1 Economic Plan

2 This document identifies the areas prioritised for economic modelling in the guideline.

3 The final analysis may differ from those described below. The rationale for any

4 differences will be explained in the guideline.

1 Guideline

6 Safe Midwifery Staffing for Maternity Settings

2 List of Modelling Questions

8 Please note: results from the following analyses are expected after the consultation

9 period has been closed and will be made available at publication of the guideline.

10 The analysis will only be undertaken if the data required is made available to NICE in

11 sufficient time for the analysis to be completed and considered by the Safe Staffing

12 Advisory Committee.

	Relationship between outcomes and staffing
Population	Women who deliver in a obstetric or maternity united based in an NHS trust in England 2007-13
Interventions considered for inclusion	N/A

Modelling details	**Please note: analysis will only be undertaken if data is available**
	
	Regression analysis analysing the association of midwife staffing levels and the following outcomes:
	
	- healthy mother ordered category : death ; alive but not fully healthy ; full healthy
	   o Please note: healthy mother is a composite of the following: delivery with bodily integrity, no instrumental delivery, no maternal sepsis, no anaesthetic complication, mother returns home ≤ 2 days, no mother not readmitted within 28 days
	
	- healthy baby ordered category : death ; alive but not fully healthy ; fully healthy
	   o Please note: healthy baby is a composite of the following: live baby, gestational age of between 37-42 weeks, and baby's weight is between 2.5-4.5kg
	
	- delivery with bodily integrity composite of the following: delivery without uterine damage, 2nd/3rd/4th degree tear, stitches and episiotomy

	Control variable include: - patient age - patient clinical risk - parity - patient ethnicity - other demographics (regional) - size of the unit* - unit configuration* - university associated with the hospital* * Please note: these variables will only be considered if sufficient data and proxy variables can be identified. Data sources: - Anonymised Hospital Episode Statistics (HES) from 140+ NHS trusts in England - Electronic Staffing Record - Other data sources Statistical analysis - Tests to check for robustness of the statistical model - Will attempt to resolve issues of endogeneity and simultaneity Estimating staffing workload in a unit (by adjusting for demand)
Type of analysis	Multilevel models with patients analysed within trusts

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	Relationship between outcomes and staffing
Population	Women who deliver in a obstetric or maternity united based in an NHS trust
Interventions considered for inclusion	- Different midwife staffing levels - Current practice
Modelling details	**Please note: this analysis will only be undertaken if one or more outcomes examined in the statistical analysis (above) are found to be statistically significant (that is, if the staffing is statistically associated with an outcome)** A simple cost-effectiveness analysis taking into account the costs for midwifery staffing and the health outcomes found to be statistically significant in the above. Deviations from the NICE reference case will be explained in the report. An incremental cost per outcome will be determined. Time horizon: to be determined Data sources: - The above statistical analysis - PSSRU costs data - Other sources Univariate deterministic sensitivity analysis will be undertaken to check robustness of the results.

| Type of analysis | Cost-effectiveness analysis (CEA) |

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