatal cannabis exposure. To protect the health of newborns, the state should engage in urgent educational initiatives and outreach programs on the harms associated with prenatal cannabis exposure.

**Findings:** During 2019 and 2020, there were 615 infant hospitalizations for complications related to maternal cannabis use. This number represented 0.9% of all newborn stays during the 24-month period. Between 2019 and 2020, such stays increased by 41.2%, from 255 to 360.



Among such hospitalizations, 53.8% (331) were males, 53.7% (330) were African Americans, 42.0% (258) were Caucasians, and 4.4% (27) were from other racial groups. Eighty-nine percent (550) of such stays were among Medicaid patients and 5.5% (34) were uninsured. In terms of comorbidities, 22.9% (141) of the hospitalized infants affected by prenatal cannabis use were born prematurely, 25.5% (157) had low birth weight, and 19.5% (120) experienced respiratory distress syndrome or other respiratory complications. Compared to all other newborn hospital stays, newborns affected by prenatal cannabis use were more likely to be covered by Medicaid (89.4% vs. 65.7%,  $p < .001$ ) and were more likely to be African Americans (53.7% vs. 43.6%). Such newborns were also 2.0 times more likely to be born prematurely (95% confidence interval (CI): 1.6-2.4) and 2.8 times more likely to have low birth weight (95% CI: 2.2-3.3).

**Authors:** Manuela Staneva, MPH; Jonathan Hubanks PharmD; Thomas Dobbs, MD, MPH; and Meg Pearson, PharmD, MS

**References**

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