

# Investigation report

## Radiology services at the Gold Coast Hospital and Health Service

August 2016



## **Investigations report—Radiology services at the Gold Coast Hospital and Health Service**

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# 1. Background

In July 2014, I became aware of an investigation commissioned by the then Department of Health Director-General Mr Ian Maynard following the discovery of a backlog of reporting<sup>1</sup> of radiology<sup>2</sup> results in the Gold Coast Hospital and Health Service (HHS).

Correspondence dated 11 July 2014 from the Gold Coast Hospital and Health Board (HHB) Chair Mr Ian Langdon to the then Minister for Health the Honourable Lawrence Springborg MP indicated there was a long standing issue of non-reporting of plain film x-rays<sup>3</sup> and that despite additional funding to address the matter, a substantial backlog remained.

Mr Langdon indicated that the backlog was due to a systemic failure and that efforts were being made to address the situation.

In a media statement released 14 July 2014, the Minister for Health stated that the Gold Coast HHB had proposed the following three-part response to the problem, to be implemented in full:

1. Amended arrangements for the future reporting of radiology results, including that plain film x-rays should be subject to external monitoring.
2. Robust protocols and procedures to prioritise and address the backlog, including external scrutiny of the process.
3. An investigation to report to the public on the issue, its genesis, consequences, and to recommend further remedial and other appropriate action that should be considered.

In response, on 25 July 2014, the Director-General commissioned a health service investigation into the low reporting of radiology results by the Gold Coast HHS.

# 2. Health Ombudsman investigation

On 12 November 2014, following a period of consultation with the Department of Health, I commenced an own-motion investigation under section 80(c) of the *Health Ombudsman Act 2013* into the low reporting of radiology results by the Gold Coast HHS.

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<sup>1</sup> Diagnostic medical imaging is usually carried out by a radiographer or technician with a diagnostic radiologist or reporting radiographer, then interpreting or 'reading' the images and producing a report of their findings and impression or diagnosis.

<sup>2</sup> For the purpose of this report, references to 'radiology' relate to all diagnostic medical imaging including plain film x-rays, computed tomography (CT), ultrasound imaging (USS), and magnetic resonance imaging (MRI).

<sup>3</sup> Plain film x-rays (radiography): an imaging technique that uses electromagnetic radiation other than visible light, specifically x-rays, to view the internal structure of a non-uniformly composed and opaque object such as the human body.

## 2.1 Regulatory framework

The regulatory framework which guided this investigation are derived from the main objects of the *Health Ombudsman Act 2013* (section 3(1)), namely:

- (a) *To protect the health and safety of the public; and*
- (b) *To promote*
  - (i) *Professional, safe and competent practice by health practitioners; and*
  - (ii) *High standards of service delivery by health service organisations; and*
  - (iii) *To maintain public confidence in the management of complaints and other matters relating to the provision of health services*

## 2.2 Evidence obtained

On the day I commenced my investigation, I sought a copy of the Department of Health's final investigation report in order to review the report and its recommendations.

On 21 November 2014, I received a copy of the report titled *Investigation into reporting of radiology services by the Gold Coast Hospital and Health Service*, which was dated 17 October 2014.

Following my review of the report, I sought additional information from the Department of Health and Gold Coast HHS about any action plan or implementation plan developed by the department in response to the investigation recommendations.

I subsequently obtained and reviewed correspondence from:

- Acting Director-General Dr Michael Cleary dated 31 March 2015
- Acting Deputy Director-General Dr Bill Kingswell dated 30 April 2015
- Gold Coast HHS Chief Executive Mr Ron Calvert dated 29 June 2015
- Health Support Queensland (HSQ) Chief Executive Ms Kathy Byrne dated 17 July 2015
- Gold Coast HHS Chief Executive Mr Ron Calvert dated 21 September 2015.

## 3. Department of Health report

### 3.1 Initiation and scope

In July 2014, pursuant to Part 9 of the *Hospital and Health Boards Act 2011*, the Director-General appointed three health service investigators to conduct the investigation:

- Royal Prince Alfred Hospital Sydney Director of Intensive Care Services Dr Robert Herkes
- General and Paediatric Radiologist Dr Paul Sprague
- Minter Ellison Lawyers Senior Associate Ms Megan Fairweather.

Dr Herkes and Dr Sprague were primarily responsible for analysing the evidence and developing the report's findings and recommendations, while Ms Fairweather provided procedural advice and assisted with the finalisation of the report.

The health service investigators were appointed by the Director-General to:

- assess the low reporting of radiology results at Gold Coast HHS (part A of the investigation)
- assess if there are any other HHSs that were not achieving a clinically acceptable reporting rate for radiology results, and if so, understand why and identify strategies to enable achievement of a clinically acceptable level (part B of the investigation)
- assess the governance of HSQ for the identification, escalation and management of HHS reporting of radiology results and identify effective arrangements which can be implemented state-wide to ensure reporting levels are sustained at a clinically acceptable level (part C of the investigation).

The investigators were asked to make findings and recommendations in relation to the above three areas.

## 3.2 Report findings

The report made a number of adverse findings against all three areas within the scope of the investigation.

I note that, while Dr Herkes and Dr Sprague are both medical practitioners, they did not make any adverse clinical findings about the standard or quality of clinical care provided to the patients at Gold Coast University Hospital. I consider the terms of reference of the report support this information.

I also note that Dr Herkes and Dr Sprague adopted the following benchmarks for the report: at least 90 per cent of plain film x-rays should have formal specialist radiology reports and that 80 per cent of these should be completed within 24 hours. These figures were adopted on the assumption that around 10 per cent of x-ray imaging will be taken intra-operatively (and thus will not require a formal report) and that around 20 per cent of x-ray imaging may be non-urgent and not possible to report on within 24 hours (for example x-ray images taken in regional or remote facilities on weekends).<sup>4</sup>

### 3.2.1 Part A—Assessment of low radiology reporting rate at Gold Coast Hospital and Health Service

In relation to the Gold Coast HHS radiology results reporting policy and procedure, the departmental report found:

- the radiology results reporting policies, procedures, and guidelines were inadequate to manage the Diagnostic Imaging department appropriately
- existing state and national level policies and guidelines had not been implemented
- the 2012 protocol to improve the radiology results reporting rates for patients undergoing diagnostic imaging in the emergency department, intensive care unit and during ward admission was not effective.

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<sup>4</sup> GCHHS does not provide reporting for rural and remote sites.

In relation to the Gold Coast HHS radiology results reporting practices, and the potential reasons for the ongoing lower than clinically acceptable radiology results reporting rates, the departmental report found:

- there were significant numbers of patients whose radiology plain x-ray films were unreported, exposing patients to increased clinical risk in relation to timely diagnosis and treatment
- while the diagnostic radiology results reporting rate had fluctuated, it was still generally lower than clinically acceptable and deteriorated further following the transition from the Gold Coast Hospital to the Gold Coast University Hospital and the new Diagnostic Imaging department
- despite having been recognised by clinical governance at both state and hospital levels and despite significant extra resources, radiology results reporting rates remained unsatisfactory until shortly before the release of the departmental report
- there was a lack of leadership and accountability for developing overarching prescribed workflow processes and procedures including
  - a lack of key performance indicators (KPIs) for individual staff and the Diagnostic Imaging department as a whole, including an expectation that radiology staff should not leave work until the day's reports are completed
  - a lack of management data about the work performed on each piece of equipment—the indication was that equipment usage was not recorded, monitored or reviewed
  - an out-dated paper-based system of managing diagnostic radiology requests and tracking patient appointments, prioritisation and follow up
- the existing Radiology Information System/Picture Archiving and Communication System (RIS/PACS)<sup>5</sup> is too slow for the purposes of a busy tertiary centre with the RIS interface speed impacting on efficient reporting practices
- the purchase of scanning equipment from multiple vendors is likely to increase the training burden on radiology staff as well as maintenance costs
- three previous external reviews have, at some cost and effort, examined the issues surrounding the low radiology results reporting rates, but have not led to any effective or satisfactory improvement to the culture, governance and workflow processes for radiology results reporting rates on a sustained basis.

In relation to the remedial actions by Gold Coast HHS to address low reporting rates, the departmental report found:

- the retrospective review, improved reporting rates and improved governance measures were appropriate and, if sustained, would serve patients well.

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<sup>5</sup> RIS/PACS: a generic computerised database used by radiology departments to store, manipulate, and distribute patient radiological data and images.

In relation to whether those steps were adequate to achieve and sustain clinically acceptable rates, the report found:

- In-house radiology results reporting should be encouraged and facilitated to the greatest extent possible. The ability for on-site radiologists to form an ongoing relationship with other hospital clinicians greatly enhances the functioning of the hospital. This relationship includes education of hospital clinicians, shared case meetings, requesting triage and notification of abnormal results.
- Wherever possible, the disadvantages of outsourcing radiology results reporting should be avoided.
- The interest from the Gold Coast HHB and its Safety, Quality and Clinical Engagement Committee was appropriate and should continue. The Gold Coast HHB and its Safety, Quality and Clinical Engagement Committee needed to be provided with ongoing reports of the progress of the backlog of unreported x-rays, and should take a primary role in ensuring that there is no recurrence of underreporting.

In relation to whether the proposed actions of the Medical Imaging Reform Project were adequate to address the backlog and ensure that Gold Coast HHS sustained a clinically acceptable radiology results reporting level, the departmental report found:

- Continued monitoring, such as that in the period from July 2014, needed to be reported to the Director of the Diagnostic Imaging department and the Gold Coast HHS chief executive to ensure that the backlog is cleared. Special attention needed to be paid to the clinical triage of abnormal x-ray results to feedback to the patients and their general practitioner.
- Weekly reports detailing the radiology results reporting rate by modality<sup>6</sup> needed to be provided in an ongoing manner.
- The management initiatives in place at the time of the departmental report's release, if sustained, should ensure that the under-reporting of plain film x-rays does not recur.

### **3.2.2 Part B—Assessment of radiology reporting rates at other Hospital and Health Services**

In relation to a desktop review of radiology results reporting rates for other HHSs for the period 1 July 2011 to 30 June 2014 based on data held by the Department of Health, the departmental report found that:

- most of the 17<sup>7</sup> HHSs were achieving a radiology reporting rate within the clinically acceptable range<sup>8</sup>
- of the five larger HHSs (excluding Gold Coast HHS), all had consistently achieved more than 90 per cent reporting rates within 24 hours since 2012
- remote HHSs such as Torres and Cape HHS<sup>9</sup> appeared to have achieved clinically acceptable reporting rates during the relevant period.

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<sup>6</sup> Modality: types of diagnostic imaging like x-ray, CT, MRI, ultrasound

<sup>7</sup> As at 30 June 2014

<sup>8</sup> Definition of 'clinically acceptable range' in the Departmental report: at least 90% of films should have formal specialist radiology reports and that 80% of these should be completed within 24 hours

In relation to identification of other HHSs that had lower than clinically acceptable radiology results reporting rates:

- Darling Downs HHS and West Moreton HHS were the only two HHSs identified as having a technically lower than clinically acceptable radiology results reporting rate for some period between 1 July 2011 to 30 June 2014, specifically
  - in the 2012–2013 period, both HHSs were slightly under the clinically acceptable reporting rate at 78 per cent and 79 per cent respectively
  - in the 2013–2014 period, both HHSs improved their reporting rate to 80 per cent and 85 per cent respectively.

In relation to the review of policy, procedure and practices of those HHSs that had lower than clinically acceptable radiology reporting rates, the departmental report found:

- while the Darling Downs HHS had issued work instructions from time-to-time, it has not developed prescriptive guidelines and benchmarks applicable to its respective settings.

In relation to the reasons identified for the other HHSs that had lower than clinically acceptable radiology reporting rates, the departmental report found that:

- Darling Downs HHS stated that it had some difficulties with attracting and recruiting specialist radiology staff—I note that the report found that this HHS did not have a sustained or ongoing lower than acceptable reporting rate and that, in the most recent reporting period, it had an acceptable rate.

In relation to strategies that could be implemented to achieve and sustain a clinically acceptable level for radiology results reporting at the other HHSs, the departmental report found:

- very few HHSs had developed prescriptive guidelines and benchmarks applicable to their respective settings
- West Moreton HHS had a local procedure which the report recommended should be adopted and implemented at every HHS
- Sunshine Coast HHS also reported it had established internal standards for clinical reporting which were to be audited on a monthly basis
- some HHSs advised that they had ensured their third party agreements for any outsourced radiology reporting required from time-to-time had KPIs built into the contracts.

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<sup>9</sup> The Torres and Cape HHS did not exist until 1 July 2014 which is outside of the referred reporting period. The rates are likely to refer to data merged from the former Torres Strait – Northern Peninsula HHS and Cape HHS.

### 3.2.3 Part C—Assess the governance of radiology reporting by Health Support Queensland

In relation to the governance processes for HSQ to identify, escalate and manage a deterioration in HHS performance in relation to radiology results reporting rates and medical imaging data, the departmental report found that:

- HSQ monitored diagnostic imaging across the state and reported annually about this to the local HHSs and to the department. While recognising the need for robust comparative reporting of diagnostic imaging departments' throughput across Queensland, it appeared that since the devolution of health services away from a centralised system, HSQ had not appreciated the methods that could be used to fulfil an ongoing clinical governance function.
- Radiology Support Group had not used the HSQ and HHS Boards to highlight and escalate underperformance or other clinical issues when concerns arose, both within and outside of the annual reporting function.

## 3.3 Report recommendations

The departmental report included 31 recommendations pertaining to building and sustaining improvements to radiology results reporting rates at the Gold Coast HHS and statewide.

### 3.3.1 Part A recommendations

The report made the following recommendations in relation to the Gold Coast HHS review and reporting practices:

1. A workflow review should be undertaken to ensure that processes which can be undertaken by staff in other areas of the hospital are performed in those other areas—for example cannulation.
2. Tasks should be assigned to staff of an appropriate level, with specific training to undertake the task, to avoid the issues arising from incomplete request forms being handled outside the clerical system by clinicians—for example, clinicians having to chase up the patient's creatinine level, a measure of renal function.
3. Gold Coast HHS should develop and implement policies to achieve radiologist reporting on 100 per cent of diagnostic imaging studies that require a formal report within the timeframe appropriate to the clinical situation.
4. Gold Coast HHS should investigate and implement a modern order entry system with appropriate decision support and appropriate management reports to allow the Diagnostic Imaging department to optimise the care of patients. The order entry system must allow a patient to be tracked and prioritised to optimise that care.

- a. The recommendations to HSQ in the Sg2 report<sup>10</sup> and subsequent *Diagnostic Imaging Strategy 2013–2017* are sound and would significantly improve diagnostic imaging within the Gold Coast HHS and across the state.
  - b. The Gold Coast HHS should consider sponsoring this report at a state level and champion its implementation as a leading HHS within Queensland.
5. Gold Coast HHS should develop business reports on a weekly basis and communicate this information to the Diagnostic Imaging department. KPIs need to be developed to include both patient flow and staff data. Waiting lists, no show rates, reporting turnaround times and machine utilisation should be combined with staff performance for all levels of staff within the Diagnostic Imaging department.
  6. Radiology reporting should include peer comparison provided by HSQ and should include modality reports—for example in each case of CT, MRI, USS, plain film x-ray.
  7. Gold Coast HHS to develop a relative value unit system for diagnostic imaging reporting. The Royal Australian and New Zealand College of Radiologists is progressing recommendations for a national relative value unit based work load benchmark and it would be prudent to adopt this when finalised.
  8. Queensland Health and/or Gold Coast HHS should develop an information technology solution to overcome the inadequate RIS/PACS system currently in use at Gold Coast HHS. The departmental report recommended this could be achieved either by
    - a. the Department of Health identifying and engaging a system and infrastructure supplier for adoption at all HHSs
    - b. Gold Coast HHS, which has allocated funds for such a system, to act as sponsor for a new system and infrastructure supplier with other key HHSs to test, support and implement the system on a progressive basis.
  9. Gold Coast HHS should demonstrate overwhelming clinical imperative when deciding to purchase equipment from alternative vendors to minimise the risks of user error and to ensure training and maintenance requirements are streamlined.
  10. Gold Coast HHS should ensure that a long term strategy for governance and accountability of the Diagnostic Imaging department is developed and implemented as a matter of urgency. The Gold Coast HHS's Safety, Quality and Engagement Committee has already greatly enhanced and strengthened governance and oversight of radiology reporting within Gold Coast HHS.

In relation to the remedial actions by the Gold Coast HHS to address low reporting rates, the departmental report recommended that:

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<sup>10</sup> In 2011, the Queensland Clinical Senate met to address challenges and opportunities under the theme *Better Care, Better Value, Lower Costs*. Five key recommendations relating to diagnostic imaging were formed, focussed around the development of a Diagnostic Imaging Strategy. In February 2012, Sg2 were engaged as consultants to assist with the strategy development.

11. The culture within the Diagnostic Imaging department needs to change such that all investigations are reported in-house and that everyone employed in Gold Coast HHS is responsible for achieving this.
  - a. In some centres this issue is addressed by ensuring that radiologists do not leave the facility until all daytime reports have been completed.
  - b. This may involve scheduling two to three hours general reporting time for each radiologist per day.
12. Robust ongoing reporting and KPIs should be implemented in order to track report completion and these to be provided to the Director of the Diagnostic Imaging department on a weekly basis and reported quarterly to the Gold Coast HHB's Safety, Quality and Clinical Engagement Committee.
13. The clinical managers of the Diagnostic Imaging department should also be required to undertake focussed training in business management, preferably in relation to management of a health workforce.

In relation to achieving and sustaining clinically acceptable rates, the departmental report recommended that:

14. The Clinical Governance Committee should escalate any failure to meet quarterly KPIs to the Gold Coast HHB's Safety, Quality and Clinical Engagement Committee with a plan for rectification.
15. A failure by Gold Coast HHS to meet KPIs for two or more consecutive quarters or for two out of four quarters within a given reporting year should be reported by the Gold Coast HHB Chair to the Department of Health Director-General and the Minister for Health with a plan for rectification.

In relation to whether the proposed actions of the Medical Imaging Reform Project were adequate to address the backlog in plain film x-rays results reporting and to ensure that Gold Coast HHS sustained a clinically acceptable reporting level, the departmental report recommended that:

16. The retrospective review should be completed in a timely fashion and should be complete by the end of October 2014.
17. The senior clinical triage of abnormal findings to ensure that abnormal results should be relayed to the patient and their general practitioner by the end of October 2014.
18. The retrospective review should be transparent and Gold Coast HHS should publish the rate of undiscovered abnormalities on plain film x-rays in order to further the understanding of the risks to patients of unreported plain film x-rays.
19. New management reporting at Gold Coast HHS needs to monitor ongoing reporting of all diagnostic imaging modalities to ensure that there is no future recurrence of under-reporting rates of radiology results in Gold Coast HHS.

### 3.3.2 Part B recommendations

In relation to the strategies that could be implemented to achieve and sustain a clinically acceptable level of radiology results reporting at other HHSs that have lower than clinically acceptable radiology reporting rates, the departmental report recommended that:

20. All HHSs adopt and implement a procedure consistent with that in use at West Moreton HHS, albeit amended to reflect the timeframes advocated in the departmental report.
21. All HHSs, when outsourcing the task of radiology reporting, ensure they clearly establish in contractual documents appropriate KPI expectations consistent with those recommended in the departmental report.

### 3.3.3 Part C recommendations

In relation to the effective arrangements which could be implemented statewide to ensure radiology results reporting levels are sustained at a clinically acceptable level, the departmental report recommended that:

22. The advantage of having central oversight of the performance of HHSs for key priority areas cannot be underestimated. Diagnostic imaging has become a major driver of improving patient outcomes and decreasing patient morbidity. Regardless of the ultimate configuration and governance of diagnostic imaging departments within HHSs, it is vital that standardised public reporting is available for all public diagnostic imaging services across Queensland.
23. To improve the rate of radiology results reporting across Queensland, HSQ continue to evolve consistent definitions to allow the collection of standardised data across Queensland and to allow comparative reporting to be published. Due to the different RIS in use within Queensland, it would be easiest for data to be collected at the HHS level and collated statewide by HSQ. HSQ to develop standard business reports to be completed on a weekly basis by the diagnostic imaging department of each HHS. These reports should include metrics defined by HSQ for studies performed, reporting rates, timeliness, wait times, radiologist workloads by diagnostic imaging modality (plain, CT, MRI, angiography, USS etc.).
24. Quarterly reports of performance including peer comparisons need to be sent to each HHB in relation to individual facilities. If reporting rates fall below the clinically acceptable range, having notified the relevant Diagnostic Imaging department and the HHB, HSQ should seek advice from its board and the Queensland Health Imaging Program<sup>11</sup> (QHIP) committee prior to escalating notification to the Director General and/or the Minister for Health for appropriate intervention at the HHB Chair level.
25. In the medium term, reports on the functioning of all diagnostic imaging departments, including reporting rates and timeliness of each modality, should be made identifiable, publicly available and promulgated. As a first step, these reports should be interpreted by the QHIP clinical group and published by peer group without identifiers. Ultimately, public reporting and transparency of performance, particularly as the health system embraces contestability, is vital.

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<sup>11</sup> QHIP is no longer in operation. Section 5 of this report outlines the changes.

26. Where a HHS installs its own RIS/PACS, these standardised reports should be mandated from the HHS system and reporting against peers to the public.
27. As custodian of the Queensland Radiology Information System (QRiS), HSQ needs to develop an extensive suite of business reports to include radiologist level work pattern and output to allow modern management of the diagnostic imaging departments.
28. HSQ should also specify the desired functionality and, if possible, introduce an electronic order entry system with sophisticated request support, waiting list management and order prioritisation for implementation across Queensland. This would allow much better understanding and transparency of waiting times and demand across all public diagnostic imaging services.
29. The recommendations in the Sg2 report and *Diagnostic Imaging Strategy 2013–2017* are sound and would significantly improve diagnostic imaging practices across Queensland. A senior sponsor within one of the HHSs should be given carriage of the report recommendations, with a brief to adapt it to the new devolved environment and then commence implementation.
30. To meet this objective, the following steps should be implemented as a matter of priority
  - a. The *Diagnostic Imaging Strategy 2013–2017* should be endorsed by the Department of Health senior management team.
  - b. The *Diagnostic Imaging Strategy 2013–2017* should be presented to the chief executives and Board Chairs of the 16 HHSs.
  - c. A business case should be developed to identify the responsibilities of the Department of Health versus the responsibilities of the HHSs in order to provide a mechanism to determine the investment requirements at the Department of Health level.
  - d. A small business unit preferably based in HSQ should be identified, including a project manager, to oversee the development and management of the business case for the implementation of the *Diagnostic Imaging Strategic Plan 2013–2017*.
  - e. The Clinical Radiology Group should continue to be supported by QHIP with enhanced responsibility to monitor data for audit and feedback for the HHS chief executives, HHBs and Minister for Health.
31. Transparency and accountability must be implemented across the system, including to ensure there are clear and consistently applied data definitions, collection criteria and data integrity processes.

## 4. Gold Coast Hospital and Health Service and Health Support Queensland response to the recommendations

On 12 March 2015, I sought information from the Department of Health about any actions taken or planned by the department, Gold Coast HHS or HSQ in response to the report recommendations.

On 31 March 2015, my office received correspondence from the then Acting Director-General Dr Michael Cleary advising that the (former) Director-General had endorsed a Gold Coast HHS and HSQ Combined Action Plan (V0.8) to address the recommendations of the departmental report. Dr Cleary also provided, copies of the following documents:

- Radiology Monthly Report Gold Coast HHS, re DG Briefing Number BR060101, including:
  - Project Checkpoint Report No 7 – Medical Imaging Quality Improvement Project, 30 January 2015
  - Project Checkpoint Report No 8 – Medical Imaging Quality Improvement Project, 13 February 2015
  - Project Checkpoint Report No 9 – Medical Imaging Quality Improvement Project, 27 February 2015
- an endorsed Gold Coast HHS and HSQ Combined Action Plan
- a progress report against the Combined Action Plan (V0.8), as at 4 March 2015.

On 30 April 2015, my office received a further progress report on the implementation of the Combined Action Plan (V0.9), with status on recommendation implementation as at 7 April 2015.

On 29 June 2015, my office received a letter from the Gold Coast HHS Chief Executive Mr Ron Calvert regarding the HHS's progress against the departmental report recommendations, as well as a copy of the latest Radiology Monthly Report Gold Coast HHS, re DG Briefing Number BR6060101, Project Checkpoint Report No 14 – Medical Imaging Quality Improvement Project, 25 May 2015, and Combined Action Plan (v0.10) as at 4 June 2015.

Mr Calvert stated in his letter that, while implementation of four recommendations remained outstanding, one was due for completion by the end of June 2015, with implementation delays of the other three due to the required input of the Radiology Information System Unit (RISU) of HSQ.

In addition, Mr Calvert advised that Gold Coast HHS was transitioning to 'business as usual' and that, to ensure governance procedures were in place so that the systems and workflow processes are timely and patient centred, the following had been implemented:

1. Evidence-based balance scorecard that has a key data set that is both qualitative and quantitative. This is reviewed by the leadership team in the Medical Imaging department each week and acted upon accordingly.
2. A monthly Medical Imaging department clinical governance meeting that is minuted. This group would be responsible for the implementation of the ongoing improvements to the system that have been identified by the Medical Imaging department project team.
3. A quarterly report to the Gold Coast HHB.

Mr Calvert also advised that Gold Coast HHS had requested Deloitte Australia undertake an independent audit to assess the system of governance, risk management and internal control implemented to address the underreporting of radiology results to provide assurance that adequate systems and controls have been implemented and are operating effectively.

On 17 July 2015, my office received correspondence from the HSQ Chief Executive Ms Kathy Byrne regarding HSQ's progress against the recommendations of the departmental report. The following documents were included as part of their response:

- Revised guideline for the provision of diagnostic imaging reports
- KPIs—Outsourced radiology reporting
- Minimum KPIs and targets
- Consistent terminology and standard definitions for benchmarking across facilities using various information systems in different clinical and demographic settings
- Procedure for monitoring the provision of diagnostic imaging reports
- Copy of the *Diagnostic Imaging Strategy 2015*.

On 22 September 2015, my office received a further letter from Mr Calvert providing an update on the Deloitte audit commissioned by Gold Coast HHS in July 2015. Mr Calvert indicated the approach of the Deloitte audit comprised the following:

- Review of better practice guidelines (e.g. the Diagnostic Imaging Accreditation Standards) and internal policies, procedures and work instructions governing the provision of medical imaging services.
- Review of the departmental report and outcomes of the project<sup>12</sup> to identify recommendations that are due for implementation.
- Discussions with management regarding the implementation status of recommendations.
- Assessment of implemented recommendations to determine if key risks have been appropriately mitigated.
- Walkthrough of processes established to generate and review medical imaging reports.
- Walkthrough of processes established to communicate medical imaging results to relevant stakeholders—for example patients, general practitioners and internal departments.
- Testing of a sample of emergency and elective patients from 1 January 2015 to 31 May 2015 to determine operational compliance with established processes.

Mr Calvert further stated that, while the report from the Deloitte audit was in draft form, it had identified eight key areas of risk that range from high, medium, and low (two areas were high, five medium, and one low; see table 1).

On 20 October 2015, my office received from the Gold Coast HHS a copy of the report from the finalised Deloitte audit titled, *Gold Coast HHS, Internal Audit of Medical Imaging Final Report September 2015*.

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<sup>12</sup> Gold Coast HHS and HSQ Combined Action Plan: Part A: Medical Imaging Quality Improvement Project

## 4.1 Summary of progress against Gold Coast Hospital and Health Service and Health Support Queensland Combined Action Plan

The Gold Coast HHS and HSQ Combined Action Plan details the lead agency and responsible officers, proposed milestones and expected completion dates for implementation for each of the 31 recommendations arising from the 2014 departmental report.

The Combined Action Plan and the recommendations from the departmental report were presented in a table format and broken down into the following categories:

- Part A: Assessment of low radiology rates at Gold Coast HHS
  - Gold Coast HHS review and reporting practices: 13 recommendations for Gold Coast HHS
  - Gold Coast HHS Medical Imaging Reform Project: 3 recommendations for Gold Coast HHS
- Part B: Assessment of radiology rates at other HHS: 2 recommendations for HSQ
- Part C: Assessment of governance of radiology reporting rates by HSQ: 13 recommendations for HSQ.

### 4.1.1 Gold Coast Hospital and Health Service recommendations progress

The most recent version (V0.10) of the Combined Action Plan progress report indicated that, as of 4 June 2015, there were four remaining recommendations (out of the 16) to be completed by Gold Coast HHS, one of which was due for completion at the end of June 2015.

The delay in implementing the remaining three recommendations was considered by Gold Coast HHS to be 'outside of their control' because:

1. The select order procedure for workflow and the rebuilding of the modality schedules is the responsibility of the RISU and cannot be completed until the upgrade of the RIS/PACS system has been completed (relates to recommendation 11).
2. A major upgrade of the QRIS and Enterprise PACS is being managed by RISU and the Department of Health with the Gold Coast HHS a participant at the relevant committees (relates to recommendation 8a and 8b).
3. The *desired booking date* is functionality within the QRIS system and requires a build of the select order procedure by RISU which is also reliant upon the upgrade of the QRIS and Enterprise PACS system (relates to recommendation 4).

On 17 July 2015, I was advised that HSQ had met with Gold Coast HHS to discuss concerns regarding the QRIS and Enterprise PACS system on 10 July 2015. HSQ indicated that Gold Coast HHS was advised that, while the upgraded system had the functionality to support radiology ordering and bookings, the upgrade was dependent on Windows 7 being deployed across Queensland Health (which was currently underway).

#### 4.1.2 Health Support Queensland recommendations progress

On 17 July 2015, HSQ provided information regarding the recommendations of which it had carriage. My review of that information indicated that 13 recommendations had been completed, including:

- HSQ had established the Radiology Strategy Group<sup>13</sup> (RSG) to oversee and coordinate implementation of the departmental report's recommendations (relates to recommendation 30e).
- The RSG had reviewed the West Moreton HHS procedure for Medical Imaging, Provision of Diagnostic Imaging Reports, as recommended in the departmental report. The RSG recommended each HHS develop a local procedure for monitoring report turnaround times, including targets for clinically appropriate radiology reporting timeframes that are relevant to the facility, patient, and modality (relates to recommendation 20).
- The RSG revised the statewide *Guideline for the Provision of Diagnostic Imaging Reports*. The changes relate to monitoring reporting rates and radiology report turnaround times with the reporting rate target set at 90 per cent of all diagnostic imaging examinations performed. Turnaround times for report availability are in line with the current Australian Council on Healthcare Standards guidelines. The revised statewide guideline has been provided to all HHS chief executives and directors of medical imaging and is published on the Queensland Health intranet (relates to recommendation 20).
- HSQ developed a KPI project and has commenced the implementation phase of the project. The KPIs that were developed are consistent with the departmental report recommendations and includes (relates to recommendation 27)
  - KPIs for outsourced radiology reporting which are included in the panel arrangement for the provision of outsourced radiology reporting services for HHSs (relates to recommendation 21).
  - Additional indicators and performance measures to align with the Clinical Services Capability Framework which apply to all diagnostic imaging departments. Consistent terminology and standard definitions have been developed to facilitate benchmarking across facilities using various information systems in different clinical and demographic settings (relates to recommendation 23).
  - Business reports developed by HSQ for QRIS which is currently used by 96 of the 128 diagnostic imaging departments. The reports have been endorsed by the RSG and are published on the Queensland Health intranet. HSQ noted that HHSs had indicated the frequency of reporting should be determined by each HHS relevant to its local circumstances (relates to recommendations 22, 23, 27).
  - A minimum set of KPIs and targets have been developed related to improving the rate of radiology reporting across Queensland (relates to recommendations 23 and 31).
  - Quarterly performance reporting to facilitate peer review is in development (relates to recommendation 24).

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<sup>13</sup> RSG is no longer in operation with Patient Safety and Quality Improvement Service (PSQIS) now responsible for monitoring.

- HSQ present diagnostic imaging reporting rates for all HHSs to the RSG (monthly), Health Commissioning Queensland (monthly), and to the Patient Safety Board (quarterly). Reporting rates are reviewed by the Patient Safety Board and by Health Commissioning Queensland in accordance with the HHS Performance Management Framework. The escalation process for HHS reporting rates below the clinically acceptable range is included in the procedure for monitoring the provision of diagnostic imaging reports (Relates to recommendation 24).
- The requirements for public reporting for all public diagnostic imaging services are currently being investigated and requires agreement by HHBs (relates to recommendation 25).
- The Diagnostic Imaging Strategy 2015, as per departmental report recommendation 30a, was not endorsed by the HHS chief executives because radiology services and reporting issues are not recognised as a system-wide problem. As a result, the business case and action plan will be developed when the future of the Diagnostic Imaging Strategy is determined (relates to recommendations 29 and 30).
- HSQ has developed procedures, guidelines, and KPIs to monitor the performance of radiology services. In addition, HSQ is pursuing imaging informatics to enable the sharing of medical imaging studies with clinicians across the health system. A proposal for ICT investment to support interoperability between departmental systems and across private/public interface has been considered (relates to recommendation 24).
- Changes or updates relating to radiology services are endorsed by the RSG and communicated by the HSQ chief executive in a memorandum to HHS chief executives and directors of medical imaging. A newsletter is published monthly across Queensland Health and updates are published on the Radiology Support page of the Queensland Health website on the intranet (relates to recommendation 19).

## 4.2 The Deloitte audit

As noted earlier in this report, the Gold Coast HHS Chief Executive Mr Ron Calvert advised my office that Gold Coast HHS had engaged Deloitte Australia to conduct an independent audit into its governance, risk management, and internal control systems in July 2015.

Specifically, Gold Coast HHS stated it wanted assurance that the systems and processes that had been implemented had robust clinical governance procedures in place that were being proactively managed and operating effectively with respect to:

- operational compliance with relevant legislation, better practice and internal policies and procedures
- the timely production, reading and communication of medical imaging results
- the effective implementation of recommendations and performance improvement strategies resulting from the departmental report
- the establishment of effective governance and monitoring arrangements.

I acknowledge that while the Deloitte audit found that Gold Coast HHS had already taken a number of actions to improve the effectiveness of controls and mitigate the clinical risks identified in the departmental report, the audit also identified eight key areas of residual risk ranging from high to low, and one process improvement opportunity (table 1).

Table 1 Areas for improvement identified in the Deloitte audit.

Area of improvement	Risk rating	Target date
<b>Manual processing of medical imaging request forms</b>  <b>Management of unexpected or urgent report findings</b>	High	Electronic system solution 31/12/2016 Internal referral project (Interim Solution 30/06/2016 Communication of results (Internal referral project) 30/06/2016 Clinician area contact details 31/12/2015
<b>Medical imaging policy, procedures and work instructions</b> <b>Development of an escalation procedure</b> <b>Acknowledgement of medical imaging reports</b>  <b>Medical Imaging department assurance plan</b> <b>Balance scorecard reporting</b>	Medium	30/11/2015 30/11/2015 Acknowledgement policy 31/12/2015 Acknowledgements audit Ongoing Results acknowledgement in single System Responsibility 31/12/2016 31/12/2016 31/10/2015
<b>Incorrect status recognition in PACS</b>	Low	Ongoing audit and data quality monitoring activity
<b>PACS imaging reporting workflows</b>	Process Improvement Opportunity	Addressed through established Balance Scorecard monitoring and reporting

The Deloitte audit found that:

*...processes and controls surrounding the delivery of medical imaging services at Gold Coast HHS to require some improvement (sic). Specifically observations that present a potential risk to Gold Coast HHS relate to the manual input of imaging requests and the management of unexpected or urgent report findings. It is acknowledged that in many instances these control weaknesses and inefficiencies can be attributed to the system limitations of Gold Coast HHS ePACS. However, in the interim of any new system or system upgrade, Gold Coast HHS should implement appropriate measures and controls to manage the identified risks.*

The Deloitte audit also highlighted that the Gold Coast HHS's Medical Imaging department had implemented a number of process improvement initiatives and controls in the delivery of services. In particular, it was clear that the Medical Imaging department had improved the effectiveness of controls and mitigated the clinical risks identified in the departmental report, with overall positive feedback from selected Gold Coast HHS's department representatives regarding the Medical Imaging department's service delivery.

In review of the Deloitte audit's report, I note the findings were accepted by the Gold Coast HHS management and action plans have been developed, with the majority of target dates set for final delivery by the end of 2016.

## 5. Gold Coast Hospital and Health Service, Health Support Queensland and the Patient Safety and Quality Improvement Service response to draft report

On 8 July 2016, I received a written submission from the current Department of Health Director-General Mr Michael Walsh outlining comments from Gold Coast HHS, HSQ, and the Patient Safety and Quality Improvement Service (PSQIS) in response to my draft report.

I acknowledge much of the information relates to the content of the Department of Health final investigation report. I have noted these comments, together with the additional information provided, and suggested inclusions:

- In reference to report findings part A: 3.2.1—Medical imaging departments and procurement need to be aware of the issues and challenges that arise from having multiple systems within the same modality (at a specific site). Where clinical requirements dictate the purchase of different systems within the same modality (at a specific site), extra safety systems need to be put in place to diminish the likelihood of user error.
- In reference to report findings part B: 3.2.2—HSQ believes there should be an audit to ensure that the HHSs have complied with the report's recommendation to adopt and implement the West Moreton HHS local procedure *Provision of Diagnostic Imaging Reports*. RSG would be able to provide a list of all the contacts required to perform this audit. Contacts could be emailed to request a copy of their policy/procedure. In order to perform the audit, the auditor would need to know which specific metrics within the West Moreton HHS procedure are deemed critical to determine if the HHSs have equivalent procedures that meet these critical requirements.
- In reference to report recommendation 6—The Department of Health diagnostic imaging reports indicator states that data should not be separated by modality or patient type. The proposed transition plan requires
  - agreement from the HHSs/radiologists that they desire and require benchmarking of their radiologists, and that the radiologists agree to this
  - development of benchmarks for radiologist reporting rates, taking into consideration a host of variable factors
  - consultation with HHSs/RISU/PACS teams regarding ability to report by modality
  - review of the Department of Health guides on reporting to allow inclusion of report by modality and any other required changes.

- In addition to report recommendation 8a—HSQ note that it currently has a solution for rural and remote locations—Enterprise PACS. This is the system that Gold Coast HHS has been using. However, the majority of large metropolitan hospitals/HHSs have elected to use other PACS. Enterprise PACS is not used at any of the following: Royal Brisbane and Women’s Hospital, Redcliffe Hospital, Metro South HHS, Sunshine Coast HHS, Cairns and Hinterland HHS, West Moreton HHS, North West HHS. The question of finding a PACS to suit all sites is a significant question that needs to consider many things and something which definitely requires consultation with RISU, the HHSs and existing PACS teams in the HHSs, as well as PACS vendors.
- In reference to report recommendation 9—Gold Coast HHS has developed a rigorous staff training program that addresses the nuances of the three different brands of CT scanner used at the Gold Coast University Hospital, and they have had no reports of clinical incidents or near misses arising from the use of these scanners.
- In reference to report recommendation 23—Currently, the HHSs are submitting monthly data on the number of examinations performed and the percentage of these reported. It is suggested HSQ develop standard business reports, to be completed on a monthly basis by the diagnostic imaging department of each HHS, that include defined metrics, tolerance levels and alert thresholds.
- In reference to report recommendation 24—It is suggested quarterly reports of radiologist performance, including peer comparisons, need to be established and sent to each HHB in relation to individual facilities. If the reporting rates fall below the clinically acceptable (benchmarked) range, having notified the relevant diagnostic imaging department and the HHS chief executive, the PSQIS<sup>14</sup> would escalate notification to the Department of Health Director-General and/or the Minister for Health for appropriate intervention.
- In reference to report recommendation 27—It is suggested to assist with transition, RISU and the other PACS/RIS/business intelligence reporting vendors need to be provided with details of specific reporting requirements to facilitate development of an extensive suite of business reports, including radiologist level work pattern and output, to allow modern management of the diagnostic imaging departments.
- In reference to report recommendation 30e—It is suggested to assist with transition, the Clinical Radiology Group should be supported by Medical Imaging Directors Association of Queensland (MIDAQ) with responsibility to monitor data for audit and feedback to the HHS chief executives, HHBs and Minister for Health. However, they would need to expand the group to include rural and remote locations.
- In reference to section 4.1.1—I note the director of RISU and the general manager of Community and Scientific Support, both from HSQ, had met with Gold Coast HHS on 10 July 2015 to discuss concerns regarding the QRiS and Enterprise PACS.
- In reference to Section 4.2—It is noted that Gold Coast HHS, HSQ and PSQIS will endeavour to move this agenda including the electronic system solution for implementation, it is anticipated they are not going to achieve the timeline. The success of this project is dependent upon the engagement of the Department of Health. The date to achieve RIS/PACS replacement is unlikely based on the current process.

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<sup>14</sup> PSQIS replaces QHIP in regards to this process.

- RISU reports a very good working relationship with Agfa. The Department of Health is working with the most recent version of the Agfa PACS in Australasia. Agfa, as a global supplier, have a product development cycle. Therefore, when RISU requests changes to Agfa:
  - it is not guaranteed that they will be implemented
  - changes that are accepted by Agfa will not be implemented overnight.
- RISU can only advance customer requests for change if customers are willing to detail the changes required. RISU requires detailed and specific feedback with which it can approach Agfa.
- There is no reference to Physician Order Entry and the roll out of Cerner which should address some of the risks that were identified in the Deloitte Audit.<sup>15</sup>
- There is a progress report against the Deloitte recommendations due in June 2016 and a completed audit required by December 2016 through the Audit and Risk sub-committee.

## 6. Summary and conclusion

On review of the departmental report, I considered that the Department of Health investigation adequately examined the issues raised and resulted in suitable recommendations that encompassed local and statewide systemic issues. Moreover, if implemented, the recommendations would ensure future radiology results reporting levels within Gold Coast HHS would be sustained at clinically appropriate levels.

On this basis, I did not re-investigate the issues. Rather, I decided to focus on examining the Gold Coast HHS and HSQ responses to the recommendations arising from the departmental report. Moreover, I considered that some recommendations had long term implications for addressing the deficiencies identified, while others were of a minor nature. As a result, I decided to focus on assessing the progress of implementing recommendations with the most substantial implications.

In addition, I considered the Deloitte audit and its findings as part of my investigation because of the direct link with the departmental report, noting that one of the objectives of the audit was to examine the effective implementation of recommendations and performance improvement strategies resulting from the departmental report. Based on my review of the Combined Action Plan (V0.10) and the submissions provided by Gold Coast HHS and HSQ, it appears that the majority of actions proposed in the plan have been completed and the remaining actions are dependent on the upgrade of software and systems used within the Gold Coast HHS.

HSQ have confirmed that Windows 7 has now been deployed across Queensland Health and the Enterprise PACS was upgraded to version 6.5.3 in 2015. However, Gold Coast HHS is continuing to explore other system options. I have been advised many of Queensland's large metropolitan hospital departments in particular have a preference for systems other than Enterprise PACS. These departments account for a very large proportion of the medical imaging examinations performed throughout Queensland Health. However,

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<sup>15</sup> This information was not provided prior to the release of the draft investigation report and therefore there is no reference to the material.

HSQ has indicated Enterprise PACS to be the solution for rural and remote locations even though the departmental report specified the system was 'inadequate'.

It is important that all PACS in use throughout Queensland Health provide a minimum level of functionality, agreed upon by all the HHSs. Where a specific PACS requires upgrades to meet the minimum requirements, such upgrades must be considered a high priority so that the system provides the technological support required of all medical imaging departments in all HHSs throughout Queensland, thus allowing them to function effectively. It is clear that consistency in radiology reporting should also rely not just on their systems, but also radiologist peer review and individual facility performance review.

The benefit of HSQ reviewing the West Moreton HHS local procedure for the Provision of Diagnostic Imaging Reports, together with the recommendation that the procedure is adopted and implemented at every HHS, ensures that despite the different PACS/RIS options in use across Queensland Health, the radiology reporting requirements should be consistent and that highlighted deficiencies are escalated for remediation. I have noted HSQ's suggestion to undertake an audit to ensure the HHSs have complied with this recommendation.

Initially, I noted that in the Deloitte audit report the upgrade to Enterprise PACS was under consideration by the Department of Health and that no timeframe for implementation had been determined despite awareness of the limitations of the existing system. However, additional information provided in response to my draft investigation report indicated that although the Gold Coast HHS Enterprise PACS has since been upgraded, the RISU were advised that the Gold Coast HHS had elected to investigate a new RIS/PACS and as a result could no longer interact with them except for business as usual activities.

Further, the Deloitte audit report identified that some of the completed recommendations as reported by the Gold Coast HHS had not been adequately addressed and required further effort. The Deloitte report included set target dates to manage the improvements required, with the final delivery date for implementation of remedial action scheduled for the end of 2016. In response to my draft investigation report, the improvements mostly relate to manual processes and it has been indicated that the timeline will not be achieved. I have noted the success of this project is dependent upon the engagement of the Department of Health and that the current chronology of processes and approvals in relation to the replacement of the RIS/PACS is unlikely to be met.

It is my understanding the Gold Coast HHS Medical Imaging Department Governance Committee will oversee the implementation of the Deloitte audit recommendations and, to ensure compliance, will be required to provide evidence to the internal auditor, with audit reports provided to the Audit and Risk Committee upon completion.

I acknowledge that, of all 31 recommendations made in the departmental report, only recommendation 30a was not endorsed by the HHS chief executives on the basis that radiology services and reporting issues were not recognised as a system-wide problem. Subsequently, it was decided the business case and action plan would be developed when the future of the Diagnostic Imaging Strategy is determined.

I expect that upon completion of both the departmental report and Deloitte's audit recommendations, the Gold Coast HHS and other HHSs will function with the appropriate support and governance to prevent a similar radiology reporting incident from occurring again.

## 7. Recommendations

In consideration of the outstanding departmental report recommendations, the findings from the Deloitte audit, and the submission provided by Department of Health Director-General Mr Michael Walsh in response to my draft investigation report, I make nine recommendations for implementation.

Recommendation	Responsible agency	Expected completion date
1	Gold Coast HHS to develop an information technology solution to overcome the current inadequate RIS/PACS system (Note: Gold Coast HHS has reactivated its Medical Imaging Informatics Project)	Gold Coast HHS
2	Gold Coast HHS review the <i>target date</i> for the eight <i>areas of improvement</i> identified in the Deloitte audit and apply new timeline if required.	Gold Coast HHS
3	The Gold Coast HHS Medical Imaging department fully implement the action plan developed as a result of the Deloitte audit of Medical Imaging Report, September 2015 and provide the Office of the Health Ombudsman a copy of the final report that is required by the Audit and Risk Committee upon completion.	Gold Coast HHS
4	HSQ facilitate and progress the proposed transition plan for peer comparison radiology reporting and include reporting by modality.	HSQ
5	HSQ develop standard business reports, to be completed on a monthly basis by the diagnostic imaging department of each HHS, that include defined metrics, tolerance levels and alert thresholds.	HSQ
6	HSQ develop quarterly reports of radiologist performance, including peer comparisons, and send to each HHS in relation to individual facilities.	HSQ
7	RISU/HSQ complete the <i>select order</i> procedure for workflow and the rebuilding of the modality schedules following completion of the QRIS and Enterprise PACS upgrade.	RISU/HSQ
8	HSQ update the Queensland Health <i>Procedure for monitoring the provision of diagnostic imaging report</i> to reflect changes such as the replacement of RSG with PSQIS.	HSQ
9	PSQIS undertake an audit to ensure all HHSs have complied with the adoption of the Queensland Health <i>Procedure for monitoring the provision of diagnostic imaging report</i> or equivalent.	PSQIS/HSQ

## 7.1 Monitoring plan

I have developed a recommendation monitoring plan (see appendix 1) to facilitate implementation of the nine recommendations arising from the investigation.

Unless otherwise advised, pursuant to section 89 (2) of the *Health Ombudsman Act 2013*, two progress reports on implementation of the recommendations are required during the monitoring period. The due dates for these reports are:

- Progress report 1—close of business Friday 23 December 2016
- Progress report 2—close of business Friday 30 June 2017.

The requirement for additional progress reports will be determined based on my office's evaluation of the status of implementation of the nine recommendations.

At least 14 days prior to the due date for submission of the progress reports, Gold Coast HHS, HSQ, and PSQIS will be provided with a reminder of my request for a progress report on implementation of the recommendations, including a progress report template which outlines the required information. The Department of Health Director-General (or their delegate) is required to endorse the completed progress report prior to its submission to my office.

## Appendix 1: Recommendation monitoring plan

OHO Case number: C\201407309

Facility/entity name: Gold Coast Hospital and Health Service, Radiology Information System Unit/ Health Support Queensland, Patient Safety and Quality Improvement Service

	Investigation report recommendations	Evidence requested by my office pursuant to s89(2) to demonstrate implementation	Progress report due
1	Gold Coast HHS to develop an information technology solution to overcome the current inadequate RIS/PACS system (Note: Gold Coast HHS has reactivated its Medical Imaging Informatics Project)	<ul style="list-style-type: none"> <li>▪ Submission outlining Gold Coast HHS's intentions or progress towards replacing the current RIS/PACS, including timeline and accountabilities.</li> </ul>	23 Dec 2016
2	Gold Coast HHS review the <i>target date</i> for the eight <i>areas of improvement</i> identified in the Deloitte audit and apply new timeline if required.	<ul style="list-style-type: none"> <li>▪ Submission outlining Gold Coast HHS's intentions and/or progress towards the identified <i>areas of improvement</i> including updated timeline.</li> </ul>	23 Dec 2016
3	The Gold Coast HHS Medical Imaging department fully implement the action plan developed as a result of the Deloitte audit of Medical Imaging Report, September 2015 and provide the Office of the Health Ombudsman a copy of the final report that is required by the Audit and Risk Committee upon completion.	<ul style="list-style-type: none"> <li>▪ Copy of any and all progress reports related to implementation of actions arising from the Deloitte audit recommendations.</li> <li>▪ Copy of the final report detailing implementation of the Deloitte audit recommendations</li> </ul>	23 Dec 2016  30 June 2017
4	HSQ facilitate and progress the proposed transition plan for peer comparison radiology reporting and include reporting by modality.	<ul style="list-style-type: none"> <li>▪ Submission outlining HSQ's intentions or progress towards the transition plan including timeline.</li> <li>▪ Details of scope, timing and frequency of peer comparison radiology reporting, including benchmarks, thresholds and escalation responses</li> </ul>	23 Dec 2016
5	HSQ develop standard business reports, to be completed on a monthly basis by the diagnostic imaging department of each HHS, that include defined metrics, tolerance levels and alert thresholds.	<ul style="list-style-type: none"> <li>▪ Copy of standard business reports to be completed on a monthly basis by the diagnostic imaging department of each HHS, including details of defined metrics, tolerance levels and alert thresholds.</li> <li>▪ Copy of most recent monthly business report for each HHS</li> </ul>	23 Dec 2016

Investigation report recommendations		Evidence requested by my office pursuant to s89(2) to demonstrate implementation	Progress report due
6	HSQ develop quarterly reports of radiologist performance, including peer comparisons, and send to each HHB in relation to individual facilities.	<ul style="list-style-type: none"> <li>▪ Submission outlining HSQ's progress towards establishing the quarterly reports including timelines.</li> <li>▪ Copy of quarterly report template</li> </ul>	23 Dec 2016
7	RISU/HSQ complete the <i>select order</i> procedure for workflow and the rebuilding of the modality schedules following completion of the QRiS and Enterprise PACS upgrade.	<ul style="list-style-type: none"> <li>▪ A submission outlining RISUs progress and/or completion of the <i>select order</i> procedure for workflow and the rebuilding of the modality schedules following the upgrade of QRiS and Enterprise PACS</li> <li>▪ Copy of <i>select order</i> procedure</li> </ul>	23 Dec 2016
8	HSQ update the Queensland Health <i>Procedure for monitoring the provision of diagnostic imaging report</i> to reflect changes such as the replacement of RSG with PSQIS.	<ul style="list-style-type: none"> <li>▪ Copy of updated Queensland Health <i>Procedure for monitoring the provision of diagnostic imaging report</i> highlighting the changes from the superseded document.</li> <li>▪ Copy of any associated guidelines or protocols developed.</li> </ul>	23 Dec 2016
9	PSQIS undertake an audit to ensure all HHSs have complied with the adoption of the Queensland Health <i>Procedure for monitoring the provision of diagnostic imaging report</i> or equivalent.	<ul style="list-style-type: none"> <li>▪ Copy of audit results and any resulting action plans</li> </ul>	30 June 2017