

The impact of pre-conception analgesia use pattern on peripartum analgesic need

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Introduction

- Rising analgesic consumption over the last few decades
- Among Australian women of reproductive age
 - 9.7% chronic or recurring pain
 - 2.6% recent opioid analgesia use [1].
- Long-term (defined as ≥ 90 days) opioid use results in reduced analgesic efficacy, tolerance and dependence
 - Opioid use during pregnancy increases the risk of persistent postpartum opioid use [2].
- Around 4/5 Australian women received pain relief during labour
 - Inhaled nitrous oxide(51%)>epidural(40%)> systemic opioids (12%)
- Peripartum analgesia administration in 2020
 - 74.4% in vaginal(non-instrumental) birth
 - 96.5% in vaginal(forceps) and 92.5% in vaginal(vacuum) birth
 - 84.3% in caesarean section[3].
- Postpartum analgesia use in 2021
 - Paracetamol+ NSAIDs 8.1%
 - Paracetamol+ NSAIDs+ opioids 76.7% [4].

Objectives

- Primary objective**
 - To assess the impact of pre-conception use pattern of analgesia on the peripartum analgesic requirement across different modes of delivery
 - Vaginal birth(non-instrumental)
 - Vaginal birth(instrumental)
 - Caesarean (elective)
 - Caesarean (emergency)
- Secondary objectives**
 - To characterise the pre-conception analgesia use pattern in Mater Mother's cohort
 - To profile analgesia administration during labour across each mode of delivery
 - None, inhalational, enteral, parenteral, neuraxial analgesia
 - To evaluate non-opioid and opioid analgesics prescription during postpartum period

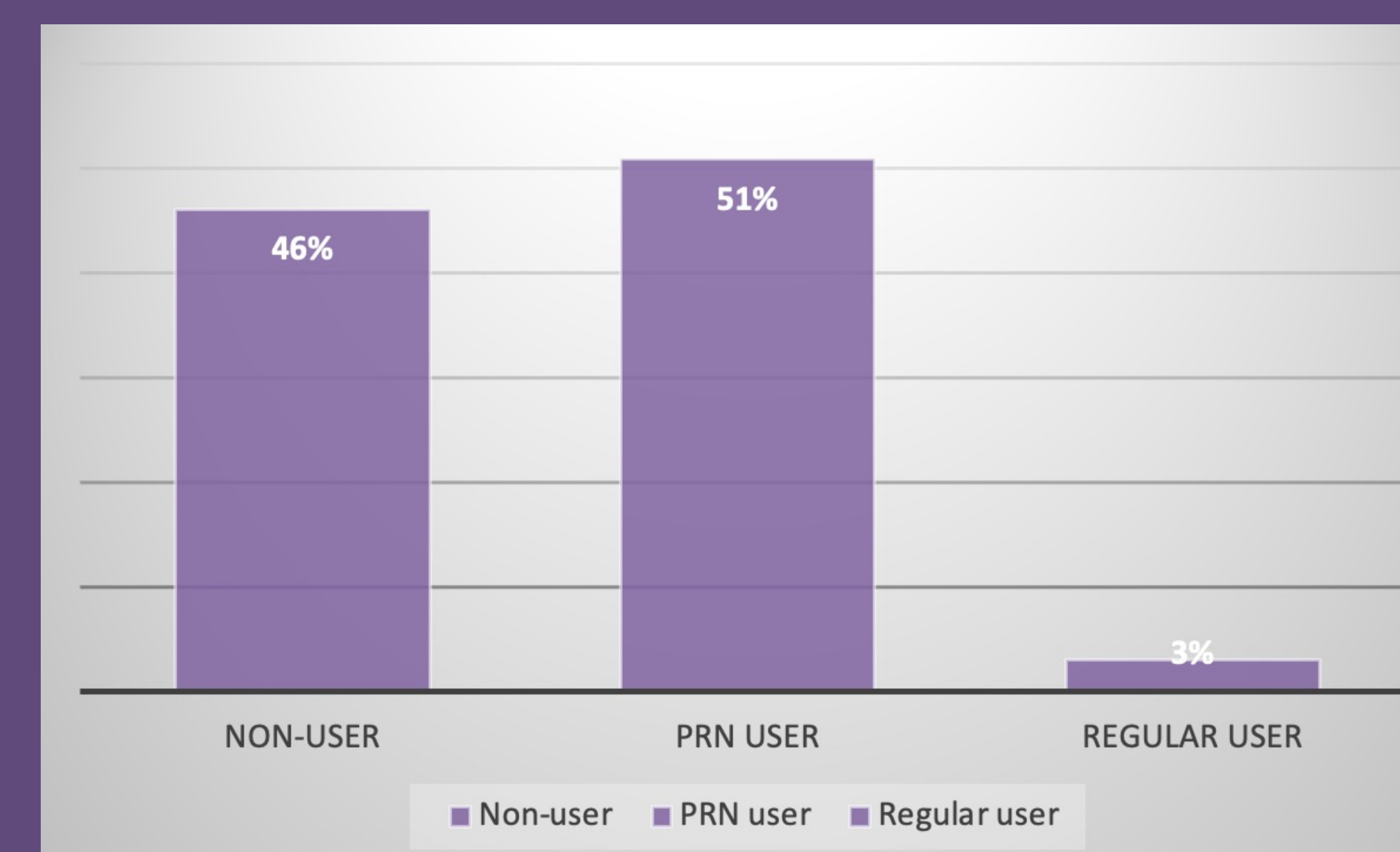
Methodology

- Retrospective audit of the Queensland Family Cohort (QFC) study**
 - The Tertiary maternity hospital in Brisbane (the Mater Mother's Hospital)
 - Women recruited at 12-24 weeks gestation by research midwives at antenatal clinics
- Inclusion criteria**
 - Pregnant individuals from 12-24 weeks gestation, regardless of age, parity or race
 - Questionnaires designed to collect analgesia use three-month pre-conception
- Exclusion criteria**
 - Missing or incomplete data

Results

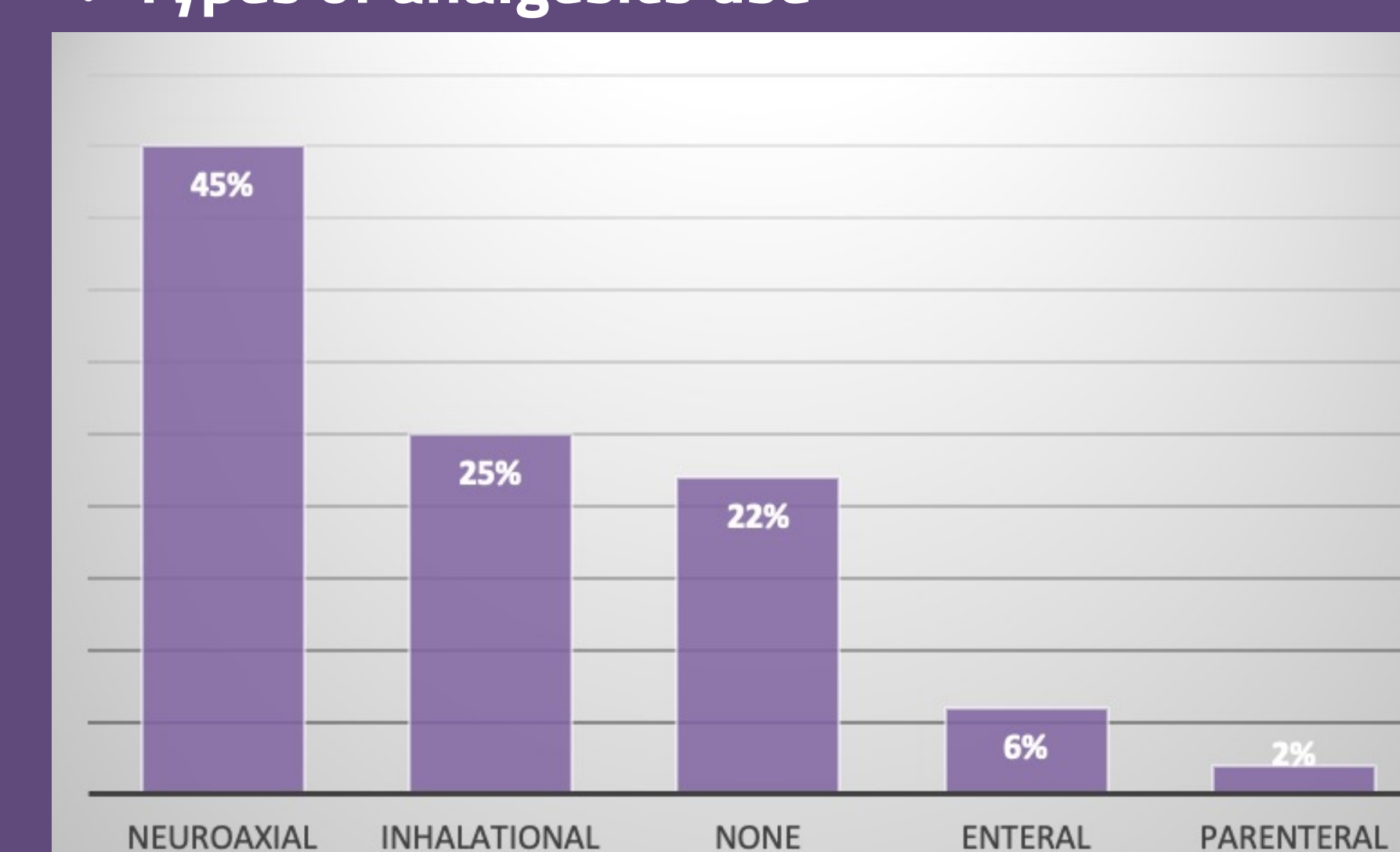
Pre-conception analgesia use pattern

- Total N=230 women enrolled
- 53.48% (N=124) women used opioid or non-opioid analgesia three months pre-conception
 - 46% Non-user**- do not use any types of analgesics
 - 51% PRN user**- use any types of analgesics less than once a week
 - 3% Regular user**- use any types of analgesics more than once a week
- Types of analgesics use**
 - 95% (N=188) Paracetamol
 - 21% (N=26) NSAIDs (*ibuprofen, naproxen, diclofenac*)
 - 9% (N=11) Opioids (*codeine, oxycodone, Targin, tramadol*)



Intrapartum analgesia use pattern

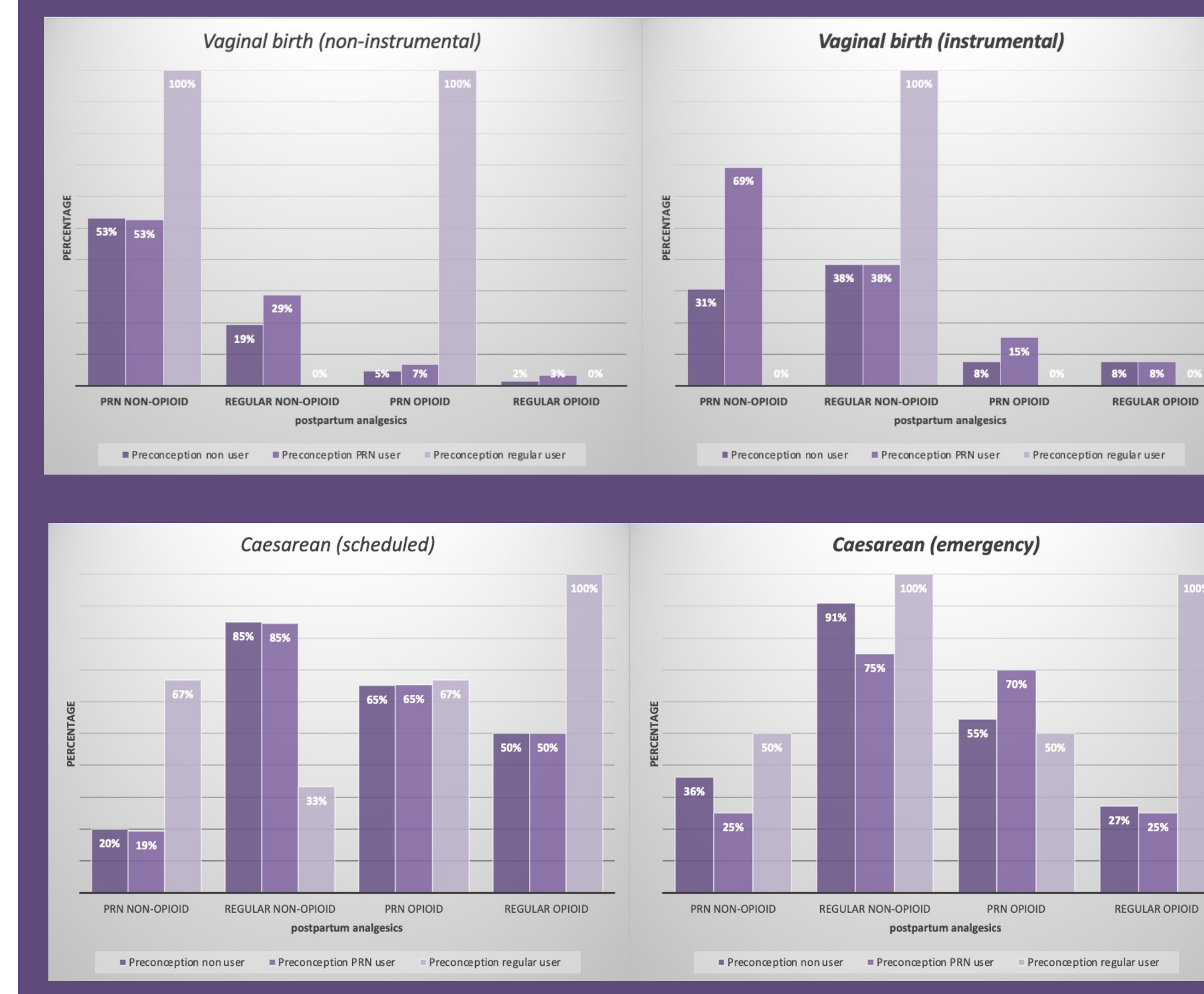
- Modes of delivery**
 - Vaginal birth(non-instrumental) 53%
 - Vaginal birth(instrumental) 12%
 - Caesarean (elective) 21%
 - Caesarean (emergency) 14%
- Types of analgesics use**



Demands for neuraxial analgesics

- PRN users- 45%
- Regular user- 53%
- Non-user-2%

Postpartum analgesia use pattern



Conclusion

- Small study sample of young healthy women
 - 3% women use analgesia regularly during preconception
 - 9% women have pre-exposure to opioid analgesia before pregnancy
- Majority (53%) underwent non-instrumental vaginal birth
 - Neuraxial analgesia and inhalation analgesia are preferred route of analgesia in most women undergoing vaginal delivery
 - Higher demand for intrapartum neuraxial analgesia in women with more frequent preconception analgesia use
- Overall, higher percentage of postpartum non-opioid and opioid analgesia use in caesarean section compared to vaginal birth group
 - Non-opioid analgesia are predominantly used in non-instrumental vaginal delivery
 - Higher percentage of postpartum opioid analgesia use in women with more frequent preconception analgesia use
- Future study
 - Larger cohort size
 - Impact of antenatal analgesia use
 - Analyse the analgesia usage pattern in high-risk pregnancy group