IN CONFIDENCE

Independent Review of Maternity Services in the Northern Health and Social Care Trust

Report of the Review Team

July 2008

CONTENTS

1 EXECUTIVE SUMMARY

Background

Between February and June 2008, a Review Team appointed by the Northern Health and Social Care Trust carried out a review of the maternity services provided by the Trust. The Review has focused specifically on organisational, management and performance issues. It has been conducted in parallel with a review of the governance issues arising from two recent maternal deaths and was prompted by the Trust's determination to respond to recent adverse incidents and ensure a safe, effective and high quality service.

For much of the period reviewed, the Antrim and Causeway hospitals were parts of separate trusts. The Review of Public Administration brought both hospitals under the management of the Northern Health & Social Care Trust, with effect from 1st April 2007. Whilst the two Units serve separate catchment populations, maternity services in both Antrim and Causeway are part of the Women & Children's Services Directorate and have been brought together under a single management structure. Thus, the Review Team has sought to look at joint performance and joint and common standards and policies for the future.

The Review is set within the context of: the significant organisational change; differences in risk management arrangements between Northern Ireland and other parts of the UK; national guidance and best practice relating to models of care; recent findings by the Healthcare Commission, and others, on failings in health services; and, demographic changes and rising birth rates.

Key findings

- **Standards and Performance:** Maternity services at both Antrim and Causeway are safe and would be in the top performing UK quartile when viewed against almost all of the recognised major performance indicators. However, there are comparatively high levels of intervention, and the overall model of care appears medicalised compared to national models of good practice. Funding is at the low end of the Northern Ireland range. There is evidence of a widespread management and staff ambition to do more in the areas of training, risk management and clinical audit.

- **Clinical and Corporate Governance:** The legacy trusts appear to have had comparatively weak application of their organisational and clinical governance structures. Strategies,

policies and guidelines frequently appeared to be developed uni-professionally and were not regularly reviewed. The culture was perceived by some to be one which was not conducive to learning. There were limited on-going mechanisms for seeking or responding to user feedback. In response to these issues, the Trust is already developing a Risk Management Strategy and new governance structures.

- **Leadership and Management:** There has been a historical lack of clear clinical and managerial leadership. However the Trust has recently put in place a new structure to strengthen midwifery leadership and management of maternity services, including the appointment of a Trust-wide Head of Midwifery post and several clinical service managers – although there remain some concerns about the scope of the task faced in the short-term and there is a need to ensure there is appropriate support for the post-holders. The Trust is also working to improve the integration of maternity services into its wider leadership structures. Statutory Midwifery supervision is also improving.

- **Training and Development:** In reviewing the period 2005 to 2007, the Review Team found little evidence of clear training and education strategies, systems to identify training need, data systems to capture provision, uptake and audit of training, or a designated person within the maternity unit to keep information on all planned and completed training, to provide assurance. Nonetheless students spoke highly of the midwives and their ability to meet the needs of learners as well as the service. Again, actions are being taken in this area already.

- **Capacity and Capability:** The maternity services appeared to be struggling to cope with an increase in deliveries and a perceived shortfall in capacity. The capacity issues appeared to apply to both midwives and obstetricians. This appeared to be at least partly due to service and workforce design not fitting staff, user or organisational requirements. It is the Review Team's opinion that adopting a less medicalised model of care and hence deploying staff differently would enable the service to address most of the perceived shortfall in the long term. There will be a need for some new funding – for example, for the specialist midwife in risk and governance recently appointed, and certainly for transitional funding to support the change process.

Conclusions and Recommendations

Despite the pressures of the current focus on maternity services, due to the high profile adverse incidents, there appears to be a general feeling amongst staff, users and stakeholders that the staff in both Antrim and Causeway maternity units are providing a good level of service within the structures and constraints of the maternity services.

Pressure and constraints include: the recent reconfiguration of Trusts, the effects of the recent high profile serious clinical events themselves, the increasing birth rate putting pressure on capacity, and a model of care that does not enable staffing resources to be most effectively utilised.

The Review Team's key recommendations are:

1. Create the right, multi-professional environment in which the obstetricians, midwives, neonatologists, anaesthetists, nurses, managers and others can come together to discuss a shared vision.

2. From that vision, the professional staff, supported by the Trust, managers and commissioners, must produce a clear, trust-wide maternity services strategy, say by 31.12.08.

3. In line with the vision and strategy, agree an overall patient pathway or service design that addresses the efficiency and safety weaknesses identified.

4. As part of this development of the vision, strategy and service model, consider further the structure and style of the services' leadership and management.

5. Develop clear links and robust monitoring as part of the Trust's current efforts on safety and risk management, but with targeted support, encouragement and resources to allow for multi-professional meetings, shared information and a dedicated risk manager.

6. Follow through some of the current suggestions for multi-professional CPD and on-site training.

7. Develop local arrangements for an effective Maternity Services Liaison Committee.

8. Ensure that all stakeholders are given the support and facilitation they might all need to shift the culture and style of the maternity services.

2 Introduction

2.1 Background

Between February and June 2008, the Review Team was appointed by the Northern Health and Social Care Trust to carry out a review of the maternity services provided by the Trust.

This review was commissioned because of four serious adverse incidents that occurred within the Trust's Maternity Services in the period 2005-2007. These four incidents are subject to either a Coroner's case or the separate Maternal Deaths Review and so this Review has focused on the wider organisational, management and performance issues set out in the Terms of Reference[1].

The Antrim and Causeway Hospitals were parts of separate Trusts at the time of the adverse incidents, and until 1st April 2007. Thus, most of the data available to the Review Team related to the Units as separate entities. At an operational level, the two units continue to function largely separately. However, as there is now the overarching Trust and integrated management through the Directorate of Women and Children's Services, we have sought opportunities to look at joint performance and certainly at joint standards and policies for the future.

This report describes the review's findings and covers:

- Overall standards and performance relating to patient safety;
- Clinical and corporate governance;
- Leadership, management and accountability;
- Training and development;
- Capacity and capability in relation to current and future demands on service;
- Conclusions and recommendations.

2.2 Objectives

The key objectives of the review were to:

- Review the overall standards and performance of the Trust's maternity / obstetric services with regard to patient safety and in line with contemporary good practice.

[1] Full details of the Terms of Reference, methodology and Review Team are included in Appendix 1.

- Review the clinical and corporate governance arrangements that are in place and, in particular, the arrangements for defining, reporting, investigating and learning from adverse incidents and near misses, taking into account the four serious adverse incidents and others identified to the Team.

- Consider and comment upon the leadership, management and accountability structures within the Trust and teamwork within the maternity / obstetric service.

- Review and comment upon the training and development opportunities provided to clinical and professional staff in the maternity / obstetric units in the period leading up to November 2005 and until November 2007

- Consider the service demands, resources available, service organisation and the Trust's capacity and capability to deliver safe and effective maternity services.

2.3 Acknowledgements

In writing this report, the Review Team was very conscious of the wide variety of staff and stakeholders that we have been able to meet and the volume of information, policies and procedures that had been made available. We would like to thank the managers, consultants, staff and patients of the Trust and the external stakeholders such as members of the public, service users, representatives of the DHSSPS and Northern H&SSB who gave their time, observations and thoughts to support this review.

It would have been impossible to arrange and manage all of this without the great support given by the Trust's Head of Governance and Patient Safety, Mrs Hazel Baird and her Assistant, Allison Leitch, who was always extremely helpful and supportive.

3 Context

The findings of this review should be considered in the context of a number of key issues that have had, and will have in the future, a significant impact on how maternity services are provided both within the Northern Health and Social Care Trust and more widely.

Most significant amongst these are:

- Organisational changes affecting the services reviewed;
- Differences in risk management arrangements between Northern Ireland and other parts of the UK;
- National guidance and best practice relating to models of care;
- Recent findings by the Healthcare Commission and others on failings in health services;
- Demographic changes and rising birth rates.

For maternity services to manage these complexities effectively requires strategic planning and impact analysis if solutions are to be identified. This requires a whole-organisation approach with engagement of staff, users and partners.

These contextual issues suggest that the time was right for the Trust to be reviewing its configuration, management, workforce and governance for Maternity Services.

3.1 Organisational changes affecting the services reviewed

Like other public services, the Health and Social Care services in Northern Ireland have been subject to a structural reorganisation, Reforming Public Administration. In respect of the Maternity Services, this reorganisation has led to the merger of the three “Legacy Trusts” (United Hospitals, Homefirst and Causeway) into the combined Northern Health and Social Care Trust.

Back in 2005-06, a time covered by some specific aspects of this Review, the Maternity Services comprised three hospital units:

- Antrim Area Hospital (part of United Hospitals Trust)
- Mid Ulster Hospital (also part of United Hospitals Trust)
- Causeway Hospital (part of Causeway Trust).

In addition, as found generally, there were Community Midwifery Services and out-posted Consultant clinics based around the geography of both Trusts.

Thus, during the period between the initial clinical incidents (which prompted the current scrutiny of the services) and the present time, the three Trusts have merged and the Mid Ulster in-patient and delivery unit has been closed.

The most frequent issue that the Review Team heard raised in relation to the RPA mergers was the change in management structures and personnel. Most stakeholders were positive about the structures and policies going forward, but there had been a variety of moves, retirements, vacancies and role changes during the period leading up to and immediately after the formation of the new Trust, which inevitably had had some impact on the progress made on some of the broader organisational and governance issues.

The findings of this review should therefore be seen in the context of significant organisational change having taken place.

3.2 Differences in risk management arrangements between Northern Ireland and other parts of the UK

Northern Ireland does not currently have the same type of risk management and risk-sharing arrangements as apply to most of the rest of the UK. In England in particular, the requirements of the Clinical Negligence Scheme for Trusts (CNST), with its specified levels of governance and related discounts in the "insurance" premia, has been a powerful driver for improvements in policy, governance and staffing. Northern Ireland has a risk-sharing scheme that we understand is beginning to change, which may serve to create similar drivers within the region in the future.

The findings in relation to risk management therefore should be understood in the context of Northern Ireland as a whole having less developed drivers to improve risk management – although the new Trust's efforts in this area are recognised.

3.3 National guidance and best practice relating to models of care

At the outset, the Review Team sought a suitable summary of what might be considered best practice for the provision of maternity services in the UK and found useful such documents as the *"Safer Childbirth"* report published by RCOG, RCM, RCPCH and RCA and the Maternity Standard (standard 11) in the English DoH's "*Children, Young People and Maternity National Service Framework"*.

The vision set out in the NSF is that women should have, "…easy access to supportive, high quality maternity services designed around their individual needs and those of their babies." The standard

envisages that women need to be supported to have as normal pregnancy and birth as possible.

In particular, the Review Team have assessed the Trust's maternity services against the following markers of good practice set out in most of the national documents:

- All services facilitate normal childbirth wherever possible with medical interventions recommended only when they are of benefit to the woman and/or her baby;

- Midwifery and obstetric care based on providing good clinical and psychological outcomes for the woman and baby while putting equal emphasis on helping new parents prepare for parenthood;

- Women who use local maternity services are involved in improving the delivery of these services, and in planning and reviewing all local hospital and community maternity services.

Many of the Review Team's findings in relation to the model of care provided by the Northern Health and Social Care Trust are predicated on the model and markers set out in the available national policies and statements.

3.4 Recent findings by the Healthcare Commission on failings in health services

The Healthcare Commission covers England rather than all of the UK, but its recent review[2] suggests potentially universal, clear and common themes from the investigations it has undertaken. These are: poor leadership; ineffective management; inadequate teamwork, with staff feeling unable to communicate problems; and a lack of clarity about who was responsible for what across the trusts.

It is against this context that the Review Team has considered the Trust's services.

3.5 Demographic changes and rising birth rates

In common with the rest of the UK, there has been a continuing upward trend in birth rates across Northern Ireland. Locally, this appears to have been reinforced by births to immigrant workers. This has an impact on planning for future capacity.

[2] *Learning from Investigations August 2004- April 2007,* Healthcare Commission

4 Standards and Performance

4.1 'Headline' Performance Indicators

There are a number of "headline" performance indicators that are normally used when examining the safety and outcome performance of Maternity Services. These indicators include:

- Perinatal Mortality Rate – technically defined as: "The number of stillborn infants of 24 completed weeks or more plus the number of deaths occurring under 7 days of life, divided by the number of stillborn infants of 24 weeks or more gestation plus all liveborn infants in the same population, regardless of the period of gestation."

- Maternal Death rate – technically defined as: "The number of maternal deaths that occur as the direct result of the reproductive process, per 100,000 live births."

Compared to the most recent *Confidential Enquiry into Maternal and Child Health* report[3] covering England, Wales and Northern Ireland, both the Antrim and Causeway Units show upper quartile performance on these measures; i.e. the Trust performs well – being in the top 25% of trusts in the UK. A detailed analysis of these measures and the others shown below is available in Appendix B.

Perinatal Mortality

	Perinatal mortality locally and nationally		
	UK (exc Scotland)	**Northern Ireland**	**Antrim**
2000	8.3	7.2	5.3
2001	8.1	8.4	n/a
2002	8.5	8.8	6.2
2003	8.6	8.0	7.5
2004	8.4	8.0	5.5
2005	8.1	8.1	6.0
2006	7.9	n/a	n/a

Sources: CEMACH Perinatal Mortality Report 2006 and local Trust data (Causeway data not available for all of these years).

[3] Confidential Enquiry into Maternal and Child Health (CEMACH), 2006

Maternal Deaths
The number of maternal death rates per 100,000 live births across the UK is statistically very low[4], and these trends are therefore normally examined over three year periods.

Based on UK-wide data, with a current total of around 4,500 births annually across the whole Trust, one might expect the Trust to have around three maternal deaths in a period of about five years. Obviously, these are only statistical models and should not be taken to suggest that a death will occur every 20 months.

Antrim Hospital had zero maternal deaths in its first fourteen years of operation and 30,000 deliveries, but then two quite close together and then no further deaths. We were not aware of any deaths at Causeway.

Thus, whilst treating this indicator with extreme caution, it is still worth noting that the Trust has had fewer maternal deaths than the national rates suggest could statistically occur.

Post Partum Haemorrhage: Blood loss greater or equal to 1000mls
The annual rates of Post Partum Haemorrhage were similar to the UK average of 4-6%, at between 4.86 to 5.80% for Antrim and 5.95 to 6.69% at Causeway.

Low Apgar score (5 minute Apgar < 7)
The overall annual low Apgar score rates for both units were between 0.69 and 1.24%. That for babies over 34 weeks ranged from 0.42 to 0.87%, which is in keeping with rates from some of the best performing hospitals reported by the recent UK Healthcare Commission maternity service survey.

Stillbirth rate
The annual stillbirth rates for Antrim were comparable to the UK-wide rates: Antrim ranged from 0.15 to 0.68%, and Causeway was 0.58 to 0.81%. The rates for term births were 0.07 to 0.35%. There were too few multiple births to allow reasonable estimates.

Thus, both Antrim and Causeway appear to have good levels of performance on all of these indicators.

[4] The CEMACH report *Saving Mothers' Lives: 2003-2005* shows that the total maternal death rates for the UK were 13.07 per 100,000 maternities in the period 2000-2002 and 13.93 for 2003-05.

4.2 Model of Care

4.2.1 Comparative levels of intervention[5]

There are a number of indicators which suggest that the services have comparatively high intervention rates and are low on what might be regarded as indicators of less "medicalised" forms of care, particularly at Antrim.

- **Overall Caesarean Section Rates:** The recent annual rate for England was 23.5%. In comparison, the overall Caesarean Section Rate at Antrim was higher than the UK national average at between 27.20 to 30.65%. The rate at Causeway was lower than the national average during the year 2006-07 at 20%, but higher during 2007-08 at 24.31%.

- **Primary Caesarean Section Rates:** The UK Primary Caesarean Section Rate median was 24.38%. That at Antrim was consistently much higher at 29 to 32%. That at Causeway was lower, at 19 to 22%.

- **Induction of Labour**
  The Induction of Labour rate in England has been between 19% and 21% for many years. In comparison, the annual Induction of Labour rate at the Trust is consistently very much higher in both units, with Antrim at 30.2 to 36.2% and Causeway at 27.9 to 30.9%.

Appendix B again provides a statistical analysis of these issues as well as most of those shown in section 4.1 above.

4.2.2 Utilisation of Midwifery skills

The Review Team's interviews and meetings, combined with some of the staff attitude surveys, suggested that the skills of the midwifery staff, particularly at Antrim, are not utilised as effectively as they might be, with little or no midwife-led care being provided. The model of care appears to be traditional and medicalised.

The Value for Money Audit of Maternity Services[6] across Northern Ireland, published in October 2006, found:

- Antrim is one of only three units in NI with no apparent patient pathway for midwife-led care.

---

[5] Sources for Caesarean Section Rates and Induction of Labour come from the Healthcare Commission survey and the Trust's own data respectively.
[6] The Northern Ireland-wide *Value for Money Audit of Maternity Services*, October 2006, was prepared by Price Waterhouse Coopers on behalf of DHSSPS.

- Antrim and Causeway were both at the bottom of the ratings in the staff survey on the issues of midwife-led care and choices for mothers.

4.3 Indicators of Comparative Efficiency and/or Productivity

Findings in this section are drawn (as in Section 4.2.2 above) from the Northern Ireland-wide *Value for Money Audit of Maternity Services*, October 2006, which compares maternity units across Northern Ireland and with the rest of the UK.

The audit report is already available to managers, clinicians, staff and other stakeholders, so it is not our intention to reproduce it all here. However, a number of the key indicators and conclusions are worthy of repetition here in order to complete the picture of the standards and performance of the Trust's Maternity Services:

- Antrim's length of stay is higher than both Causeway and the Northern Ireland average for ante-natal and post-natal cases (Antrim ante-natal 1.4 days, with Causeway 1.2 and NI 1.3; Antrim post-natal 3.0 days, with Causeway 1.6 and NI 2.7).

- Only the Royal Jubilee Maternity Hospital had higher intervention rates than Antrim.

- There were low rates of staff to mothers on wards at Antrim – lowest or second lowest in Northern Ireland at all times of day, and significantly lowest at midnight (this could be a reflection of admission policies as well as, or instead of, staffing).

- United Trust (Antrim and Mid-Ulster units combined) was lowest of all Trusts in Northern Ireland on funding per delivery and was at the low end of the range on actual expenditure per delivery (although Northern Ireland expenditure appears higher per delivery than England in the Report's comparisons). Data was based on 2004-05.

In addition to these findings, the report identified that the service lacked a clear strategy (discussed in more detail in Section 5: Clinical and Corporate Governance), and did not offer midwife-led care or choices for mothers in line with current UK practice (as outlined above).

These summary extracts from the audit report, particularly when set against other indicators already given in this section, suggest that the Trust's services achieve generally good results with funding that is at the low end of the Northern Ireland range (although expenditure per case appears lower still in England). However, they also suggest that there is some room for greater efficiency in the use of beds and staff resources (indeed, we understand that a region-wide group is looking

at skill mix issues to follow up on similar issues across Northern Ireland). A management view of these factors would suggest that a coherent service strategy – which includes models of care, use of resources, skill mix between professional groups as well as within them, agreed patient pathways, etc – would be of benefit to patients, staff, managers and commissioners.

4.4 Indicators of the "Safety Climate" and culture

Professor Lucian Leape of the Harvard School of Public Health, one of the world's foremost writers and campaigners on patient safety, wrote:

Many of us think that the punitive mind-set is the biggest obstacle that still exists in most health care institutions. It's very hard to overcome. The theory behind a non-punitive approach is very straightforward: It's inappropriate to punish people for making mistakes because very few are due to misconduct. Errors are almost always caused by systems failures, and those are not under the control of the individual who makes the error. Punishing people is counterproductive, because if you punish people for making errors, they will report only the errors they can't hide. Several studies show that when there is a punitive environment, 95 percent or more of errors do not get reported. We also know that when the system changes, reporting goes up dramatically. We've seen that happen in a number of hospitals. If you're serious about safety, you need to know what's going on, and you're not going to find out what's going on if you punish people. The two cornerstones of safety are, one, creating an environment where it's safe for people to talk about their errors and, two, leadership.

Because of recent events such as the Coroner's cases and staff suspensions linked to these cases, some midwives in Antrim spoke of their increasing fear to practice the very skills they had once felt confident about. The question, "*Is it my turn today?*" was quoted by several midwives as they told us that they experienced a daily fear of something going wrong and blame being apportioned to them whatever the circumstances.

In these circumstances, and considering Professor Leape's observations, the Review Team felt that it would be useful to deploy the Sexton Safety Attitude Questionnaire. This is a tool originally developed in the USA but now adapted for use in a variety of UK clinical settings, including A&E departments and Intensive Care Units, as well as Maternity Units which are doing pre- and post- safety training audits. It involves staff from a variety of backgrounds filling in a standard questionnaire which is then analysed to show comparative scores or ratings.

The participation rates for the two units were rather low (39.4% at Antrim and 25.8% at Causeway, when the minimum normally expected

is 65%). Whilst this might cast some doubt on the conclusions that could be reached from the survey, the results do give an insight, as follows:

NB: Red ratings show Trust's low score outliers; green ratings show high score outliers.

Rating (out of 100) against each of the factors below:	Antrim Maternity Unit	Cause-way Maternity Unit*	44 USA Labour Wards	SaFE Study Pre-training (6 mat'y units)	SaFE Study Post-training	2 UK A&E Depts	106 UK ICUs
Teamwork Climate	**62.95**	**67.1**	**68.2**	**72.5**	**71.9**	**74.3**	**71.7**
Safety Climate	**61.25**	**73.2**	**N/A**	**69.3**	**70.1**	**67.7**	**69.6**
Job Satisfaction	**48.08**	**69.3**	**N/A**	**65.5**	**65.1**	**44.6**	**47.6**
Stress Recognition	**62.08**	**54.6**	**N/A**	**70.8**	**70.9**	**60.7**	**70.1**
Perceptions of Management	**33.81**	**48.5**	**N/A**	**47.5**	**49.2**	**59.6**	**57.5**
Working Conditions	**51.26**	**67.2**	**N/A**	**59.9**	**62.2**	**64.2**	**54.7**

*Causeway ratings should be treated with particular caution, given the low participation rate there.

The results of this attitude analysis suggest that there are differences in the cultures of the Trust's two hospital maternity units, with Causeway consistently being rated higher than Antrim on every factor except "Stress Recognition". This suggests that there are particular leadership and management issues in Maternity Services, especially at Antrim.

In addition, participants' particularly strong (whether positive or negative) ratings against the issues in the survey could be recorded and their suggestions for action collated. A summary of these points is included as Appendix C.

The detailed staff ratings and recommendations confirm that the most significant *perceived* problem appears to be staffing levels and support by management, with a high level of stress and low job satisfaction being apparent. The solutions suggested by the staff corresponded to the answers had given to the relevant questions.

The feedback also touches upon a matter that the Review Team noted as being raised in several contexts. This was the limitation on the availability of Consultant support and leadership, which several interviewees separately related, at least in part, to the number of off-site consultant clinics. This is discussed in further detail in Section 8.3: Staffing Issues.

Some of these issues of leadership and management are tackled in more detail in Section 6: Leadership and Management.

4.5 Review Team's observations

Clearly, there are a number of areas in which the Trust's Maternity Services are performing well, especially as regards the "headline" outcome measures. However, there are some indicators of a traditional and medicalised model of care.

A medicalised model can potentially contribute to such good outcomes. However, these outcomes can also be achieved using a less medicalised model that allows more choice for the service user.

Furthermore, a medicalised model is unlikely to be sustainable in the longer term due to:

- Rising birth rates putting increasing pressure on the capacity of the services in their current configuration;
- The current model does not reflect the commonly emerging models that promote greater user choice, a less medicalised approach and seeking to achieve lower rates of intervention.

Based on these findings, it might be helpful to suggest good practice examples involving less intervention and a more safety-conscious and team-orientated climate.

In this regard, there are many available examples, relating to service models, team working and initiatives such as on-site team training that can contribute[7]. In addition, the Review Team has sought specific examples from within Northern Ireland and some of these are summarised in Appendix D.

[7] "*An Organisation with a Memory*", the report of an expert group on learning from adverse events in the NHS, chaired by the Chief Medical Officer, DH, 2000)

5 Clinical and Corporate Governance

Maternity Services throughout the nations of the UK have a range of clear guidelines and assessment processes, many of which relate to clinical and corporate governance[8]. (These various sources have just been collated to form the "Standards for Maternity Care" published as a UK-wide document in June 2008 by RCOG, RCM, RCA & RCPCH.)

Contemporary best practice for clinical governance involves setting clear programmes for improvement of clinical services, which is owned by the organisation, to support staff and patients through the implementation and change. Clinical governance is about new ways of working which demonstrate that effective teamwork is as important to high-quality care as risk management and clinical effectiveness.

The Review Team has considered the clinical and corporate governance arrangements within the context of these national guidelines and developments.

5.1 Structures and systems to support clinical and corporate governance

The Legacy Trusts do not appear to have had very clear structures and processes of Clinical Governance. Where sound structures and processes did exist, their observance and utilisation did not appear to have been very consistent or robust.

Our colleagues on the Maternal Deaths Review Team have made a number of comments and recommendations around the area of risk management and incident reporting. We also reviewed the expert reports from the neonatal deaths, which raised some similar governance issues. Our own more general review of the recent history of the services found similar concerns, including complaints and "near

[8] These include:

- NHS Maternity Services in England are assessed by the Healthcare Commission against the *National Service Framework for Children, Young People and Maternity Services*
- NICE guidelines, e.g. Guidance for nurses and midwives to support and care for women in labour, 2007.
- *Maternity Matters: choice, access and continuity of care in a safe service, DoH, London, 2007*
- NHS Antenatal and Newborn Screening Programmes recommendations
- Royal Colleges' best practice guidelines, inc *Safer Childbirth, RCOG et al, 2007*

misses" that did not appear to have gone through a formal notification under the incident reporting and risk management system.

However, we were pleased to note that the new Trust is developing a Risk Management Strategy and new governance structures to address these issues. We also witnessed systems such as the DATIX programme for collating and trending incidents, complaints, legal claims, etc.

On a broader corporate governance issue, we could find no evidence to suggest that the 2006 Value For Money Audit Report had ever been considered by the Board of either of the Legacy Trusts. By contrast, the new Trust Board had commissioned this review and appeared to the Review Team to be highly committed to improving the services.

In England, the Clinical Negligence Scheme for Trusts (CNST) with its system of accredited levels, which relate directly to the premium paid by the trust, has been a powerful driver for reinforcing service and governance change and improvement. Whilst the funding of the clinical negligence system is changing in Northern Ireland, we could see no immediate prospect of a CNST-type driver. So, the push for improved governance arrangements must come from the commitment of the Trust's managers and clinicians to secure compliance with guidelines and the safest service for their patients. We saw examples of this being achieved by other trusts in Northern Ireland and encouraging signs within the new Northern Trust.

5.2 Strategies, policies and guidelines

At present there is no clear strategic direction for Maternity Services that aligns management and professional groups to a common goal.

The Northern Ireland-wide *Value for Money Audit of Maternity Services*, October 2006, found that there appeared to be no Maternity Services Strategy at Antrim and Midwives in the Northern Board area gave the lowest rating of all Boards to the question, "Is there a coherent strategy for Maternity Service provision?" in the Audit's staff survey.

Policies and guidelines often appeared to the Review Team to have been developed and reviewed in a uni-professional manner. Furthermore, from examining the policies and guidelines given to us, it appeared that many had not been reviewed for many years and therefore presented a risk to the individual practitioner and the organisation.

Systems are currently being reviewed within the service to address this issue but there still appeared to be a largely unilateral approach driven from different professional perspectives.

5.3 Clinical policies

As indicated above, many of the policies submitted to the review team were several years out of date and did not have review dates. However, new systems for keeping policies, procedures and guidelines up to date were being developed but did yet not appear to link with any overarching governance structures for Maternity Services.

For example, in Antrim, it appeared that midwifery policies and guidelines were not recognised by the medical staff and separate obstetric guidelines were being reviewed by medical staff but without any obvious input from midwifery colleagues.

However, the Causeway unit had a file of midwifery guidelines easily accessible to staff, that appeared to be used regularly. There was evidence of some updating of policies. Midwives had started to review their systems for policy development and ratification and routinely shared new policies with medical colleagues prior to finalising them.

Due to the lack of an overall formal governance process for the Maternity Services it was difficult to identify a firm evidence base for existing policies, guidelines and procedures. However, obstetricians, midwives and managers did state that guidelines from NICE and the RCOG were now being incorporated into practice.

In governance terms, this issue potentially is a very serious one for the organisation as a whole, not just for the individual practitioners and clinicians. We believe that the new Trust has recognised this and is taking these matters very seriously (for example by appointing a Midwife to lead in Risk Management) and we would support the Trust's efforts to build a strong commitment and infrastructure for governance.

5.4 Lessons learnt from failures

In the recent past, much management and staff attention seemed to have been focused on the serious adverse incidents under review and in particular the consequences such as the suspension of three midwives. Although actions from these incidents had resulted in the increased foetal monitoring training for midwives, as yet there was little evidence of multi-professional or service-wide learning. "Failures" such as the adverse incidents, whether systematic or practice related, appeared to be perceived by many front-line staff as resulting in "blame" rather than organisational learning and service improvement – many staff particularly referred to their negative perceptions of the Coroner's cases and processes.

It was not clear how organisational or individual performance had been monitored and managed in the past. The Review Team saw few or no clear systems for early recognition of issues, decisive interventions or ongoing monitoring. However, the team were aware that a new incident policy and procedure was being developed. This policy should ensure that sufficient and relevant information is collated on maternity service incidents to enable early recognition of trends through the corporate risk management system.

There seemed to be a common theme raised by both medical and midwifery staff, which was that the governance processes in the past were reactive, uni-professional and lacked structure and any form of training. We did hear some evidence of a more multi-professional approach being taken on a pilot basis in Antrim around 2001-02, but the funding for this was not continued and so things appeared to have defaulted to the current limited governance arrangements. At Causeway, there were attempts to run a labour ward forum, have perinatal meetings and make some use of the RCOG "trigger" systems, but these too suffered from problems such as a lack of secretarial or infrastructure support and staff sickness affecting attendance. There have been some multi-professional critical incident reviews and the new Trust has much more robust governance structures, but staff perceptions suggest that there is still much to be done.

However, recent events have triggered actions in order to provide assurances to the Trust and the public. These include the development of an informal, interim action plan (see section 8.5), developing care plans, the increased CTG training for midwives, and in particular the Trust commissioning this independent review and demonstrating a commitment to improve the services.

There was a belief expressed by many midwifery respondents that their practice is safe, despite the recent events. Some of them feel that there is an injustice in the focus on midwives alone and not the multi-professional team, or the organisation as a whole. Some reported that this focus on midwives is unhelpful and were concerned that the organisation as a whole should now play an active role in learning from adverse events.

5.5 User feed back

Effective clinical governance requires a patient-centred approach[9] with Trusts developing clear systems for using information and feedback from former and current patients to assess and improve the quality of

[9] *Implementing Clinical Governance – Turning the Vision into Reality*, Halligan and Donaldson

services[10]. Users can be empowered, if provided with appropriate information, which in turn can increase their contribution to the planning of services and can greatly influence the development of clinical governance.

We found a marked lack of user involvement in the planning and auditing of services, which was cited by some as a weakness in both governance and service improvement perspectives. Although there was a system of user feed back forms that were completed by mothers during the postnatal period, these did not appear to link to any system or formal governance process that would influence service change and improvement. However, the forms we reviewed did demonstrate high levels of satisfaction, despite the services being considered overstretched by some of the respondents.

Women informally interviewed by the Review Team in clinical areas spoke highly of the midwives and doctors, but again referred to how busy the staff appeared. Women commented on the long waits in antenatal clinic but, although they voiced their frustration, there was a marked acceptance of the situation.

5.6 Integration of improvement processes

The Review Team found no substantial evidence of any structured improvement process. Most of the service changes that had been made appeared to be linked with the serious incident reviews or the ideas and efforts of individuals and were not yet part of an underpinning service-wide improvement strategy.

5.7 Sharing good practice

Although we found that some obstetricians and midwives were attempting to change practice and improve care, there was no evidence of a process for sharing good practice initiatives across the two units or with other maternity units in and outside Northern Ireland.

There was also little or no evidence seen of multi-professional debate or best practice exchange within the Trust. However, we were able to secure examples of good practice from other NI Trusts, including very good examples of change and modernisation. These are summarised in Appendix D.

Internally, Causeway midwives had submitted and won awards for a helpful guide for women and midwives on positioning in labour but this

[10] *National Service Framework for Children, Young People and Maternity Services,* Department of Health

did not seem to have been celebrated across the organisation or spread to other areas.

5.8 Review Team's observations

In considering the 'safety climate' and culture, the Review Team reflected how the service could reach a "tipping point" for major problems and failure rather than excellence. One of the team members wrote the following note:

Without the required clinical governance infrastructure and the development of a learning culture to support best clinical practice, any service can approach a tipping point in safety terms. The tipping point may simply occur because a critical mass of unrecorded and inadequately investigated incidents have been reached rather than a single tragic event.

Although safe practice is not easily defined, it is acknowledged that practising skills effectively requires the right environment for practice to flourish and the demonstration of the necessary assurances to the public and the Trust Board. It is that environment that is needed here.

There are numerous examples from elsewhere in Northern Ireland and the rest of the UK of governance systems and processes that would plug most of the gaps noted here. These include well-supported multi-professional meetings and training, dedicated risk management staff/resources, well-designed and easy to use incident reporting systems, etc. We commend the Trust on the start made in this area and hope that the momentum of this review will contribute to further progress.

6 Leadership and Management

In England, the Healthcare Commission[11] recently reported that a common theme in their investigation findings was evidence of poor leadership. Circumstances such as trust mergers, changing demographics and meeting national and local targets can have a significant impact on staff, patients and service delivery and therefore require effective management and leadership skills with clear lines of responsibility at all levels.

Organisations that are well-led have a clear vision, with values and methods of clinical governance that are effectively communicated to and understood by staff. Good leadership can empower teamwork and create an open and questioning culture[12].

Clear and effective leadership is essential for good and effective services – and leadership in this context is not just about the Chief Executive or Trust Directors, but also the Clinical Directors, Service Managers and individual clinicians and shift/team leaders.

6.1 Leadership and Management

Historical lack of clear clinical and managerial leadership
Several sources referred to a history of comparatively weak clinical and managerial leadership within the Antrim organisation and in particular within the midwifery and obstetric services, which appeared to be a key contributor to the current morale and culture issues.

Some external stakeholders – and indeed some of the managers and staff of the new Trust – referred to Antrim as having had a very traditional and "administrative" management culture and so this may well be an issue for other departments and directorates, not just the maternity services.

New structure to strengthen midwifery leadership and management of maternity services
New structures have been implemented within the maternity services to strengthen midwifery leadership and management of maternity services.

[11] *Learning from Investigations August 2004-April 2007*, Healthcare Commission
[12] *Implementing Clinical Governance – Turning the Vision into Reality,* Halligan and Donaldson

Although a new Head of Midwifery (HoM) was in post, some concerns remained about whether the intended supporting structures for the post would provide adequate clinical leadership and administrative support. If they do not, then these issues would in turn reduce the effectiveness of the HoM and her capacity to drive forward the desired changes.

Some concerns were raised that within the new structures the HoM also had a remit for managing Gynaecology services. Although this was seen as a desirable linkage, it was believed to be potentially detrimental in the short term (say for the next year) to the maternity services change agenda, due to the size of this task. Thus, because of the need to focus on moving forward the maternity and midwifery issues in the immediate future, support might be provided to the HoM to help manage Gynaecology in the interim.

Concerns were also raised about the selection process for recruitment to the newly created support posts to the Head of Midwifery and that this may result in failure to attract senior midwives with the required experience and leadership skills to take the service forward.

Although many could see the new Trust's clear intention to strengthen leadership, some doubts were voiced by interviewees on the ability to turn the service round without first changing the service and obstetric culture (which, as previously stated, was perceived by many midwives and managers to be medicalised and rather blame focussed – this latter point appeared to be due to staff perceptions of the Coroner's cases and the suspension of midwives). It was felt that to achieve the turn-around would require extremely strong leadership from experienced managers and clinical staff at all levels of the organisation.

Leadership deficit at practice level

Midwives also expressed a management and leadership deficit at practice level. This included a perceived over-medicalisation and control during the day, but with inadequate support and leadership on night shifts. The lack of a clearly communicated vision of how poor service design could be improved was also cited.

Integration into Trust's wider leadership structures

The Director of Nursing is keen to include midwives in the development of professional strategy and to reinforce the importance of continuing professional development. There was a view that, in the past, midwives had not fully engaged with the Trust's professional leadership structures and in some instances had withdrawn from development opportunities. The Director of Nursing has ensured that the new structures encompass midwifery and maternity services by dedicating one of four new professional forums to Women and Children's health. This type of focus will be crucial to helping the midwifery workforce to rebuild its confidence and contribution.

6.2 Statutory Supervision

Statutory Supervision of Midwives[13] is a unique part of ensuring safe practice and protection of the public.

Annual Local Supervising Authority (LSA) audit reports are a requirement of the Nursing and Midwifery Council and are available to the public. The recent Northern Health and Social Services Board LSA report highlights some relevant points for this review:

- Improvements have been made in the ratios between supervisors and midwives. Although this is commended, it would appear that more work is still required to change the nature of supervision to a more pro-active approach with the emphasis on learning and continued professional development.

- Midwives appreciated this greater focus on strengthening supervision but some felt they had not yet developed a trusting relationship with their supervisor and were unable to discuss certain practice issues.

- Midwives also would have appreciated more choice in the selection of their supervisor.

The Report also notes that:
"Supervisors of midwives continue to influence midwives in the provision of midwifery-led services. Following an extensive Maternity Service Information Project, Causeway unit has successfully implemented both the Northern Ireland Maternity Information System and the Maternity Hand-held Record during 2006/2007."

As the arrangements for supervision are improving, these further points should be addressed by the Trust and the LSA.

6.3 Review Team's observations

The Sexton Safety Attitude Analysis that we undertook, the Value For Money Audit Report, the Maternal Deaths Governance Report and the feedback in our meetings and interviews that is reflected above, all point to potentially serious failings in morale, leadership and attitudes to management within the maternity services – which must be addressed from this review onwards.

However, the Trust has already shown an understanding of the need to build leadership skills within the service and assist the change process by commissioning independent coaching and facilitation for the HoM and senior midwifery staff.

[13] *Rules and Standards* (2004), Nursing and Midwifery Council

Further, in March this year a new Nursing and Midwifery strategy was launched in the Trust[14]. In the foreword, the Chief Executive endorses the strategy and states that the core values reflect the Trust mission statement *"to provide for all, the quality of services we expect for our families and ourselves".*

Key components of the strategy are:

- Person-centred care
- Safe, effective and evidence-informed practice
- Education, learning and development
- Quality and service development
- Making it happen – enabling integration of the strategic priorities into practice.

The strategy includes reference to working within multi-professional teams and includes a nursing and midwifery accountability framework. The challenge now will be to demonstrate to midwives the benefits of inclusion in the strategic intent.

On the broader, service and clinical leadership issues, we observe that Trusts that require significant leadership commitment from their clinical leaders – especially Clinical Directors – tend to allocate quite significant time to these roles, freeing the individuals from some of their clinical commitments if necessary. There are plentiful examples of this from elsewhere in Northern Ireland and the rest of the UK. The Trust and its Clinical Directors might wish to examine some of these as a means of making time for the crucial leadership roles and contributions described here.

[14] "*Our Futures, Our Journey – strategic direction for nursing and midwifery 2008-2012*".

7 Training and Development

Training and development is the keystone of clinical governance and assurance frameworks. Without structured training and development strategies for all staff, and in particular clinical staff, organisations will be unable to provide the required assurance to their stakeholders.

The clinical governance framework and several recent national reports[15] [16] [17] on the safety of maternity care state the importance not only of efficient team working but also the importance of training the multi-professional team together as equal partners in care; each member having a unique contribution to the management of effective care and improved outcomes.

Multi-professional team training also assists professionals to build better working relationships, with knowledge and respect for one another's roles. This is important in all routine care, but is of particular importance when clinical emergencies occur. The best education and training strategies include systematic training in safety awareness as part of both pre-registration training and continuing professional development for all professional groups.

In addition to team training, it is important that managers have an increased awareness of the importance of team training and working, and understand how best to manage and communicate with teams.

The best standards in continuing professional development would comprise:

- Clear strategies
- Systems to identify training need
- Data systems to capture provision, uptake and audit of training
- It is desirable to have a designated person within the maternity unit to keep information on all planned and completed training to provide assurances.[18]

It is also recognized that the culture of an organisation can greatly impact on the staff's ability to learn and develop confidence in their

[15] *Safer Childbirth,* RCOG et al, 2007
[16] *Safe Births – Everybody's business*, Kings Fund, Feb 2008
[17] *Learning from Investigations August 2004-April 2007*, Healthcare Commission
[18] *Safe Births – Everybody's business*, Kings Fund, Feb 2008

skills[19]. A punitive approach can be difficult for organisations to overcome but should be minimised if the full potential of learning is to be realised.

7.1 Systems and processes to support training and development

The Terms of Reference specifically required the Review Team to examine these issues in the 2005-07 period. In doing so, we found little evidence of:

- Clear training and education strategies
- Systems to identify training need
- Data systems to capture provision, uptake and audit of training
- A designated person within the maternity unit to keep information on all planned and completed training, to provide assurance.

Similar shortcomings were also identified by the staff survey in the 2006 Audit Report described in Section 6.1 – a clear indicator that weaknesses in training were perceived as having been an issue around the time of the serious incidents.

The culture was reported to the Review Team as having been one that was not conducive to learning and improvement. Systems to support learning and facilitate team building were not visible. Staff reported that continuing practice development (CPD) was given low priority in the service and that this was partly due to the shortage of midwives and the increased workload. This was also cited by at least one of the Obstetricians as the reason for poor midwife attendance when multi-professional training drills were arranged.

Midwives are skilled practitioners who can provide women with the full range of maternity care within their own professional accountability. However, there was little evidence of ongoing education and training to assist in maintaining current skills or developing new skills, which could support a more midwifery-led approach to care delivery. This did not appear to be as much of an issue within Causeway Hospital, as midwives felt they had more autonomy and were currently attending courses on risk management and governance.

Increased training in foetal monitoring had been instigated for midwives but there was little evidence of a multi-professional approach. This appeared to exacerbate further the feeling of low self-esteem and fear

[19] Prof Lucian Leape – see earlier quotation

amongst the midwifery staff. Comments from junior midwives indicated that there was little consolidation of new learning. When asked what would improve their learning and confidence they suggested weekly multi-disciplinary sessions to discuss foetal heart rate recordings and sharing knowledge with more experienced staff.

The importance of training teams together is well documented but there did not seem to be formal arrangements for assessing the training needs or developing the wider obstetric team. Although “skills drills” on labour ward were undertaken, these did not seem to be formally coordinated or attendance recorded.

7.2 Review Team’s observations

Although considerable gaps in continuing professional development were highlighted, discussions with student nurses and student midwives revealed a high level of satisfaction. Students spoke highly of the midwives and their ability to meet the needs of learners as well as the service. They had gained considerable educational support and had enjoyed their placements within the service.

The obstetricians and midwives appeared to be aware of many of the other shortcomings in this area and we heard evidence of attempts being made to tap into existing good practice and training initiatives (e.g. SaFE – Simulation and Fire-drill Evaluation). Such initiatives should be encouraged and supported. There is evidence that these forms of on-site team training also improve attitudes towards the organisation and management as well providing the obvious technical and clinical benefits.

8 Capacity and Capability

As described in Section 3.5 on changing demographics and rising birth rates, and in common with other parts of Northern Ireland and the UK as a whole, the Trust is facing a sustained rise in the number of births. The way in which maternity services are designed impacts greatly on their capacity to provide high quality care and the capability to cope with the changing health care environment. Several recent reports refer to the importance of efficient deployment and training of midwives, obstetricians and support staff to deliver optimal care standards[20].

8.1 Overall Capacity and Capability

The maternity services appeared to be struggling to cope with an increase in deliveries and the perception of a shortfall in capacity. The perceived capacity issues appeared to apply to both midwives and obstetricians.

This appeared to be at least partly due to service and workforce design not fitting staff, user or organisational requirements. Given the off-site clinics that obstetricians have to cover each week (as many as 23 sessions were quoted to us), it would be virtually impossible to provide the levels of cover and leadership set down by bodies such as RCOG nationally, and CNST in England.

There had been little overall service review or impact assessment undertaken, until recently and until the new Trust commissioned this review. It is the Review Team's opinion that deploying staff differently, within a redesigned service, would enable the Trust to address some, and perhaps almost all, of the perceived shortfall.

8.2 Service design

Joint Royal College guidance highlights the importance of streamlining services to enable effective utilisation of obstetric and midwifery skills[21]. There are considerable opportunities for service redesign to ensure better use of skills, enhance user experience and increase overall productivity within the Trust's maternity services.

[20] *Safer Childbirth*, RCOG et al, 2007
[21] *Safer Childbirth*, RCOG et al, 2007

Obstetricians and midwives suggested the following ways of developing maternity services that would increase the service's capacity:

- Assessment facilities for early labour – to avoid some labour ward admissions
- Foetal Assessment Unit (or Maternity Day Case Unit – there are several names for units of this type/function) – to avoid ward admissions but still provide support for higher-risk mothers/GPs/Community Midwives
- Central theatre cover in obstetrics
- Reorganisation of antenatal clinics with obstetricians focusing on women with complex needs – perhaps including more midwife-led care or bookings in some of the off-site clinics
- The development of maternity support workers
- Stopping the "swing beds" arrangement on one of the ante/postnatal wards (and perhaps using this area as a base for an assessment unit)
- Review of induction policies and processes, particularly with regard to the staffing implications.

8.3 Staffing issues

The following key issues were identified in relation to staffing:

- **Midwifery establishment**

  Midwives and some of the managers interviewed believed midwifery levels to be low. However, there was an open acknowledgement that better service organisation, improved skill mix and new models of care would assist in improving the situation and ensuring appropriate use of midwifery skills.

- **Obstetrician establishment**

  For the Obstetricians, there were also staffing issues. At the time when the review started, there were two consultant vacancies at Antrim, although these are being filled. Even when all consultant posts are filled, it could prove challenging to cover fully all of the on-site and off-site clinics, ward rounds, labour ward cover, theatre sessions, etc, scheduled every week. On the other hand, there are limitations to how many consultant posts can be accredited and funded when the Antrim unit has around 3,000 births each year.

  The Review Team took the view that – as mentioned many times above – the more likely solution was one of redesign and

prioritisation; for example, might it be more important to provide on-site and guaranteed labour ward cover and leadership than to have consultants attending off-site, low-risk clinics? The Review Team did not have the time or the brief to examine individual clinics or cases, but we felt that these types of questions could be asked internally as part of a coherent and multi-professional review of the services and the service strategy.

As a guide to reviewing the work patterns for the obstetricians, it is worth noting that the newly-published and currently piloted CNST standards for consultant obstetrician cover of the labour ward require 60 hours of cover per week for a unit with 2,500-4,000 annual births by 2010[22].

- **Deployment of midwives**

  Midwives felt that they had difficulty in organising their work effectively, due to constantly being pulled away from their priorities to undertake other tasks that often included non-midwifery duties. One example given was the need for midwives to assist obstetricians in theatre at times when women on the delivery suite required support in labour. Royal College guidance[23] would suggest that this is not the best use of the midwifery resource. There was also acceptance that a number of tasks that midwives regularly undertook could be delegated to support staff, if they were trained to an appropriate level.

  Due to capacity issues, midwives reported being moved frequently from clinical area to clinical area to fill gaps and did not always feel confident in their effectiveness if they had not worked in the area for some time – and especially if the move was due to a crisis situation. Specialist Midwives were also moved frequently to fill staffing gaps. Specialist midwives agree that they are always willing to help and support their colleagues but added that these regular movements did impact negatively on their ability to effectively carry out their own substantive role.

- **Sickness levels**

  Many interviewees also referred to sickness levels as an issue. The 2006 Value For Money Audit report showed Antrim annual sickness rates at 9%, Causeway at 6% and the Northern Ireland average at 8%. Anecdotal evidence suggested that recent levels had been

[22] This standard is based upon the report *Safer Childbirth*, by RCOG et al, 2007.
[23] *Safer childbirth*, RCOG et al, 2007

higher than these figures and so sickness levels should be monitored and reviewed on a continuing basis. (As an aside, and reinforcing points made in Section 7, there is growing evidence of effective training having beneficial effects in reducing sickness absence levels.)

- **Service design**

  The organisation of services was seen to impact particularly on midwives' ability to function effectively, with the assessment of women prior to labour and the current system for inductions of labour being most frequently mentioned. The level of paperwork was also seen has a hindrance, as was the fear of not recording the required information accurately.

  'Midwife on call' arrangements were mentioned as an added pressure on midwifery time, although the backup arrangements were appreciated when there were peaks in activity and insufficient cover. However, better organisation and utilisation of skills was cited as a way of minimising the need to rely on the on call system, which in turn would relieve pressure on midwifery off-duty time.

  Midwives appeared to be categorised as either 'community' or 'acute', 'night' or 'day'. There was no evidence of systems to facilitate movement between categories to allow for midwives to update their skills and knowledge of the integrated maternity care pathway. Arrangements that promote midwives working across both community and acute settings could provide the added value of giving some continuity of health professional to service users, in addition to the benefits in terms of more cohesive working, training and development and governance.

  The "swing beds" were also raised frequently by both obstetricians and midwives as another drain and distraction on their service.

- **Shift patterns**

  The majority of midwives appeared to prefer working "long shift" patterns (12 hours) as this gave them more time with their families and more concentrated time at work. However, problems arose when midwives were too busy to take adequate breaks, which often resulted in fatigue, lack of concentration and the worry of possible impaired decision-making. Although there is no definitive research to say that long shifts are linked to poor outcomes, staff and managers need to be alert to the effects of tiredness and the need

for regular food and drink and should meet the requirements as set out in the European Working Time Directive[24].

8.4 The profile of maternity services within the wider Trust

From discussions with staff it appeared that historically the maternity services and midwives had not experienced or benefitted from any organisation-wide focus. Comments were made about the perception that maternity services had been excluded from the main organisational planning. However, this was linked with comments that in the past there was an unwillingness on the part of the maternity staff to be seen as part of the overall structure, with information not being shared and decision-making being kept to a small number of key people. Although the situation was perceived as improving in recent months with the new Trust, there was a feeling from some that an undercurrent of this still existed and should be dealt with following this review.

8.5 Review Team's observations

The Trust had acknowledged the pressure on midwifery staffing levels and had commissioned a "Birthrate Plus" midwifery staffing review[25]. "Birthrate Plus" is a framework for workforce planning and decision making for midwifery services. The methodology assesses the number of midwives required within a given service, based on the needs of women and their babies. The project is now in its final stages with an interim report being considered by the Head of Midwifery.

In conjunction with this, work has been commenced within the maternity services to review the skill mix and identify new support posts to better utilise available midwifery skills and time.

In addition, the Head of Midwifery and her line manager had discussed and prioritised some immediate actions required to stabilise and improve the service. The internal plan which they produced from this work, and shared with us, covered many of the key elements for

[24] See: www.dh.gov.uk/en/Managingyourorganisation/Humanresourcesandtraining/Modernisingworkforceplanninghome/Europeanworkingtimedirective/DH_077304

[25] A previous review had been undertaken in 2006 but this was prior to the closure of the smaller Mid Ulster maternity unit, the reconfiguration of Trusts and confirmation of the rising number of deliveries.

effective change management and service improvement, including, for example:

- Workforce planning
- Service redesign
- Risk management strategies
- Multi disciplinary training & education.

This demonstrates a willingness within the service to manage and lead the required changes in a structured fashion.

Clearly, this internal plan will need to be reviewed in the light of the Trust's response to this review and the exact contents of the Action Plan we recommend later. However, given the Trust's commitment to this review, we believe that many of the ideas and suggestions for action contained within the internal management plan can be adapted and developed, with a broader basis of "ownership" and with corporate support, to assist the process of improvement and modernisation for the future.

9 Conclusions

The Review Team have referred to a number of conclusions in the main text of this report. However, the intention here is to draw the "big picture" conclusions rather than recount every individual point already made. Thus, the Review Team's broad conclusions are:

a) The maternity services at Antrim and Causeway are safe when viewed against all of the recognised major performance indicators.

b) The services appear to be funded at levels per birth that represent the lower end of the Northern Ireland ranges.

c) However, there are some indicators which suggest that better use could be made of the existing resources. For example: the longer lengths of stay at Antrim; Midwives being used for non-midwifery duties; the absence of midwife-led services; the pattern of off-site clinics; the absence of assessment units; etc.

d) There is an absence of any clear, coherent and agreed service strategy for maternity services – and this has been the case for several years.

e) Clinical practice and the service model at Antrim appear to be quite medicalised, with high intervention rates. Most recent good practice and policy guidance has suggested less intervention, more choice for mothers, and more multi-professional working.

f) The "safety culture" is under-developed at Antrim and is at least temporarily limited by staff availability at Causeway.

g) Many of the staff within Maternity Services appear to be at risk of becoming seriously demotivated, defensive and disengaged.

h) There are significant historic limitations in the risk management and clinical governance arrangements within both of the "Legacy Trusts" and the lack of a national driver such as a CNST-type system. The new Trust's approaches to clinical governance and risk management will assist here, but the weaknesses of the "start point" for the new policies and processes must be recognised.

i) There is a strong staff perception that there is a punitive, blame-orientated approach to incident reporting and governance, based upon staff views of the actions of the Coroner and of the Trust in having to respond by suspending midwives.

j) Dealing with all of these issues will require clear, committed, well-resourced and consistent leadership, but there are significant historical weaknesses that must be addressed in terms of the time (dedicated

sessions) and role of the Clinical Director, the support to the Head of Midwifery, the development of junior managers, moving from an "administered" service to one that is actively "managed", etc.

k) There is a historical lack of commitment to, and support for, training. Continuing Professional Development also needs much more of a multi-professional focus than it has had in the past.

l) There is a lack of overt and formalised user involvement and feedback to support service planning, design, review and development.

m) Whilst almost everyone providing the maternity services appears to feel over-stretched, working as they do at present, there is considerable scope for service redesign to improve the service and make better use of current resources.

n) Taking point 'a' above alongside all of the other conclusions, leads the Review Team to believe that the Trust's Maternity services have the capacity to be excellent, if the majority of the weaknesses identified can be effectively addressed.

o) In the absence of some of the most powerful external "drivers", such as Clinical Negligence Scheme for Trusts in England, the Trust and its clinical leaders will need to generate the ambition, drive and commitment for themselves if they are to take up the opportunity suggested in 'n' above.

10 Recommendations

Following on from our conclusions, we believe that there are a number of actions that can be considered that should have some immediate effect and will also help to create the right atmosphere and processes for the many more detailed actions and long-term strategies that will be required. Our recommendations are:

- Create the right, multi-professional environment in which the obstetricians, midwives, neonatologists, anaesthetists, nurses, managers and others can come together to discuss a shared vision for the maternity services. This is a key leadership issue and must be done as soon as possible. Members of the Review Team would be prepared to act as facilitators and advisers in helping the teams to come together to do this.

- From that vision, the professional staff, supported by the Trust and managers, must produce a clear, trust-wide strategy, say by 31.12.08. This must be locally-sensitive and realistic but also aspirational and challenging, reflecting nationally-recognised best practice, to create a clear route to excellent services. Commissioner support and engagement in the strategy will also be essential.

- In line with the vision and strategy, agree an overall patient pathway or service design that addresses the efficiency and safety weaknesses identified. In effect, the Trust must be able to demonstrate that it has a service that is designed and run to make the very use of its existing resources, before any business case for substantial additional recurring resources from commissioners is considered. Having said that, the Trust and its commissioners should consider urgently the establishment of non-recurring transitional funding to enable the service leaders and staff to debate, plan, redesign and implement the overall vision and strategy, and specific issues such as:

    - Assessment of women prior to onset of labour, including the "Foetal Assessment Unit" concept – with appropriate dedicated facilities
    - Midwifery led care to make best use of available skills and to improve user experience; and other opportunities to free up obstetrician time for Labour Ward leadership and cover, etc.
    - Deployment and utilisation of midwives and the use of support roles
    - Deployment and utilisation of obstetrician posts
    - Induction of labour.

Service redesign will need to take account of local pressures – e.g. demographics – but also reflect the preferences of local users.

- As part of this development of the vision, strategy and service model, consider the structure and style of the services' leadership and management. The structure needs to address the issue of clarifying accountability at Directorate, Ward, Labour Ward and Clinic levels. The style issues need to be discussed openly and agreed, as a basis for creating the type of open, constructively challenging and evidence-based environment in which safety, efficiency and best practice can flourish.

- The management structure and style debate needs to be extended to include issues of corporate and clinical governance. The maternity services need clear links and robust monitoring as part of the Trust's current efforts on safety and risk management, but with targeted support, encouragement and resources to allow for multi-professional meetings, shared information and the maximum impact from the dedicated risk manager. The maternity services must aim to demonstrate improvements arising from issues and failings reported openly and without fear by any member of staff.

- Early consideration must be given, as part of this overall improvement effort, to following through some of the current suggestions for multi-professional CPD and on-site training. If necessary, the Trust and commissioners should provide early funding for such training as a demonstration of support and commitment.

- Develop local arrangements for an effective Maternity Services Liaison Committee, involving staff, service users, commissioners and other stakeholders, to ensure wider engagement in the service planning, design, review and development.

- Given the current medicalised model of care and the clear need for far more multi-professional approaches to the strategy, service design, training, management and governance issues, there is here a crucial leadership and change management challenge for the Clinical Director, the Consultant Obstetricians, the Head of Midwifery and Midwives. Consideration should be given to the support and facilitation they might all need to shift the culture and style of the maternity services.

APPENDIX A: Terms of Reference, Methodology and Review Team Membership

Terms of Reference

The Terms of Reference for the review were set out by the Project Board which is overseeing both this review and the separate review of individual maternal death cases. The Terms of Reference are as follows:

1. To review the overall standards and performance of the Trust's maternity / obstetric services with regard to patient safety and in line with contemporary good practice.

2. To review the clinical and corporate governance arrangements that are in place and, in particular, the arrangements for defining, reporting, investigating and learning from adverse incidents and near misses, taking into account the four serious adverse incidents and others identified to the Team.

3. To consider and comment upon the leadership, management and accountability structures within the Trust and teamwork within the maternity/obstetric service.

4. To review and comment upon the training and development opportunities provided to clinical and professional staff in the maternity/ obstetric units in the period leading up to November 2005 and until November 2007

5. To consider the service demands, resources available, service organisation and the Trust's capacity and capability to deliver safe and effective maternity services.

6. To produce a diagnostic report with recommendations and lessons to be learned, as part of the action plan.

7. To liaise as necessary with the Chair and members of the Independent Maternal Deaths Enquiry on matters of mutual interest.

8. To seek Project Board approval for any significant deviation from the Terms of Reference described above.

These Terms were provided to the Review Team at the outset of their work and were discussed and agreed by the members of the Review Team when they met with the Project Board on February 28th 2008. The Review team has followed the Terms of Reference throughout its work.

Methodology

Given the review's Terms of Reference and the need to ensure that the review was based upon clear evidence and analysis, a range of methods have been applied by the Review Team to gather evidence and inform their analysis and conclusions. In particular, the methodology used has included:

- Interviews with service users, midwifery and medical staff, managers and policy makers – approximately 50 individuals in total
- Conducting a staff attitude survey
- Review of a variety of maternity policies and procedures in relation to clinical practice and governance arrangements
- Review of other "external studies" including the draft Maternal Deaths reports and the 2006 VFM Audit of Maternity Services
- Review of organisational strategies
- Consideration of Regional policy and future direction
- Review and linkage to best practice guidance
- Finally, we have validated and compared of our emerging themes and conclusions with the Maternal Deaths Review Team and other service/staff reviews.

Wherever possible, we have tried to provide references to these sources of guidance and information throughout the main body of the report.

The Review Team has then reflected upon the information and analysis, debated many of the issues as a full team and then shared the responsibility for writing this report. The Review Team secretary took the ultimate responsibility for drawing all of the inputs together and trying to ensure that the report has a consistent and accessible style.

Review Team Membership

The Trust invited Roy Trainor to chair the Review Team. Mr Trainor (MA, MCIPD, MMS, DMS) is the Senior Partner of ATM Consulting, a specialist NHS management consultancy company based in Staffordshire. He was Chair of the Panel that reviewed Mental Health Services in the Northern Board area in 2002-03 and 2005 and is a former NHS Trust Chair in England.

Mr Trainor selected, in conjunction with the Trust, the following team members to join him:

- Mr Tim Draycott, BSc, MBBS, MRCOG, MD, Consultant in Obstetrics and Gynaecology, Southmead Hospital, Bristol; leading researcher and practitioner in patient safety and multi-professional training.

- Ms Kate Sallah, RGN, RM, ADM, MPH, MBE, Former Chief Nurse of Birmingham & Black Country Strategic Health Authority; Consultant in Nursing and Midwifery Management; Contributor to 2003-05 CEMACH Maternal Deaths Report.

- Mr Tom Storrow, BA, DipHSM, FIHM, FRSA, Managing Partner, ATM Consulting. (Review Team secretary)

Mr Draycott and Ms Sallah have led on all of the clinical aspects of the review, with Mr Storrow supporting the Team and using his own hospital management background to look at issues of corporate governance, productivity, commissioning, etc.

Arrangements for the Team's visits to Northern Ireland and the gathering of data were made by Mrs Hazel Baird, the Trust's Head of Governance and Patient Safety, ably supported by her PA, Allison Leitch.

APPENDIX B: Clinical Indicators Analysis

B1 Statistical Review Methodology

Performance indicators
A performance assessment tool was created using a selection of recommended process of care and outcome indicators for maternity services[26 27 28]. This selection, restricted by the data that was supplied, was as follows:

- Induction of labour (IOL)
- Mode of delivery rates (Caesarean section rates)
- Severe post-partum haemorrhage (PPH)
- Stillbirth rate
- Low Apgar score rate (Apgar score ≤ 7 at 5 minutes)

We included only those deliveries whose pregnancies had completed 24 weeks gestation. The analyses performed sought to answer the following two questions:

- Question 1: Was performance inferior to other units during the period reviewed? (i.e. how do the units perform when benchmarked against at least one other unit from the UK)
- Question 2: Did performance levels deteriorate over time (i.e. how do the centres perform when benchmarked against their average performance over the period reviewed?

Data Analysis
Data cleaning and analyses were performed using Stata version 10 software (StataCorp, Texas, USA). Summary annual statistics were calculated and studied. The datasets were then split into 3-monthly periods (quarters), creating a sufficient number of data points to allow for deeper scrutiny, while maintaining large enough numbers per block. The blocks were named according to the relevant year and quarter (e.g. 2003_Qrt_1 for January to March 2003) and the data were serially ordered and analysed. The p-chart, a Statistical Process Control

[26] National Centre for Health Outcomes Development. Health Outcome Indicators: Normal Pregnancy and Childbirth. Report of a working group to the Department of Health. Oxford, 1999.

[27] National Institute for Clinical Excellence. Electronic Fetal Monitoring: Evidence-based Clinical Guideline Number 8. NICE Evidence-based Clinical Guideline, 2001.

[28] Paterson CM, Chapple JC, Beard RW, Joffe M, Steer PJ, Wright CSW. Evaluating the quality of the maternity services of maternity services - a discussion paper, 1991:1073-1078.

(SPC) method, was created using Excel 2003. Respective control limits were placed at 3 standard deviations (3σ)[29 30 31].

B2 Results

The dataset supplied contained 15523 delivery records, spanning a five year period beginning from the 1st of April 2003 to 31st Mach 2008. The five years were divided into "fiscal years" which ran from the 1st of April to the 31st of March of the following year. Antrim data covered the full 5 years while the data from Causeway ran from 2004/5 to 2007/8. (NB: In the tables and figures shown in sections B4 and B5 below, the Causeway unit is referred to as "Coleraine", its geographical location.)

Data Quality
Various data quality problems were encountered. Summary details are provided below.

Blood transfusion
This column was completely empty (100% missing).

Place of birth
312 records (Table 1) had either a missing "place of birth" or were born elsewhere (e.g. England, Lithuania). Many others (which were included) had the place of birth names spelt in various ways but looked similar to, or sounded like "Antrim" and "Coleraine".

Maternal height
These data were unreliable as many had abnormal numbers (e.g. 1600cm).

Blood loss
This item was completed in 99.7% of the records but most of them (over 90%) had a qualitative description (such as "little", "moderate", "heavy"). As shown in Table 2, the proportion providing numerical estimates increased in the last two fiscal years.

Multiple pregnancies
These were not identified in the dataset. We attempted to identify them by using the following procedure:

---

[29] Montgomery DC. Introduction to statistical quality control. 3rd ed. New York, N.Y. ; Chichester: Wiley, 1996.

[30] Carey RG, Stake LV. Improving healthcare with control charts: basic and advanced SPC methods and case studies. Milwaukee, WI: ASQ Quality Press, 2002.

[31] Kelley DL. How to use control charts for healthcare. Milwaukee, Wis.: American Society for Quality, 1999.

- 1st step: *birth number = x (where x > 1);* implies this is the xth baby of a multiple pregnancy
- 2nd step: *same date of delivery by the same mother*; identifies the twin, triplet, or quad partners.

Baseline Demographics
Table 3 and Table 4 provide summary baseline characteristics for the deliveries at Antrim (Table 3) and Causeway (Table 4).

Number of deliveries
The number of deliveries at Antrim shows a rising trend. This is further illustrated in Figure 1.

Multiple pregnancies
Due to data quality problems described above, the accuracy of this information is uncertain. However, multiple pregnancies appear to have made up less than 4% of all deliveries.

Performance Indicators
Tables 5 to 9 provide summary results of the indicators used: induction of labour, caesarean section, severe PPH, stillbirth, and low Apgar for Antrim and Causeway, together with external results for comparison.

Control charts (p-charts) are presented in Figures 2 to 13, providing analyses of performance by these 2 units when compared to different targets rates. These targets (or reference rates) were based on reported average rates for Northern Ireland, England, or the whole of the UK, as reported by CEMACH (available up to 2006)[32], the Healthcare Commission[33], and the UK government (available up to 2005/6)[34]. Additional results obtained from analyses of data from Southmead Maternity unit (Bristol, UK), are also provided where appropriate.

Induction of labour (IOL)
External reference standards used: 20% (England and Southmead Hospital).

The IOL rates at both Antrim and Causeway were consistently higher (around 30%) than the Southmead and England annual rates (around 20% for many years). Figure 2 and Figure 8 are control charts using the respective unit's average IOL rates for the period studied, and they show that the IOL rates at both centres were quite stable as they fluctuated randomly but stayed close to their averages. The much

[32] Confidential Enquiry into Maternal and Child Health
[33] Healthcare Commission. Review of Maternity Services 2007, 2007
[34] Government Statistical Service for the Department of Health. NHS Maternity Statistics, England: 2005-06, 2007.

higher IOL rates require further enquiry in order find out if these were necessary interventions or just poor practice.

Mode of delivery: Caesarean Section Rates
External reference standards used: 23% (England 2003/4 to 2005/69)

The annual caesarean section rates at Antrim were consistently higher than those for England throughout the 3 years that English data were available for (Table 6). These rates were also higher than those from Southmead Hospital although they were much closer in 2007-8 (28.3 and 29.6%). Women who were induced had a higher caesarean section rate than those who laboured spontaneously. The associated relative risks (and 95% confidence intervals) were 1.35 (1.24 – 1.48) for Antrim, and 1.71 (1.60 – 1.84) for Southmead. It is possible that the much higher rate of IOL at Antrim may have contributed to the increased caesarean section rates. To help clarify the matter, further analysis using the Robson groups' classification[35] was desired but was not possible due to data limitations. Data on the reasons for caesarean section were also not available.

Severe post-partum haemorrhage (blood loss ≥ 1000mls)
External reference standards used: 1 – 5% (UK[36])

The annual rates of severe PPH were higher at both units (4.9 to 5.8% and 6.0 to 6.7%) when compared to a quoted UK rate of 1 to 5% (5% used). The upper control limit in the Antrim control chart (Figure 3) was crossed during the second quarter of 2005 (April to June 2005). Further analysis indicated that there were 54 cases of severe PPH out of a total of 584 births (9.3%) during this 3 month period. The increased rates coincided with an increased use of descriptive measures of blood loss (96.3%), casting doubt on the reliability of this result. The rates at Causeway stayed stable within the control limits.

Stillbirth rate
External reference standards used: 0.44% (Northern Ireland), and 0.55% (England)

The stillbirth rate at Antrim (0.15% to 0.68%) was comparable to the Northern Ireland four-year average (2003 to 2006) of 0.44% (Table 10 and Figure 4), as well as the UK rates of 0.53 to 0.58% for the same period (Figure 5). When Antrim's data were benchmarked against their own average stillbirth rate for the period monitored (0.43%), an excessive rate rise was detected (Figure 6) during the first quarter of 2005 (January to March 2005). During this period, there were 7

[35] Robson MS. Classification of Caesarean Sections. Fetal and Maternal Medicine Review 2001;12(1):23-39.
[36] Mousa HA, Walkinshaw S. Major postpartum haemorrhage. Curr Opin Obstet Gynecol 2001;13(6):595-603.

stillbirths out of 531 deliveries (1.3%). Following this period, the stillbirth rate decreased, with only 2 stillbirths out of 582 (0.34%) occurring during the three months that followed.

Low Apgar score (5 minute Apgar < 7)
External reference standards used: 0.95% (Sherwood Forest)

The Antrim annual low Apgar score rates for babies over 34 weeks gestation ranged from 0.42 to 0.87%. This rate was better than rates from some of the UK hospitals recently awarded the "best performing" grading by the HCC[37]. One of these, Sherwood Forest Hospitals NHS Trust had a rate of 0.95%[38]. Figure 1 and Figure 13 are control charts studying the low Apgar rate at Antrim and Causeway against their own average rates for the periods studied. Both plots stayed within the control limits suggesting that performance remained stable throughout this period.

B3 Conclusion and discussion

With the data provided, and the performance indicators used, a comparison of performance against results obtained from different sources (Northern Ireland, England, the UK, as well as other individual UK maternity units) found no evidence of poor performance at Antrim and Causeway maternity units.

When considering the stillbirth rates, Antrim had results that were superior to the ones benchmarked against, at the level of 3-sigma. Only when compared to its own 5 year average does the plot cross the upper control limit (Figure 6). If performance had deteriorated then (against their own high standards), this was soon followed by much better results for the rest of 2005-6, and through to the end of the period studied.

Results for severe PPH are unreliable. If these data were accurate, the results obtained would be interpreted as suggesting that performance levels deteriorated during a period from April to September 2005. Thereafter, results improved.

Induction of labour
The induction of labour (IOL) rate was quite high throughout the period reviewed. It is not possible to tell if these were necessary (good care) or unnecessary interventions (poor care). The caesarean section rate, which was also consistently high, may partly have been driven by the

[37] Healthcare Commission. Review of Maternity Services 2007, 2007
[38] Healthcare Commission. Sherwood Forest Hospitals NHS Trust Scored Assessment.

higher IOL rate. Further detailed examination with appropriate data may provide answers.

Increasing numbers of deliveries
There has been a sustained increase in the number of deliveries at Antrim maternity unit. It was not possible in this analysis to determine whether these numbers are still within manageable levels or not.

Maternity dashboard
For additional information, we have included a modified performance scorecard (the "maternity dashboard")[39] with this report (B6). This tool permits a global view of various performance parameters, including numbers of deliveries and other useful indicators, as required. More details are provided in B6.

B4 Tables

Table 1: Number of births per place of delivery

	Apr03-Mar04	Apr04-Mar05	Apr05-Mar06	Apr06-Mar07	Apr07-Mar08
Antrim	2224	2361	2284	2656	3048
Coleraine	0	0	10	1240	1378
Other	42 (1.9%)	31 (1.3%)	89 (3.7%)	93 (2.3%)	57 (1.3%)
Total	2266	2392	2383	3989	4483

Table 2: Proportions of numerical and text entries as estimates of blood loss at delivery

	Apr03-Mar04	Apr04-Mar05	Apr05-Mar06	Apr06-Mar07	Apr07-Mar08
Numerical entry	91 (4.0%)	153 (6.4%)	89 (3.7%)	393 (9.9%)	450 (9.9%)
Text entry	2171 (96.0%)	2230 (93.6%)	2287 (96.3%)	3590 (90.1%)	4023 (90.1%)

[39] Arulkumaran S, Chandraharan E, Mahmood T, Louca O, Mannion C. Maternity Dashboard: Clinical Performance and Governance Score Card. Good Practice No 7 2008.

Table 3: Summary characteristics of deliveries from Antrim

		Apr03-Mar04	Apr04-Mar05	Apr05-Mar06	Apr06-Mar07	Apr07-Mar08
Total deliveries over		2224	2361	2284	2656	3048
Fetal count	Single	2153 (96.8%)	2265 (95.9%)	2199 (96.3%)	2556 (96.2%)	2950 (96.8%)
	Twins	68 (3.1%)	96 (4.1%)	79 (3.5%)	100 (3.8%)	95 (3.1%)
	Triplets	3 (0.1%)	0 (0%)	6 (0.3%)	0 (0%)	3 (0.1%)
Gestation (Weeks)	< 37	200 (9.0%)	222 (9.4%)	236 (10.3%)	249 (9.4%)	231 (7.6%)
	37	2024 (91.0%)	2139 (90.6%)	2048 (89.7%)	2407 (90.6%)	2817 (92.4%)
Birth weight	< 2500g	174 (7.8%)	187 (7.9%	207 (9.1%)	220 (8.3%)	206 (6.8%)
	2500g	2049 (92.1%)	2173 (92.0%)	2075 (90.8%)	2434 (91.6%)	2839 (93.1%)
Maternal age		29.1 (5.6)	29.5 (5.7)	29.3 (5.7)	29.3 (5.8)	29.3 (5.6)

Table 4: Summary characteristics of deliveries from Coleraine

		Apr03-Mar04	Apr04-Mar05	Apr05-Mar06	Apr06-Mar07	Apr07-Mar08
Total deliveries		N/A	N/A	10	1240	1378
Fetal count	Single	N/A	N/A	10 (100%)	1222 (98.6%)	1353 (98.4%)
	Twins	N/A	N/A	0 (0%)	18 (1.5%)	25 (1.8%)
	Triplets	N/A	N/A	0 (0%)	0 (0%)	0 (0%)
Gestation (Weeks)	< 37	N/A	N/A	0 (0%)	49 (4.0%)	64 (4.6%)
	37 +	N/A	N/A	10 (100%)	1191 (96.0%)	1314 (95.4%)
Birth weight	<2500g	N/A	N/A	0 (0%)	51 (4.1%)	45 (3.3%)
	>2500g	N/A	N/A	10 (100%)	1188 (95.8%)	1332 (96.7%)
Maternal age		N/A	N/A	27.5 (3.7)	28.8 (5.8)	28.9 (5.8)

Table 5: Rates of induction of labour rates

	Apr03-Mar04	Apr04-Mar05	Apr05-Mar06	Apr06-Mar07	Apr07-Mar08
UK	20.2%	19.6%	20.2%		
Southmead Hospital	21.3%	20.4%	20.4%	19.1%	21.0%
Antrim	36.2%	30.9%	31.6%	30.2%	31.8%
Coleraine				27.9%	30.9%

Table 6: Caesarean section rates

	Apr03-Mar04	Apr04-Mar05	Apr05-Mar06	Apr06-Mar07	Apr07-Mar08
UK[9]	22.7%	22.9%	23.5%		
Southmead Hospital	22.9%	25.5%	25.5%	25.0%	28.3%
Antrim	27.2%	28.6%	30.6%	29.0%	29.6%
Coleraine				20.0%	24.3%

Table 7: Caesarean section rates amongst women who had their labour induced

	Apr03-Mar04	Apr04-Mar05	Apr05-Mar06	Apr06-Mar07	Apr07-Mar08
Southmead (20.7%)	17.6%	21.1%	20.0%	22.9%	22.0%
Antrim (18.1%)	16.3%	15.3%	18.6%	19.5%	20.4%
Coleraine (15.2%)				13.0%	17.0%

Table 8: Caesarean section rates amongst women who laboured spontaneously

	Apr03-Mar04	Apr04-Mar05	Apr05-Mar06	Apr06-Mar07	Apr07-Mar08
Southmead (12.04%	9.38%	12.35%	12.23%	11.47%	14.64%
Antrim (13.38%)	13.55%	13.65%	13.85%	12.01%	13.94%
Coleraine (8.58%)				7.41%	9.63%

Table 9: Severe PPH rates at Antrim and Coleraine

	Apr03-Mar04	Apr04-Mar05	Apr05-Mar06	Apr06-Mar07	Apr07-Mar08
Antrim (5.3%*)	4.9%	5.8%	5.7%	5.3%	4.9%
Coleraine (6.8*)				6.7%	6.0%

Table 10: Stillbirth rates

	Apr03-Mar04	Apr04-Mar05	Apr05-Mar06	Apr06-Mar07	Apr07-Mar08
Eng, Wal, & NI	0.58%	0.57%	0.53%	0.53%	
Northern Ireland	0.51%	0.52%	0.40%	0.31%	
Antrim	0.63%	0.68%	0.22%	0.15%	0.49%
Coleraine				0.81%	0.58%

Table 11: Low Apgar score rates for infants born at greater than 34 weeks gestation

	Apr03-Mar04	Apr04-Mar05	Apr05-Mar06	Apr06-Mar07	Apr07-Mar08
Sherwood Forest					0.95%
Southmead	0.52%	0.42%	0.70%	0.60%	0.64%
Antrim	0.42%	0.79%	0.87%	0.74	0.61%
Coleraine				0.82%	0.51%

B5 Figures

Figure 1: Trend chart showing an increasing number of deliveries at Antrim over time

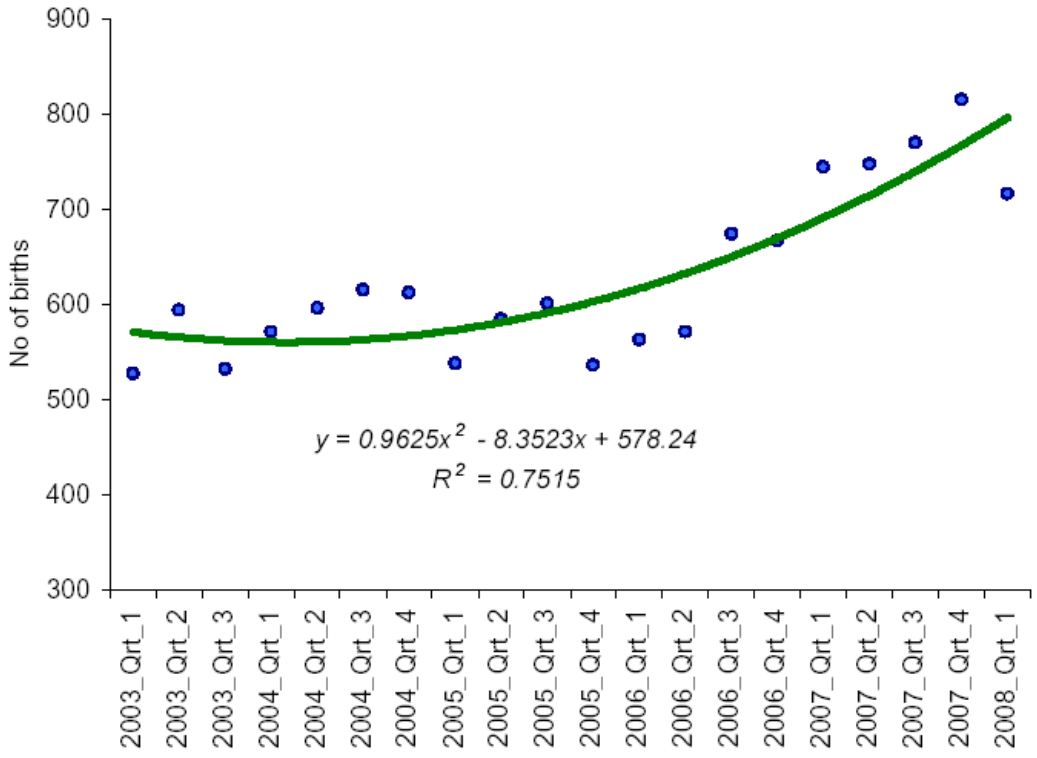


Figure 2: Antrim IOL rates (against own average of 32.0%)

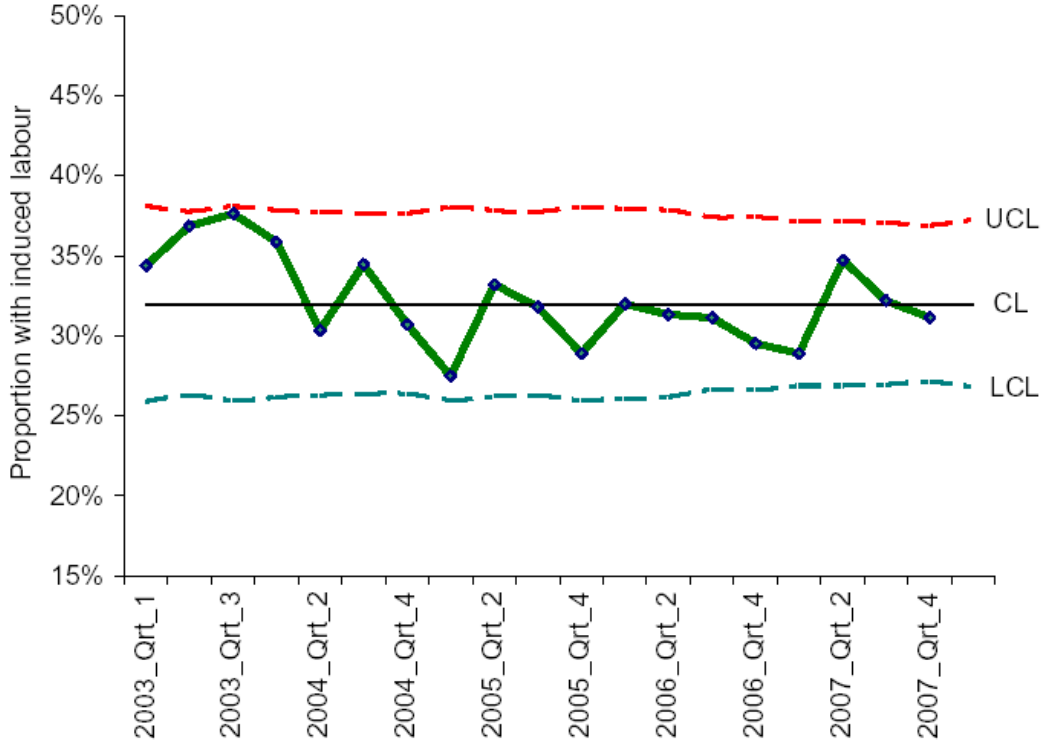


Figure 3: Antrim rates of severe PPH (compared with own average of 5.3%)

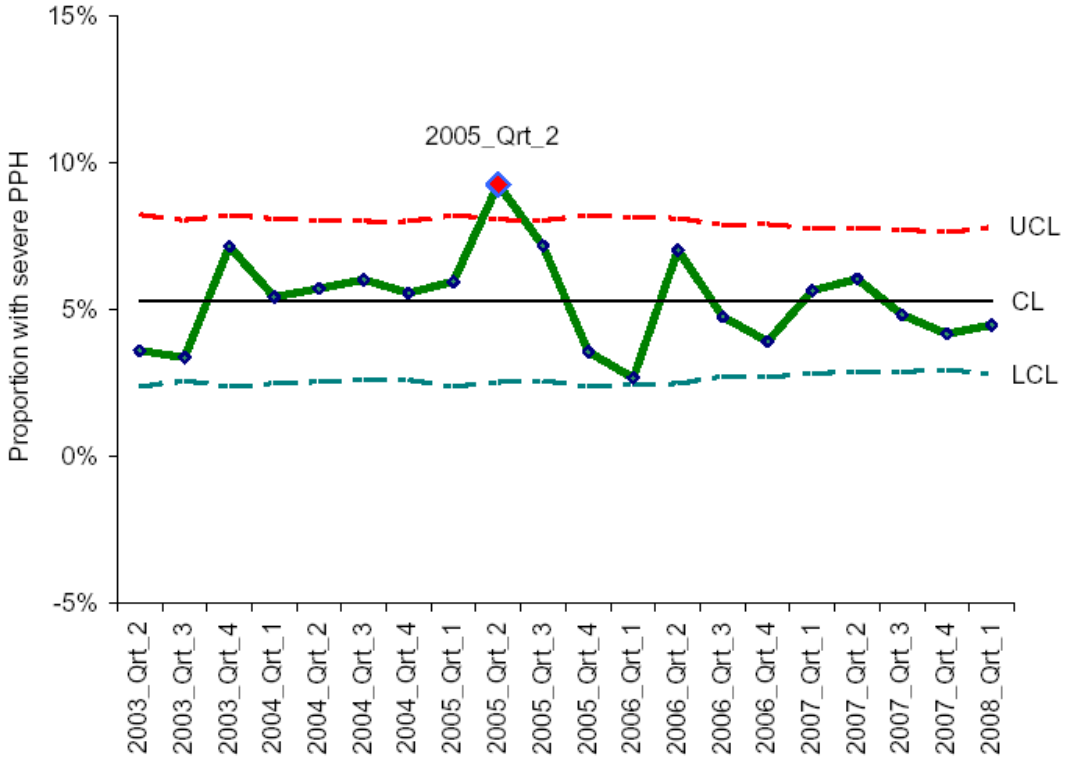


Figure 4: Antrim stillbirth rates (against Northern Ireland of 0.44%)

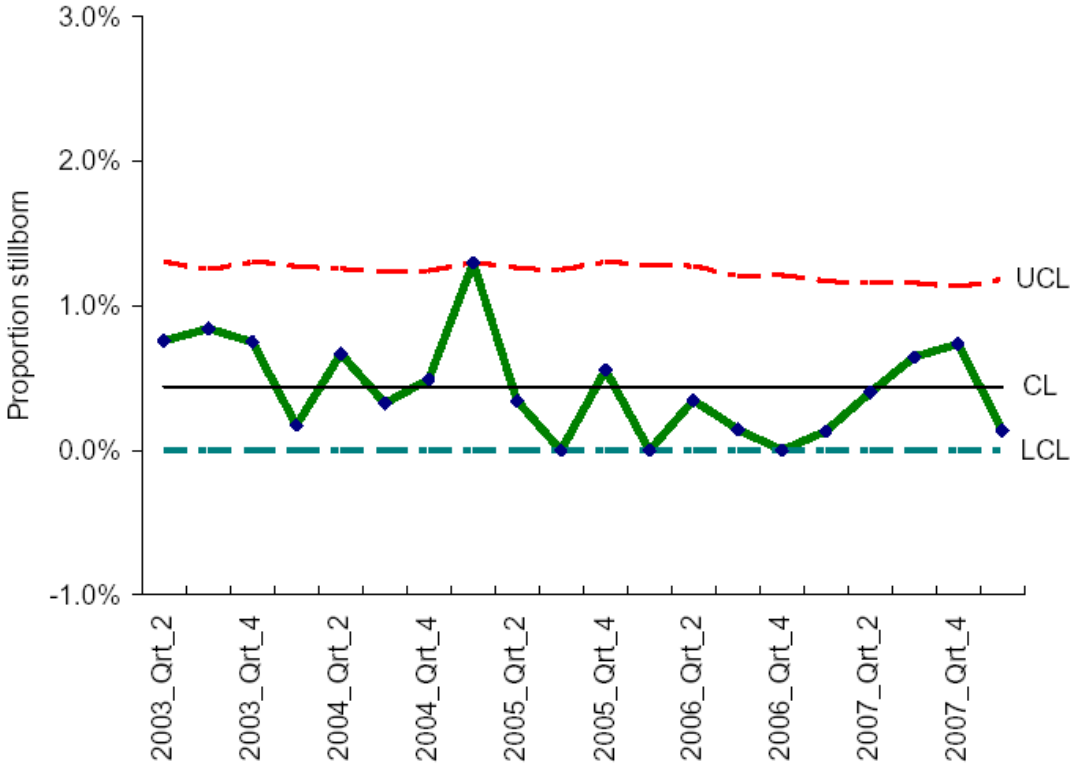


Figure 5: Antrim stillbirth rates (against the UK average rate of 0.55%)

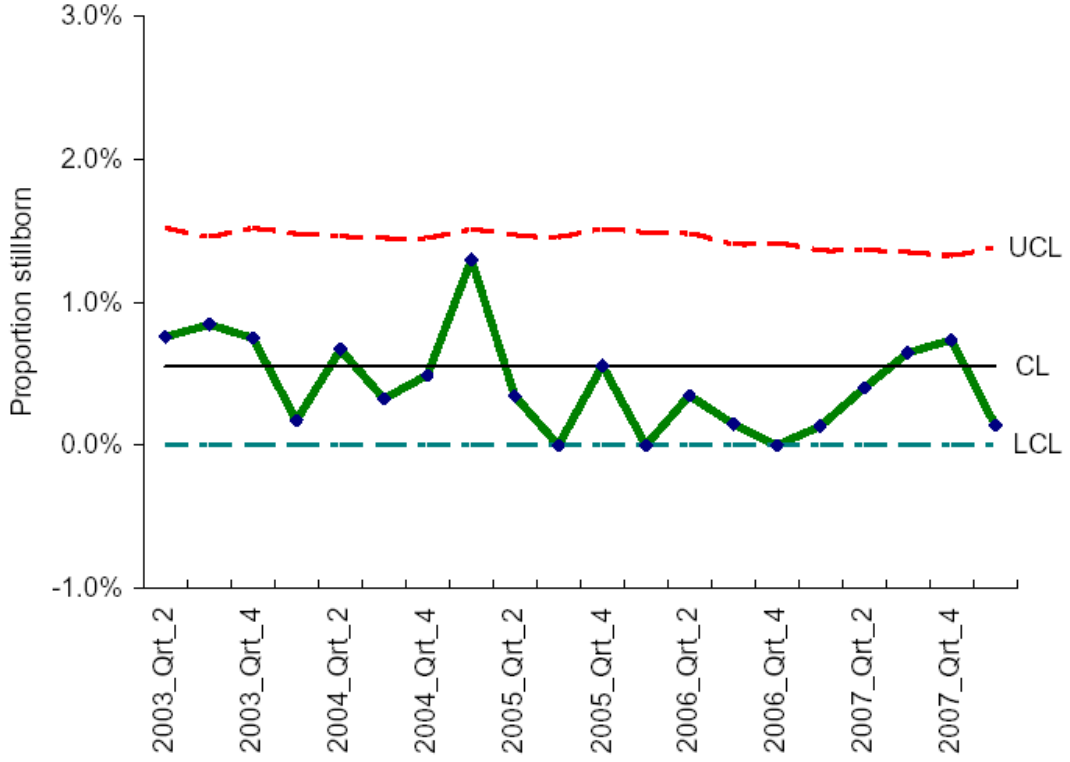


Figure 6: Antrim stillbirth rates (against own average of 0.43%)

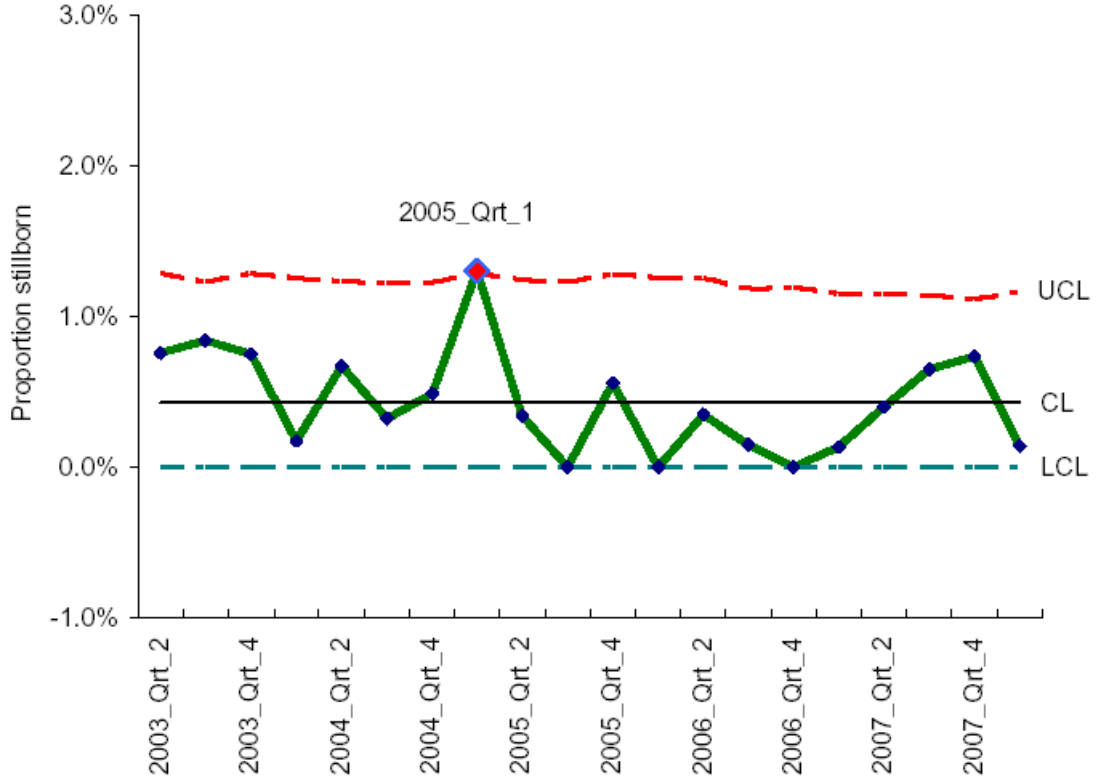


Figure 7: Antrim low Apgar rate; gestation _ 34 weeks (against own average of 0.69%)

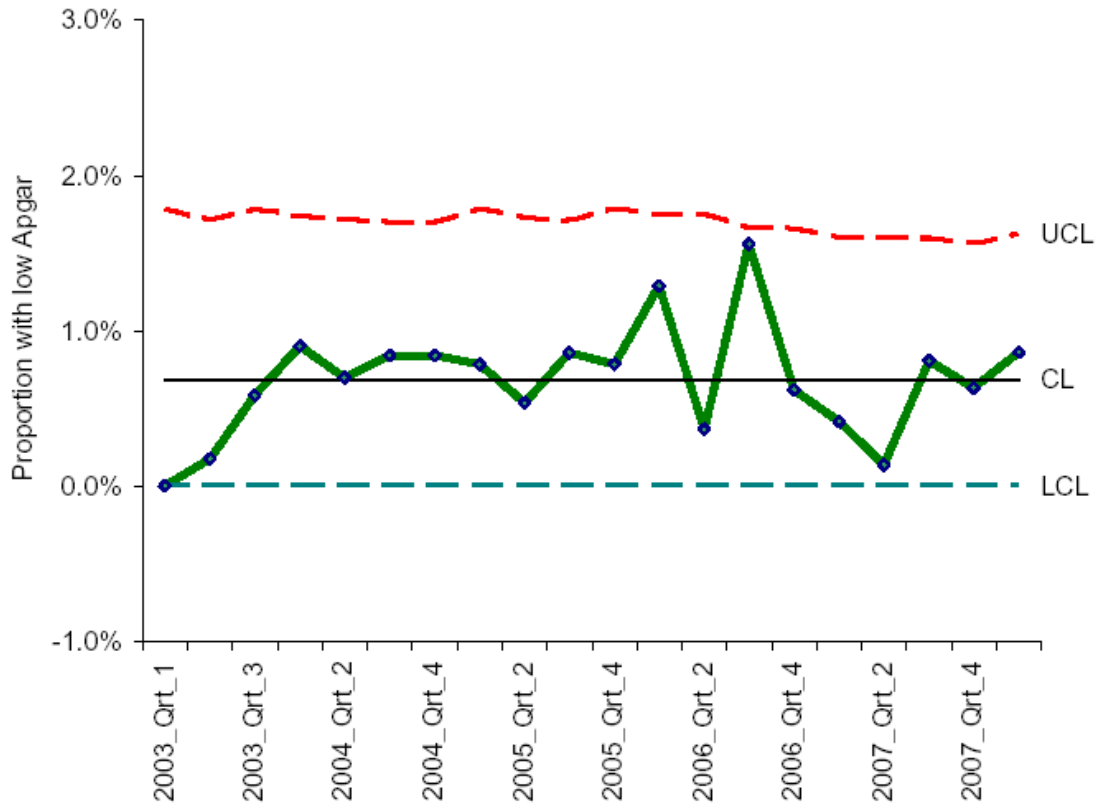


Figure 8: Coleraine IOL rates (against own average of 29.6%)

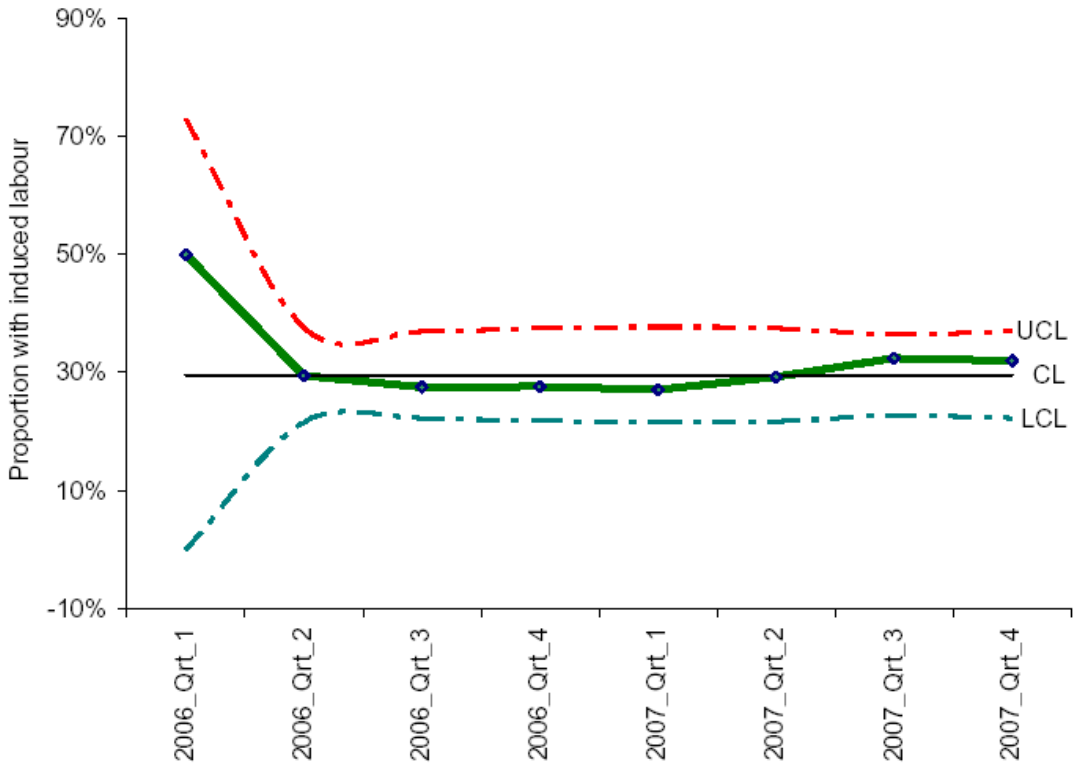


Figure 9: Coleraine rates of severe PPH (against own average of 6.8%)

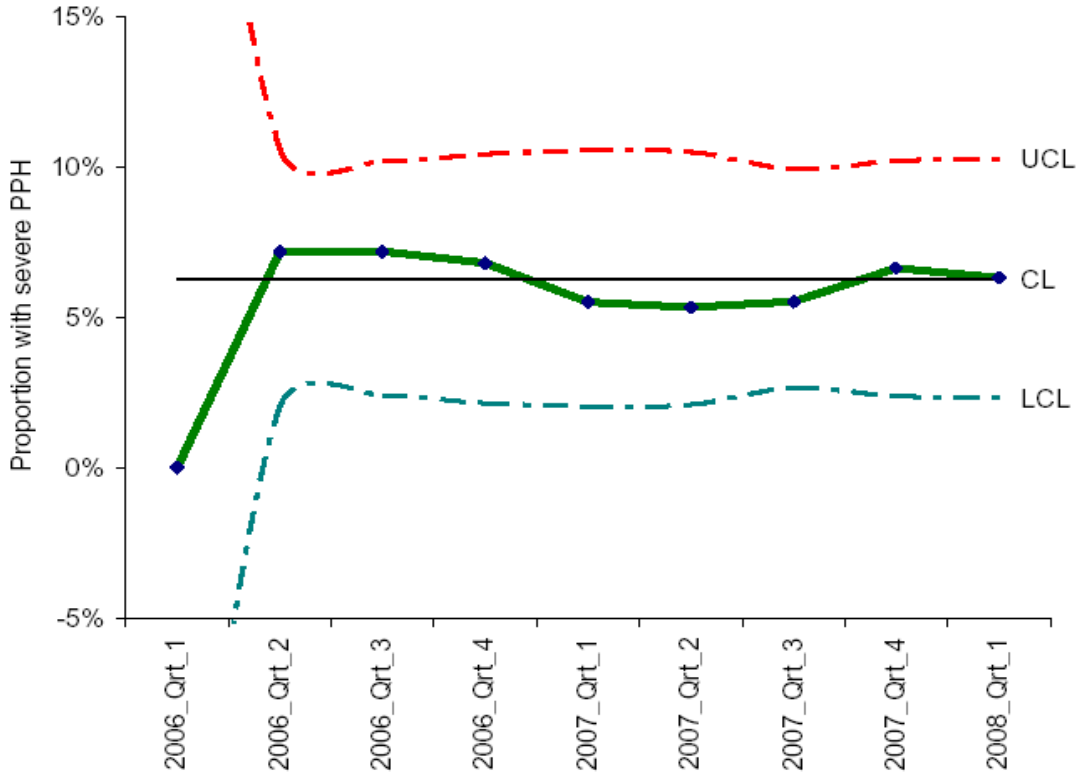


Figure 10: Coleraine rates of severe PPH (against UK average of 5.0%)

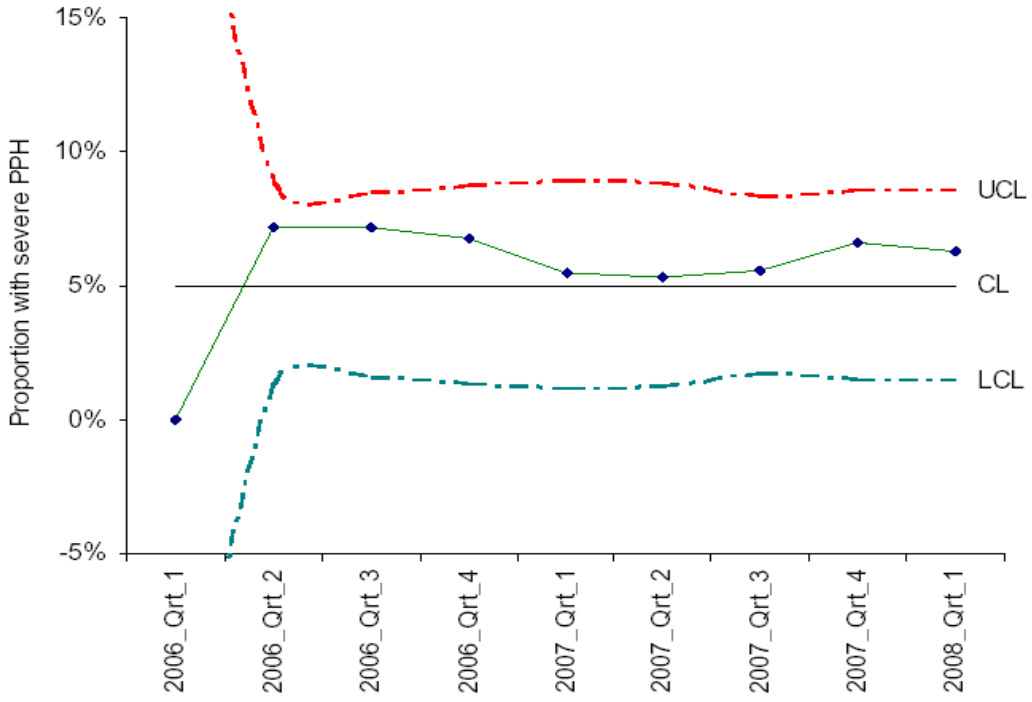


Figure 11: Coleraine stillbirth rates (against own average of 0.69%)

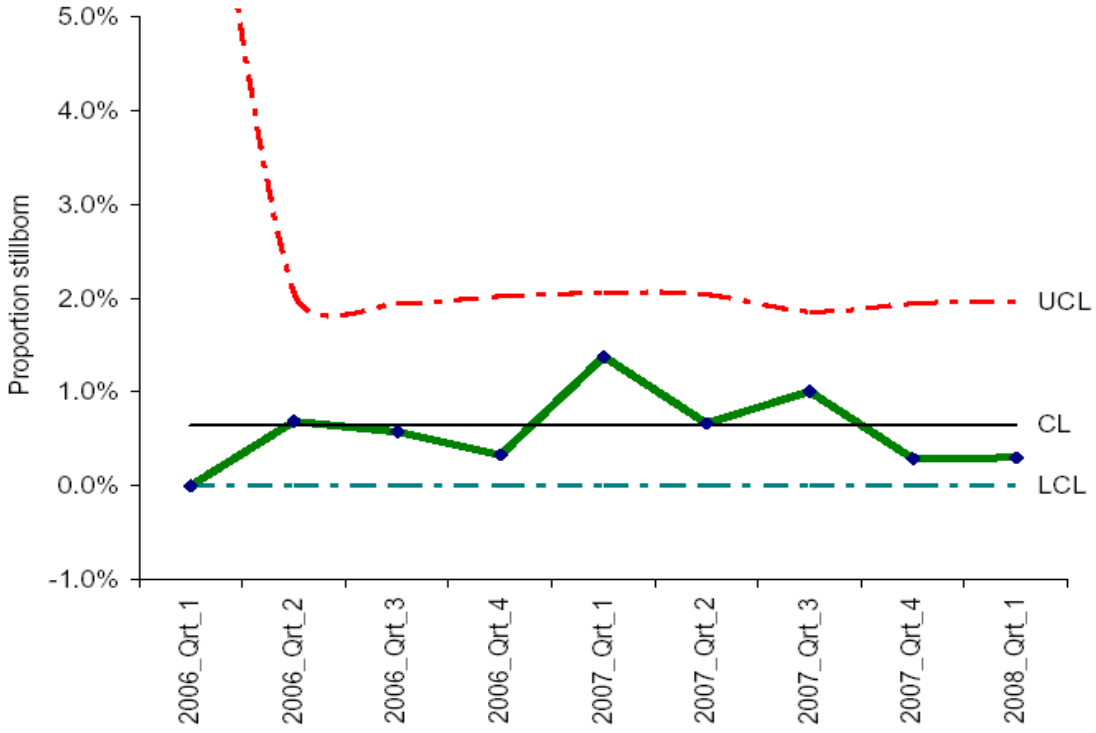


Figure 12: Coleraine stillbirth rates (against Northern Ireland average of 0.44%)

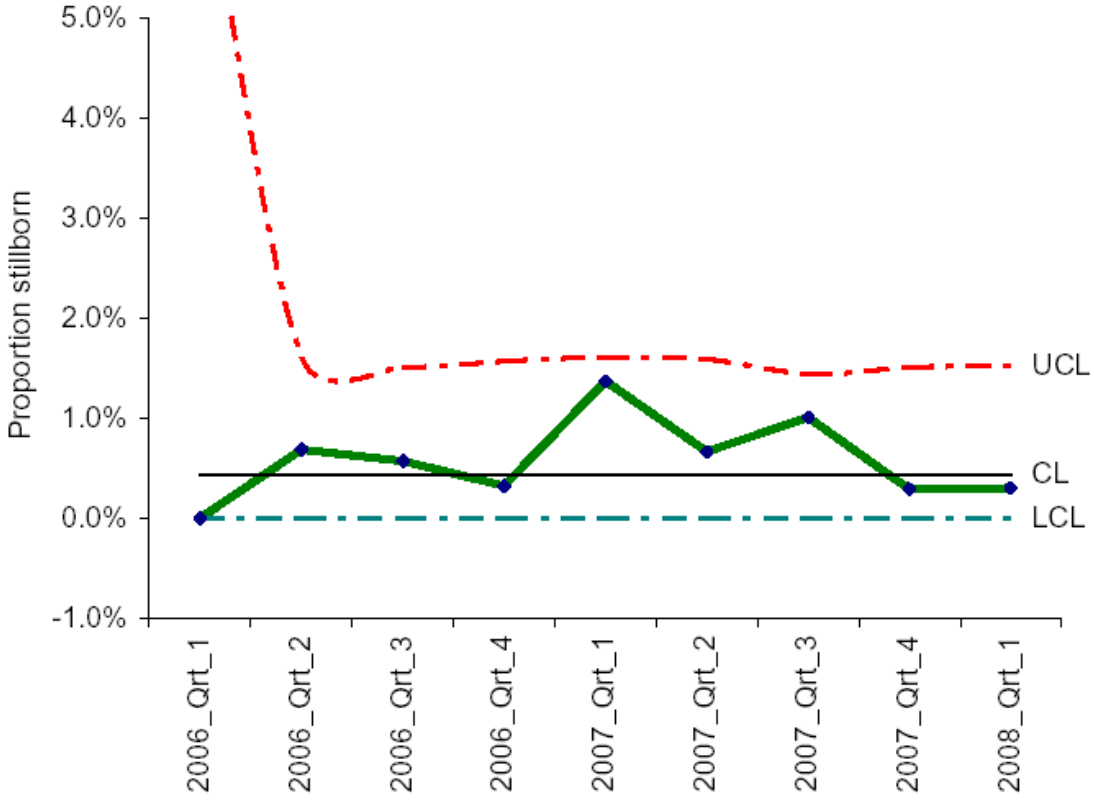
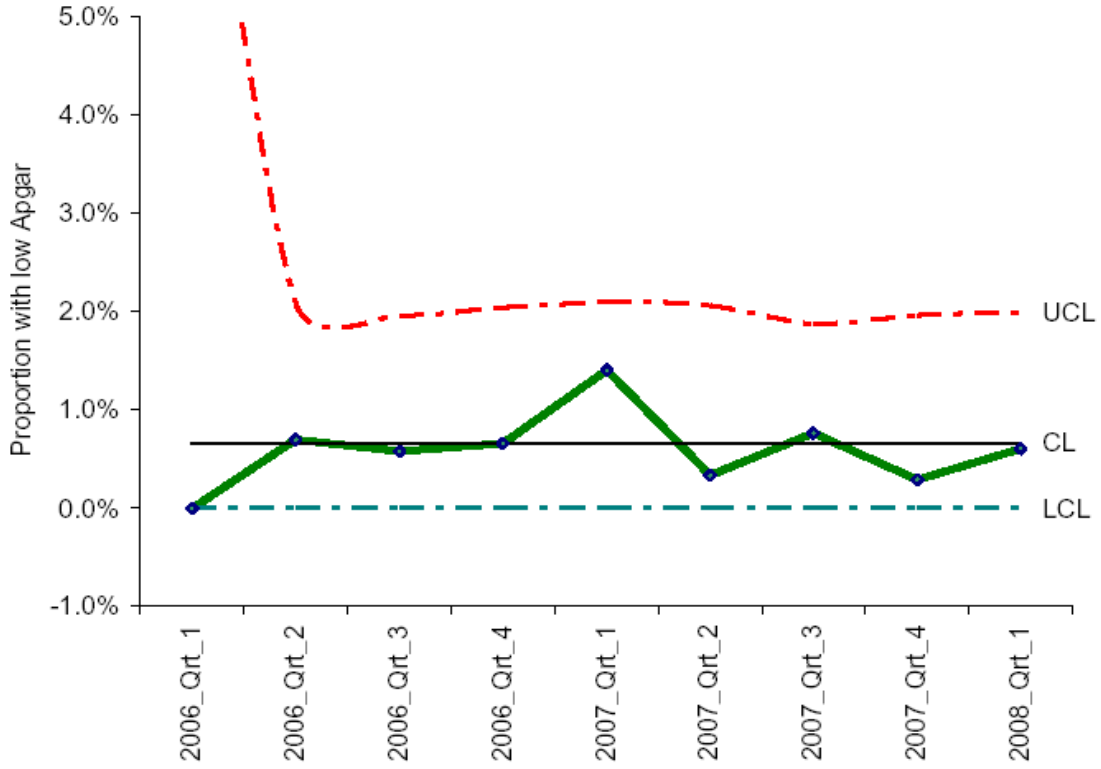


Figure 13: Coleraine low Apgar rate; gestation _ 34 weeks (against own average of 0.66%)



B6 Maternity dashboard

We have created statistically informed Maternity dashboard score-cards and included them in this report. The maternity dashboard is a convenient one page summary of a maternity unit's performance over time. An earlier version was proposed by Arulkumaran et al[40]. The scorecards presented are fed by the tools used in the report, and have exactly the same results from the two units. They can therefore be used as summary reports of the results presented above. For this, we created an additional control limit at 2-sigma (2σ). This is an early warning control limit which, when crossed leads to the cell being coloured yellow (or amber). Crossing the 3-sigma control limit results a red coloured cell, and is still used as providing conclusive evidence of a changed performance level. The green coloured cells represent periods when performance was judged to be acceptable (stayed within all limits).

The left columns on the cards provide additional information about the outcome (or process) monitored, as well as the control chart parameters. The p is the proportion of adverse outcomes (proportion

[40] Arulkumaran S, Chandraharan E, Mahmood T, Louca O, Mannion C. Maternity Dashboard: Clinical Performance and Governance Score Card. Good Practice No 7 2008.

non-conforming), and 2σ and 3σ are the control limits placed at 2 and 3 standard deviations.

An additional indicator, a modified Adverse Obstetric Index is also used and results are presented on the scorecards. This index is made up of 3 indicators: severe PPH, stillbirths, and low Apgar, and is thus a summary of performance based on those 3 indicators.

The Causeway scorecard was green throughout as the rates stayed within 2-sigma throughout the period monitored. The Antrim scorecard has several periods when the warning (2-sigma) limit was crossed, although this did not progress to red (3-sigma). The number of deliveries and induction of labour had periods when rates were sustained above 2-sigma (in yellow) for long periods. The control limits for the number of deliveries were arbitrarily determined; hence the interpretation of this result is open to debate. It is clear, however, that the number of deliveries increased substantially from the second half of 2006, and remained high through to the end of the period studied. The induction of labour rate, as discussed above, was substantially higher than the English or Southmead averages. For the scorecard, we use the respective unit's average IOL rates as the target rates. The units are then monitored using what might be considered normal for them and deviations from this are then detected. If these rates are deemed abnormal and a reduction is desired, this set of tools (control charts and scorecard) can still be used to monitor progress towards new lower rates. As the rates decrease, the lower control limit (- 3 standard deviations) will eventually be crossed, and a new lower target rate can then be used. Alternatively, a desired (but achievable) lower target can be inputted and work towards achieving it undertaken.

Maternity Dashboard: Antrim Maternity Unit

	Target & source		2003_Qrt_1	2003_Qrt_2	2003_Qrt_3	2004_Qrt_1	2004_Qrt_2	2004_Qrt_3	2004_Qrt_4	2005_Qrt_1	2005_Qrt_2	2005_Qrt_3	2005_Qrt_4	2006_Qrt_1	2006_Qrt_2	2006_Qrt_3	2006_Qrt_4	2007_Qrt_1	2007_Qrt_2	2007_Qrt_3	2007_Qrt_4	2008_Qrt_1
Number of deliveries	650 / 750 #		527	594	532	571	596	615	612	538	584	601	536	563	571	674	667	744	747	770	815	716
% preterm	Antrim (9.1%)	P	8.2%	8.9%	8.8%	10.0%	10.4%	9.4%	7.7%	10.2%	8.9%	9.3%	12.1%	11.2%	10.2%	11.7%	8.1%	7.8%	8.2%	9.1%	7.4%	5.6%
		2B	11.6%	11.4%	11.5%	11.5%	11.4%	11.4%	11.4%	11.5%	11.4%	11.4%	11.5%	11.5%	11.5%	11.3%	11.3%	11.2%	11.2%	11.1%	11.1%	11.2%
		3B	12.8%	12.6%	12.8%	12.7%	12.6%	12.5%	12.5%	12.8%	12.6%	12.6%	12.8%	12.7%	12.7%	12.4%	12.4%	12.2%	12.2%	12.2%	12.1%	12.3%
BWt < 2.5kg	Antrim (0.79%)	P	8.0%	7.4%	7.5%	8.4%	8.4%	7.5%	6.5%	9.5%	8.7%	7.8%	9.7%	10.1%	8.1%	10.4%	7.5%	7.3%	6.0%	7.9%	6.3%	6.8%
		2B	10.3%	10.1%	10.2%	10.2%	10.1%	10.1%	10.1%	10.2%	10.1%	10.1%	10.2%	10.2%	10.2%	10.0%	10.0%	9.9%	9.9%	9.9%	9.8%	9.9%
		3B	11.4%	11.2%	11.4%	11.3%	11.2%	11.2%	11.2%	11.4%	11.3%	11.2%	11.4%	11.3%	11.3%	11.0%	11.0%	10.9%	10.9%	10.8%	10.7%	10.9%
IOL	Antrim (32.1%)	P	34.4%	36.9%	37.7%	35.9%	30.4%	34.5%	30.7%	27.5%	33.2%	31.8%	26.9%	32.0%	31.3%	31.2%	29.5%	26.9%	34.8%	32.2%	31.2%	28.9%
		2B	32.3%	32.1%	32.3%	32.2%	32.2%	32.1%	32.1%	32.4%	32.2%	32.1%	32.4%	32.2%	32.2%	32.0%	32.0%	31.8%	31.8%	31.8%	31.7%	31.9%
		3B	38.1%	37.8%	38.1%	37.9%	37.7%	37.7%	37.7%	38.0%	37.8%	37.7%	38.1%	37.9%	37.9%	37.4%	37.4%	37.1%	37.1%	37.1%	36.9%	37.2%
CSR	Antrim (29.1%)	P	28.7%	27.6%	28.0%	24.7%	31.0%	27.2%	26.3%	30.1%	26.4%	27.3%	34.9%	32.5%	32.7%	29.2%	26.3%	26.6%	26.0%	30.8%	30.3%	31.3%
		2B	33.0%	32.8%	33.0%	32.9%	32.8%	32.7%	32.7%	33.0%	32.8%	32.8%	33.0%	32.9%	32.9%	32.6%	32.6%	32.4%	32.4%	32.3%	32.2%	32.4%
		3B	35.0%	34.6%	35.0%	34.8%	34.6%	34.5%	34.6%	34.9%	34.7%	34.6%	34.9%	34.8%	34.8%	34.3%	34.3%	34.0%	34.0%	34.0%	33.8%	34.1%
PPH	England (1 - 5%)	P	3.6%	3.4%	7.1%	5.4%	5.7%	6.0%	5.6%	5.9%	9.2%	7.2%	3.5%	2.7%	7.0%	4.7%	3.9%	6.6%	6.0%	4.8%	4.2%	4.5%
		2B	6.9%	6.8%	6.9%	6.8%	6.8%	6.8%	6.8%	6.9%	6.8%	6.8%	6.9%	6.8%	6.8%	6.7%	6.7%	6.6%	6.6%	6.6%	6.5%	6.6%
		3B	7.8%	7.7%	7.8%	7.7%	7.7%	7.6%	7.6%	7.8%	7.7%	7.7%	7.8%	7.8%	7.7%	7.5%	7.5%	7.4%	7.4%	7.4%	7.3%	7.4%
Stillbirths	UK (0.55%)	P	0.8%	0.8%	0.8%	0.2%	0.7%	0.3%	0.5%	1.3%	0.3%	0.0%	0.6%	0.0%	0.4%	0.1%	0.0%	0.1%	0.4%	0.6%	0.7%	0.1%
		2B	1.2%	1.2%	1.2%	1.2%	1.2%	1.1%	1.1%	1.2%	1.2%	1.2%	1.2%	1.2%	1.2%	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%	1.1%
		3B	1.5%	1.5%	1.5%	1.5%	1.5%	1.4%	1.4%	1.5%	1.5%	1.5%	1.5%	1.5%	1.5%	1.4%	1.4%	1.4%	1.4%	1.3%	1.3%	1.4%
	Antrim (0.43%)	P	0.8%	0.8%	0.8%	0.2%	0.7%	0.3%	0.5%	1.3%	0.3%	0.0%	0.6%	0.0%	0.4%	0.1%	0.0%	0.1%	0.4%	0.6%	0.7%	0.1%
		2B	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%	0.9%
		3B	1.3%	1.2%	1.3%	1.3%	1.2%	1.2%	1.2%	1.3%	1.2%	1.2%	1.3%	1.3%	1.3%	1.2%	1.2%	1.1%	1.1%	1.1%	1.1%	1.2%
Low Apgar > 34 weeks	Sherwood Forest (0.95%)	P	0.0%	0.2%	0.6%	0.9%	0.7%	0.8%	0.8%	0.8%	0.5%	0.9%	0.8%	1.3%	0.4%	1.6%	0.6%	0.4%	0.1%	0.8%	0.6%	0.9%
		2B	1.8%	1.8%	1.8%	1.8%	1.8%	1.7%	1.7%	1.8%	1.8%	1.8%	1.8%	1.8%	1.8%	1.7%	1.7%	1.7%	1.7%	1.7%	1.6%	1.7%
		3B	2.2%	2.2%	2.2%	2.2%	2.2%	2.1%	2.1%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.1%	2.1%	2.0%	2.0%	2.0%	2.0%	2.1%
	Antrim (0.69%)	P	0.0%	0.2%	0.6%	0.9%	0.7%	0.8%	0.8%	0.8%	0.5%	0.9%	0.8%	1.3%	0.4%	1.6%	0.6%	0.4%	0.1%	0.8%	0.6%	0.9%
		2B	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%	1.3%
		3B	1.8%	1.7%	1.8%	1.7%	1.7%	1.7%	1.7%	1.8%	1.7%	1.7%	1.8%	1.7%	1.7%	1.7%	1.7%	1.6%	1.6%	1.6%	1.6%	1.6%
AOI	Antrim (6.3%)	P	4.5%	3.8%	7.9%	6.4%	6.4%	7.5%	6.7%	6.9%	10.8%	7.8%	4.3%	3.7%	7.7%	6.7%	5.6%	6.3%	5.9%	6.0%	5.8%	6.0%
		2B	8.4%	8.3%	8.4%	8.4%	8.3%	8.3%	8.3%	8.4%	8.3%	8.3%	8.4%	8.3%	8.0%	7.8%	7.9%	7.8%	7.8%	7.7%	7.7%	7.8%
		3B	9.5%	9.3%	9.5%	9.4%	9.3%	9.3%	9.3%	9.5%	9.3%	9.2%	9.4%	9.4%	8.8%	8.6%	8.6%	8.6%	8.6%	8.4%	8.5%	8.6%

Green — Rate within all control limits

Yellow — Crosses only the 2B control limit

Red — Crosses the 3B control limit (as well as 2B)

Arbitrary levels: < 650 | 650-750 | > 750

Maternity Dashboard: Coleraine Maternity Unit

	Target & source		2006_Qrt_2	2006_Qrt_3	2006_Qrt_4	2007_Qrt_1	2007_Qrt_2	2007_Qrt_3	2007_Qrt_4	2008_Qrt_1
Number of deliveries	#		292	348	309	291	300	398	347	333
% preterm	Coleraine (4.32%)	P	3.08%	4.60%	2.91%	5.15%	3.67%	5.03%	4.32%	5.41%
		2∃	6.69%	6.50%	6.63%	6.70%	6.66%	6.35%	6.50%	6.54%
		3∃	7.94%	7.66%	7.84%	7.99%	7.90%	7.45%	7.66%	7.75%
BWt < 2.5kg	Coleraine (3.67%)	P	4.11%	4.02%	3.56%	4.81%	3.67%	3.62%	2.88%	3.00%
		2∃	5.87%	5.68%	5.81%	5.87%	5.84%	5.55%	5.68%	5.73%
		3∃	7.04%	6.75%	6.93%	7.05%	6.98%	6.54%	6.74%	6.80%
IOL	Coleraine (29.6%)	P	29.5%	27.6%	27.7%	27.1%	29.3%	32.4%	32.0%	29.4%
		2∃	34.3%	33.9%	34.2%	34.3%	34.2%	33.6%	33.8%	34.0%
		3∃	37.6%	36.9%	37.4%	37.6%	37.5%	36.4%	36.9%	37.1%
CSR	Coleraine (22.3%)	P	22.9%	17.8%	21.4%	18.2%	21.3%	22.6%	26.8%	26.4%
		2∃	27.2%	26.8%	27.1%	27.2%	27.1%	26.5%	26.8%	26.9%
		3∃	30.7%	29.7%	30.4%	30.4%	30.5%	29.5%	30.2%	30.3%
PPH	England (1 - 5%)	P	7.19%	7.18%	6.80%	5.60%	5.33%	5.63%	6.63%	6.31%
		2∃	9.12%	8.88%	9.04%	9.12%	9.08%	8.71%	8.88%	8.94%
		3∃	10.54%	10.18%	10.42%	10.54%	10.48%	9.93%	10.19%	10.27%
Stillbirths	UK (0.55%)	P	1.03%	0.67%	0.32%	1.37%	0.67%	1.01%	0.29%	0.30%
		2∃	1.42%	1.34%	1.39%	1.42%	1.40%	1.29%	1.34%	1.36%
		3∃	1.85%	1.74%	1.81%	1.85%	1.83%	1.68%	1.74%	1.77%
	Coleraine (0.65%)	P	0.69%	0.57%	0.32%	1.37%	0.67%	1.01%	0.29%	0.30%
		2∃	1.59%	1.51%	1.56%	1.59%	1.57%	1.45%	1.51%	1.53%
		3∃	2.06%	1.94%	2.02%	2.06%	2.04%	1.85%	1.94%	1.97%
Low Apgar > 34 weeks	Sherwood Forest (0.95%)	P	0.70%	0.58%	0.65%	1.41%	0.34%	0.75%	0.29%	0.61%
		2∃	2.10%	2.00%	2.08%	2.10%	2.07%	1.93%	2.00%	2.02%
		3∃	2.67%	2.52%	2.62%	2.68%	2.64%	2.42%	2.52%	2.55%
	Coleraine (0.66%)	P	0.70%	0.58%	0.65%	1.41%	0.34%	0.75%	0.29%	0.61%
		2∃	1.61%	1.53%	1.58%	1.61%	1.59%	1.47%	1.53%	1.54%
		3∃	2.08%	1.96%	2.04%	2.09%	2.06%	1.88%	1.96%	1.99%
AOI	Coleraine (7.6%)	P	8.90%	8.39%	7.77%	8.25%	6.33%	7.04%	7.20%	7.51%
		2∃	10.71%	10.45%	10.63%	10.72%	10.67%	10.27%	10.46%	10.52%
		3∃	12.49%	12.06%	12.32%	12.48%	12.36%	11.75%	12.04%	12.14%

Green — Rate within all contrd limits

Yellow — Crosses only the 2∃ control limit

Red — Crosses the 3∃ control limit (as well as 2∃)

limits not set

APPENDIX C: Sexton Safety Attitude Analysis Summary of Participant Ratings & Comments

Participants in the survey highlighted the following:

Negative scores

Particularly negative scores were noted with these questions:

- Working in this hospital is like being part of a large family
- The administration of this hospital is doing a good job
- Hospital administration supports my daily efforts
- In my clinical area, it is difficult to discuss errors
- Fatigue impairs my performance during emergency situations
- Hospital management does not knowingly compromise patient safety
- The levels of staffing in this clinical area is sufficient to handle the number of patients
- The culture in this clinical area makes it easy to learn from the errors of others
- The hospital deals constructively with problem employees
- The medical equipment in this clinical area is adequate
- I am provided with adequate, timely information about events in the hospital which might affect my work
- Disagreements here are resolved appropriately (i.e. not who is right but what is best for the patient)
- Morale in this clinical area is high
- Trainees in my discipline are adequately supervised
- I feel burned out from my work (i.e. higher level of agreement with statement)
- I feel frustrated by my job "
- I feel I am working too hard on my job "

Recommendations

The survey also asks staff to make their own recommendations for how to improve things and the most common suggestions were:

- increase staffing levels, avoid removing midwives to cover other nursing activities
- more frequent consultant presence especially at handover and regular ward rounds
- managers listening to concerns, available help-lines and support networks on 24 hour basis
- regular training updates
- direct, open, honest communication

Other common recommendations were:

- more midwives at night
- better induction for new staff
- feedback regularly to staff about good and bad cases
- less paperwork but better documentation
- update equipment
- revise handover sheet
- more space and beds
- liaising between hospital and community staff
- reorganise layout of maternity.

APPENDIX D: Good Practice - Developing woman-focused maternity services in Northern Ireland

Although Northern Ireland does not currently have a definitive maternity service strategy it is clear that there is a commitment to modernise maternity care, improve outcomes and enhance the experience of service users and their families[41].

As part of the DHSSPS action following the Value for Money Audit, a steering group was established and chaired by the Chief Nursing Officer. Subgroups reviewed the action plan and the outcome from those workstreams includes:

- Review of skill mix in maternity services in NI
- Development of regional guidelines for Maternity Service Liaison Groups
- Development of regional maternity hand held notes
- Commitment to modernize the Northern Ireland Maternity System (NIMATS) system
- Rollout of NIMATS to all maternity units in NI.

This work has been ongoing during 2007/8 and the final report is currently being drafted.

In addition to this Regional work, the leads for maternity service in the Belfast, South Eastern, Southern and Western Health & Social Care Trusts have been advancing the services by developing:

- Increased midwifery led approach to care
- Greater user involvement
- A multi-professional approach to working and training

This focus on improving and modernising the maternity services is to be commended as is the willingness of senior midwives in Trusts to share their initiatives.

To assist in the spread of good practice the following examples of local initiatives have been included to stimulate discussion and support the change agenda within the Northern Trust.

The Belfast Health & Social Care Trust

Belfast cited the importance of developing strong midwifery leadership and support at Board level as key components to successful change. Their structures ensure support to the Head of Midwifery with a variety of senior

[41] NI Maternity VFM Audit undertaken by PWC in 2006.

midwifery posts having responsibility for specific aspects such as:

- Practice education in midwifery and neonatal areas,
- Breastfeeding
- Risk
- Quality
- Antenatal screening
- Policy and guideline development and updating (midwife-led)
- CTG training (midwife-led)
- Supervision of Midwives, with an increasing number of SoMs throughout the Trust

There is high level recognition and support in the Trust of the need to invest in continuing training, education and development of staff. The midwife practice educator has been a valuable asset in horizon scanning and highlighting best practice and research findings that inform and shape the way services are developed.

Clinical leads within the medical team have been identified for each aspect of the service. This enables collaborative inter-disciplinary working. The managers and the clinical director work together in a spirit of cooperation with the mutual commitment to achieve a high standard of care, good governance and safe practice. There is a multidisciplinary Excellence and Governance Committee where each week cases are reviewed to learn lessons and amend practice. The practice educators have designed reflective practice tools that are used by all staff involved in any error, incident or near miss. There is also a robust clinical audit programme.

Midwifery-led care

There are several models of midwifery-led care on offer to women and there is strong co -operation between consultant obstetricians and midwives. Referral pathways between models of care are agreed and written. There are plans to establish further caseload teams for both low and high risk care to improve continuity of care and partnership working with women.

Early warning obstetric scoring system

This system was developed by the midwife practice educator in collaboration with other key staff and has been successfully implemented. The system aims to improve detection of a woman's deteriorating clinical condition and establish the appropriate management of complications.

Examination of newborn

A hundred midwives are now trained to examine/screen babies before discharge, providing a seamless service for mothers and enabling timely transfer home.

Maternity Service Liaison Committee (MSLC)

There is an active MSLC that meets regularly. Focus group approaches have been used to obtain a consumer perspective on service reviews and change.

Water birth service

Midwives in the unit are trained and competent in providing this choice of birth to women.

South Eastern Health & Social Care Trust

This Trust also cites leadership and senior management support as vital in the change management process. The Director of Nursing and senior management team ensure that maternity services maintains a voice at mainstream meetings. Midwifery managers are seen as highly motivated and have invested time and effort in team building to support midwives. Collaboration and good working relations with the wider obstetric team are seen as important as was the inclusion of the whole team when planning future services

Practice development midwifery post

This post was established to support the change agenda by identification of best practice and taking the lead in service change. The midwife's role is to develop and improve multi-professional training, collaboration, co-operation and mutual respect.

Service changes include:

- Improved services for mothers with family loss
- Developing midwifery led clinics
- Undertaking multi professional audits
- Complementary therapy clinic.

Governance systems have also been strengthened by the introduction of risk management strategies, creating a no-blame culture, developing evidence based protocols and establishing several multi-professional forums. These include:

- Monthly CTG review meetings
- Teaching sessions
- Audit group
- Perinatal review meetings
- Skills training followed by debriefing sessions

Southern Health & Social Care Trust

The Trust is engaged in major change and development of its maternity services. There is a particular focus on reviewing the current skill mix and further development of their midwifery led services is being undertaken.

Skill mix

The role of nursing auxiliaries has been reviewed and the Trust is currently training 10 existing nursing Auxiliaries as Maternity Support Workers. Their role will be to support the role of the midwife in antenatal clinics, community settings, postnatal ward and the delivery suite. The possibility of developing maternity support workers to "scrub" in theatre is also being explored.

Midwifery led care

In 2000, the Trust established a Midwifery Led Unit (MLU) and this is now an integral part of the Maternity services. The MLU is a purpose built unit situated in the maternity unit, two floors above the delivery suite and the ante and postnatal wards. The unit consists of nine labour, delivery and postnatal care rooms.

The MLU was independently and positively reviewed in 2003. Following the review and its recommendations, plans to support the development, implementation and evaluation of midwifery led antenatal care were developed. The overarching aim of the service is to provide women-centred care.

Western Health & Social Care Trust

User involvement

Considerable work had been undertaken to improve the involvement of women in the planning, developing and audit of maternity services. This included improved systems to capture user feedback and to use this to ensure continuous service improvement. The dynamic, user-led Maternity Services Liaison Committee has a wide overview of strategic developments and is representative of issues facing local women.

Improving antenatal care

The Trust has reviewed the provision of antenatal care in both hospital and community settings and has identified areas for improvement and developed action and audit plans.
Improving access to ante natal care
Midwifery led clinics have been developed

Developing a maternal and fetal assessment unit (MAFAU)

The unit has been developed to reduce inappropriate antenatal admissions to hospital during pregnancy.

Introducing peer support for breastfeeding mothers

A peer support model was established to increase the initiation and maintenance of breastfeeding in two localities that had a traditionally low uptake of breastfeeding.

Developing antenatal yoga and aqua classes

Services have been developed to provide a wider choice of antenatal preparation sessions to women. Both the yoga and aqua natal classes are seen as a positive approach to exercise, health and wellbeing of mothers and babies.