

RECENT US LABOR INDUCTION TRENDS AND OUTCOMES STRATIFIED BY PRE-PREGNANCY MATERNAL BODY MASS INDEX

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OBJECTIVE

- To analyze trends in labor induction and likelihood of vaginal delivery stratified by maternal BMI.

METHODS

- Cross-sectional study using 2015-2020 US natality data from the National Center for Health Statistics.
- Low-risk, nulliparous patients at term with vertex singletons were identified and stratified by pre-pregnancy BMI, including women with BMI <18.5, women with BMI ≥18.5 - <30, women with BMI ≥30 - <40, and women with BMI ≥40.
- Likelihood of vaginal delivery with IOL from 39w0d to 39w6d in each BMI category was compared to all deliveries from 40w0d to 42w6d.

RESULTS

- Of the 3,357,494 deliveries that met inclusion criteria, 660,972 (19.6%) underwent IOL from 39w0d to 39w6d.
- The proportion of deliveries with IOL between 2015 and 2020 significantly increased among all BMI categories, with women with BMI ≥40 having the largest AAPC (15.6%, 95% CI 11.5%, 19.9%).
- Overall, 74.6% of deliveries with IOL occurred vaginally (n=493,497) compared to 73.7% (n=1,987,267) of deliveries from 40w0d to 42w6d.
- Vaginal delivery was significantly more likely with IOL among women with BMI <18.5 (aOR 1.20, 95% CI 1.15, 1.24), BMI ≥18.5 - <30 (aOR 1.11, 95% CI 1.10, 1.12), and BMI ≥30 - <40 (aOR 1.09, 95% CI 1.08, 1.11), but not among women with BMI ≥40 (aOR 0.97, 95% CI 0.95, 0.99).

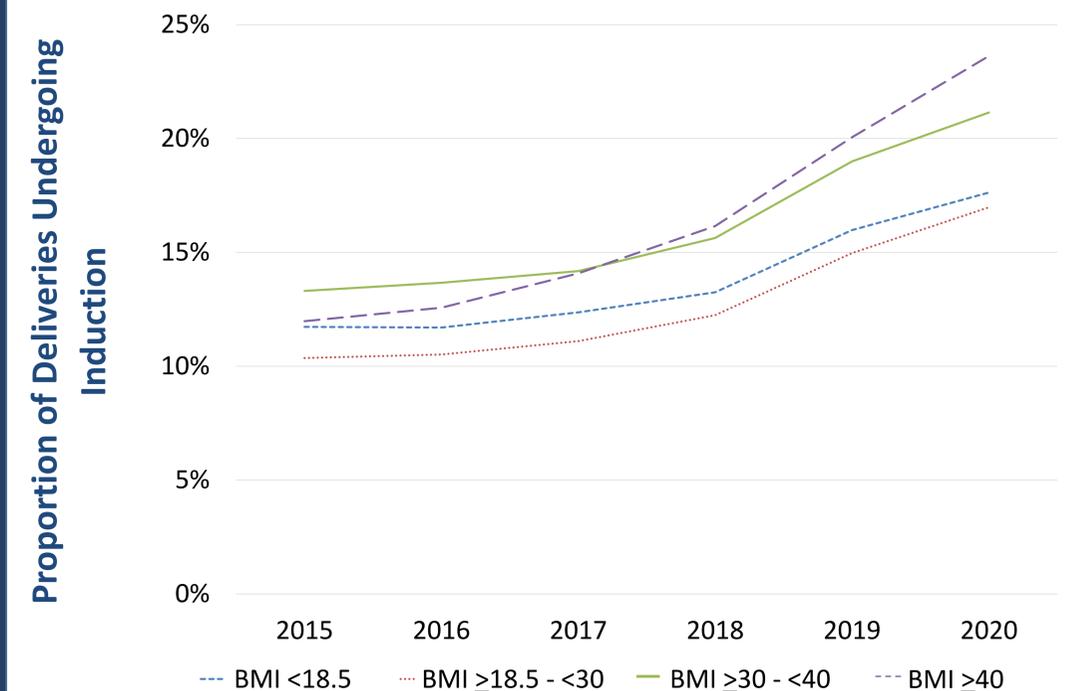
CONCLUSIONS

- When compared to delivery at 40w0d to 42w6d, IOL at 39w0d to 39w6d was associated with a higher odds of vaginal delivery except for women with BMI ≥40.

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FIGURES / TABLES

Proportion of Deliveries Undergoing Induction between 39 weeks 0 days and 39 weeks 6 days



This graph displays the proportion of nulliparous, singleton, vertex inductions of labor at 39w0d to 39w6d being performed as a proportion of all deliveries between 39w0d and 42w6d by year. AAPC: BMI <18.5: 9.2% (95% CI 4.9, 13.8); BMI ≥18.5 - <30: 11.3% (95% CI 6.6, 16.1); BMI ≥30 - <40: 10.7% (95% CI 6.4, 15.1); BMI ≥40: 15.6% (95% CI 11.5, 19.9)