

# Analysis of NNU Mortality Rates

## Background

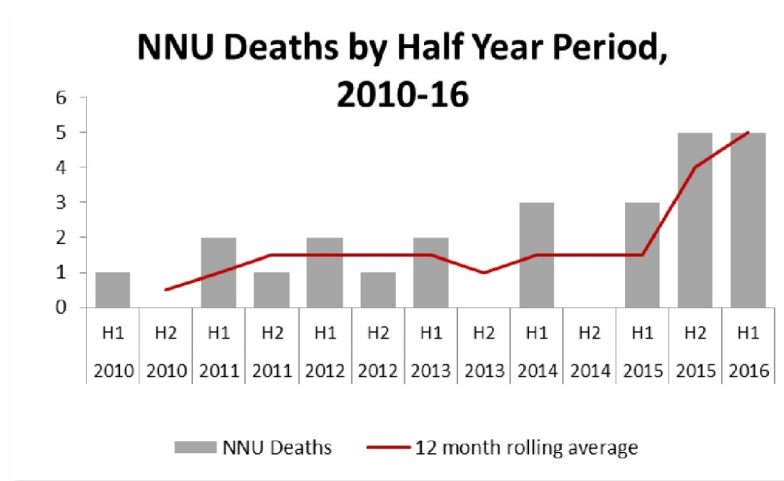
Concerns have been raised by consultants about an apparent increase in mortality rates in the Neonatal Unit. Using the data available from the Badgernet database, this analysis aims to investigate the validity of these concerns.

The analysis has three aims:

1. To review the **level** of any increase in mortality levels in the Neonatal Unit during 2015/16 and whether this represents normal variation or a significant change that breaks with long term trends.
2. To evaluate **activity** levels in the NNU during 2015/16 as a possible contributory factor. Was the unit under more pressure of work during the period?
3. To evaluate certain measures of **acuity** in NNU during 2015/16. Was the condition of neonates admitted to the unit more acute than in previous years?

## Step change in NNU deaths compared to long term average

If we look at deaths per half year period, we see a steady mortality rate until H2 2015. The 12 month rolling average shows a sudden increase at this point which continues into the first half of 2016.



## Has acuity increased since June 2015?

It is also possible that the increase in mortality numbers over the period may reflect increased levels of patient acuity.

One measure of this is looking again at Care Days, but specifically at the highest levels of patient Care: Level 1, representing ITU Care Days; and Level 2, representing HDU Care Days.

2015/16 shows a sustained increase in the average number of care days at L1. Eight consecutive months are higher than average at L1.

