Operative Vaginal Delivery

2019 Annual Clinical Report

Our Rates

- Women birthing at the Auckland City Hospital have a 13% chance of experiencing an instrumental vaginal birth.
- This rate is 20% in nulliparas
- Approximately 65% of instrumental vaginal births are by ventouse
- And 35% of instrumental vaginal births are by forceps

Figure 86: Operative vaginal birth NWH 1992-2019

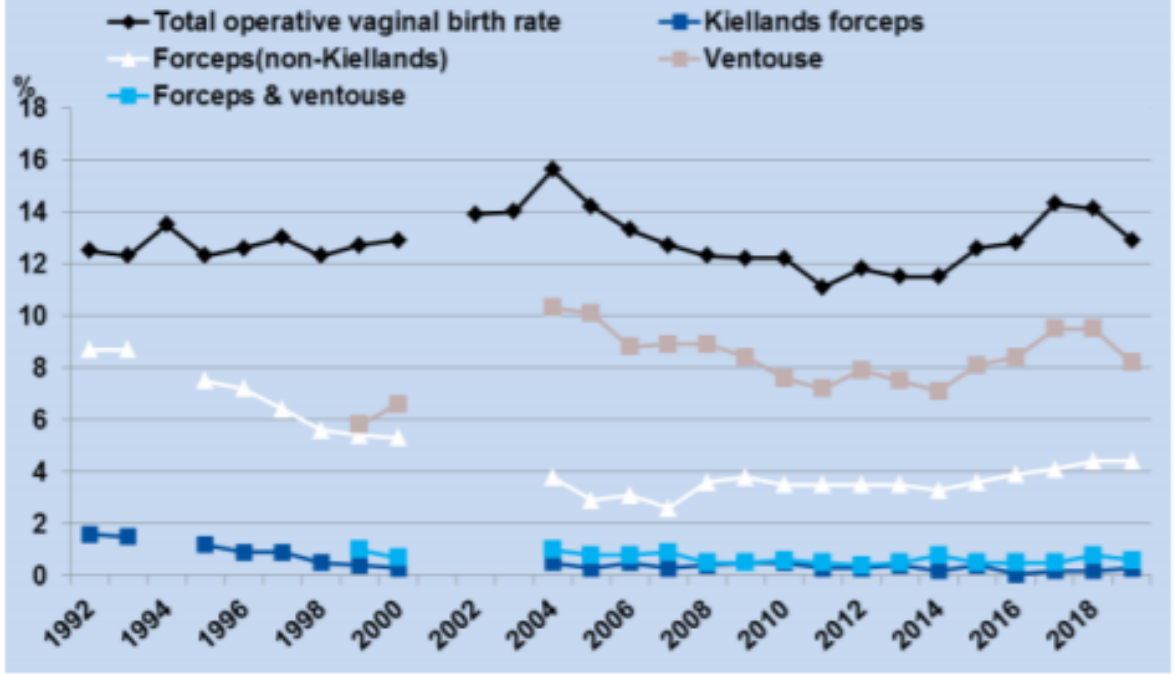
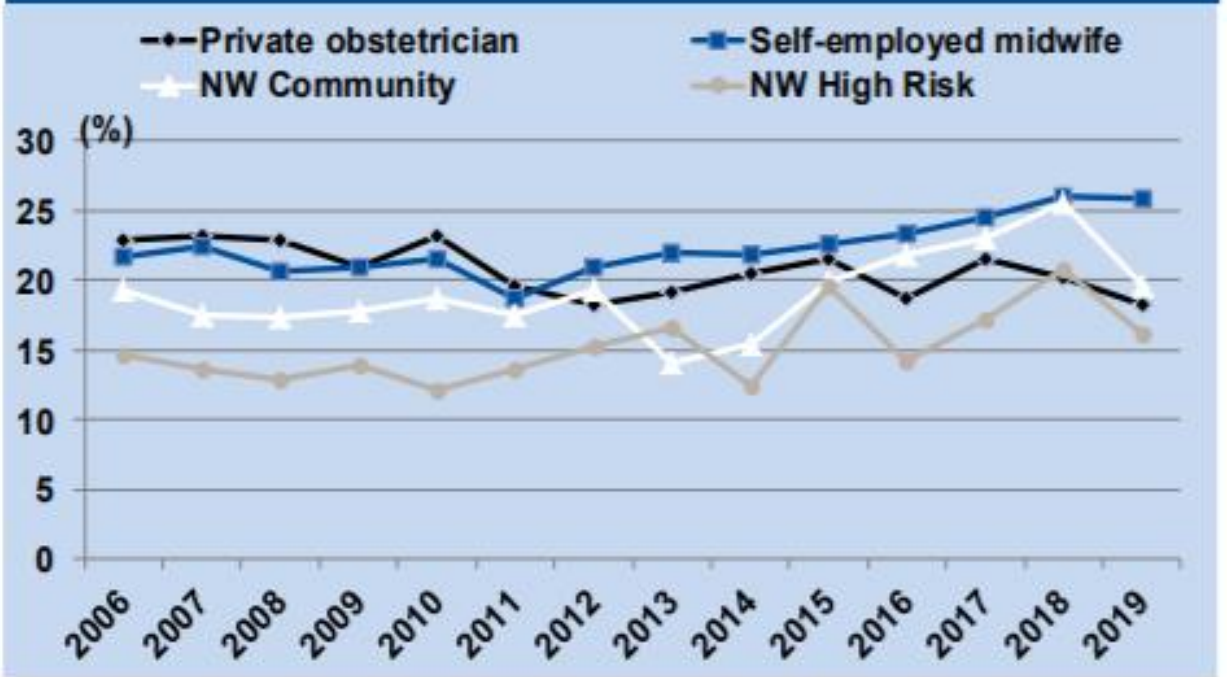


Figure 87: Operative vaginal birth rate among all nullipara by LMC 2006 – 2019



How often does it work?

- 5% of women who undergo an attempt at instrumental birth will undergo a caesarean
- 4% of women will experience use of two instruments
  - However, in all but one case the ventouse was the first instrument followed by forceps
  - Therefore the rate of double instruments is 0.3% for forceps and 7% for ventouse
  - Is a 7% conversion rate too high?

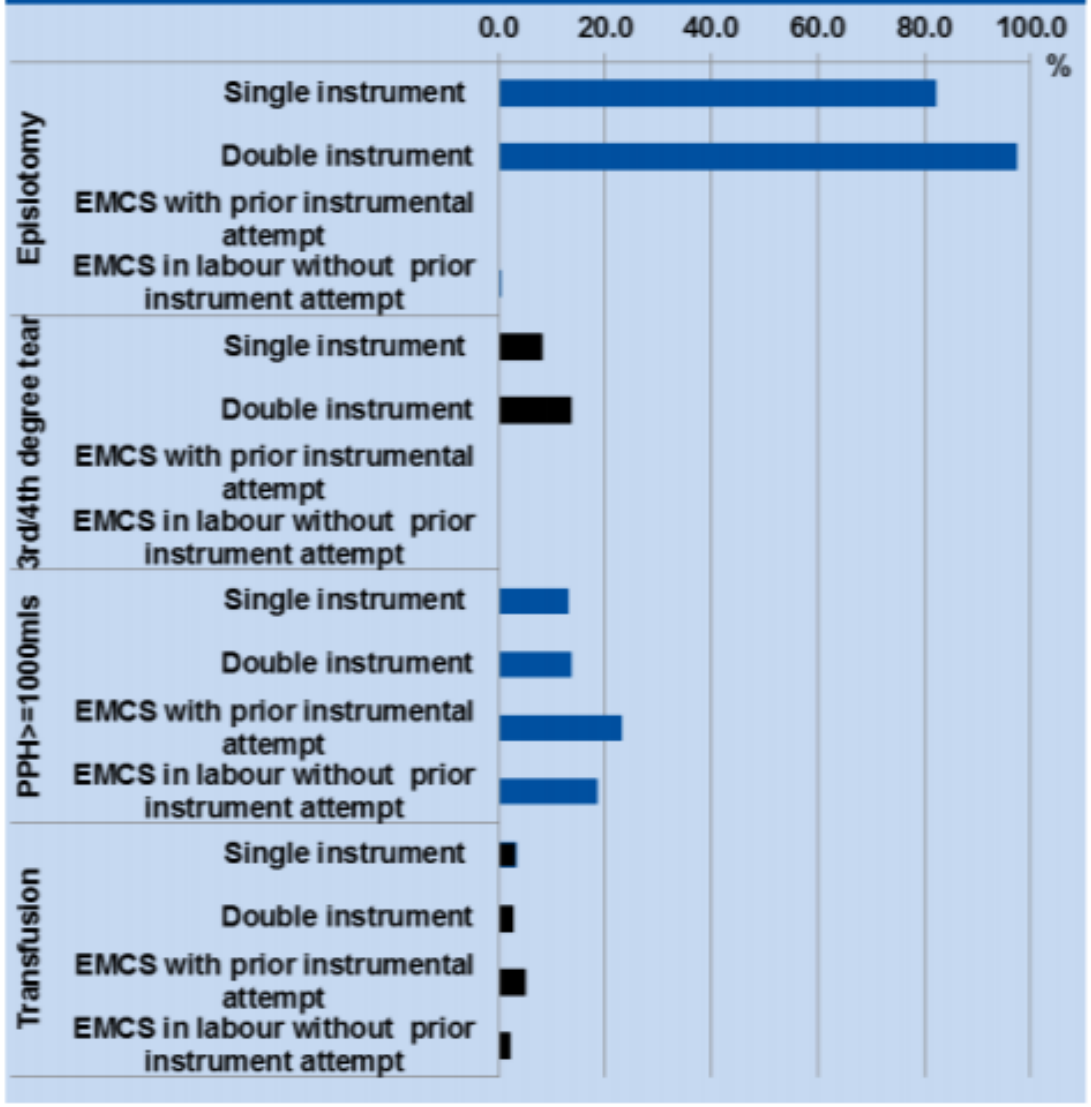
Table 106: Type of instrument used in singleton operative vaginal birth NWH 2019

	Number (wāhine) N=6560	
	n	%
Total operative vaginal birth	**844**	**12.9**
Total forceps delivery*	308	4.7
Keillands forceps	19	0.3
Neville Barnes forceps	272	4.1
Wrigley forceps	18	0.3
Total Ventouse delivery*	**536**	**8.2**
More than one instrument	**37**	**0.6**
Two forceps	0	
Forceps+ventouse	37	0.6
Any instrument used before spontaneous vaginal birth	1	0.1

Maternal Outcomes

- Most women receive an episiotomy
  - This is recommended in nulliparous women only
- The rates of documented 3rd and 4th degree tears are significantly lower than reported in most studies
  - A true finding? Underreporting? Underdiagnosis?

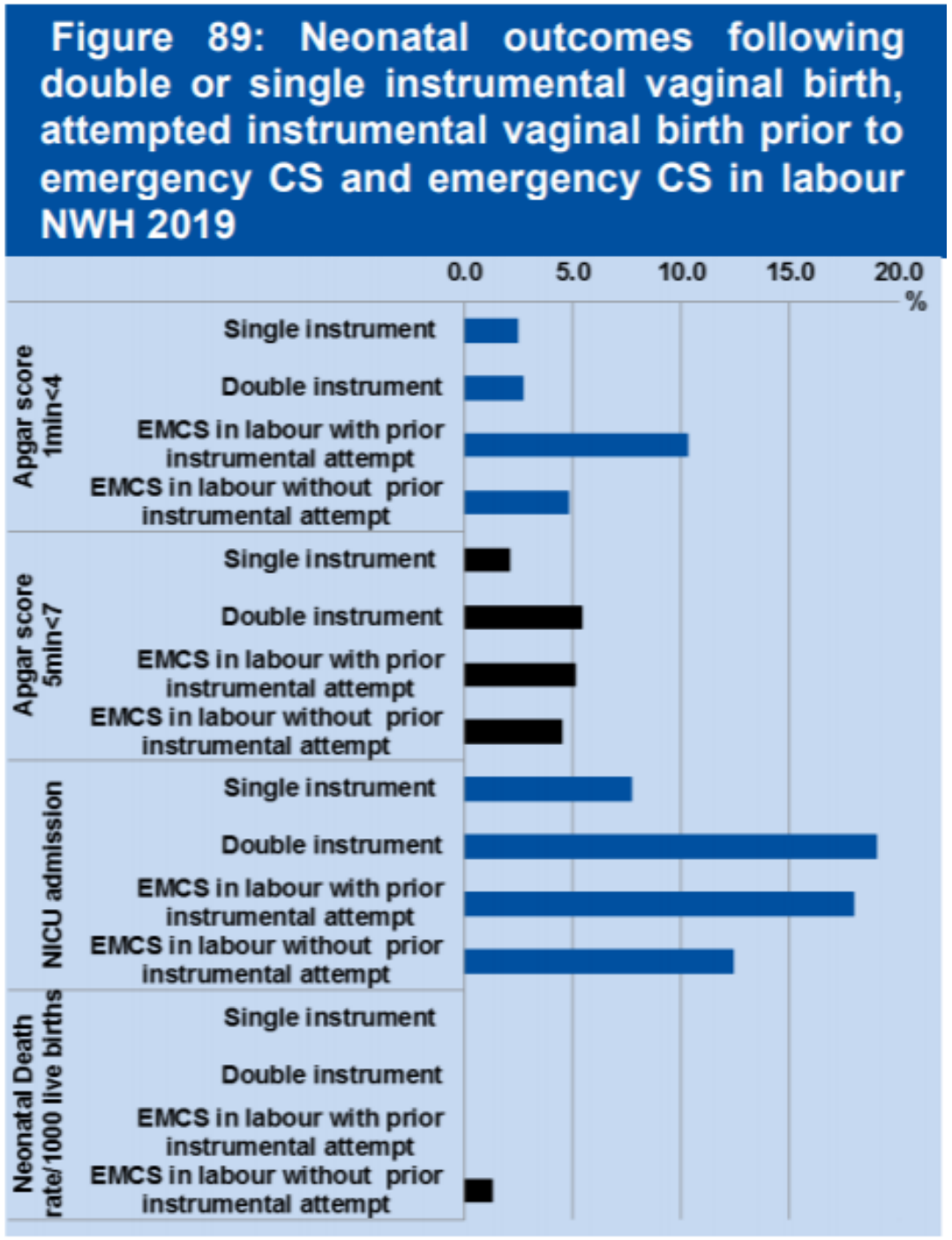
Figure 88: Maternal outcomes following double or single instrumental vaginal birth, attempted instrumental vaginal birth prior to emergency CS and emergency CS in labour NWH 2019



Neonatal Outcomes

- There does not appear to be a significant advantage to performing a caesarean if the first instrument fails

- However, RANZCOG recommends being willing to abandon the procedure (instrumental birth)



Where do we go from here?

New kids on the block

- The merits and detractors of these new instruments can be debated
- Ask the registrars – I've gotten to some of them
- There are no RCTs comparing the use of different forcep types and outcomes for mothers and babies

Perineal laceration

- The risk of severe perineal laceration appears to be modified by slow delivery of the head and removal of forceps before the head has delivered completely
- Substituting ventouse for forceps also appears to modify the risk
  - This needs to be balanced with the likelihood of a double-instrument delivery
- There is some evidence that episiotomy modifies the risk, though is only recommended by RANZCOG in nulliparas
- Evidence regarding risk modification is problematic -much comes from assessing ‘bundles’ or unadjusted retrospective datasets, making it difficult to assess for causation versus correlation

Ventouse

Likewise, no compelling evidence that any product produces superior outcomes

Questions