Closing One Gap, Revealing Another

Racial and Ethnic Differences in Neuraxial Labor Analgesia Utilization in Mississippi

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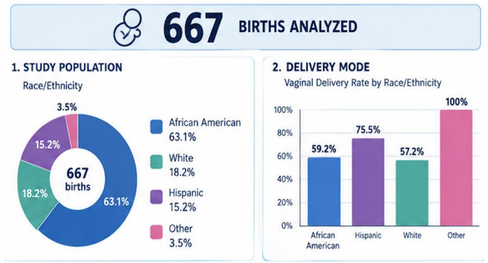
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Introduction

- **Neuraxial labor analgesia (NLA)** is widely used for pain management during labor.
- Prior national studies have identified **racial and ethnic differences in NLA utilization**.
- Reported disparities have included lower NLA utilization among Black women compared with White women.
- Differences in utilization may reflect multiple factors:
  - Patient knowledge and expectations
  - Misconceptions regarding epidural analgesia
  - Language and cultural barriers
  - Patient–provider communication and counseling
  - Access to anesthesia services
- Mississippi faces substantial maternal health challenges, making evaluation of local patterns particularly important.

Study Design

- **QI initiative** examining racial/ethnic patterns in neuraxial labor analgesia (NLA).
- **Setting:** UMMC Wiser Hospital Labor & Delivery.
- **Sampling:** One month per quarter in 2024 — **January, April, August, December**.
- **Data collected:** maternal demographics, race/ethnicity, delivery mode, and anesthetic data.
- Data manually entered into **REDCap** and exported to Excel.
- **Primary outcome:** NLA utilization among vaginal deliveries.
- Racial/ethnic groups: **African American, White, Hispanic, Other**.
- **667 births** analyzed: African American: **63.1%**
  White: **18.2%**
  Hispanic: **15.2%**
  Other: **3.5%**
- Overall NLA utilization among vaginal deliveries: **83%**.
  - African American: **76.5%**
  - White: **75.0%**
  - Hispanic: **53.0%**
  - Other: **97.0%**
- Hispanic patients had the **highest vaginal delivery rate (75.5%)** but the **lowest NLA utilization (53%)**.
  - Vaginal delivery rates: African American **59.2%**, White **57.2%**, Hispanic **75.5%**.
  - Primary Cesarean rates: African American **25.5%**, White **29.8%**, Hispanic **12.7%**.

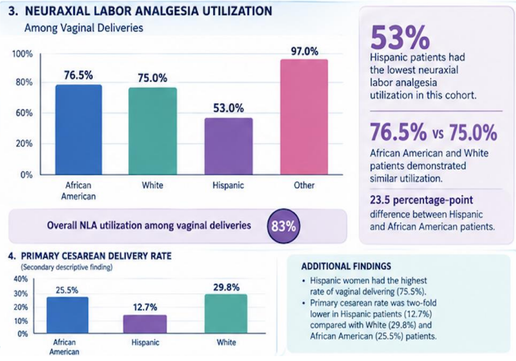


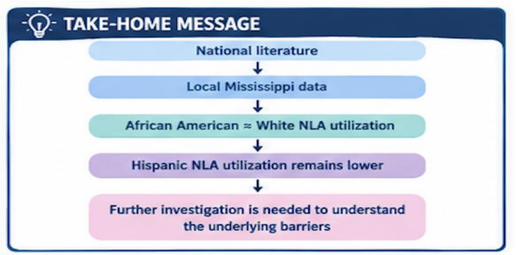
UMMC School of Medicine











Discussion

- NLA utilization was **similar among African American and White patients** in this cohort. This differs from previously reported national findings of lower NLA utilization among Black women.
- Cesarean rates were nearly twice as high among African American and White women compared to Hispanic women.
- **Hispanic patients demonstrated the lowest observed NLA utilization** despite having the highest vaginal delivery rate.
- The observed difference may reflect:
  - Patient knowledge, preferences, or misconceptions
  - Language or cultural barriers
  - Differences in counseling and communication
  - Provider practices
  - Access to anesthesia services
  - Other patient- or system-level factors
- Findings highlight the importance of examining **local patterns rather than assuming national trends apply uniformly**.
- Further investigation is needed to identify modifiable barriers to equitable NLA utilization.

Conclusion and Summary

- Overall NLA utilization among vaginal births was **83%**.
- African American and White patients had **similar NLA utilization**.
- Hispanic patients had **substantially lower observed NLA utilization (53%)**.
- This represents a **different pattern from previously reported national racial disparities**.
- Further study should evaluate **patient-, provider-, and system-level factors**.
- Findings may inform **culturally and linguistically responsive strategies** to improve equitable access to labor analgesia in Mississippi.
- Strengthening education on the benefits of neuraxial analgesia may improve maternal and neonatal outcomes.
- This is particularly relevant in Mississippi, where maternal mortality ranks second highest and infant mortality is the highest in the nation.

References

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