



Maternal Factors and Risk of Late Preterm Delivery

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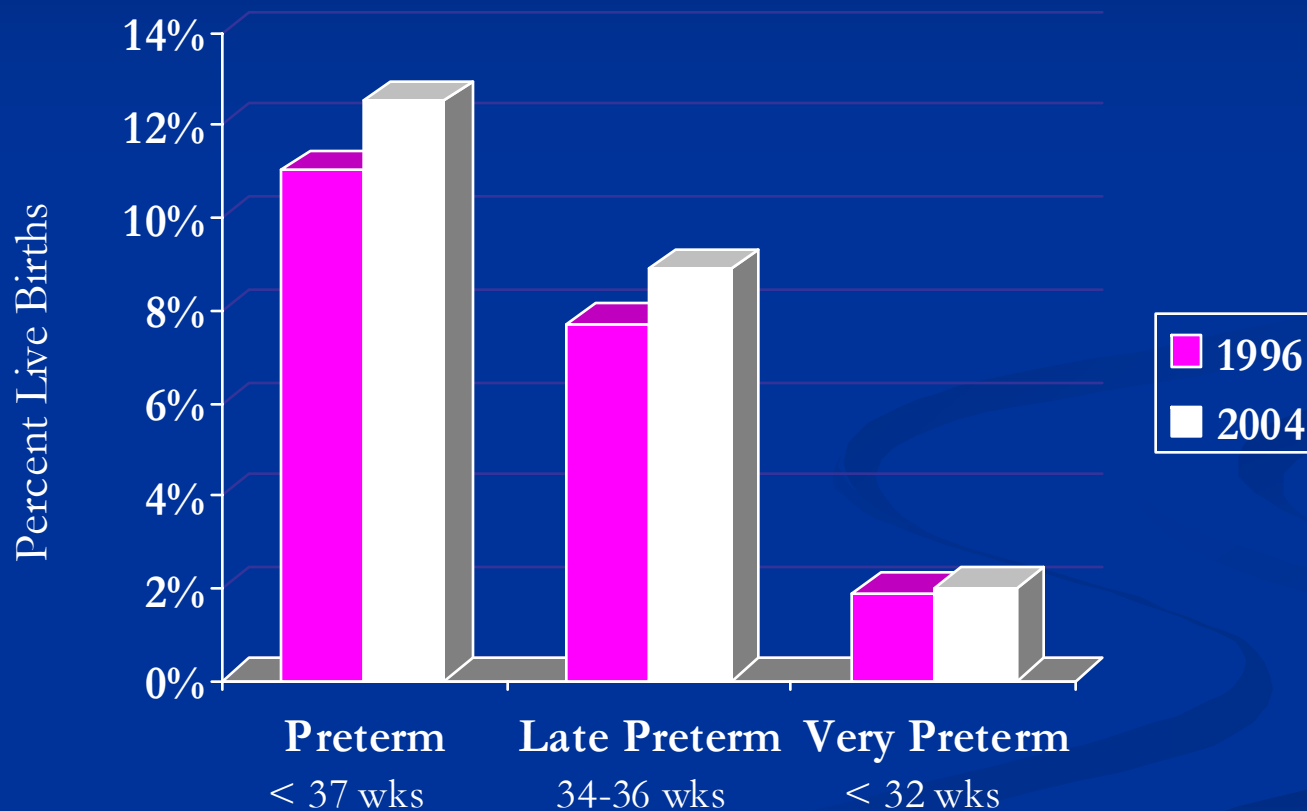
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70% of All Preterm Births Are Late Preterm (34-36 weeks gestation)



http://www.marchofdimes.com/files/MP_Late_Preterm_Birth-Every_Week_Matters_3-24-06.pdf

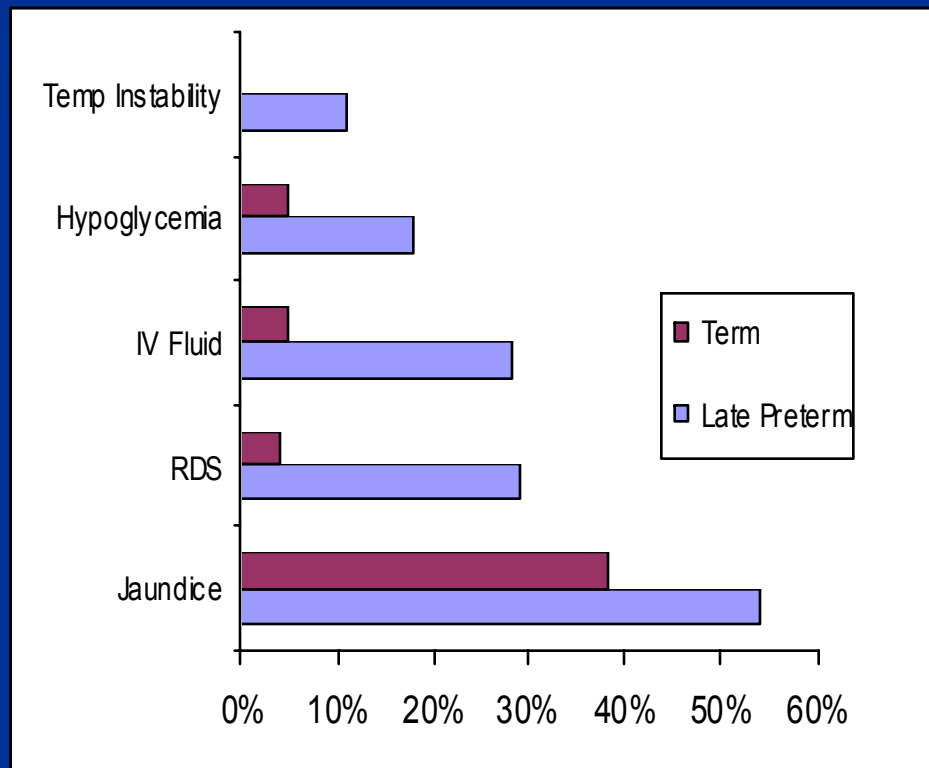
Late Preterm Births on the Rise



www.marchofdimes.com

Morbidity & Mortality

Morbidities



Total Mortality

Singleton Live Births

RR (95% CI)

United States	2.9 (2.8-3.0)
Canada	4.5 (4.0-5.0)

Wang M et al Pediatrics 114: 372-376, 2004
Neu J, Semin Perinatol. 30: 77-80, 2006
Raju, T et al. Pediatrics 118: 1207-21, 2006
Kramer, MS et al, JAMA 284: 843-849, 2000

Objective

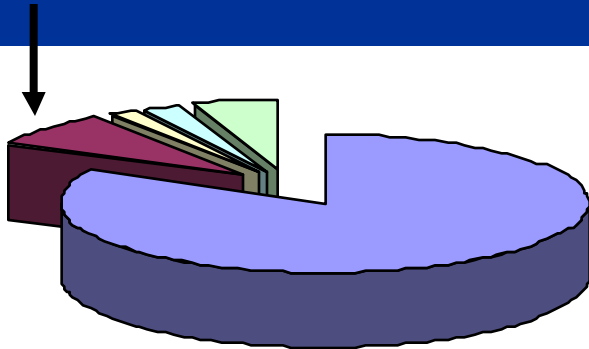
To identify maternal risk factors associated with delivery of late preterm infants (34 - 36 weeks gestation)

Methods

- Birth certificate data from NY State Department of Health Vital Statistics
- Study subjects
 - Term (37-42 weeks gestation) infants
 - Late preterm (34-36 weeks gestation) infants
 - Born in Westchester County, New York
 - 2004-2005
- Data analysis
 - Compared late preterm to term infants for delivery characteristics, receipt of prenatal care, and maternal demographics
- Statistical Analysis
 - Chi square was used to compare frequencies
 - Poisson regression was used for analysis of relative risks
 - Statistical significance set at $p < 0.05$

Results: Live Births by Weeks Gestation

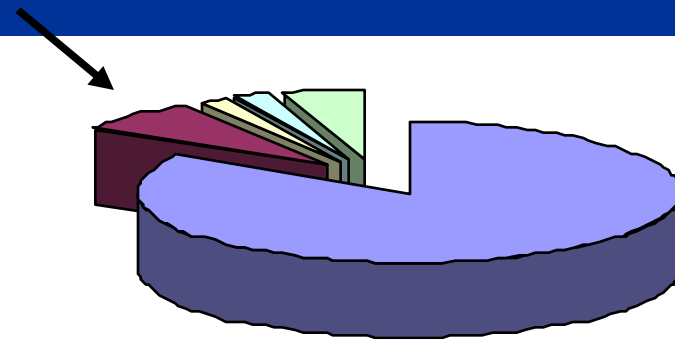
Late Preterms (8%)



2004

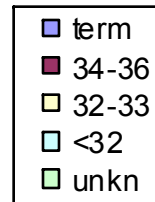
(n=12,306)

Late Preterms (8%)

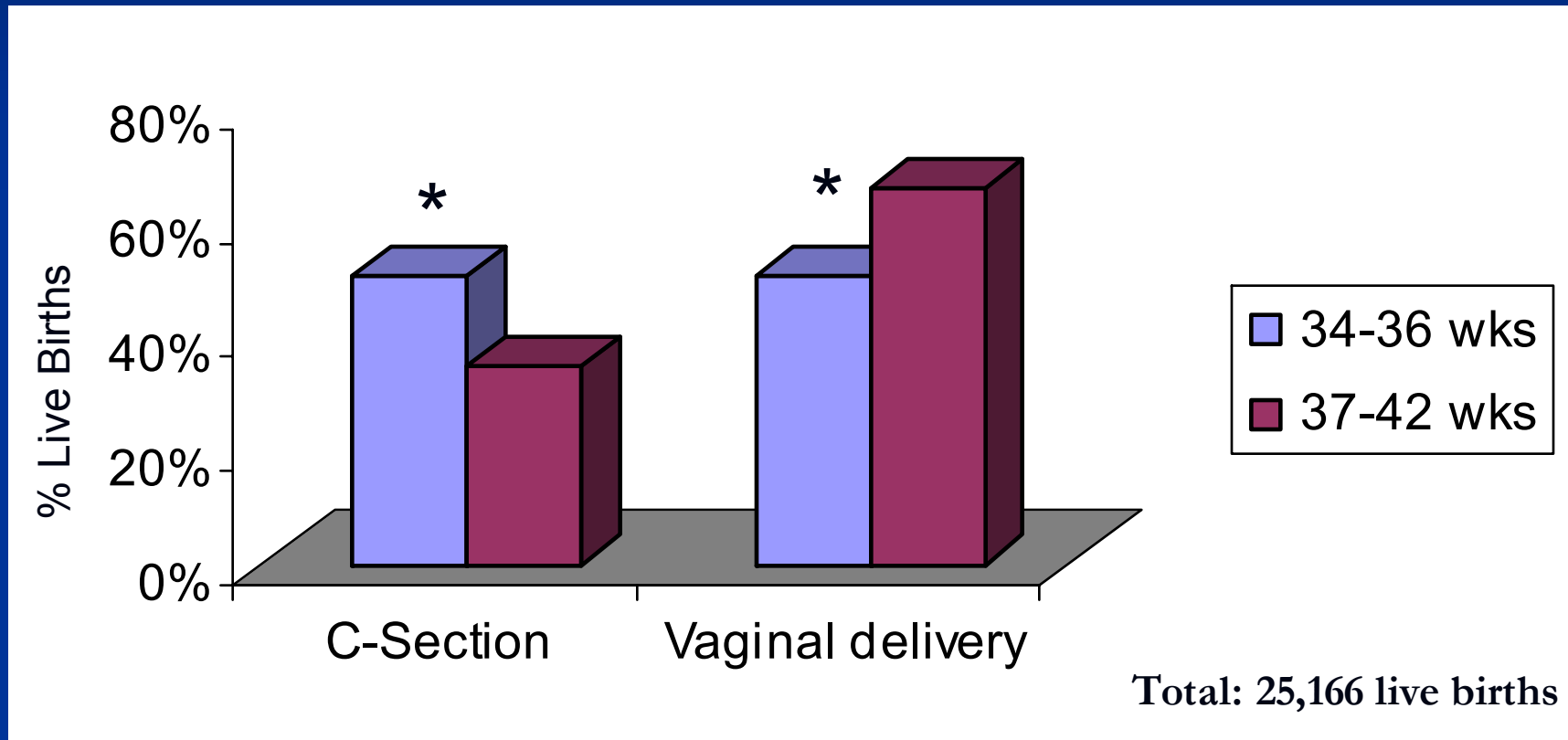


2005

(n=12,860)

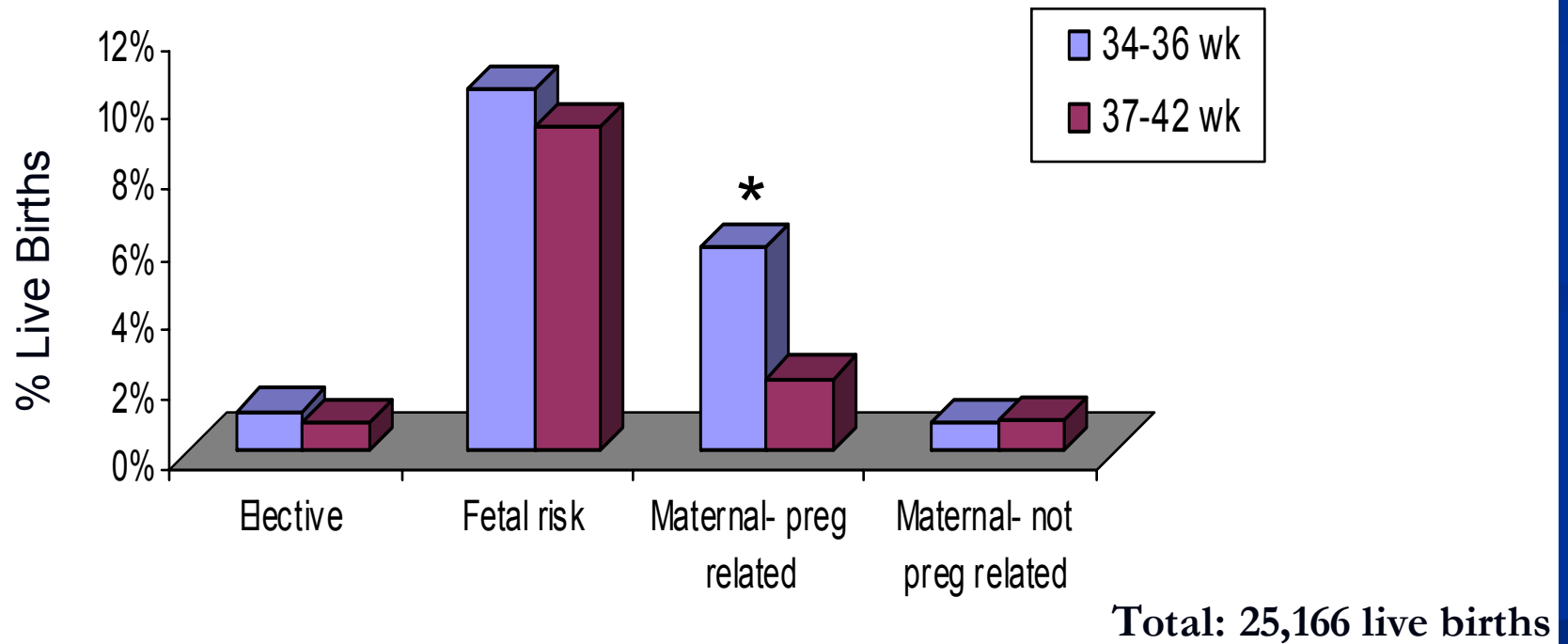


Increased C-sections in Late Preterm Infants



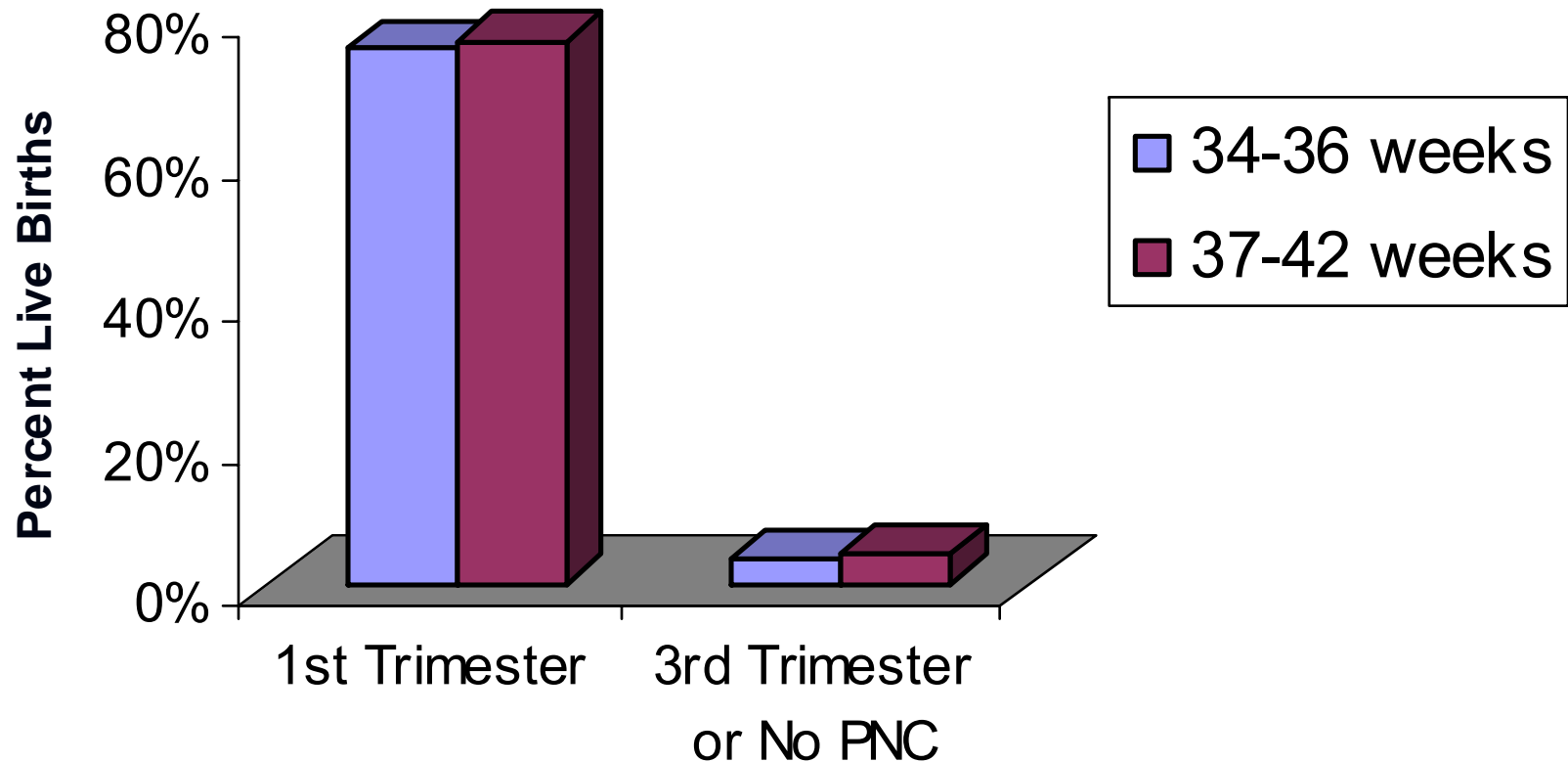
* $p < 0.05$

More C-Sections in Late Preterm Infants for Maternal Conditions Related to Pregnancy



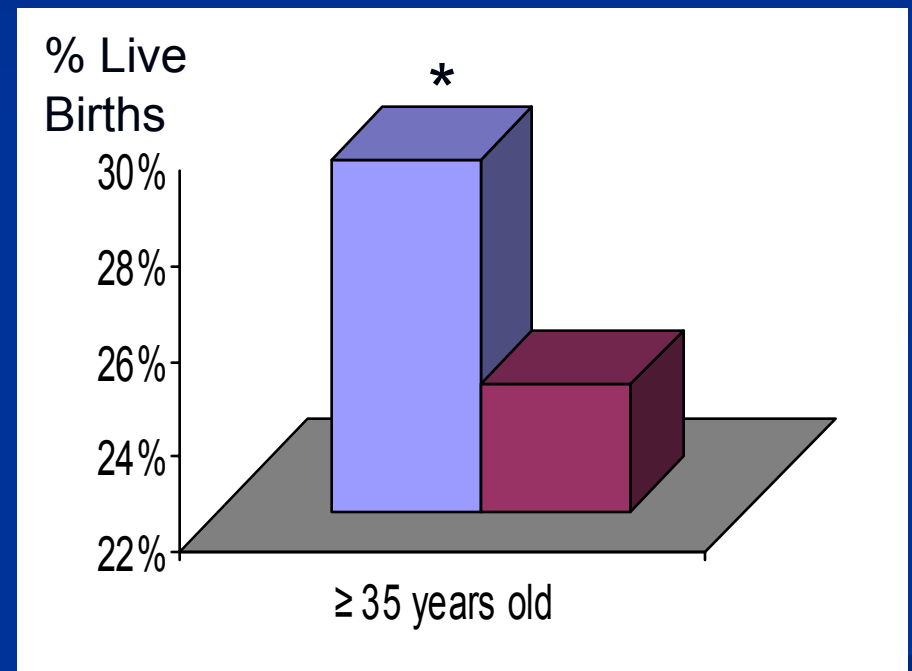
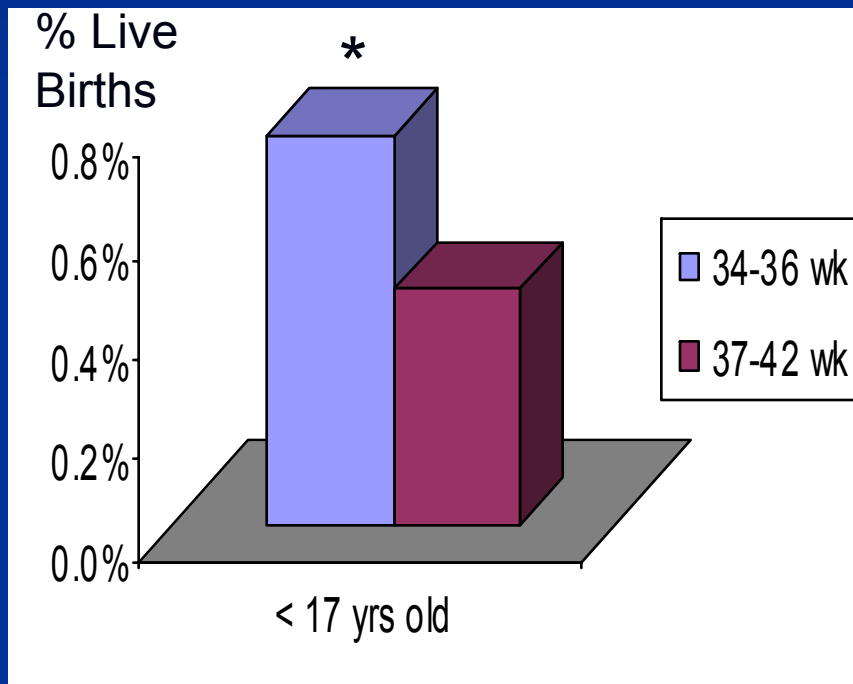
* $p < 0.05$

No Difference in Commencement of Prenatal Care



Total: 25,166 live births

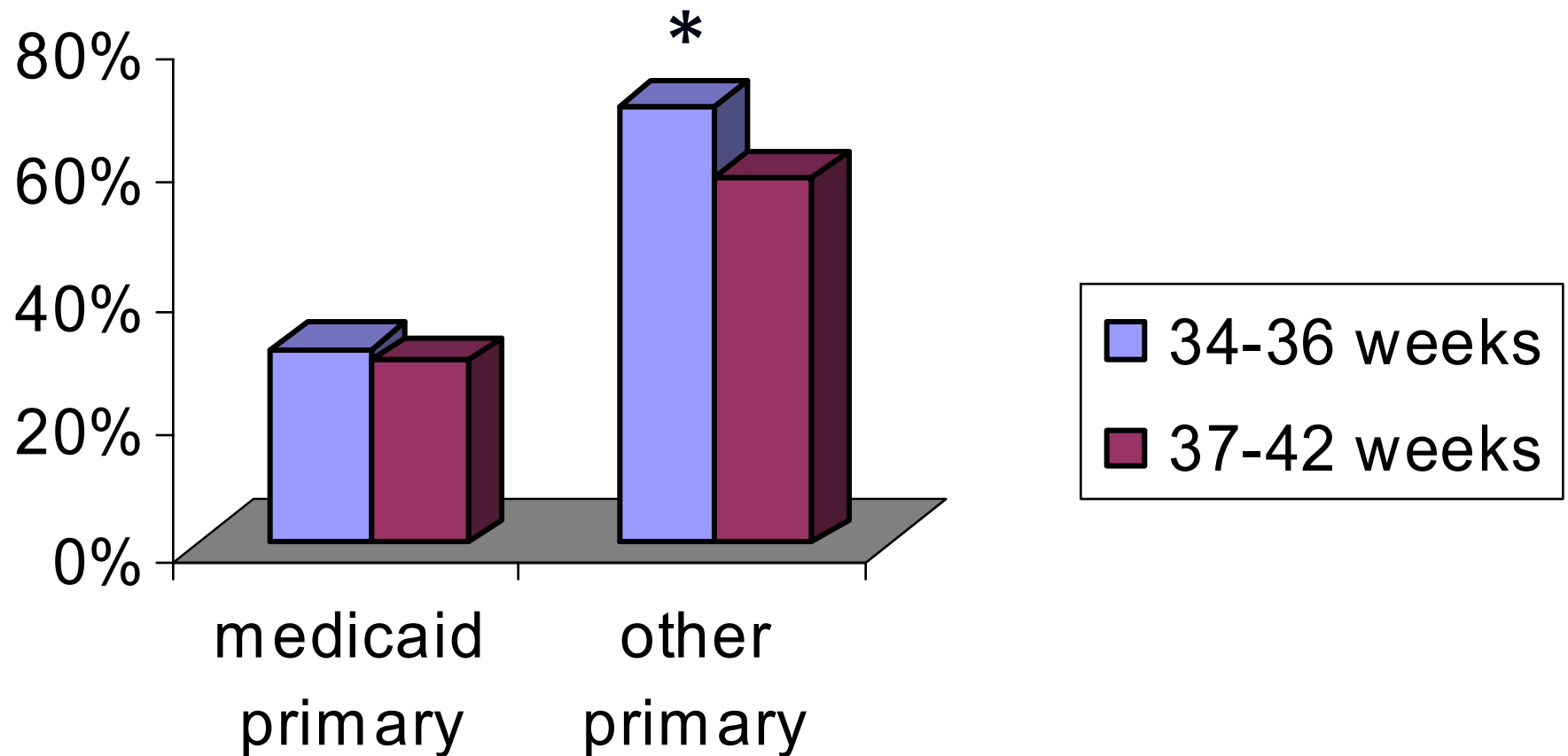
Extremes of Maternal Age Have Higher Rates of Late Preterm Infants



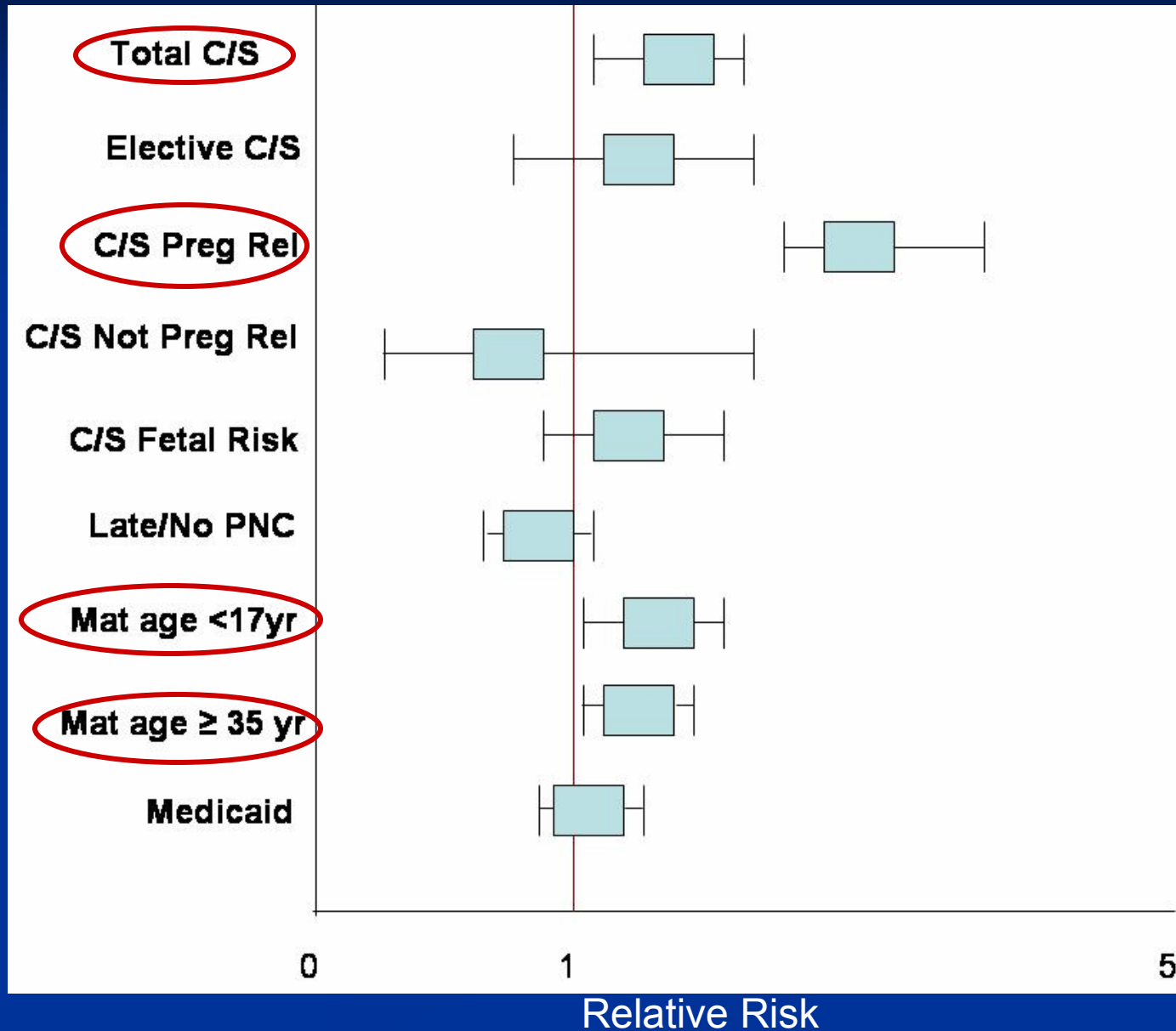
Total: 25,166 live births

* $p < 0.05$

No Difference in Medicaid Use



Summary of Relative Risks for Late Preterm Infants



Conclusions

- Late preterm delivery more likely at extremes of maternal age
- Maternal conditions related to pregnancy more likely to result in c-section delivery of late preterm infant
- C-section delivery more likely in late preterms
- Elective c-section rates are not significantly different between term and late preterms
- No difference in commencement of prenatal care between term and late preterms
- No socioeconomic difference in late preterm and term mothers as measured by primary medicaid use

Limitations

- Aggregate data did not control for potential confounders (i.e. maternal education, obesity, race)
- Birth certificate data

Acknowledgements

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Thank you!