

# NRF Project: Birmingham Perinatal Mortality Social Confidential Enquiry Draft Protocol

Revised 14th Jan 2008

## 1. Summary

A confidential enquiry (CE) will provide an objective assessment of selected pre-viable birth, stillbirth and early neonatal death cases that occur within Birmingham during the period of the Neighbourhood Renewal Fund [NRF] project. Utilisation of this acknowledged and well-established methodology will provide both providers and commissioners with valuable evidence to inform and improve maternity service provision.

The confidential enquiry process historically reviews care from information in the woman's case notes. However, it is recognised that social risk and aspects of social care are not always well documented within the notes<sup>1</sup>. Therefore, the confidential enquiry will be accompanied by a pilot social history investigation. This involves conducting structured interviews/questionnaires of key professionals (GP and community midwife) involved in care of the women who have experienced a stillbirth or an early neonatal death.

In addition, a survey on the social and public health role of community midwives will be conducted to explore the knowledge and/or training needs of midwives in this important area of maternity care. This will also include an exploration of the working practices of community midwives to establish how this influences the care given to women.

The project will therefore comprise of three parts:

1. A survey of midwives' social and public health roles within the community and an overview of working practices.
2. An enhanced confidential enquiry (including the social history investigation) of stillbirths and early neonatal deaths of non-British born mothers.
3. A simplified confidential enquiry into pre-viable births.

Reporting / feedback: The Perinatal Institute will disseminate the findings of the confidential case reviews in several ways including a final project report summarising the findings and recommendations and local unit based feedback sessions of individual cases.

## 2. Background

There is a well-documented link between deprivation and increased risk of morbidity and mortality. The NRF project is specifically designed to tackle deprivation by improving mainstream services [see <http://www.neighbourhood.gov.uk/page.asp?id=611>]. Within maternity services, the key components for improvement are through the Reducing Perinatal Mortality Project. The project's key aims are to enhance community maternity care through increasing factors such as continuity of carer, early booking, and detection of fetal growth restriction, breastfeeding, screening and reducing smoking.

[See <http://www.pi.nhs.uk/rpnm/B&BC%20RPM%20Project%2020Interim%20Report.pdf>].

Birmingham's perinatal mortality rates are significantly higher than the England and Wales average. [See [file:///w:\wmpi2\shared\wmpi\MATERNITY SERVICES\BBCHA Reducing PNM\1Report\NRF\Report\detailed Birmingham IM NRF Baseline \(with 13 targeted](file:///w:\wmpi2\shared\wmpi\MATERNITY SERVICES\BBCHA Reducing PNM\1Report\NRF\Report\detailed Birmingham IM NRF Baseline (with 13 targeted)

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<sup>1</sup> Cross-Sudworth F, King M & Martin T (2007) *Social / Medical Risk Assessment Audit Final Report* Birmingham Health & Wellbeing Partnership

[wards\)\\_v2.pdf](#) Although the high rates are linked to known deprivation and social factors, [for example, poor housing and diet, smoking and unemployment], it is not known why they are higher than comparable wards in the rest of Britain.<sup>2</sup> The Birmingham NRF Perinatal Confidential Enquiry seeks to further the investigation into possible causes of the increased rate focussing particularly on the social circumstances.

Certain groups are also more at risk of adverse outcome<sup>3</sup> (e.g. non-European). Therefore, the proposed Confidential Enquiry will focus on the different ethnic groups and in particular the mothers who were themselves born outside of Britain. This is in order to increase understanding of the factors that may put them more at risk. It is also helpful to provide a more holistic assessment of services by examining social care and an important part of this is an insight into community midwifery services. This will enhance the understanding of the background to the service provision experienced by mothers who have suffered a loss.

### **3. Methodology**

#### **3.1 Part One - Community Midwife Survey**

##### **3.1.1 Aim**

A survey of all community midwives within the Birmingham area is proposed to enhance the Social Confidential Enquiry. Historically, Confidential Enquiries have reviewed each case from the casenotes only. However, it is recognised that this does not give any understanding behind the working conditions of the caregivers, which could affect their ability to give the appropriate care. Therefore the aim of the community midwife survey will be to give an insight into the working practices and conditions plus knowledge and skills of the public health and social role of the midwife.

It was considered that in order to get a more valid snapshot of community work for midwives, a wider sample needed to be gained rather than just those midwives who had had a mother with a pregnancy loss. It was therefore proposed that the survey would act as a control for the midwives caring for women who have experienced a pregnancy loss or an early neonatal death.

##### **3.1.2 Research Questions/Hypotheses**

- Do the working practices and conditions of community midwives affect the care they give to women?
- Does the knowledge and skills of the public health and social role of the community midwife affect the care they give to women?

##### **3.1.3 Sample**

All community midwives who are employed by the four Birmingham Hospitals (The Women's, City, Heartlands and Good Hope) in the allocated time frame of January to December 2008, will be targeted for inclusion in the survey (n=approximately 185)

##### **3.1.4 Research Tool**

A semi-structured questionnaire has been developed to obtain both quantitative and qualitative data (Appendix 1). It will include sections on:

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<sup>2</sup> Fitzpatrick J & Cooper N [2001] "Patterns of trends in stillbirths & infant deaths" [chpt 6, pgs 162-80] In C Griffiths & J Fitzpatrick [Eds] *Geographic Variations in Health: Decennial Supplement DS16* London, The Stationary Office

<sup>3</sup> Gardosi J et al [2007] *West Midlands Key Health Data 2006/07* Birmingham, University of Birmingham

- General community work including number of typical antenatal / postnatal visits per woman, length of clinic appointments, perceived job support and job satisfaction
- Midwifery care and service provision
- Knowledge, skills and training needs of social and public health role (e.g, caring for women with financial, housing and social support difficulties, information and care pathways for women who smoke, need dietary advice, endure domestic abuse etc)

### 3.1.5 Procedures

- i. All Community Midwife managers in each of the four Birmingham hospitals will be informed of the midwife survey and a list of community midwives (and their contact details) gained
- ii. The questionnaire will be sent to each of the identified community midwives working in one of the four Birmingham Hospitals. This will be followed up with a reminder letter, if a response has not been received two weeks later
- iii. Data will be analysed using SPSS version 15. Individual midwives caring for adverse outcome cases will be used to inform the Confidential Enquiry process

## 3.2 **Part Two - Enhanced (Social) Confidential Case Reviews**

### 3.2.1 Aim

Multidisciplinary confidential case reviews are an acknowledged methodology, which have successfully been used to objectively assess cases of adverse perinatal outcome nationally, regionally and locally<sup>4</sup>. The primary aim of a confidential case review is to identify preventable and avoidable factors. Events, actions or omissions attributable to care, management, systems or external factors could all contribute to adverse outcome but could potentially be prevented. Identification of avoidable and/or suboptimal care factors will enable the project to make practice recommendations to improve future maternity service provision.

The confidential enquiry process historically reviews care from information in the woman's case notes. However, it is recognised that social risk and aspects of social care are not always well documented within the notes<sup>1</sup>. Therefore, the confidential enquiry will be accompanied by a social history survey. This will involve conducting semi-structured telephone interviews for key professionals (GP and community midwife) involved in care of the women who have experienced a stillbirth or an early neonatal death.

### 3.2.2 Research questions

The questions seeking to be addressed by the CE are:

- Why is there a high rate of early neonatal deaths in relatively mature babies?
- What are the main causes and associations connected to adverse outcomes?
- What risk factors predominate in each ethnic group?

### 3.2.3 Sample

There will be a total stratified sample of stillbirths and early neonatal deaths (death within 7 days of delivery) that occur in 2008. These will be taken from the four Birmingham Hospitals (The Women's, City, Heartlands and Good Hope).

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<sup>4</sup> CESDI (2001) *8<sup>th</sup> Annual Report: Confidential Enquiry into Stillbirths and Deaths in Infancy* London, Maternal & Child Health Research Consortium

The sample of cases (n= approximately 50) include:

- Stillbirths from all ethnic groups where the mother was born abroad and with a pregnancy gestation >24/40 (n=30)
- Early neonatal deaths (<1 week old) from all ethnic groups where the mother was born abroad and with a pregnancy gestation >34 /40 (n=20)

#### 3.2.4 Research Tool

A semi-structured proforma has been developed by the Perinatal Institute utilising recognised standards to ensure a consistent assessment and analysis of cases (Appendix 2). The proforma will consist of an overall summary of the case and sections for booking assessment, antenatal, and intrapartum and as necessary, neonatal and postnatal care. It will also have an additional section on social history and management in order for an assessment of social care factors to be carried out alongside the more traditional medical factors.

#### 3.2.5 Procedures

- Identification of Cases for Review** - All eligible cases will be identified through one of the following and then validated with each of the following sources:
  - a) NRF project data, as well as with
  - b) The Perinatal Death Notifications [PDN]
  - c) The maternity unit involved with the caseCross-referencing will ensure accurate identification of eligible cases.
- Collection of Cases** - Units will be advised of cases for the confidential case review and will be asked to gather all appropriate documentation and submit the records to the Perinatal Institute for anonymisation. Units will also need to identify the grades/expertise of staff involved in order for a fully informed assessment of the care. Additionally the Perinatal Institute will check, validate, photocopy and distribute the records to panel members for the confidential review to be undertaken.
- Panel membership** - This may vary according to the cases being assessed but core members will include at least two obstetricians, two midwives, a public health lead and a neonatologist who are currently employed within the NHS. It is estimated that panels will assess 4/5 cases at each panel meeting. Additional panel assessors from other relevant specialities will be invited to participate in the processes as necessary e.g. physicians, in cases where the case has been complicated by medical conditions such as diabetes. Panel members will be invited from outside of Birmingham to optimise confidentiality and objectivity.
- The social history questionnaire** - Appropriate GPs and named community midwives contact details will be obtained and a social history questionnaire forwarded in adequate timing for each panel review (Appendix 3). A reminder telephone call will be conducted of any outstanding questionnaires.
- Preparation for the review** - All cases will be anonymised of all hospital, patient and staff details to ensure identities are kept confidential and to maintain objectivity as much as possible. Each case will be summarised within each section of the proforma. Four cases and their corresponding proformas will be forwarded to each panel member two weeks prior to the review. This will allow sufficient time to read and comment on the case

prior to the panel review. Panel members will be paid a nominal fee to cover preparation time and expenses.

- v. **Panel meetings** - The format of the panel will start with a short summary of the case by the Perinatal Institute's project manager – a standardised format will be developed to ensure consistency. Panel members will then review and assess the relevant factors and the quality / standard of care. The panel chair will ensure that enquiries are carried out in an equitable, standardised and timely manner. The assessment of care standards and the grade will be assigned by consensus during the panel review.
- vi. **The WMPI Grading System** - The traditional CESDI Classical Coding System has been adapted to form the WMPI Grading System. This firstly assesses medical care (Table 1) and then a second grade is given to classify the social care received (Table 2). The panel chair will be responsible for completing the panel enquiry proforma and the WMPI Grading scores with the panel's consensus assessment of the care. The two grades will be compared and discussed with overall comments and recommendations.

**Table 1: Medical Grading Classification**

<b>Grade 0</b>	No Suboptimal care
<b>Grade 1</b>	Suboptimal care, but different management would have made no difference to the outcome
<b>Grade 2</b>	Suboptimal care - different care MIGHT have made a difference (possibly avoidable death)
<b>Grade 3</b>	Suboptimal care WOULD REASONABLY BE EXPECTED to have made a difference (probably avoidable death)

**Table 2: Social Grading Classification**

<b>Grade 0</b>	No Suboptimal social care or support observed
<b>Grade A</b>	Suboptimal care, but different management would have made no difference to the outcome
<b>Grade B</b>	Suboptimal care - different care MIGHT have made a difference (possibly avoidable death)
<b>Grade C</b>	Suboptimal care WOULD REASONABLY BE EXPECTED to have made a difference (probably avoidable death)

In addition to the medical and social grading of care, two other areas will also be graded by the panel:

1. In order to increase the validity of all aspects of care, the panel will grade record keeping, communication, organisational issues and policies separately. However, unlike the WMPI grading, this will not assess whether the care contributed towards the death. For example, the scale would consist of:
  - a. 0 – ideal care
  - b. 1 – Minor suboptimal care
  - c. 2 – Significant suboptimal care
  - d. 3 – Overwhelming suboptimal care

2. The panel will also assess the contribution the woman makes towards her health and the pregnancy, using a 'star allocation' for maternal factor in each grade [e.g. Grade 3\*/A\*]. The \* denoting that the woman did not take appropriate medical or social action to safeguard her own health or that of the pregnancy and no \* denoting that the woman did take appropriate action.

### **3.3 Part Three - Simplified Confidential Case Review (pre-viable births)**

#### **3.3.1 Aim**

The aim of the simplified confidential case review is to identify preventable and avoidable factors in accordance with standard confidential enquiries to make recommendations for clinical practice. Pre-viable deliveries have not traditionally been part of Confidential Enquiries and so this is a pilot to see whether broadening the inclusion criteria will aid understanding of the issues involved in this kind of pregnancy loss.

#### **3.3.2 Research Question/Hypothesis**

- What, if any, are the sub-optimal care factors identified for women with a pre-viable birth?

#### **3.3.3 Sample**

All pre-viable births (<23/40) throughout 2007 from the four Birmingham Hospitals (The Women's, City, Heartlands and Good Hope) will be included for the simplified confidential case review (n = approximately 20)

#### **3.3.4 Research Tools**

A simplified proforma has been developed for the panel review (Appendix 4). All the cases will be reviewed initially by the Perinatal Institute and then a confidential case review convened to discuss the overall findings and trends of these cases.

#### **3.3.5 Procedures**

- i. Identification and collection of cases will be carried out in an identical way to part two of the project.
- ii. Initial case review - Each case will be reviewed and the findings summarised by an in-house panel of Perinatal Institute staff (Appendix 5). Each case will be summarised.
- iii. Subsequently, a special expert panel will be constituted to review the cases. Each summarised case will be discussed within the panel and overall trends and avoidable factors identified.
- iv. Panel Membership - The panel membership will include an obstetrician, geneticist, pathologist, neonatologist and a midwife. It is anticipated that the panel will assess the 20 pre-viable birth case summaries at one panel meeting.

### **4. Analysis & Dissemination**

Data from the enquiry proformas will be entered onto a database to be developed by the Perinatal Institute for further analysis and reporting. Qualitative data acquired from the comments about care will also be subject to further analysis.

The Perinatal Institute will disseminate the findings of the confidential case reviews in a several ways:

- i. A final report of each phase of the project will be submitted to the project team/project board once all cases have been assessed and analysed.
- ii. The findings of individual cases will be reported back to their provider units in order to give feed back and improve quality of care.
- iii. An overall report will bring together the various learning points of the project, with special reference to questions relating to standard of care, inequalities, social aspects and system failure.

## **5. Confidentiality**

All NHS employees are subject to the NHS Confidentiality and Data Protection policies. Additionally all participants in panels are expected to comply with the Perinatal Institutes information and security policies. All case notes and associated documentation are to be returned at the end of the panel meeting for disposal by the Perinatal Institutes administration team. The Perinatal Institutes Consent & confidentiality policies are available on [www.pi.nhs.uk/data/consent/consent.htm](http://www.pi.nhs.uk/data/consent/consent.htm)

## **6. Timescale**

The project is aimed to be completed by June 2009.

The estimated plan of work is:

- November 2007 -** Send out letters to Heads of Midwifery and Clinical Directors to nominate clinicians for panel meeting. Finalise protocol and proforma.
- December 2007 -** Inform Community Midwifery Managers of survey and request numbers and details of community midwives working in their areas. Set dates for panel meetings and collect information on pre-viable delivery cases for preliminary assessment.
- January 2008 -** Send survey to community midwives. Send out reminder letters to community midwives two weeks later. Pre-viable birth case reviews commence.
- February 2008 -** Start collating results and analysing findings of community midwives survey.
- March 2008 -** Send information to panel members and commence panels on a monthly basis for sixteen months.
- April-June 2009 -** Collate survey results with the larger Confidential Enquiry and produce final report.