

6. QUALITY AND OUTCOMES OF CARE

Obstetric trauma

Patient safety during childbirth can be assessed by looking at potentially avoidable tearing of the perineum during vaginal delivery (Harvey, 2015). Such tears extend to the perineal muscles and bowel wall require surgery. They are more likely to occur in the case of first vaginal delivery, high baby birth weight, labour induction, occiput posterior baby position, prolonged second stage of labour and instrumental delivery. Possible complications include continued perineal pain and incontinence. These types of tears are not possible to prevent in all cases, but can be reduced by employing appropriate labour management and high quality obstetric care. Hence, the proportion of deliveries involving higher degree lacerations is a useful indicator of the quality of obstetric care.

Obstetric trauma indicators are considered to be relatively reliable and comparable across countries, particularly given they are less sensitive to variations in coding practices across countries. Nevertheless, differences in the consistency with which obstetric units report these complications may complicate international comparison. Fear of litigation, for example, may cause under-reporting; conversely systems that rely on specially trained administrative staff to identify and code adverse events from patients' clinical records may produce more reliable data.

While rates of obstetric trauma may be influenced by the overall national rate of caesarean sections, assisted vaginal delivery and episiotomy, these remain issues of ongoing research. For example, episiotomy is a surgical incision of the perineum performed to widen the vaginal opening for the delivery of an infant. Wide variation in the use of episiotomy during vaginal deliveries currently exists across Europe, ranging from around 70% of births in Portugal and Poland in 2010 to less than 10% in Sweden, Denmark and Iceland (Euro-Peristat, 2013). The selective use of episiotomy to decrease severe perineal lacerations during delivery remains controversial

Figure 6.27 shows rates of obstetric trauma *with* instrument and Figure 6.28 shows rates of obstetric trauma after vaginal delivery *without* instrument. Obstetric trauma with instrument refers to deliveries using forceps or vacuum extraction. As the risk of a perineal laceration is significantly increased when instruments are used to assist the delivery, rates for this patient population are reported separately.

High variation in rates of obstetric trauma is evident across countries. Reported rates of obstetric trauma *with* instrument vary from below 2% in Israel, Italy and Poland to more than 10% in Denmark, Sweden and Canada. The rates of obstetric trauma after vaginal delivery *without* instrument vary from below 0.5 per 100 deliveries in Poland and Israel to over 2.5 per 100 deliveries in Denmark, United Kingdom and Canada.

While the average rate of obstetric trauma *with* instrument (5.7 per 100 instrument-assisted vaginal deliveries) across OECD countries in 2015 was nearly 4 fold the rate

without instrument (1.5 per 100 vaginal deliveries *without* instrument assistance), there is a strong relationship between the two indicators, with Italy, Israel and Poland reporting the lowest rates and Canada, Denmark and New Zealand reporting amongst the highest rates for both indicators.

No clear trend is evident in the rates of obstetric trauma over the five year period 2010-2015, with the OECD average remaining relative static for both vaginal deliveries *with* and *without* instrument. While rates for both indicators indicate noticeable improvements in Denmark and Norway over this period, rates for some countries including Slovenia and Spain would appear to have deteriorated.

Definition and comparability

The two obstetric trauma indicators are defined as the proportion of instrument assisted/non-assisted vaginal deliveries with third- and fourth-degree obstetric trauma codes (ICD-10 O70.2, O70.3) in any diagnosis and procedure field.

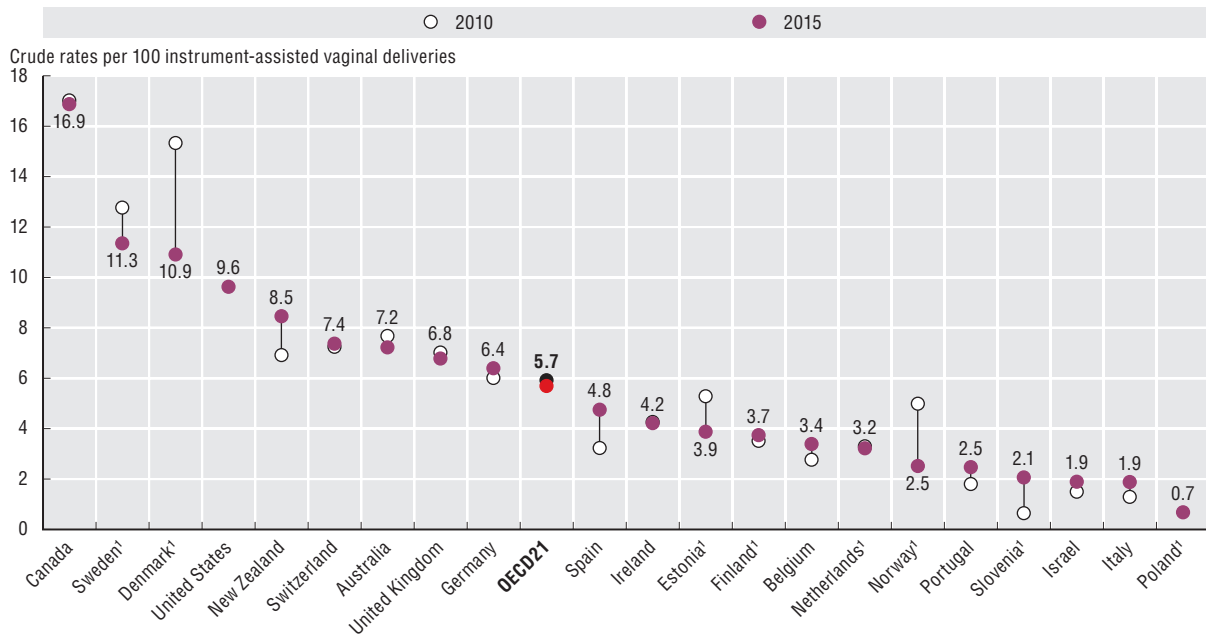
Several differences in data reporting across countries may influence the calculated rates of obstetric patient safety indicators. These relate primarily to differences in coding practice and data sources. Some countries report the obstetric trauma rates based on administrative hospital data and others based on obstetric register data. There is some evidence that registries produce higher quality data and report a greater number of obstetric trauma events compared to administrative datasets (Baghestan et al., 2007).

Careful interpretation of obstetric trauma for instrument assisted delivery rates over time is required, given the very low number of trauma cases in some countries is likely to give rise to significant year on year variation.

References

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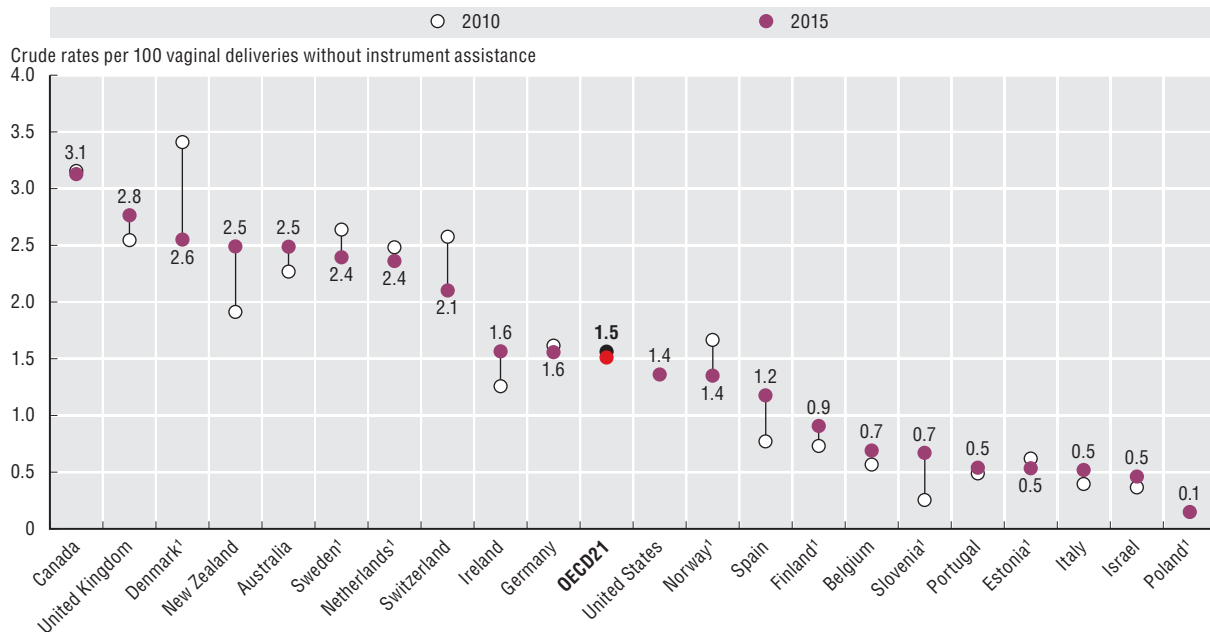
6.27. Obstetric trauma, vaginal delivery with instrument, 2010 and 2015 (or nearest year)



1. Based on registry data.
Source: OECD Health Statistics 2017.

StatLink <http://dx.doi.org/10.1787/888933603849>

6.28. Obstetric trauma, vaginal delivery without instrument, 2010 and 2015 (or nearest year)



1. Based on registry data.
Source: OECD Health Statistics 2017.

StatLink <http://dx.doi.org/10.1787/888933603868>



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