

Analyzing cesarean delivery rates in Tertiary Care Centre using Modified Robson classification

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Introduction

- Caesarean Section(CS), is the most commonly performed obstetric surgery
- WHO(1985): Proposed 10-15% CS as the optimal CS rate
- Rising CS rates are a major public health concern globally, Potential maternal & perinatal risks associated with an increase in CS rates
- Drivers for this trend are not completely understood
- Need for an evidence-based tool to classify, monitor and compare CS rates in a healthcare setting & between settings across the globe
- Dr Michael Robson(2001)proposed the Robson classification
- WHO(2014) and FIGO recommend the use of the Robson classification for analyzing CS rates

Robson's Classification

- The Ten groups classification system (TGCS)
- Is for all women who deliver at a specific setting and not only for women who deliver by CS
- In every woman admitted for delivery, six basic obstetric variables are collected; parity; previous CS; onset of labour; the number of fetuses; gestational age; fetal lie and presentation
- Women are classified into one of the 10 Robson groups

Objective of the study

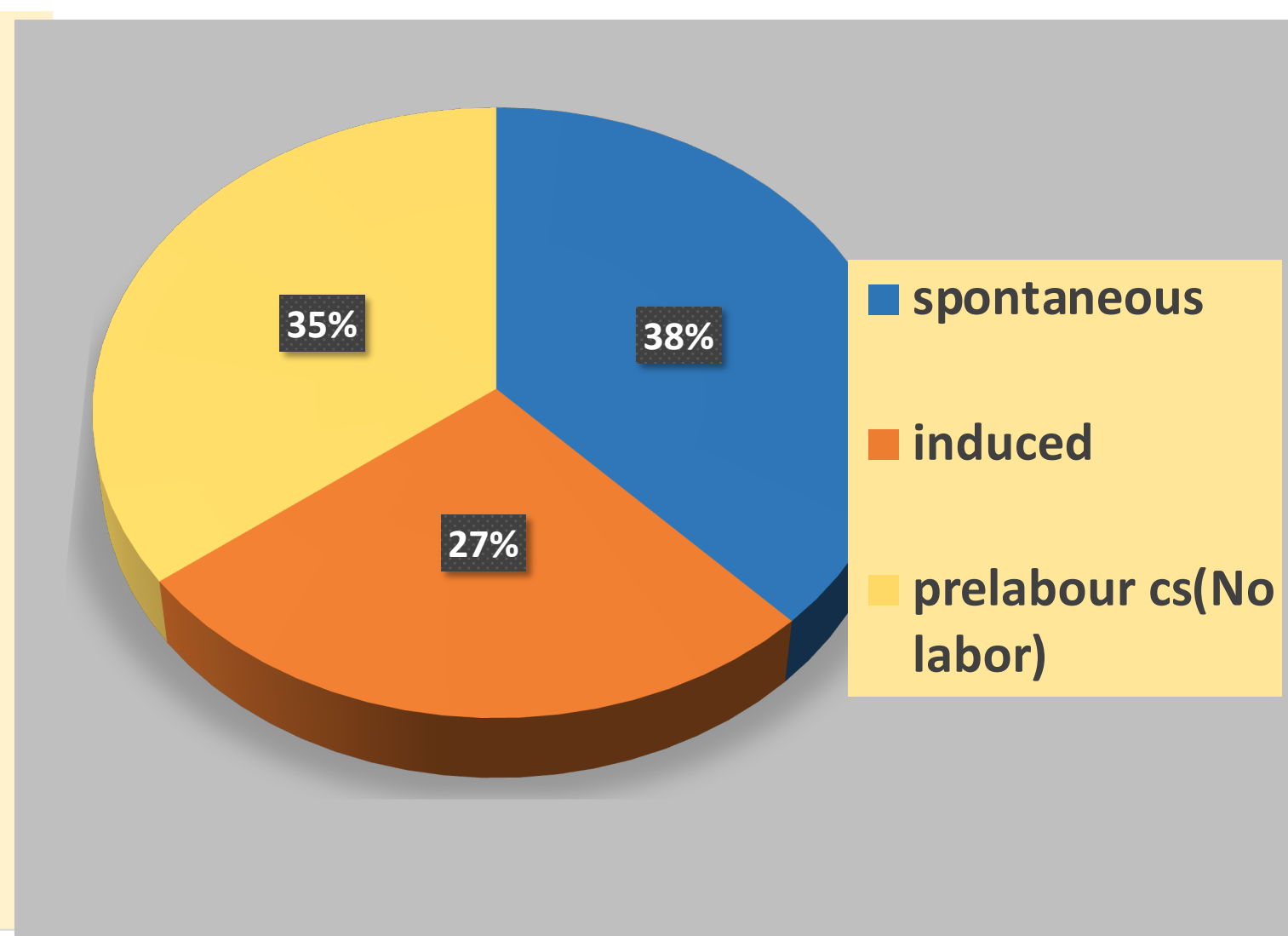
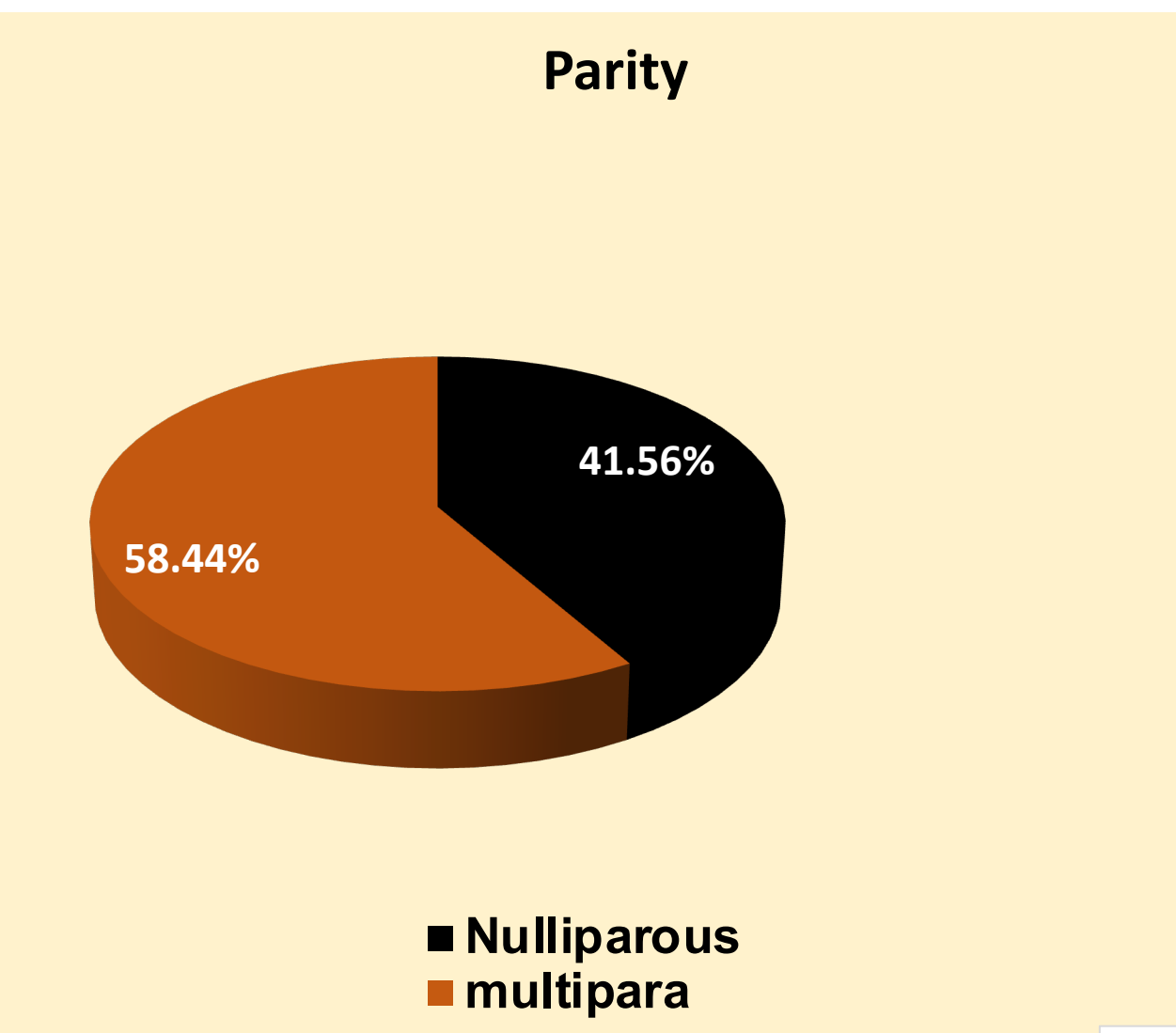
To analyze cesarean section rates based on Modified Robson Ten Group Classification System

Methods

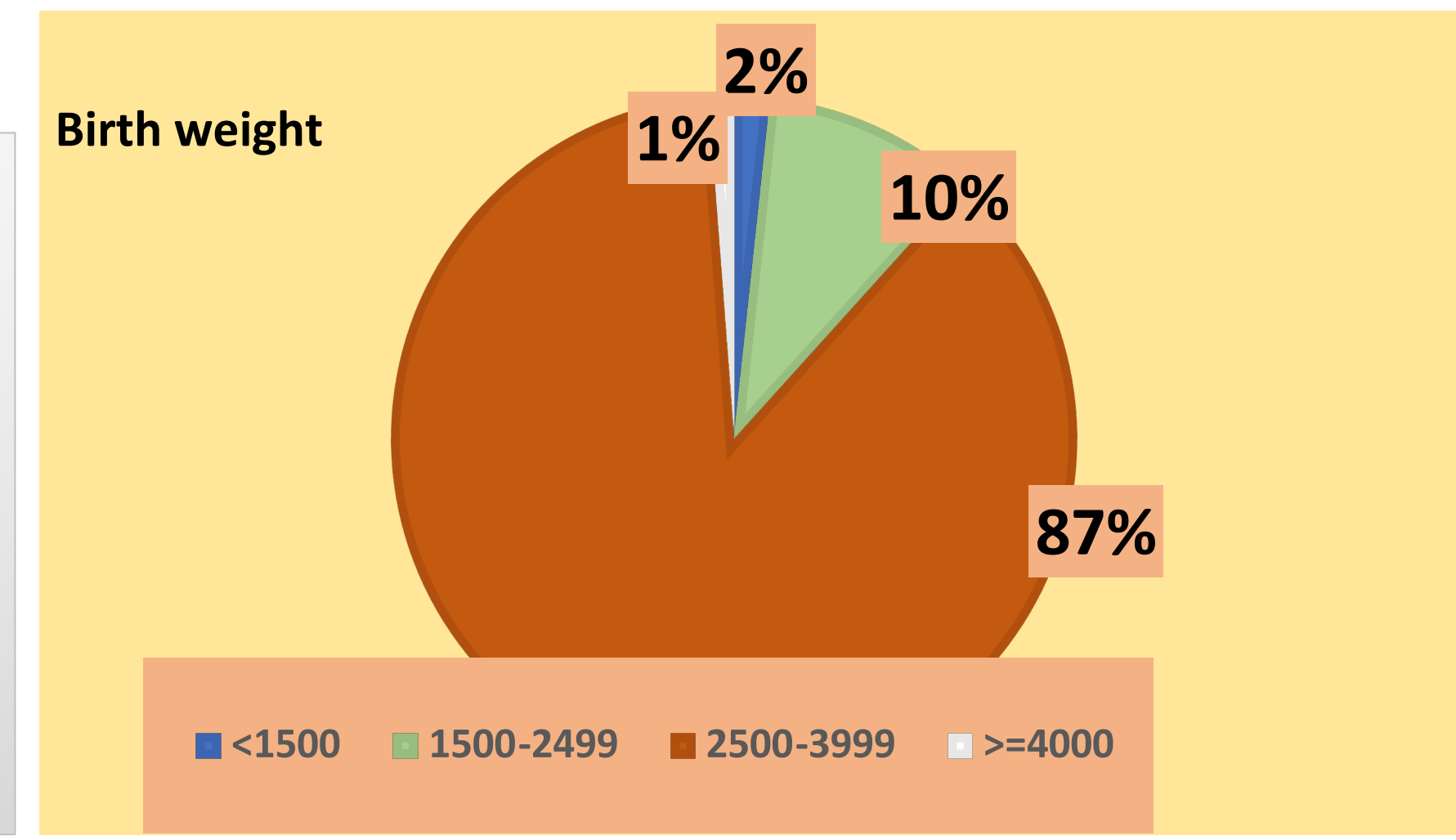
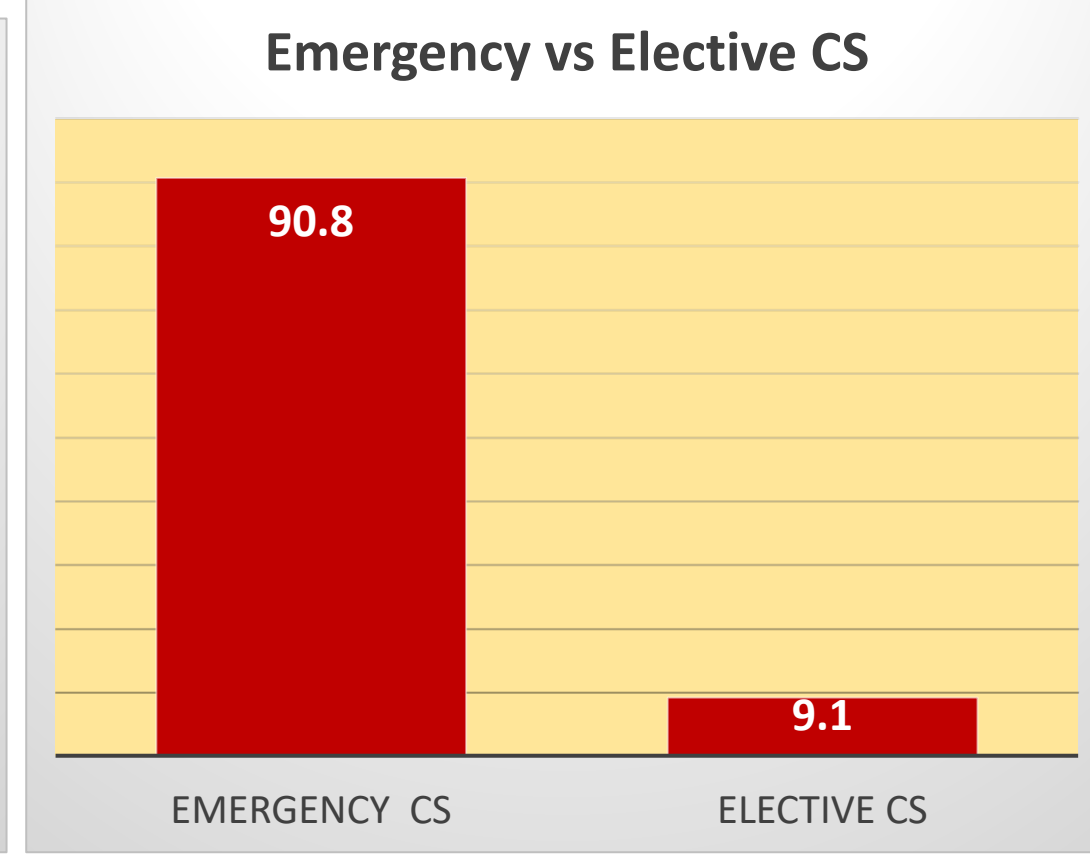
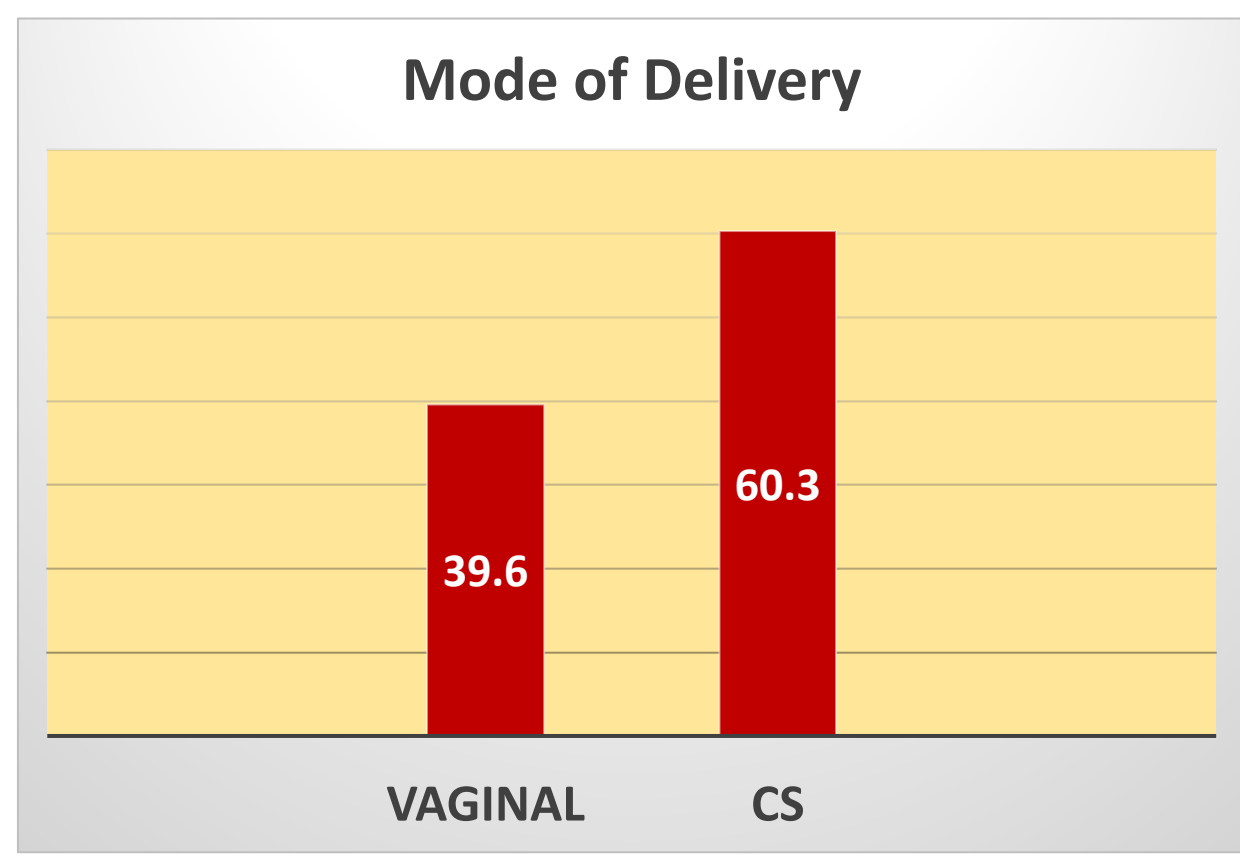
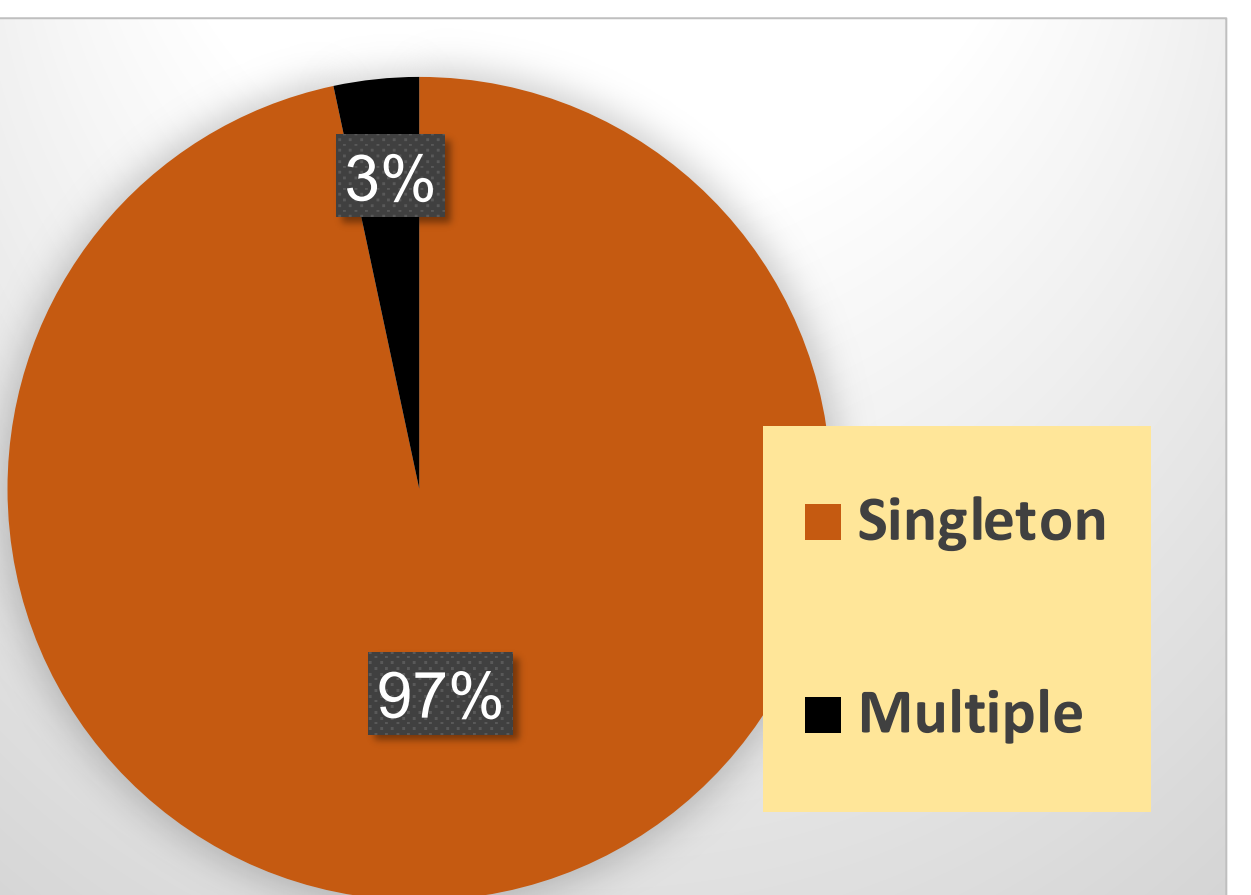
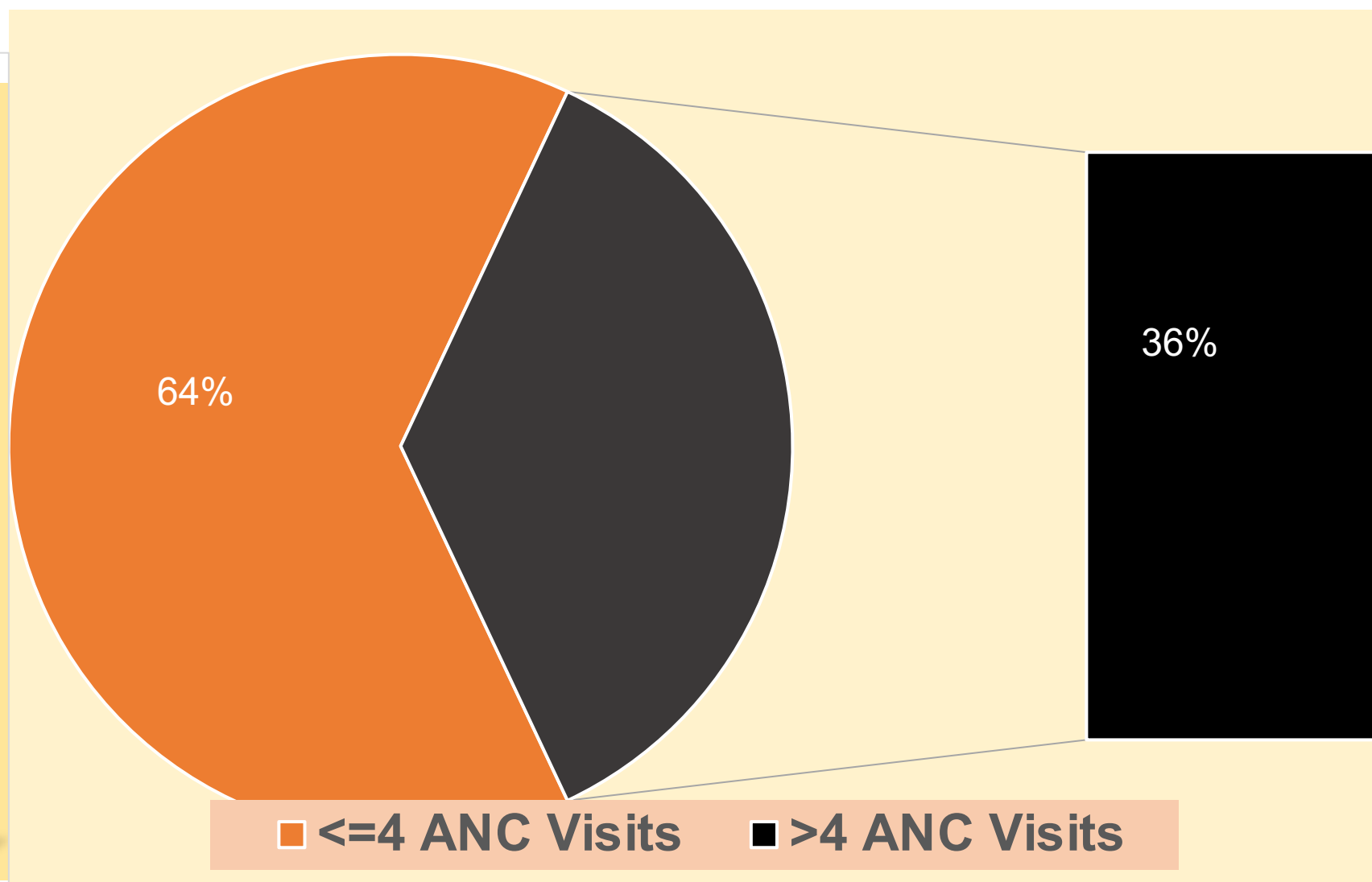
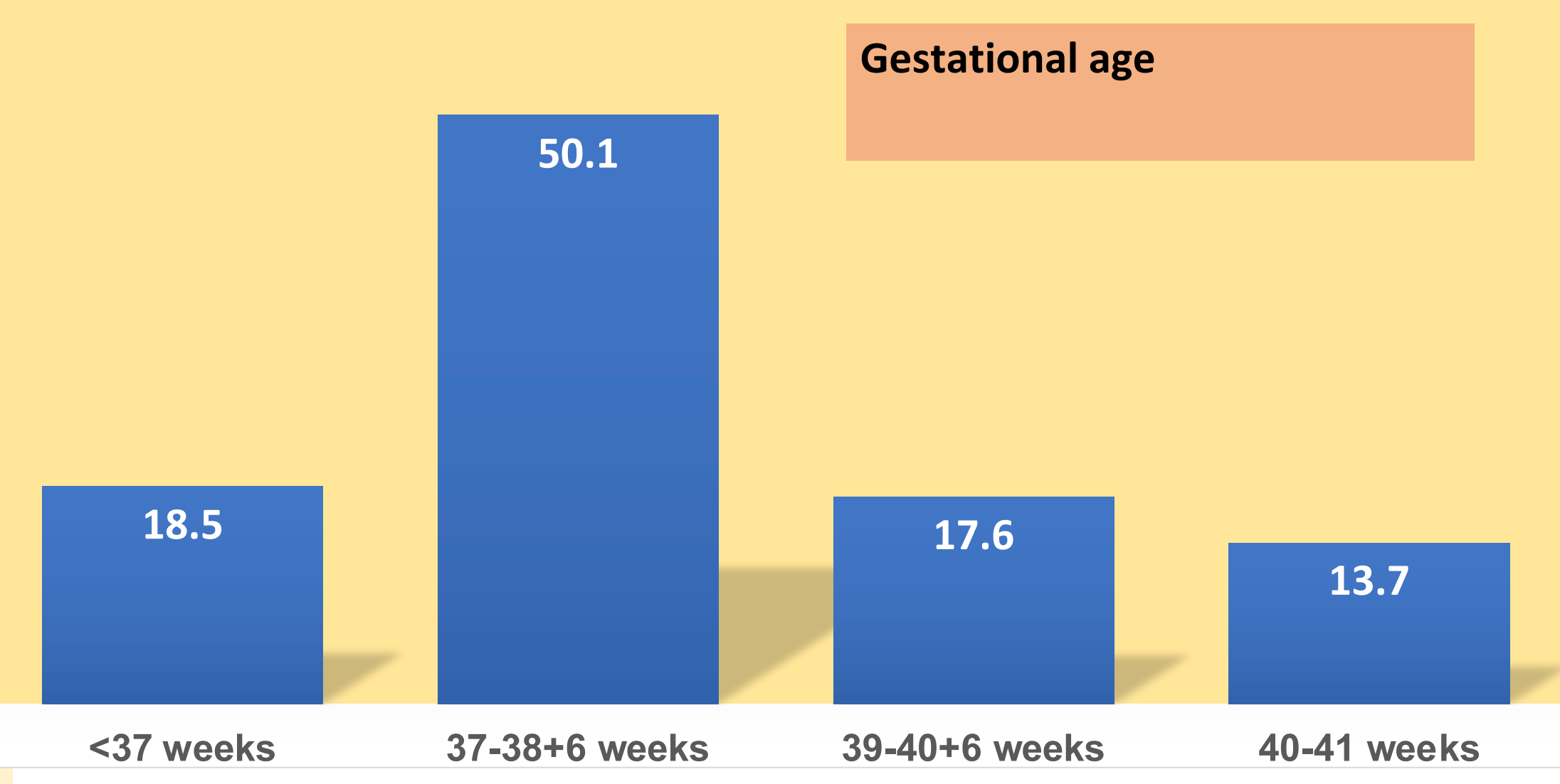
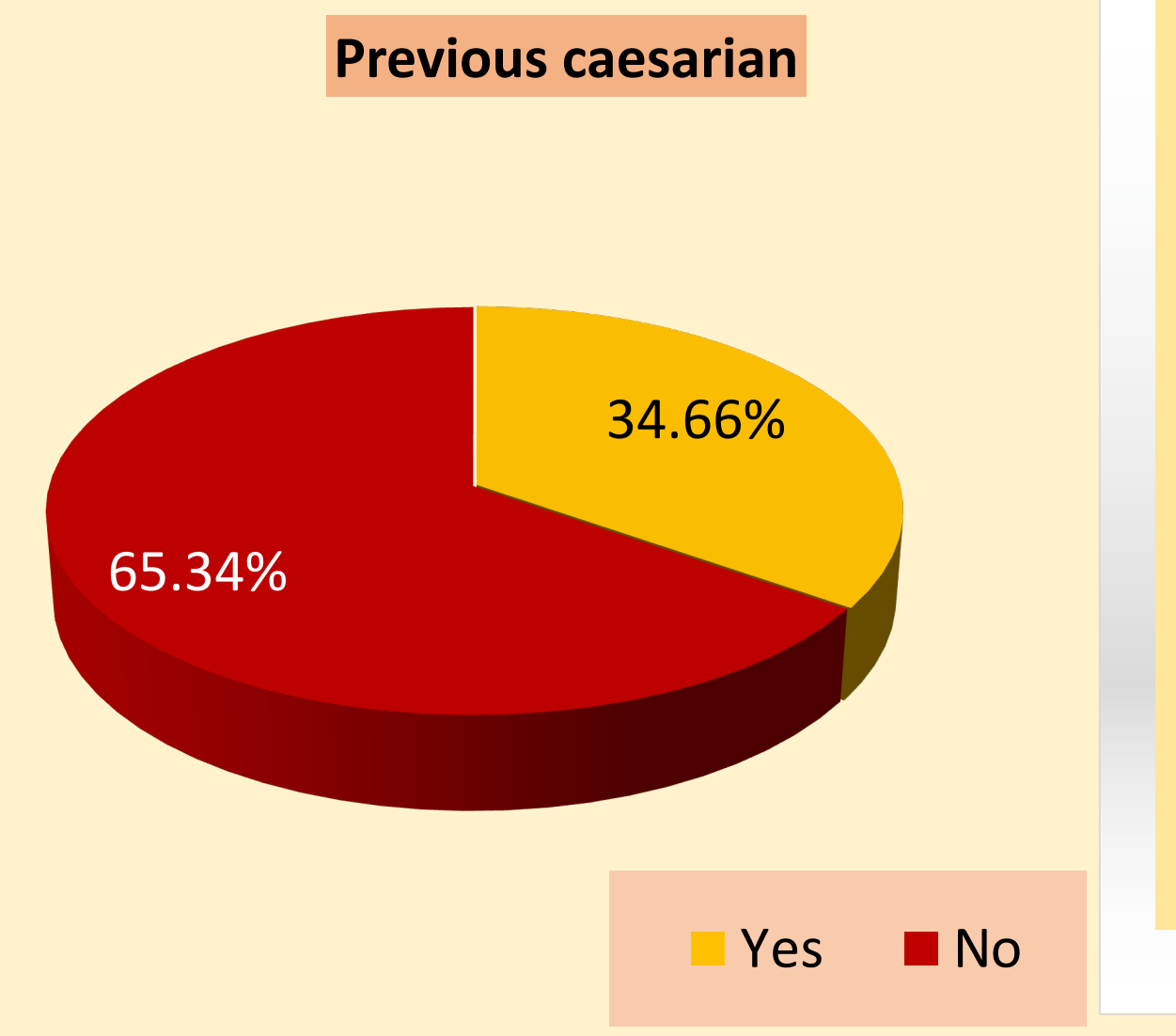
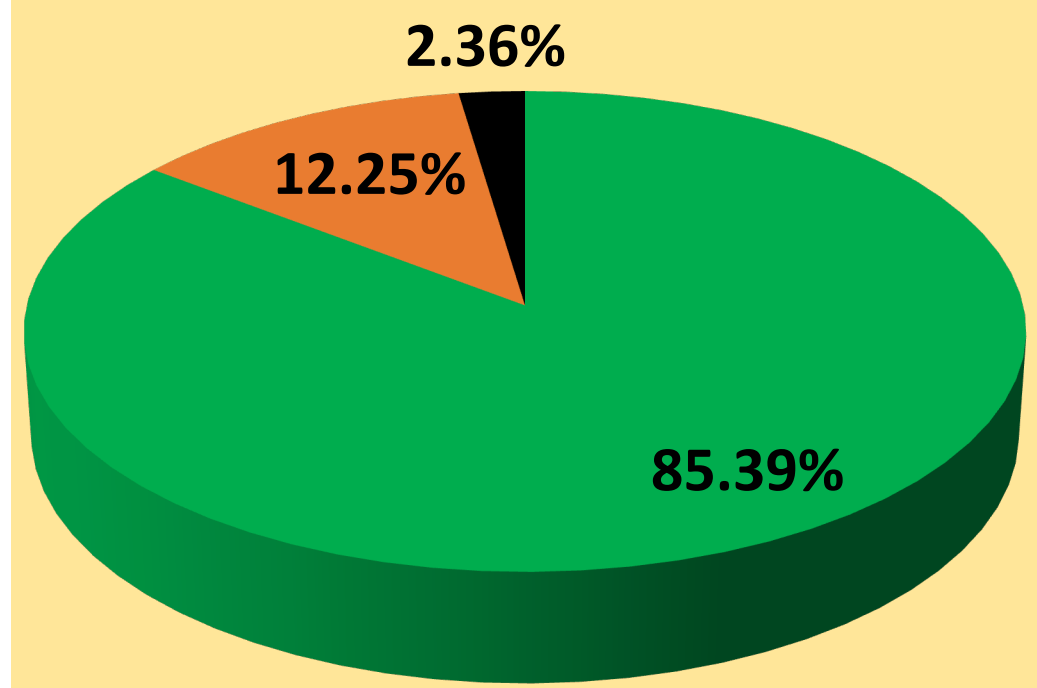
- Study was done at the Department of Obstetrics & Gynecology, KGMU, Lucknow
- One of the largest tertiary care Government hospitals in North India
- A prospective analytical study from July 2021 to June 2022
- Approved by the Institutional Ethics Committee
- All eligible women after informed consent were categorized into one of the ten Robson's group
- Parity, gestational age, the onset of labor, fetal presentation, number of fetuses, h/o previous CS were noted

Results

- Total deliveries during the study period: 6671
- Age group of women in cohort: 25-29 years
- Of 6671 deliveries ,4028(60.2%) were cesarean sections and 2643(39.6%) were vaginal deliveries
- Only 36% had >4 antenatal visits
- Of total CS,90.8 % were emergency CS. This contributed to 54.8% of total deliveries
- 87% neonates had birth weight in range of 2500-3999g

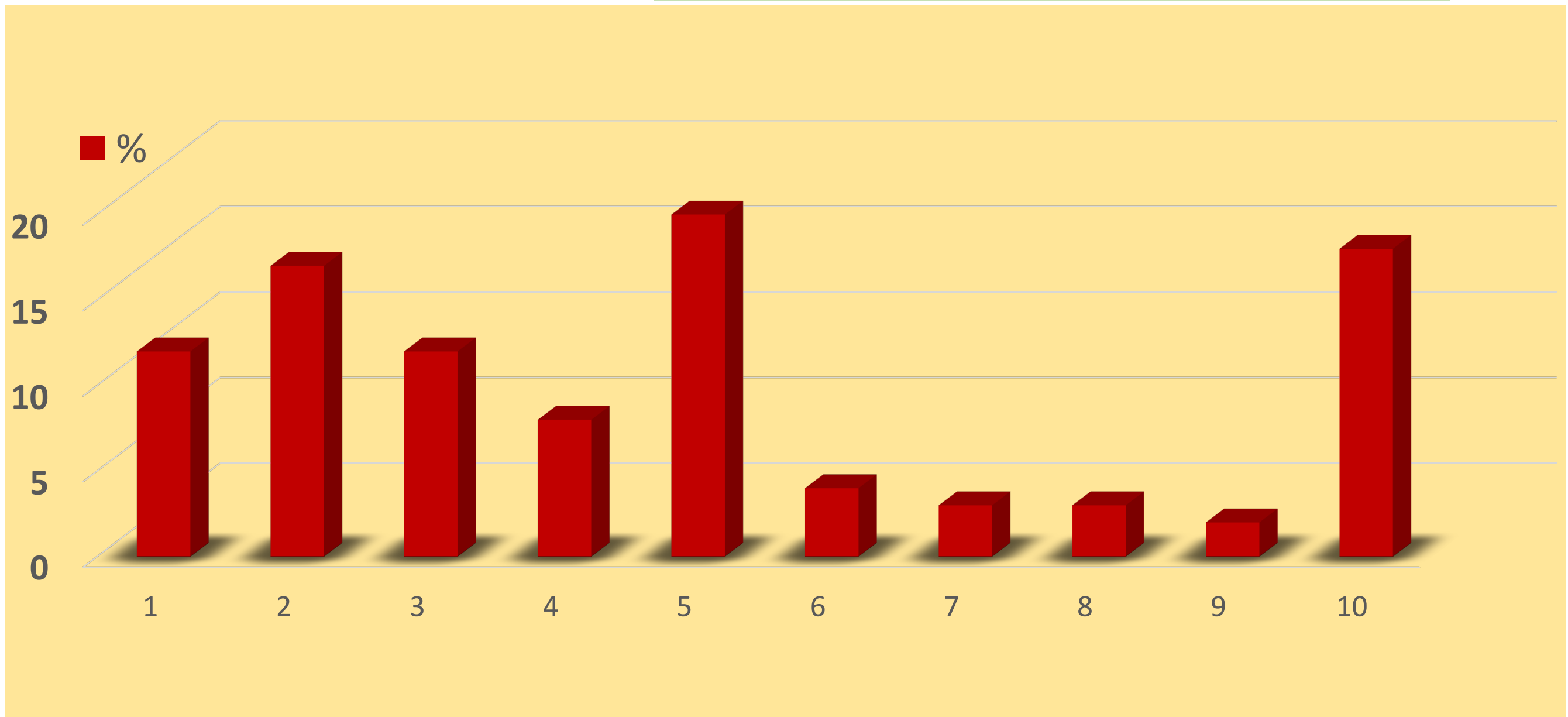


- Cephalic
- Breech
- Non cephalic

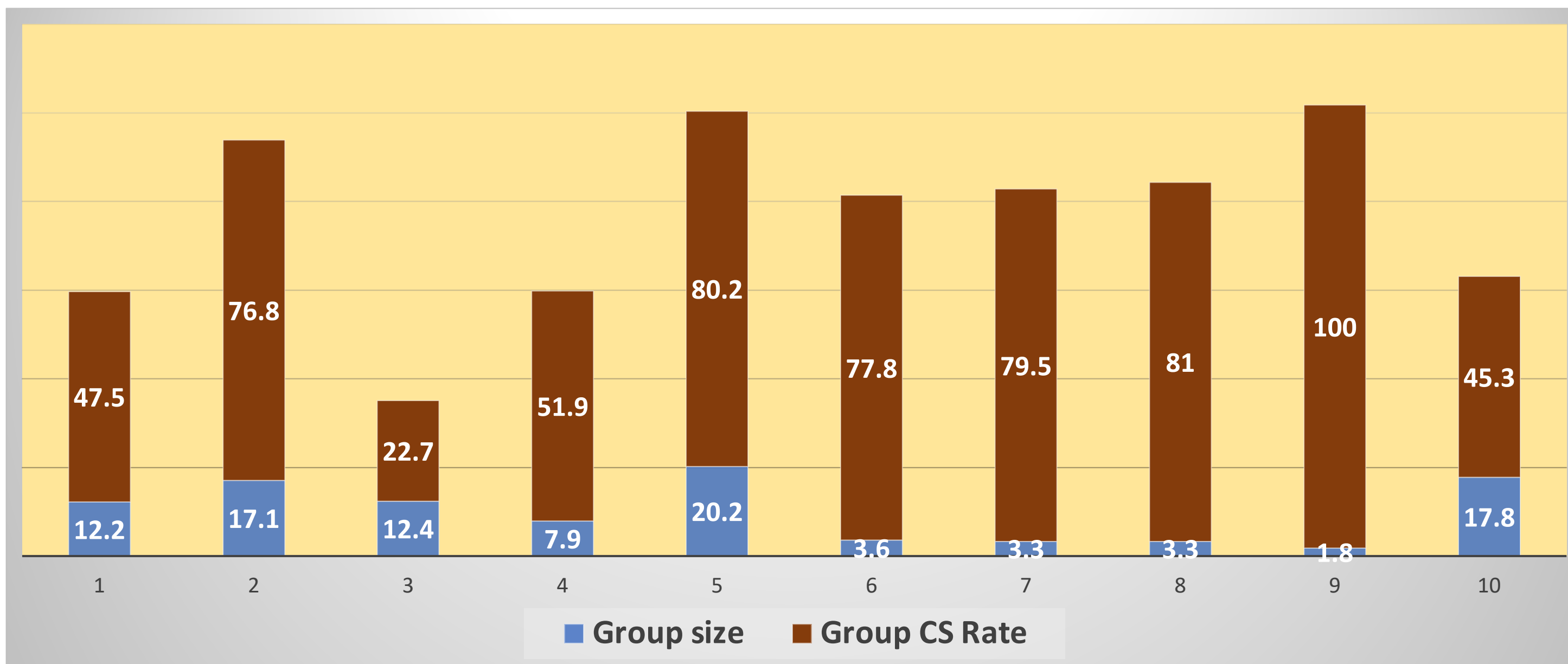


Cesarean delivery analysis : Robson's report table

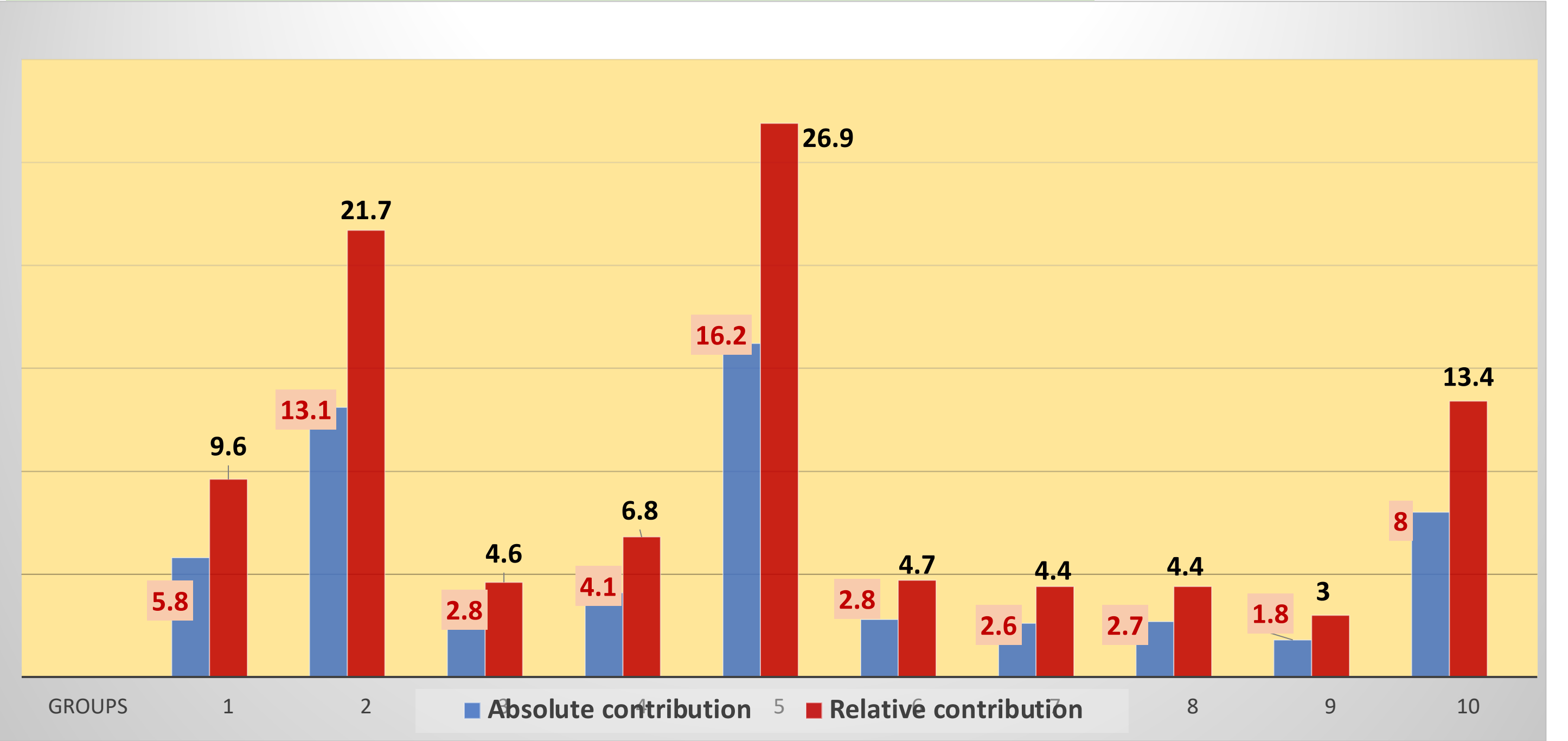
Group size



Group Size ,Group CS rate



Absolute and relative contribution



Conclusion

- Total deliveries in the study period were 6671
- Cesarean delivery was observed in 60.3% women
- Of them, 90.8 % underwent emergency CS
- 58.6% were multiparous, 85.3% had cephalic presentation
- Of Robson Groups, Group 5 contributed to 20.2%, Group 10 to 17.8% and group 2 to 17.1% of cases
- The Absolute Group contribution to overall CS rate was 16.2% in Group 5 & 13.1% in Group 2
- The Relative contribution of Groups to overall CS rates were 26.9% by Group 5 and 21.7% by Group 2
- Analyzing CS rates in Group 1 & 2 will modify CS rate in group 5 ,which contributes the maximum