

A framework to address key issues of neonatal service configuration in England: the NeoNet multimethods study

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Disclaimer: This report contains transcripts of interviews conducted in the course of the research and contains language that may offend some readers.

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Plain English summary

The NeoNet multimethods study

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Plain English summary

When organising neonatal care in England, there is a tension between the centralisation and localisation of services. These services are currently provided at different levels, ranging from neonatal intensive care units (NICUs) to special care units. For the most-ill infants, intensive specialised care delivered in high-volume NICUs (i.e. those that see more ill infants) has been shown to deliver improved health outcomes; however, smaller local units provide easier access and reduce travel times for parents.

Geographic analysis and computer models were used to investigate a range of alternative scenarios for neonatal care, looking at the impact of greater and lower levels of centralisation. The models suggest that having fewer units, especially for intensive care, could potentially improve infant survival rates. Costs and resource implications (e.g. the number of nurses required), as well as the impact on parental travel time, were also investigated using these models.

The results demonstrate the advantages of different service configurations and provide a framework to assist policy-makers in planning neonatal services. We also looked at the most effective way to present these results using a range of graphical and visualisation tools.

When parents were interviewed, it was found that the health of the mother and the baby dominated their concerns. Parental overheads associated with entitlement to unpaid leave, food, travel, accommodation, baby care and parking were also revealed to be important concerns.

Further work is needed to investigate the relationship between maternity and neonatal services and to understand the impact of alternative configurations of care on infant health and well-being.

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