PERINATAL MORTALITY, SOCIAL DEPRIVATION AND COMMUNITY MIDWIFERY 2008-9

West Midlands Perinatal Institute

www.pi.nhs.uk

February 2011

Foreword

This is the third report in our current series of regional clinical outcome reviews, aiming to understand the causes underlying perinatal mortality and develop strategies for prevention.

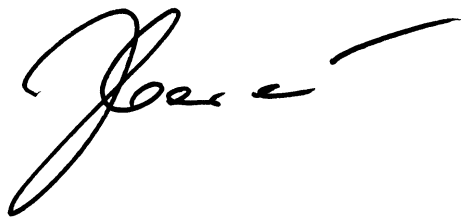
The focus here is on social deprivation; once again we have applied the powerful tool of independent, confidential case reviews to assess the standard of care and avoidability of outcome. This is analysed alongside a survey of community midwives to assess how they are coping with the task of looking after mothers with increased social risk.

Once again, I would like to thank the staff at the Perinatal Institute for their substantial effort and dedication to the various projects which contributed to the findings in this report. Special thanks go to Fiona Cross-Sudworth, Lorraine Ecclestone, Mandy Williams, Ian Bird and Annette Williamson.

Thanks are also due to the midwives who completed the questionnaires, even though these were yet another piece of paperwork they had to fit into their busy working week. I would also like to thank the many professionals from various disciplines who gave their time to participate in the case reviews, in often lengthy and intense panel discussions. They are a part of an increasing bank of West Midlands clinicians, currently numbering around 150, who willingly provide their expertise - not only because they know the many benefits that this process can bring to the service, but also because they appreciate how much they can learn from difficult cases managed by colleagues - as in turn, their colleagues are able to learn from their own.

The findings of various parts of this study have been fed back to the respective stakeholders who provide or commission maternity services, and have already led to a number of improvements, some of which are listed in the report.

There is little that will console grieving parents - not least a finding that their loss may have been avoidable. As the enquiry process is fully anonymised, the results of the case reviews cannot be reported back to them. However, we can at least honour their loss by ensuring that any lessons which may arise are learnt and implemented, and that the service is made better as a result.



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Executive Summary

Perinatal mortality and social deprivation are closely linked, and the West Midlands has high rates of both. Five PCTs commissioned the Perinatal Institute to examine the factors which relate to perinatal deaths in 6 maternity units over a 12 month period during 2008/9. Together, these units delivered just under half of the annual births in the region, and service a maternity population with a high rate of social deprivation.

Confidential Enquiry

Anonymised case note reviews of 94 perinatal deaths were undertaken by independent multi-professional panels. The cohort included 29 deaths with major congenital anomalies. Of the 65 deaths of normally formed babies, panels found that 35, or 54%, would have been potentially avoided by better care.
The key substandard care factors which were identified related to:

- medical and social risk assessment at booking;
- development of appropriate management plans;
- antenatal surveillance including detection of fetal growth restriction;
- communication with mother and across professional disciplines;
- postnatal follow-up and support.

Many of the pregnancies had one or more health and social risk factors, but a frequent observation by the panels examining the case notes was that incomplete assessments at booking resulted in a lack of antenatal recognition of risk, which could lead to a series of system errors that contributed to the outcome.

Community Midwife Survey

The average community midwifery caseload in the participating units was 146 in 2008/9, about 50% higher than the current national recommendation of 98. Semi-structured questionnaires were sent to all community midwives employed by the 6 maternity units, and were returned with a high response rate of 77%. The midwives reported that they often had insufficient time to appropriately care for their women, despite working on average 5 hours per week above their contracted hours. Quality and quantity of antenatal and postnatal visits were affected by this lack of time and resulted in dissatisfaction with their role and the service they were able to provide. Many felt that they were working under high levels of stress, and over a third were considering leaving as a result.

Conclusion and Actions

The learning points from the individual perinatal death reviews have been reported back to the respective maternity units during 2010, and local action plans have been developed to address the issues raised. In addition, a regional initiative has been commenced to standardise and quality assure internal reviews of adverse outcome, to ensure that the health service is able to learn from its mistakes.

The findings link avoidable perinatal deaths with increased levels of deprivation. Front line carers such as community midwives are under-resourced to meet the complex social and medical needs of more vulnerable populations. Resources need to be targeted to address these challenges and provide more equitable care. The focus needs to be on improving outcome, which will require appropriate staffing, support, care pathways and effective points of referral, to ensure that perinatal deaths are not just designated avoidable, but actually avoided.

Regionally, these issues are being addressed by a number of initiatives, including:

- improvements in caseload numbers, care pathways and support for community midwives;
- enhancement of the hand held pregnancy notes for social risk assessment and management plans; and
- routine collection of denominator maternity data and key performance indicators to help identify inequalities and service gaps.

Introduction

While most pregnancies cared for in the West Midlands and in the NHS generally have an uneventful course and a happy outcome, about 1:100 result in a perinatal death, i.e. a stillbirth or a death of a live born baby in its first week of life.

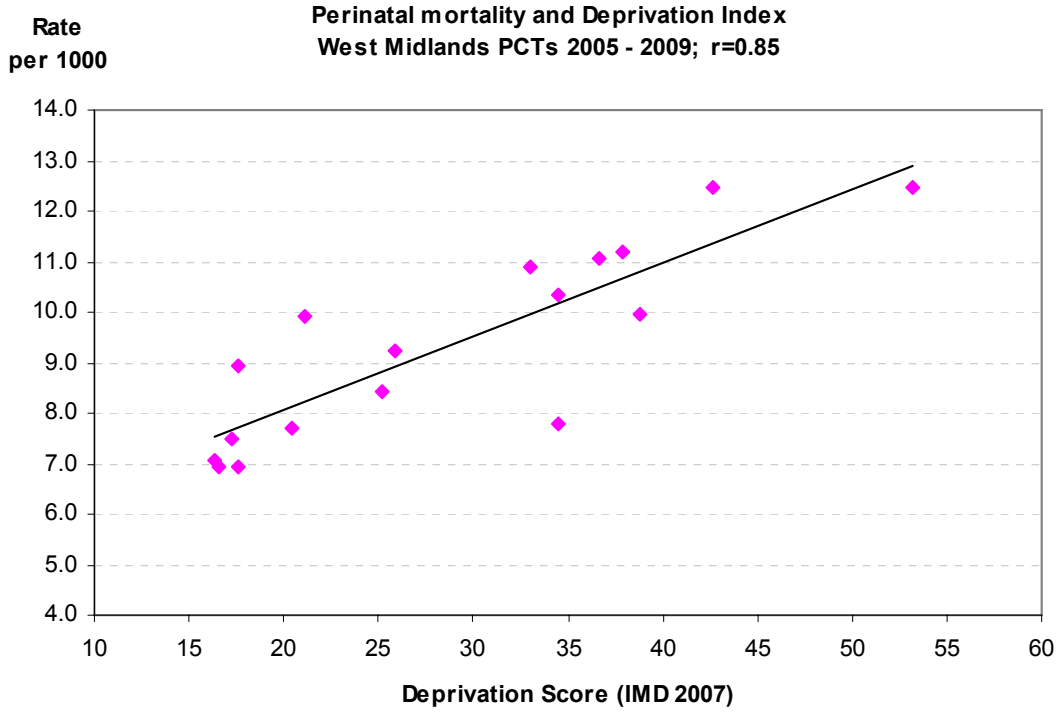
The West Midlands Perinatal Institute (WMPI) is an NHS organisation tasked with understanding the causes of adverse pregnancy outcome. We recently published a regional report into intrapartum deaths, i.e. those related to events surrounding labour and delivery [1]. The report found that most of these deaths were potentially avoidable, and often linked to instances of substandard care, many which originated in the assessment and recognition of risk factors well before the onset of labour.

However intrapartum deaths constitute a small fraction (<10%) of all perinatal deaths. The current report presents the results of a parallel investigation which was undertaken into all deaths in the perinatal period, i.e. antepartum stillbirths and early neonatal deaths, which was undertaken during the same period (2008-2009) for 6 maternity units in the West Midlands.

As these units served areas of high deprivation, we also included an assessment of social risk factors within the primary sector, and undertook a survey of the community midwives who were working in these areas to assess their ability to cope with the demands of their role.

Background

The West Midlands is an NHS region with large inequalities and many areas of high social deprivation, as well as a perinatal mortality rate above the national average[2]. The graph below illustrates the association between deprivation levels according to IMD score (index of multiple deprivation) and perinatal mortality rate for each of the 17 PCTs in the West Midlands. The correlation is high: r=0.85.



[1] Confidential Enquiry into Intrapartum Related Deaths - Perinatal Institute, 2010 www.pi.nhs.uk/pnm/intrapartumCE.pdf
[2] Stillbirths, Infant Deaths and Social Deprivation 1997-2007/8 Perinatal Institute. in *Key Health Data for the West Midlands*, University of Birmingham 2009 www.pi.nhs.uk/pnm/KHD_Chapter_13.pdf

6 maternity units were involved in the study. Together, they delivered 33,781 babies, or 46% of the 72,804 deliveries in West Midlands in 2009.

The table below provides a snapshot of the characteristics of the maternities.

Maternity Data PEER 2009-11 (n = 98,988)		**Six maternity units**	**Rest of West Midlands**
		%	**%**
Maternal age	<20	6.5	7.5
	40+	3.1	3.0
Body Mass Index	<18.5	3.5	3.5
	35+	7.6	7.5
Ethnic Origin	African	5.7	1.5
	African Caribbean	3.2	1.2
	British European	55.4	78.7
	Eastern European	3.0	3.5
	Middle Eastern	1.7	0.6
	Bangladeshi	3.2	0.9
	Indian	5.2	4.7
	Pakistani	15.0	4.4
	Other/Mixed	7.5	4.3
Born outside the UK		29.9	13.8
Booking	<13 weeks	82.8	81.4
Smoking	at booking	17.8	20.0
	at delivery	13.5	13.9
Social Deprivation *	IMD Q 5 *	55.8	31.4
Prematurity	<37 weeks	7.5	6.3
Birthweight <10th customised centile		14.7	14.2
Perinatal mortality **	rate per 1000 **	10.8	8.0

* Index of Multiple Deprivation 2007; quintile 5 = most deprived ** 2007-2009 3-year average

Compared to the rest of the West Midlands, the areas served by the 6 units have a higher proportion of ethnic minorities, have more mothers who were born outside the UK, and have a higher rate of social deprivation (55.8 vs 31.4 %). Babies from these areas have a higher rate of prematurity, growth restriction and overall perinatal mortality (10.8 vs 8.0 /1000 births).

Confidential Enquiries

The investigation commissioned by the 5 PCTs was to look at perinatal deaths, including antenatal deaths (stillbirths) and early neonatal deaths in the first week of life, but excluding premature births <34 weeks. Cases included deaths which occurred over a 12 month period during 2008-9.

METHOD

Cases

There were a total of 94 deaths which fit the inclusion criteria, and all underwent confidential case review. The cases were identified through WMPI's perinatal mortality register which has near complete ascertainment of all deaths in the region. Case notes were requested and obtained from a network of contacts in each unit. The notes were fully anonymised and coded, and sent together with draft clinical summaries on semi structured proformas (Appendix 1) to the 8-10 members of the respective panel 2 weeks before the scheduled panel meeting.

Panels

The cases were reviewed during 25 panel meetings held between June 2008 and December 2009. Each panel session included two obstetricians, two senior midwives, as well as a public health specialist and/or health visitor. For neonatal deaths, two neonatologists and two neonatal nurses were also included. In total 83 clinicians participated in one or more of these case reviews, and were selected from the current bank of 148 West Midlands panel members in perinatal specialities. Panels were always constituted to include only clinicians from units other than those which cared for the cases scheduled for review. The panel meetings were chaired by the director of the Institute or a deputy, and administered by 2 project managers (specialist midwives). Four cases were usually examined during a 4-5 hour afternoon session. Each case review examined all aspects of the social, antenatal, intrapartum, postnatal and neonatal care, culminating in a summary of the care factors and overall grading, which was assigned by consensus.

FINDINGS:

The results of the confidential case reviews have been reported and presented in detail to the individual maternity units concerned. Here, we are reporting on the main trends in the aggregated results from all cases, regardless of where they delivered.

Social risk factors	Numbers	% of total (n=94)
Non-English speaking	27	28.7
Unemployed household	22	23.4
Inappropriate housing	14	14.9
Asylum seeker / new to UK	9	9.6
Unsupported / difficult family circumstances	21	22.3
Emotional factors / anxiety	4	4.3
Teenager < 20 yrs	5	5.3
Late Booker	4	4.3
Miscellaneous*	19	20.2

* e.g. emotional / drug abuse / learning difficulty / social work involvement / concealed pregnancy

Medical risk factors	Number	% of total (n=94)
Poor obstetric history	12	12.8
Significant medical history	20	21.3
Previous mental health issues	9	9.6
Obesity BMI > 35	10	10.6
Grand-multiparty 4+	9	9.6
Age 40+	3	3.2
Consanguinity	12	12.8
Smoking	18	19.1
Previous IUGR	17	18.1

In total, panel assessments found that in this group of 94 women with a perinatal death, 67 (71%) had one or more social risk factors relevant to the pregnancy, and 80 (85%) had one or more relevant medical risk factors.

Panels assessed the care in each case and identified several main themes:

Risk assessment and management plans - The panel reviewed the record of early pregnancy assessment of health and social care. Recognition of risk factors in early pregnancy, appropriate management plans and prompt referral represented good care. Inadequate assessment and /or absent management plans were noted by panels in 49 (52%) of the cases, and included:

- maternal risk factors not identified, or identified but not acted on e.g. raised BMI;
- lack of individualised management plan, or plan not updated during the pregnancy;
- not following the plan of care documented.

Social care – Good care included identifying vulnerable women and instituting appropriate referral for support. However many women with significant risk factors were not identified or did not appear to have received appropriate support. Examples included:

- absent or incomplete social assessment in the hand held pregnancy notes;
- vulnerable women often not offered home visits / assessments, support and/or referral
- psychological / social circumstances not being considered;
- lack of apparent care pathways for social issues.

Antenatal care – Good care included early booking, continuity of carer, and recognition and appropriate action in response to risk factors as they arose. The following were examples of care issues that were most frequently raised by panels:

- inability to fast-track high risk women for consultant appointment early in pregnancy;
- appropriate tests not carried out or followed up;
- insufficient appointments, inappropriate gaps in care, and/or poor continuity;
- missed appointments ('DNAs') not being followed up;
- not acting on warning signs, e.g. repeated diminished fetal movements;
- inadequate monitoring of fetal well-being – e.g. no serial scans even though there was a relevant history or other risk factors for intrauterine growth restriction (IUGR).

Of the 65 normally formed babies, 37 (57%) were small for gestational age suggesting abnormal growth, which is a serious risk factor for perinatal loss[3]. However in only 2 (5%) of the pregnancies was there antenatal awareness that the fetus was small.

[3] Kady S, Gardosi J. Perinatal mortality and fetal growth restriction. *Best Practice Res Clin Obstet Gynaecol* 2004;18:397-410

The panels also reviewed intrapartum and neonatal care, and distilled relevant learning points, which were fed back to the units concerned. While some of the substandard care points were similar to those detailed in the recently presented regional report on intrapartum deaths[1] they were overall less of a feature in these enquiries.

Postnatal care – Good care included thorough follow up, investigations and plans for future pregnancy. The standard was however very variable across hospital, community and consultant care, and was considered substandard in 38 (40%) cases, with examples including:

- women being discharged from the hospital too early despite complications such as pre-eclampsia, pyrexia, anaemia;
- lack of investigation into cause of IUD e.g. blood tests, genetics referral, placental histology;
- inadequate or no consultant follow-up and plans for future pregnancies;
- some women were not seen postnatally by a community midwife at all, or discharged from her care too early.

Bereavement support – Good care included sensitive support from a bereavement midwife, patient information leaflets / bereavement pack and parental involvement in the decision making process. However there was wide variation, with examples of substandard care including:

- one unit not having a bereavement midwife at all during the period of this enquiry;
- lack of documentation on condolences and support given to the woman and her family;
- lack of adequate counselling / debriefing / follow-up.

Communication – Good care included ongoing communication with the mother and appropriate referrals or involvement of specialists e.g. fetal medicine team, genetics, counsellors, linkworkers. Panels found that in many cases, this aspect of care was substandard, with examples including:

Communication with mother

- group bookings were not considered best practice or should only be used to give generic pregnancy information with additional time for a private consultation;
- frequent lack of professional interpreter, with partner or family members used as translators;
- poor or absent information / advice / choice e.g. diminished fetal movements in pregnancy, or method and time for induction of labour after fetal death;
- sub-optimal communication regarding post-mortem e.g. no apparent translation for women who did not speak English, or no documentation of discussions having taken place.

Multidisciplinary communication / collaboration

- inadequate information sharing or referrals to the multi disciplinary team, particularly where social issues were concerned e.g. Pregnancy Outreach Workers, Health Visitors, Social Services;
- women who were transferred (for neonatal care) or who opted to deliver at a different hospital to where they were receiving antenatal care, appeared to be at a higher risk of gaps in care / follow-up being missed.

Documentation – Positive aspects included reviewing previous obstetric notes and clear neonatal plans recorded during pregnancy. Problems with record-keeping were identified in 55 (59%) cases, examples including:

- poor documentation of what information and choices were given to the mother;
- lead professional not identified / recorded in the notes;
- fetal growth chart not well documented e.g. fundal height or estimated fetal weight measurement not plotted.

Quality of care - A frequent impression during the panel reviews, often evident from the case notes, was an apparent lack of attention to detail, which was most likely explained by distracted or overworked staff. Manifestations of this included:

- incomplete assessment of social and medical risk factors at the booking appointment;
- failure to act on risk factors even when identified;
- failure to inform mothers of the warning signs in pregnancy such as decreased fetal movements;
- failure to recognise or act on changing circumstances.

In a number of cases, the panel concluded that the death preceded a series of errors, which was often initiated by a lack of upstream recognition of risk, or action in response to changing circumstances during pregnancy.

Protocols

The protocols relevant to the case were obtained from the respective Trust and assessed by the panels at the time of the case review. In 26 (28%) of the cases reviewed, panels commented that the protocols were non-existent, not clear, out of date with national or regional guidelines, or not followed by the clinicians. These comments were fed back together with the case summaries to the Trusts concerned.

Avoidability of Outcome

This was assigned by the panels after completing the examination and detailed discussion of the case notes. In all instances, the members of the panels were able to determine the grading by consensus.

Grading	Level of care	Congenital anomaly	
		Yes	No
Grade 0	No suboptimal / substandard care	4	6
Grade 1	Suboptimal care, but different management would have made no difference to the outcome	20	24
Grade 2	Suboptimal care; different care *migh*t have made a difference (possibly avoidable death)	3	19
Grade 3	Suboptimal care; different care *would reasonably be expected* to have made a difference (probably avoidable death)	2	16
TOTAL		**29**	**65**

As the table shows, of the 65 pregnancies with normally formed babies, the outcome was likely to have been different with better care in 16 (25%) of cases, and may have been different with better care in a further 19 (29%) - i.e. the deaths were potentially avoidable in 35 (54%) of cases. This ratio pertained similarly for the different areas of investigation.

Congenital Anomalies

A total of 29 babies had major congenital anomalies, all of which were diagnosed antenatally. As expected, most of these deaths were considered unavoidable. Nevertheless, panels identified instances of suboptimal care which were important for the care of mother and baby, examples including:

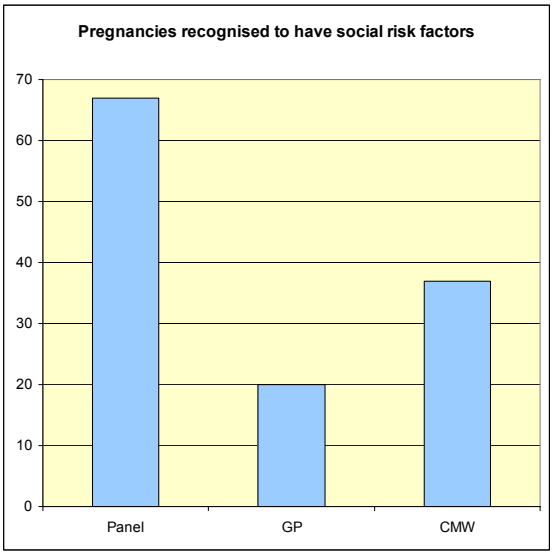
- poor social investigation and support;
- lack of translation services;
- poor communication and /or information giving to women;
- lack of adequate antenatal planning for delivery and initial neonatal care;
- lack of referral to genetic services; or
- absent or inadequate postnatal consultant follow-up.

Internal Case Reviews

Before feeding back individual, anonymised summaries of the panel discussions, the respective units were asked to forward their own assessments. There was wide variation in the quality of the internal reviews and the degree with which they were able to determine the underlying cause(s) of the deaths. One unit had standardised the process and internal case reviews were available for all their cases; while from the other 5 maternity units, only 29% of cases had a documented case review. Work is underway to set up a standardised and quality assured review process for all perinatal deaths in the West Midlands, utilising the NPSA intrapartum toolkit and the regional proformas developed by the Perinatal Institute.

Understanding of Social and Medical Risk - CMWs and GPs

In order to ascertain if there were any additional risk factors that were not being recognised, the project managers asked the mothers' community midwife and the GP before the panel reviews to complete a short questionnaire (Appendix 2) on the respective mother's social circumstances. The results are summerised in the graph below:



Based on the case history from hand held and hospital records, panels identified a total of 67 pregnancies with significant social factors. Only in 20 pregnancies were any factors also identified by the mothers' GPs, and in 37 pregnancies by their respective CMW, suggesting that in many instances there was little awareness of significant social circumstances within the community / primary care. In 12 of the cases, important further information was revealed through the questionnaire from GPs (4) or CMW (8), which had not been documented elsewhere, suggesting that it was not shared with any other member of the multi-disciplinary team during the period of maternity care.

Community Midwife Survey

A semi structured questionnaire (Appendix 3) was sent to all 278 practicing community midwives (CMW) employed by the 6 units in 2008/9. Returns were received by 213, giving an overall response rate of 77%. Most respondents had considerable experience, having been a midwife for 17 years on average, including 10 years as a community midwife. 33.8% had been working in the community for less than 5 years.

Caseload

This was determined on the basis of the birth rate and the whole time equivalent (WTE) of community midwives (CMWs) engaged in each of the units. Figures are based on the LSA report for 2008/9[4] and the results are listed in the table. This shows an average case load of 146, ranging from 127-187 across the 6 units. This is 49% higher than the 98 nationally recommended case load for CMWs in 2009[5].

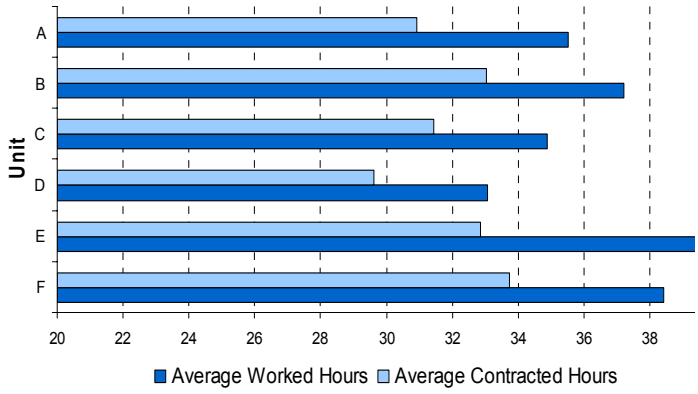
Maternity Unit in survey	Average annual caseload per CMW
A	146.2
B	146.6
C	144.2
D	136.7
E	187.1
F	127.3
Average	**146.4**

For the remaining West Midlands units in the same year, the average CMW caseload was 132 (range 100-167).

Working Hours

- CMWs reported that they worked on average 37.3 hours per week, 5 hours above their average 32.4 contracted hours.
- Some CMWs worked up to 18 additional hours per week, which may exceed the European Working Time Directive[6] (48 hours max. week).
- CMWs frequently commented that they were struggling to fulfil antenatal clinic, postnatal visits, supervision and management duties, and keep up with the paperwork.
- Most CMWs felt that it was necessary to work extra hours in order to fulfil their clinical work as well as additional duties such as:
  - administration e.g. data collection for audits, and general paperwork;
  - meetings with colleagues/members of the multi-disciplinary team;
  - management e.g. supervising staff, arranging cover for holiday/sick leave;
  - additional responsibilities.

Contracted vs worked hours



"We are all extremely tired and feel that we short change the women...there are not enough hours in the day and we end up working extra hours to provide a good standard of care" (Respondent 08)

"Antenatal clinic activity in most cases are running to a full day which makes postnatal visiting, management and supervision difficult to achieve. However because of the importance of all these, they are achieved, but only because the midwives have worked on till late and paperwork is done behind the clinical setting, very often within the house and around family life" (Respondent 144)

[4] Kuypers B. The Local Supervising Authority Midwifery Officer's Annual Report April 2008-March 2009 West Midlands Strategic Health Authority, 2009
[5] Royal College of Midwives *Staffing Standard in Midwifery Services* (Guidance Paper no.7) London, RCM 2009
[6] Dept of Health *The European Working Time Directive* DoH 2009 http://www.dh.gov.uk/prod_consum_dh/groups/dh_digitalassets/documents/digitalasset/dh_093943.pdf

Support Workers

The table lists the types of support workers and the number of CMWs who reported that they were available to them.

Overall, only 12-15% of midwives had access to one or more support workers for at least some time.

Interpreters were available to 65 (31%) of midwives, and were used by them on average 2.2 hours p/w.

Support Workers	No. of CMWs receiving assistance	% of total (213)	Average hours / week
Linkworker	32	15.0	4.0
Pregnancy outreach workers	31	14.6	2.1
Maternity support workers	28	13.1	3.2
Best Buddy (BF)	26	12.2	2.3

"I think it is imperative more link workers / interpreters are available to work alongside community midwives not just in antenatal clinic" (Respondent 31)

"The maternity support workers are excellent and a great support to us….but we could do with more of them" (Respondent 05)

"I feel like a clerical worker instead of a practising midwife" (Respondent 198)

Antenatal Appointments

There was a wide range of time spent in booking appointments. They were often shorter than the suggested hour for an uncomplicated booking[7] to allow for an adequate risk assessment.

On average women were given more time for booking visits at home compared to clinic.

There was also wide variation in the amount of time spent on formal discussion of birth plans.

Antenatal (A/N) appointment		Average (minutes)	Range
Booking at home	primip	58.4	20 - 90
	multip	50.7	15 - 90
Booking in clinic	primip	46.6	10 - 90
	multip	43.0	10 - 90
A/N appointment	routine	15.4	10 - 35
28 weeks	28 weeks	18.2	10 - 35
Birth plan appointment	at home	41.2	10 - 90
	in clinic	24.0	10 - 90

"...Need more time to enable a more thorough and satisfying consultation for women and midwife" (Respondent 142)

"Time limits mean discussions [birth plans] are sporadic and opportunistic, rather than planned" (Respondent 36)

"..[need] smaller clinics, more time for vulnerable mothers" (Respondent 41)

Postnatal Appointments

The table lists the average times spent on postnatal visits. As with antenatal appointments there was a large range in the times CMWs spent doing them.

The average number of postnatal visits was 3.6 (range 2-6).

Postnatal (P/N) appointment		Average (minutes)	Range
Home	primip	34.2	10 - 90
	multip	24.7	5 - 45
Clinic	primip	27.0	10 - 60
	multip	21.2	10 - 45
Breastfeeding support	primip	42.0	10 - 90
	multip	25.9	5 - 90

"I feel that they [mothers] are discharged too quickly and they need more support with things such as mental health issues" (Respondent 168)

"'Don't worry. I can look on Youtube' to see how to bath my baby' – were words that one mother said to reassure me" (Respondent 11)

"We are only meant to provide 3 visits postnatally but we do provide many more than this especially for breast feeding support where we may even visit twice a day because we see this as good midwifery care" (Respondent 3)

Care Pathways

Most CMWs had good knowledge of care pathways for smoking cessation (97%), but less so for obesity (54%).

They were confident in dealing with child protection issues, but substantially less issues concerning housing and benefits, asylum seekers, and physical and learning disability.

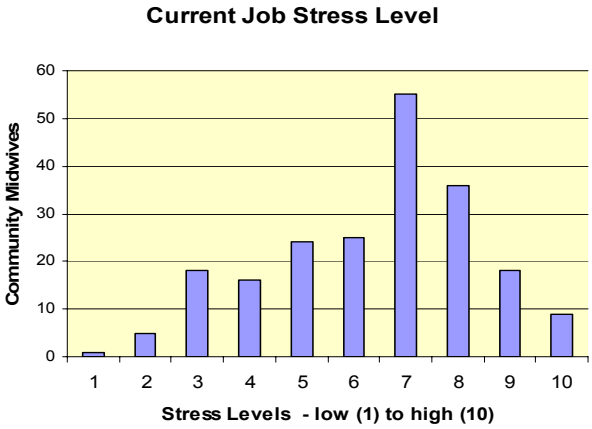
The majority of midwives wanted more training. They felt that they were covering a wide range of social and medical problems, and it was often difficult to know who to contact. There was a large variation in referrals made, which depended on knowledge and awareness of care pathways.

Care pathways	confidence in managing %	knowledge of care pathway %
Smoking	97	77
Teen pregnancy	89	74
Drugs/Alcohol	72	83
Obesity	60	54
Claiming benefit	43	11
Inadequate Housing	33	9
Asylum seekers	24	15
Non-English speakers	72	32
Physical / learning disability	23	23
Mental health	82	87
Domestic abuse	67	77
Child protection	87	95

"Having a clear pathway of appropriate referrals would be helpful - benefits/housing issues do seem to change frequently" (Respondent 88)

Stress, Job Satisfaction and Support

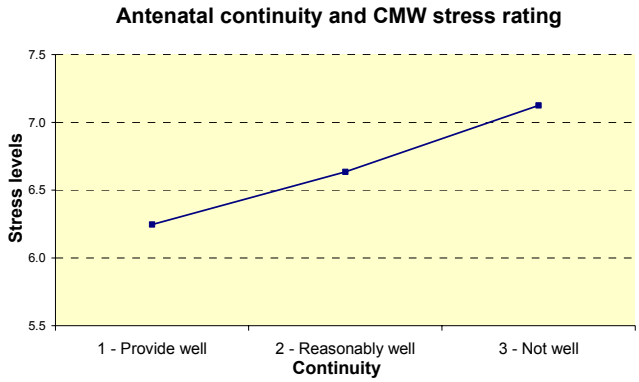
CMWs were asked to indicate their stress level at work, on a scale of 1 (low) to 10 (high stress). The graph shows that most CMW experienced substantial stress, with the modal value of 7 and many even higher.



69% of CMWs reported that their stress levels were 6 or higher. The main reason given was the high workload.

Despite the reported stress, midwives found their work fulfilling and felt committed to it, believing that they made a difference for the women they cared for. Most anticipated continuing in this role for at least another 3 years. However many were considering leaving, either due to the excessive stress (27%) or retirement (16%).

CMWs felt generally well supported by colleagues, but 47% felt they were not well supported by their respective Trust. However this level of support ranged between units.



Stress levels appear to be increased with lack of ability to provide continuity of care.

"The care offered to women is based on the number of midwives available rather than the needs of the women" (Respondent 201)

"Morale is very low; midwives are extremely stressed. Women are not receiving the care they need because we are constantly being pushed for time and more and more demands are being made on us" Respondent 157

"We are so stressed we do not enjoy our days off. The responsibility is overwhelming: we wake in the night thinking of things we have forgotten" Respondent 08

"I feel that a lot of highly skilled women will leave the profession due to the pressure" Respondent 101

"My personal frustration occurs in the main as a direct result of feeling constantly under pressure to 'beat the clock' and achieve all that I feel my women deserve from their midwife within the working day" Respondent 327

Conclusion

Confidential case reviews are a powerful means to investigate the causes of adverse outcome. This is based on the fact that they provide an independent method of assessment which can identify systems failures and highlight the relevant themes which need to be addressed to reduce avoidable loss. The finding that over half of deaths are potentially avoidable is sobering, but should be seen as a motivator for the health service, as it suggests that increased effort will be rewarded by better outcome.

This investigation has shown a number of findings which are important in our understanding of high perinatal mortality rates. It highlighted the strength of association between social deprivation and avoidable loss. Many bereaved mothers had risk factors which needed to be recognised when establishing effective management plans for pregnancy.

The initial responsibility for risk assessment and surveillance lies with midwives in the community, where most of maternity care takes place. However it has become apparent that in some cases the system falls down because of high workload. The findings suggest that an overstretched service is ill equipped to deal with challenges of a maternity population with high social deprivation. The resultant shortfall leads in some instances to a series of errors, and ultimately an outcome which could be prevented with an appropriately resourced maternity service. Such upstream investment will lead to improved patient safety and reduced morbidity and mortality, and ultimately also substantial savings due to prevention.

Regional Initiatives

In the West Midlands, a series of developments have started to address the challenges highlighted in this report:

- follow up focus groups conducted in 2010 indicated that midwife managers have an increased awareness of the need to reduce high community midwifery caseloads;
- additional resources have been allocated by commissioners and Trusts, although caseloads are currently still well above national recommendation, especially in the most deprived areas;
- heads of midwifery - led implementation of the NHS Institute's 'Productive Community' aims to identify time and resource efficiencies, allowing CMWs to spend more time with women;
- local implementation groups (LIGS) are working on development of integrated care pathways, and a redesign of geographical CMW services including children's centres;
- increased training in care pathways for vulnerable women;
- increased training of maternity support workers;
- a comprehensive training programme and local initiatives to improve the detection of fetal growth restriction, including a pilot of community growth scans by midwife sonographers;
- the hand held maternity notes have been revamped to include more detailed social risk assessment and management plans, and prompt regular review and re-assessment throughout pregnancy;
- the WM SHA's Investing for Health programme funded the development of exemplars of the standardised maternity notes, to demonstrate best practice in record keeping;
- new initiative to standardised and quality assure the review process for all perinatal deaths in the West Midlands
- implementation of a maternity data collection programme which is able to record social and medical risk factors and their links to deprivation, and key performance indicators to identify service gaps.

There is wide support and awareness of the need for a co-ordinated regional approach, through the recent establishment of the West Midlands Perinatal Network for commissioning and provision of maternity and newborn care.

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