1.9 Mode of birth:

The incidence of unassisted vaginal birth has decreased significantly in Queensland over this 20 year period (unassisted vaginal birth vs rest; odds ratio 0.61, 95% confidence limits 0.59, 0.63) (Figure 31, Tables 27 and 28). During this period the incidence of assisted vaginal birth (forceps assistance and vacuum extraction) has decreased by almost 30% (assisted vaginal birth vs rest; odds ratio 0.69, 95% confidence limits 0.66, 0.72) and the incidence of caesarean section has increased by almost 35% (caesarean section vs rest; odds ratio 2.18, 95% confidence limits 2.12, 2.25).

![Graph showing mode of birth in Queensland 1988-2007](image1)

Fig 31: Mode of birth of babies born in Queensland 1988-2007 (percentage of births) (refer Tables 27 and 28)

The techniques employed for assisted vaginal birth have changed significantly, with vacuum extraction becoming the preferred option for the majority of cases in 2007, whereas forceps assistance was the preferred option in 1988. (vacuum extraction vs forceps; odds ratio 15.68, 95% confidence limits 14.20, 17.32) (Figure 32, Tables 27 and 28).

![Graph showing mode of assisted vaginal birth in Queensland 1988-2007](image2)

Fig 32: Mode of assisted vaginal birth of babies born in Queensland 1988-2007 (percentage of births) (refer Tables 27 and 28)
The decline in the incidence of unassisted vaginal birth has been more obvious in the setting of private hospital care, when compared with public hospital care (Figure 33, tables 29 and 30), though the decline is statistically significant in both care modes (public hospital care unassisted vaginal birth vs rest odds ratio 0.32, 95% confidence limits 0.31, 0.33; private hospital care unassisted vaginal birth vs rest odds ratio 0.12, 95% confidence limits 0.11, 0.12).

The increasing incidence of caesarean section birth has been more obvious in the setting of private hospital care, when compared with public hospital care (Figure 34, tables 29 and 30), though, again, the change is statistically significant in both care modes (public hospital care caesarean section vs rest odds ratio 1.11, 95% confidence limits 1.07, 1.14; private hospital care unassisted vaginal birth vs rest odds ratio 1.41, 95% confidence limits 1.33, 1.49).

Fig 33: Incidence of unassisted vaginal birth of babies born in Queensland 1988-2007 by Care Provider (percentage of births) (refer Tables 29 and 30)

Fig 34: Incidence of caesarean section birth of babies born in Queensland 1988-2007 by Care Provider (percentage of births) (refer Tables 29 and 30)
Though there has been a statistically significant increase in the incidence of elective (without labour) and non-elective (with labour) caesarean section in both public and private sectors, the stand out change has been the large increase in the incidence of elective caesarean section before labour in the private sector (a 156.8% increase over the period 1988 to 2007, from 13.2% to 33.9%; odds ratio 3.36, 95% confidence limits 3.13, 3.61) (Figure 35, Tables 31 and 32).

The decline in the incidence of assisted vaginal birth was statistically significant in both public and private hospital care modes, though more marked in private hospitals (public hospital care assisted vaginal birth vs rest odds ratio 0.74, 95% confidence limits 0.70, 0.78; private hospital care assisted vaginal birth vs rest odds ratio 0.60, 95% confidence limits 0.56, 0.65) (Figure 36, Tables 29 and 30).
As seen in Figure 37, and Tables 29 and 30, the change in the incidence of assisted vaginal birth has been a combination of a fall in the use of obstetric forceps and a rise in the use of vacuum extraction.

There has been a steady increase in the use of caesarean section in the delivery of women with a breech presentation. This increase has occurred partly after the publication of the “Term Breech Trial” in 2000, but was clearly occurring prior to this date (Figure 38, Table 33).

---

Fig 37: Incidence of assisted vaginal birth, by forceps and vacuum extraction, of babies born in Queensland 1988-2007 by Care Provider (percentage of births) (refer Tables 29 and 30)

Fig 38: Incidence of caesarean section birth of babies born in Queensland 1988-2007, when presenting by the breech, by Care Provider (percentage of births) (refer Table 33)

---

Data relating to the clinical indicator relating to cervical dilatation prior to caesarean section was collected for a full year commencing in 2001. Between 2001 and 2007 there has been a slight, but statistically significant, increase in the incidence of assessment prior to caesarean section revealing a cervical dilatation of 3 cm or more (≥3 cm vs <3 cm; odds ratio 1.12, 95% confidence limits 1.05, 1.20), and a slight, but statistically significant, reduction in caesarean section at a cervical dilatation of 3 cm or less (<3 cm vs 3+ cm; odds ratio 0.83, 95% confidence limits 0.77, 0.90) (Figure 39, Tables 34 and 35).

There is no clearly discernible pattern in the incidence of cervical assessment findings prior to caesarean section when public hospital and private hospital care are separated (Figure 40, Tables 34 and 35).