

# Comparing Clinical Research Participation Trends Among Pregnant Cannabis-Exposed and Unexposed Participants

Nayana A. Sojin, BS<sup>1</sup>; Rhea Parimoo, BA<sup>1</sup>; Lauren Agliano, BA<sup>1</sup>; Amie Goodin, PhD<sup>2</sup>; Deepthi S. Varma, PhD<sup>3</sup>; Bruce A. Goldberger, PhD<sup>4</sup>; Kay Roussos-Ross, MD<sup>1</sup>  
<sup>1</sup> Obstetrics and Gynecology, <sup>2</sup> Pharmaceutical Outcomes and Policy, <sup>3</sup> Epidemiology, <sup>4</sup> Forensic Toxicology

## Introduction

- The American College of Obstetrics and Gynecology (ACOG) and American Academy of Pediatrics (AAP) advise against use of cannabis and cannabidiol (CBD) products during pregnancy.
  - However, recent studies suggest that cannabis use is increasing for the relief of pregnancy-related symptoms, such as nausea and anxiety.
- While there is currently limited data on the effects of perinatal cannabis use, in-utero exposure has been linked to adverse neonatal neurodevelopmental outcomes. As perinatal cannabis use rates reportedly increase, it is necessary to obtain conclusive, pregnancy-specific safety data through well-designed studies.

**Study Objective:**  
 To identify clinical research participation trends in a pilot study among cannabis-exposed and unexposed participants in the perinatal period.

## Methods

### Study Design and Participants

- Participants were recruited from OBGYN settings affiliated with an academic health system in Florida between July 2023 to January 2025.
- Pregnant, English-speaking patients aged 18-50 and self-reporting cannabis use during prenatal visits were recruited, along with pregnant control patients with no self-reported use. Participants were consented using an IRB-approved protocol (IRB#202300712). Participants were enrolled in any trimester and received compensation for each biospecimen/imaging completion.

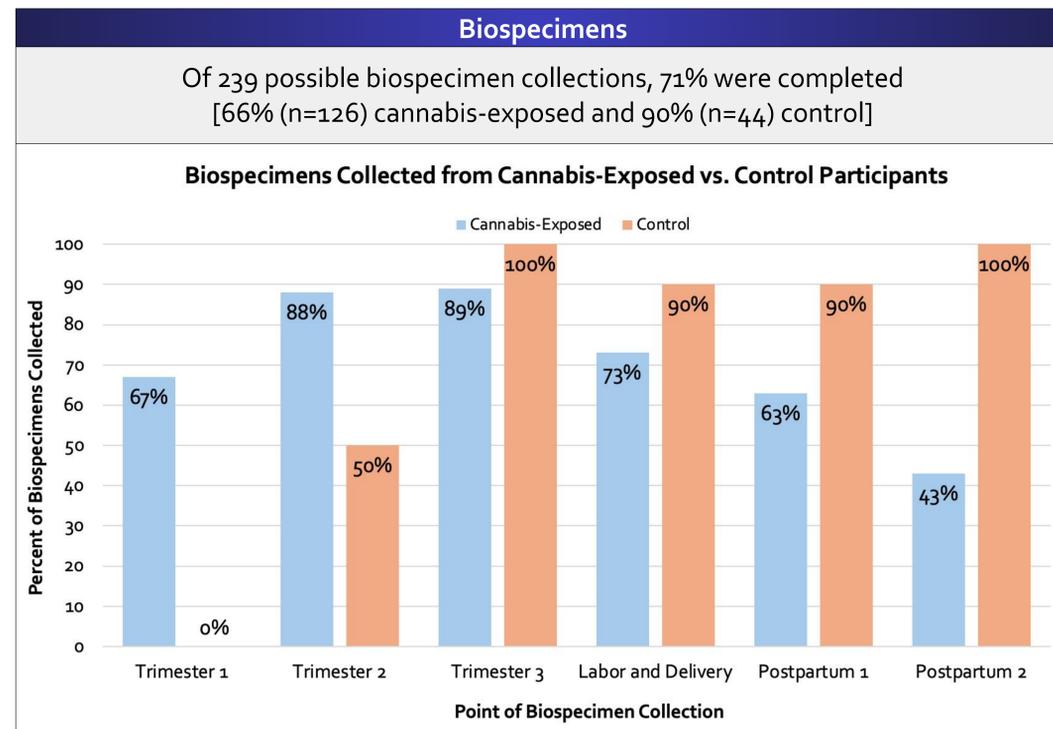
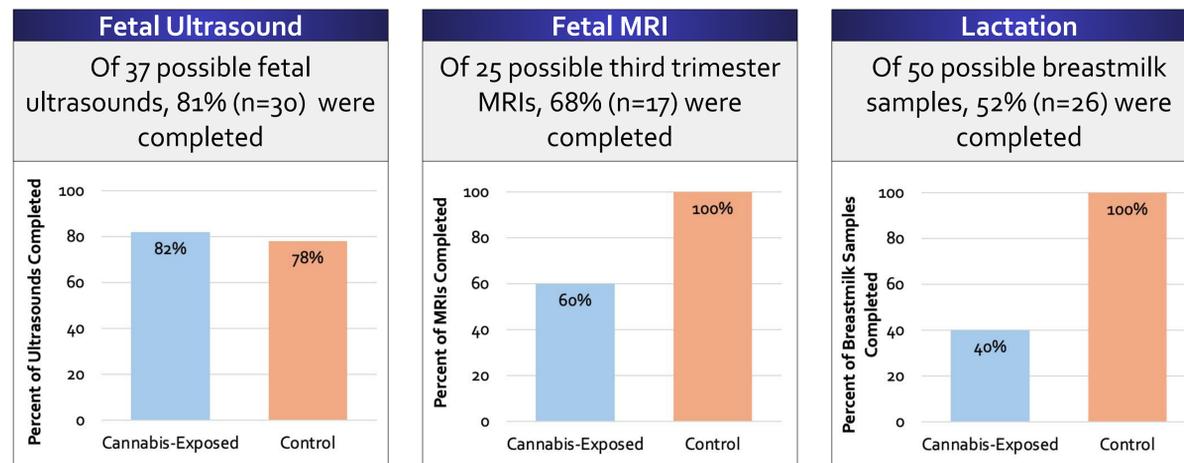
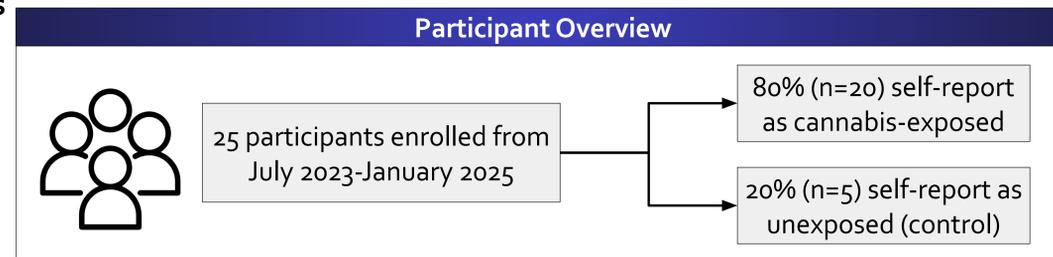
### Data Collection

- Biological samples were collected: maternal urine in each trimester; maternal urine, placenta, umbilical cord, and neonatal meconium at delivery; and maternal urine and breastmilk in the postpartum period.
- Imaging collection included a fetal ultrasound in each trimester and a third trimester fetal magnetic resonance imaging (MRI) scan to obtain views of the fetal brain and cerebral blood flow.

### Data Analysis

- Participation trends were identified by calculating proportions of missed/completed biospecimens/imaging, study visit reschedules/cancellations, and losses-to-follow-up (LTFUs).

## Results



## Results, continued

- 40% (n=8) of cannabis-exposed participants were LTFU, with the majority (88%, n=7) occurring postpartum and 13% (n=1) after the third trimester. Notably, no LTFUs were observed in the control group.
- 24% of participants (30%, n=6 cannabis-exposed; 0%, n=0 control) **did not complete one or more postpartum breastmilk samples** due to not breastfeeding or no longer lactating.
- 45% of cannabis-exposed participants either **canceled or required rescheduling of at least one appointment**, compared to 0% (n=0) of controls. Similarly, 40% (n=8) **canceled, did not attend, or did not schedule their postpartum appointment**, compared to 0% (n=0) of controls.

## Discussion

Findings suggest that participants with self-reported cannabis use were more likely to miss postpartum visits, become lost-to-follow-up, and require rescheduling of study visits compared to controls; **however, cannabis-exposed participants still completed 68% of study visits.**

### Retention Facilitators and Barriers

- Retention facilitators: financial compensation, trust/rapport-building with study staff, and scheduling study visits onto existing obstetrics appointments.
- Retention barriers, as described by participants: transportation, finances, and time constraints/childcare.
  - To improve retention/compliance rates among cannabis-exposed participants, future research could consider implementing stricter follow up, staggered increase in incentive, and home visits for sample collections.

### Limitations

- Small sample size relative to large healthcare setting.
- L&D hospital staff unfamiliar with study protocols, resulting in missed delivery samples.

For more information, please contact:  
[nayana.sojin@peds.ufl.edu](mailto:nayana.sojin@peds.ufl.edu)    [rparimoo@ufl.edu](mailto:rparimoo@ufl.edu)

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