



The definition of Stillbirth in Ireland: A rationale for change

In Ireland, a stillbirth is currently defined as a fetus born without any signs of life at ≥ 24 weeks gestation or with a birthweight of $\geq 500\text{g}$ ¹. **Based on the findings from our review of stillbirth definitions and rates, and due to improving survival rates for infants at the limit of viability, we recommend that the stillbirth definition in Ireland should be updated to ≥ 22 weeks' gestation and $\geq 400\text{g}$ to comply with improved medical developments**

This is important to ensure that parents who experience stillbirth have their child recognised, and are adequately supported around parental leave, funeral requirements, and access to bereavement care. It will also influence medical decisions about when to offer active care and impact on survival rates

What do we already know?

Stillbirth definitions vary between countries around the globe. This leads to discrepancies and inaccurate comparisons in international reporting^{2,3}. Stillbirth rates are used globally to indicate quality of care within countries

The WHO recommends standardising the international stillbirth definition for epidemiology studies, using a birthweight of $\geq 1000\text{g}$ and/or a gestational age ≥ 28 weeks. It's recommendation for in-country national reporting however, urges countries to record stillbirths as those with a birthweight $\geq 500\text{g}$, a gestational age ≥ 22 weeks, or a crown-heel length of $\geq 25\text{cm}$ ⁴

In Ireland, a stillbirth is defined within legislation as "a fetus born without any signs of life at 24 weeks' gestation or more or with a birthweight of at least 500g". Since passing this legislation, 25 years ago, medical care improvements have significantly increased the survival rates of extremely preterm infants, but Ireland has not updated the definition to reflect this^{5,6}

Our study explores stillbirth definitions used by high income countries around the world, specifically compared to Ireland, their stillbirth and mortality rates and to examine how these rates are influenced by standards of care, especially resuscitation efforts within the delivery room for very preterm infants

What did we do?

We conducted a **literature review**, searching **four bibliographic databases** to address the two study questions. For countries whose stillbirth registration requirements could not be found in the literature, their central statistics office or ministry of health reports were reviewed along with publications from the WHO and EUROCAT Member Registries

The Impact of Stillbirth

"We are just suffering our way through it ... you just have to take one hour at a time ... I wish I could have gone and he could have stayed . . . and let him have a life "

"He played a big part in changing our lives in a year. Not only in his own presence . . . he also impacted in other areas of our lives as well. He was a very powerful little person."

"I wanted to take him home. I wanted as much time with him as we could . . . I suppose we knew we wouldn't have long with him before we buried him"

"In the beginning we talked and cried but we don't talk about it much anymore because it's too painful."

D Nuzum, S Meaney, K O'Donoghue. The impact of stillbirth on bereaved parents: A qualitative study. PLoS One. 2018 Jan 24;13(1):e0191635. doi: 10.1371/journal.pone.0191635.
<https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0191635>

What did we find?

We included **33 papers** in our synthesis: 24 regarding stillbirth definitions and 15 for neonatal viability

Stillbirth definitions within the EU and beyond

Within the EU, the legal classification of stillbirth for registration varies between countries, from ≥ 22 -28 weeks gestation and ≥ 500 -1000 g: 59.2% (n = 16), 14.8% (n = 4), 11.1% (n = 3), and 3.7% (n = 1) countries classify stillbirths at gestational ages of ≥ 22 weeks, ≥ 24 weeks, ≥ 28 weeks, and ≥ 180 gestational days, respectively

Stillbirth definitions vary even more throughout the rest of Europe and beyond, with gestational age requirements ranging from ≥ 12 -28 weeks and birthweight ranging from ≥ 350 -1000g. The US, Australia, New Zealand, Azerbaijan, and Canada all use 20 weeks as the lower limit of stillbirth gestational age, while Norway uses 12 weeks. Australia and New Zealand use a birthweight of ≥ 400 g and the US uses ≥ 350 g

Stillbirth and mortality rates

Stillbirth definitions are based on the fetus' viability, but age of viability is constantly changing. Of the thirteen countries whose mortality data was examined, survival rates for liveborn infants ranged from 0-37.3%, 1.1-64.5%, 31.0-77.7%, and 59.1-85.7% for the gestational ages of 22, 23, 24, and 25 weeks, respectively. In 1995, survival rates for the UK and Ireland were only 26% for those born at 24 weeks gestation; this almost doubled in Ireland to 56.6% in 2014-2017. Due to the improvement in survival rates, multiple international organisations recommend recording stillbirths from 22 weeks gestation and/or 500g⁷

What are the implications of this work?

Medical advances are redefining the age of viability. Despite these improvements, Ireland has not changed stillbirth legislation to reflect this, at the detriment of women who do not qualify for any maternity benefits or have their child's existence formally recognised by the State. During the original debates on the Stillbirth Registration legislation in 1994, multiple members of the Oireachtas wanted to lower the criteria to make benefits available to more women.

Other countries have proven 22-week survival rates can be raised to as much as 30% with active care measures^{8,9} and rates are only likely to improve with new medical advances. Ireland was the last EU country at the time to create a national stillbirth registry to officially recognise stillbirths, and is once again susceptible to falling behind the rest of the EU and other high-income nations with its outdated definition of stillbirth.

References

¹Stillbirths Registration Act 1994 (Ireland). Available at <http://www.irishstatutebook.ie/eli/1994/act/1/enacted/en/print>

²Lawn JE, Blencowe H, Waiswa P, Amouzou A, Mathers C, Hagan D, et al. Stillbirths: rates, risk factors, and acceleration towards 2030. *Lancet* 2016; (387):587–603

³Helps A, Leitao S, Greene R, O'Donoghue K. Perinatal mortality audits and reviews: past, present and the way forward. *Eur J Obstet Gynecol Reprod Biol* 2020;250:24–30

⁴World Health Organisation. Neonatal and perinatal mortality: country, regional and global estimates. Geneva: World Health Organization; 2006

⁵Costeloe K, Hennessy E, Gibson AT, Marlow N, Wilkinson AR. The EPICure study: outcomes to discharge from hospital for infants born at the threshold of viability. *Pediatrics* 2000;106(4):659–71

⁶Leitao S, Twomey A, Murphy BP, et al. on behalf of NICORE Republic of Ireland. Very low birth weight infants in the Republic of Ireland annual report 2017. Cork: National Perinatal Epidemiology Centre; 2019

⁷Smith L, Blondel B, Zeitlin J, Haidinger G, Alexander S, Rodin U, et al. Producing valid statistics when legislation, culture and medical practices differ for births at or before the threshold of survival: report of a European workshop. *BJOG* 2020;127:314–8

⁸Ishii N, Kono Y, Yonemoto N, Kusuda S, Fujimura M. Outcomes of infants born at 22 and 23 weeks gestation. *Pediatrics* 2013;132:62–71

⁹Norman M, Hallberg B, Abrahamsson T, Björklund LJ, Domellöf M, Farooqi A, et al. Association between year of birth and 1-Year survival among extremely preterm infants in Sweden during 2004-2007 and 2014-2016. *JAMA* 2019;321

Further information

Kelly K, Meaney S, Leitao S, O'Donoghue K. [https://www.ejog.org/article/S0301-2115\(20\)30726-0/fulltext](https://www.ejog.org/article/S0301-2115(20)30726-0/fulltext) *Eur J Obstet Gynecol Reprod Biol*. 2021;256:235-245. doi: 10.1016/j.ejogrb.2020.11.015