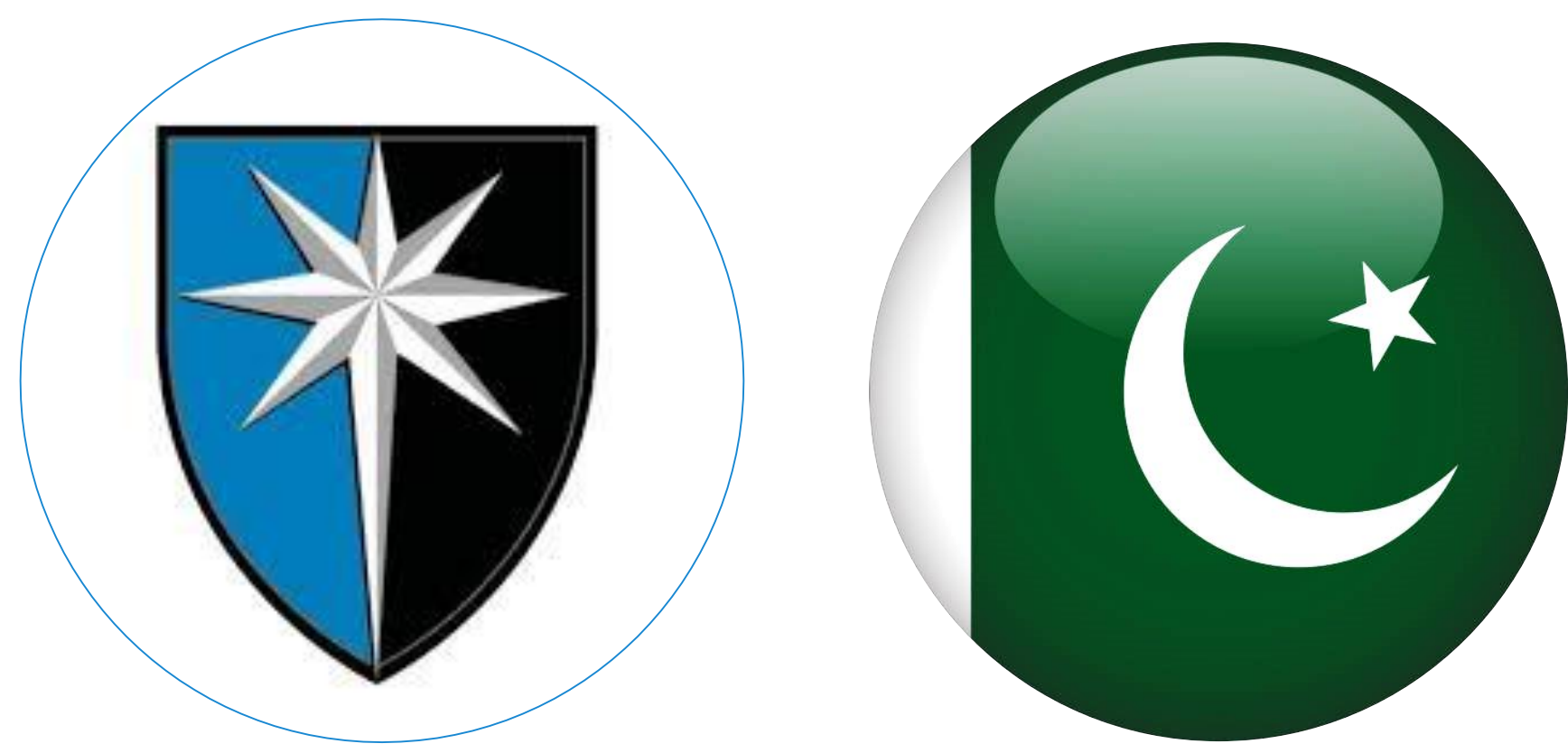




# IMPACT OF WHO LABOUR CARE GUIDE ON DELIVERY OUTCOMES FROM LAHORE PAKISTAN

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## 1 Background

The WHO Labour Care Guide (LCG) aims to standardize respectful, individualized intrapartum care. This study evaluates its real-world impact on maternal and neonatal outcomes using Robson classification and companion support metrics.

## 2 Methodology



**Design:** Prospective observational study  
**Duration:** Feb 2022 – Jan 2024  
**Participants:** 267 laboring women  
**Data Points:**

- Demographics
- Mode of delivery & Robson groups
- Companion presence
- Maternal & neonatal outcomes

**Statistical Tools:** Descriptive & chi-square tests

## 3 WHO Labour Care Guide

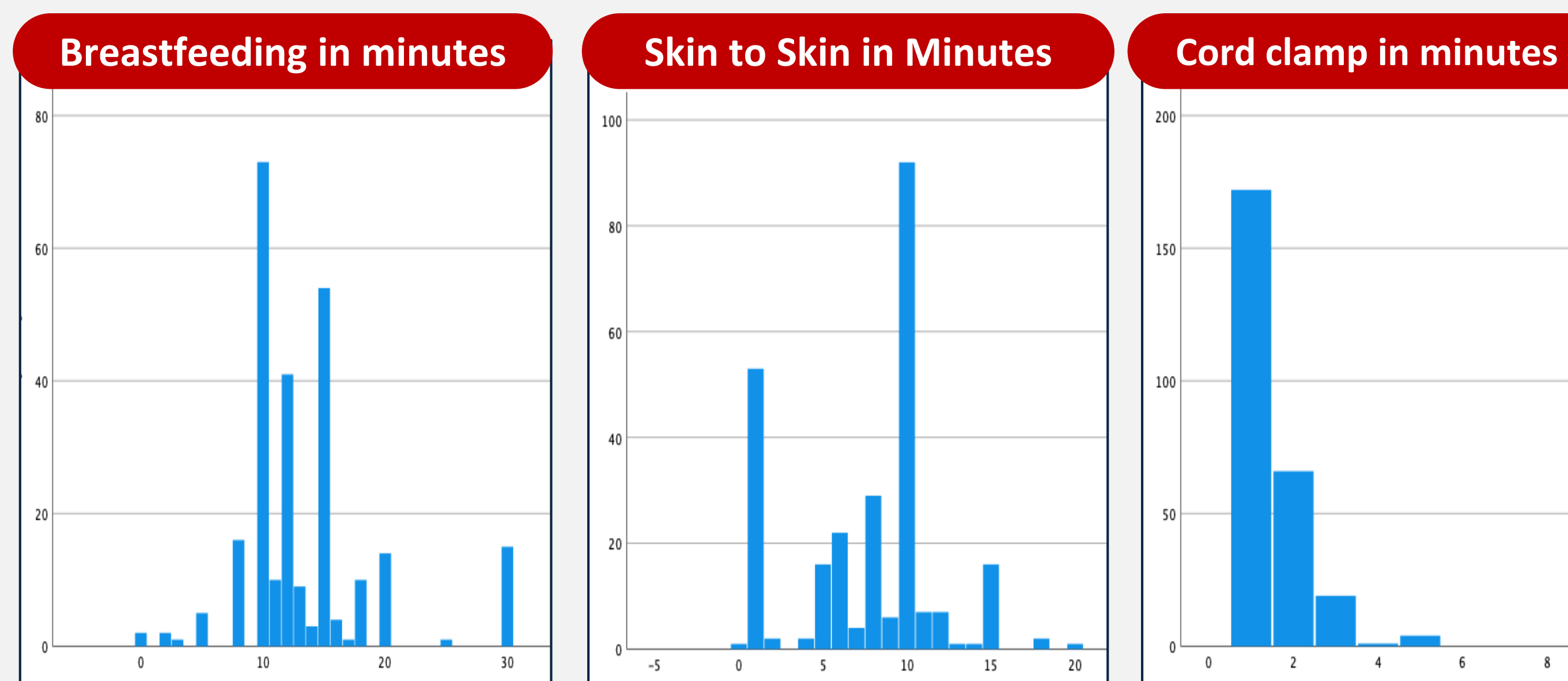
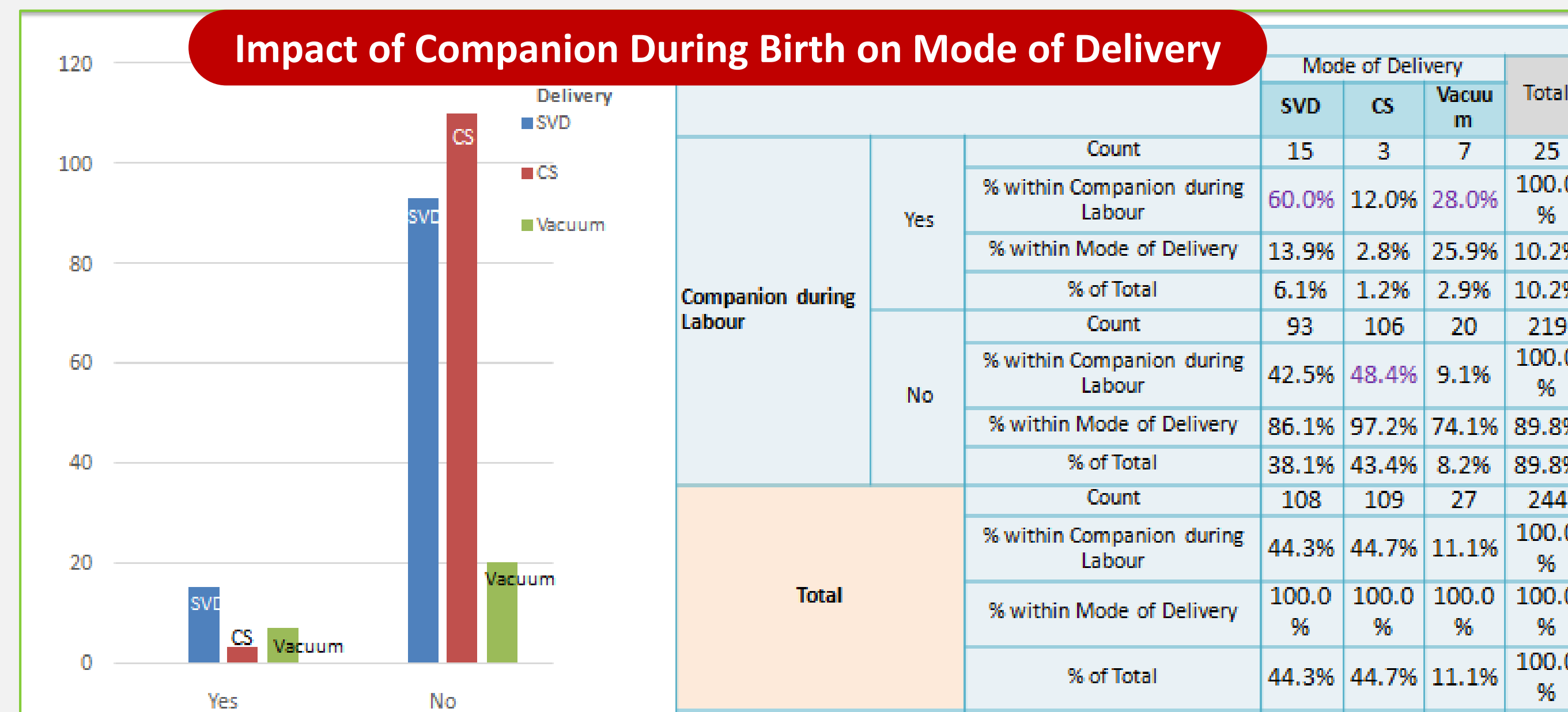
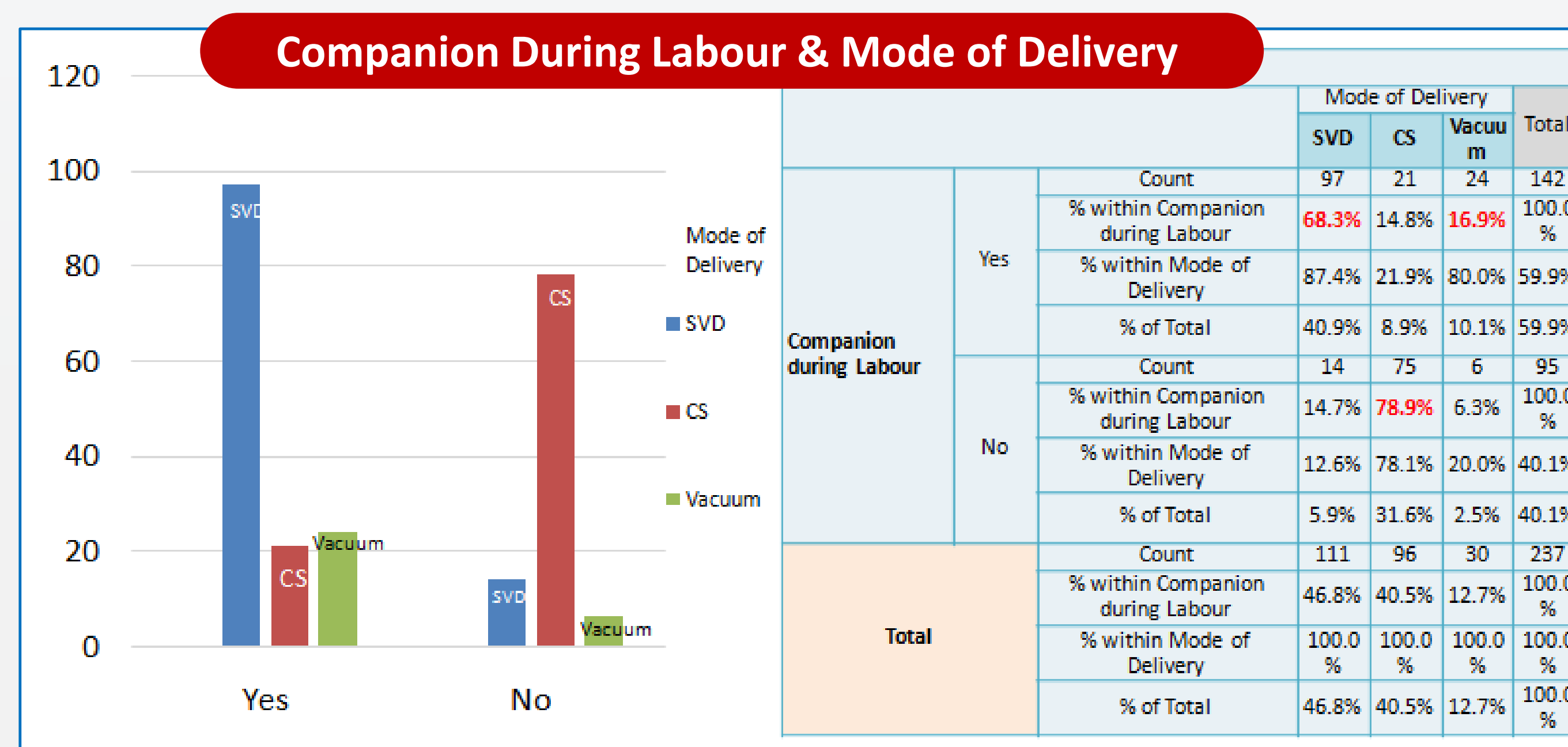
| Name                                        |  | Parity | Labour onset | Active labour diagnosis [Date] |
|---------------------------------------------|--|--------|--------------|--------------------------------|
| Ruptured membranes [Date] Time Risk factors |  |        |              |                                |
| ALERT                                       |  |        |              |                                |
| ACTIVE FIRST STAGE                          |  |        |              |                                |
| SECOND STAGE                                |  |        |              |                                |
| IMPARTIENT CARE                             |  |        |              |                                |
| Companion                                   |  |        |              |                                |
| Pain relief                                 |  |        |              |                                |
| Oral fluids                                 |  |        |              |                                |
| Position                                    |  |        |              |                                |
| Baseline FHR                                |  |        |              |                                |
| Fetal position                              |  |        |              |                                |
| Caput                                       |  |        |              |                                |
| Moulding                                    |  |        |              |                                |
| Pulse                                       |  |        |              |                                |
| Systolic BP                                 |  |        |              |                                |
| Diastolic BP                                |  |        |              |                                |
| Temperature °C                              |  |        |              |                                |
| Urine                                       |  |        |              |                                |
| Contraction                                 |  |        |              |                                |
| Duration of contraction                     |  |        |              |                                |
| Cervix                                      |  |        |              |                                |
| Descent                                     |  |        |              |                                |
| Oxytocin                                    |  |        |              |                                |
| Medicine                                    |  |        |              |                                |
| TV fluids                                   |  |        |              |                                |
| ASSESSMENT                                  |  |        |              |                                |
| PLAN                                        |  |        |              |                                |
| INITIALS                                    |  |        |              |                                |

## 4 Robson Group & Mode of Delivery

|              |    |                           | Mode of Delivery |        |        | Total  |
|--------------|----|---------------------------|------------------|--------|--------|--------|
|              |    |                           | SVD              | CS     | Vacuum |        |
| Robson Group | 1  | Count                     | 30               | 2      | 6      | 38     |
|              |    | % within Robson Group     | 78.9%            | 5.3%   | 15.8%  | 100.0% |
|              |    | % within Mode of Delivery | 27.0%            | 1.7%   | 20.0%  | 14.8%  |
|              |    | % of Total                | 11.7%            | 0.8%   | 2.3%   | 14.8%  |
|              | 2  | Count                     | 13               | 2      | 3      | 18     |
|              |    | % within Robson Group     | 72.2%            | 11.1%  | 16.7%  | 100.0% |
|              |    | % within Mode of Delivery | 11.7%            | 1.7%   | 10.0%  | 7.0%   |
|              |    | % of Total                | 5.1%             | 0.8%   | 1.2%   | 7.0%   |
|              | 3  | Count                     | 48               | 32     | 18     | 98     |
|              |    | % within Robson Group     | 49.0%            | 32.7%  | 18.4%  | 100.0% |
|              |    | % within Mode of Delivery | 43.2%            | 27.6%  | 60.0%  | 38.1%  |
|              |    | % of Total                | 18.7%            | 12.5%  | 7.0%   | 38.1%  |
|              | 4  | Count                     | 14               | 14     | 2      | 30     |
|              |    | % within Robson Group     | 46.7%            | 46.7%  | 6.7%   | 100.0% |
|              |    | % within Mode of Delivery | 12.6%            | 12.1%  | 6.7%   | 11.7%  |
|              |    | % of Total                | 5.4%             | 5.4%   | 0.8%   | 11.7%  |
|              | 5  | Count                     | 2                | 39     | 0      | 41     |
|              |    | % within Robson Group     | 4.9%             | 95.1%  | 0.0%   | 100.0% |
|              |    | % within Mode of Delivery | 1.8%             | 33.6%  | 0.0%   | 16.0%  |
|              |    | % of Total                | 0.8%             | 15.2%  | 0.0%   | 16.0%  |
|              | 6  | Count                     | 0                | 4      | 0      | 4      |
|              |    | % within Robson Group     | 0.0%             | 100.0% | 0.0%   | 100.0% |
|              |    | % within Mode of Delivery | 0.0%             | 3.4%   | 0.0%   | 1.6%   |
|              |    | % of Total                | 0.0%             | 1.6%   | 0.0%   | 1.6%   |
|              | 9  | Count                     | 0                | 4      | 0      | 4      |
|              |    | % within Robson Group     | 0.0%             | 100.0% | 0.0%   | 100.0% |
|              |    | % within Mode of Delivery | 0.0%             | 3.4%   | 0.0%   | 1.6%   |
|              |    | % of Total                | 0.0%             | 1.6%   | 0.0%   | 1.6%   |
|              | 10 | Count                     | 4                | 19     | 1      | 24     |
|              |    | % within Robson Group     | 16.7%            | 79.2%  | 4.2%   | 100.0% |
|              |    | % within Mode of Delivery | 3.6%             | 16.4%  | 3.3%   | 9.3%   |
|              |    | % of Total                | 1.6%             | 7.4%   | 0.4%   | 9.3%   |
| Total        |    | Count                     | 111              | 116    | 30     | 257    |
|              |    | % within Robson Group     | 43.2%            | 45.1%  | 11.7%  | 100.0% |
|              |    | % within Mode of Delivery | 100.0%           | 100.0% | 100.0% | 100.0% |
|              |    | % of Total                | 43.2%            | 45.1%  | 11.7%  | 100.0% |

## 5 Maternal & Neonatal Outcomes

- Maternal**
- PPH prevention: 99.2%
  - Companion support during labour: 59.9%
- Neonatal**
- Apgar score >7 at 5 minutes: 87.7%
  - Early breastfeeding initiation: 98.1%



## 6 Key Statistical Findings

### Mode of Delivery Across Robson Groups

- Robson Group 1,2,3 & 4: SVD dominant, low intervention
- Robson Group 1 and 3: vacuum delivery indicating a viable alternative to reduce CS rates in selected cases
- Robson Group 5: CS rate 95.1% (low VBAC: 4.9%)
- High-risk groups (6, 8, 9, 10): CS rate 100%

### Companion Support During Labour

- Present in 59.9% of cases
- Strong correlation with increased SVD ( $p < 0.001$ )

### Companion Support During Birth

- Present in 10.2% of cases. tend to have a low incidence of SVD and more likely to have a Caesarean Section

### Maternal & Neonatal Outcomes

- PPH prevention: 99.2%
- Early breastfeeding: 98.1%
- Apgar >7 at 5 minutes: 87.7%

## 7 Conclusion

- WHO LCG supports safer, individualized labour management
- Robson classification enables evidence-driven care auditing
- Companion support during labour significantly improves delivery outcomes
- Recommends scaling LCG implementation across healthcare settings

## 8 References

- Maternal Health (MAH). WHO labour care guide: user's manual [Internet]. 2021. Available from: <https://www.who.int/publications/i/item/9789240017566>