



# HIDDEN HAEMORRHAGES



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## INTRODUCTION

Postpartum anaemia is associated with major maternity morbidity including postnatal depression, fatigue, poor wound healing and impaired maternal-infant bonding<sup>1-5</sup>. Postpartum anaemia is a highly prevalent condition, impacting up to 50% of women in developed countries<sup>4, 6</sup>.

## OBJECTIVE

To develop a service to provide holistic care for women with severe postnatal anaemia.

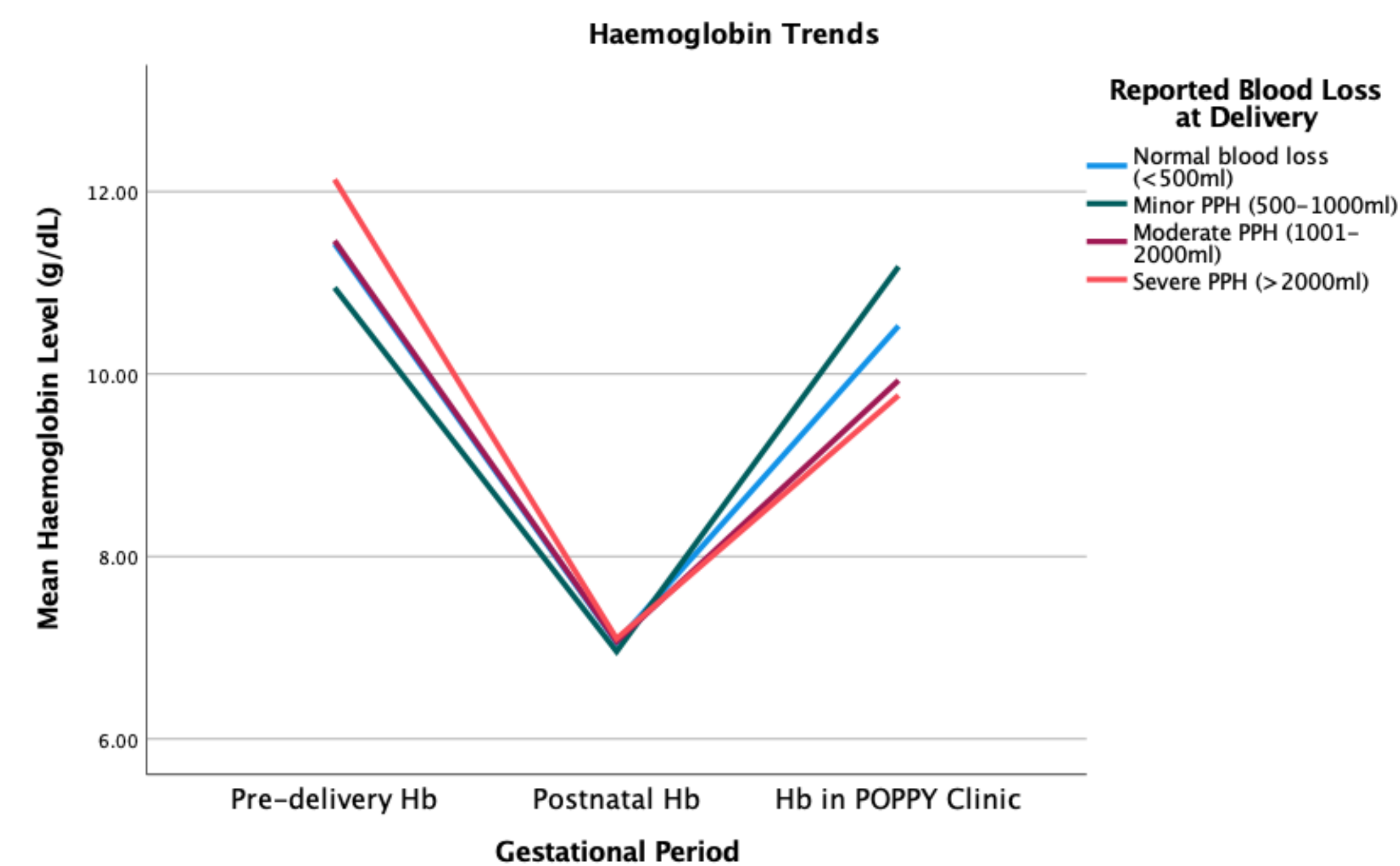
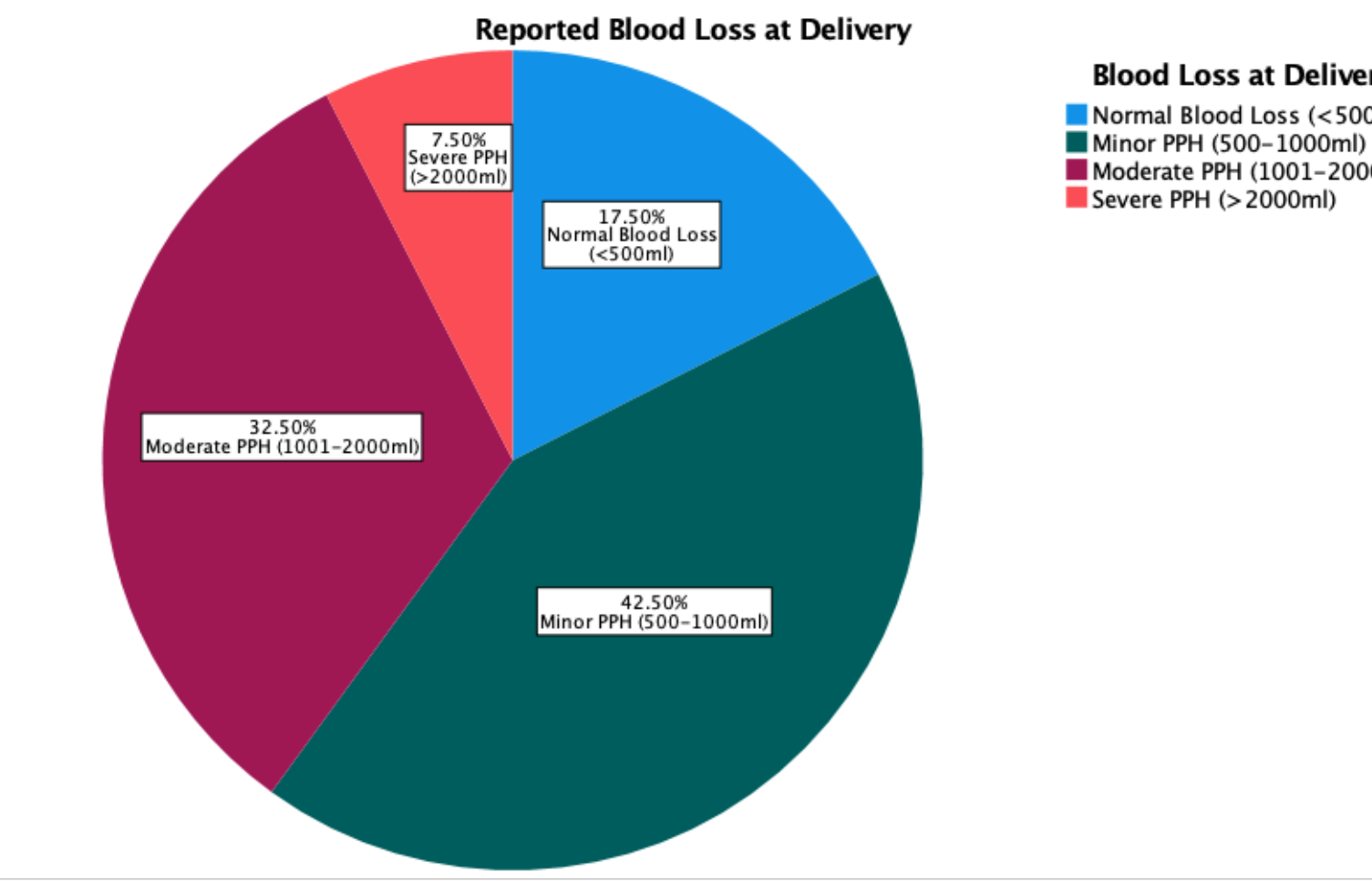
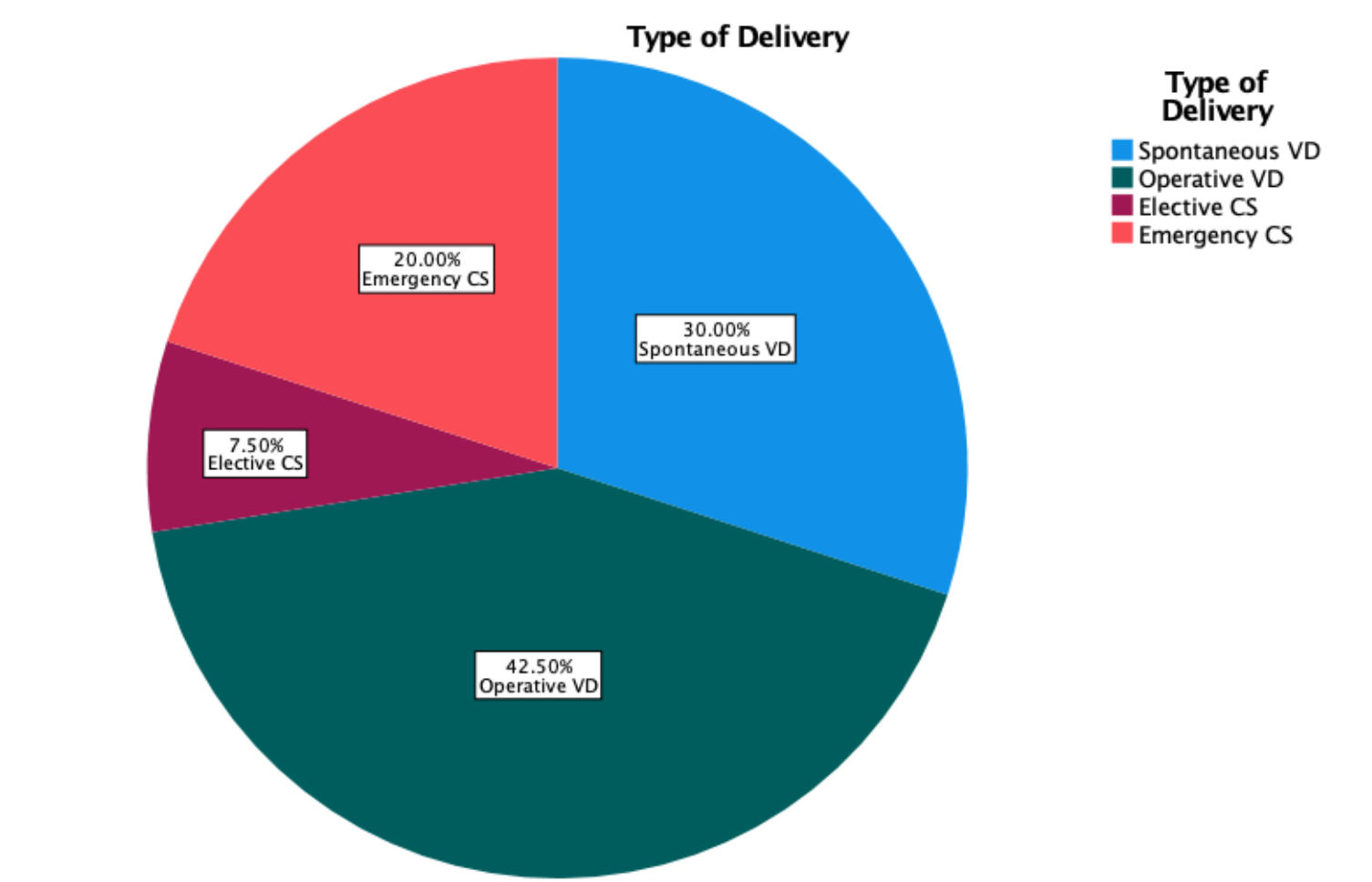
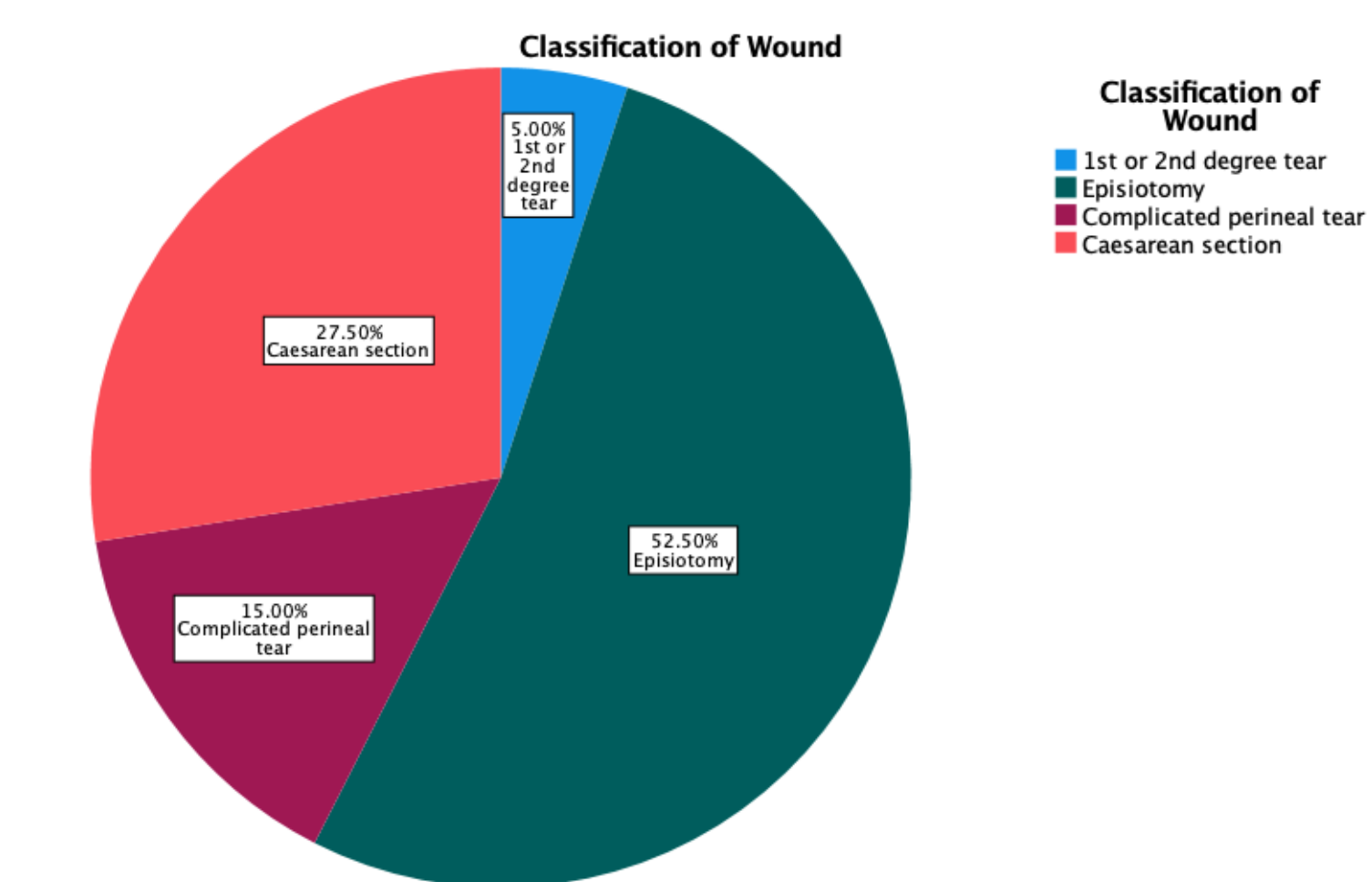
## INITIATIVE AND METHODS

The POPPY postnatal anaemia service was established in 2022. Women with severe postpartum anaemia (classified as a Hb <8g/dL closest to hospital discharge) are offered a medical review at approximately two weeks postnatal to screen for medical or psychological conditions such as poor wound healing or postnatal depression and to measure haemoglobin (Hb) level. 75 women attended POPPY with a Hb < 8g/dL from January to December 2022. We randomly selected 40 of these women for this audit.

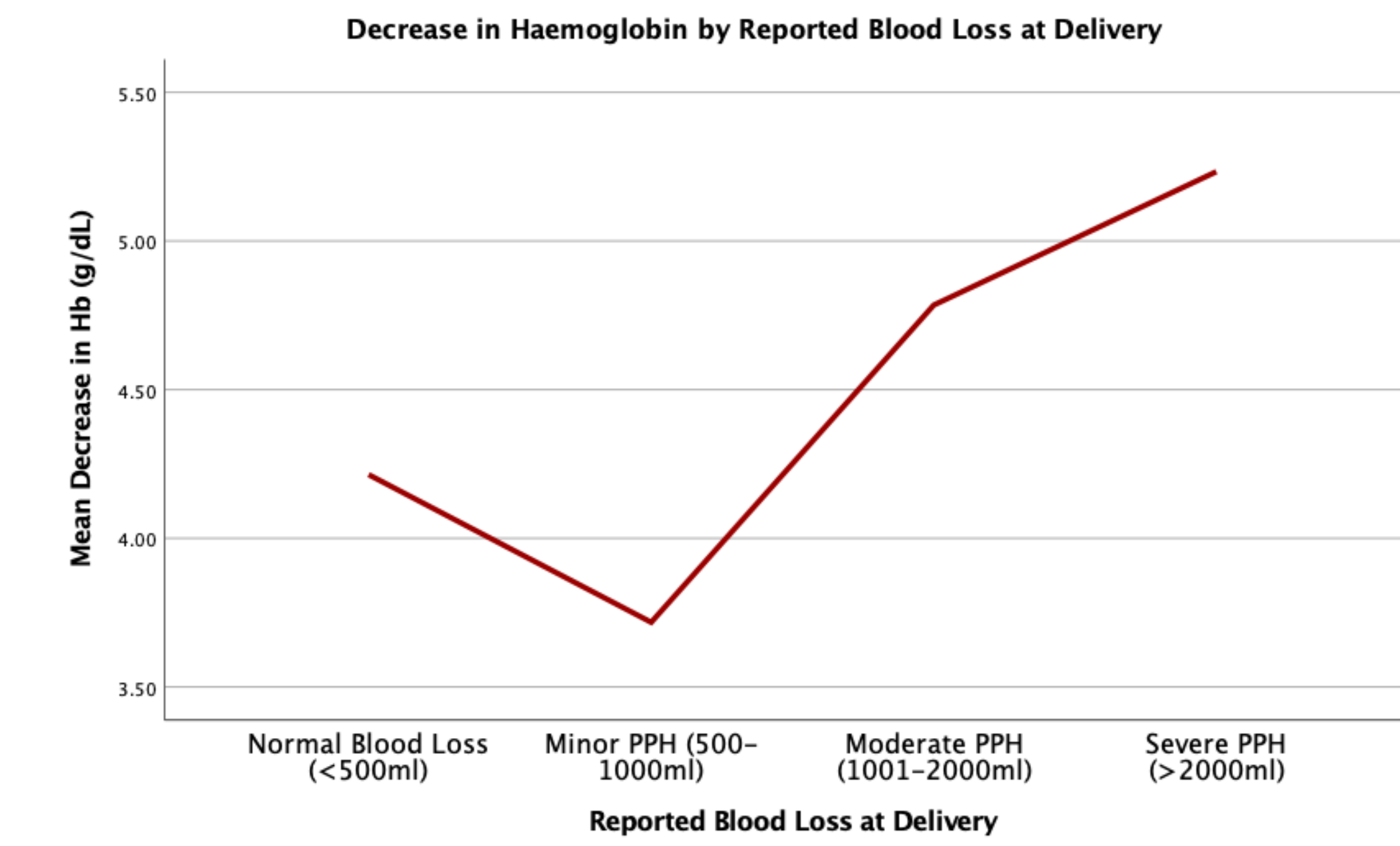
Blood loss at delivery was classified according to the Royal College of Obstetricians and Gynaecologists Green-top Guideline No. 527. Normal blood loss was defined as less than 500ml, minor postpartum haemorrhage (PPH) was defined as a loss of 500–1000ml, moderate PPH was defined as a loss of 1001–2000ml and a severe PPH was defined as more than 2000ml. Anaemia was defined as Hb <11g/dL at booking and Hb <10.5g/dL in the third trimester as defined by the British Committee for Standards in Haematology<sup>8</sup>.

## RESULTS

Median interval from delivery at which women were seen was 16.5 days (SD 13.8 days). 10% (n=4) of women were anaemic at booking and 27.5% (n=11) were anaemic in the 3<sup>rd</sup> trimester. Every patient was commenced on oral iron supplementation on discharge and 40% (n=16) of women received a blood transfusion prior to discharge. 40% (n=16) of women underwent spontaneous onset of labour, 50% (n=20) were induced and 10% (n=4) were delivered by elective prelabour caesarean section. There was no significant difference in body mass index between the different blood loss groups (p=479).



All women who had a vaginal delivery received active management of the third stage of labour. Of the 29 women who had a vaginal delivery, 13.8% (n=4) underwent a manual removal of placenta and 93.1% (n=27) had an episiotomy or complicated tear defined as an obstetric anal sphincter injury or high vaginal tear.



Median Hb (g/dL)	Total	Normal Blood Loss (<500ml)	Minor PPH (500-1000ml)	Moderate PPH (1001-2000ml)	Severe PPH (>2000ml)
Booking	12.3	12.4	12	12.6	12.3
Pre-delivery	11.4	11.5	11.2	11.5	12.3
Post-delivery	7.1	7.1	7.3	6.7	6.8
Repeat in POPPY clinic	10.4	10.1	10.4	10.7	11.1
Decrease from Pre-delivery to Post-delivery	4.3	4.6	3.8	4.6	5
Increase from Post-delivery to POPPY clinic	3.5	2.6	2.9	4.4	3.8

## DISCUSSION

Most women with severe postnatal anaemia were documented as having a normal blood loss or a minor PPH at parturition despite a large drop in Hb level. This suggests an underestimation of blood loss at delivery. This is a particularly vulnerable group of women who do not automatically receive a postnatal debrief and are at risk of undetected severe postnatal anaemia. Given the high prevalence of postnatal anaemia and underestimation of blood loss at delivery with visual estimation we recommend that all women receive a postnatal point of care Hb measurement as well as more accurate methods of estimating blood loss at delivery such as blood collection drapes for vaginal deliveries and the weighing of swabs<sup>7</sup>. Our study demonstrates the efficacy of oral iron replacement in replenishing maternal iron stores after delivery and this should be communicated to patients and staff.

## CONCLUSION

POPPY 's postnatal anaemia surveillance clinic is an innovative service, unique to the National Maternity Hospital. These contemporaneous data demonstrate that blood loss is often underestimated. This service offers invaluable support to a vulnerable group of women who require additional surveillance in the postnatal period. It is imperative that this service is implemented in every maternity hospital at a national level.