Gladstone Hospital maternity service

Office of the HEALTH OMBUDSMAN

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Gladstone Hospital

13. Facility

13.1 Facility overview

Gladstone Hospital opened its doors in March 1890[72], extending the main building in 1934.[73] It is the second largest facility in the Central Queensland catchment, with 79 overnight patient beds. It will undergo a major redevelopment throughout 2019 and 2020 when a new $42 million emergency department is completed.

The Family Unit, which incorporates both maternity and paediatrics, has a total of 14 postnatal and gynaecological beds, nine paediatric beds, and four birth suites. A four-cot neonatal nursery was opened on 27April 2019, and accommodates babies who are clinically stable but need additional support between 35 and 37 weeks gestation or are awaiting transfer to a higher level service. The nursery will also enable babies that need to be transferred to Rockhampton or Brisbane for care to be stepped down to Gladstone Hospital faster, limiting the amount of time that families have to spend away from home. In January 2019, works began on a $1.25 million upgrade to the Family Unit, including the installation of ensuites for each birth suite. In 2018, there were 560 births at Gladstone Hospital.[74] This represents the largest number of births at a Level 3 public maternity service in Queensland.

The maternity and neonatal services at Gladstone Hospital have been assessed by CQHHS as a CSCF Level 3 service.[75] This is one of three Level 3 maternity services across CQHHS. According to the CSCF modules for maternity and neonatal care, a Level 3 service is expected to provide:

- planned birthing of babies at 37 weeks gestational age where there are no identified risk factors
- antenatal and intrapartum care for women with low risk pregnancies
- step-down service for physiologically stable postnatal mothers and babies from 35 weeks gestational age, or care of infants less than 35 weeks provided in consultation with a higher level service
- planned Caesarean sections from 39 weeks gestation or emergency Caesarean sections. A classification system must be used for determining service capability to perform Caesarean sections and outcomes should be audited against the classification system
- timely access 24 hours per day to at least two medical practitioners with credentials in either obstetrics or anaesthetics, an anaesthetic assistant, a registered midwife, and a clinician solely dedicated to neonatal resuscitation.[76]

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[72] Gladstone Regional Art Gallery & Museum
[73] http://gragm.qld.gov.au/media/1017/waves-of-settlement-1901-1939.pdf
[74] https://data.qld.gov.au/dataset/births-by-hospital/resource/7af8f98e-4f43-496b-b540-efa21bbe5e48
[75] https://www.health.qld.gov.au/__data/assets/pdf_file/0028/444619/cscf-selfassess-sum-centralqld.pdf
[76] CSCF, Maternity Services, Module Overview, version 3.2 and CSCF, Neonatal Services, Module Overview, version 3.2.

13.2 Benchmarking Gladstone Hospital's performance

When benchmarked against its peer Level 3 maternity services, Gladstone Hospital consistently performed within the expected ranges for a variety of maternity indicators and in some cases exceeded the benchmarks for a Level 3 service, indicating its overall safety. The data from the WHA benchmarking report for 2016-17 shows:

- 39.2 per cent of women were giving birth for the first time
- 8.3 per cent of women were over the age of 35 when giving birth, compared to 17.64 per cent of women in the peer facilities (this same trend applied to women giving birth over 40 years of age)
- 2.5 per cent of women had a BMI in excess of 40 at 20 weeks gestation, compared with 3.37 per cent across Level 3 to 5 facilities
- 52.2 per cent of women had an unassisted vaginal birth after the spontaneous onset of labour versus 29.26 per cent of women in peer facilities
- 7.6 per cent of selected primipara women had an epidural, compared with 36.10 per cent of women in Level 3 to 5 peers hospitals
- 1.7 per cent of women who gave birth vaginally had a third or fourth degree tear, compared to 3.39 per cent in peer facilities
- 1.8 per cent of babies had an APGAR score of six or less at five minutes which is comparable with peer Level 3 to 5 hospitals where the rate is 1.87 per cent.

In addition to the above, Queensland Health provided CQHHS with a report outlining a '*high-level summary of patient safety and quality performance measures relating to maternal care at Gladstone Hospital*'. Some highlights of this report include:

- between September 2015 and March 2018, Gladstone Hospital had three VLAD flags at upper level 2 and 3, demonstrating that they had better outcomes than the state average
- between 1 January 2016 and 11 June 2018, Gladstone Hospital only had one extreme consumer complaint—this related to a neonatal death
- in 2017 there were no SAC 1 incidents in the maternity service at Gladstone Hospital.

13.3 Gladstone Hospital committee structure

Gladstone Hospital and the maternity service have two levels of safety and quality committees that are responsible for overseeing incident management, responses to complaints and trend analysis to support continuous improvement. Additionally, there is a leadership meeting that also considers complaints and clinical incidents. This meeting was implemented to ensure that leadership remained up-to-date and agile when managing complaints and incidents. Figure 5 shows the Gladstone Hospital committee structure and how it feeds into the overall safety and quality governance structure of CQHHS.

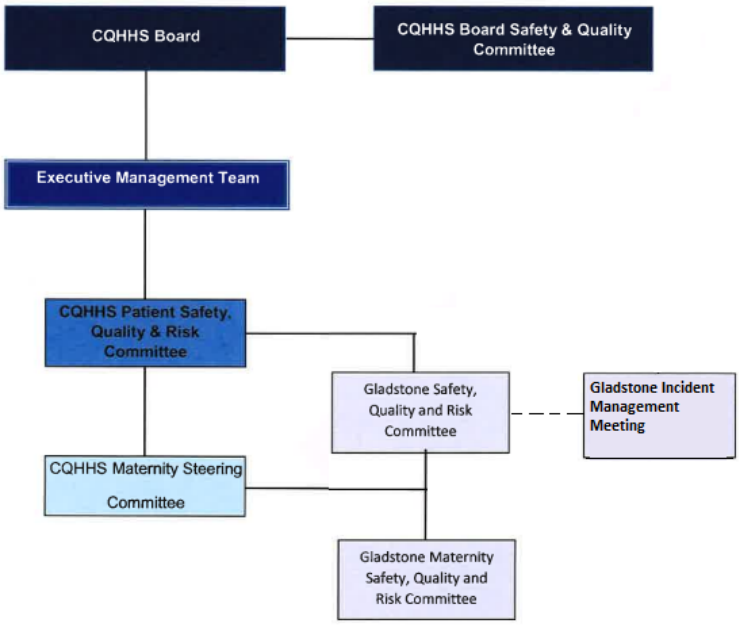

Figure 6 Gladstone Hospital maternity committee structure

A summary of each of these committees and meetings is as follows:

- **Gladstone Safety, Quality and Risk Committee**: This committee meets monthly and is managed by the Gladstone and Banana Business Unit, who are responsible for the oversight of serious clinical incidents. The committee reviews safety and quality issues from service lines across the hospital. Two of the key responsibilities of the committee are: to monitor the progress and outcomes of corrective action plans, and monitor reports on safety and quality indicators.
- **Gladstone Maternity Safety, Quality and Risk Committee**: This committee meets monthly and is chaired by the Midwifery Unit Manager. The committee discusses topics such as governance systems, risk register, audit outcomes, mandatory education tracking, and complaints and compliments. It is also the peak avenue for the maternity service to reflect on patient safety matters.
- **Gladstone Incident Management Meeting (GIMM)**: The GIMM meeting, modelled off the GOAT meeting in Rockhampton, is held weekly and attended by five members of the Gladstone Senior Leadership Team, including the Executive Director, Gladstone Hospital and directors from medical services, nursing and patient safety. The meeting was introduced to provide senior leadership with increased oversight of corrective actions and closure of recommendations. The purpose of the meeting is for the leadership team to review and monitor all complaints (both from consumers and third parties such as this office), monitor the progress of recommendations from implementation to closure, including endorsing the evidence provided to support recommendation closures, ensure that the open disclosure process is being completed, and escalate any relevant learnings to the Gladstone and Banana Safety, Quality and Risk Committee.

14. Maternity service reviews

14.1 Internal review

Between September 2017 and January 2018, the CQHHS undertook an internal review of the Gladstone Hospital maternity service. The review included executive interviews, midwifery and medical focus groups, consumer feedback, one-on-one interviews, a chart audit of 45 records (representing 8 per cent of births per year), and a review of clinical incident data. The review was undertaken as part of CQHHS' commitment to reviewing all of its maternity services to establish the baseline of the safety and quality of the services across the catchment facilities.

The review concluded that overall the standard of maternity care being provided at Gladstone Hospital was comprehensive and within the scope of a Level 3 service; however, there was significant room for refinement. The review identified three key areas for improvement:

- culture, workforce and team working
- governance
- clinical practice.

The review made 17 recommendations, which were approved by the CQHHS Board.

CQHHS advised that 16 of 17 recommendations were fully implemented, with the final recommendation due to be implemented by 30 September 2018. During the on-site stakeholder visit in October 2018, staff from the office were not satisfied that the implementation of the review recommendations was robust, with many recommendations only having been implemented two to four weeks before the visit. Concerns about the appropriateness of the maternity service's response to the internal review will be discussed in section 16.6.2 below.

14.2 Gap analysis

With the release of the office's report, *Gold Coast University Hospital's response to adverse maternity events*, in March 2018, CQHHS decided to proactively undertake a gap analysis between the Gladstone maternity service and the issues and recommendations made in the report. Gladstone Hospital reviewed its processes, policies and procedures, identifying that there were some gaps, particularly in relation to the safety and quality governance processes in place in the maternity service. There were measures to address the gaps but these were only in the planning or early phases of implementation and have not yet been embedded within the maternity service. The office was provided with a copy of the gap analysis and supporting evidence and considers that there is a need for ongoing improvement and refinement of the Gladstone maternity service's processes, which will be discussed in the context of the issues in section 16.6 below.

15. Complaints to the office

Between April 2016 and November 2017, the office commenced four investigations in relation to individual complaints about the Gladstone Hospital maternity service. Additionally, the office has received a further three complaints about the maternity service at Gladstone Hospital between June 2015 and December 2018.[77] These complaints have taken various pathways through the office's jurisdiction as outlined in Table 2 below. The main issue identified across the complaints was professional performance.

Table 2 Gladstone Hospital complaint outcomes

Outcome type	Number of outcomes[78]
No further action after assessment	1
Referral to another government entity	1
Complaint withdrawn	1

It should be noted that the total number of complaints about the maternity service is statistically insignificant when compared to the approximately 2,229 births occurring at Gladstone Hospital between 2015 and 2018.

16. Issues affecting maternity services at Gladstone Hospital

The following sections provide a detailed analysis of the issues investigated by the office. The sections include recommendations for change so that the quality, safety and reliability of, and public confidence in, maternity services at Gladstone Hospital can continuously build into the future.

16.1 Risk and escalation

Since 2016, there have been trends across clinical incidents of all SAC levels suggesting that risk is not managed and/or escalated well within the Gladstone Hospital maternity service in three key areas:

- assessment and reassessment using the initial midwifery assessment tool (IMA)
- clinical advice provided to women who contact the service by telephone, often when in labour
- management of the roles and responsibilities during an emergency.

[77] The total number of complaints does not include complaints which are still pending an outcome.

[78] There may be multiple outcomes for a complaint as it progresses through the office's jurisdiction.

16.1.1 Risk assessment and reassessment

Risk assessing and reassessing is a fluid task that needs to occur throughout a woman's pregnancy. Practitioners' cognitive biases[79] can lead them to confirm that a woman's pregnancy is low risk even when confronted with clinical information to the contrary.[80] Risk is made more difficult to assess when a patient's care is transferred to the hospital late in pregnancy or when the patient presents late. However, this makes fulsome and appropriate completion of the IMA more vital. The following case study demonstrates this situation:

Case study of Patient C

Patient C was a 31 year old woman with one previous confirmed pregnancy and live birth. Between September and December 2015 her care was provided by Gold Coast University Hospital. Patient C's early pregnancy was unremarkable.

In late December 2015, Patient C relocated to Gladstone and had her first appointment with the maternity service on 12 January 2016. She was 37 weeks gestation. Patient C's clinical records contain no evidence of an initial risk assessment being completed at this appointment nor was her risk category established and/or evaluated.

Patient C presented further on 9 February 2016, at 41 weeks gestation, and again there was no evaluation of her risk status. The following day Patient C presented in labour and subsequently gave birth to a live baby, who died a few hours later due to sepsis. Patient C's baby was the subject of a coronial inquest, the findings of which note that Patient C was not appropriate for a low risk model of care. The findings also noted that a more comprehensive assessment of Patient C's condition should have occurred on 9 February 2016, in response to her changing condition and risk status.

While the procedure requires the IMA to be completed at the first hospital visit, it is not explicit in relation to its application to patients whose care is transferred to the hospital during the pregnancy, particularly late stage transfers. This is an area where the procedure can be further refined to ensure that it captures the types of scenarios as occurred with Patient C.

Recommendation 1

I recommend that:

1. Within 30 days, the CQHHS *Maternity Risk Assessment Tool (Initial Midwife Assessment)* procedure be updated to explicitly require an initial midwifery assessment tool be completed for all women transferring into the service.

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[79] '*Cognitive biases, also known as 'heuristics', are cognitive short cuts used to aid our decision-making. A heuristic can be thought of as a cognitive 'rule of thumb' or cognitive guideline that one subconsciously applies to a complex situation to make decision-making easier and more efficient.*' Source: Sullivan et al, *Cognitive bias in clinical medicine*, Journal of the Royal College of Physicians of Edinburgh, September 2018.

[80] Sullivan et al, *Cognitive bias in clinical medicine*, Journal of the Royal College of Physicians of Edinburgh, September 2018.

16.1.2 Telephone advice

Too often across 2017 and 2018, women called the maternity service and were provided inappropriate clinical advice, which resulted in significant clinical outcomes and near misses. This is an issue that has been recurring since 2016. The following case study highlights the concerns.

Case study of Patient C

Patient C was scheduled to be induced on 11 February 2016, however, at the antenatal clinic appointment on 9 February 2016 it was clear from the CTG that she was in the early stages of labour with contractions occurring one in every 7.5 to 10 minutes. Patient C was assessed by an obstetrician and her management plan remained unchanged.

On 10 February 2016, at around 22:05, Patient C contacted the maternity service by telephone seeking advice about whether she should attend the hospital. The midwife advised her to '*stay @ home until unable to do so*', despite Patient C living some 20 to 30 minutes away from the hospital and giving birth for the second time, which is generally quicker.

By approximately 22:15, Patient C woke her husband and asked him to take her to the hospital. She arrived at around 23:00, her waters broke on the way to the maternity unit and while in the elevator up to the unit she felt the urge to push; this was at approximately 23:15. By 23:20 Patient C was on the ward and Baby M was born at 23:31.

The coroner's findings note that Patient C should not have been sent home on 9 February 2016, particularly given the distance she lived from the hospital, and when she contacted on 10 February 2016 she should have been advised to attend the hospital immediately. Patient C's birth was rushed and precipitous, which potentially could have been avoided if appropriate telephone advice had been offered.

The above issue with Patient C's care has continued in the maternity service. Incident reporting provided by CQHHS showed that there were four clinical incidents occurring between March 2017 and October 2018, all of which had a common thread in relation to the provision of inappropriate clinical advice when telephone enquiries were made with the maternity service and/or a failure to complete telephone enquiry documentation. These incidents ranged from SAC 1 to SAC 4. It is important to note that this only captures cases where an incident was recorded in Riskman.[81] However, during the internal review there were further incidences of inappropriate telephone advice being provided that were not categorised as incidents and as such are not captured in the reporting.

The following is brief outline of each of the four incidents identified in the internal review:

- In March 2017, a patient contacted the maternity service seeking to attend and travel to Rockhampton Hospital to give birth—this had been her management plan throughout the pregnancy. The patient's request to attend was ignored and by the time she attended Gladstone Hospital her labour was too established to enable a transfer.

[81] Riskman is an electronic risk management system that is used by Queensland hospital and health services to record and manage all incidents, complaints and quality improvement.

- In August 2018, a patient was contacted by text message in relation to her concerns about reduced fetal movement. She contacted the maternity service again on the same day to discuss her concerns further, specifically that she had abdominal pain and nausea. The telephone enquiry form notes that the patient was advised '*possible ligament pain...apply heatpack [sic], analgesia and rest. Notify if persists*'. The patient presented the following day for a routine antenatal appointment and it was identified that there was an intrauterine fetal death.
- In September 2018, a patient contacted the maternity service seeking advice on whether she had a spontaneous rupture of membranes (SROM).[82] The patient was offered the opportunity to attend the hospital but declined and it was agreed that she would attend in the morning for review. The telephone enquiry form was not appropriately completed as it only captured the plan for the patient to attend in '*the AM*'; there was no notation of her being offered the option of attending immediately. Further, there was no IMA available to assist with the clinical decision-making on what advice to provide the patient in relation to her attendance and/or potential urgency of her condition.
- In October 2018, a patient contacted the maternity service after a SROM and was advised to stay home until she had regular, painful contractions. Two hours after that advice the patient birthed in the Gladstone Hospital emergency department.

The potential significance of this trend was acknowledged by the senior leadership of the maternity service and rectification measures are being trialled to try to minimise the incidents recurring. These measures include:

- reviewing and refining the telephone enquiry form and procedure
- training staff in the maternity phone enquiry service and completion of the form in May 2017
- daily reviewing of the previous night's telephone enquiry forms by the midwifery unit manager and/or clinical midwifery consultant. Any identified concerns are addressed clinically with appropriate follow-up with the patient and through a performance discussion with the relevant staff member. This was implemented from 3 October 2018
- daily peer reviewing of the telephone enquiry forms from the previous day at the morning handover, which is attended by the midwifery unit manager and clinical midwifery consultant. This was endorsed by the Gladstone and Banana Safety, Quality and Risk Committee on 15 October 2018.

While the measures implemented to date are a positive step in addressing the issues with the appropriateness of the telephone advice, I remain concerned about the capacity for the maternity service to completely address the root cause of this issue, which appears to stem from the clinical ethos around risk. I consider that the above incidents were sufficiently far apart to enable the measures that were implemented to start to address clinical behaviours to limit the possible recurrence of the incidents. However, from the available evidence, it appears that no appreciable change in approach occurred. These incidents are indicative of problems with the safety culture of the Gladstone Hospital maternity

[82] The spontaneous rupture of membranes occurs during a pregnancy when the amniotic sac is ruptured, spontaneously, at full term either at the beginning or during labour.

service in robustly responding to and modifying their approach to continuous and ongoing concerns. This will be explored in sections 16.5 and 16.6 below.

In relation to the specific issues with the telephone enquiry service, I am of the view that the measures recently implemented will require time to be embedded before they can be evaluated for their effectiveness.

Recommendation 2

To support the above embedding process I recommend that:

2. In relation to the telephone enquiry service the Gladstone Hospital maternity service must:
    a. within 30 days make it mandatory to record in Riskman all instances where there has been some type of corrective action needed to be taken in response to telephone advice, including follow-up care needing to be provided to the woman, and/or discussions with individual staff members, whether formal or informal, about the appropriateness of the advice provided. This incident recording is to occur regardless of any other clinical outcomes.
    b. within three months:
        i. review all incidents of any SAC classification level for the period 1 January 2016 to 30 October 2018 where a telephone enquiry encounter was part of the care
        ii. prepare a report to the CQHHS Safety and Quality Committee on the outcome of the review, including a summary of each incident and any deficiencies with the telephone enquiry advice provided
        iii. develop a coordinated action plan, for endorsement by the CQHHS Safety and Quality Committee, to address the identified key issues and root causes for the repeated concerns with the telephone enquiry service. This action plan may include measures that have already been implemented.
    c. provide the CQHHS Safety and Quality Committee with a quarterly report covering:
        i. any incidents of any SAC classification level that involve the telephone enquiry service
        ii. a status update from the midwifery unit manager on the number of occasions within the quarter on which she has had to either provide follow-up care after reviewing a telephone enquiry advice and/or have a formal or informal performance discussion with a midwife about the telephone enquiry advice provided.

    The first quarter of reporting should commence within 30 days of endorsement of the action plan referred to in recommendation 2b. This reporting must continue for four quarters. Any ongoing issues with the telephone enquiry service should be addressed through the standard safety and quality escalation pathways.

16.1.3 Roles during an emergency

Clarity in roles and responsibilities during an emergency situation is important as it ensures that the emergency is managed appropriately and the opportunities for misunderstandings or missed communication are minimised. Evidence given by Gladstone Hospital maternity staff during the coronial inquest in August 2018 suggested that this has historically been an issue for the Gladstone Hospital maternity service, in part due to the limited number of emergencies encountered meaning that processes were not well established. The following case study provides an example of this issue:

Case study of Patient C

Following the birth of Patient C's baby on 10 February 2016, there was an emergency situation during which Baby M required resuscitation and management of sepsis. At or around 23:34, resuscitation was commenced on Baby M, present was a midwife and obstetric registrar. The midwife requested that the enrolled nurse on duty contact the paediatricians and ask them to attend the neonatal resuscitation. This was not in compliance with the Code Blue procedure in place at that time. The first paediatrician arrived at the hospital at 23:36. At 00:05 the nurse unit manager, clinical nurse consultant and second paediatrician attended on the maternity ward. The clinicians present were trying to manage Baby M's presenting condition.

Baby M went into cardiac arrest at 03:30 and a MET call was initiated. CPR was continued until 04:36, during this time a discussion was had with Patient C and her husband at 03:55 seeking their permission to cease the CPR. Baby M was declared deceased at 04:55.

During the course of the emergency no one assumed the role of team leader meaning that there was poor communication between clinicians, no overarching coordination of care, and limited, clear communication with the family. This was confirmed during the paediatricians' evidence at the coronial inquest, in which they both commented that there was no team leader or team coordination. This led to confusion around a number of key elements of Baby M's care, the most significant of which was a failed administration of antibiotics which was charted to be given at 01:25 but was not administered. The coronial inquest considered this issue in some detail and while it was concluded it may not have altered the outcome for Baby M, it remained unclear, even after oral evidence, whether the order for antibiotics was ever communicated to the midwifery and nursing staff and if so whose responsibility it was to ensure that the antibiotics were administered.

The lack of a team leader also impacted on the communication with Baby M's family. Specifically, during the coronial inquest Patient C commented in her evidence that at no time did staff make the gravity of the situation with Baby M clear to her. In fact, her husband left the hospital and had to be called back. He never would have left if either of them had understood how dire the situation was and that Baby M's condition was life threatening. Further, when they were discussing cessation of the CPR at around 03:55 neither Patient C nor her husband understood that Baby M would immediately die once CPR was stopped. The lack of clear and direct communication was troubling.

Without there being a coordination point and clear delineation in roles, the provision of care, while being of a satisfactory standard for a Level 3 facility, was hampered. Since this incident measures have been implemented to improve the coordination of emergency situations, including:

- revising the *Code Blue – Medical Emergency (Gladstone Hospital)* procedure, which establishes the team leader role and responsibilities

- the Recognition and Response to the Clinical Deterioration Committee, Banana and Gladstone, reviewing performance data relating to all code blues, ensuring that there is a minimum of one MET call drill in each ward area per month
- allocating a midwife as the team leader for obstetric emergencies and setting the roles for the first three midwives who enter the room as: medications, emergency buzzer, and register/scribe. This was initially utilised in response to post-partum haemorrhage emergencies but has now been broadened to apply across the maternity service since August 2018.

The incident with Patient C and Baby M was complex and would have represented a challenge for a tertiary facility. Nevertheless, the learnings resulting from the incident need to be embedded into the practices of the maternity service. Consequently, I would encourage the Gladstone Hospital maternity service to continue with the above efforts and ensure that neonatal emergencies are consistently drilled via mock scenarios and multidisciplinary training to promote a collaborative and cohesive response to emergencies when they arise.

16.2 Emergency and maternity liaison

The Gladstone Hospital emergency and maternity departments had a small, but consistent number of serious clinical incidents in 2017, which suggested that pregnant women were not being managed well between these departments. The following case study illustrates the concerns with the liaison and established processes between emergency and maternity:

Case study of Patient D

Patient D was a 28 year old woman with six previous confirmed pregnancies, three births and three terminations. She was 34 weeks pregnant. In May 2017 at around 10:00, Patient D was referred to the Gladstone Hospital emergency department by her GP due to consistent vomiting for the past two weeks, loss of appetite and painful urination.

Patient D was reviewed by a senior medical officer who prepared a treatment plan and recommended that Patient D be admitted for further tests. At around 13:50, Patient D discharged herself against medical advice. It is documented in the clinical records that Patient D and her carer were aware of the risks to herself and her baby on discharging before all clinical investigations were complete. Nowhere in the clinical records is it documented what specific risks were discussed with Patient D or whether the risks of pre-eclampsia were ever identified and discussed

Prior to leaving the hospital Patient D underwent an ultrasound. Even without the ultrasound results, Patient D's clinical presentation suggested that she had pre-eclampsia and should have been admitted immediately. The emergency nature of her presentation did not appear to be appreciated by the emergency department clinicians managing her care.

Patient D explained during the office's investigation that she was not in a position to be admitted as she was being supported by an OzCare worker who was only rostered on until 16:30. This meant she needed to leave the hospital to make appropriate care arrangements for her family after which she always intended on returning to the hospital. Patient D stated to the office that she overheard the senior medical officer advise the triage nurse that she was to be admitted when she re-presented to the emergency department; no note was made of this advice but the majority of clinical records in this case were input retrospectively by the emergency department clinician.

Case study of Patient D

At 16:00, Patient D attended the hospital to obtain her ultrasound results. Patient D expected to be admitted given her attendance only two hours earlier, but she was triaged as a category 5, requiring her to be seen within 120 minutes; in triaging Patient D no reference was made to her previous attendance or discharge against medical advice. After two hours of waiting Patient D chose to leave the hospital and return in the morning. This was a missed opportunity to manage Patient D's presenting condition and admit her as was the recommended course earlier in the day.

At no point during Patient D's attendance in the emergency department were any fetal assessments undertaken or documented nor was any member of the midwifery or obstetric team contacted to discuss her presenting condition and clinical history. Further, no contacts were made with more senior clinicians in Brisbane to assist with an appropriate management plan.

The following day a medical officer from the emergency department tried to contact Patient D on several occasions to discuss the abnormal ultrasound results. There is no evidence to suggest that these results were discussed with obstetric staff so as to flag to them that there may be a possible emergency situation. At 16:27, Patient D was brought by the Queensland Ambulance Service (QAS) to Gladstone Hospital and taken directly to the maternity unit. A category 1 Caesarean section was called and at 17:16 a male neonate was born with APGAR scores of 0 at 1, 5 and 10 minutes. The neonate was transported to Townsville Hospital for management; he died in June 2017.

The above case study is an example of missed opportunities throughout a patient's care; although the outcome may not have been preventable. Patient D's case did not appear to impact the clinical approach to pregnant women in the emergency department. Three months on from Patient D's case there was a further major failed obstetric management case, as the below case study demonstrates.

Case Study of Patient E

Patient E was a 22 year old Indigenous woman with a confirmed pregnancy at 6 weeks gestation. In August 2017, at around 18:20, QAS brought Patient E to the Gladstone Hospital emergency department for severe abdominal pain. Patient E was triaged as a category 3, requiring her to be seen within 30 minutes.

Patient E was reviewed by a medical officer. Patient E described generalised abdominal pain and extreme pressure in her vaginal area but there was no bleeding. She also had shoulder pain. Patient E admitted to cannabis use earlier in the day.

The medical officer considered whether Patient E may have an ectopic pregnancy[83] but ruled out this differential diagnosis largely due to a lack of vaginal bleeding, despite Patient E having a history of a week of vaginal bleeding for which she had blood tests three days prior to this presentation. The standard diagnostic management for an ectopic pregnancy would have been an ultrasound but as it was afterhours there was no ultrasound service available at Gladstone Hospital and her condition

[83] An ectopic pregnancy is a pregnancy that develops outside the uterus, usually in one of the fallopian tubes. In almost all cases, the embryo dies. In around 15 per cent of cases, the tube ruptures, causing pain, internal bleeding and shock, which is a medical emergency. Symptoms can include abdominal pain and vaginal bleeding but fewer than 50 per cent of women present with both symptoms; pain may also spread to the shoulder if bleeding into the abdomen has or is occurring. The main diagnostic methods for identifying an ectopic pregnancy include, pelvic examination, blood tests, ultrasound, or laparoscopic surgery.

Case Study of Patient E

was not considered serious enough to warrant calling the ultrasound technician for after-hours assistance.

The medical officer discussed Patient E's condition with a senior medical officer and it was agreed that she should be discharged home to sleep as she was likely suffering from cannabis intoxication. The plan was for Patient E to return in the morning for an ultrasound. At no point during Patient E's admission was any member of the midwifery or obstetric team contacted to discuss her presenting condition and clinical history nor were any contacts made with more senior clinicians in Brisbane to assist with refining the differential diagnoses in this case.

Patient E was discharged home at 22:15. The following day, Patient E's family members contacted Gladstone Hospital to advise that she had been found deceased. Patient E died due to a ruptured right fallopian tubal ectopic pregnancy. The Coroner relevantly commented that '*it is uncommon in this modern day and age for a ruptured ectopic pregnancy to prove fatal*'.

Patient E's death was likely preventable and is inexcusable in a major developed country, such as Australia, in 2017. It was apparent to staff during the visit in October 2018 that the incident had a significant impact on the emergency department and their approach to managing obstetric patients such that an incident like Patient E's should not occur again.

Some of the major improvements that have occurred in the emergency department and maternity service include:

- Introduction of the CQHHS *Triage of Maternity Patients in the Emergency Department* procedure (Obstetric Triage procedure). This procedure makes it explicit that when a woman is pregnant but the location of the pregnancy has not been established and she presents with any abdominal or pelvic symptoms then she is to have a pelvic ultrasound and full obstetric review prior to any discharge. This procedure also makes an obstetric review and management plan a standard part of emergency care, once the woman is clinically stable. Staff were advised during the visit that even if a pregnant woman was to attend the emergency department for a sprained ankle, once it is appropriately treated and managed, a nurse or midwife will perform a Doppler ultrasound scan to check fetal wellbeing and the woman will have a CTG.
- Engagement of part-time rotational fellows of the Australian College of Emergency Medicine from Brisbane. These staff are available onsite and via telehealth to provide advice and expertise to more junior officers in the emergency department. Over time the emergency department will move to a more specialist-led model of care rather than relying on senior medical officers and locums.
- Mock scenarios and multidisciplinary training between emergency and maternity. In a recent Practical Obstetric Multi-Professional Training (PROMPT) scenario, staff managed an imminent birth from the emergency department through to the maternity service. Obstetric topics also form part of the curriculum covered in weekly medical training in the emergency department.
- A midwifery review of the Emergency Department Information System (EDIS) report daily between Monday and Friday. Each day the midwifery unit manager, clinical midwifery consultant and/or antenatal clinic staff get a copy of the EDIS report, which includes any women who presented to the emergency department and were flagged as "preg/gest" or had a referral to the Early Pregnancy

Assessment Service (EPAS). The senior midwifery clinicians are looking to see whether there were any women who may be pregnant that are unknown to them or whether there are any clinical concerns that require follow-up. This review is a safety net and has proven a positive proactive step in managing pregnant women in Gladstone. For example, staff commented during the stakeholder visit that through this report they were able to identify a young Indigenous woman who was 31 weeks gestation and had attended no antenatal visits. The midwifery unit manager contacted the woman and connected her with the Gumma Gundoo health service, running out of the Woorabinda, to assist her with getting antenatal care.

In addition to the above, the Gladstone Hospital emergency department explored the possibility of a 24 hour radiology service. However, this service was unable to be staffed due to the limitations of their rural location, and may have jeopardised the current radiology services being provided. To address the afterhours gap, two obstetric and gynaecological staff are accredited to perform ultrasounds so if a scan is required then they will be contacted by the emergency department to perform the scan and will make the decision regarding discharging the patient.

During the site visit staff from this office observed the energy and passion that the emergency department clinicians had for securing safe and high quality care for their patients; the improvements implemented to date are an example of their commitment to quality improvement. While the implemented measures would address most of the issues identified in the cases of Patient's C and D there still appears to be one area for improvement: the triaging of patients who re-present after discharging against medical advice. I acknowledge that this is going to be a very small subset of the overall patient cohort being seen in the emergency department, and the Obstetric Triage procedure should address the type of situation that was encountered with Patient D, but given the possible severity of the outcomes further redundancies should be built into the system.

In Patient D's case she re-presented to the emergency department within two hours of discharging herself and while this appeared to be for a different purpose than her original presentation i.e. the collection of results versus referral from the GP for investigation of ongoing symptoms, the passage of two hours was unlikely sufficient to have changed the proposed plan to admit her. Patient D's triage category appears inappropriate given her earlier presentation and it should not be incumbent on a patient to be able to relay all of the necessary clinical history to a triage nurse to ensure that their previous attendances in a day are properly accounted for in the triage assessment. Patient D's clinical record or entry in EDIS should have had a flag or alert noting that if she re-presented to the hospital then her care should be escalated to a medical officer for discussion prior to assigning a triage category. The fact that Patient D re-presented to the emergency department was significant, as it was in line with what she advised medical staff she would do when she discharged herself, however, the system let her down by not properly flagging her when she returned to the hospital.

Recommendation 3

To address the above gap I recommend:

3. Within three months the Gladstone Hospital emergency department:

Recommendation 3

a. establishes a mandatory process for placing an alert on a women's file where they are pregnant or potentially pregnant and have:
   i. self-discharged against medical advice
   ii. not waited to see a clinician
   iii. left after treatment commenced.

b. establishes a KPI benchmark for compliance, audit schedule and review process for the mandatory alert outlined in 3a above that reports quarterly to the Quality and Safety Committee in relation to:
   i. all incidents relating to the care and management of pregnant or potentially pregnant women in the emergency department
   ii. compliance rates with the policies and processes related to the care and management of pregnancy or potential pregnancy related presentations to the emergency department.

   Any adverse issues or trends identified in relation to the care and management of pregnancy related presentations in the emergency department are to be escalated to the CQHHS Safety and Quality Committee and CQHHS Board in accordance with the existing governance framework.

16.3 Models of care

The Gladstone Hospital maternity service offers the following models of care:

- public hospital care and public hospital high-risk care
- MGP
- team midwifery
- shared care
- remote area maternity care for Aboriginal and Torres Strait Islanders.

The below discussion will focus on the MGP model.

16.3.1 Midwifery Group Practice

The all-risk caseload MGP model has been operating in Gladstone for two to three years. There are five midwives with a full-time midwife undertaking between 35 and 40 births per year.

As part of the on-site stakeholder visit in October 2018, staff met with members of the MGP and were advised that the model of care works as follows:

- the midwives work independently of each other, with a second midwife to provide back-up if required

  - they are on-call Monday to Friday and two midwives are on-call on Saturdays and Sundays
- women must be referred by their GP to the MGP model
- all of the midwives work with the senior obstetrician in the maternity service
- there are weekly case conferences between the midwives and the obstetrician at which the woman's chart is reviewed and any issues are discussed; it may be decided at this meeting that women need to be removed from MGP if their risk status requires a different model of care
- they have monthly 'meet and greets' so that the MGP team can be introduced to as many women who are booked into the service as possible, which is beneficial if an MGP midwife has to deliver the baby in place of the primary carer.

The MGP representatives also advised that they have good relationships with the core midwives, sharing in education with core staff and contributing to service improvements. Staff from this office observed some disconnect between the MGP and broader maternity service but this was no greater than the disconnect observed between core staff and the service. These issues appear to stem from the culture of the service and will be discussed in more detail in sections 16.5 and 16.6 below.

Overall, the MGP service provided by the Gladstone Hospital maternity service is of a high quality and commensurate with the service being offered across Central Queensland. The main challenge facing this service in the future will be the growing demand and ability to keep pace with recruitment, particularly as many midwives do not apply for MGP roles due to the sporadic nature of the hours worked and requirement to be on-call. This issue is recognised by senior leadership and will be gradually addressed through the overarching CQHHS-wide initiatives targeting skilled recruitment.

16.4 Staffing and skills mix

The Gladstone Hospital maternity service is reasonably well staffed with a good mix of experienced and more junior nurses, midwives and medical staff. In the 2017–18 financial year the staffing hours consistently exceeded the hours required per patient day.

16.4.1 Midwifery staffing

At the time of Patient C's care in 2016 staff attributed the incident in part to insufficient staffing levels to meet the needs of the maternity service; however, neither the coronial findings nor the documentation provided to this office substantiates those claims. Regardless, since that time the midwifery staffing hours within the maternity service have increased with the introduction of a permanent clinical midwifery consultant and a midwifery educator. There has also been stability in the workforce with the appointment of a permanent midwifery unit manager in July 2017.

The Queensland Health BPF completed for the Gladstone Hospital maternity service for the 2017-18 financial year demonstrates the following safe staffing levels:

- staff ratios for the birth suite and maternity ward, where possible, are one-to-one care for a labouring woman, one-to-four care on the maternity ward during morning and afternoon shifts and one-to-seven care overnight

- 5.52 full time equivalent (FTE) staff for Birth Suite when rostering calculations only require a minimum of 3.52 FTE staff
- 8.86 staff per day for inpatient care, which is approximately three staff rostered on each shift
- 4.42 FTE paediatric nurses for the special care nursery

CQHHS advised that they will be recruiting 8.8 FTE midwives in the hospital and 2.8 midwives aligned with continuity of care models. This recruitment drive will be vital to the safety of the service due to the likely increase in demand following the closure of the private maternity service offered at the Mater Misericordiae, Gladstone on 1 October 2018.

As the numbers birthing in the service increase, the allocation of sufficient support staff will be important to ensure that the maternity service can meet both its clinical care, operational and reporting requirements, particularly the timely collection of perinatal data, which has previously been a challenge for the Gladstone Hospital maternity service. The 2017–18 BPF identified that there was only one FTE staff allocation to administrative support and this was split between maternity and paediatrics. This allocation could be considered going forward to ensure that the administrative support matches pace with the clinical workforce.

16.4.2 Medical staffing

There is still some reliance on the locum medical workforce in obstetrics and gynaecology to meet demand and the day-to-day operations of the maternity service e.g. covering planned leave. This will likely be inevitable while there remain challenges for rural locations to engage sufficient numbers of specialist clinicians. However, overall, the medical workforce is stable with allocation for:

- director, obstetrics and gynaecology who is also a consultant obstetrician
- two consultant obstetricians
- three principal house officers (four years plus postgraduate)
- one junior house officer (second year post graduate).

During the on-site stakeholder visit in October 2018, Gladstone Hospital representatives advised that they are still in the process of permanently securing a clinical director for obstetrics and gynaecology. The person undertaking this role will need to provide strong and consistent leadership across the maternity service to consolidate on Gladstone Hospital's successes and to continue the improvement journey. CQHHS should be making the bold decisions it has made in its other maternity services in relation to recruitment to ensure that recruitment is appropriate in the current context of the Gladstone Hospital maternity service.

16.5 Culture and communication

As discussed in the introduction to the issues, culture is something that an organisation has and based on discussions between the office's staff and clinicians from across the maternity service, during the on-site stakeholder visit in October 2018, it appeared that the Gladstone Hospital maternity service does not

have a cohesive culture. When compared to the on-site stakeholder visits at other CQHHS maternity services, it became apparent that the commonality of purpose was missing from the Gladstone Hospital maternity service. In saying that, staff from this office did observe a group of clinicians dedicated to, and passionate about, providing exceptional care to the women and babies of Gladstone and its surrounds.

Some work has been undertaken by the Gladstone Hospital maternity service to promote positive ways of working between clinicians, including:

- multidisciplinary team building workshops held on 18 and 19 July 2018
- provision of 'Communication and Patient Safety (CaPS)' training to all staff to assist with staff-to-patient and staff-to-staff communication
  - as at 27 September 2018, 69 per cent of staff across Gladstone Hospital had participated in the training
- providing clinical leaders with the opportunity to complete the 'Promoting Professional Accountability Programme', provided by the Cognitive Institute
  - the program is targeted at improving safety cultures
  - workshops and seminars forming part of the program were undertaken at Gladstone Hospital on 28 May 2018 and 4 September 2018.

While staff interactions are improving, the main areas where the culture appears to need development are: staff engagement with safety and quality processes and embracing change.

16.5.1 Safety and quality processes

Undertaking a structured audit program, accurately reporting on staffing through Trendcare, and participating in increased and consistent training is reasonably new for clinicians in the Gladstone Hospital maternity service. These requirements were previously ad hoc and there was less accountability if tasks were not completed. The shift in mindset required to see the value in these functions is significant, and based on this office's observations, staff are yet to fully adopt these functions as a part of standard clinical practice in a modern health system.

Several clinicians expressed their view during the on-site stakeholder visit in October 2018, that audits and reporting were onerous and took clinicians away from key clinical care duties. As noted above in section 16.4.1 in relation to staffing, the Gladstone Hospital maternity service is routinely adequately staffed, except during periods of surge activity. These functions should form part of the day-to-day activities of clinicians; this message needs to be reinforced by leadership to ensure that safety and quality processes are treated as business as usual.

16.5.2 Embracing change

This office spoke to clinicians who expressed frustration in relation to the recent implementation of some measures across the maternity service. In part, these frustrations appeared to stem from a lack of understanding as to why the measures were being implemented. They also appeared to result from staff not feeling listened to by leadership, particularly when concerns were raised about the capacity for a

Level 3 service to implement measures that had previously been implemented at a Level 4 or higher maternity service.

Leadership is inextricably linked to how well staff will embrace change as they need to participate fully in the journey. It will be important for leadership to manage expectations and engage staff given the amount of change that has occurred in the Gladstone Hospital maternity service over the last 12 months and will likely occur within the next 12 months.

I am concerned that the above issues may predominantly be a result of disconnect between leadership and staff. Therefore, I will not be making recommendations in relation to the culture of the maternity service as any issues within the culture can be appropriately addressed within the recommendation below regarding leadership.

16.6 Leadership

Since the beginning of 2016, Gladstone Hospital has been seeking to ensure that it has experienced staff in key leadership positions to stabilise the service, including the permanent appointment of the Director of Nursing and Director of Medical Services, and the introduction of a highly qualified Executive Director, Gladstone Hospital in late 2018. Furthermore, Gladstone Hospital had a full complement of permanent clinical directors across all of the services for the first time in September 2018.

I consider that the historic instability in the leadership significantly contributed to a situation where Gladstone Hospital's safety and quality processes and clinical incident management were in a state of disarray and not commensurate with the functioning of a safe and high quality health service. In relation to the maternity services, there was limited safety and quality oversight resulting in long periods where recommendations from serious incidents were not actioned. For example, in April 2018 when the Gladstone Hospital maternity service was preparing for the coronial inquest into Baby M, they reviewed all outstanding recommendations from within the maternity service arising from serious incidents. This review identified 55 SAC 1 recommendations and lessons learnt of which 29 were in various stages of implementation and 26 had not been progressed, despite years having passed since the incidents. While three of the highest level impact recommendations had been implemented in a timely manner, to have 55 recommendations outstanding from the most serious of incidents was unacceptable. Accordingly, the Gladstone Hospital executive, with substantial support from CQHHS, took on the task of ensuring that all recommendations still relevant were implemented. This was achieved by October 2018.

This was an encouraging turning point for the maternity service and the executive leadership's engagement with securing appropriate safety and quality systems, however, during the on-site stakeholder visit in October 2018 staff from this office were of the view that this task of implementing recommendations was somewhat perfunctory. While there was a voluminous body of work and effort that went into implementation of the various recommendations, the forward focus appeared unstructured in relation to how the service would safeguard against a similar situation through its safety and quality governance and what strategies it should utilise to embed the maturing safety and quality culture. This was evidenced by some inconsistencies between the safety and quality language used between the then Gladstone Hospital's executive leadership and the maternity staff.

The main concerns with the executive leadership are:

- limited role modelling of strategic direction and vision
- weak approach to safety and quality oversight.

16.6.1 Role modelling

The culture of a health service is only as good as its leadership and it is important for culture to be role modelled by all levels. During the on-site stakeholder visit in October 2018 staff from this office observed a lack of cohesion and role modelling of the safety and quality culture at Gladstone Hospital and in the maternity service. During the office's visits to other maternity sites within CQHHS, it was clear that from the executive leadership downwards there was a common safety and quality language being spoken amongst all staff; this approach was also connected with the overarching strategic vision for CQHHS. Of particular note is the consistent references to a golden thread running through safety and quality management and the triangulation of issues to inform continuous improvement. These same philosophies and approaches to safety and quality were not echoed by the leadership at Gladstone Hospital. Additionally, between the various levels of leadership there appeared to be some discordance, for example when questions were asked about how certain safety and quality committees operated or what type of approach was used to close recommendations leadership offered divergent opinions. This contributed to the overall impression that there was not a consistent approach to how the leaders interpreted and role modelled safety and quality for all staff. The impressions of the office's staff and some of the issues observed throughout the maternity service, discussed in this chapter, support the conclusion that the leadership at Gladstone Hospital and within the maternity service should focus on promoting a culture in which all staff have a broad understanding of the overarching safety and quality culture and how they contribute to it through their daily activities. While this office understands that many of these observations are known to the Gladstone Hospital maternity service, most recently having been gauged through a staff survey in June 2018, there have been significant changes that have occurred since that survey, including in the executive leadership. It would therefore be beneficial for the service to understand its current safety and quality landscape and staff perspectives. This would not only provide a baseline of the service but also an evaluative measure of the impact of the changes in the last six months.

Recommendation 4

To enable the Gladstone Hospital leadership to gauge its current safety and quality culture, leadership, and staff engagement in improvement projects, I recommend:

4. In relation to safety and quality leadership and culture that the Gladstone Hospital maternity service must:
    a. within three months complete a staff survey seeking staff views on what they understand is the safety and quality culture and safety and quality leadership within the maternity service. The results of this survey should inform the kaizen workshop referred to in recommendation 4b.

Recommendation 4
b. within six months run kaizen workshops and plan for evaluation of the outcomes of those workshops. At least one session should focus on leadership and the safety and quality culture.

16.6.2 Safety and quality oversight

To improve the executive leadership's safety and quality oversight they introduced the GIMM in May 2018. During the stakeholder visit representatives from Gladstone Hospital advised that there had been significant improvements with this meeting since September 2018, with more robust discussions occurring in relation to recommendations and complaints. Clinical directors and clinical reviewers are now invited to attend the meeting to provide status updates on the progress of corrective actions and clinical review outcomes.

While it is promising that the GIMM has improved, on reviewing agendas and minutes from the meetings between August 2018 and October 2018 it appears further improvements could be introduced, particularly in relation to the timely completion of actions and driving accountability through the establishment of deadlines for actions. Given this is the peak weekly meeting at which the executive leadership steers safety and quality improvement, it is essential that it is run effectively so that staff can receive feedback relating to safety and quality expectations.

Some specific issues identified on reviewing the meeting minutes were as follows:

- Limited or no timeframes captured for when actions were required to be completed, which may be captured in Riskman or different spreadsheet reporting. It is essential to appropriate safety and quality oversight that there are timeframes for the completion of actions as this creates accountability.
- Long delays with little substantive progress being made on actions, for example:
  - Between 2 August 2018 and 25 October 2018 there was an action to progress open disclosure with a family. From 2 August to 20 September 2018 no progress was made on this action and on this date it was identified that an autopsy report was required to enable open disclosure to proceed. The autopsy report was obtained in early October 2018 yet by 25 October 2018 the family had still not been contacted to arrange a time for the open disclosure meeting. While this was monitored by the GIMM there is no recording of expected timeframes for when this open disclosure should have occurred and why the lack of autopsy report was not identified until six weeks after open disclosure was entered as an action item.
  - On 2 August 2018, a SAC 1 recommendation was identified as ready for closure. Then on 24 August 2018 it was determined that the evidence for closure still had to be collated. By 8 October 2018, the recommendation and supporting evidence was ready to be presented to the Gladstone and Banana Safety, Quality and Risk Committee for closure. Although it is encouraging that the recommendation was not advanced for closure before the appropriate evidence had been collated, it is unclear why there was confusion over the recommendation's readiness for closure as at 2 August 2018. Nor is it clear why it took a subsequent two months to collate the evidence to ensure it was sufficient to support the recommendation.

- No planned forward monitoring of an action plan implemented to address identified trends. Specifically, at a meeting on 7 September 2018 three trends were identified and held over for discussion at the next meeting where it was requested that the senior leadership team develop an action plan to address the trends. In the minutes from 13 September 2018, an action plan is recorded as having been developed by the leadership team and the action was closed. There was no minuting of the forward monitoring of the trend and the action plan to ensure its effectiveness in addressing the trends. This should be a key function of the GIMM and it is reasonable to expect that the effectiveness of a senior leadership team action plan would be evaluated at these meetings; being the most appropriate forum for this analysis and evaluation.

Despite some of the concerning features of the issues outlined above, my staff noticed an overall improvement in the quality of the minutes, likely indicating an improvement in the quality of the discussions, from the GIMM between August 2018 and October 2018, with a marked change in or around late-September 2018. I believe that even without recommendations from my office that the GIMM will continue to grow and improve of its own accord, refining and embedding their practices so as to have a more comprehensive grasp on the oversight of the safety and quality of the Gladstone Hospital maternity service and that some of the points outlined above may be useful to assist with this refining process.

17. Conclusion

Regardless of the issues outlined in this chapter, the public should have confidence in the safety and quality of the Gladstone Hospital maternity service. This service has the most births of any Level 3 public maternity service in Queensland and as such is under additional pressure to provide a high quality service within the funding limitations of a Level 3 facility. The external benchmarking results indicate that this maternity service has high quality outcomes compared with its peers, which is made more remarkable by the number of births occurring each year.

For a long time both the Gladstone Hospital and the maternity service had unstable senior leadership, difficulty in permanently recruiting sufficient staff and a lack of coordinated support across CQHHS. These issues are now being rectified, enabling the maternity service to refine and improve its clinical governance and safety and quality processes.

A major area of focus for the maternity service must be its staff, ensuring that they are engaged and prepared for the change that is likely to be implemented over the next 12 months. This change needs to occur in an environment where staff contribute to and understand what is occurring rather than having change imposed on them. Equally important will be how the leadership team will role model the safety and quality culture so that the maternity service becomes a cohesive unit.

The above changes will be challenging for both leadership and staff, requiring a shared vision of commitment and energy. I am confident that the Gladstone Hospital maternity service has the necessary focus to progress change and will be adequately supported by the CQHHS executive to meet the challenges head on.