

# The BLEED (Blood Loss Estimation-Equivalent Determinants) study

Kelvin Wynn, MD; Melanie Andrews, MD; Laura Smith, MD; Gauri Shevatekar, MBBS, MPH, CHES; Yanzhi Wang, PhD; Alexandra Weston (M3); Aubrey Venvertloh (M3)

# Introduction

- Postpartum hemorrhage (PPH) is defined as blood loss  $\geq 500$  ml(s) within the first 24 hours of delivery. Revised in 2017 by ACOG to  $\geq 1000$  ml(s) in addition to signs and symptoms of hypovolemia.
- PPH is the leading cause of mortality worldwide accounting for 25% of maternal deaths.
- In the US, PPH accounts for 12% of maternal deaths.
- Between 2002 and 2014, PPH accounted for 15% of pregnancy related deaths in Illinois.
- Every year approximately 14 million females suffer from PPH.

## Purpose

- To study the methods commonly employed to measure blood loss: Visual Estimation of Blood Loss (EBL) and Quantified Blood Loss (QBL).

## Study Aims

- To assess the accuracy of labor and delivery clinical staff (Physicians, Nurse Mid-wives, Nurses) in measuring EBL and QBL values.
- To assess any implications on the cost of care and length of stay associated with the diagnosis of PPH.
- To assess any relationship between EBL/QBL values and age, race, length of stay, and cost of care.

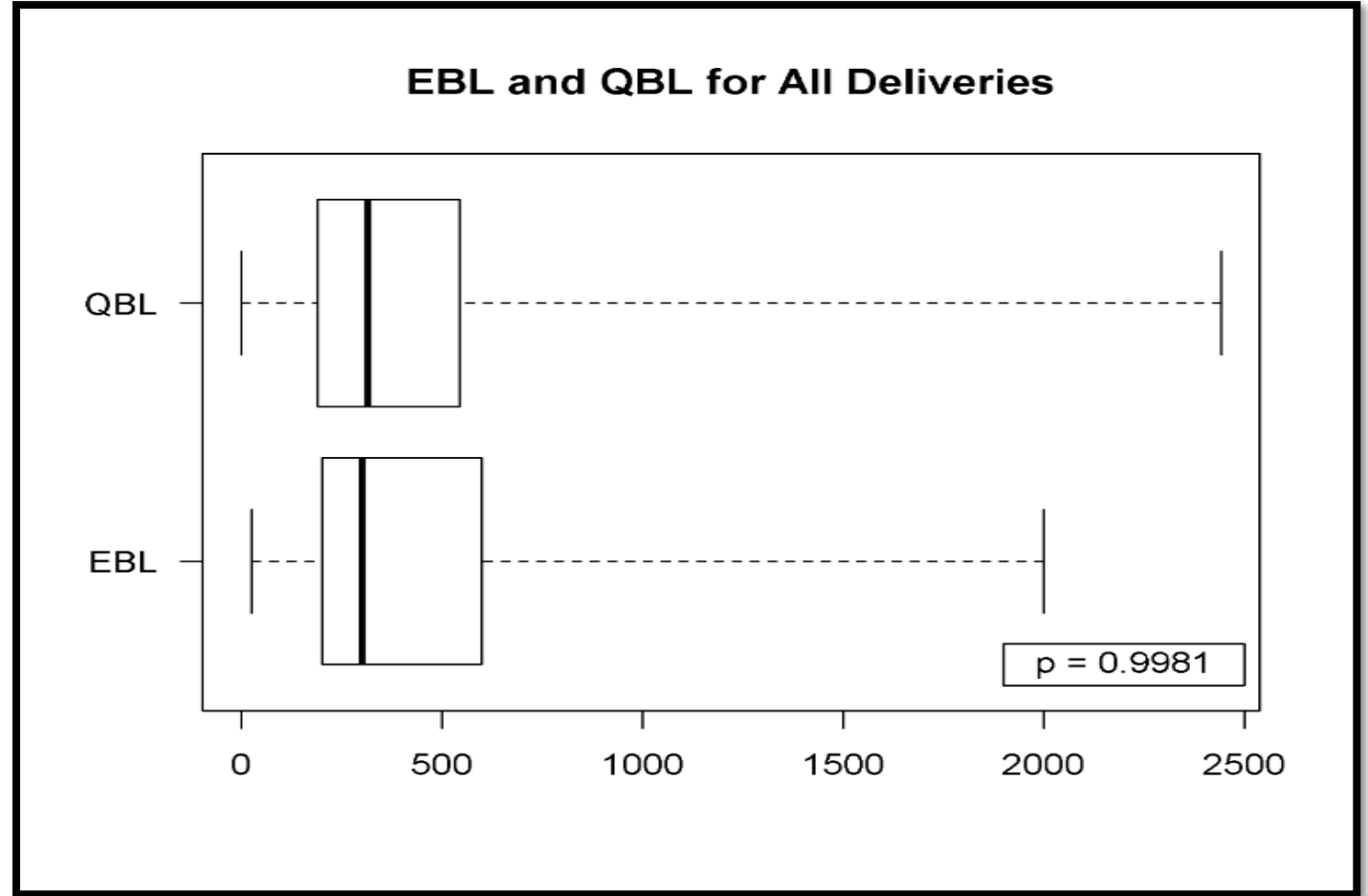
# Hypothesis

- **There is no statistically significant difference between EBL and QBL values measured by clinical staff.**

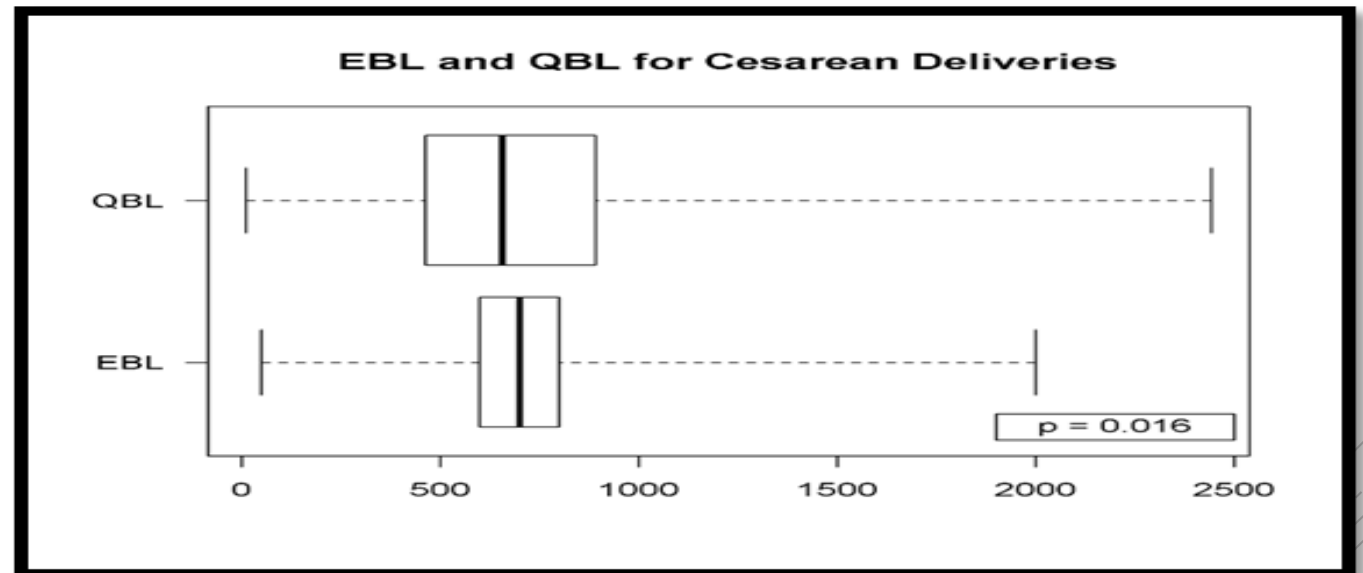
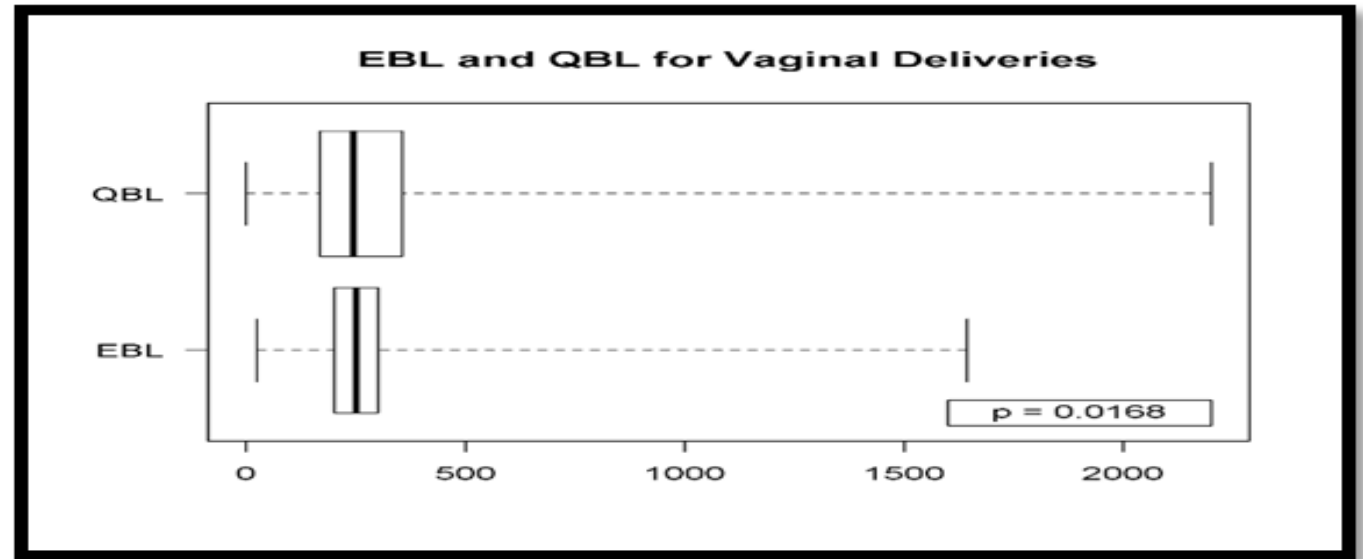
# Methods

- **Cross-sectional study**
- **Retrospective data collection through chart reviews of inpatient cases who delivered (Vaginal and Cesarean section) at Unity Point Methodist**
- **Time period: November 2017-August 2018**
- **Sample size: 1 192 cases**
- **ICD-10 code and the traditional definition for PPH were used for analysis**

# Results

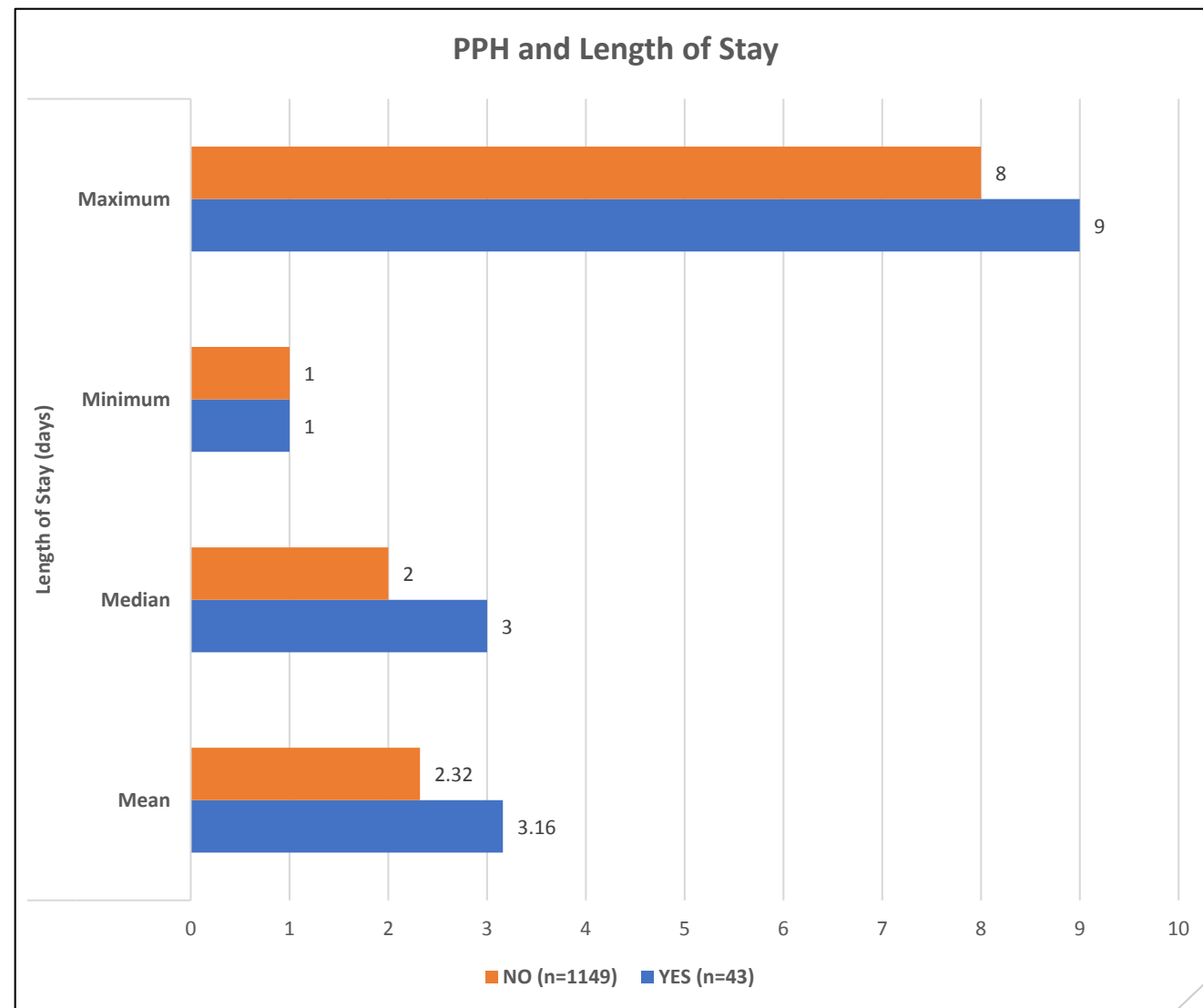


# Results

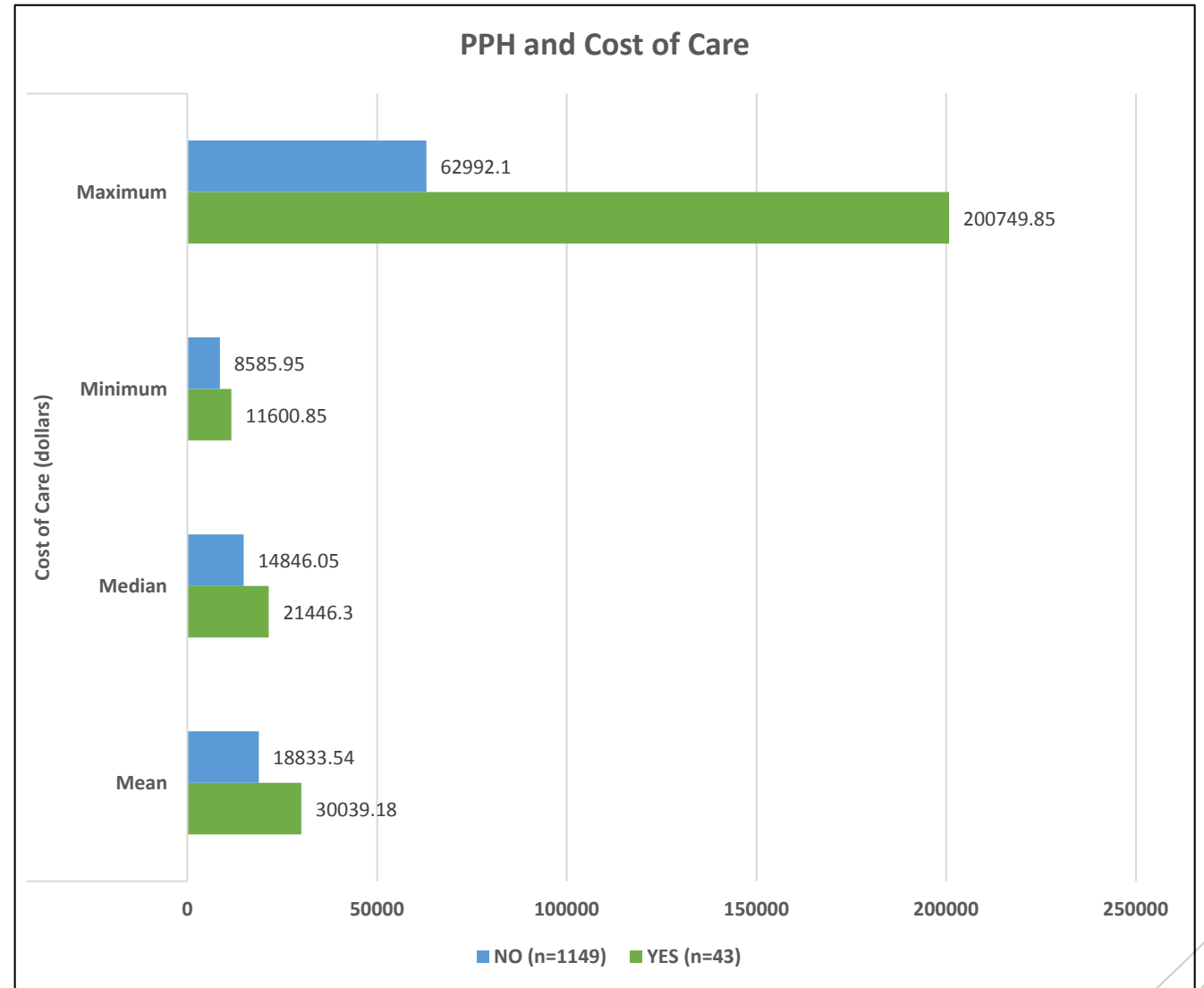




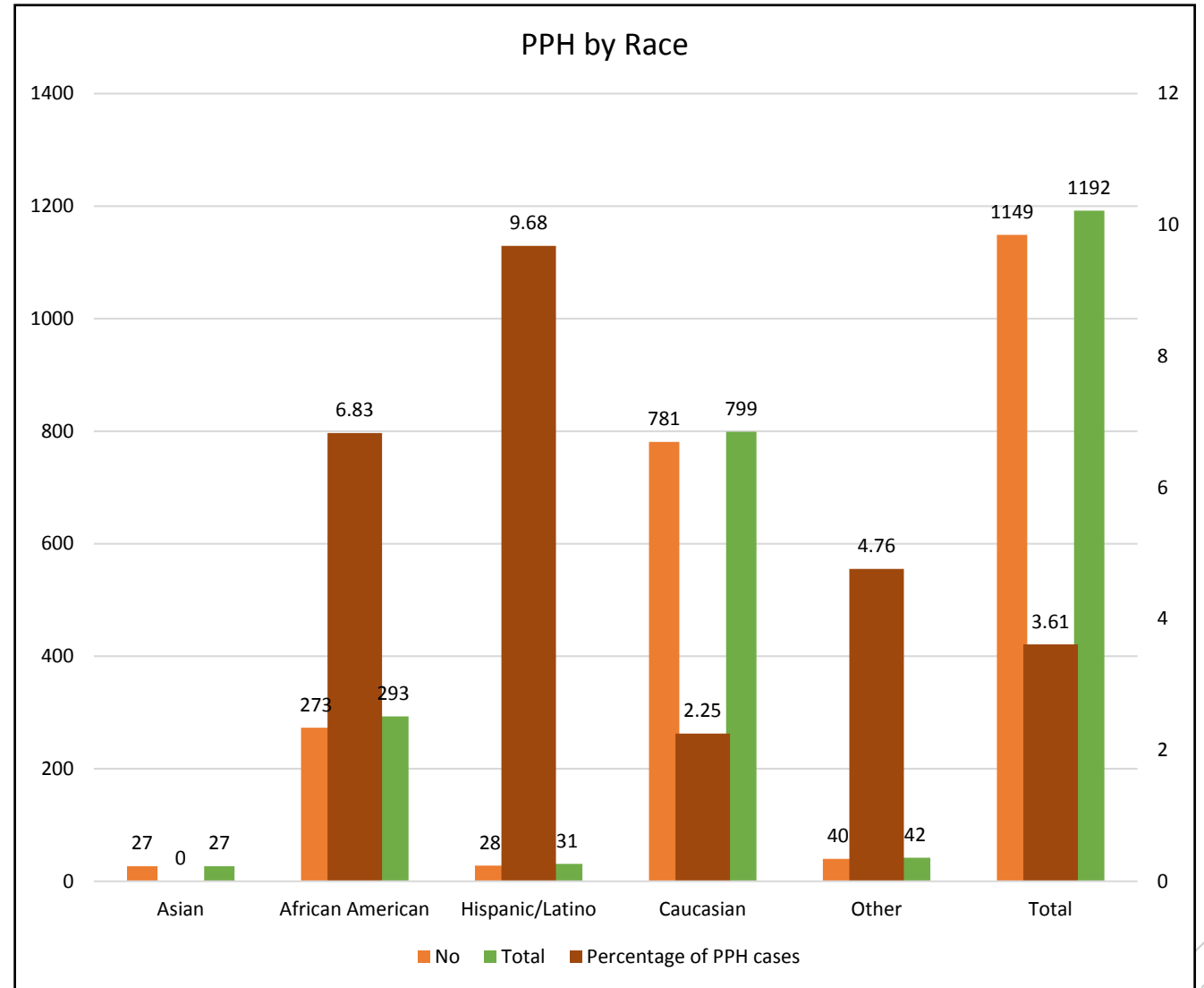
# Results



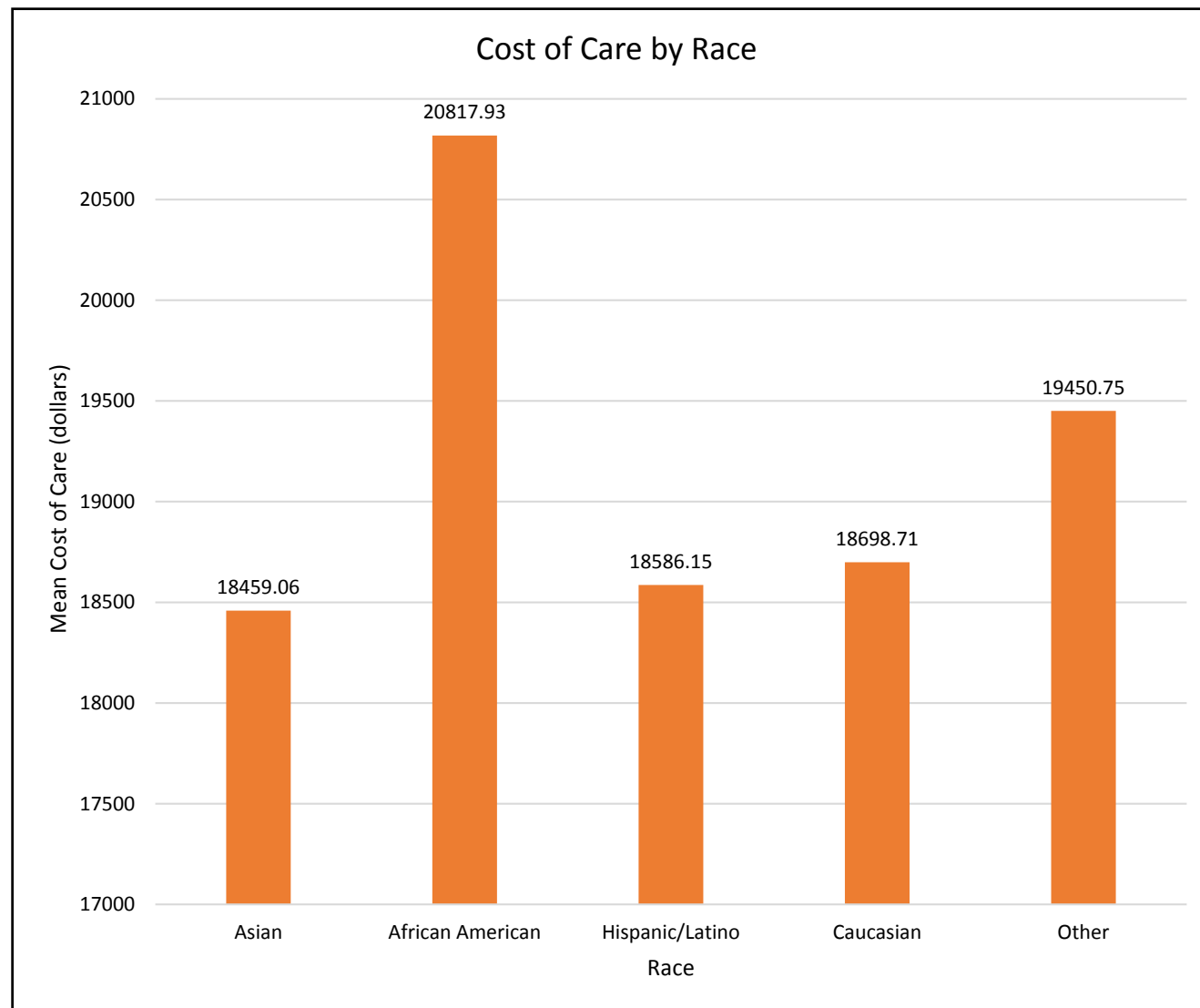
# Results



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- 298 cases with QBL more than 500 ml(s) not diagnosed as PPH.

## Conclusions

- **The labor and delivery clinical staff are accurate in visually estimating blood loss when all deliveries are considered.**
- **PPH has significant implications for LOS and cost of care.**
- **There are racial disparities associated with the prevalence of PPH and cost of care.**
- **Given the impact of PPH on LOS and cost of care a consensus on the definition of PPH should be considered.**

## Limitations of the study

- **Cross-sectional (no causal association).**
- **The findings cannot be generalized to other populations in other hospitals.**

## References

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