

## Infant Mortality

### Introduction

Infant mortality is defined as death before the child reaches the age of one year. Infant mortality rate is the number of deaths under one year of age occurring among the live births in a given geographical area during a given year, per 1,000 live births. It represents a particularly distressing category of premature death and is an indicator of the general health of an entire population.

### Summary

In the three years between 2015 and 2017 there were 86 infant deaths in Norfolk (an average of 28 per year), representing an infant mortality rate of 3.2 per 1000 live births. The infant mortality rate in Norfolk is not significantly different to the national average.

### Headlines

In the three years between 2015 and 2017 there were 86 infant deaths in Norfolk.<sup>1</sup> Infant deaths account for around 60% of the all deaths of children and young people in the county (0-19).

Nationally the rate of infant mortality has been declining steadily since the 2001/03 period. This has not been the trend in Norfolk where the infant mortality rate increased from a low of 3.9 per 1,000 in 2008/10 to 4.5 per 1,000 in 2011/13 and has since reduced to 3.2 per 1,000 (see Figure 1), this is below national average of 3.9 per 1,000. However, it is worth noting that Norfolk is not statistically significantly different to the national average.<sup>2</sup>

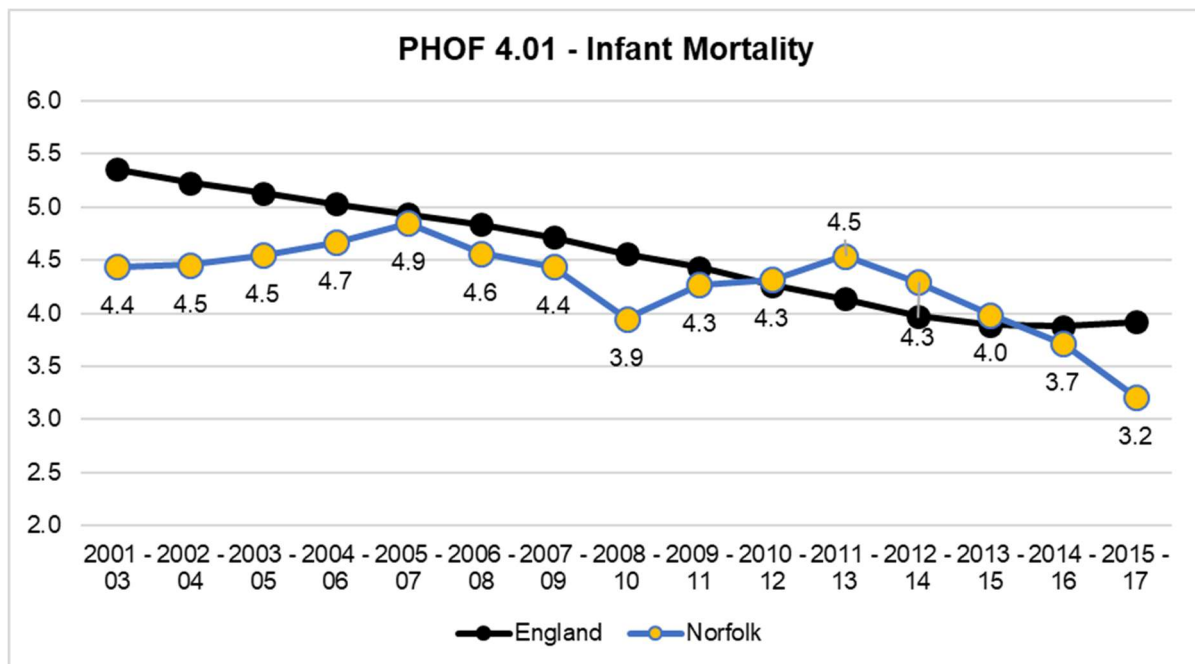


Figure 1: Infant Mortality (death below one year of age) per 1,000 births. Source: Public Health England.<sup>3</sup>

Note: Data points are coloured red if they are statistically significantly worse than the England average, yellow if not significant difference and green if statistically significantly better.

The infant mortality rate consists of two components:

- Neonatal mortality rate: The number of neonatal deaths (those occurring during the first 28 days of life)
- Post-neonatal mortality rate: The number of infants who die between 28 days and less than one year

Two thirds (67%) of infant deaths in Norfolk occur in the neonatal period (57 deaths in 2015-17). A third of infant deaths (33%) occur between 28 days and one year (29 cases in 2015-17).

<sup>1</sup> Public Health England Public Health Outcomes Framework:

<http://www.phoutcomes.info/public-health-outcomes-framework#page/4/gid/1000044/pat/6/par/E12000006/ati/102/are/E10000020/iid/20101/age/235/sex/4>

<sup>2</sup> As above

<sup>3</sup> As above

## Influences on Health and Wellbeing

Infant mortality is an indicator of the general health of an entire population. The rate of infant mortality reflects the relationship between the wider determinants of population health such as economic, social and environmental conditions and the immediate causes of infant mortality. Deaths occurring during the first 28 days of life (the neonatal period) in particular, are considered to reflect the health and care of both mother and newborn. There is a recognised correlation between higher infant mortality rates and deprivation. Reducing infant mortality overall and the gap between the richest and poorest groups are part of the Government's strategy for public health.

## Social, environmental, population context

The UK has higher infant mortality rates than comparable European countries, a high percentage of which is driven by the fact that nearly two thirds of the children who die before their first birthday were born preterm, and/or with low birth weight. Infant mortality is also 10% higher for infants in the lower social group than the average.<sup>4</sup> Infants in the poorest families have a nine times greater chance of dying suddenly in infancy (Sudden Infant Death Syndrome) than those in the highest income group. The reasons for this are complex, for example, risk of sudden unexpected infant death is increased by maternal smoking, which is higher in poorer households.<sup>5</sup>

## Current services, local plans and strategies

There is a systematic multiagency process for gathering data after every childhood death, known as a Child Death Review, which attempts comprehensively to gather information on potentially avoidable factors in order to make recommendations on changes in practice. In Norfolk Child Death Reviews are carried out by Norfolk Safeguarding Children Board Child Death Overview Panel. In 2018/19 the panel completed 26 reviews into infant deaths and found that 38% had 'modifiable factors', which means that something could have been done to prevent the death.

Sudden infant death syndrome (SIDS) remains the leading cause of death between one month and one year of age (also known as 'cot death'). The main risk factors are being born prematurely, low birthweight, parental smoking while pregnant and not placing the baby on their back when they sleep. There's also an association between co-sleeping (sleeping with the baby on a bed, sofa or chair) and SIDS.

Midwives, Health Visitors, Children's Centre staff and GPs work together to promote safe sleeping, reduce smoking during pregnancy and to support parents to quit smoking. Breastfeeding also decreases the risk of SIDS and therefore action to promote breastfeeding may also reduce infant mortality.<sup>6</sup>

## Considerations for HWB and commissioners

Infant mortality rate should be monitored as it is an indicator of the success of the health and care system in general, with neonatal deaths particularly being an indicator the health and care of mothers and newborns.

Key actions to reduce infant mortality are promoting safe sleeping for infants, reducing smoking during pregnancy, reducing parents smoking around their children (e.g. the 'Take 7 Steps Out' campaign) and promoting breastfeeding.

All services that come into contact with pregnant women and parents of young children (including health services, voluntary sector organisations, libraries, playgroups and children's centres) should be aware of the need to promote a healthy early start for children and be properly trained to do so. Commissioners can highlight responsibilities in service specifications and ensuring that appropriate training and materials (posters/leaflets) are available.

<sup>4</sup> Barnardos Child poverty statistics and facts.

[http://www.barnardos.org.uk/what\\_we\\_do/our\\_projects/child\\_poverty/child\\_poverty\\_what\\_is\\_poverty/child\\_poverty\\_statistics\\_facts.htm](http://www.barnardos.org.uk/what_we_do/our_projects/child_poverty/child_poverty_what_is_poverty/child_poverty_statistics_facts.htm) (Accessed July 2014).

<sup>5</sup> Spencer, N. (2008) Health Consequences of Poverty of Children. End Child Poverty.

<sup>6</sup> Horne, R., Hauck, F. and Moon, R. (2015) Sudden infant death syndrome and advice for safe sleeping *BMJ* 2015; 350 doi:

<http://dx.doi.org/10.1136/bmj.h1989>

## References and information

Public Health Outcomes Framework

<http://www.phoutcomes.info/public-health-outcomes-framework#page/4/gid/1000044/pat/6/par/E12000006/ati/102/are/E10000020/iid/92196/age/2/sex/4>

Public Health England (2015) Reducing infant mortality in London: An evidence-based resource

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/431516/Reducing\\_infant\\_mortality\\_in\\_London\\_2015.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/431516/Reducing_infant_mortality_in_London_2015.pdf)

ONS (2019) Childhood, Infant and Perinatal Mortality in England and Wales: 2017

<https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/bulletins/childhoodinfantandperinatalmortalityinenglandandwales/2017>

Horne, R., Hauck, F. and Moon, R. (2015) Sudden infant death syndrome and advice for safe sleeping

*BMJ* 2015; 350 doi: <http://dx.doi.org/10.1136/bmj.h1989>

NHS Choices – Sudden Infant Death Syndrome

<http://www.nhs.uk/conditions/sudden-infant-death-syndrome/pages/introduction.aspx>

The Lullaby Trust

<https://www.lullabytrust.org.uk/safer-sleep>

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