Investigation report

Gold Coast University Hospital's response to adverse maternity events

March 2018

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Gold Coast University Hospital's response to adverse maternity events

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Executive summary

High demands were placed on Gold Coast University Hospital (GCUH) from its opening in September 2013 due to larger than expected numbers of birthing women booking with the service. This had far reaching impacts on the capacity of the service to adequately manage the influx of patients and implement the types of frameworks that would ordinarily be expected in a level 5, transitioning to a level 6, maternity service.

This level of demand occurred against a background where between 2010 and 2015 there had been a series of reviews and investigations into the quality of maternity services at GCUH, and its predecessor Gold Coast Hospital (GCH) Birth Centre, resulting in a number of recommendations to address identified issues.

In December 2014, the Office of the Health Ombudsman (the office) began an investigation into the quality of maternity services at GCUH, which took into account a small number of adverse maternity events occurring over time at GCUH. In a hospital where nearly 5,000 babies are born each year without incident the number of adverse events were not statistically significant, however any adverse event has significant and long lasting impacts on all parties involved, from the parents to babies to clinicians. In analysing these events over the course of the investigation, it became clear that the systemic issues identified related to the Gold Coast Hospital and Health Service's (GCHHS) response to adverse maternity events, rather than the quality of the maternity service provided at GCUH.

The scope of this systemic investigation, and consequently this report, were distilled to a consideration of the following issues:

1. why some adverse outcomes had recurred, despite several internal and external reviews highlighting areas of risk mitigation that would assist in preventing adverse outcomes (**adverse outcomes despite reviews**)
2. GCHHS' systems and governance structures to record and monitor the processes of making and implementing recommendations for improvement, both internal and external, including escalation processes to address issues where recommendations have been implemented and the issue recurs (**accountability and responsibility**)
3. GCHHS' governance arrangements in place to ensure timely reporting of adverse maternity events, including effective reviews of maternity data to identify trends requiring remedial action (**safety and quality governance**).

The investigation made a number of relevant findings, albeit these are now largely historical given the independent parallel actions taken by GCHHS to proactively address identified weaknesses in its clinical incident management framework and safety and quality governance structure. This office's findings were:

1. GCHHS undertook limited evaluation of the impact implementing a recommendation had on the issue it was targeted to address. This resulted in the same or similar issues recurring, which was compounded by the complex safety and quality governance structure for the maternity service (see below).

2. GCUH had insufficient systems in place to ensure consistent management of obstetric patients who presented to GCUH outside of the maternity service e.g. within the emergency department. This issue had been ongoing since 2014.
3. GCHHS had an overly complicated safety and quality committee structure for the maternity service. This structure lacked focus on its goals and did not support strong accountability nor oversight of trends, risks, recommendation implementation, the escalation of repeating risks and other key elements required for a robust safety and quality structure.
4. GCHHS did not have a comprehensive recommendation tracking system, enabling safety and quality committees to see maternity recommendations at any point in time, including their implementation status. This led to an overly optimistic assessment of how implementation was effected and whether a recommendation should be closed as having been fully implemented.
5. GCHHS needed to utilise trended incident data better to drive process improvement from the higher level safety and quality committees through the chain to the service line level. This includes continuing to improve GCHHS' approach to classifying incidents to ensure that they are appropriately captured and categorised in order to inform decision-makers about trends in the maternity service.

Since 2016–17, benchmarking of the GCUH maternity service's performance against its peers demonstrates that GCUH is performing strongly against clinical indicators used to measure the safety and quality of maternity services nationally. This further demonstrates that GCUH has a safe maternity service and its focus on revising its clinical incident management framework is appropriately targeted—as this is where there are opportunities to continuously improve. Measures implemented by GCHHS in this area include:

- revising the safety and quality committee structure
- introducing stronger collaboration and referral between the emergency department and maternity service
- use of trended data to drive safety and quality improvements
- greater emphasis on timely implementation of recommendations to ensure that, as far as practicable, incidents do not recur.

The clinical incident management framework and safety and quality governance approaches, which are in the process of being implemented by GCHHS at GCUH, both in the maternity service and across the facility, may serve as a model worthy of adoption by other tertiary maternity services in Queensland.

The issues identified throughout the office's investigation have either started to be addressed or have had measures implemented by GCHHS independent of this report; as a result, the recommendations are framed to allow the office to evaluate the effectiveness of the measures implemented to ensure that they are responding to the key concerns outlined in the complaints. This approach enables the sharing of information and perspectives from both GCHHS and this office so each can contribute our own experience and perspective to further refine a high quality and safe maternity service. The strong collaboration between this office, GCHHS and other key stakeholders undertaken when finalising this report will be maintained throughout the recommendations monitoring phase.

This report makes eight recommendations around:

- evaluating the appropriateness of measures implemented to support the management of pregnant women in the emergency department
- ensuring the effectiveness of the midwifery navigator roles
- evaluating the adequacy of the clinical incident management framework following implementation of measures after the internal review of the framework is completed
- increasing the independent verification by high level safety and quality governance committees of the information provided by the committees below
- continuing to improve the use of trended clinical data to drive process improvement in the maternity service
- improving the transparency of the safety and quality environment of the maternity service through a yearly public report.

GCHHS accepts all of the recommendations made by this office and has already commenced implementation.

1. Background

1.1 Issues arising in the maternity service at Gold Coast University Hospital

Since 2010, there have been a number of reviews and investigations into the quality of maternity services provided at Gold Coast University Hospital (GCUH) and its predecessor, the Gold Coast Hospital Birth Centre (GCH). These reviews were undertaken by the former Gold Coast Health Service District in 2010, the former Health Quality and Complaints Commission (HQCC) in 2011 and the Sherwood Review in 2015.[1] Each of these reviews resulted in a number of recommendations for service improvements in the provision of maternity services at GCUH (see **Appendix 1** for a detailed timeline of events), with many recommendations supported and undertaken to be implemented by the Gold Coast Hospital and Health Service (GCHHS).

When the HQCC closed in June 2014, the Office of the Health Ombudsman (the office) continued to follow up with GCHHS on its progress towards implementing all of the recommendations from a 2011 report. GCHHS advised that, as at 27 October 2014, 17 recommendations had been fully implemented and a further 15 were partially implemented. It appeared that GCHHS was making progress towards completing implementation of all of the recommendations—many of them related to the former GCH—and the office therefore ceased requiring reporting from GCHHS regarding the recommendations.

Following on from this, in March 2015 the office undertook a detailed review of all of the root cause analysis (RCA) reports received from GCHHS relating to the maternity service at GCUH since it opened in September 2013. Under the *Hospital and Health Boards Act 2011* (HHB Act), [2] the office receives a copy of all RCA reports[3] from all Queensland hospital and health services, this being an inbuilt governance and oversight function granted to the office. The office reviews RCAs to identify trends or systemic issues that may require investigation.

The March 2015 RCA review was prompted by an open investigation the office had commenced in December 2014 in respect of a referral from the then Office of the State Coroner in relation to a neonatal death.

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1 *Review of Maternity Service – Gold Coast University Hospital,* Dr Rupert Sherwood, February 2015. This report was commissioned by GCUH to obtain reassurance that the maternity services being offered were safe.

2 *Section 108 of the Hospital and Health Boards Act* sets out when a hospital and health service must provide the office with a copy of the root cause analysis report.

3 A root cause analysis (RCA) of a reportable event is defined in section 95 of the *Hospital and Health Boards Act 2011*. Under this section an RCA means a systematic process of analysis under which factors that contributed to the happening of the event and remedial measures that could be implemented to prevent recurrence may be identified. An RCA does not involve investigating the professional competence of a practitioner in relation to the event or finding out who, if anyone, is to blame for the event.

The review identified three RCAs involving unexpected death or injury to three babies at GCUH, which highlighted repeating themes for improvement in the provision of maternity services that had already been identified in a number of recommendations from 2010 onwards.

Given these repeating concerns, the office commenced a systemic investigation into the quality of maternity services provided at GCUH.[4] Both prior to and since commencing this investigation, the office received individual and systemic complaints about the maternity service at GCUH. The issues across these complaints suggested there were some repeating trends in the maternity service at GCUH that required improvement.

1.2 Meaning of a systemic investigation

In addition to managing health service complaints about individual health service providers, the office may also undertake investigations into systemic issues. A systemic issue relates to the potentially poor operation of a system, process or practice, as opposed to individual actions of a person that occur within the system. Some examples of systemic issues include:

- a system change that is not operating as expected
- a lack of a policy or procedure
- a lack of a clear structure to support functions or other necessary practices
- a practice, policy or procedure that is not compliant with best practice, guidelines and/or legislative requirements
- an identified area for improvement in a system, policy or procedure, which could have a positive impact on patients and/or other persons accessing the system or implementing the policy and procedure.

The office categorises systemic issues into three streams based on population impact, namely:

- **Stream 1**: These are issues that have the potential to impact persons at a single facility or within a single service line in a local area and can be resolved directly with the facility. These issues, while important, will have a minimal impact beyond a local community utilising the services of the facility or engaging with the service line.
- **Stream 2:** These are issues that have the potential to impact persons across facilities within a single region or geographical location and can be resolved by engagement with a single key stakeholder responsible for the facilities. These issues, while serious, are likely to have less potential for widespread impact outside of the locality in which they occur.
- **Stream 3:** These are issues that have the potential to impact persons across facilities throughout Queensland and require a coordinated response by multiple stakeholders to address any identified

[4] Section 80(c) of the *Health Ombudsman Act 2013* (the Act) allows the Health Ombudsman to commence an investigation into a matter that the Health Ombudsman considers is relevant to achieving the objects of the Act, including public health and safety.

issues. The issues are likely to be the most complex, with the potential to have the greatest impacts or impact the largest numbers of persons.

In undertaking systemic investigations the office is able to provide an independent viewpoint on the issues observed and coordinate with the key stakeholders to make recommendations to address issues, respond to trends and/or refine processes. Investigating systemic issues requires a more strategic and proactive approach; engaging with the stakeholder to effectively define and capture issues and securing their commitment to co-design and or implement constructive recommendations for change that are appropriate and effective in their operating context.

The systemic investigation into the quality of maternity services provided at GCUH is a stream 2 investigation.

2. Statewide and national maternity services frameworks

The provision of maternity services is governed by a multitude of both state and national committees and networks, underpinned by state and national standards, benchmarks and other guidelines for consistent, safe and appropriate maternity services.

2.1 State and national maternity standards, guidelines and benchmarks

The major state and national standards, guidelines, benchmarks and key initiatives that apply to and impact on the provision of tertiary maternity services at GCUH include:

- Clinical Services Capability Framework for public and licensed private health facilities (CSCF)
- Queensland Health clinical guidelines
- Variable Life Adjustment Display (VLAD) flags for extraordinary trends in clinical maternity data
- National Safety and Quality Health Service Standards setting accreditation benchmarks across 10 key areas in a health service
- National Maternity Services Plan 2010 to 2016
- National Framework for Maternity Services – draft as at June 2017.
- National Core Maternity Indicators 2016
- Women's Healthcare Australasia benchmarking.

An overview of these state and national standards, benchmarks and guidelines is outlined in **Appendix 2**.

2.2 State and national networks

Additionally, there are a number of state and national networks currently in place to guide, provide expert advice, and oversee consistency across maternity services at the statewide and national levels. These networks include:

- Queensland Maternal and Perinatal Quality Council
- State-wide Maternity and Neonatal Clinical Network
- Maternity Services Forum
- Council of Australian Governments Health Council.

An overview of these networks and forums is outlined in **Appendix 3**.

3. Facility

3.1 Facility overview

The GCHHS was established as a statutory body on 1 July 2012,[5] with a footprint extending from the state border with New South Wales, north to the Coomera region and east towards Tamborine. The GCHHS is responsible for oversight of over 20 facilities and centres, including: GCUH, Robina Hospital, Robina Health Precinct and Southport Health Precinct. In 2015–16, the catchment population of the GCHHS region was estimated at more than 560,000 persons. It is projected this will grow to more than 700,000 by 2026, representing the largest population growth of any local government area in Queensland.[6]

[5] Prior to this, there was the Gold Coast Health Service District (GCHSD).
[6] Gold Coast Hospital and Health Service annual report 2015–2016, page 13.

Figure 1 Gold Coast Hospital and Health Service catchment

The GCHHS is managed by the GCHHS Board; with a Chief Executive overseeing management of the service and reporting to the Board on various matters impacting upon the service. The Chief Executive is supported by the Executive Director Operations, who oversees the four directorates of the service: Specialty and Procedural Services (SaPS); Diagnostic, Emergency and Medical Services; Mental Health and Specialist Services; and Cancer, Access and Support Services. The maternity and neonatal services were previously managed within the SaPS reporting line. GCHHS advised the office that Women, Newborns and Children, which includes maternity and neonatal services, became the fifth directorate of GCHHS in November 2017.

On 28 September 2013, the GCUH opened as a tertiary public health facility with 750 overnight patient beds. On opening, the maternity ward had 36 beds, six cots in the Neonatal Intensive Care Unit (NICU), and a 20 bed Special Care Nursery. From October 2015, the NICU accepted babies of all gestational ages. The maternity service is also complemented by the Maternal Fetal Medicine Unit. In 2016–17 there were 5129 births at GCUH.

Prior to the opening of GCUH, the Gold Coast region was serviced by the Gold Coast Hospital Birth Centre, which opened in 2006 within the GCH at Southport and was relocated to GCUH when it opened in September 2013. As the original birth centre had a reduced capacity to deal with complicated fetal presentations during pregnancy, many women still had to travel to Brisbane for tertiary care. In 2016, the birth centre had seen a 34 per cent increase in births since the opening of GCUH in 2013.

Due to the type and complexity of maternity and neonatal services provided by GCUH, it assessed itself against the CSCF[7] as a level 6 facility for maternity and neonatal services. This self-assessment was completed in March 2015, some 18 months after GCUH opened. According to the CSCF modules for maternity and neonatal care, a level 6 facility is expected to provide:

- all levels of care, including the highest level of care for women with serious obstetric and fetal conditions and infants[8]
- core services including close monitoring and early intervention by registered medical specialists, 24-hour clinical advice and support provided by a consultant registered medical specialist, and a 24-hour maternity service offering comprehensive specialist maternal and neonatal services
- maternal fetal medicine, maternal fetal interventional surgery, and neonatal surgery
- referral service for lower level maternity patients, including statewide referral unit
- data support at the state level to trend perinatal and maternal mortality and morbidity data, including service network perinatal mortality and morbidity meetings conducted with the engagement of lower level services within the maternity network.

3.2 GCHHS committees

GCHHS and GCUH have a series of committees that have varying responsibilities and terms of reference. Some of the committees are required under the HHB Act, while others have been established by GCHHS and GCUH to manage various subject matters across the service. With the recent introduction of the fifth directorate, the committee structure for clinical governance and/or safety and quality within the maternity service is still being finalised. The appropriateness of GCHHS' committee structure is discussed in detail in section 7.2 below.

3.3 Benchmarking Gold Coast University Hospital's performance

When benchmarked against its peer level 6 maternity services, GCUH performs strongly against the clinical indicators used to measure the safety and quality of a maternity service. The data from the Women's Healthcare Australasia benchmarking report for 2016–17 shows:

- 43.6 per cent of women were giving birth for the first time.
- 73.1 percent of women gave birth vaginally, compared with 67.3 per cent across peer level 6 facilities.
- 8.4 per cent of women who were giving birth vaginally had forceps used as the final method of birth, compared with 10.5 per cent across peer level 6 facilities (this same trend applied to vacuum extraction).

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7 Under the HHB Act, each HHS must undertake a baseline self-assessment against the CSCF and then notify the Department of Health of the completed self-assessment.

8 CSCF, Maternity Services, Module Overview, version 3.2.

- 4.5 per cent of women giving birth vaginally had a third or fourth degree tear, compared with 3.9 per cent across peer level 6 facilities. This higher rate will in part be due to the increased number of vaginal births being undertaken at GCUH.
- 26.9 per cent of women gave birth by caesarean section, compared with 32.7 per cent across peer level 6 facilities.
- 2.3 per cent of women who gave birth vaginally or by caesarean section had a postpartum haemorrhage[9] involving the loss of between 1000ml and 1500ml of blood within 24 hours of birth, compared with 3.9 per cent and 4.9 per cent, respectively, across peer level 6 facilities.
- 9.5 per cent of live born babies, born at term, were admitted to the SCN or NICU for reasons other than a birth defect or congenital anomaly, compared with 13.6 per cent across peer level 6 facilities.

In addition to the above, routine perinatal data for the maternity service shows that in the five years between January 2012 and March 2017 the rate of stillbirths at GCUH was 1.9 per cent. This represents 43 stillbirths out of 23,109 births during the period. This is in comparison to a rate of 3.0 per cent against its peers and 2.9 per cent across Queensland.[10] Also in 2015, GCHHS had a rate of 2.5 neonatal deaths per 1000 live births compared to the Queensland rate of 3.0 deaths per 1000 live births.[11]

Further, in an Australian Institute of Health and Welfare report, published on 12 October 2016, the perinatal mortality rate was calculated as 9.6 deaths per 1000 births.[12] GCHHS advised the office that GCUH's rate was 9.1 deaths per 1000 births, demonstrating that they are achieving safer outcomes for mothers and babies in Queensland.

3.4 Complaints received by the office

While this report draws primarily from four patient complaints being investigated by the office, the office has received other complaints about the maternity service reported for GCHHS that have taken different pathways through the jurisdiction.

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9 Postpartum haemorrhage (PPH) is common in Australia and New Zealand, with an incidence rate of between five and 15 percent. A PPH occurs when there is more than 500ml of blood loss after a vaginal birth or 1000ml after a caesarean section. There are two PPH classifications, namely: primary PPH which occurs within 24 hours of birth, and secondary PPH which occurs between 24 hours and six weeks postnatally. Guidelines for the management of PPH are developed by the Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG) and Queensland Health.

10 The source is the Perinatal Data Collection, extracted on 31 May 2017. The data for GCUH and the GCUH Birthing Centre were combined.

11 Clinical Excellence Division, *The Gold Coast University Hospital Patient Safety and Quality Performance Measures*, Patient Safety and Quality Improvement Service, 20 October 2017.

12 Australian Institute of Health and Welfare, *Perinatal deaths in Australia, 1993–2012*, Perinatal deaths series no. 1. The rate described above relates to 2012 and is the most recent published data on the rate of perinatal deaths in Australia.

The complaints about the maternity service reported for GCHHS are not statistically significant when compared to the 14,816 births occurring at GCUH between the 2014–15 and 2016–17 financial years. However, given the low neonatal mortality rate reported for GCHHS and the overall safe maternity service provided, any unexpected neonatal mortality is significant and may be assessed and investigated by this office.

The complaint data reported for GCHHS is outlined below, including the number of complaints received each year and the outcomes for the complaints.[13]

Table 1 Complaints received by the office about GCUH

Year	Number of complaints[14]	Number of enquiries[15]
2014	4	2
2015	11	1
2016	9	2
2017	6	0
Total	**30**	**5**

Table 2 Complaint outcomes

Outcome type	Number of outcomes[16]
Assessment	21
External referral	4
Referral to the Australian Health Practitioner Regulation Agency	6
Local resolution	6
Conciliation	6
Investigation	6

[13] It is important to note that these figures do not include complaints data for individual health practitioners who may have been working in the maternity service at GCUH when the complaint was made. This is due to the limitations of how the data from the complaints management system is able to be extracted.

[14] Complaint figures include own motion investigations.

[15] An enquiry is a specific contact made by a potential complainant or other person about various topics including, the complaint process, whether the issue is a complaint, advice about any other agencies to whom a complaint could be made.

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

Table 3 No further action decisions

Source of the no further action[17]	Number of decisions
Intake	3
Assessment	4
Conciliation	1
Investigation	1

4. Internal and external review recommendations: 2010–2015

GCUH maternity services and its predecessor have been the subject of a number of internal reviews and other investigations between 2010 and 2017. All of these reviews have made recommendations for change across a number of key themes—some simple and easy to implement and others requiring significant infrastructure changes taking a protracted period to achieve. This office has reviewed the recommendations made in each review, ascertained whether the recommendations were repeated, and determined the implementation status of each recommendation on the basis of a number of submissions and other material provided by GCHHS. For this detailed analysis see **Appendix 4**.

The recommendations are split into eight subject matter areas:

- adverse outcomes despite reviews
- accountability and responsibility, including the committee structure
- safety and quality governance
- risk assessment and escalation
- culture
- communication
- staffing and skill mix
- recording and management of documentation.

This report does not seek to replicate the work of those former reviews, but rather uses the issues highlighted in those reviews and the complaints made to the office to identify key issue trends in GCHHS' management of the maternity service which require change to further refine the service and

[17] Where there has been a successful local resolution or conciliation this is not recorded in the case management system as a 'no further action' decision so is not included in these figures.

enhance its safety and quality focus. Historical and contemporary information is relied upon to illustrate the issues identified in this report and is discussed below.

5. Investigation scope

The scope of the office's investigation into GCUH's maternity services has been dynamic, responding to various events, including new complaints, corresponding evidence from GCHHS, and internal and external reports about the maternity service. After analysis of this material, the scope of this investigation was refined to:

- understanding why some adverse maternity outcomes recur, despite several internal and external reviews highlighting areas of risk mitigation that would assist in preventing adverse outcomes (**adverse outcomes despite reviews**)
- examining systems and governance structures in place to record and monitor the processes of making and implementing recommendations for improvement, both internal and external, including escalation processes to address issues where recommendations have been implemented and the issue recurs (**accountability and responsibility**)
- analysing governance arrangements that are in place to ensure timely reporting of adverse maternity events, including effective reviews of maternity data to identify trends requiring remedial action (**safety and quality governance).**

6. Investigation process

6.1 Investigative inquiries

During the investigation the office obtained, reviewed and analysed a significant amount of information relevant to the issues identified above. A list of these documents can be found in **Appendix 5**.

6.2 Adverse comment process

Under the *Health Ombudsman Act 2013*, an entity must be given an opportunity to comment on a draft investigation report where that report is going to make adverse comment and the entity is identifiable.[18] Due to the potential significance of this report for both GCHHS and maternity services in Queensland generally, the office undertook a multi-staged adverse comment process

7. Issues affecting maternity services at Gold Coast

[18] Section 86(3) of the *Health Ombudsman Act 2013*.

University Hospital

The following sections provide a detailed analysis of the issues investigated by the office. Each section includes recommendations to ensure the quality, safety and reliability of, and public confidence in maternity services at GCUH continues to build into the future.

7.1 Adverse outcomes despite reviews

7.1.1 Outline

The initial transition from GCH to GCUH was characterised by internal and external pressures and a lack of preparedness for the increase in number of presentations to the maternity service. This was illustrated by the interviews undertaken as part of the Caroline Homer, Michael Nicholl and Shirley Wee (Homer et al) 2013 review (2013 review)[19] in which all stakeholders stated they expected change to be 'like for like', meaning they expected the number of birthing women to be unchanged. GCHHS' stated strategy during transition and at the time of opening was to 'move and grow', and it anticipated there would be time for the service to safely transition to a high quality maternity service from the outset. However, the influx of numbers and complexity of the presentations meant there was no time for such a transition, with GCHHS having to build capacity and train staff in the midst of the significant patient loads.

Facing this level of demand, the GCUH maternity service had not yet built the necessary capability to manage the volume of presentations from its opening in September 2013. This, coupled with adverse outcomes and media statements asserting that the GCHHS maternity service was unsafe (which was refuted by GCHHS) resulted in GCHHS undertaking a number of reviews to identify issues with the maternity service and areas for improvement. In addition to external reviews, GCUH undertook RCA and Human Error and Patient Safety (HEAPS) analyses as and when triggered by adverse incidents. This body of work generated a number of recommendations that spanned from hospital-wide to service line level changes.

This office became involved at the end of the external reviews and has been able to review GCHHS' response to and implementation of the various recommendations to improve the maternity service. While GCHHS has gained significant ground since opening GCUH—having resolved some of the early expectation challenges—the office identified that some adverse outcomes in the maternity service were being repeated despite implementation of recommendations intended to address those issues. From the complaints received, the office's investigation identified the following ongoing issues:

- poor coordination between GCUH emergency and maternity
- failure to flag high risk patients

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[19] There were three reviews undertaken by Homer et al, namely: *Service Review of Birthing Services at Gold Coast Hospital* (October 2010), Service *Review of Birthing Services at Gold Coast Hospital – Progress Report 2011* (September 2011), and *Review of Maternity and Gynaecology Services provided at Gold Coast Hospital, in preparation for the provision of maternity services from Gold Coast University Hospital* (May 2013).

- prolonged implementation of appropriate systems for maternity data and clinical records (see section 7.1.1.4 below).

Each of these recurring issues is discussed in detail below.

7.1.1.1 Poor coordination between emergency and maternity

Since 2014, there have been concerns about the focus and coordination of the treatment of pregnant women who present to the GCUH emergency department (ED), sometimes with concerns unconnected with their pregnancy but which could impact upon the health and welfare of the mother and/or baby. The following case study of patient A highlights when this issue was first raised with this office.

Case study of patient A

In December 2014, the office was made aware by the then Office of the State Coroner of concerns with the treatment provided to a 14-year-old pregnant patient (patient A) at GCUH. In August 2014 at around 12.40 pm, Patient A was brought into the ED by the Queensland Ambulance Service due to injuries sustained from an alleged assault. Patient A was 25 weeks pregnant.

While ED staff identified that patient A required the services of the Maternity Assessment and Triage Unit (MATU) as she could be in premature labour, these staff failed to appreciate the significance of patient A's blood sugar level indicating possible diabetic ketoacidosis (DKA),[20] and the risk this could present for a pregnant patient (making referral to the MATU unsuitable, until such time that the patient was medically stable). This missed diagnosis was set against a backdrop of ED staff being aware of patient A and her poor compliance with her diabetes medication requirements both that day and previously.

Patient A was transferred to the MATU at around 1.45 pm. The handover provided by the ED staff failed to include the issues regarding patient A's blood sugar levels and poor compliance with her insulin medication that day. Between 145 pm and 5 pm, patient A was assessed by various health practitioners who identified that she was suffering from DKA requiring immediate management. Despite this diagnosis, there was confusion and disagreement between various areas within GCUH about who was responsible for patient A's ongoing management.

It was not until 7.45 pm that patient A was transferred to the Children's Critical Care Unit for treatment of her DKA. Patient A's baby died *in utero*.

As a result of the incident involving patient A, recommendations were made to improve:

- the process for managing obstetric patients with a medical condition
- management of adolescent patients.

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[20] Patients with diabetes mellitus, particularly type 1, can develop DKA, which can be life threatening. DKA can occur when the body does not have sufficient insulin to process glucose (sugars) and starts burning fat, which releases ketones into the blood that start to build up and can cause maternal and/or fetal demise.

In April 2016, GCHHS advised that it had implemented a protocol to ensure appropriate management of obstetric patients who were also diagnosed with a medical condition. This protocol currently involves various steps including the development of a clinical management plan that will be initiated in the ED if the patient is not suitable for transfer to the Maternity Assessment Centre (MAC)[21] or birth suite. GCHHS also introduced the Referral to MAC from ED procedure which sets out recommendations regarding the best location for safe management of pregnant and postpartum women presenting to emergency with both pregnancy and non-pregnancy related issues. The development of these protocols and procedures demonstrates GCHHS' willingness to address issues arising from adverse incidents.

Despite GCHHS' efforts to produce protocols and procedures addressing the interaction between emergency and maternity, there were further complaints highlighting issues about the management of patients between these service lines, contributing to adverse outcomes as the following case studies demonstrate.

Case study of patient B

In July 2016, patient B was brought into the ED at GCUH suffering from abdominal pain and shortness of breath. Patient B was 36 weeks pregnant. At 12.59 am patient B was triaged in the ED and, over several hours, underwent a number of tests and assessments, all of which indicated that she had significantly increased levels of protein in her urine. This should have flagged an escalation of care in relation to her pregnancy. Despite these results, there was no contact between the ED and MAC for over six hours until 6.40 am when the first contact was made with the MAC about a referral. At 7.05 am, patient B was transferred to the MAC.

Within 30 minutes of patient B being transferred to the MAC, fetal monitoring was commenced which identified there was fetal compromise and patient B was scheduled for an immediate emergency caesarean section. An unresponsive baby was delivered with APGAR scores[22] of zero at one minute, zero at five minutes and one at 10 minutes. The baby required resuscitation, intubation and transfer to the NICU. The duration of the baby's period of fetal distress prior to delivery was unknown due to there being no management of the fetal heart rate in the ED.

This incident again identified poor management of obstetric patients who presented in emergency.

Case study of patient C

In October 2016, patient C, who was 19 weeks pregnant, attended the ED at GCUH with vaginal bleeding on three separate occasions over three days. On each occasion patient C was assessed for her presenting condition but no obstetric review was completed and she was discharged, with the discharge record noting that she should return if she had any concerns.

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21 This was formerly the Maternity Assessment and Triage Unit. Its name was changed in response to an incident in 2014 that indicated the former name impacted on the understanding of staff as to the services provided by the unit.

22 An APGAR score is a method to quickly summarise the health of a newborn at 1, 5 and 10 minutes after birth. APGAR involves five criteria, namely appearance, pulse, grimace, activity and respiration. The score ranges from zero to 10. The lower the score the greater the likelihood that the baby requires medical attention and could have serious complications, particularly if the low score persists across the three testing times.

Case study of patient C

On 12 October 2016, patient C had a morphology scan and was urgently referred to the ED. Patient C had a premature pre-labour rupture of the membranes in association with recurrent antepartum haemorrhage, resulting in a high probability of fetal mortality.

When the matter was considered by GCUH in February 2017, it was identified that patient C should have had an obstetric review or, at the very least, an internal examination to investigate the bleeding, none of which occurred in the ED. It was further identified that all pregnant patients presenting to the ED at or above 12 weeks gestation should be assessed exclusively by the obstetric and gynaecological service.

The case studies demonstrate that, while GCHHS implemented changes between 2014 and 2016 to respond to the contributing factors relating to the adverse event in December 2014, the response was not sufficient to address the root causes underlying the issues in managing pregnant women who present in the ED. Since June 2017, GCHHS has taken further measures to mitigate the risk of cases such as those of patients A, B, and C. These steps include:

- regular monthly meetings between the MAC, ED and Early Pregnancy Assessment and Management Service (EPAMS),[23] which commenced in June 2017
- every three months a regular education session for ED staff is held in collaboration with the maternity service and includes simulation training on such things as joint maternity/emergency presentations; this commenced in August 2017
- establishing the Obstetric Committee to review and manage complex pregnancy cases across GCHHS
- developing a High Risk Obstetric Management Plan, which is a pregnancy care plan located in the pregnancy record with a corresponding alert on the electronic medical record (eMR)
- recruitment of paediatric nurse navigators to address the need for adolescent transition services
- use of the Queensland Maternity Early Warning Tool in the ED to record vital observations for all pregnant patients
- revised Maternity Assessment Centre referral from Emergency Department procedure, effective from 16 November 2017
- ED referral process to EPAMS, including specific referral criteria.

Other actions GCHHS is planning to take to strengthen the framework around managing pregnant women in the ED include:

- introducing a procedure for complex pregnancy care

[23] EPAMS is a service located on the group floor at GCUH, near the entry for the ED. Women presenting to the ED who do not require immediate attention and are under 16 weeks gestation may be referred to EPAMS. GCHHS is exploring making EPAMS a walk-in service in the future. The co-location of the service on the same floor as the ED has improved understanding and availability of the service.

- recruiting a high risk midwifery navigator, appointed in November 2017 but commencing in January 2018
- developing an adolescent transition program as part of the Children's Redesign Program, due to commence in 2018.

It would appear that the learnings from the incidents described above have resulted in investment, service redesign and capability building to mitigate the risk of these types of issues recurring. While it has taken some three years for there to be a documented approach to improving coordination between the ED and maternity service, the steps taken and proposed should provide a strong foundation for the ongoing safe and reliable coordination between these services in the future. The energy and commitment displayed by the clinicians involved with promoting and maintaining these relationships needs to be sustained to ensure that cases such as those detailed in the preceding case studies will be appropriately managed within its current framework. This is particularly important given the increasing catchment population and patient acuity expected at GCUH over the next decade.

7.1.1.2 Failure to flag high risk patients

The medical records system utilised by GCHHS is complex, incorporating both electronic medical records (eMR) and paper records. The system has alert functions to flag important information relevant to a patient's care that are readily available to all practitioners accessing the system. These alerts have historically been poorly used by practitioners, in part due to the lack of prominence of the alert in the electronic record. As a result, some vital information relevant to a patient's care is not readily available. As a corollary, this information may not then be considered as part of the assessment and treatment of a patient as the following case study demonstrates.

Case study of patient A

In patient A's case, a clinical management plan had been developed in July 2014 addressing how patient A should be treated if she attended the hospital on or after 24 weeks gestation. This plan was located in the alerts section of the electronic medical record but was not immediately apparent so was not reviewed by either emergency staff or MATU.

On 1 March 2016, changes to the alert system on the eMR were fully implemented, including flagged alerts now appearing in the blue demographic section of the patient record. The flagged alert highlights to staff that there is important documentation that should be referred to in relation to the patient's care. This was a necessary and important change to the way that alerts are managed, however there is scope for further improvement in securing practitioner compliance in response to alerts. There is a body of research highlighting the issue with ensuring that practitioners comply with alerts.[24] The key element to

[24] See Bates et al, '*Ten Commandments for Effective Clinical Decision Support: Making the Practice of Evidence-based Medicine a Reality*, Journal of the American Medical Informatics Association, Volume 10 Number 6, November/December 2003, Herasevich, Daryl, Subramanian and Pickering, '*Connecting the dots: rule-based decision support systems in the modern EMR era*', published 28 February 2013, Ancker et al, '*Effects of workload, work complexity, and repeated alerts on alert fatigue in a clinical decision support system*', 2017, Lam et al, '*Monitoring clinical decision support in the electronic health record*', 2017.

securing such compliance is to ensure that alerts are presented in the right way and at the right time so that practitioners do not suffer alert fatigue and start to ignore alerts. GCHHS is best placed to develop its model for alerts of a pregnant woman's risk status in the eMR/MATIS and evaluate practitioner compliance with this system.

7.1.1.3 Prolonged implementation of appropriate systems for maternity data and clinical records

A key recommendation of Homer et al throughout all three of their reviews between 2010 and 2013[25] was that GCHHS needed to implement an electronic perinatal data collection system, to reduce the excessive burden placed on staff to prepare data manually. The delay in implementation of an electronic system was in part due to an impending statewide solution for a perinatal data collection system, managed by Queensland Health, which GCHHS was reliant on being rolled out. This was delayed from 2013. Some other hospital and health services introduced their own bespoke electronic data collection systems but GCHHS deferred implementation until the statewide rollout was available, relying on the manual system to address the risk. The manual system was insufficient and cumbersome, resulting in some incorrect data, delayed data and a lack of ability to meaningful utilise trends to drive continuous improvement.

By February 2015, GCHHS implemented MATIS, a maternity information system aimed at capturing clinical data for the GCUH maternity service. Even with the introduction of this system reporting was lacking. GCHHS has therefore sought to improve reporting capability to ensure the system can generate targeted reports on key clinical indicators, thereby better supporting the generation of clinical data across the maternity service. For example, a daily report is generated from MATIS that outlines the number of births in the previous day and identifies the APGAR scores. As GCUH is continuing to work on integrating the MATIS database directly with the neonatal database, there is still work to be done to implement an electronic perinatal data collection system.

7.1.1.4 Compliance with maintaining complete maternity clinical records

In addition to the manual perinatal data collection system, GCHHS continues to have a complicated medical records system that, for maternity, means there is no one source of truth for a patient's clinical records. Pregnancy related information is maintained in MATIS, the eMR, and a woman's handheld Pregnancy Health Record. This is cumbersome and impractical when clinicians outside of the maternity service need to interact with a pregnant patient. The case studies of patients A, B and C highlight the issues between emergency and maternity without the additional complication of relevant clinical information being spread across multiple electronic systems and in a paper-based record.

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[25] The three reviews undertaken by Homer et al were: *Service Review of Birthing Services at Gold Coast Hospital* (October 2010), Service *Review of Birthing Services at Gold Coast Hospital – Progress Report 2011* (September 2011), and *Review of Maternity and Gynaecology Services provided at Gold Coast Hospital, in preparation for the provision of maternity services from Gold Coast University Hospital* (May 2013).

This theme of incomplete records is highlighted throughout the patient stories and was also identified by an internal audit completed by GCHHS in October 2017.[26] The audit highlighted areas for improvement in relation to the fidelity of clinical records between eMR and MATIS. Specifically, the audit identified that in five sample cases there was incomplete or no MATIS data entered and in all 10 sample cases the MATIS records were not imported into eMR. This is contrary to GCHHS' submission to the office that the ability to view MATIS from the eMR is a reasonable solution to securing patient continuity of care and fidelity of records. While this audit was limited to records relating to the management of pregnant women under the Midwifery Group Practice or Eligible Private Practice Midwife Service, the findings show a clear deficiency in the completeness of the records in these services, which has the potential to have serious consequences for patient continuity of care. It is vital that practitioners caring for pregnant women have accurate and complete medical records, especially for high risk or acute patients.

GCHHS advised there is currently a statewide project to implement a new integrated electronic medical record (ieMR), which provides a single source or truth for all patient records across all Queensland Health facilities with the system installed. On 20 June 2017, the GCHHS Board approved a comprehensive ieMR package that will include integration of devices into the system. The GCHHS Board was presented with three options, but recognised the strategic priority and benefits for the system in its entirety and approved the comprehensive solution (at some considerable expense to GCHHS over the following financial years). GCHHS is due to have the new system implemented in early 2019, however there is the potential for delays to this implementation timeframe as it is being managed at a statewide level. Given this, and on the basis of what is suggested by the patient case studies and internal audit, prior to the implementation of the ieMR, it is important that GCHHS is vigilant in securing practitioner compliance with recordkeeping policies and procedures to maximise patient safety and care.

While this issue regarding accessibility of all clinical records for a pregnant patient is framed in relation to GCHHS, it is broader due to the models of shared care utilised in maternity services statewide. For example, when general practitioners or community midwives are primarily responsible for the care being provided to a pregnant patient there is a greater opportunity for there to be limited availability of their full clinical records. This is particularly the case if they need to be treated in an emergency setting, as part of their records will be held in systems outside the one in which the emergency care is being provided. The disconnect between the model of care and the setting in which care may ultimately be provided can create challenges for securing a single source of truth for maternity records.

7.1.2 Recommendations

Adverse outcomes will occur in a tertiary level maternity service; the nature and complexity of the environment mean that in some cases the events will be preventable and are a result of missed opportunities along the patient's clinical journey. While these events are distressing for those directly involved, the impact can be increased if the missed opportunities are not converted into genuine

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[26] GCHHS, *Treatment of High Risk Maternity Patients*, Internal Audit, October 2017. This audit reviewed the effectiveness of the processes and key controls established to support the Midwifery Group Practice and Eligible Private Practice Midwifery Service.

improvements in the maternity service that, as far as practicable, prevent the event from recurring. While GCHHS is largely effective at recognising and responding to adverse events, this office has identified some key areas for further improvement.

The issues outlined above highlight the contributing factors to key areas such as the management of pregnant women who present at different entry points into the service, multiple patient views[27] for clinical records, and no clear pathway to share the expertise and assessment of the maternity service with other service lines (e.g. risk flag). These issues are being addressed by GCHHS as outlined above and the service is improving; the changes made in the past six months have been significant and represent a commitment to improvement and to the transformation and refinement that has been occurring in the maternity service since 2013. The changes also signify a service seeking to continuously refine and improve the safety and quality of health services it provides. The recommendations made are seeking to monitor and evaluate GCHHS' progress to ensure any measures implemented are reviewed for their quality and efficacy to secure an approach that is dynamic and responsive to its environment.

It is recommended that:

1. Within 12 months, GCHHS evaluates the practices, procedures and protocols governing management of pregnant women within the GCUH emergency department; the criteria against which the standards are evaluated should be determined by GCHHS in advance of the evaluation. This evaluation should include, but is not limited to:
    a. assessing whether the overall management of pregnant women in the emergency department is to the standard expected of a tertiary level facility and contemporary with GCUH's peer hospitals
    b. GCHHS' assessment of the efficacy of the supporting infrastructure, including policies, initiatives, training, implemented to appropriately manage pregnant women in the GCUH emergency department.[28]
2. Within six months, GCHHS evaluates the midwifery navigator model of care to ensure that it is meeting the objectives of the role and expectations of the Office of the Chief Nursing and Midwifery Officer in funding the implementation of the roles.
3. Within 12 months, GCHHS evaluates the effectiveness of MATIS and eMR in recording pregnant woman's risk status, including:
    a. how changes to a woman's risk status is captured and communicated throughout her care
    b. identifying any barriers to information sharing resulting from existing systems used to communicate risk status both within the maternity service and across services within GCUH

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[27] A 'multiple patient view' means that information about a patient is held across multiple systems and sometimes formats (e.g. electronic and paper records) so there is no one central point for a clinician to access all relevant information about a patient.

[28] These measures were outlined in section 7.1.1.1 above.

e.g. clinical practice issues associated with clinicians not utilising or responding to alerts in the eMR when caring for pregnant women.

4. Within one month, GCHHS develops and implements an audit program (prior to the implementation of ieMR) for maternity records to ensure compliance with clinical practice and the policies and procedures governing recordkeeping, including whether:
    a. MATIS has been appropriately completed and updated
    b. MATIS records have been imported into the eMR.

7.2 Accountability and responsibility

7.2.1 Outline

Standard 1 of the National Safety and Quality Health Service Standards sets the benchmark for safety and quality governance in health service organisations. The standards state that 'governance in health service organisations determines how a health service organisation delivers care and has a direct impact on the safety and quality of care'. The standards go on to state that 'boards and management have a responsibility to monitor the effectiveness' of systems supporting clinicians to provide safe, high quality healthcare.[29] Given this expectation, it is clear that safety and quality governance starts at the top of the health service where ultimate oversight lies, with varying levels of responsibility throughout the chain implementing and managing the operational elements of safety and quality governance.

Prior to October 2017, GCHHS and GCUH had multiple committees with responsibilities for clinical governance and/or safety and quality oversight of maternity services. These committees ranged from individual service lines to the GCHHS Board. At this time there was no organisational chart mapping the committee structure, relationships and purpose. This governance structure diluted GCHHS' ability to robustly respond to safety and quality issues. The key issues identified with this previous structure included:

- an overly complex safety and quality governance structure, with poor definition of purpose of many committees and how they fit into a sound safety and quality governance chain
- lack of oversight and accountability for the complete implementation of recommendations
- no overarching view of all recommendations, their current status, expected completion timeframes and possible connections across the service at any point in time.

Independent of this office's investigation, in March 2016, GCHHS restructured the Clinical Governance Service (CGS) to reflect its two primary functions of safe healthcare and quality healthcare. The restructure was aimed at supporting the CGS, in collaboration with the entire GCUH team, to achieve the GCHHS *Safety and Quality Strategy 2017–2020*. The revised structure provides enhanced governance within a medical leadership model aligned with the implementation of GCHHS' safety and quality

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[29] *Guide to the National Safety and Quality Health Service Standards for health service organisation boards*, Australian Commission on Safety and Quality in Health Care, April 2015.

objectives. The CGS provides leadership and support throughout the safety and quality governance chain.

GCHHS has also reviewed the whole of service safety and quality management of severity assessment code (SAC)[30] 1 and 2 incidents to ensure adequate systems and controls were in place and operating effectively in responding to and managing these incidents. The audits identified a number of areas for improvement in the safety and quality governance processes, including:

- the need to measure and report on the effectiveness of implemented recommendations
- appropriate follow-up of overdue corrective actions and/or enforcement of key performance indicators (KPI) for review and analysis of incidents
- improving consistency of approaches e.g. taking prompt action to address an identified risk while a review is being undertaken, ensuring clinician or open disclosure for all incidents, keeping and maintaining appropriate records
- clearly defining the roles and responsibilities, escalation points and reporting requirements of the various safety and quality committees.

The issues identified by GCHHS as part of its audit accord with the issues identified by this office. Accordingly, the following commentary addresses historical issues with the safety and quality governance, key areas for improvement and the works already being undertaken by GCHHS to strengthen its control environment for clinical incident management.

7.2.1.1 Committee structure

The safety and quality governance chain previously in place for the maternity service was convoluted and had the potential to dilute genuine evaluation of risks to patient safety and of reasons why issues continued to recur. This was identified in the GCHHS internal audits as a key process risk, not only for the maternity service but across the safety and quality governance environment in respect of SAC 1 and 2 incidents. The recurrence of clinical incidents or occurrence of more serious clinical incidents is associated with insufficient analysis of incidents and/or recommendations not being fully implemented; such issues have a direct correlation to an inefficient safety and quality governance chain.

The above issues were present in the overarching approach to the clinical incident management environment prior to October 2017. This includes the former committee structure where there was a lack of escalation processes through the safety and quality pathway for issues that continued to recur. In a number of RCAs received by the office, recommendations were repeated within 12 to 24 months of a previous recommendation being made. This cycle of repeated recommendations appeared to occur

[30] Severity assessment codes (SAC) are applied to clinical incidents to determine the appropriate course of investigation. There are three SAC categories each of which includes all clinical incidents/near misses where the outcome is not reasonably expected from the healthcare. SAC 1 incidents involve death or likely permanent harm; SAC 2 incidents involve temporary harm; SAC 3 incidents involve minimal or no harm.

without any escalation to determine why the issue initially purported to have been addressed continued. The following example illustrates this issue.

Example of repeating recommendations

In an RCA from March 2017, a recommendation was made in relation to education, focusing on the management of a pregnant woman with a coexisting medical condition in the medical environment. A comment made in response to this recommendation was that 'education does not seem to be making a difference'.

This example indicates there was a recognition that an issue was not being addressed, but there was no subsequent evidence that GCUH took action to review and escalate the issues when service line level improvements were not working. GCHHS contends it is not reasonable to cite individual RCA recommendations as they form a series of actions, complementing each other to address the issues identified in the RCA. However, the question raised is that when recommendations are previously made and are not then effective once implemented, what, if any, safety and quality oversight exists to escalate and address that deficiency? Accountability must lie within the safety and quality chain for why the recommendation is not working and how it can be improved. Without such an emphasis making recommendations may be of limited utility.

An escalation process or early identification of repeating issues may be aided by an end-to-end view of safety and quality recommendations which was previously not in place. This is being rectified by GCHHS and there is now a direct pathway from service line safety and quality governance committees to the GCHHS Board, with the provision for feedback to come back down through this chain to ensure a continuous improvement loop. This chain also includes clear expectations as to escalation of repeating issues to the Critical Incident Review Committee (CIRC) or the GCHHS Clinical Governance Committee (CGC), depending on the committee from which the escalating issues emanate, to enable either of these to provide leadership on how to address the issue going forward. This strong up and down pathway for issues and information, driven by high level committees, was previously lacking from the GCHHS safety and quality governance chain. It is expected that this new clinical incident management environment will greatly improve the oversight, management and response to clinical incidents, particularly in relation to repeating issues to ensure that situations like the one described above are adequately managed through the safety and quality governance chain.

Further, since October 2017, GCHHS has been undertaking a clinical incident framework review, which has included revising and redefining the role and structure of the committee responsible for clinical incident management. This has resulted in a number of revised committee terms of reference being developed that clearly set out:

- the committee's purpose
- reporting relationships
- KPIs relevant to the respective committee.

The purpose outlined in the revised terms of reference are better defined so as to reduce the perception of duplication between committees. On reviewing the revised terms of reference, it was possible to

distinguish the differing roles of the committees and how they engaged with the safety and quality governance chain. The new and revised elements of the terms of reference for the various committees demonstrate significant improvement and refinement of the clinical incident management environment, particularly clarification of reporting relationships between committees up and down the safety and quality governance chain.

7.2.1.2 Accountability for implementation of recommendations

In 2013, Homer et al identified in their third review that there was an issue with GCH whereby long periods of time were spent considering how to enact change in response to recommendations but then limited action was taken to progress change. This historical issue was also observed in complaints to this office. For example, in September 2015, GCHHS wrote to AHPRA to correct information it had previously provided regarding the status of the implementation of recommendations in five individual patient complaints. The confusion appeared to stem from lapses in GCHHS's documentation and data systems used for tracking recommendations. Delays and inconsistencies in the implementation of recommendations has the potential to erode confidence in both the system and quality of the service being provided at GCHHS facilities.

Accordingly, the revision of the CGS in March 2016 places greater emphasis on addressing delays in implementation of recommendations through the clinical incident management framework, including regular reporting on implementation, extension request forms requiring evidence of progress to date and any barriers to implementation, and a general increased understanding of the need to effect timely implementation to promote a high reliability organisation. For example, CGS prepares a monthly report for CIRC which includes an outline of any overdue recommendations, the reasons for the delay and plans to progress implementation. This report secures a monthly review of those overdue recommendations in the peak governance committee responsible for ensuring that appropriate measures are implemented in response to a clinical incident. The CGS also provide each directorate with a monthly report outlining the overdue corrective actions (recommendations), number of actions due in three months, and number of actions due in more than three months.

Additionally, since late 2016, GCHHS has implemented new comprehensive processes for closing recommendations. Specifically, a SAC 1 Recommendation Closure and Discontinuation Form has been implemented, which requires evidence of the action taken to implement the recommendation and an evaluation of the effectiveness of implementation is required to have been either undertaken and outlined on the form, or a plan is to be noted for evaluating the measure going forward. This form is provided to the Director, Safe Healthcare for approval or review. If the Director approves the closure it is submitted to the CIRC for noting or, if the closure is disputed, it may be submitted to the CIRC for consideration. Recommendations stemming from internal or external reviews are similarly managed but also reviewed by the Audit and Risk Committee for progress and completion. In respect of lower level recommendations, those relating to SAC 2 or below, it is not well documented how these recommendations will be monitored and closed. This gap was also identified by GCHHS through its internal audit and is being addressed via the clinical incident management framework review, including the introduction of a 60 day KPI for the analysis of SAC 2 incidents, which is monitored by the CIRC.

There is also scope for ongoing improvement in the safety and quality culture, specifically in the approach to monitoring and closing recommendations. In many instances this office observed that specific measures had not been implemented in response to recommendations because alternatives had been introduced and proven more effective. Such an approach illustrates a robust safety and quality environment yet some recommendations were left open because the specific measure was not precisely implemented. The overarching view of recommendations throughout the clinical incident management framework needs to ensure it is flexible and responsive to alternative measures being implemented that satisfy recommendations. The focus should be on the intent of the recommendation and the risk it is responding to, rather than the specific measure identified in a recommendation.

7.2.1.3 Overarching view of recommendations

GCHHS advised that SaPS maintained a database including an 'at a glance' readout of recommendations/corrective actions, their current status, and corrective actions due in two months and beyond. GCHHS demonstrated this during the office's site visit on 20 November 2017. This model of monitoring recommendations will be adopted as part of the framework for the fifth directorate.

Considering the revised terms of reference and the work being undertaken for the clinical incident management framework review, it is clear there is now greater acknowledgement of and emphasis on ensuring clinical incidents are used in the safety and quality governance chain to:

- identify trends across recommendations at any point in time
- identify duplication in recommendations
- drive safety and quality improvements at a broader level both proactively and reactively.

GCHHS identified in its 2015–2016 annual report that one of its key strategic challenges was meeting critical quality and safety performance outcomes. GCHHS' stated strategy for addressing this is to strengthen accountability and reporting systems. The ability to oversee the progress of recommendations, identify trends, and feed back into safety and quality improvements will be important elements in assisting GCHHS to meet that strategic challenge. The positive steps GCHHS has taken to date to enhance the aforementioned features in the safety and quality governance chain include:

- CIRC critical incident and mortality monthly reports, which report on SAC 1 and 2 incidents, various trends across incidents and the meeting of key KPIs e.g. number of consultant death reviews undertaken within 14 days
- CIRC terms of reference make it clear they will receive quarterly updates on the implementation status of all recommendations, and incident themes will be presented every six months
- CGC KPI reports, which provide detailed trend analysis of SAC 1, 2, 3 and 4 incidents, internal complaint management and KPI measures in relation to key clinical indicators e.g. pressure injuries, falls, time to category 1 elective surgery
- safety and quality highlight reports for each service line outlining whether key targets have been met for the quarter; these are presented to the directorate safety and quality meeting

- preparing a yearly SAC 1 and 2 thematic analysis report, the first ones having been completed for 2015–16 and 2016–17 respectively. The SAC 1 report for 2016-17 still needs to be completed.

7.2.2 Recommendations

It is clear from the work undertaken by GCHHS in refining and enhancing its safety and quality governance that it has implemented a sound approach to safety and quality that is embedded in the health service. The reports provided to the CIRC and CGC demonstrate an excellent, top down approach to safety and quality through the tracking of trends and management of safety and quality issues. Previously this office identified that this robust safety and quality approach was occurring at the service line level, with greater involvement from the higher level committees required to promote proactive safety and quality improvements through the utilisation of trends from incident data. This position has clearly changed with the introduction of various measures by GCHHS throughout 2016 and 2017.

With the introduction of the fifth directorate, which will include maternity services, it is important this approach to safety and quality governance is maintained and continuously improved. This is particularly important as the previous issues raised with the office identified the risk poor safety and quality governance can have on ensuring incidents are appropriately responded to, to reduce the likelihood of incidents recurring or more serious incidents occurring.

To instil ongoing confidence to the public and ensure the measures will be maintained and continue to be effective, particularly with the introduction of the fifth directorate, this office will engage with GCHHS through recommendation monitoring.

It is recommended that:

5. Within 12 months, GCHHS evaluates its revised clinical incident management framework, following the completion of the framework review, to assess its effectiveness in appropriately responding to and addressing adverse incidents, trends and risk. The evaluation should consider:
    a. the effectiveness of the framework to secure the full implementation of recommendations or other risk treatments and to ensure that there is appropriate oversight of implementation throughout the safety and quality governance chain
    b. the effectiveness of the evaluation procedure for the implementation of recommendations, including (but not limited to) ascertaining whether the implemented recommendation/s has/have addressed the issue/s, whether there have been any further adverse events, and any new recommendations for further improvements, if any. This should include an audit of a sample of recommendations and the evaluation of their effectiveness
    c. the adequacy of the system in developing new recommendations, including that the system can support the identification and consideration of previous recommendations stemming from similar contributory factors in similar clinical incidents (for example, a review of all recommendations arising from a review of similar clinical incidents for the preceding 24 months to ascertain whether recommendation/s have been made previously)

d. the escalation process for managing and responding to recurring recommendations, including:

   i. a review of the same or similar recommendations made in the previous 24 months

   ii. an analysis of why the recommendation/s is being repeated, barriers to implementation and the impacts on safety and quality

   iii. measures that can be implemented top-down to prevent the issue, as far as practicable, from recurring.

6. Within six months GCHHS develops and implements a qualitative review for the CIRC and CGC in relation to the reporting of the recommendation status, including implementation and escalation of repeating recommendations. This should form part of the clinical incident management framework review. The review should be:

   a. targeted at ensuring the accuracy of reporting from committees in the safety and quality governance chain in relation to implemented recommendations and repeat recommendations, and reviewing the effectiveness of the evaluation of implemented recommendations

   b. risk based[31] in line with criteria developed by GCHHS to guide the identification of the sample of recommendations and repeat issues to be reviewed; where possible the audited recommendations should come from a range of SAC classifications.

7.3 Safety and quality governance

7.3.1 Outline

GCHHS has a comprehensive set of policies, procedures and governance arrangements supporting clinical incident reporting in accordance with legislative requirements and healthcare best practice. On the basis of the incidents reported to this office and materials reviewed during the course of this investigation, it appears GCUH maternity staff have a strong understanding of the incident reporting framework and comply with the requirements governing incident reporting. Generally, GCUH's approach to its safety and quality incident reporting is satisfactory. There are some minor areas where there is room for GCUH to improve its approach, namely:

- timely confirmation of the incident rating through the Riskman[32] workflow

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[31] The Institute of Internal of Internal Auditors explains that a risk based internal audit 'aims to deliver increased value through effective and relevant internal auditing. It does this through a combination of aspects, approaches and techniques into a single audit while focussing on areas of highest risk to customers, stakeholders, organisation, community and the environment.' The Institute of Internal Auditors, *White Paper – Integrated Risk-Based Internal Auditing*, July 2016.

[32] Riskman is the new clinical incident management system that is replacing PRIME. Queensland Health are rolling out the system statewide.

- classification of issues at the initial stage of an incident, with delays to the incident being reviewed and actioned
- using trends to drive process improvements.

7.3.1.1 Timely confirmation of incident ratings

With the introduction of Riskman in February 2017 there have been some challenges, and refinements have been required to be made to the system to ensure that it is appropriately supporting the notification, confirmation and management of clinical incidents. The internal audit undertaken by GCHHS in March 2017 in relation to SAC 2 incidents identified that there were significant delays in the confirmation of the incident SAC rating in the Riskman workflow. This confirmation process involves the SAC rating being initially entered by the reporting officer based on their assessment of the incident, which is then reviewed by the relevant line manager who will confirm or change the SAC rating. The audit identified that it was taking longer than 20 days for the line manager to confirm the SAC rating, which in turn affected the ability of staff to meet the 60-day KPI for analysing SAC 2 incidents. This was a problem with a system setting in Riskman, which was rectified in September 2017.

For all SAC confirmations this issue presents a risk for GCHHS; the confirmation of a SAC rating has flow-on effects for the type of analysis required, the timeframes involved and the area responsible for responding to and advancing the issue. GCHHS is aware of this risk and is seeking to address it via their revised clinical incident management framework. Specifically, it is proposed as part of the revised clinical incident management procedure that the SAC rating for all incidents must be confirmed within three business days of the incident being reported. Once the new procedure is published and this—or a similar KPI—is implemented, then GCHHS will review the capability of Riskman to support reporting on this KPI for the CIRC.

It is important GCHHS implement a KPI for the timeframe for confirming the SAC rating of an incident and ensure compliance with that timeframe so there is timely management of and response to clinical incidents throughout the clinical incident control environment.

7.3.1.2 Classification of issues

GCHHS has implemented a process whereby all SAC 1 incidents are reviewed by patient safety coordinators and presented at a weekly Executive Triage Meeting (ETM). This meeting is comprised of the Executive Director, Clinical Governance, Education and Research (EDCGER) as chair, with committee members being the Senior Director, Clinical Governance, Director, Safe Healthcare and clinical and nursing directors from each directorate. The ETM's role is to review all unconfirmed SAC 1 incidents, complex cases or clinical incidents resulting in death or serious harm. This meeting is judged against a 100 per cent KPI target for reviewing all unconfirmed SAC 1 incidents. The ETM reports to the CIRC and through the CIRC to the CGC on their performance against the KPI and any trends identified from clinical incidents, complaints or legal matters. This process has been a positive shift in classifying incidents as it secures oversight of the classification of decisions by the most senior patient safety position in consultation with senior clinicians from relevant directorates; this promotes a thorough and complete understanding of the incident and its appropriate classification. Previously, the directorate input

into incident classification was limited, which precluded a robust understanding of the incident details and its appropriate classification.

Despite the above processes, classification of incidents is not an exact science and, due to the changing clinical nature of certain incidents, the category rating can change. In recognition of the fluidity inherent in clinical incidents, GCHHS has safeguards whereby matters are reconsidered to see if their initial categorisation should be changed. For example, GCHHS uses Morbidity and Mortality meetings to consider clinical incidents. In some cases the outcome from these meetings has prompted a change to the classification of an incident. The following case study also illustrates GCUH's fluid approach to clinical incident classifications.

Case study of changes in SAC ratings

GCUH advised this office in December 2016 that it had undertaken an analysis of reassessed maternity incidents for the 2015–16 financial year. There were 640 incidents reported during the year, 41 of which were reclassified with two being upgraded to a higher SAC rating and the remaining 39 downgraded. The top three rationales provided for these reclassifications were:

- reduction in the SAC rating because the expected level of harm at the time the incident was reported did not correspond with the actual level of harm, largely due to an improvement in the patient's condition
- no clinical issues or harm were identified after a clinical review of the incident
- no reason was recorded for the reclassification and could not be ascertained from the risk management system at the time.

While this example demonstrates that GCHHS understands risk is fluid and does not remain fixed at a single point in time, it also illustrates that there are times when serious incidents are missed due to their initial classification. While in some instances the safeguards have rectified these gaps, there may be other cases that should have had higher SAC ratings that have not been caught by the review system. This is no particular failing on the part of GCHHS, but demonstrates the importance of reflecting on and understanding why risk classifications change and securing a prompt change as required. Without this understanding, the late identification of an issue can cause significant delays for the review and escalation of the adverse event. For example, in the CGC KPI report from November 2017, reporting on data from September 2017, it notes that the ETM confirmed six individual SAC 1 incidents. The incident dates were 16 January 2017, 27 May 2017, 5 July 2017, 22 August 2017, 25 August 2017 and 5 September 2017. This data highlights that on some occasions incidents take a considerable period to confirm, taking the example of the January 2017 incident confirmed in September 2017. While this delay will likely have a reasonable explanation, this length of time emphasises the need for continued focus on confirming the classification of incidents as soon as practicable. These types of delays and their causes are highlighted by the following case studies.

Case study of patient B

The adverse clinical incident involving patient B occurred on 5 July 2016. The incident was reported on 24 December 2016 and the RCA was commissioned on 6 February 2017. The RCA was completed in March 2017, some eight months after the incident occurred. GCHHS advised there

Case study of patient B

was a delay because, on reviewing the incident, further information was needed to appropriately classify the incident. On receipt of that further information it was decided that an RCA should be undertaken.

Case study of patient D

Patient D attended GCUH and underwent an emergency caesarean section in January 2017. The baby died. At the weekly ETM the EDCGER concluded that it was not a clinical incident. In accordance with the Morbidity and Mortality procedure this case was discussed further and it was requested that it be reconsidered via the ETM. The case was discussed at the ETM meeting on 22 March 2017 and it was agreed that an RCA should be conducted. The RCA was not due to be commissioned until 21 April 2017.

Ideally a SAC rating and RCA or HEAPS analysis would have been identified as necessary at the time that they occurred. Nevertheless, the above case studies also demonstrate that the current processes for reviewing incidents in multiple forums operates as expected and is sufficiently robust to ensure that incidents are appropriately classified, even if such classification is delayed. GCHHS clearly has mechanisms for reconsidering the status of an incident and is open to the SAC rating changing (this being the true measure of whether a health service has an adequate approach to incident classification). While the timeliness of an incident review can be adversely affected by a late identification, GCUH's approach to classifying and reclassifying incidents is encouraging.

7.3.1.3 Trends driving proactive process improvements

Throughout the course of this investigation this office identified that there appeared to be a gap in the use of trended clinical incident data in relation to SAC 3 and 4 incidents and patient complaints. Historically, there has been emphasis on the use of SAC 1 and 2 trend data to drive quality and safety improvements, given these represent the most significant incidents. However, in the clinical environment the majority of incidents are SAC 3 or 4, meaning that there is a rich body of information that can be used to identify emergent issues or areas for process improvement. Since 2016, GCHHS has reported on SAC 3 and 4 incident numbers and themes in the KPI report presented to the CIRC. There are also a number of service line level and subject matter specific committees which review this information and take any necessary steps to address process improvement as required.

While this is a sound approach to the use of trended data from SAC 3 and 4 incidents, there is still room for improvement for GCHHS in respect of the entire safety and quality culture. This is recognised in the *Safety and Quality Strategy 2017–2020* which outlines a roadmap to excellence in safety and quality, including a 'culture of recognition, learning and acting in SAC 3 and 4 incidents and consumer feedback'. This greater emphasis on the safety and quality culture will only assist GCHHS with further refining its robust, thorough and responsive safety and quality approach.

7.3.2 Recommendations

The robust procedures now in place, and continuing to be refined by GCHHS, have created a positive incident reporting culture that understands the importance of identifying and appropriately classifying clinical incidents. While classification of incidents is dynamic, GCHHS demonstrates an openness to changing its approach to an incident where the information supports revision of an initial rating or classification. This has created some delays in the cases highlighted above but, on the whole, GCHHS has implemented a sound safety and quality governance approach supporting the timely reporting, classifying and managing of clinical incidents.

Going forward GCHHS should continue to distil its use of trended data from all incidents, complaints and legal matters to maintain its status as a high reliability organisation committed to continuous improvement.

It is recommended that:

7. Within 12 months, GCHHS evaluates how incidents are classified to ensure that:
    a. incidents are classified appropriately in the new clinical incident management framework
    b. GCHHS understands the reasons for the classification and/or reclassification of incidents, with an emphasis on identifying any areas for process improvement where there are delays.
8. GCHHS publishes a yearly safety and quality snapshot on the state of the maternity service.

8. Conclusion and recommendations

GCUH is a tertiary facility servicing the Gold Coast and the surrounding region. Its ability to provide tertiary level, safe and high quality maternity services is critical for the community within its catchment. Since 2013, GCUH has significantly improved and refined its service through its commitment to continuous improvement. Some of the improvements have evolved in response to the changing nature of the health environment; it is clear the measures discussed in this report demonstrate GCHHS' ongoing revision of its service to ensure delivery of a contemporary maternity service providing a high standard of care in which the community can have confidence.

The historical issues identified in this report had the potential to have a significant impact on GCHHS' management of and response to clinical incidents; this in turn can affect patient health and safety because the system must be robust to prevent the issues recurring as far as practicable. The steps being taken by GCHHS to restructure the Clinical Governance Service and review the clinical incident management framework demonstrate that a robust, thorough and appropriate system is in place to respond to incidents. This system is underpinned by GCHHS' safety and quality goals, which are clearly aimed at making the service more proactive in addressing areas for safety and quality improvement.

In May 2016, the former Minister for Health and Minister for Ambulance Services released the *My health, Queensland's future: Advancing health 2026* plan. This a roadmap for how to drive healthcare improvements for Queenslanders. Many of the comments and recommendations made in this report will

assist GCHHS to align with this future vision of healthcare in Queensland, enabling the service to confirm its status as a leader in health service delivery.

One of the key elements of the strategic agenda for delivering healthcare into 2026 is a continuous improvement culture and clinical practice[33], which is also a major theme underscoring many of the recommendations for GCUH's maternity service. Other aspirations and elements of the roadmap include seeking to have a single source patient record, using health navigators to coordinate and support patient journeys within and across the health system, and increasing the use of data to drive process improvements. These areas of focus accord with the findings and recommendations within this report, and will support GCHHS to evaluate the changes being implemented to meet these goals so they are at the forefront of the government's vision for healthcare into the future.

The issues identified throughout the office's investigation have either started to be addressed or have had measures implemented by GCHHS independent of this report; as a result the recommendations are framed to allow the office to evaluate the effectiveness of the measures implemented to ensure that they are responding to the key concerns outlined in the complaints. This approach enables the sharing of information and perspectives from both GCHHS and this office so each can contribute our own experience and perspective to further refine a high quality and safe maternity service. The strong collaboration between this office, GCHHS and other key stakeholders undertaken when finalising this report will be maintained throughout the recommendations monitoring phase and has been built into the recommendations monitoring plan (see **Appendix 6**). Overall, the office is satisfied GCHHS provides a safe and high quality maternity service that has the requisite drive and commitment to patient safety and continuous improvement. Maintaining its energy and focus, which it has been building upon over the last 18 months, will enable GCUH to provide more refined and further improved maternity services.

Full list of recommendations

No.	Recommendation
1.	Within 12 months, GCHHS evaluates the practices, procedures and protocols governing management of pregnant women within the GCUH emergency department; the criteria against which the standards are evaluated should be determined by GCHHS in advance of the evaluation. This evaluation should include, but is not limited to: a. assessing whether the overall management of pregnant women in the emergency department is to the standard expected of a tertiary level facility and contemporary with GCUH's peer hospitals b. GCHHS' assessment of the efficacy of the supporting infrastructure, including policies, initiatives, training, implemented to appropriately manage pregnant women in the GCUH emergency department.

[33] *My health, Queensland's future: Advancing health 2026*, State of Queensland (Queensland Health), May 2016.

No.	Recommendation
2.	Within six months, GCHHS evaluates the midwifery navigator model of care to ensure that it is meeting the objectives of the role and expectations of the Office of the Chief Nursing and Midwifery Officer in funding the implementation of the roles.
3.	Within 12 months, GCHHS evaluates the effectiveness of MATIS and eMR in recording pregnant woman's risk status, including: a. how changes to a woman's risk status is captured and communicated throughout her care b. identifying any barriers to information sharing resulting from existing systems used to communicate risk status both within the maternity service and across services within GCUH e.g. clinical practice issues associated with clinicians not utilising or responding to alerts in the eMR when caring for pregnant women.
4.	Within one month, GCHHS develops and implements an audit program (prior to the implementation of ieMR) for maternity records to ensure compliance with clinical practice and the policies and procedures governing recordkeeping, including whether: a. MATIS has been appropriately completed and updated b. MATIS records have been imported into the eMR.
5.	Within 12 months, GCHHS evaluates its revised clinical incident management framework, following the completion of the framework review, to assess its effectiveness in appropriately responding to and addressing adverse incidents, trends and risk. The evaluation should consider: a. the effectiveness of the framework to secure the full implementation of recommendations or other risk treatments and to ensure that there is appropriate oversight of implementation throughout the safety and quality governance chain b. the effectiveness of the evaluation procedure for the implementation of recommendations, including (but not limited to) ascertaining whether the implemented recommendation/s has/have addressed the issue/s, whether there have been any further adverse events, and any new recommendations for further improvements, if any. This should include an audit of a sample of recommendations and the evaluation of their effectiveness c. the adequacy of the system in developing new recommendations, including that the system can support the identification and consideration of previous recommendations stemming from similar contributory factors in similar clinical incidents (for example, a review of all recommendations arising from a review of similar clinical incidents for the preceding 24 months to ascertain whether recommendation/s have been made previously) d. the escalation process for managing and responding to recurring recommendations, including:

No.	Recommendation
	i. a review of the same or similar recommendations made in the previous 24 months ii. an analysis of why the recommendation/s is being repeated, barriers to implementation and the impacts on safety and quality iii. measures that can be implemented top-down to prevent the issue, as far as practicable, from recurring.
6.	Within six months GCHHS develops and implements a qualitative review for the CIRC and CGC in relation to the reporting of the recommendation status, including implementation and escalation of repeating recommendations. This should form part of the clinical incident management framework review. The review should be: a. targeted at ensuring the accuracy of reporting from committees in the safety and quality governance chain in relation to implemented recommendations and repeat recommendations, and reviewing the effectiveness of the evaluation of implemented recommendations b. risk based in line with criteria developed by GCHHS to guide the identification of the sample of recommendations and repeat issues to be reviewed; where possible the audited recommendations should come from a range of SAC classifications.
7.	Within 12 months, GCHHS evaluates how incidents are classified to ensure that: a. incidents are classified appropriately in the new clinical incident management framework b. GCHHS understands the reasons for the classification and/or reclassification of incidents, with an emphasis on identifying any areas for process improvement where there are delays.
8.	GCHHS publishes a yearly safety and quality snapshot on the state of the maternity service.

Acronyms

AHMAC	Australian Health Ministers' Advisory Council
AHPRA	Australian Health Practitioner Regulation Agency
CIRC	Critical Incident Review Committee
CGC	Clinical Governance Committee
COAG	Council of Australian Governments
CSCF	Clinical Services Capability Framework
CTG	Cardiotocography
ETM	Executive Triage Meeting
GCH	Gold Coast Hospital
GCHHS	Gold Coast Hospital and Health Service
GCHSD	Gold Coast Health Service District
GCUH	Gold Coast University Hospital
HEAPS	Human Error and Patient Safety
HHB Act	*Hospital and Health Boards Act 2011*
HHS	Hospital and Health Service
MATU	Maternity Assessment and Triage Unit
MAC	Maternity Assessment Centre
RANZCOG	Royal Australian and New Zealand College of Obstetricians and Gynaecologists
RCA	Root Cause Analysis
SAC	Severity Assessment Code
SaPS	Specialty and Procedural Services
Standards	National Safety and Quality Health Service Standards
WHA	Women's Healthcare Australasia

Appendix 1—Timeline of key events[34]

Date	Event
2006	Gold Coast Hospital Birth Centre opened (GCH Birth Centre).
2010	Gold Coast Health Service District (GCHSD) commissioned a review of maternity services provided at GCH Birth Centre in response to three adverse neonatal outcomes and temporary withdrawal of visiting medical officer support due to safety issues. Caroline Homer, Michael Nicholl and Shirley Wee (Homer et al) conducted the review.
5 pm, 15 July 2010	GCH Birth Centre services temporarily suspended due to obstetrician concerns about the clinical practices at the centre. These services were resumed at 7 pm on 16 July 2010.
16 July 2010	The former Health Quality and Complaints Commission (HQCC) commenced an inquiry into the incidents at GCH Birth Centre.
August – September 2011	Caroline Homer et al completed the *Service Review of Birthing Services at Gold Coast Hospital – Progress Report 2011*.
5 September 2011	The HQCC was satisfied the GCHSD had addressed the recommendations from the Homer et al review and decided to take no further action in response to the issues.
May 2013	Homer et al completed the *Review of Maternity and Gynaecology Services provided at Gold Coast Hospital, in preparation for the provisions of tertiary services from Gold Coast University Hospital*.
2013	GCH Birth Centre moved to the Gold Coast University Hospital.
28 September 2013	Gold Coast University Hospital (GCUH), including maternity ward, opened.
2013	Royal Australian and New Zealand College of Gynaecologists completed a specialist training reaccreditation review in 2013 and provided GCUH with a further four years of full accreditation.
March 2014	The Australian Council of Healthcare Standards completed a reaccreditation of GCUH.
1 September 2014	The former Office of the State Coroner raised concerns with the office, on behalf of a paediatric registrar from GCUH, regarding the treatment of a pregnant adolescent patient and subsequent neonatal death.
February 2015	Dr Rupert Sherwood completed the *Review of Maternity Service – Gold Coast University Hospital* report (Sherwood Review).

[34] This timeline does not include a number of internal reviews undertaken by GCUH and GCHHS of various areas within the maternity service in 2015 and 2016. These reviews have covered topics such as the model of care for maternity services, patient flow and workforce optimisation. It is the office's expectation that, as the owners of the maternity service, GCHHS and GCUH will routinely undertake these reviews in response to the clinical and operational environment and they therefore fall outside of the scope of this investigation.

Date	Event
March 2015	Adverse media coverage about the safety of the maternity services at GCUH.
4 May 2015	The office commenced an own motion systemic investigation into the quality of maternity services at GCUH as a result of adverse medical coverage of the safety of the service and several adverse neonatal outcomes.
June 2015	A review was completed as per the recommendation in the Sherwood Review.
11 August 2015	The office received an individual complaint about a neonatal death, involving possible systemic issues.
22 March 2016	The office received an individual complaint about an adverse neonatal outcome, involving possible systemic issues.
3 May 2016	The Queensland Notifications Committee of the Medical Board of Australia raised an own motion complaint with the office about systemic issues within the maternity service at GCUH.
9 August 2016	Health Ombudsman wrote to GCHHS and Director General, Queensland Health, about systemic issue trends in maternity services both at GCUH and statewide.
23 August 2016	Mr Ron Calvert, Chief Executive, GCHHS, responded to the Health Ombudsman's concerns.
15 November 2016	Queensland Health held a Maternity Services Forum (discussed at section 2.1 above).
22 November 2016	Meeting between this office and GCUH about outstanding issues and information requirements for the systemic investigations into the maternity service.

Appendix 2—Statewide and national maternity services frameworks

State standards, guidelines and benchmarks

Clinical services capability framework

In 1994, the first iteration of the Clinical Services Capability Framework for public and licensed private health facilities (CSCF) was introduced in Queensland; it originally only applied to public hospitals but from 2004 onwards it was extended to apply to public and private hospitals. The CSCF sets out the clinical and support services that a hospital can safely provide within their capability level.

There are six CSCF levels for facilities covering a range of acute and sub-acute care, including maternity and neonatal services. The maternity service CSCF module aims to achieve the safe provision of care to the mother and baby as close as possible to home, recognising that some women and babies need to travel outside of their local community to access appropriate levels of care. The models of care are dependent on the woman's maternity risk, which may be low, moderate or high[35]. The maternity services module must be read and applied in conjunction with the neonatal services module as maternal care requirements cannot occur in isolation of the neonate.

All existing and new CSCF module development is managed via the CSCF Governance Committee, which is overseen by the Chief Health Officer, Department of Health, and Director General, Department of Health.

Queensland Health clinical guidelines

Queensland Health has developed a set of clinical guidelines, flowcharts, educational tools and consumer information, covering a variety of topics relevant to maternity, neonatal care and operational frameworks. These guidelines are publicly and freely available on the internet. The guidelines are reviewed by Queensland Health every five years unless a change in practice necessitates an earlier review.

Subject matters covered by the guidelines include early pregnancy loss, gestational diabetes mellitus, induction of labour, intrapartum foetal surveillance, normal birth, trauma in pregnancy, vaginal birth after caesarean section, routine newborn assessment, hypoxic-ischaemic encephalopathy, and resuscitation of a neonate.

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[35] The three categories of care under the CSCF are: low risk requiring primary care form a midwife or general practitioner; moderate risk requiring secondary care from a general practitioner or registered medical specialist in obstetrics; and high risk requiring tertiary care from a multidisciplinary team in a specialised service (level 6 facility).

Variable life adjustment display

Queensland Health developed a variable life adjustment display (VLAD) in response to serious adverse events that occurred in and around 2005. The VLADs are a tool for identifying extraordinary trends in certain clinical cases (defined by clinical indicators) either at the time of, or very close in time to when the case occurs, so the causes can be explored and reported on to improve patient safety. While the VLAD indicators will be triggered by a particular clinical case, they are monitored and reported on over time to see the trend of a HHS' performance against the indicator and to inform system improvements.

There are three groups of VLAD indicators with three flagging levels[36]. VLADs are generated on a monthly basis, responsive to the clinical environment, utilising data from various sources. This is a critical tool for a broad picture of patient outcomes against set clinical indicators. It also enables hospitals to plot their progress against these set clinical indicators in comparison to state averages and identify trends that could indicate an issue with, or improvement in, clinical outcomes.

When a VLAD flags at a particular point it suggests that, over time, there has been more (or less) patients experiencing the outcome than expected. For example, a current clinical indicator is the number of first time mothers who have undergone a caesarean section in a public hospital; the VLAD sets the state average as the baseline for this group of patients, then any variations from this are required to be reported on by the relevant HHS when they reach the predetermined flagging level. This is a group B clinical indicator.

HHSs are required to mandatorily report on lower level 2 and lower level 3 VLAD flags.[37] If an HHS is notified about a VLAD flag, they then have 30 days to complete a review of the variation and prepare a report, including identifying any issues and outlining an action plan to correct poor results or maintain positive results. These reports are uploaded onto the VLAD clinical monitoring system[38], access to which is limited to set persons within an HHS.

All responses to lower level 3 flags are reviewed by the VLAD Committee who clinically review responses for adequacy and action plans. The committee may request further information from an HHS if concerns are raised regarding the appropriateness of the response and/or proposed action. The committee may also escalate issues if HHSs fail to comply with their VLAD obligations. The committee meets monthly.

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[36] There are three groups of VLAD indicators: group A, group B and group C. There are then three levels that vary dependent on the group. A lower level rate indicates the outcome rate is higher than the state outcome rate, whereas, the upper level rate indicates the outcome rate is lower than the state average. For group A, levels 1 to 3 are 30%, 50% and 75% respectively. For group B, levels 1 to 3 are 50%, 75% and 100% respectively. For group C, levels 1 to 3 are 125%, 150% and 175% respectively.

[37] Level 1 flags are not required to be reviewed.

[38] The VLAD clinical monitoring system is an electronic information system that disseminates VLAD graphs and notification reports and captures responses to flags. The system is maintained by the Patient Safety and Quality Improvement Service within the Department of Health.

National standards, guidelines and benchmarks

National Safety and Quality Health Service Standards

The Australian Commission on Safety and Quality in Healthcare was established in 2006 by the Australian, state and territory governments to lead and coordinate national improvements in safety and quality in health care.[39] One of the commission's key outputs was the introduction of the National Safety and Quality Health Service Standards (the standards), which were introduced in September 2011. All hospitals were required to be accredited to the standards from January 2013. These standards serve two major purposes:

- They provide a standard set of capability requirements for maternity care by public and private maternity services.
- They provide consistent language for health care providers and planners when describing maternity services and planning maternity service developments.

There are 10 standards, namely:

1. governance for safety and quality in health service organisations
2. partnering with consumers
3. preventing and controlling healthcare associated infections
4. medication safety
5. patient identification and procedure matching
6. clinical handover
7. blood and blood products
8. preventing and managing pressure injuries
9. recognising and responding to clinical deterioration in acute healthcare
10. preventing falls and harm from falls.

Each standard sets out a list of key criteria, each of which has a series of items and actions required to meet the standard. All hospitals must be reaccredited every three or four years, depending on their original accreditation schedule. To achieve accreditation, a hospital must demonstrate 100 per cent compliance with all requirements of all 10 standards. If a hospital does not meet some of the requirements they are given 90 days to rectify the issue before a decision is made regarding accreditation. The commission has approved accrediting agencies to accredit hospitals in accordance with the standards.

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[39] Australian Commission on Safety and Quality in Health Care, '*About Us*', https://www.safetyandquality.gov.au/about-us/governance/.

National Maternity Services Plan 2010 to 2016

The National Maternity Services Plan, developed by the Australian Health Ministers' Advisory Council (AHMAC) and its Health Policy Priorities Principal Committee, sets out a five year vision for maternity services in Australia from 2010 to 2015. The plan was extended by a further year to 30 June 2016. The purpose of the plan was to provide a strategic national framework to guide maternity services' policy and program development across Australia.

The plan had four priority areas, these being:

- access
- service delivery
- workforce
- infrastructure.

The plan was underpinned by 10 principles for maternity services in Australia. These principles varied from ensuring maternity services are woman-centric, to delivering equity of access in both rural and remote and city locations, to securing maternity services within a national system for monitoring performance and outcomes and guiding quality improvement.

Implementation, reporting and evaluation of the plan were the responsibilities of AHMAC who reported to COAG. The plan will be superseded by the National Framework for Maternity Services, which is currently being developed and is discussed below.

Draft National Framework for Maternity Services

In April 2016, the COAG Health Council agreed that the National Framework for Maternity Services will focus on two key components:

- evaluation of the processes that occurred in developing and implementing the National Maternity Services Plan 2010–2015
- development of an enduring National Framework for Maternity Services.

The purpose of the framework, once developed, is to provide a vision and principles for the delivery of maternity services in Australia, which can provide a structure for states and territories to develop jurisdictional plans relevant to their local circumstances.

In March 2017, a draft National Framework for Maternity Services was released for consultation, with the consultation period closing on 18 April 2017. This was the second phase of consultation.

National Core Maternity Indicators 2016

The National Core Maternity Indicators were developed by the Australian Institute of Health and Welfare in 2011 to support the introduction of the Maternity Services Plan. The purpose of the indicators is to

monitor the safety and quality of maternity services to ensure that there is continual improvement and the maintenance of the high standards of maternity services in Australia.

There are 15 indicators, three being new and in response to maternity data available between 2004 and 2013 (being the most recent perinatal data[40] available). The indicators cover the antenatal period, labour and birth, and birth outcomes. Nationally, there has been an unfavourable increase in 10 indicators between 2004 and 2013.

The indicators are an important measure to inform maternity service providers and the community about the performance of the maternity service system across Australia and prompt improvements to the system in a meaningful, evidence based way in response to key clinical datasets.

Women's Healthcare Australasia benchmarking

Women's Healthcare Australasia (WHA) is the peak not-for-profit body for hospitals and healthcare services providing healthcare to women and babies across Australia.[41] Membership is not compulsory but a significant number of public and private health services throughout Australia, including GCHHS, have current membership with WHA.

One of the key outcomes from WHA is a benchmarking report released for each financial year. This report benchmarks clinical care outcomes against a set of agreed clinical indicators. It enables peer health services to gauge their overall performance against the clinical indicators in comparison to other equivalent health services—health services being grouped according to their level from the CSCF. It is a useful tool for enabling health services to identify areas where they are doing well or where there is room for quality improvement.

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40 The Australian Institute of Health and Welfare (AIHW) is responsible for the National Perinatal Data Collection, which is a national data collection for pregnancy and childbirth. The data is collected by state and territory health departments and each year an extract is provided to AIHW for compilation into a national dataset.

41 https://women.wcha.asn.au/

Appendix 3—Statewide and national maternity services networks

State networks

Queensland Maternal and Perinatal Quality Council

The Queensland Maternal and Perinatal Quality Council, established in 2009, reports to the Minister for Health and Minister for Ambulance Services and is gazetted under the *Hospital and Health Boards Act 2011* (HHB Act) as a quality committee. The council's purpose is to:

- collect and analyse clinical information regarding maternal and perinatal mortality and morbidity in Queensland to identify statewide and facility-specific trends
- make recommendations to the Minister for Health and Minister for Ambulance Services on standards and quality indicators of maternal and perinatal clinical care to enable health providers in Queensland to improve safety and quality
- assist with the adoption of such standards in both public and private sectors[42]
- work collaboratively with various state and national government agencies, including the Statewide Maternity and Neonatal Clinical Network, to advance its goals of improving the quality of maternity services across Queensland.

The council consists of no more than 25 members and comprises representatives from a number of fields, including neonatology, obstetrics, midwifery, neonatal nursing, maternal foetal medicine, general practice obstetrics, Indigenous health, data collection and statistical analysis, and consumers. The current chair of the council is a senior specialist in obstetrics and gynaecology at GCUH. The council has a number of sub-committees dedicated to key subject matter areas e.g. Maternal Mortality and Aboriginal and Torres Strait Islander Perinatal subcommittees.

The council may seek information and data from a variety of sources, including this office, to inform its work. Reporting is an important function of the council, with it preparing biennial or triennial and ad hoc reports for the Minister for Health and Minister for Ambulance Services. These reports identify trends and issues in maternity and neonatal care relating to maternal and perinatal mortality and morbidity, making recommendations for quality improvement activities and methodologies for their implementation to improve the safety and quality of health services.

Statewide Maternity and Neonatal Clinical Network

The Statewide Maternity and Neonatal Clinical Network was established in 2007 and its remit is to:

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42 Queensland Maternal and Perinatal Quality Council, terms of reference, July 2016.

- ensure consumers and/or carers are supported to actively participate in open, honest, shared decision-making to improve the patient experience and patient health outcomes
- provide expertise, direction and advice to all Queensland healthcare providers and the Department of Health in relation to maternity and neonatal care
- provide strategic oversight of statewide maternity and neonatal clinical documents
- provide expertise, direction and advice to healthcare administrators.

The network comprises multidisciplinary representation from various fields, including obstetrics, midwifery, neonatology, allied health, public health and Indigenous Australians from around the state. The network also works in collaboration with a variety of stakeholders, including the Queensland Maternal and Perinatal Quality Council, Children and Youth Services, Patient Safety and Quality Unit, and the Office of the Chief Nursing and Midwifery Officer.

The network's priorities for the 2016–17 financial year include standardising and improving care for mothers and babies through guidance and strategic oversight of the Queensland Clinical Guidelines Program, Midwifery Leadership Advisory Group and Statewide Neonatal Planning Project.

Maternity Services Forum

In November 2016, the Maternity Services Forum was convened at the request of the Honourable Cameron Dick, then Minister for Health and Minister Ambulance Services, to respond to broad concerns about the quality of public maternity services in Queensland, which the former Health Ombudsman in part raised directly with Queensland Health. The forum was attended by 119 key stakeholders from each of the 15 hospital and health services (HHS), with representatives from obstetrics, midwifery, safety, quality and clinical governance, and health care consumers.

Prior to the forum, a survey was conducted with HHS staff (not limited to those attending the forum), key stakeholders and consumers working in maternity services about what was and was not working well, why had the issues arisen, and the impacts on maternity services. The survey identified three main areas for discussion at the forum:

- improving leadership and management of public maternity services with a focus on joint professional collaboration to deliver consumer centric care
- improving the reliability and timely response to changing risk to mother and baby, especially during labour
- improving the reliability and sustainability of staffing, skill mix and care models.

At the conclusion of the forum it was agreed that three working groups would be established and they would work closely with the Statewide Maternity and Neonatal Clinical Network to continue developing an action plan in response to the issues identified at the forum. The working groups are:

- Group 1: Collaborative Leadership Culture

- Group 2: Identification and management of risk in pregnancy[43]
- Group 3: Models of Care and Workforce.

The completed action plans from each group were endorsed by the Queensland Health System Leadership Team in May 2017, with work commencing to support delivery of the actions in the 2017–18 year. This work will be overseen by the Maternity Services Forum Steering Committee at quarterly meetings.

In addition to the working groups, the Maternity Services Forum identified a number of challenges facing Aboriginal and Torres Strait Islander mothers, babies and their families. It was agreed that these issues should be addressed via a specific, focused discussion, which is scheduled for 3 August 2017.[44]

National networks

Council of Australian Governments Health Council

The Council of Australia Governments (COAG) is the peak intergovernmental forum in Australia. Its members are the Prime Minister, state and territory first ministers, and president of the Australian Local Government Association. COAG has eight councils that support it to fulfil its national functions.

The COAG Health Council and its advisory body, the Australian Health Ministers' Advisory Council, provide a mechanism for the Australian Government, New Zealand Government and state and territory governments to discuss matters of mutual interest concerning health policy, services and programs.

One of the key projects currently underway by the council is the National Maternity Services Framework (discussed in detail above).

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[43] GCHHS is participating in this working group.

[44] Clinical Excellence Division, Maternity Services Forum, Communique, July 2017.

Appendix 4—External review recommendations: 2010–2015

The table below sets out the recommendations made about GCUH's maternity service across the various reviews between 2010 and 2015, categorised by the eight relevant issue areas identified in the Internal and external review recommendations: 2010–2015 section above (Section 4). The table notes whether the recommendations were repeated across reviews and the current implementation status. Not all recommendations have been included as some are not relevant to the scope of this investigation and others have been superseded by other recommendations or events.

Review	No.[45]	Recommendation	Implemented – Y/N/Partial	Action	Issue reoccurrence
Adverse outcomes despite reviews					
2010					
Homer et al	1	GCH needed to have access to clinical data collected through a perinatal information system. This would facilitate the collection, reporting and review of clinical outcomes.	Partial	Due to resourcing issues in 2010–2011 the options for implementing this recommendation had been explored but none had been implemented. By May 2015 GCUH was developing a clinical dashboard for maternity services, pulling together several reports into one system that is reviewed by the Safety and Quality Meetings.	Yes—recommendation repeated in: ▪ Homer et al review in 2011. ▪ Homer et al review in 2013 – advised of planned implementation date of 14/04/2014.
2015					

[45] This is the number of the recommendation as listed in the corresponding review.

Review	No.[45]	Recommendation	Implemented – Y/N/Partial	Action	Issue reoccurrence
Sherwood	19	Establish and publish clear guidelines for the reporting and feedback from all TIER 1-3 Safety and Quality Committee meetings.	Yes	This is being reviewed as part of the clinical incident management framework review and will likely change following that review.	No
Accountability and responsibility					
2010					
Homer et al	9	GCH needed to develop an action plan to address the concerns of RANZCOG noted in 2007.	Yes and ongoing	An action plan was developed in November 2010, but as at September 2011 there were still outstanding recommendations from RANZCOG in 2007 and new recommendations from 2011. A new action plan needed to be developed for all recommendations. As at October 2016, GCUH advised that some of the RANZCOG recommendations were difficult to implement due to the constraints of a hospital environment. These issues were continuing to receive attention to ensure that continuous improvements were are being made.	No
2011					

Review	No.[45]	Recommendation	Implemented – Y/N/Partial	Action	Issue reoccurrence
Homer et al	B	Organisational structure, meetings and governance processes need to be implemented as a matter of priority.		By May 2015, a clinical governance framework had been developed, implemented and evaluated. This was flagged to be modified to align with the new GCUH management structures.	Yes— recommendation repeated and expanded in the Sherwood Review in 2015(see recommendation 6 and 20 below).
2015					
Sherwood	4	Review the progress of the Action Plan and KPIs of the Clinical Governance Working Group and ensure they are in line with the revised SaPS operational structure and provide a governance framework for maternity services.	Yes	As described in section 7.2 above, there has been significant work undertaken by GCHHS to implement reporting mechanisms on KPI performance to the CIRC and CGC.	Yes—the same themes around governance arrangements were highlighted in the Homer reviews in 2010, 2011 and 2013.
	6	The GCHHS Board and CEO should ratify the importance of the Clinical Governance Committee (CGC) as the key oversight committee with access to reviews and reports relevant to all GCHHS services.	Yes	While not specifically ratified by the GCHHS Board, the terms of reference for the CGC make it clear that it is the principal strategic clinical governance forum focused on the effective organisation and safe delivery of care for GCHHS.	No

Review	No.[45]	Recommendation	Implemented – Y/N/Partial	Action	Issue reoccurrence
	11	WHA and ACHS obstetric indicator data should be circulated to clinicians across disciplines to affirm GCUH's performance relative to other comparable hospitals.	Yes	WHA and ACHS data is routinely shared as part of the GCHHS focus on continuous quality improvement.	No
	18	EFT allocation of the Safety and Quality officer for SaPS to be reviewed as only 0.5 to 0.7 FTE but tertiary service with greater than 4000 births per year should have minimum 1.0 FTE with separate support for gynaecology.	Yes	A 0.9 FTE has been appointed to the safety and quality officer role with 0.5 of their FTE time dedicated to maternity and 0.4 of the FTE time allocated temporarily to Maternity, Newborn and Children's Services. Additionally, new roles have been added more broadly across GCUH that support the maternity service, these include: clinical quality leads for handover and recognition and responding to clinical deterioration and a dedicated patient liaison officer.	No
	20	Review the outcome and key performance indicators (KPI) for 12 to 18 months for the: ▪ Clinical Governance Committee	Partial	While this may form part of the overall safety and quality governance process, there is no evidence indicating that a formal audit or review of the outcomes and KPIs for these committees was undertaken either immediately after the	This issue has not been repeated but is captured in this report in section 7.2 above.

Review	No.[45]	Recommendation	Implemented – Y/N/Partial	Action	Issue reoccurrence
		▪ Maternity and Gynaecology Safety and Quality Committee.		Sherwood Review or since that time. Further, there is no evidence demonstrating that these committees have any KPIs that they are required to meet.	
Safety and quality governance					
2010					
Homer et al	2	Clinical outcomes for all models of care needed to be collected and reported on a regular basis, including incorporating the reporting into any new governance structure.	Yes	The implementation of this recommendation was predicated on the introduction of a perinatal information system (recommendation 1), which has now been implemented.	Yes—recommendation repeated and expanded in the Sherwood Review in 2015 – see recommendation 7 below.
	3	KPIs needed to be developed, collected and reported on a regular basis, including incorporating the reporting into any new governance structure.	Yes	The implementation of this recommendation was predicated on the introduction of a perinatal information system (recommendation 1), which has now been implemented.	Yes—as at 2 above.
	14	GCH should actively participate in the Statewide Maternity and Neonatal Clinical Network.	Yes	A delegate of GCH attended all meetings of the Statewide Maternity and Neonatal Clinical Network. This network also works closely with the Queensland Maternal and Perinatal	No

Review	No.[45]	Recommendation	Implemented – Y/N/Partial	Action	Issue reoccurrence
				Quality Council, which is currently chaired by a senior member of GCUH's maternity service.	
	16	Development and reporting of clinical and organisational triggers should be undertaken with reporting into the new governance structure.	Yes and ongoing	Queensland Health introduced the use of VLAD indicators[46] to manage clinical and organisational triggers. No new governance structure was established in 2011 to oversee the reporting. By May 2015, this type of reporting now forms part of the new governance structure via the maternity service line safety and quality meetings and broader GCHHS requests for participation in data reporting for benchmarking and clinical indicator programs.	Yes—recommendation theme repeated and expanded upon in the Sherwood Review (see recommendation 7 and 15 below).
	20	GCH based perinatal mortality and morbidity meetings should be reintroduced and adopt the	Yes	In February 2011, GCH recommenced quarterly perinatal mortality and morbidity meetings. These meetings	No

[46] Variable Life Adjustment Display (VLAD) is a methodology introduced by Queensland Health to aid the monitoring of quality services. It provides a graphical overview of clinical outcomes over time and plots the cumulative difference between expected and actual outcomes. The data for VLAD is updated monthly and allows for the timely detection of potential problems and improvements in performance.

Review	No.[45]	Recommendation	Implemented – Y/N/Partial	Action	Issue reoccurrence
		PSANZ[47] method of investigation, categorisation and reporting of perinatal deaths.		were conducted in accordance with PSANZ guidelines. These meetings are ongoing.	
	21	The safety culture of the service needed to be addressed by a formal audit. The results of the audit should have informed strategies to improve the reporting culture of critical and other incidents.	Yes and ongoing	Steps were taken to introduce training but this was not well received by staff so it was being retooled and rolled out once further developed. Also, communication and patient safety training (CAPS) was being implemented over the 12 months from September 2011. By December 2016, GCHHS, in conjunction with Best Practice Australia, undertook an organisational wide MAGNET survey to ascertain the culture within all of its services, including the maternity service. The survey covered a variety of subject matters, including 13 questions dedicated to safety and quality	Yes—recommendation re CAPS repeated in Homer et al 2011 review. Recommendation repeated and expanded in Sherwood Review in 2015 (see recommendation 15 and 17 below). Recommendation theme repeated in this report as part of all of the issues ongoing within the GCUH maternity service.

[47] Perinatal Society of Australia and New Zealand (PSANZ) is a multidisciplinary society dedicated to improving the health and long term outcomes for mothers and their babies. PSANZ encompasses and strongly encourages research focused on mothers and babies during pregnancy and at birth as well as the health of the newborn as its development continues after birth.

Review	No.[45]	Recommendation	Implemented – Y/N/Partial	Action	Issue reoccurrence
				Additionally, the HHS strategic plan for 2015 had a focus on safety and quality in order to secure a world class maternity service. This focus prompted the introduction of maternity service line safety and quality meetings, which have improved the incident reporting culture, demonstrated through an increase in the number of incidents entered onto the incident reporting system.	
	22	Outputs from incident reporting should be incorporated into an improved governance structure.	Yes and ongoing	As at 2011, recommendations were made for a new governance structure. By December 2016, GCHHS and GCUH have implemented a governance structure incorporating several committees dedicated to safety and quality reporting, monitoring and management.	Yes—this recommendation theme was repeated by the Sherwood Review and through this office's investigation.
Homer et al	B	GCH should facilitate all staff attending the CAPS training.	Yes	By May 2015, CAPS training was completed. GCHHS advised that as at December 2016, 80 per cent of all staff had successfully completed the training, with 100 per cent of the obstetric staff having attended.	No

Review	No.[45]	Recommendation	Implemented – Y/N/Partial	Action	Issue reoccurrence
				GCHHS also supports staff to undertake the 'Crucial Conversations'[48] training, which has been attended by midwifery leadership and obstetric staff.	
2015					
Sherwood	7	Data Management Group should be established to set key reporting parameters that reflect performance and outcomes beyond ones currently reported[49].	Yes	GCUH advised that by May 2015, KPIs formed part of the new governance structure relating to the clinical data collection through the perinatal information system. Also the new clinical dashboard being developed was supposed to be able to generate reports for each model of care. Therefore, while no specific data management group was established, the functions were incorporated into	Yes—the recommendation theme is captured in the issues outlined in this report.

[48] Crucial Conversations training (2-day workshop) provides participants with the tools required to have difficult conversations when the stakes are high, opinions vary and emotions run strong. The behaviours developed through the training are aimed at having flow on effects throughout an organisation to build high performance cultures that are based on trust and respect.

[49] Dr Sherwood was of the view that GCUH should add to its reporting data: five minute APGAR scores of less than 7; cord pH and lactate readings of less than 7.10 and greater than 5.5 respectively; category one Caesarean sections; term neonates admitted to NICU with birth asphyxia/hypoxic ischaemic encephalopathy (HIE) diagnosis on discharge; instrumental delivery with significant neonatal injury; moderate to severe shoulder dystocia and; primary postpartum haemorrhage greater than 1 to 1.5 litres.

Review	No.[45]	Recommendation	Implemented – Y/N/Partial	Action	Issue reoccurrence
				GCUH's development of reporting functions and amendment of the trigger list (see recommendation 15 below).	
	14	No SAC classification should be downgraded or altered without the authority of Executive Director, Clinical Governance and Research or their delegate.	Yes	All SAC 1 incidents that result in potential death or permanent harm are presented to the Executive Director, Clinical Governance, Education and Research to finalise the rating and confirm the reportable event category.	No
	15	Agreed list of obstetric/perinatal events that automatically trigger PRIME need to be redefined. GCUH may want to consider combining existing GCUH incident list with NSW Health 'Patient Safety and Clinical Quality Program' document.	Yes	By May 2015, the NSW Obstetric Trigger list for clinical incidents was implemented, including a review of the Quality and Safety escalation pathways to ensure the escalation pathways aligned with the SaPS structure. In GCUH's response in December 2016 they provided a copy of the 2016 trigger list which is significantly more comprehensive than the list in place between 2013 and 2015. The 2016 list has three areas: maternal, foetal/neonatal, organisational. There are 12, 6 and 6 triggers outlined in each of the three areas respectively and if one of the triggers occurs then it must	No

Review	No.[45]	Recommendation	Implemented – Y/N/Partial	Action	Issue reoccurrence
				be reported in the clinical incident management system. The list is displayed in the birth suite to promote compliance.	
	15	A six monthly audit should be completed to assess list amendments and PRIME reporting.	Yes	While no specific six monthly audit, GCUH provided evidence that the items on the trigger list form part of monthly reporting to the relevant safety and quality meetings. Further, where a review of a clinical activity is required then this is undertaken, usually via a working group that reviews the activity and provides a report with recommendations. Therefore, the spirit of this recommendation has been met through the improved safety and quality framework and continuous improvement of the maternity service.	No
	16	Monthly Wednesday Maternity Audit meeting should be weekly, covering a wide range of reportable outcomes each week, using the mortality and morbidity conference format.	N/A	This recommendation was superseded by changes to the management of the maternity service, including daily and weekly meetings about high risk cases, reportable outcomes and other points of note impacting on the provision of safe maternity care.	No

Review	No.[45]	Recommendation	Implemented – Y/N/Partial	Action	Issue reoccurrence
	17	Clinical Council should have the Maternity Service Report as a standing item, which should enable the GCHHS CEO and Board to be kept apprised of issues/risks facing the maternity service.	N/A	This recommendation has been superseded by the changes to the governance structure and the introduction of new safety and quality reporting.	Yes—issue theme is reflected in section 7.3 above.
Risk assessment and escalation					
2015					
Sherwood	10	Multidisciplinary Working Group (obstetrician / maternal fetal medicine consultant / neonatal representative / antenatal nurse unit manager) should be formed to explore current and future integration of Maternal Fetal Medicine service into overall maternity service.	Yes and ongoing	The Maternal Fetal Medicine service is continuing to grow, with a midwife and clinical midwife consultant being assigned to the service. The MFM service has also partaken in team building exercises and work is being undertaken in relation to the dynamics within the service.	No
Culture					
2010					
Homer et al	4	Clinical practice guidelines, policies and procedures, education and training should	Yes and ongoing	GCHHS' and GCUH's progress towards this recommendation is captured in this report discussing the	No

Review	No.[45]	Recommendation	Implemented – Y/N/Partial	Action	Issue reoccurrence
		be aligned to achieve a comprehensive contemporary maternity service.		strides that GCUH has taken to improve the overall quality of its maternity service. This will be an ongoing aspect of the service as it forms part of any contemporary health service.	
	15	A robust multidisciplinary policy development process needed to be implemented to ensure a higher level of ownership from obstetrics and midwifery.	Yes	This is being reviewed as part of the clinical incident management framework review and will likely change following that review.	Yes—issue theme is repeated in this report in section 7.1 regarding coordination between the maternity service and other services within GCUH.
	29	Vision and values needed to be developed for the maternity service and incorporated into all aspects of the service and performance management system.	Yes and ongoing	As at 2011, recommendations were made for implementing a shared vision and this was being considered for integration into the change management strategy for GCUH. The work undertaken by GCHHS and GCUH in setting the health service's strategic vision has assisted with embedding this in the maternity service.	No
	30	GCH needed to implement strategies to improve the culture of support and learning for	Yes	Training programs had been flagged for implementation across the service in 2011–12.	No

Review	No.[45]	Recommendation	Implemented – Y/N/Partial	Action	Issue reoccurrence
		junior medical staff, midwives and other staff.		By May 2015, assertiveness training was commenced with all midwives and would be continued. Teamwork strategies were also in the planning phase and would commence with Maternal Fetal Medicine in June 2015. All training and education is to be ongoing. By December 2016, other measures implemented by GCUH include: ▪ GCHHS CAPS course ▪ Crucial Conversations training ▪ relational coordination training ▪ multidisciplinary team building workshops ▪ open weekly multidisciplinary meetings ▪ audit of staff survey results.	
2015					
Sherwood	1	Performance management for senior medical staff in maternity needs to be robust rather than a 'tick box' exercise. Staff should	Yes	GCHHS have made a commitment to implementing a robust just culture that will hold practitioners to account for their actions when appropriate. This is	Yes—recommendation repeated in review in June 2015 and broadened to apply to all staff.

Review	No.[45]	Recommendation	Implemented – Y/N/Partial	Action	Issue reoccurrence
		use the opportunity to feedback ideas for personal and unit level development.		also underpinned by the work being done to achieve MAGNET status.	
	21	All annual staff appraisals and performance reviews should include a requirement to acknowledge the GCHHS Bullying and Harassment Policy.	Yes	GCHHS advised that the women's and newborns' service line had elected to build graded assertiveness, crisis resource management and the reduction in bullying and harassment behaviours across the service line through a comprehensive approach to all education.	No
	23	Nominate a trusted mentor for junior staff to access in guaranteed confidence for mediation of concerns over intimidation or bullying in the SaPS workplace.	Yes	This specific recommendation was superseded by other structural arrangements implemented to support junior medical staff in the maternity service. Measures introduced by GCHHS include the introduction of the Relational Coordination – SaPS – Women's Health Intervention Plan in May 2016. This plan aims to develop a relationship-centred professional and leadership culture that is multidisciplinary across the service.	No

Review	No.[45]	Recommendation	Implemented – Y/N/Partial	Action	Issue reoccurrence
June 2015 Review	3	Clear protocols should be introduced to enable concerns and/or dissenting opinions to be raised without any fears of reprisal.	Yes	In addition to the above relational coordination plan, GCHHS implemented a Communication escalation processes for Maternity and Newborn Care Unit procedure to support nurses and midwives to express any concerns they have about the clinical management of a woman/infant in their care.	No
Staffing and skill mix					
2010					
Homer et al	10	The GCH should seek assistance from RANZCOG to improve the training and teaching culture, specifically regarding rostering, protected teaching time and ultrasound experience.	Yes	In 2011, RANZCOG undertook a review of the GCH Integrated Training Program and provided recommendations for improvement. In December 2016, GCUH noted that there was still pressure on being able to roster specific time for registrars to undertake audit and research. The introduction of MATIS at least went some way to enabling registrars to undertake audit projects, with approval, and research. This will likely continue to be an issue for GCUH until it can	No

Review	No.[45]	Recommendation	Implemented – Y/N/Partial	Action	Issue reoccurrence
				successfully recruit for all registrar roles each year.	
	17	The scope of practice function of the GCH should take into account the RANZCOG levels and credential the scope of practice for obstetricians and gynaecologists accordingly.	Yes	The Queensland Health *Credentialing and defining the scope of clinical practice* directive was implemented across the service.	No
	18	A robust process is required to ensure that the scope of practice of all members of the multidisciplinary team is well defined and clearly communicated.	Yes	A laminated credentials matrix was circulated to all clinical areas.	No
2013					
Homer et al	3	Full implementation of the Maternal Fetal Medicine service should be a priority and addressed within one month of the May 2013 review.	Yes and ongoing	While this recommendation was not met within the timescale set out by the Homer review, by December 2016, GCUH had a fully staffed MFM unit, being a key element of a level 6 tertiary facility. In April 2016, GCUH undertook a review of its MFM unit and made a number of recommendations, including:	Yes—Recommendation 10 from the Sherwood Review outlined above.

Review	No.[45]	Recommendation	Implemented – Y/N/Partial	Action	Issue reoccurrence
				▪ making a director position full time to steer the unit ▪ providing supernumerary hours for clinical midwife consultant attached to the unit to complete their administrative requirements ▪ physical review of the MFM workflow to feedback into designing a space fit for purpose ▪ establishment of an MFM antenatal clinic ▪ introduction of various meetings for clinical and strategic purposes to improve the understanding of where MFM fits within the maternity service and fully realise the MFM function to provide local MFM care for families in the catchment. The implementation of these recommendations is underway with funding sources needing to be identified to enable the recruitment and supernumerary tasks. As at December 2016, GCUH advised that the unit has undertaken internal	

Review	No.[45]	Recommendation	Implemented – Y/N/Partial	Action	Issue reoccurrence
				team building exercises and is looking ahead to focusing on the internal dynamics within the unit and its broader relationship with the maternity service.	
	9	Investment in education and clinical facilitation for midwives was needed to support the transition to a level 6 tertiary facility.	Yes and ongoing	As noted at various points above, GCHHS and GCUH have implemented a number of different training packages for the maternity service; such training being in addition to the mandatory training staff undertake each year. GCUH also incorporates training requirements into the professional performance and development program, with any outstanding education being discussed with individual practitioners. Training of note is the monthly CTG meeting to review CTGs for educational purposes. The development of staff with this type of training will aid GCUH in continuing to be a level 6 tertiary maternity service. Finally, GCHHS has developed an Education Strategy for Women's and Newborn Services 2016–2019. The overall goal of the education strategy is	No

Review	No.[45]	Recommendation	Implemented – Y/N/Partial	Action	Issue reoccurrence
				to meet the vision and goals of the GCHHS and the operational plan of the Women and Newborn Services.	
Recording and management of documentation					
2015					
Sherwood	8	All CTG records, electronic and hardcopy, must be accessible to allow easy review, audit and use in teaching.	Yes	The K2 program was implemented in April 2016; it was delayed due to budgetary constraints. The program enables the electronic storage of all CTGs. Since the introduction of the system there has been no reported loss or misplacement of CTG records. These records are now readily available for review.	No

Appendix 5—List of investigation documents

Document	Date
External review documents	
Service Review of Birthing Services at Gold Coast Hospital, Caroline Homer, Michael Nicholl and Shirley Wee	October 2010
GCHHS Response to the Service Review of Birthing Services at the Gold Coast Hospital	October 2010
Service Review of Birthing Services at Gold Coast Hospital Progress Report 2011, Caroline Homer, Michael Nicholl and Shirley Wee	August to September 2011
Review of Maternity and Gynaecology Services provided at Gold Coast Hospital, in preparation for the provision of tertiary services from Gold Coast University Hospital, Caroline Homer, Michael Nicholl and Shirley Wee	May 2013
Royal Australian and New Zealand College of Obstetricians and Gynaecologists, Reaccreditation of Gold Coast Hospital	July 2013
Question on Notice, No. 551	5 August 2014
Terms of Reference, Review of Birthing Services, GCUH	1 December 2014
Review of Maternity Service—Gold Coast University Hospital, Dr Rupert Sherwood	February 2015
GCUH Mandatory Education Requirements	2016
Neonatal Resuscitation Training 2017	2016
Overdue Corrective Actions Women's and Newborns Service Line	September 2016
Neonatal Resus Equipment—F&P Cosy Cabinet completed check list	October to December 2016
Update on recommendations for Women's and Newborns Service Line	December 2016
Birth Suite Clinical Handover list	December 2016
Caesarean Section Handover sheet	December 2016
GCUH—Nursing Maternity—NeoResus Advanced Resuscitation training rates	12 December 2016
CTG Scanning Times Summary Audit	Undated
CTG Education Updates	Undated
Example letter sent to staff regarding non-completion of mandatory education	Undated
Internal review documents	
PRIME Clinical Incident Report	June 2013

Document	Date
Review of Gold Coast University Hospital Maternity Inpatient Unit, Patrice Hickey and Cathy Styles	June 2014
Root Cause Analysis Report for PRIME No. 688743	August 2014
GCHHS Women's and Newborn Health Operational Plan	10 September 2014
Endocrinology Morbidity and Mortality PowerPoint	16 September 2014
Perinatal Mortality and Morbidity Meeting Action Plan	29 September 2014
Morbidity and Mortality meeting summary	November 2014
PRIME Clinical Incident Report	1 December 2014
Diagnostic, Emergency and Medical Services Action Plan	17 December 2014
GCHHS Women's and Newborn Health Looking to the Future	2014
Root Cause Analysis Report for PRIME No. 688743	January 2015
Morbidity and Mortality Review PowerPoint	February 2015
Root Cause Analysis Report for PRIME No. 719065	April 2015
GCHHS Women's and Newborn Operational Plan 2014–15, Progress Update Q3: April 2015	April 2015
Women and Newborn Operational Plan: Action Plan for Maternity In-Patient Review, Update	April 2015
Root Cause Analysis Report for PRIME No. 745237	May 2015
Positional Paper: Strengthening and Revitalising Women's Health	5 May 2015
Corrective Action Implementation Status	5 May 2015
Attachment A—Status Report—Women's Health Review Recommendations	7 May 2015
Safety and Quality Report	27 August 2015
PRIME Clinical Incident Report	September 2015
Root Cause Analysis Report for PRIME No. 794286	October 2015
Root Cause Analysis Report for PRIME No. 817975	February 2016
PRIME Clinical Incident Report	October 2016
Emergency Department Morbidity and Mortality meeting summary	February 2017
Root Cause Analysis Report for PRIME No. 993654	March 2017
Open Disclosure Team Response Planner	Undated
Clinical Incident Recommendation Status Table for UR 454271	Undated
Diagnostic, Emergency and Medical Services Action Plan	Undated
Division of Family, Women's and Children's Unit Action Plan	Undated

Document	Date
Corrective Actions Clinical Incident implementation status for UR 757522	Undated
GCHHS/GCUH policies, procedures and organisational documents	
Guideline for Clinical Incident Management, Health Service Directive, Patient Safety	1 August 2013
GCHHS *SAC 1—Management of Recommended Corrective Actions and Lessons Learnt*	9 September 2013
Gold Coast Hospital and Health Service Annual Report 2012–2013	2013
GCHHS Structure—Operations	21 February 2014
Clinical Handover—Medical Procedure	25 February 2014
Risk Management Procedure	7 March 2014
Clinical Incident Management Procedure	17 April 2014
Fetal Heart Rate Monitoring—Assessment and Management	13 November 2014
Gold Coast Hospital and Health Service Annual Report 2013–2014	2014
Elective Caesarean Section—Midwife Process Work Instruction	January 2015
Gold Coast Hospital and Health Service Annual Report 2014–2015	2015
Maternity Incident Trigger List	2013–2015
GCHHS *Clinical Review Guidelines for Quality and Safety related Committees/Meetings (Directorate/Department/Unit) Procedure*	24 February 2015
GCHHS CSCF Self-Assessment	March 2015
GCHHS Expression of Interest—Up to 12 Months Tenure, Maternity Services Clinical Leads x 4	5 May 2015
Role Description—Clinical Leads	5 May 2015
GCHHS Governance Structure	September 2015
Reported clinical incidents—summary and details—Birth Suite SAPS-WNCS	1 June 2015 to 30 September 2015
Birth Suite Summary of Clinical Incidents	1 June 2015 to 30 September 2015
Referral to Maternity Assessment Centre from Emergency Department Procedure	2 December 2015
GCHHS Nursing and Midwifery Education Plan, Women's and Newborn Services	2016
Gold Coast Hospital and Health Service Annual Report 2015–2016	2016
Gold Coast Health, Year in review 2015–16	2016

Document	Date
GCHHS Women's Newborn Health Education Key Performance Indicators 2016–19	2016
GCHHS Safety and Quality Clinical Audit/Survey Planner	2016
Relational Coordination Survey Report	January 2016
GCHHS Education Strategy for Women's and Newborn Services 2016–2019	March 2016
LSCS Category 1 Notification Audit	January to March 2016
Case reflection: *Review and reflection on the maternal and neonatal outcomes of women who had induction of labour during 2015*	11 March 2016
GCHHS Organisation Structure	May 2016
Relational Coordination: SaPS—Women's Health Intervention Plan	May 2016
Reported clinical incidents—summary and details—GCUH	1 August 2015 to 31 August 2016
Reported clinical incidents—summary and details—Maternity	1 August 2015 to 31 August 2016
Reported clinical incidents—summary and details—Outpatients Women	August 2015 to 31 August 2016
Data on admissions by reason to Neonatal Intensive Care Unit and Special Care Nursery	October 2016
VLAD Report—*Select Primipara Induction of Labour (Public)*	October 2016
GCHHS Clinical Incident Management Procedure	17 October 2016
GCHHS Maternity Triggers and Incidents that must be reported on PRIME	November 2016
GCHHS Early Pregnancy Complications—Diagnosis and Management Procedure	24 November 2016
Implementation of Graded Assertiveness, Crisis Resource Management and reduction in Bullying and Harassment behaviours in Women's and Newborn Services [sic]	December 2016
MATIS Birth Report (example) provided to the Midwifery Unit Manager	December 2016
Birth Record Completion Report (example) provided to Midwifery Unit Manager	December 2016
Guideline for Variable Life Adjusted Display and other National Patient Safety Indicators, Health Service Directive, Patient Safety	9 January 2017
Crucial Conversations training tracker	Undated
GCHHS Final Report—Future Focused Model of Care for Maternity Services	Undated

Document	Date
Promoting emotional wellbeing in women in the immediate postpartum period guideline	Undated
Report on implementation of recommendations from SAC1 clinical incident analysis (blank example)	Undated
Guideline/Work Instruction Flowchart—Process for Women's, Newborn and Children's	Undated
Trends in the incident of severe perineal trauma Gold Coast University Hospital over a 5-year period (2010–2015)	Undated
Communication escalation processes for Maternity and Newborn Care Unit procedure	Undated
Induction of Labour—Brief Overview	Undated
GCHHS Purposeful Rounding Birthing Services, Handover Sheet	Undated
CTG Record Management EMR Flowchart	Undated
Committee documents	
Terms of Reference, Critical Incident Review Committee	28 March 2013
Terms of Reference, Women and Newborn Health Clinical Governance Committee	2014
Terms of Reference, Patient Safety and Clinical Quality Governance Committee, Specialty and Procedural Services	August 2014
Endocrinology Services Quality and Safety meeting minutes	16 September 2014
Terms of Reference, Maternity and Gynaecology Safety and Quality Committee	September 2014
Terms of Reference, Women and Newborn Services Birth Audit meeting	December 2014
Terms of Reference, Women, Newborn and Children's Services Operational Governance meeting	January 2015
Terms of Reference, Women and Newborn Operational Governance Meeting	January 2015
SaPS Patient Safety and Clinical Quality Governance Committee meeting minutes	8 December 2015
GCHHS Critical Incident Review Committee meeting minutes	20 January 2016
Women and Newborn Operational Governance meeting minutes	20 January 2016
Clinical Governance Committee meeting minutes	1 February 2016
Specialty and Procedural Services Direct Reports (Executive) meeting minutes	2 February 2016
GCHHS Safety, Quality and Clinical Engagement Committee Agenda	11 February 2016

Document	Date
GCHHS Safety, Quality and Clinical Engagement Committee meeting minutes	11 February 2016
Women, Newborn and Children's Services Operational and Governance meeting minutes	15 February 2016
GCHHS Critical Incident Review Committee meeting minutes	17 February 2016
Women and Newborn Operational Governance meeting minutes	17 February 2016
SaPS Patient Safety and Clinical Quality Governance Committee meeting minutes	23 February 2016
Specialty and Procedural Services Direct Reports (Executive) meeting minutes	March 2016
Clinical Governance Committee meeting minutes	7 March 2016
GCHHS Critical Incident Review Committee meeting minutes	16 March 2016
Women and Newborn Operational Governance meeting minutes	16 March 2016
SaPS Patient Safety and Clinical Quality Governance Committee meeting minutes	22 March 2016
Women, Newborn and Children's Services Operational and Governance meeting minutes	29 March 2016
Clinical Governance Committee meeting minutes	4 April 2016
GCHHS Safety, Quality and Clinical Engagement Committee Agenda	14 April 2016
Women, Newborn and Children's Services Operational and Governance meeting minutes	18 April 2016
GCHHS Critical Incident Review Committee meeting minutes	20 April 2016
Women and Newborn Operational Governance meeting minutes	20 April 2016
Specialty and Procedural Services Direct Reports (Executive) meeting minutes	26 April 2016
SaPS Patient Safety and Clinical Quality Governance Committee meeting minutes	26 April 2016
Clinical Governance Committee meeting minutes	9 May 2016
Specialty and Procedural Services Direct Reports (Executive) meeting minutes	10 May 2016
Specialty and Procedural Services Direct Reports (Executive) meeting minutes	24 May 2016
SaPS Patient Safety and Clinical Quality Governance Committee meeting minutes	24 May 2016
Clinical Governance Committee meeting minutes	6 June 2016

Document	Date
Specialty and Procedural Services Direct Reports (Executive) meeting minutes	7 June 2016
GCHHS Critical Incident Review Committee meeting minutes	15 June 2016
Women and Newborn Operational Governance meeting minutes	15 June 2016
GCHHS Safety, Quality and Clinical Engagement Committee Agenda	16 June 2016
Women, Newborn and Children's Services Operational and Governance meeting minutes	20 June 2016
Specialty and Procedural Services Direct Reports (Executive) meeting minutes	21 June 2016
SaPS Patient Safety and Clinical Quality Governance Committee meeting minutes	28 June 2016
Clinical Governance Committee meeting minutes	4 July 2016
Specialty and Procedural Services Direct Reports (Executive) meeting minutes	19 July 2016
GCHHS Critical Incident Review Committee meeting minutes	20 July 2016
Women and Newborn Operational Governance meeting minutes	20 July 2016
SaPS Patient Safety and Clinical Quality Governance Committee meeting minutes	26 July 2016
Highlight Report: Division S and Q Report, Women's, Newborn and Children Services	August 2016
Highlight Report: SaPS Directorate, PS&CQG Meeting, Safety and Quality Team Report	August 2016
Clinical Governance Committee meeting minutes	1 August 2016
Quality and Safety within the Division of SaPS Agenda	12 August 2016
Specialty and Procedural Services Direct Reports (Executive) meeting minutes	16 August 2016
GCHHS Critical Incident Review Committee meeting minutes	17 August 2016
Women and Newborn Operational Governance meeting minutes	17 August 2016
SaPS Patient Safety and Clinical Quality Governance Committee meeting minutes	23 August 2016
Highlight Report: Divisional S & Q Report, Women's, Newborn and Children Services	September 2016
Clinical Governance Committee meeting minutes	5 September 2016
Specialty and Procedural Services Direct Reports (Executive) meeting minutes	13 September 2016

Document	Date
Women, Newborn and Children's Services Operational and Governance meeting minutes	19 September 2016
GCHHS Critical Incident Review Committee meeting minutes	21 September 2016
Women and Newborn Operational Governance meeting minutes	21 September 2016
Specialty and Procedural Services Direct Reports (Executive) meeting minutes	27 September 2016
Risk Register Meeting—Specialty and Procedural Services meeting minutes	30 September 2016
Women and Newborn Operational Governance meeting minutes	19 October 2016
Risk Register Meeting—Specialty and Procedural Services meeting minutes	27 October 2016
Birth Centre meeting minutes	21 November 2016
Maternity and Gynaecology Guideline Committee, Terms of Reference	22 November 2016
Quality and Safety within the Division of SaPS Agenda	12 December 2016
Terms of Reference, Women's and Newborn Redesign Steering Committee	7 February 2017
Women and Newborn Redesign Steering Committee meeting minutes	7 February 2017
Women's and Newborn Redesign Project: *Placing Families at the Heart of Our Service*, *Project Plan*	21 February 2017
Women and Newborn Redesign Steering Committee meeting minutes	21 February 2017
Women and Newborn Redesign Steering Committee meeting minutes	7 March 2017
Women and Newborn Redesign Steering Committee meeting minutes	21 March2017
Women and Newborn Redesign Project Checkpoint Report	March 2017
Women and Newborn Steering Committee meeting minutes	4 April 2017
Women and Newborn Steering Committee meeting minutes	18 April 2017
Women and Newborn Redesign: Solution Design Schedule, May/June 2017	April 2017
Women's, Newborn and Children's Services Guideline/Work Instruction Notification	July 2015
Women's, Newborn & Children's Services: Clinical Quality Framework PowerPoint	Undated
WANOG Agenda and Meeting Minute Pro Forma	Undated
Risk Register Meeting—Specialty and Procedural Services Agenda and Minute Pro Forma	Undated
SaPS Monthly Divisional Review	Undated
Clinical records	
Autopsy Report	2 September 2014

Document	Date
Clinical records for URN 454271	Various
Clinical records for URN 941855	Various
Clinical records for URN 971617	Various
Clinical records for URN 757522	Various
Clinical records for URN 1026115	Various
Clinical records for URN 169540	Various
Correspondence	
Submission from GCUH in response to individual complaint	31 October 2014
Section 228[50] request to GCUH	29 April 2015
Section 228 response from GCUH, including letter from Ron Calvert, Chief Executive, GCHHS, to Health Ombudsman	1 June 2015
Correspondence from GCUH to OHO	4 August 2015
Email from Damian Green. Executive Director—People, Systems and Performance, GCHHS to OHO	6 August 2015
Complaint letter	6 August 2015
Correspondence from GCUH to OHO	30 October 2015
Complaint form	22 March 2016
Submission from GCUH in response to individual complaint	20 April 2016
Correspondence from Health Ombudsman to Ron Calvert, Chief Executive, GCHHS	9 August 2016
Correspondence from Ron Calvert, Chief Executive, GCHHS, to Health Ombudsman	23 August 2016
Correspondence from Health Ombudsman to Ron Calvert, Chief Executive, GCHHS	14 September 2016
Section 228 request to GCUH	21 November 2016
Meeting between OHO and GCUH	22 November 2016
Section 228 response from GCUH	22 December 2016
Section 228 request to GCUH	9 March 2017
Section 228 response from GCUH	21 April 2017
Response from GCUH in response to section 228 request	2 May 2017

[50] Section 228 of the *Health Ombudsman Act 2013*.

Document	Date
Submission from GCUH in response to individual complaint	24 May 2017
General reference materials	
Improving Maternity Services in Australia, The Report of the Maternity Services Review	February 2009
Statewide Maternity and Neonatal Network VLAD Working Group, *Summary of Activities To-Date: November 2008 – July 2009*	2009
National Maternity Services Plan 2010–2015, Department of Health (Cth)	2011
Hospital and Health Boards Act 2011	2011
Patient safety: from learning to action 2012, Fifth Queensland Health report on clinical incidents and sentinel events in the Queensland public health system 2009–10 and 2010–11	2012
Hospital Accreditation Workbook, Australian Commission on Safety and Quality in Healthcare	October 2012
Clinical Services Capability Framework, Maternity services, Module overview	Version 3.2
Clinical Services Capability Framework , Neonatal services, Module overview	Version 3.2
Report on the Obstetric VLAD Indicator Review, Patient Safety Unit, Department of Health	February 2014
VLAD Indicator Definitions, Queensland Health	12 March 2014
Bedo, S, 'A Gold Coast hospital allegedly putting mums and bubs at risk in push for natural births', *Gold Coast Bulletin*	18 June 2014
Women's Healthcare Australasia, *Benchmarking Maternity Care Report 2012–13*	September 2014
Bedo, S, 'Babies deaths probe', *Gold Coast Bulletin*	21 March 2015
Bedo, S, 'Birthing report to be secret', *Gold Coast Bulletin*	27 March 2015
Guide to the National Safety and Quality Health Service Standards for health service organisation boards	April 2015
Bedo, S, 'Investigation into former head of Gold Coast maternity unit still searching for answers', *Gold Coast Bulletin*	26 May 2015
Maternal and perinatal mortality in Queensland, Queensland Maternal and Perinatal Quality Council Report 2015	November 2015
National Core Maternity Indicators (2016),	2 February 2016
Women's Healthcare Australasia, *Benchmarking Maternity Care Report 2014–15*	March 2016

Document	Date
Clinical Services Capability Framework FAQs	26 May 2016
The Australian Council on Healthcare Standards Peer Group Comparison for GCHHS	First half 2016
Queensland Maternal and Perinatal Quality Council, Terms of Reference	July 2016
Women's Healthcare Australasia, *Benchmarking Maternity Care Report 2015–16*	November 2016
Maternity Services Forum 2016, https://www.health.qld.gov.au/__data/assets/pdf_file/0031/635494/2016-maternity-forum.pdf	November 2016
Maternity Services Forum—Communique	January 2017
Maternity Services Forum, Proposed Actions Groups list of participants	January 2017
Miles, J, 'Cries for help—Baby's death referred to coroner', *Sunday Mail*	15 January 2017
Emery, L, 'Medical expert warns problems at Gold Coast maternity unit has been ongoing for 'years'', *Gold Coast Bulletin*	16 January 2017
Broadcast from the Chief Executive, GCHHS, about patient confidentiality in light of recent media coverage	23 January 2017
National Framework for Maternity Services, Incorporating a National Antenatal Health Risk Factors Strategy, Consultation Draft	March 2017
RANZCOG Practice Review activities associated with the Fetal Surveillance Education Program	Undated
CSCF Governance Arrangements Fact Sheet 1	Undated
CSCF Service Modules, https://www.health.qld.gov.au/clinical-practice/guidelines-procedures/service-delivery/cscf/modules	Undated
Maternity and Neonatal Clinical Guidelines, Queensland Health, https://www.health.qld.gov.au/qcg/publications#frameworks	Undated
Queensland Maternal and Perinatal Quality Council, https://www.health.qld.gov.au/improvement/networks/qmpqc	Undated
Statewide Maternity and Neonatal Clinical Network, https://www.health.qld.gov.au/improvement/get-involved/clinical-networks/maternity-neonatal	Undated
Variable Life Adjustment Display, https://www.health.qld.gov.au/psu/vlad	Undated
National Core Maternity Indicators, Australian Institute of Health and Welfare, http://www.aihw.gov.au/ncmi/#report	Undated
National Maternity Services Framework, http://www.health.gov.au/internet/main/publishing.nsf/Content/pacd-pdb-maternity	Undated

Document	Date
COAG Health Council, http://www.coaghealthcouncil.gov.au/	Undated
COAG Health Council, National Maternity Services Framework, http://www.coaghealthcouncil.gov.au/Projects/National-Framework-for-Maternity-Services	Undated
COAG, https://www.coag.gov.au/	Undated
Australian Commission on Safety and Quality in Healthcare, https://www.safetyandquality.gov.au/	Undated
Adverse comment documents	
Correspondence from Ron Calvert, GCHHS Chief Executive, to Kathleen Florian, Executive Director, Investigations, OHO	19 October 2017
Correspondence from Ron Calvert, GCHHS Chief Executive, to Kathleen Florian, Executive Director, Investigations, OHO	27 November 2017
GCHHS Executive Review of Draft OHO Report into Maternity Services, including the following:	November 2017
▪ Bates et al, *Ten Commandments for Effective Clinical Decision Support: Making the Practice of Evidence-based Medicine a Reality*, Journal of the American Medical Informatics Association, Volume 10	November/December 2003
▪ Van der Sijs et al, *Overriding of Drug Safety Alerts in Computerized Physician Order Entry*, Journal of the American Medical Informatics Association, Volume 13	April 2006
▪ Herasevich et al, *Connecting the dots: rule-based decision support system in the modern EMR era*, Journal of Clinical Monitoring and Computing	28 February 2013
▪ Baysari et al, *Optimising computerised alerts within electronic medication management systems: A synthesis of four years of research*	2014
▪ *Morbidity and Mortality Meetings Procedure*	24 February 2015
▪ *GCHHS Severity Assessment Code 1 Clinical Incident Management*	February 2016
▪ *SAC 1 Recommendations Management Procedure*	15 April 2016
▪ Executive Triage Meeting Clinical Incident Record	26 October 2016 to 31 May 2017
▪ Straichman et al, *Prescriber response to computerized drug alerts for electronic prescriptions among hospitalized patients*, International Journal of Medical Informatics	2017
▪ *GCHHS Severity Assessment Code 1 Recommendations Thematic Analysis 2015–2016 Report*	6 February 2017
▪ *GCHHS Severity Assessment Code 2 Clinical Incident Management*	March 2017

Document	Date
▪ Ancker et al, *Effects of workload, work complexity and repeated alerts on alert fatigue in a clinical decision support system*	10 April 2017
▪ Terms of Reference, Safety, Quality and Clinical Engagement Committee	May 2017
▪ Terms of Reference, Audit and Risk Committee	May 2017
▪ Maternity and Gynaecology Safety and Quality Meeting agenda	16 May 2017
▪ Terms of Reference, Critical Incident Review Committee	June 2017
▪ Clinical Governance KPI Scorecard	June 2017 quarter
▪ *GCHHS Business Case Digital Healthcare Program*	June 2017
▪ GCHHS Board meeting minutes	20 June 2017
▪ Lam et al, *Monitoring clinical decision support in the electronic health record,* American Journal of Health-System Pharmacy, Volume 74	1 August 2017
▪ Terms of Reference, Clinical Governance Committee	September 2017
▪ Clinical Governance Sub-Committee's Report	September 2017
▪ *GCHHS Severity Assessment Code 2 Recommendations Thematic Analysis 2016–2017 Report*	8 September 2017
▪ Example SAC 1 Recommendation Closure	16 September 2017
▪ Patient Safety and Clinical Governance Committee, SaPS, meeting minutes	26 September 2017
▪ Executive Triage Meeting agenda	29 September 2017
▪ Example SAC 1 Recommendation Closure	30 September 2017
▪ Example SAC 1 Recommendation Closure	30 September 2017
▪ Riskman Post Implementation Review Project Plan	October 2017
▪ GCHHS Internal Audit of Patient Complaints Management	October 2017
▪ Executive Triage Meeting Evaluation	October 2017
▪ *GCHHS Clinical Incident Framework review—Action Plan*, including draft clinical incident management procedure	October 2017
▪ *Critical Incident Review Committee Critical Incident and Mortality Report*	October 2017
▪ Terms of Reference, Safety and Quality Committees, Women's Services, Newborn Services, Children's Services	October 2017
▪ *Treatment of High Risk Maternity Patients*	October 2017
▪ Open SAC 1 Recommendations	9 October 2017
▪ Example Clinical Incident Management Triage Tool	4 October 2017
▪ Executive Triage Committee minutes	4 October 2017

Document	Date
▪ Critical Incident Review Committee agenda	18 October 2017
▪ Memo from Dr John Wakefield, Deputy Director-General, Clinical Excellence Division, Queensland Health, to Ron Calvert, GCHHS Chief Executive	20 October 2017
▪ Clinical Excellence Division, *The Gold Coast University Hospital Maternity Patient Safety and Quality Performance Measures*, Patient Safety and Quality Improvement Service	20 October 2017
▪ Terms of Reference, Patient Safety and Clinical Quality Governance Committee, Women-Newborn-Children Services	November 2017
▪ Clinical Governance Committee KPI Report	November 2017
▪ Terms of Reference, Complex Case Review Committee	November 2017
▪ CGC Subcommittee report from CIRC	6 November 2017
▪ Clinical Governance Committee agenda	6 November 2017
▪ Terms of Reference, Executive Triage Committee	9 November 2017
▪ *GCHHS Reported Clinical Incidents by Month and Incident Summary*	10 November 2017
▪ *GCHHS Maternity Assessment Centre referral from Emergency Department Procedure*	16 November 2017
▪ Women's Healthcare Australasia, *Benchmarking Maternity Care Report 2016–17*	20 November 2017
▪ *GCHHS Safety and Quality Strategy 2016–2018*	Undated
▪ *GCHHS Safety and Quality Strategy 2017–2020*	Undated
▪ *GCHHS Clinical Governance Service, Executive Triage Meeting Evaluation*	Undated
▪ Template *SAC 1 Recommendation Closure and Discontinuation Form*	Undated
▪ Template *Requires for extension to implement recommendations from SAC 1 clinical incident analysis*	Undated
▪ Key Performance Indicators Specification Sheet (under review)	Undated
▪ *Midwifery Navigators Procedure*	Undated

Appendix 6—Recommendations monitoring program

This office intends to monitor the recommendations through a collaborative approach with GCHHS, which will enable this office to be more responsive to the changing nature of the health environment while still retaining an oversight role to ensure that the recommendations are fully and effectively implemented.

As many of the recommendations made in this report have a 12 month timeframe, the recommendations monitoring program is aimed at tracking GCHHS' progress against the implementation of the recommendations through regular stakeholder engagement. This may include meetings, whether face-to-face or remotely, site visits, seeking documentary evidence, progress reports[51] or a combination of measures. While the stakeholder meetings have been set at three monthly intervals, these timeframes may be adjusted in response to GCHHS' progress in implementing the recommendations.

The following schedule sets out the framework for the recommendations monitoring program.

Program approach	Timeframe	Topics for meetings	Rec No.[52]
Stakeholder meeting	Within three months of the final report	▪ Progress of the Clinical Incident Management Framework Review	5
	Within six months of the final report	▪ Progress of the recordkeeping audit	4
	Within nine months of the final report	▪ Approach to management of pregnant women in the emergency department	1
		▪ Midwifery Navigator model of care	2
		▪ Timeliness of incident classification and confirmation	7
		▪ Communication of a pregnant woman's risk status	3
		▪ Any other individual subject matters relevant to the recommendations and/or findings in this report	N/A
	Within 12 months of the final report	▪ Topics covered in the three, six and nine month meetings	1 to 5 and 7
		▪ Progress of the CIRC/CGC quality review program	6

[51] Pursuant to section 89(2) of the Act, a further request may be made by the Health Ombudsman for a progress report about the implementation of recommendations made in the investigation report.

[52] The recommendation numbers correspond with the recommendations made in this report.

Program approach	Timeframe	Topics for meetings	Rec No.[52]
		▪ Effectiveness of recommendation development	5
		▪ Escalation process for repeating recommendations	5
		▪ Clinician compliance with alerts	1
		▪ Effectiveness of the safety and quality governance environment	5
		▪ Quality of the clinical incident management control environment	5
		▪ Development of the yearly safety and quality snapshot	8

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