

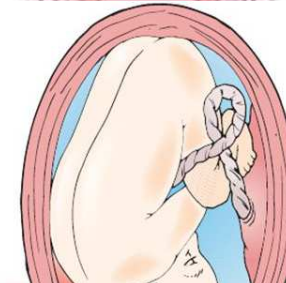
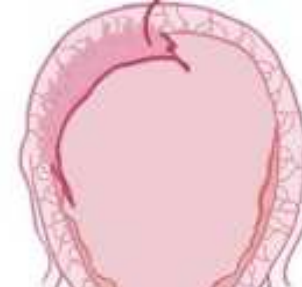
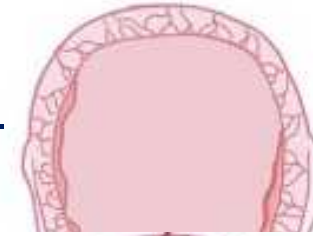
Sanquinavonden: massaal bloedverlies

Massaal bloedverlies na de bevalling

Paul Ramler – *namens de TeMpOH studiegroep*



- **TONE** _____
 - Uterine atony
- **TISSUE** _____
 - Placenta praevia
 - Placental abruption
 - Placental remnant
 - Retained placenta
 - Invasive placenta
- **TRAUMA** _____
 - Uterine rupture
 - Surgical bleeding
 - Vaginal laceration
- **THROMBIN** _____
 - Excessive blood loss
 - Dilutional coagulopathy





SOGC

“Any blood loss that has the potential to produce hemodynamic instability”

5%



ACOG

≥1000mL

4-6%



RANZCOG

Minor: 500mL
Major: ≥1000mL

5-15%



RCOG

Major: ≥1000mL
Severe: ≥2000mL

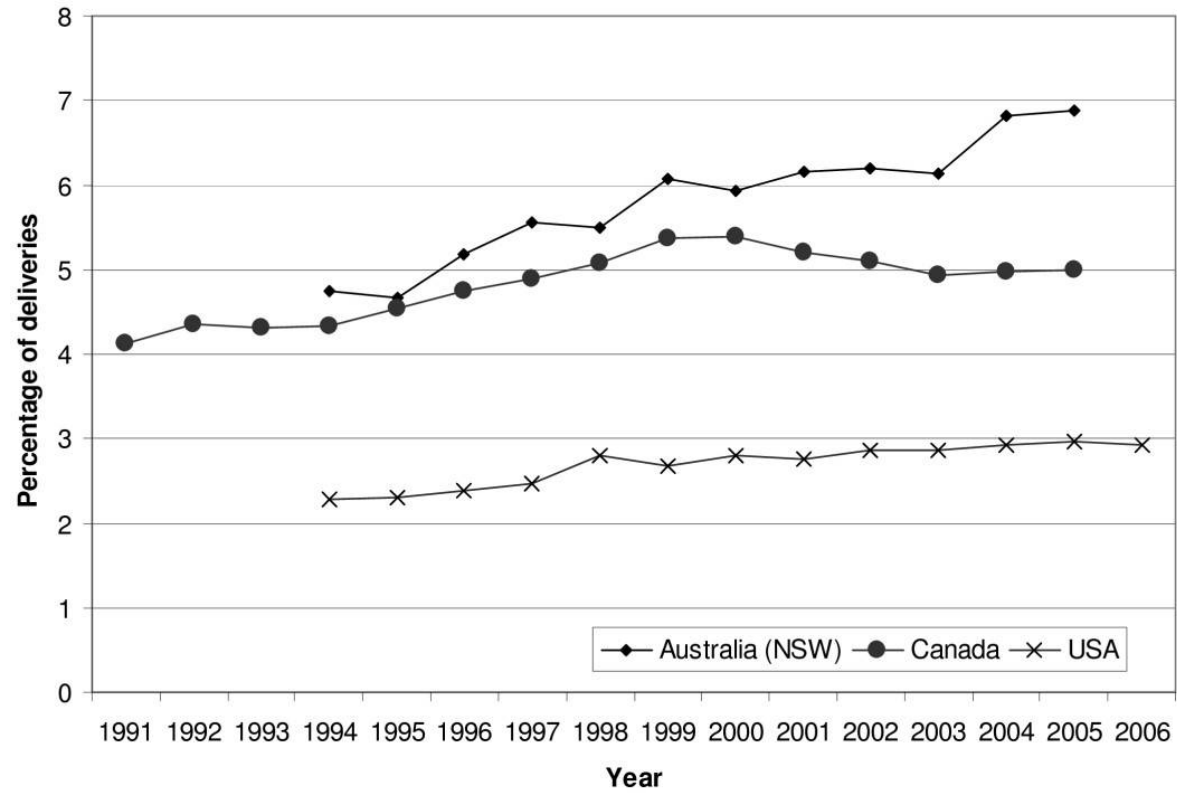
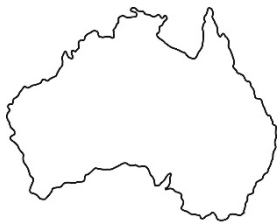
-

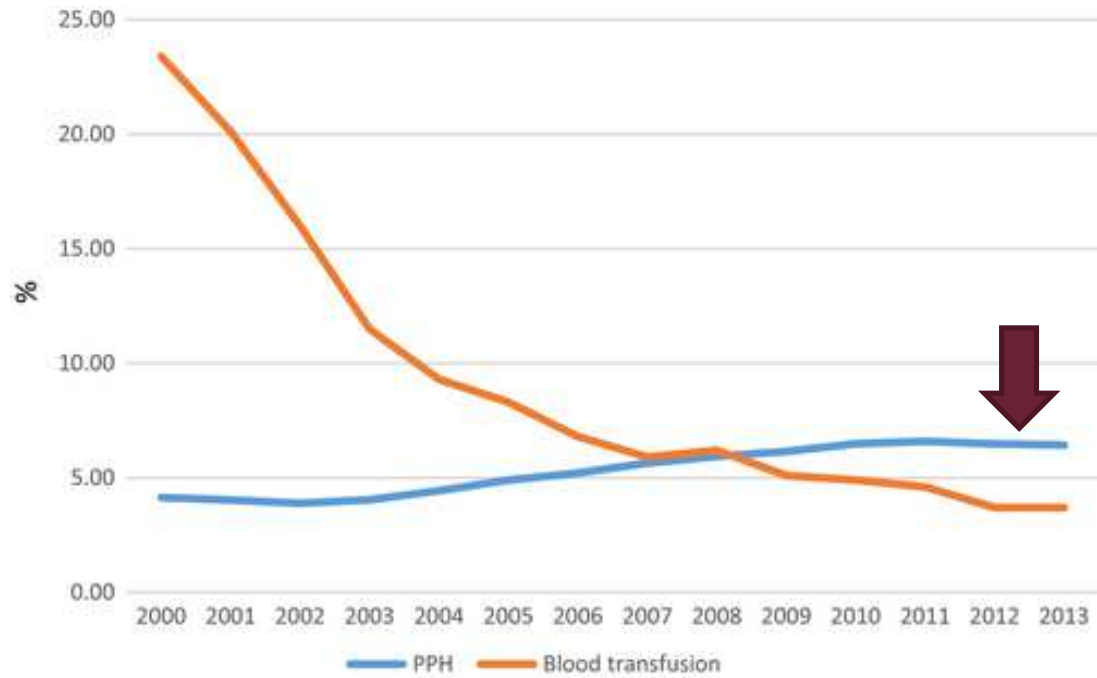


NVOG

≥1000mL

6.4%





BJOG

The epidemiology and outcome of women with postpartum haemorrhage requiring massive transfusion with eight or more units of red cells: a national cross-sectional study.

Green L, Knight M, Seeney FM, Hopkinson C, Collins PW, Collis RE, Simpson NAB, Weeks A, Stanworth SS.



Prospective case identification via UKOSS; 2012-2013



- Postpartum hemorrhage
- Gestational age of at least 20 weeks
- ≥ 8 packed cells transfused within 24 hours

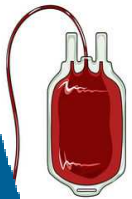
BMC

Incidence, management and outcome of women requiring massive transfusion after childbirth in the Netherlands: secondary analysis of a nationwide cohort study.

Ramler PI, van den Akker T, Henriquez DDCA, Zwart JJ, van Roosmalen J.



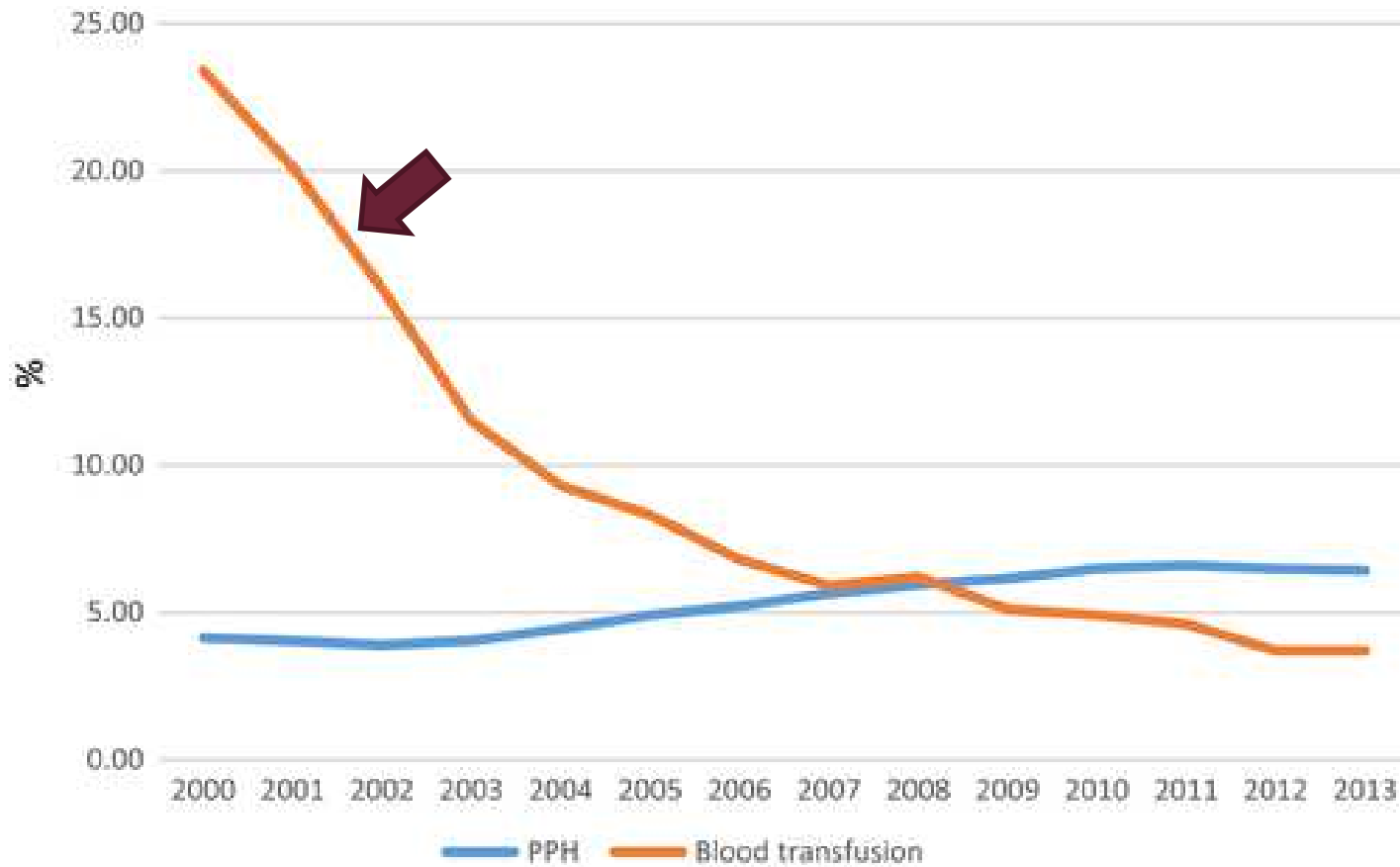
Secondary analysis of the LEMMoN study; 2004-2006



1) Uterine atony	40%
2) Previous caesarean section	40%
3) Trauma/laceration	14%
<p>Median blood loss 600mL (95% per. (100-250-8.0))</p> <p>Hysterectomy birth current pregnancy 49%</p>	



1) Uterine atony	55%
2) Previous caesarean section	20%
3) Trauma/laceration	12%
<p>Median blood loss 450mL (95% per. (80-100-6.0))</p> <p>Hysterectomy birth current pregnancy 25%</p>	





Women receiving massive transfusion due to postpartum hemorrhage in the Netherlands: a comparison over time between two nationwide cohort studies

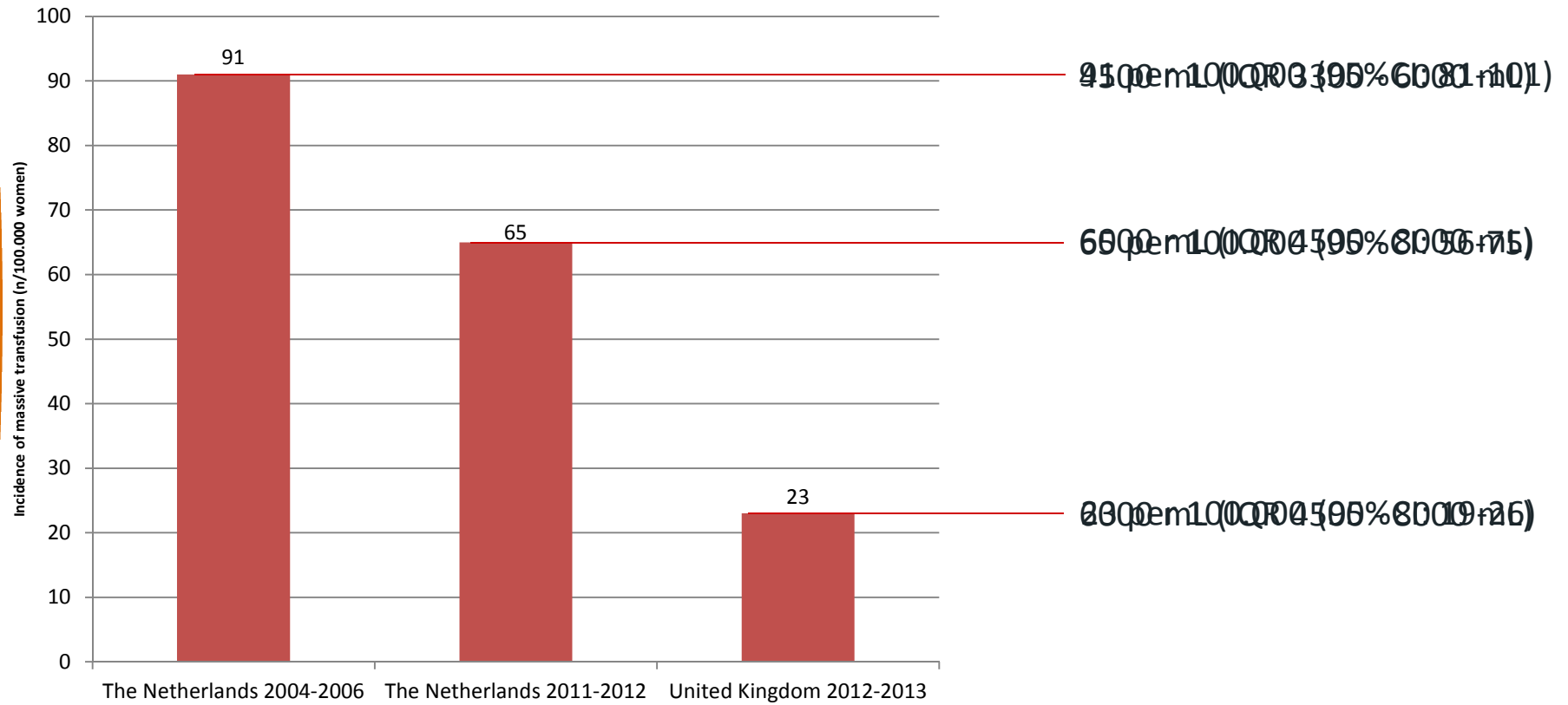
Ramler PI, van den Akker T, Henriquez DDCA, Zwart JJ, van Roosmalen J, van Lith JIM, van der Bom JG.



Secondary analysis of the TeMpOH-1 study; tussen 2011-2012

Transfusion strategies in women during Major Obstetric Haemorrhage

270.101 births; 171 women received ≥ 8 packed red blood cells after birth



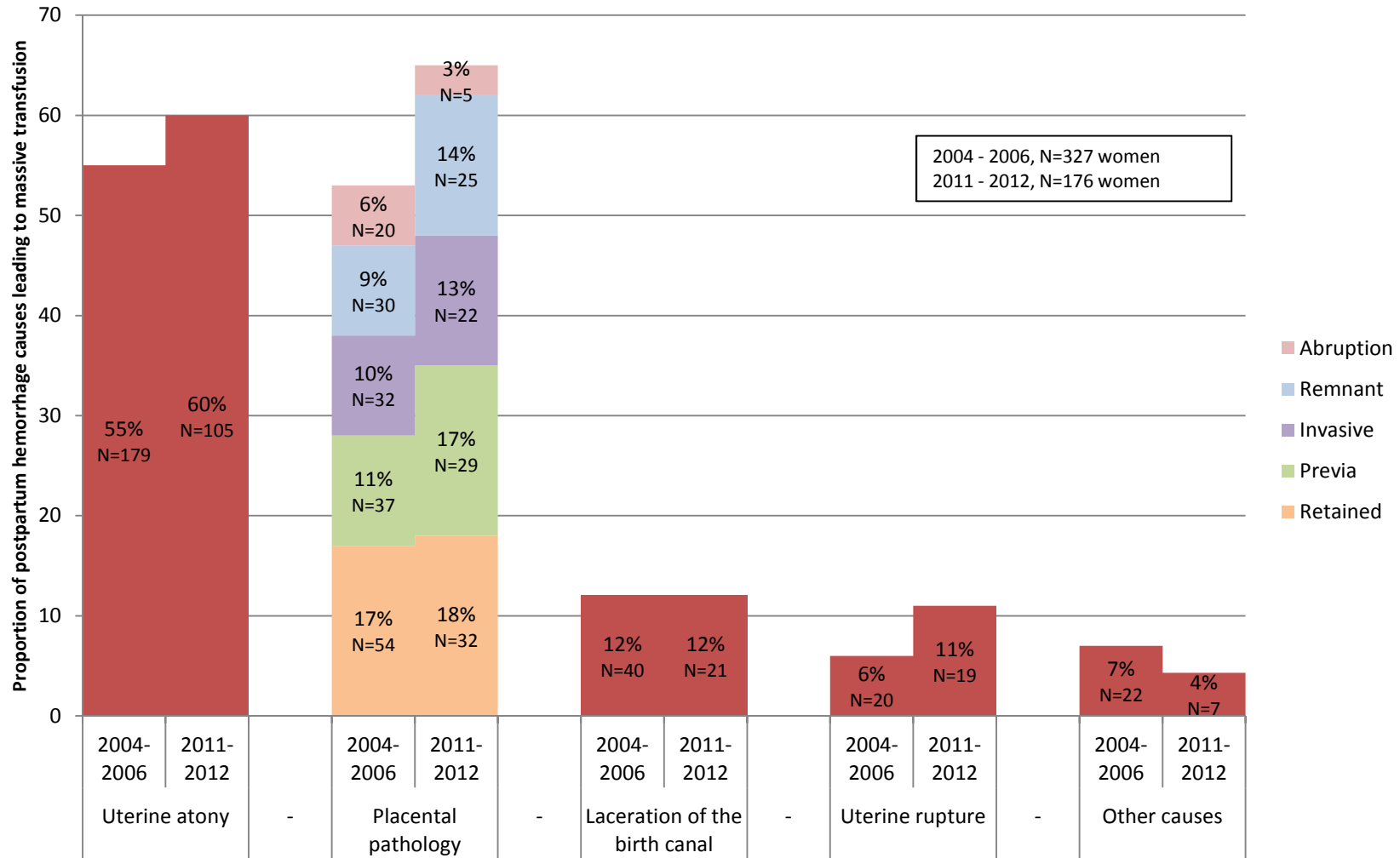
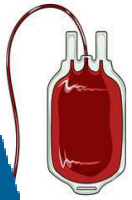


Table 2. Distribution of obstetric interventions by cause of postpartum haemorrhage

	Total	
	2004-2006 ³ N=327	2011-2012 N=176
Intra-uterine balloon	23% (N=75)	56% (N=99)
Uterine artery ligation	5% (N=17)	5% (N=9)
Uterine artery embolization	22% (N=71)	48% (N=84)
B-Lynch suture	2% (N=8)	14% (N=25)
Hysterectomy	25% (N=83)	30% (N=53)



2004-2006: Mortality ratio 0.84 per 100.000



2011-2012: Mortality ratio 1.48 per 100.000



Ongoing burden of maternal morbidity and mortality