

Infant Mortality

What does this mean?

Infant Mortality is a term used to describe deaths in children aged less than 1 year old. This does not include stillbirths. Infant mortality rate is defined as the total number of infant deaths per 1000 live births.

Why is this important?

Fortunately, deaths in children are rare. Infant mortality in England has been steadily declining each year. However, there are significant inequalities in avoidable deaths. Babies from disadvantaged families have consistently worse outcomes compared with the rest of the general population. To reduce health inequalities, the government introduced targets in 2003 to try and reduce this relative difference in infant mortality.



Three quarters of infant deaths are due to premature birth or birth defects. Other causes of infant deaths include problems at the time of delivery e.g lack of oxygen or injury, and cot deaths (sudden unexplained death in infancy, SUDI). Infant deaths are divided into;

- 1) Peri-natal – occurring between 22 weeks gestation and 7 days post birth.
- 2) Neonatal – occurring at less than 28 days after birth.
- 3) Post-neonatal – occurring between 28 days to 1 year old.

In 2007 in the UK, 69% of infant deaths occurred in the neonatal period and 31% occurred in the postnatal period.

Factors contributing to infant mortality include:

Smoking

Smoking during pregnancy increases infant mortality by 40%. Babies of mothers who smoke during pregnancy are more likely to be born prematurely, twice as likely to have a low birth weight and up to 3 times more likely to die from SUDI. The risk to children continues if they are exposed to second-hand smoke, especially in enclosed places like the home or the car.

Poor take-up of antenatal care

Ensuring that women are able to book early and are able to access antenatal screening tests may help reduce health inequalities in infant mortality. The later the gestation at first appointment, the higher the risk to the infant.

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Factors contributing to infant mortality (continued):

Low birth weight

Low birth weight, (less than 2,500g), can lead to poor health in infancy and premature death. It is common in babies born to women who smoke, take illicit drugs, are teenage mothers, who book late for antenatal care or have twins or triples. It is also more common for women in certain ethnic groups. Pakistani or Caribbean babies are more than twice as likely to die before the age of 1 year as white British or Bangladeshi babies.



Infant mortality rates for infants born to mothers under 20 years are 60% higher than for babies born to mothers aged 20-29 years. It is estimated that 45% of mothers under 20 years smoke through their pregnancy.

Sharing a bed with the baby

Sharing a bed with your baby if you have drunk alcohol or taken illicit drugs, or sleeping on a sofa with an infant increases the risk of SUDI. Fortunately, the number of deaths in this category has fallen in recent years, in part due to the success campaigns such as 'back to sleep'. SUDI occurs in all socio-economic groups but is more common in disadvantaged populations.

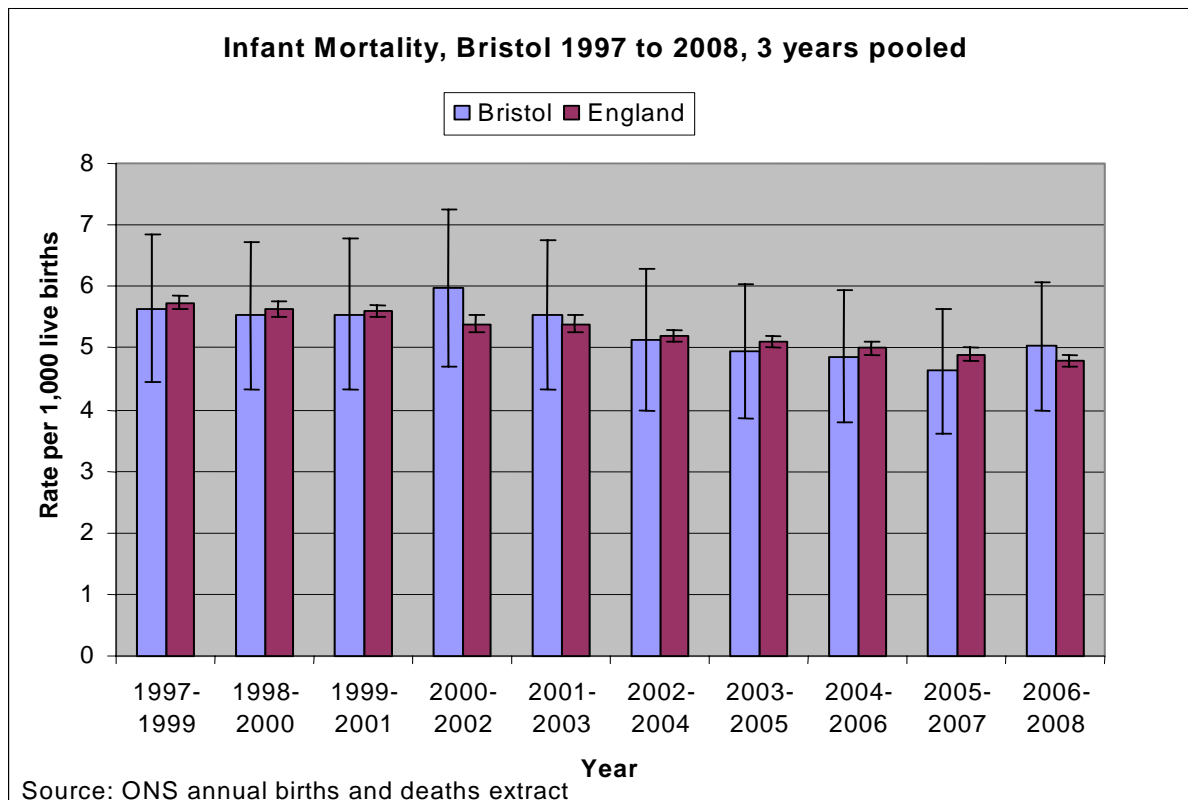
Overcrowded housing

Overcrowding appears to have an impact on mortality through its effect on SUDI, although the mechanisms are unknown.

Infant mortality is also an important indicator of the health of the whole population, as well as giving direct information on maternal and child health.

What is the picture in Bristol?

There has been a steady fall in infant mortality in Bristol over the last 5 years. Between 2006-2008, there were 5 deaths per 1000 live births in Bristol, which was similar to the England average of 4.8.



What are we doing about it?

The government introduced a target in 2003 to reduce relative gap in infant mortality by at least 10% between the most deprived social classes and the population as a whole. The report titled, "Implementation Plan for Reducing Health Inequalities in Infant Mortality," was published in 2007 with guidance to meet this target.

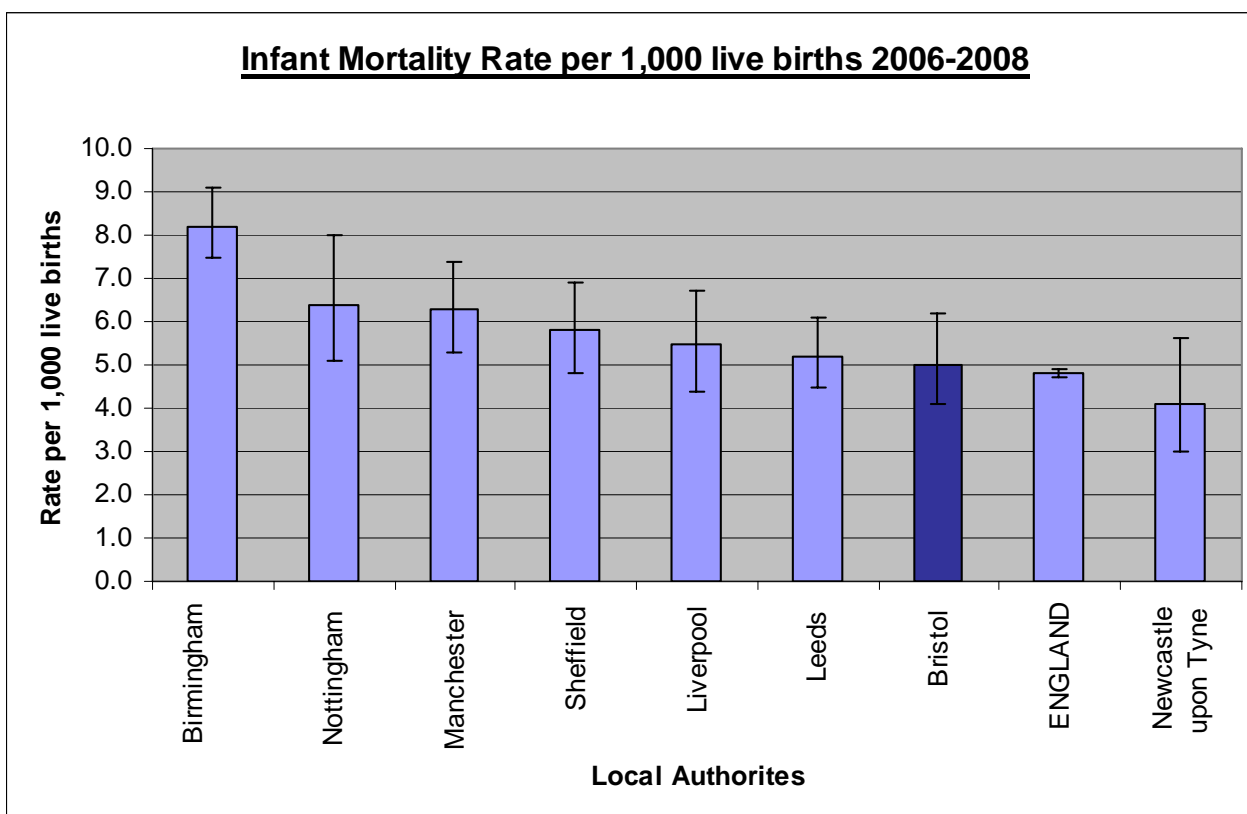
In February 2009, the National Support Team for infant mortality made recommendations to help reduce inequalities in infant mortality in Bristol. Following this visit an action plan was produced, which included:



- **Smoke-free Bristol** – a Bristol based steering group are targeting vulnerable groups to promote smoke free homes through stop smoking advisors. All midwives in Bristol have been trained in Stop Smoking brief interventions. Being smoke-free reduces the incidence of low birth weight babies and SUDI.
- **'Back to Sleep'** campaign – a national campaign to promote putting infants to sleep on their backs to reduce potential SUDI
- **Bristol Breastfeeding** – a Bristol based target group are focusing on the 8 Bristol wards with the lowest breastfeeding rates to promote breastfeeding, to reduce infantile infections and potential SUDI.
- **Teenage Pregnancy Strategy** – a Bristol teen pregnancy partnership board who are targeting support to teenage parents and introducing teen pregnancy liaison midwives.
- **Maternity Matters** – the government introduced a national choice guarantee, making it easier for women to access antenatal services. A maternity services liaison committee was established in 2009.
- **Child Poverty Strategy** – the strategy aims to co-ordinate interventions to target those most at risk of poverty.

What is our current performance in this area?

Bristol has a lower infant mortality rate compared with all other core cities (comparable cities that share some of the same challenges as Bristol) except Newcastle. Furthermore, in 2008 there was a 4.5% decrease in the rate of teenage conceptions compared to the 1998 baseline.



References

- *Joint Strategic Needs Assessment*, Bristol City Council, www.bristol.gov.uk/jsna
- National Perinatal Epidemiology Unit, Inequalities in Infant Mortality Project, <https://www.npeu.ox.ac.uk/birthplace>
- “*Confidential Enquiry into Maternal and Child Health (CEMACH)*” – 5TH annual perinatal mortality surveillance report, Centre for Maternal and Child Enquiries, <http://www.cmace.org.uk/>
- “Mortality Target Monitoring: Healthy lives, brighter futures, ‘Implementation plan for reducing health inequalities in infant mortality,’” Department of Health, www.dh.gov.uk
- South West Public Health Observatory, <http://www.swpho.nhs.uk/>
- London Health Observatory, <http://www.lho.org.uk/>

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