# Perinatal Mortality Surveillance Report



Lay Summary

## Baby deaths in the UK – the national picture for 2015

MBRRACE-UK reports that 4,392 babies died before, during or soon after birth for mothers living in the UK. This represents a fall in the mortality rate from 6.04 per 1,000 births in 2013 to 5.61 per 1,000 births in 2015.

As in previous reports, MBRRACE-UK compares rates of stillbirth and neonatal death\* focusing on deaths after 24 weeks of pregnancy and excluding terminations of pregnancy. The overall fall in the extended perinatal mortality\*\* rate is mainly due to a fall in stillbirths from 4.20 per 1,000 births in 2013 to 3.87 in 2015, particularly those occurring from 32 weeks of pregnancy onwards. However, there has been only a small reduction in the neonatal mortality rate from 1.84 per 1,000 births to 1.74 over the same period.

The full MBRRACE-UK report<sup>\*\*\*</sup> presents mortality rates for a number of different organisations delivering health services across all four countries of the United Kingdom. As the rate of perinatal death is influenced by poverty, ethnicity and the age of the mother, we report stabilised and adjusted rates which take into account the number of high risk women and babies an organisation cares for in order to make the comparisons as fair as possible.

## Improving our understanding – why babies die

Previous reports have highlighted the number of stillbirths which are unexplained. This has fallen from 49% in 2014 to 42% in 2015. Almost one third of these unexplained stillbirths were identified as potentially having poor growth highlighting the importance of close monitoring of fetal growth during pregnancy.

At least one in four stillbirths has a placental cause and examination of the placenta does not require parental consent. However, there has been little improvement in the number of placental investigations since 2014. They are carried out for around 89% of all stillbirths, meaning that for at least one in ten stillbirths there is no record of any detailed examination of the placenta. The report recommends placentas are sent for detailed examination if possible, in all cases.

\* Stillbirth is a death occurring before or during birth once a pregnancy has reached 24 weeks and neonatal death is a baby born at any time during pregnancy who lives, even briefly, but dies within 4 weeks of birth.

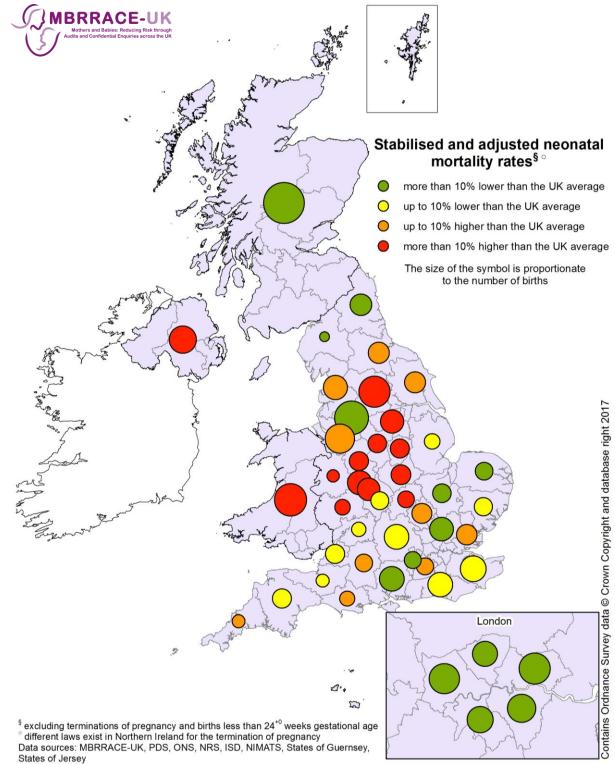
\*\* Extended perinatal death includes all stillbirths and neonatal deaths up to 4 weeks after birth

\*\*\*The full report is available online at www.npeu.ox.ac.uk/mbrrace-uk/reports

MBRRACE-UK is a team of researchers, clinicians and representatives of parent groups and charities. The lay report was written by Charlotte Bevan, Sands, on behalf of Caroline Stickland, Bliss; Jane Plumb, Group B Strep Support; Maureen Treadwell, Birth Trauma Association; Elizabeth Draper, Jenny Kurinczuk and Lucy Smith from MBRRACE-UK

## Neonatal mortality rates by Sustainability and Transformation Plan (STP) footprint in England and by country elsewhere

Extended perinatal deaths for new healthcare areas in England, known as the Sustainability and Transformation Plan (STP) footprints, are shown in the full report alongside whole country rates for Wales, Scotland and Northern Ireland which have similar numbers of births to STP areas in England. These rates are based on where the mother lived which may be different from where the baby was born. The map included in this summary report shows that in England neonatal mortality rates in the south and east are generally lower than the rates for most areas in the midlands and the north. This reflects existing health and wealth inequalities in England.



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# Understanding baby deaths in the UK in 2015

#### Out of 782,720 births\* in 2015... 1,360 neonatal deaths 3\_032 stillbirths \* of babies delivered from 24 weeks of pregnancy, excluding terminations of pregnancy Fall in death rates Over 700 babies died due to a congenital anomaly 2013 Rates varied widely across the UK 4.20 1.84 Scotland 0.9 0.6 Northern Ireland neonatal stillbirths deaths 2.8 England 0.5 1.9 Wales 0.8 3.87 1.74 per 1,000 births 2015 Data by Neonatal Network (England and Scotland) and Country (Wales and Northern Ireland) per 1,000 births In addition, **11% of stillbirths** over 850 babies did not have died at 22 and 23 placental pathology weeks of pregnancy

## Babies born at 22 and 23 weeks

The full report also looks in detail at the number of babies who died before 24 weeks of pregnancy. Many other European countries include all births from 22 weeks of pregnancy in their national registration statistics whereas in the UK, only babies born showing no signs of life from 24 weeks are registered as stillbirths. There is also variation between hospitals in decisions about whether a baby born at less than 24 weeks has shown signs of life before dying (and is registered as a birth and death) or hasn't (and so is not registered at all).

In 2015, there were over 850 deaths of babies born at 22 and 23 weeks. In some areas the percentage of babies registered as having been born alive at these gestations was almost twice as high compared to other areas. This is likely to reflect variations in how these babies are managed between hospitals rather than differences in the babies themselves.

This variation can have an enormous impact on parents' experiences, as the parents of babies who are not registered as births do not receive government support in the form of maternity/paternity leave and financial support. Improving the information collected about these deaths in future MBRRACE-UK reports will also improve comparisons in rates between the UK and other countries.

#### Babies who die as a result of a congenital anomaly

There were over 700 deaths due to a congenital anomaly in 2015. In some cases the anomaly may have been identified during an antenatal scan. This is a particular issue for Northern Ireland (NI) where termination of pregnancy is not legal in most circumstances. Parents elsewhere in the UK may also make different decisions about whether to continue or terminate their pregnancies affected by congenital anomalies for personal, religious or cultural reasons. This variation may partly explain why the neonatal death rate in NI and some areas in the rest of the UK is higher than in others.

The MBRRACE-UK full report investigates the effect of both babies born before 24 weeks of pregnancy and those born with a congenital anomaly, to see how it impacts on the variation in mortality rates between different areas. To see the full report go to <u>www.npeu.ox.ac.uk/mbrrace-uk/reports</u>.

## **Recommendations from the MBRRACE-UK 2017 report**

- Neonatal deaths, which have remained static for 3 years, require a renewed focus
- Stillbirths need to be investigated closely to ensure the fall in rates continues
- Improved research is needed to understand if stillbirths before 32 weeks of pregnancy are avoidable
- A national forum should be formed to decide how to report deaths before 24 weeks and those due to congenital anomalies, and their impact on overall rates
- Organisations are urged to provide improved data on deaths at all stages of pregnancy so it is possible to make better comparisons between them
- All hospitals should carry out local reviews on every death to understand what happened, why it happened and how they can improve care to prevent similar deaths in the future

"Baby Delivery" by Luis Prado and "Microscope by Maxim Kulikov for thenounproject.com