

Limitations

There are issues with the quality of data, which mean that the model's outputs should be interpreted cautiously. The issues include inconsistencies in the times recorded for mothers progressing to the different stages of labour.

The model is not intended to be used to suggest a resource level for trusts across England. Instead, we focused on a single trust to better understand the risks and challenges faced by the providers of maternity services.

Results

The model suggests that, for the selected trust, bed numbers are sufficient and could probably absorb a relatively substantial increase in demand for maternity care. As demand increases, the postnatal ward is shown to be the first ward to become full.

There is, however, evidence that providing one-to-one care during labour at all times is very challenging. We observe that for about 23.5 per cent of the time (the red bars in **Figure 2**) there are more women in labour and in theatre than available midwives, and therefore it is not possible to provide one-to-one care for all women. An additional three midwives would allow for one-to-one care for all but 5 per cent of the time.

Our work found that increased use of the freestanding midwifery-led unit, which has been relatively under-used, would ease resource pressures elsewhere in the trust. It also suggests that reportedly achievable reductions in lengths of stay may provide a way of releasing substantial capacity.

Uses

In our report, we recommended that clinical commissioning groups and trusts should agree long-term sustainable plans for the distribution and capacity of maternity services in their locality. Using methods such as those described here could help contribute to this goal, by helping the NHS to understand better the pressures that their maternity services face.

Other resources

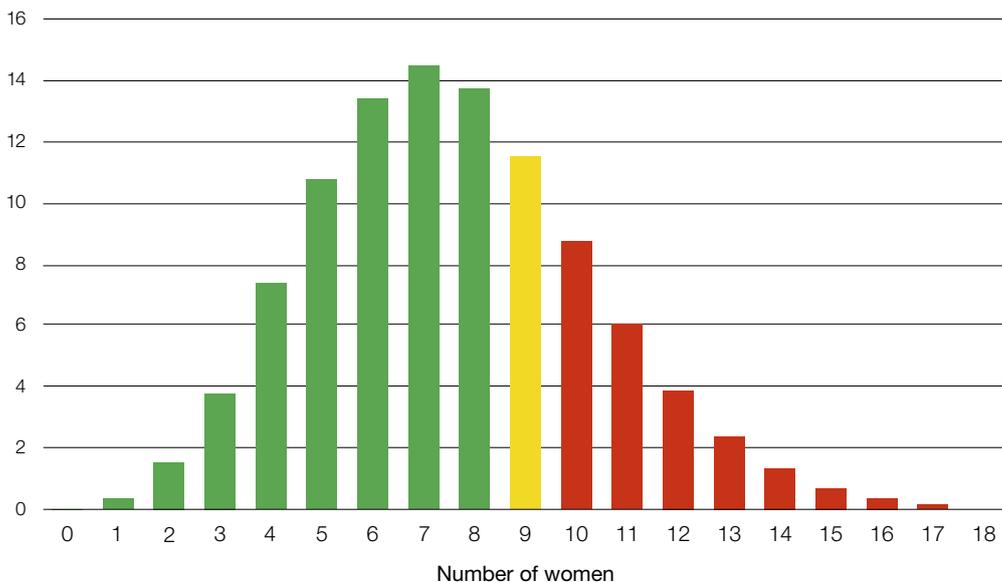
A more detailed summary of the modelling work is available on our website:

www.nao.org.uk/report/maternity-services-england-2/

Figure 2

Women in labour ward

Percentage of time (%)



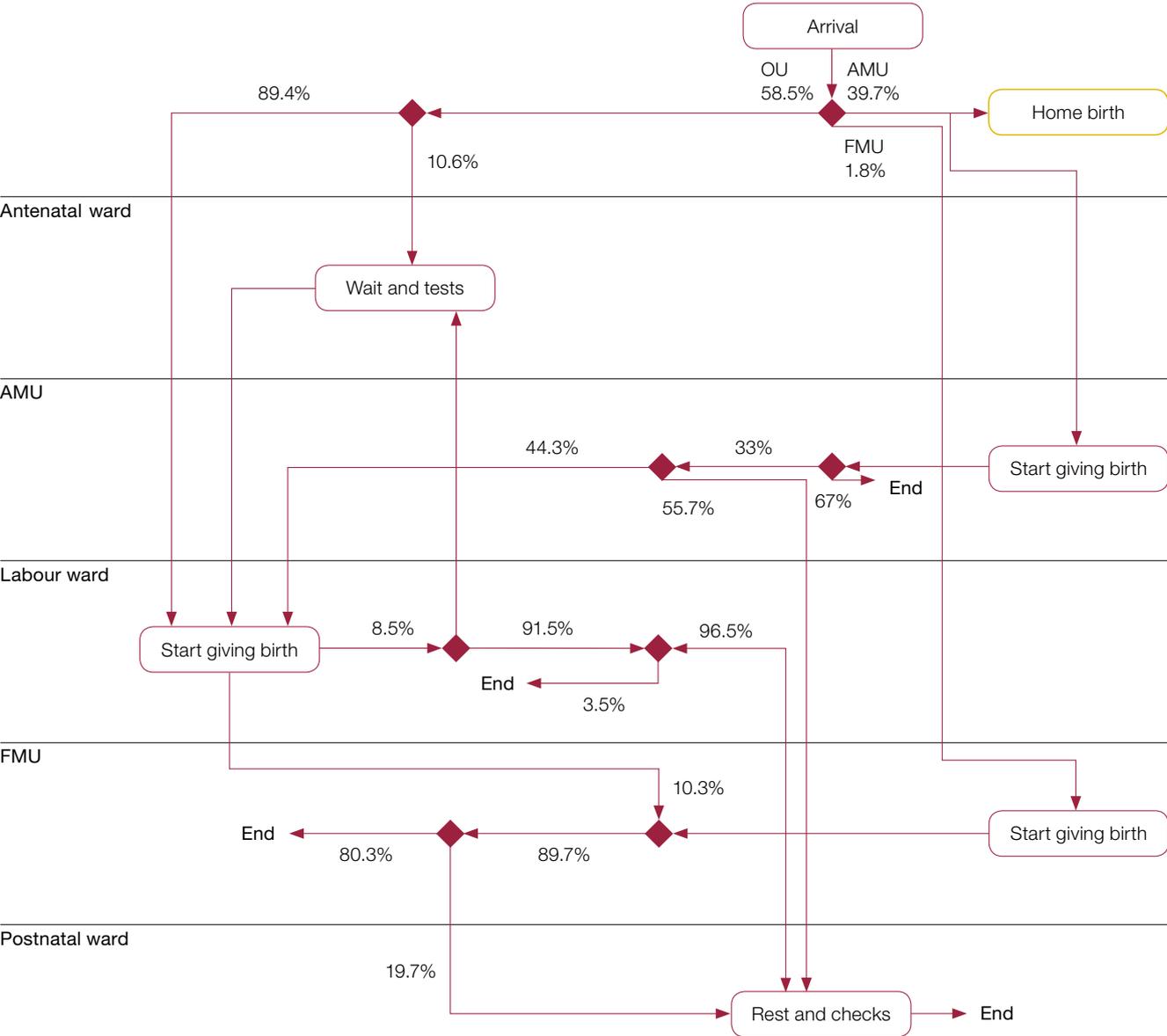
Note

1 Amber bar shows the current number of midwives at these times.

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Figure 1
Example modelled pathway – spontaneous vertex

Spontaneous vertex



Note
1 Percentages are probabilities that women will move between the stages of delivery or care settings.