

## AUSTRALIA AND NEW ZEALAND FACTSHEET

### What is Stillbirth?

In Australia and New Zealand, stillbirth is the death of a baby before or during birth, from the 20<sup>th</sup> week of pregnancy onwards, or 400 grams birthweight.

### Key Facts on stillbirth in Australia and New Zealand

- Total births 2008: Australia - 296 925. New Zealand- 65 872.
- In Australia and New Zealand around 1 in every 130 women reaching 20 weeks gestation will have a stillborn baby.
- The stillbirth rate among Indigenous Australians is around double that of non-Indigenous Australians<sup>1</sup>
- In 2008, 2188 babies were stillborn and 379 in New Zealand. This equates to around 7 babies every day in this region. Stillbirth has similar numbers to deaths from breast cancer which receives much attention; stillbirth is equally deserving of this attention but has received relatively little.
- Stillborn babies account for nearly 75% of all perinatal deaths (i.e. stillbirths and deaths of live born babies up to 28 days of life)<sup>1</sup>
- The majority of stillbirths are normally formed babies that die at or beyond 28 weeks gestation where, if born alive at that gestation, survival approaches 100%.
- While infant mortality rates (deaths of liveborn babies within the first year of life) have declined, there has been no reduction in the rate of stillbirth.

### Unexplained stillbirth

- Stillbirth remains unexplained in up to one-third of cases<sup>3</sup> and up to 60% of stillbirths occurring at term. However most are not comprehensively investigated and important causes may be missed. Autopsy rates are low in many regions and lack of qualified

pathologists is an important factor in achieving better rates of high quality autopsy

- Unexplained stillbirth is nearly 10 times more common than Sudden Infant Death Syndrome (SIDS)<sup>4</sup>. It compounds the tragedy of the loss to parents left wondering why and does not give any clues for how to care for the woman in a subsequent pregnancy or for prevention strategies to reduce the number of these tragic deaths.

## **How does Australia and New Zealand compare with other countries according to WHO definition of stillbirths of 28 weeks gestation or more?**

- To compare Australia and New Zealand with other countries we need to use the WHO definition of late gestation stillbirths ie those that occur at 28 weeks of pregnancy or more as many countries do not collect data on stillbirths which occur before 28 weeks.
- According to the WHO definition, Australia is ranked 15<sup>th</sup> in the world, having a low overall late stillbirth rate of 2.9 per 1000 births.
- Indigenous Australians have a stillbirth rate of around 6 per 1000 births<sup>2</sup> which equates with a ranking of 56<sup>th</sup> behind Colombia and Malaysia.
- However, analysis in the Lancet series shows that when controlling for medical conditions and pregnancy complications, the risk is not increased showing that the excess stillbirths for these women are preventable.
- New Zealand is ranked 33rd with a rate of 3.5/1000 (28 weeks or more) between Korea (32<sup>nd</sup>) and the United Kingdom (34<sup>th</sup>).
- Ranking stillbirth rate out of 193 countries using WHO definition of 28 weeks
  - Australia ranks 15th - 2.9/1000
  - New Zealand ranks 33rd– 3.5/1000 (similar to UK)
- Reduction in stillbirth rates 1995-2009 - WHO definition of 28 weeks
  - Australia: ranking 27th – 24% drop overall. 1.9% per annum (UK 48 and US 42)
  - New Zealand: 7% drop overall

- Lowest stillbirth rate: Finland 2.0/1000. If Australia could reduce its rates to match Finland, almost 300 babies would be saved each year. In New Zealand 100 babies.

## What causes stillbirth?

In Australia and New Zealand the most common conditions of stillbirth are spontaneous preterm birth (often associated with infection) and congenital abnormalities.

Growth restriction is also a common finding which is due to placental dysfunction. In New Zealand, haemorrhage prior to birth is an important factor.

It is estimated that around one-third of stillbirths are associated with factors relating to care –largely around delays in detecting and responding to emerging complications and undetected fetal growth restriction.

## Risk Factors

### *Australia and New Zealand*

A number of risk factors have been found to increase the risk of stillbirth. The most important potentially modifiable factors are: advancing maternal age, obesity and smoking. There is a concerning number of women with multiple risk factors.

- Maternal age: The proportion of mothers aged 35 years or older in Australia has been increasing from 16.3% in 1999 to 22.9% in 2008.
- Obesity: There are similar levels of overweight and obesity in Australia and other high income countries. It is estimated that about a third of pregnant women in Australia and the United Kingdom are overweight or obese<sup>7, 8</sup>. In the US, up to 38% and 40% of pregnant women are overweight and obese<sup>8</sup>, respectively.
- Smoking: 16% of women smoke during pregnancy in Australia and New Zealand (16%)<sup>1, 3</sup> similar to other high income countries such as USA (12%)<sup>9</sup>, and England (17%)<sup>10</sup>. Sweden has reduced smoking rates to 7% from 30% in 1983.
- Higher rates of smoking occurred in disadvantaged groups: Indigenous Australians have rates more than double that of non-Indigenous Australians (50.9% vs 14.4%)<sup>1</sup>, 40% of teenage mothers smoke during pregnancy.
- Alcohol. A recent concerning report indicates that around 50% of women in Australia consume alcohol during pregnancy.

## **How do we care for families whose baby is stillborn?**

*The Lancet* series reports a survey of communities around the globe showing some surprising findings about perceptions of stillbirth in such a progressive setting including: perceptions that a stillborn baby was never meant to live; that the stillbirth was part of natural selection; and was the mothers' fault.

Responses also indicated that a woman's public grieving for her loss is not acceptable.

Support for mothers, fathers and also for care providers is less than optimal in Australia

### **What can be done?**

“Whilst many women may not be in a position, or want, to become pregnant when younger, the best advice we can give at the moment to anyone who is pregnant or who is planning it, is to lose weight and stop smoking”

- We need to improve the quality of data on stillbirths to guide prevention strategies –unexplained stillbirth may be underestimated by 50%
- Develop effective approaches to investigation of all stillbirths
- Improve approaches to stillbirth classification to enable valid comparisons across regions to identify areas for prevention
- Raise awareness of modifiable risk factors and undertake research into ways to reduce this risk.
- Undertake research into placental causes of stillbirth and detection of women at risk early enough to intervene to prevent stillbirth
- Undertake research into interventions to reduce stillbirths associated with modifiable risk factors such as obesity and smoking
- Address health inequalities for Indigenous Australians and other disadvantaged groups by implementing programs which address their needs and promote a healthy lifestyle for women of child bearing age
- Implement bereavement care linked from hospital to community

## References

- 1 Laws PJ, Li Z, Sullivan EA. Australia's mothers and babies 2008. Perinatal statistics series Sydney: AIHW National Perinatal Statistics Unit; 2010.
- 2 Health Statistics Centre. Perinatal Deaths by Maternal Indigenous Status for Births > 27 weeks gestation, Queensland, 2009. Perinatal Data Collection Brisbane: Queensland Health; 2011.
- 3 PMMRC. Perinatal and Maternal Mortality in New Zealand 2007: Third Report to the Minister of Health July 2008 to June 2009: Perinatal and Maternal Mortality Review Committee.
- 4 Australian Bureau of Statistics. Deaths Australia, November 2008. Vol. Catalogue No. 3302.0 - 2007 Canberra: Australian Bureau of Statistics; 2010.
- 5 Canterino JC, Ananth CV, Smulian J, Harrigan JT, Vintzileos AM. Maternal age and risk of fetal death in singleton gestations: USA, 1995-2000. *J Matern Fetal Neonatal Med.* 2004; **15**: 193-7.
- 6 Bateman BT, Simpson LL. Higher rate of stillbirth at the extremes of reproductive age: a large nationwide sample of deliveries in the United States. *Am J Obstet Gynecol.* 2006; **194**: 840-5.
- 7 Callaway LK, Prins JB, Chang AM, McIntyre HD. The prevalence and impact of overweight and obesity in an Australian obstetric population. *Med J Aust.* 2006; **184**: 56-9.
- 8 McDonald SD, Han Z, Mulla S, Beyene J. Overweight and obesity in mothers and risk of preterm birth and low birth weight infants: systematic review and meta-analyses. *BMJ.* 2010; **341**: c3428.
- 9 Cnattingius S. The epidemiology of smoking during pregnancy: smoking prevalence, maternal characteristics, and pregnancy outcomes. *Nicotine Tob Res.* 2004; **6 Suppl 2**: S125-40.
- 10 Statistics on smoking: England 2006. National Statistics: National Health Service; 2006.