ACT Auditor-General’s Office

Performance Audit Report

Emergency Department Performance Information

Report No. 6 / 2012

Health Directorate

July 2012
Dear Mr Speaker

I am pleased to forward to you a Performance Audit Report titled ‘Emergency Department Performance Information’ for tabling in the Legislative Assembly pursuant to section 17(5) of the Auditor-General Act 1996.

Yours sincerely

Dr Maxine Cooper
Auditor-General
3 July 2012
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<tr>
<td>ACT</td>
<td>Australian Capital Territory</td>
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<tr>
<td>ACTPS</td>
<td>ACT Public Service</td>
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<td>AIHW</td>
<td>Australian Institute of Health and Welfare</td>
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<td>ATS</td>
<td>Australasian Triage Scale</td>
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<td>ACEM</td>
<td>Australasian College for Emergency Medicine</td>
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<td>COAG</td>
<td>Council of Australian Governments</td>
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<td>EDIS</td>
<td>Emergency Department Information Solution</td>
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<td>ICT</td>
<td>Information communication &amp; technology</td>
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<tr>
<td>KPI</td>
<td>Key Performance Indicator</td>
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<td>NEAT</td>
<td>National Emergency Access Target</td>
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<tr>
<td>NSW</td>
<td>New South Wales</td>
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<td>PWC</td>
<td>PricewaterhouseCoopers</td>
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<td>UK</td>
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<td>VAGO</td>
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1. REPORT SUMMARY AND CONCLUSIONS

INTRODUCTION

1.1 This report presents the results of a performance audit that examined the circumstances associated with the alleged manipulation and misreporting of Emergency Department performance information at the Canberra Hospital.

Emergency Department services in the ACT

1.2 In the ACT, emergency hospital services are provided at the Canberra Hospital (Woden) and Calvary Public Hospital (Bruce). The Canberra Hospital is operated by the ACT Health Directorate. The Calvary Public Hospital is operated by Calvary Health Care ACT Ltd on behalf of the Health Directorate.

1.3 In June 2011 an Expert Panel, which was commissioned to provide advice on the implementation of the National Partnership Agreement on Improving Public Hospital Services targets and incentives, reported:

   Emergency departments are the face of the public hospital system, and problems in emergency departments, such as overcrowding and ambulance queues are the most visible sign of strain on our public hospitals to patients and the general public.

   In 2009–10, Australian public hospitals provided almost 7.4 million accident and emergency services, with an annual growth rate of 4.3 per cent per year over the past five years. In conjunction with the increase in demand for emergency services, there has been an increasing awareness of the extent and impact of emergency department overcrowding, including delays in patient care.

   As emergency departments fill up to their capacity and beyond, staff are stretched between more patients, it takes longer for patients to be seen, and ambulances begin queuing or are diverted as there is no room for new patients.¹

1.4 In 2010-11 the Health Directorate reported that there were 112,213 presentations to ACT emergency departments. This was an increase of 5 percent over 2009-10 figures and represents an overall increase of 15 percent since 2007-08.

1.5 Timely access to treatment in the ACT’s emergency departments is important to the ACT community and the timeliness performance of the ACT’s emergency departments is a continuing focus of the ACT Legislative Assembly, the media and the broader community.

Canberra Hospital Emergency Department data anomalies

1.6 On 5 April 2012 the Australian Institute of Health and Welfare (AIHW) notified the Health Directorate of some apparent anomalies in Canberra Hospital Emergency Department data that had been provided to AIHW. In response, between 9 April 2012 and 19 April 2012 the Health Directorate undertook some initial investigations into the potential data anomalies. The Health Directorate’s initial investigations indicated that a more detailed investigation was required.

1.7 Following the initial investigations, on 21 April 2012 an executive met with the Director-General of the Health Directorate and admitted to making improper changes to hospital records.

1.8 On 24 April 2012 the Director-General of the Health Directorate held a media conference in relation to the matter. On 27 April 2012 the ACT Health Minister wrote to the Auditor-General requesting the Auditor-General ‘undertake a performance audit of the Health Directorate’s data collection, reporting and integrity systems.’ On 1 May 2012 the ACT Legislative Assembly passed a resolution which, inter alia, requested ‘the Auditor-General to inquire into data discrepancies in Emergency Department waiting times at The Canberra Hospital.’

1.9 On 3 May 2012, the Auditor-General issued a media release announcing that the ACT Auditor-General’s Office would conduct a performance audit in relation to the matter.

AUDIT OBJECTIVES

1.10 The objective of this audit was to provide an independent opinion to the Legislative Assembly on:

- the circumstances associated with the alleged misreporting of Canberra Hospital Emergency Department performance information;
- the effectiveness of the Health Directorate’s systems and processes for reporting Emergency Department performance information; and
- the financial implications for the Territory associated with any potentially misreported Emergency Department performance information.

AUDIT CONCLUSION

1.11 The audit conclusion drawn against the audit objectives are set out below.

Hospital records at the Canberra Hospital have been deliberately manipulated to improve overall performance information and reporting of the Canberra Hospital’s Emergency Department. The very poor controls over the relevant information system means that it is not possible to use information in the system to identify with certainty the person or persons who have made the changes to the hospital records. Under affirmation, an executive at the Canberra Hospital has admitted to making improper changes to hospital records. While this is the case, Audit considers that it is probable that improper changes...
to records have been made by other persons.

There is evidence to indicate that hospital records relating to Emergency Department performance were manipulated between 2009 and early 2012. It is likely that up to 11,700 records relating to Emergency Department presentations were manipulated during this period. The records that were manipulated mean that publicly reported information relating to the timeliness of access to the Emergency Department and overall length of stay in the Emergency Department have been inaccurately reported over this period.

**Data manipulation**

The executive has admitted to manipulating hospital records initially in 2010 and on a much larger scale throughout 2011 into early 2012. The executive’s admission of manipulating records does not account for all of the changes that were made to hospital records, where timeliness information was improved. The executive did not admit to making changes to records in 2009. Furthermore, changes to hospital records made throughout 2010 and early 2012 are not all accounted for by the executive’s admission.

The executive’s rationale for manipulating records was that they felt under significant pressure to improve the publicly reported performance information of the Emergency Department. In this respect, Audit notes that there is a significant and ongoing focus on the timeliness performance of the two Canberra hospitals more broadly, and their emergency departments more specifically. Audit also notes that the recent National Partnership Agreement between the states and territories and the Commonwealth has placed an additional focus on hospital waiting times, targeting $3.4 billion in investment over the eight years to 2016-17 on hospital improvement. Of this Commonwealth funding, a comparatively small proportion ($200 million nationally and $3.2 million for the ACT) is directly dependent on improvements to Emergency Department timeliness performance. There is a considerable lack of attention on qualitative indicators, which may provide a more appropriate and rounded assessment of Emergency Department performance.

Managerial pressure was placed on the executive to improve the performance of the Emergency Department. This managerial pressure reflects the significant and ongoing focus on the timeliness performance of the Canberra Hospital and the requirements of the National Partnership Agreement. An organisational change management agenda was also underway at the Canberra Hospital since the restructure of the Health Directorate in early 2011. The organisational change process underway at the Canberra Hospital sought to achieve improved performance and accountability for performance.

Organisational change can be challenging and confronting for staff. In relation to the organisational change that was underway at the Canberra Hospital throughout 2011, one stakeholder commented to Audit:

> The hospital is very resistant to outsiders coming in, very resistant. In a way, it’s a very protected community and it has developed from a small regional
hospital, you know, the Woden Valley Hospital, to the major tertiary referral centre for the region. And one of the challenges...is whether the change has happened as it’s needed to for staff to move into that much more professional high-pressure dynamic organisation.

Although managerial pressure was placed on the executive to improve the performance of the Emergency Department, this was not manifested in direct or indirect instruction or guidance to deliberately manipulate hospital records. Furthermore, there was no direct or indirect instruction by any other person, including the Minister for Health.

**Very poor systems and practices**

The very poor systems and practices in place in the Canberra Hospital and the Health Directorate for preparing and publicly reporting performance information created the opportunity for persons to manipulate the hospital records. The Emergency Department’s management information system, which is used to prepare the performance information, has very poor system access and user controls. There is a lack of governance and administrative accountability for this system, which means that there is no identifiable system owner with responsibility for ensuring the integrity of the system and the appropriateness of its access and user controls.

The very poor system access and user controls over the Canberra Hospital’s Emergency Department management information system has wider implications beyond the inaccurate reporting of timeliness performance. There are risks to the privacy and confidentiality of patient information. The very poor systems and practices also mean that there is a risk that the Health Directorate does not meet the requirements of Principle 4.1 of the *Health Records (Privacy and Access) Act 1997* relating to the safekeeping of personal health information.

Audit notes that the same management information system, albeit a newer version, is used at the Calvary Public Hospital. There are more effective system access and user controls over the newer system at the Calvary Public Hospital. Nevertheless, some features of the newer system and its implementation at the Calvary Public Hospital may also give rise to risks relating to the privacy and confidentiality of patient information and the potential manipulation of hospital records to improve timeliness performance reporting. There is also a risk, albeit to a lesser extent, that Calvary Public Hospital does not meet the requirements of Principle 4.1 of the *Health Records (Privacy and Access) Act 1997* relating to the safekeeping of personal health information.

There was also a lack of monitoring, review and assurance of the integrity and accuracy of the Health Directorate’s publicly reported Emergency Department performance information. Various data validation processes are in place within the Health Directorate, but these processes have not been designed to provide assurance over the integrity and accuracy of publicly reported Emergency Department performance information.

Audit notes that the current monitoring, review and assurance processes over the publicly reported Emergency Department performance information are not consistent with the apparent importance of the performance information, as demonstrated by the
significant Health Directorate management and stakeholder interest.

Commonwealth funding

A comparatively small amount of Commonwealth funding under the recent National Partnership Agreement ($3.2 million over the four years to December 2015) is contingent upon the ACT meeting relevant timeliness targets. $0.8 million is contingent upon the ACT’s timeliness performance in 2012. This funding may be at risk, as it appears that the ACT is not meeting its timeliness performance targets. However, it should be noted that this reward funding may be rolled over and provided in future years up to 2015.

KEY FINDINGS

1.12 The audit conclusion is supported by the following findings:

Emergency Department performance information (Chapter 2)

- Between 2008-09 and 2010-11, demand for ACT Emergency Department services has increased by more than the growth in the ACT population and more than the average national growth in demand for Emergency Department services.

- In all jurisdictions, there is a strong public focus on the performance of the health system. In the ACT the performance of the two public hospitals is particularly important and this receives significant and ongoing attention from the media, Legislative Assembly and the community in general.

- Since 2000-01, based on the Health Directorate’s publicly reported performance information, there has been variable performance against waiting time indicators, and it is apparent that there has been an overall decline in performance over the last ten years. On the basis of the apparent manipulation of hospital records discussed in detail in Chapter 4, it appears that the Health Directorate’s performance has been over-estimated during this period.

- The level of over-estimation cannot be established with certainty due to the lack of a clear audit trail identifying what were legitimate and what were fabricated entries in patients’ records. Nevertheless, Audit estimates that in the latest twelve months for which records have been examined (April 2011 to April 2012), the Canberra Hospital’s ATS Category 3 results (i.e. achievements against the target) were overstated by at least 19 percent, and ATS Category 4 results were overstated by at least 10 percent.

- Emergency Department waiting times are reported with reference to the Australasian Triage Scale (ATS). The Australasian College for Emergency Medicine conducted a review of the ATS, which identified that the ATS should only be used to describe urgency and that separate measures are needed to assess quality of care.
• Emergency Department length of stay is primarily reported against the recently introduced four hour National Emergency Access Target (NEAT), which has been introduced as part of the National Partnership Agreement on Improving Public Hospital Services agreed to by the Commonwealth and all states and territories in 2011. An Expert Panel review of the introduction of the NEAT identified that there are risks associated with the introduction of quantitative targets such as the NEAT. The Expert Panel recommended that the targets themselves may pose a risk to safety and quality of patient care, in the absence of a balanced suite of indicators which measure different dimensions of quality.

• The ACT’s hospitals’ performance against timeliness indicators is regularly reported externally through a number of different mechanisms. There is a lack of qualitative indicators against which the Health Directorate regularly reports.

• Internal reporting on performance occurs on a high-frequency basis and is focused on quantitative measures. There is an opportunity to develop a more extensive and effective suite of indicators for public reporting, including qualitative indicators, against which Emergency Department performance should be reported.

• Emergency Department personnel spoken to by Audit advised that Emergency Department personnel are ‘primarily interested in saving lives and providing high quality care, regardless of the existence of the targets’. Emergency Department personnel advised that the performance indicators are not targets that can be achieved by the Emergency Department itself, as they are dependent on many variables that they have no control over, such as staffing, access block and demand for emergency services.

• The introduction of a four hour rule in the United Kingdom, similar to the NEAT, was accompanied by widespread gaming and fraudulent manipulation of hospital data.

• A 2009 Victorian Auditor-General’s Office review of performance measurement in Victorian public hospitals identified that there was a significant risk of incorrect reporting associated with Emergency Department timeliness performance. Inconsistently interpreted reporting rules and data capture methods, as well as poor security over information systems, meant that ‘it was not possible to assure that reported performance against the majority of access indicators fairly represented actual performance’.

• A 2008 Deloitte Touche Tohmatsu internal audit of emergency department performance reporting in New South Wales concluded that triage benchmark reports are limited in value as an accurate record of emergency department activity and performance due to inconsistencies in the way data is captured and recorded. The audit also found that the majority of hospitals used the same information system that is currently in use at the Canberra hospitals and that access controls within the system were ineffective and provided poor audit trail capabilities.
• The ACT Health Minister advised Audit that she has raised the issue of the risk of inaccurate measurement and reporting of performance indicators under the National Partnership Agreement at the National Ministerial Standing Council on Health.

**Systems and processes for reporting performance information (Chapter 3)**

• An Emergency Department management information system primarily captures workflows and the allocation of patients for treatment according to ATS categories. The system also facilitates the recording of clinical and administrative data relevant to a patient’s treatment.

• The Canberra Hospital and the Calvary Public Hospital both use the iSOFT Emergency Department Information Solution (EDIS) system. EDIS had been in place at the Canberra Hospital for approximately 15 years, while EDIS was only introduced at the Calvary Public Hospital in January 2012. iSoft’s EDIS has been implemented in over 190 emergency departments across Australia, New Zealand, Canada and the United Kingdom.

• At the Canberra Hospital there is very poor EDIS system governance documentation, with no documentation for describing the system, its business owner, applicable policy, record-keeping obligations, training requirements and roles and responsibilities. While there was a lack of similar documents at the Calvary Public Hospital, Audit identified a range of governance documents reflecting the recent development and implementation phases of the new EDIS.

• At the Canberra Hospital, there is no identifiable EDIS system administrator with responsibility for managing internal administrative issues such as user management and activity monitoring. The lack of an identifiable system administrator has lead to a number of policy breaches, administration gaps and poor system practices. Discussions with Health Directorate and Shared Services ICT staff indicated that each party thought the other was responsible for key system administration activities.

• There are no formal training arrangements in place at the Canberra Hospital with respect to the use of EDIS. At the Calvary Public Hospital, planned and structured training has necessarily been provided with respect to EDIS and its use, given that it is a newly implemented system. At the time of audit fieldwork, however, there were a number of Calvary Public Hospital potential users who are yet to receive training.

• System security controls over EDIS are very poor at the Canberra Hospital. The very poor system security associated with EDIS at the Canberra Hospital means that a number of Health Directorate and ACT Government policies have not been complied with. There is no evidence that EDIS and its data had been classified or that there is a documented system security plan, as required by the *Shared Service ICT Security Policy*. 
• User access controls over EDIS are very poor at the Canberra Hospital. The proliferation of EDIS access throughout the hospital, the widespread use of generic user logons and the very poor password controls over the generic logons has severely compromised the integrity of the data in the system. The very poor user access controls associated with EDIS at the Canberra Hospital means that a number of Health Directorate and ACT Government policies have not been complied with.

• Computer terminals carrying the EDIS application are widely available throughout the Canberra Hospital, yet all EDIS applications use the same workstation identification. The use of a common workstation identification, combined with the use of generic accounts means that any audit log of EDIS access and EDIS use is ineffective. These practices mean that any improper changes made to EDIS records are impossible to trace to an individual user.

• User access controls over EDIS are more effective at the Calvary Public Hospital, but there remains some room for improvement. Key shortcomings relate to the proliferation of EDIS access throughout the hospital, the use of generic user logons and the very poor password controls over the generic logons.

• Due to poor user access controls and system security for EDIS, there is a risk at both hospitals that they do not meet the requirements of Principle 4.1 of the Health Records (Privacy and Access) Act 1997 relating to the safekeeping of personal health information.

• The use of, and practices supporting, EDIS within the hospitals was variable and has developed over time with respect to reporting key ‘clock starting’ and ‘clock stopping’ moments. The different practices mean that data accuracy over time cannot be fully relied upon and publicly reported timeliness performance information should be treated with caution.

• The data validation process at the Canberra Hospital allows administrative staff to review Emergency Department presentations where timeliness targets have been breached for the day before the review occurs. The only purpose of the data validation process is to identify opportunities to improve publicly reported timeliness figures. Records where timeliness targets have been met are not reviewed as part of this data validation process.

• The Health Directorate has limited review and assurance processes over its publicly reported Emergency Department timeliness information. Despite the apparent importance and pre-eminence of Emergency Department timeliness performance information to the ACT Government, the ACT community and other stakeholders there is a lack of rigor in the monitoring, review and assurance processes over this information.

• Performance against ATS categories is not audited by the ACT Auditor-General’s Office on an annual basis as these indicators are not included in the Health Directorate’s Statement of Performance. These indicators were last included in
the Health Directorate’s Statement of Performance in 2003-04, where the ACT Auditor-General’s Office identified an Emphasis of Matter in its audit report based on the finding that the results were unable to be independently verified due to incomplete records.

**Data manipulation at the Canberra Hospital (Chapter 4)**

- Approximately 11,700 EDIS patient records were changed between 2009 and 2012 so that Emergency Department waiting times and patients’ overall length of stay in the department appeared to be shorter than they actually were.

- The very poor EDIS user access and system controls and the very poor audit log function means that it is not possible to identify, based on EDIS records, the person or persons who may have deliberately changed the EDIS hospital records.

- A Health Directorate executive has admitted to changing EDIS records to Audit in an interview on affirmation, pursuant to section 14A of the *Auditor-General Act 1996*. While an executive has admitted to changing EDIS records, it is probable that EDIS records have also been manipulated by other persons with access to the system. The executive’s admission to Audit does not appear to account for all of the changes to EDIS records that have been made to improve timeliness performance.

- The executive has stated that they were not instructed or influenced to change EDIS records. Health Directorate personnel in the executive’s line of reporting up to and including the Director-General, the Minister for Health as well as a family member of the Minister for Health who has a close personal relationship with the executive, have advised Audit, under oath or affirmation, that they have not provided any direct or indirect instruction or influence to change hospital records.

- Audit considers that the actions of the executive who has admitted to manipulating hospital records is seriously inappropriate and improper conduct. The executive may have breached the ACTPS Code of Ethics and section 9 of the *Public Sector Management Act 1994*, as well the terms of their executive employment contract.

**RECOMMENDATIONS AND RESPONSE TO THE REPORT**

1.13 Audit has made 10 recommendations to address the audit findings detailed in this report.

1.14 In accordance with section 18 of the *Auditor-General Act 1996*, a final draft of this report was provided to the Director-General of the Health Directorate. Chapter 3 of the final draft report was also provided to the Chief Executive of Calvary Health Care (CHC) ACT for consideration and comments.

**Health Directorate response**

1.15 The Director-General’s overall response is shown below:
The Health Directorate would like to thank the Auditor General for the Report and welcomes the opportunity to comment on the report and its recommendations. The Directorate has agreed to all the recommendations and believe that they will provide a basis to improve the data and performance reporting systems for the Directorate.

The issues addressed in the report are very serious. However, the Directorate would like to emphasise that they in no way reflect on the quality of care in the Canberra Hospital Emergency Department, or the professionalism of the doctors, nurses and allied health staff within the ED. The care provided within the Emergency Department has not been affected by any changes to the data, and these changes were made after the care provided in the ED had been completed.

The Audit report discusses the increasing pressure that Emergency Departments are experiencing nationally, and shows that presentations to the EDs in the ACT are increasing at a rate that is both higher than the rate for EDs elsewhere in Australia, and significantly higher than the rate of population growth. At the same time, attention on, and calls to improve, ED timeliness has also increased, creating significant pressure on hospital staff. This is particularly the case with the Commonwealth targets for States and Territories and reward funding attached to achievement of these targets.

The capacity for EDs to improve timeliness is dependent not only on the capacity and performance of the Emergency Department but also on the capacity and performance of other areas of the health system, ranging from primary care services through to inpatient areas of hospitals. However, the attention placed on ED timeliness as a performance measure is significantly higher than the attention placed on almost all other parts of the health system. Additionally, as the Audit report highlights, the focus on ED timeliness does not take into account broader measures of patient outcome.

The Health Directorate supports the audit recommendations for developing broader measures of ED performance, and notes also that, for these measures to be effective, the current focus and commentary on timeliness as the primary measure of ED performance will need to be similarly broadened.

The Health Directorate acknowledges the problems identified with the controls and management of the EDIS system at the Canberra Hospital, and will work to implement the actions recommended in the Audit report. As noted in the Audit report, the EDIS system was developed to assist patient care and workflow in EDs, has been widely implemented across Australia and performs this function effectively. EDIS was not designed to produce the sort of performance information that is now being expected from EDs. Problems experienced in the
ACT have been experienced by other hospitals using EDIS to generate timeliness information for performance purposes. The Health Directorate is, however, committed to providing accurate performance information and will work to put in place systems that can ensure the integrity of the information reported.

The Health Directorate notes the recommendation regarding the Executive who has admitted to manipulating the EDIS records. As a matter of natural justice, any employee who is accused of misconduct must be given an opportunity to comment on the allegations before any disciplinary action is taken. The Health Directorate will put the Auditor-General’s findings to the Executive as part of a misconduct investigation, and once the outcome of the misconduct investigation has been considered, a determination will be made on what disciplinary action will be taken in relation to the Executive’s employment.

Calvary Health ACT response

1.16 The Chief Executive of Calvary Health Care (CHC) ACT’s overall response is shown below:

*Calvary Health Care (CHC) ACT welcomes the opportunity to respond to the Auditor General’s Report into the Emergency Department Performance Information.*

*CHC ACT commenced implementation of EDIS Version 9.48 on 17th January. The initiation of this audit has overlapped with the implementation processes, policies and procedures and has therefore come at a time when many of the processes are being developed and implemented. It does however provide an opportunity for check and review of the implementation as well as an opportunity to improve the overall system governance and security.*

*With reference to this audit, we note no evidence of ‘gaming’ or data manipulation from within or CHC Emergency Department. CHC ACT provides a specific response to each of the recommendations that have been referenced to CHC ACT.*
1.17 In addition, the Director-General and CHC ACT Chief Executive both provided responses to the relevant recommendations, as shown below.

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<td>The Health Directorate should review its performance indicators for publicly reporting the performance of Canberra’s hospitals’ emergency departments to include and give a greater emphasis to qualitative indicators relating to clinical care and patient outcomes.</td>
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**Health Directorate response:**

**Agreed**

*The Health Directorate agrees that measuring timeliness alone is not sufficient to assess the quality and effectiveness of Emergency Department services. This is consistent with the summary of the views of the Australasian College of Emergency Medicine outlined in the Audit report.*

*The Health Directorate is currently researching other indicators that would better represent the quality and performance of Emergency Departments. It is likely that these indicators will need to take into account the interdependencies between the performance of other hospital services, primary health care services and the Emergency Departments.*

*In conducting this research, the Health Directorate will also consult with other States and Territories and the National Health Performance Agency as well as the Expert Panel established by the Council of Australian Governments under the National Partnership Agreement on Improving Public Hospital Services to provide advice on the implementation of targets and incentives under the Agreement.*
**Recommendation 2 (Chapter 3)**

The Health Directorate and Calvary Public Hospital should develop essential EDIS governance documentation, including:

a) an overarching governance statement that describes:

   i. the purpose and use of the system;

   ii. its business owner, system administrator and all roles and responsibilities associated with the system and its support (including third party stakeholders such as Shared Services ICT);

   iii. the security classification of the system and its data;

   iv. applicable policy and administrative guidance;

   v. record-keeping obligations;

   vi. training requirements; and

   vii. what is monitored and audited to ensure compliance with policy and supporting system documentation.

b) standard operating procedures for all roles and responsibilities associated with the system and its use;

c) training material that covers all dimensions of EDIS including user roles and responsibilities, processes described in standard operating procedures and specific policy that is applicable to the system; and

d) a System Security Plan, which is informed by a risk assessment and risk management plan.

**Health Directorate response:**

**Agreed**

*The Health Directorate has commenced work to strengthen current documentation to address the areas of concern outlined in the Audit. The Health Directorate is supportive of working with Calvary Public Hospital to develop consistent documentation across the two ACT public hospitals.*

**Calvary Health Care ACT response:**

Response to 2(a):

**Agreed**
It should be noted that CHCACT has provided evidence to the Auditor General of a number of governance documents which underpin an overarching framework.

**Action:** CHCACT will develop an overarching governance statement, aggregating the documents already in place and have this endorsed by CHCACT Executive by 16th July 2012.

Response to 2(b):

**Agreed**

CHCACT Standard Operating Procedures are in development and will be finalised as a priority.

**Action:** All SOPs will be finalised after consultation and review with the users and endorsed by CHCACT Executive by 30 July 2012.

Response to 2(c):

**Agreed**

As stated within the report formal training has been provided to key staff groups. CHCACT will focus on the gaps identified by Auditor General’s report, and review and edit the user database and also continue the required training for any new users.

**Action:** Any untrained users will be trained by 16 July 2012. Training programs will remain ongoing for the training of new staff.

Response to 2(d):

**Agreed**

**Action:** A system security plan will be developed and endorsed by the CHCACT Executive by 16th July 2012.

**Recommendation 3 (Chapter 3)**

The Health Directorate should, in conjunction with Shared Services ICT, finalise the draft Business System Support Agreement between Shared Services ICT and the Health Directorate for EDIS.

**Health Directorate response:**

**Agreed**

The Health Directorate will work with Shared Services ICT to finalise the draft Business System Support Agreement.
Recommendation 4  (Chapter 3)

The Health Directorate and Calvary Public Hospital should:

a) review the current distribution of access to EDIS throughout the hospital and remove any users who do not have a specific and documented requirement for access to the system; and

b) develop policies, administrative procedures and system controls (if possible) that restrict the use of generic user accounts outside the Emergency Department work environment.

Health Directorate response:

Agreed

The Health Directorate will undertake a review of access to EDIS to remove any users who do not have a requirement for access to the system and to minimise the use of generic user accounts. Access to EDIS both within and outside the Emergency Department is essential for the continued effective management of patient care within the Canberra Hospital. In undertaking this review, the Health Directorate will ensure that the effectiveness of patient care is not compromised. Further analysis will be undertaken on the technical feasibility of restricting generic user accounts for use solely within the Emergency Department.

The Health Directorate is supportive of working with Calvary Public Hospital to implement this recommendation.

Calvary Health Care ACT response:

Response to 4(a):

Agreed

During the initial implementation phase all listed users from the former ED system were transferred to the new EDIS system. A number of these users do not and will not require access to the new system. Although a large number of user files were migrated to the new system only those who required access have been provided with a current password, enabling system access.

Action: Review and edit the list of registered users of the EDIS system. Action to be completed and endorsed by the CHCACT Executive by 16th July 2012

Response to 4(b):

Agreed
The need for Generic user accounts has been discussed with the Auditor General’s Office. Trials of individual password access occurred in the initial roll-out of EDIS and proved to be challenging. After an analysis of the issues was completed, generic user accounts have been adopted within the ED environment. Any generic user accounts outside of the ED environment are under review.

Action: Develop policies, administrative procedures and system controls that remove any generic user accounts outside of the ED work environment and update the organisational policy on account types. Action to be completed and endorsed by the CHC ACT Executive by 16th July 2012

**Recommendation 5 (Chapter 3)**

The Health Directorate and Calvary Public Hospital should:

a) identify and document responsibilities for user access management and log monitoring for EDIS; and

b) develop a process to monitor user activity within EDIS and how to report and escalate unusual activity to the appropriate authorities.

**Health Directorate response:**

**Agreed**

In line with Recommendation 2 above to develop essential EDIS governance documentation, the Health Directorate will develop a protocol that sets out additional processes to maximise the data integrity of EDIS. Health Directorate will seek further technical advice on the most effective approach to implementing this recommendation, ensuring that clinical care within the emergency Department is not compromised.

The Health Directorate is supportive of working with Calvary Public Hospital to implement this recommendation.

**Calvary Health Care ACT response:**

Response to 5(a):

**Agreed**

The Auditor General’s report notes that some controls already exist in the system at CHC ACT. CHC ACT will work to improve system security through access control and monitoring. CHC ACT shares the view described in the report by Oakton to the Auditor General (3.98) that practicalities of the workplace do not allow the recording of the initial data through a secure person specific login.

CHC ACT will work with the ACT Health Directorate to find solutions to be implemented to facilitate fast access and recording of secure logins whilst maintaining patient flow.
**Action:** CHCAct will identify and document responsibilities for user access management and log monitoring by 16 July 2012.

**Response to 5(b):**

**Agreed**

**Action:** CHCAct will through the introduction of policy develop a suitable process to monitor activity within EDIS, documenting escalation and review processes through a reporting mechanism by 30 July 2012.

---

**Recommendation 6 (Chapter 3)**

The Health Directorate should:

a) review the current EDIS upgrade project and link it with current Health Directorate Identity and Access Management and Rapid Sign-On initiatives that are currently underway, to allow staff to be individually accountable for their actions; and

b) review all available Emergency Department software to evaluate whether or not the current EDIS should be replaced with one that has strong confidentiality and integrity controls as well as appropriate process linkages.

**Health Directorate response:**

**Agreed**

Health Directorate plans to proceed with the current upgrade of EDIS which is almost ready for implementation. Health Directorate will then undertake further analysis and seek technical advice from software vendors on the most effective approach to linking EDIS with the Identity and Access Management and Rapid Sign-On initiatives. The Health Directorate will also seek to work collaboratively with Calvary Public Hospital and other State and Territory jurisdictions to identify alternate Emergency Department software with enhanced functionality that could potentially replace EDIS.
Recommendation 7  (Chapter 3)

The Health Directorate should develop policy and administrative guidance for EDIS data validation activities for the two Canberra hospitals. The policy and administrative guidance should identify and document:

a) agreed Emergency Department actions which constitute ‘clock starting’ and ‘clock stopping’ moments for the purpose of EDIS timeliness records; and

b) protocols for data validation activities in the day(s) following a patient’s presentation to the Emergency Department.

Health Directorate response:

Agreed

Health Directorate has commenced work on strengthening its current policy and administrative documentation and data definitions supporting agreed Emergency Department actions and validation activities. In doing so, the Health Directorate will work with the Australian Institute of Health and Welfare (AIHW) and other States and Territories to ensure continued consistency of ACT data definitions with national definitions and to support consistency of data definitions across States and Territories.

In relation to validation activities, the Health Directorate will work with AIHW to identify whether changes to the AIHW routine validation processes should also be considered.

The Health Directorate is supportive of working with Calvary Public Hospital to implement this recommendation.

Recommendation 8  (Chapter 3)

The Health Directorate should implement additional review and assurance controls over the preparation and reporting of Emergency Department timeliness performance information. These review and assurance controls should address both Canberra Hospital and Calvary Public Hospital performance information. The Health Directorate should consider whether the additional review and assurance controls should be applied to other performance information.

Health Directorate response:

Agreed

The Health Directorate will undertake this work as part of a broader review of data and reporting controls across the Directorate.
The Health Directorate is supportive of working with Calvary Public Hospital to implement this recommendation.

**Recommendation 9  (Chapter 4)**

The Director-General of the Health Directorate and the ACTPS Head of Service note the findings of this report with respect to the executive who has admitted to manipulating hospital records, and consider whether this executive has engaged in misconduct in breach of section 9 of the Public Sector Management Act 1994 and their executive contract.

**Health Directorate response:**

**Agreed**

The Health Directorate notes the findings of the Audit with respect to the Executive. As a matter of natural justice, any employee who is accused of misconduct must be given an opportunity to comment on the allegations before any disciplinary action is taken. The Health Directorate will put the Auditor-General’s findings to the Executive as part of a misconduct investigation. Once the outcome of the misconduct investigation has been considered, a determination will be made on what disciplinary action will be taken in relation to the Executive’s employment.

The allegations are obviously very serious. Accordingly, the Executive involved will henceforth be stood down without pay pending the outcome of the misconduct investigation.

**Recommendation 10  (Chapter 4)**

The Health Directorate reinforce to Health Directorate employees, especially executive staff, the need to act with integrity with respect to the maintenance of health records and associated data.

**Health Directorate response:**

**Agreed**

The Health Directorate will strengthen its current processes, including orientation and manager training programs, to reinforce these issues.

The Health Directorate will also work with the Head of Service to identify whether further training or information is required for Executives across the ACT Public Service generally.
Assistance in the preparation of this report

1.18 In preparing this report, Audit acknowledges the assistance of Oakton in providing advice in relation to ICT systems and practices.

1.19 Audit also acknowledges the work conducted by PricewaterhouseCoopers (PWC) on behalf of the Health Directorate in undertaking a forensic investigation into this matter. A number of graphs and tables in this report rely on data analysis conducted by PWC. This is acknowledged throughout the report.

1.20 Audit also acknowledges the assistance of the Tasmanian Audit Office in providing quality assurance assistance in the preparation of the audit report.
2. EMERGENCY DEPARTMENT PERFORMANCE INFORMATION

INTRODUCTION

2.1 This chapter discusses the Emergency Department performance information that is prepared and reported in the ACT. In doing this the use and limitations of this information and the risks associated with a sustained and ongoing focus on comparatively narrow indicators of performance are considered. Recent experience in other jurisdictions is also discussed, particularly with respect to risks to inaccurate reporting of Emergency Department and hospital timeliness performance information.

SUMMARY

Conclusion

Key performance information that is publicly reported and which receives significant attention in the ACT includes Emergency Department waiting times and Emergency Department length of stay. There is a lack of comparable public reporting on qualitative indicators, which may provide a more balanced assessment of hospital performance. Hospitals in other jurisdictions have experienced gaming and data manipulation with respect to publicly reported Emergency Department performance information.

Key findings

- Between 2008-09 and 2010-11, demand for ACT Emergency Department services has increased by more than the growth in the ACT population and more than the average national growth in demand for Emergency Department services.

- In all jurisdictions, there is a strong public focus on the performance of the health system. In the ACT the performance of the two public hospitals is particularly important and this receives significant and ongoing attention from the media, Legislative Assembly and the community in general.

- Since 2000-01, based on the Health Directorate’s publicly reported performance information, there has been variable performance against waiting time indicators, and it is apparent that there has been an overall decline in performance over the last ten years. On the basis of the apparent manipulation of hospital records discussed in detail in Chapter 4, it appears that the Health Directorate’s performance has been over-estimated during this period.
The level of over-estimation cannot be established with certainty due to the lack of a clear audit trail identifying what were legitimate and what were fabricated entries in patients’ records. Nevertheless, Audit estimates that in the latest twelve months for which records have been examined (April 2011 to April 2012), the Canberra Hospital’s ATS Category 3 results (i.e. achievements against the target) were overstated by at least 19 percent, and ATS Category 4 results were overstated by at least 10 percent.

Emergency Department waiting times are reported with reference to the Australasian Triage Scale (ATS). The Australasian College for Emergency Medicine conducted a review of the ATS, which identified that the ATS should only be used to describe urgency and that separate measures are needed to assess quality of care.

Emergency Department length of stay is primarily reported against the recently introduced four hour National Emergency Access Target (NEAT), which has been introduced as part of the National Partnership Agreement on Improving Public Hospital Services agreed to by the Commonwealth and all states and territories in 2011. An Expert Panel review of the introduction of the NEAT identified that there are risks associated with the introduction of quantitative targets such as the NEAT. The Expert Panel recommended that the targets themselves may pose a risk to safety and quality of patient care, in the absence of a balanced suite of indicators which measure different dimensions of quality.

The ACT’s hospitals’ performance against timeliness indicators is regularly reported externally through a number of different mechanisms. There is a lack of qualitative indicators against which the Health Directorate regularly reports.

Internal reporting on performance occurs on a high-frequency basis and is focused on quantitative measures. There is an opportunity to develop a more extensive and effective suite of indicators for public reporting, including qualitative indicators, against which Emergency Department performance should be reported.

Emergency Department personnel spoken to by Audit advised that Emergency Department personnel are ‘primarily interested in saving lives and providing high quality care, regardless of the existence of the targets’. Emergency Department personnel advised that the performance indicators are not targets that can be achieved by the Emergency Department itself, as they are dependent on many variables that they have no control over, such as staffing, access block and demand for emergency services.

The introduction of a four hour rule in the United Kingdom, similar to the
NEAT, was accompanied by widespread gaming and fraudulent manipulation of hospital data.

- A 2009 Victorian Auditor-General’s Office review of performance measurement in Victorian public hospitals identified that there was a significant risk of incorrect reporting associated with Emergency Department timeliness performance. Inconsistently interpreted reporting rules and data capture methods, as well as poor security over information systems, meant that ‘it was not possible to assure that reported performance against the majority of access indicators fairly represented actual performance’.

- A 2008 Deloitte Touche Tohmatsu internal audit of emergency department performance reporting in New South Wales concluded that triage benchmark reports are limited in value as an accurate record of emergency department activity and performance due to inconsistencies in the way data is captured and recorded. The audit also found that the majority of hospitals used the same information system that is currently in use at the Canberra hospitals and that access controls within the system were ineffective and provided poor audit trail capabilities.

- The ACT Health Minister advised Audit that she has raised the issue of the risk of inaccurate measurement and reporting of performance indicators under the National Partnership Agreement at the National Ministerial Standing Council on Health.

2.2 In all jurisdictions, there is a strong public focus on the performance of the health system. In the ACT the performance of the two public hospitals is particularly important and this receives significant and ongoing attention from the media, Legislative Assembly and the community in general.

2.3 A range of performance information and associated performance indicators are in place to facilitate public reporting of the health system, including hospital performance. With respect to Emergency Department services, key performance information that is publicly reported and which receives significant attention includes:

- Emergency Department waiting times; and
- Emergency Department length of stay.

**EMERGENCY DEPARTMENT WAITING TIMES**

2.4 In the ACT Emergency Department waiting times (i.e. the time between a patient’s presentation to the Emergency Department and the commencement of their treatment) are reported with reference to the Australasian Triage Scale (ATS).
2.5 The ATS is a scale for rating clinical urgency and is used in hospital-based emergency services throughout Australia and New Zealand. The ATS was developed by the Australasian College for Emergency Medicine (ACEM) and is used to categorise patients presenting at an Emergency Department into one of five categories for treatment. The ACEM notes that ‘the ATS was developed and validated by a number of researchers as a means of providing standardisation of triage and has formed the basis of other triage systems in operation internationally.’ The ACEM also notes that ‘more recently, the ATS has been used for performance evaluation of [emergency departments] and has been proposed as the basis for future funding models.’

2.6 The **ACEM Policy on the Australasian Triage Scale** states:

> All patients presenting to an Emergency Department should be triaged on arrival by a specifically trained and experienced registered nurse. The triage assessment and ATS code allocated must be recorded.

2.7 The ATS has been used since 1993 and has remained unchanged since November 2000. Table 2.1 shows the ATS categories, recommended maximum waiting times and supporting performance indicators.

### Table 2.1: Australasian Triage Scale

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
<th>Treatment Acuity (maximum waiting time)</th>
<th>Performance Indicator Threshold</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Immediate life-threatening</td>
<td>Immediate</td>
<td>100%</td>
</tr>
<tr>
<td>2</td>
<td>Imminently life-threatening</td>
<td>10 minutes</td>
<td>80%</td>
</tr>
<tr>
<td>3</td>
<td>Potentially life-threatening or important time-critical treatment or severe pain</td>
<td>30 minutes</td>
<td>75%</td>
</tr>
<tr>
<td>4</td>
<td>Potentially life-serious or situational urgency or significant complexity</td>
<td>60 minutes</td>
<td>70%</td>
</tr>
<tr>
<td>5</td>
<td>Less urgent</td>
<td>120 minutes</td>
<td>70%</td>
</tr>
</tbody>
</table>

Source: Australasian College for Emergency Medicine - Policy on the Australasian triage scale

2.8 The **ACEM Policy on Australasian Triage Scale** states:

> The indicator threshold represents the percentage of patients assigned to Triage Code 1 through to Triage Code 5 who commence medical assessment and treatment within the relevant waiting time from their time of arrival. Staff and other resources should be deployed so that thresholds are achieved progressively from ATS Categories 1 through 5.

> Where Emergency Department resources are chronically restricted, or during periods of transient patient overload, staff should be deployed so that performance is maintained in the more urgent categories.
It is neither clinically nor ethically acceptable to routinely expect any patient or group of patients to wait longer than two (2) hours for medical attention.

**ACT performance against the ATS**

2.9 Figure 2.1 shows the ACT’s performance in meeting ATS performance indicators since 2000-01. Based on publicly reported Health Directorate information, the graph shows the percentage of patients who have been seen within the recommended maximum waiting time.

**Figure 2.1: ACT performance in meeting ATS performance indicators**

Source: Audit Office based on Health Directorate annual reports

2.10 Figure 2.1 shows that in 2010-11, based on the Health Directorate’s publicly reported performance information:

- performance indicators for Category 1 (100 percent of patients), Category 2 (80 percent of patients) and Category 5 (70 percent of patients) were achieved by the Health Directorate; and
- performance indicators for Category 3 (75 percent of patients) and Category 4 (70 percent of patients) were not achieved by the Health Directorate.

2.11 Figure 2.1 also shows that, based on the Health Directorate’s publicly reported performance information, there has been variable performance against the ATS categories. Since 2000-01 however, it is apparent that there has been an overall decline in Emergency Department waiting times performance, as measured by the ATS categories.

2.12 It should be noted that, on the basis of the apparent manipulation of data between 2009 and 2012 at the Canberra Hospital (discussed in further detail in
Chapter 4 of the report), the ACT’s performance in meeting its ATS performance indicators has been over-estimated during this period.

2.13 The level of over-estimation cannot be established with certainty due to the lack of a clear audit trail identifying what were legitimate and what were fabricated entries in patients’ records. Nevertheless, Audit estimates that in the latest twelve months for which records have been examined (April 2011 to April 2012), the Canberra Hospital’s ATS Category 3 results (i.e. achievements against the target) were overstated by at least 19 percent, and ATS Category 4 results were overstated by at least 10 percent. This involved changes to at least 5,800 patients records out of total of 43,000 records in one year for these two triage categories.

2.14 The Health Directorate has identified a range of reasons for the overall decline in performance in Emergency Department waiting times. These include increasing demand for emergency services, the ageing population (which requires more emergency health services), the lack of general practitioners within the ACT and increasing demand for ACT services from NSW residents.

**Increase in Emergency Department demand**

2.15 The Health Directorate has seen a significant increase in demand for Emergency Department services since 2007. Figure 2.2 shows the annual increase in demand for Emergency Department services, compared to ACT population growth.

**Figure 2.2:** Annual growth in ACT Emergency Department presentations compared to the national average and ACT population growth

Source: Audit Office, based on data sourced from AIHW ‘Australian Hospital Statistics 2010-11’, Health Directorate’s ‘ACT Public Health Services Performance Reports’ and Chief Minister and Cabinet Directorate’s “ACT Population Projections”
2.16 Figure 2.2 shows that, between 2008-09 and 2010-11, demand for ACT Emergency Department services has increased by more than the growth in the ACT population and more than the average national growth in demand for Emergency Department presentations.

2.17 The increase in Emergency Department presentations is a phenomenon that has been seen in most developed countries. It is said to be caused by an ageing population combined with the result of increasing diagnostic and therapeutic options leading to improved survival rates for severe illnesses.

**Potential misuse of the ATS**

2.18 A recent review performed by the ACEM identified the potential uses and misuses of the ATS. The review endorsed ‘the continuation of the ATS in the role for which it was originally intended – to categorise patients by urgency’ but noted that ‘triage is not, and should not be a “single point control mechanism for many non critical functions including regulatory requirements.”’

2.19 The review noted that ‘urgency is fundamentally different to patient severity and complexity’ and identified the need for further research to examine the relationship between the three concepts.

2.20 In its conclusion, the review identified:
- the ATS should only be used to describe urgency;
- separate measures are needed to describe severity, complexity, workload and staffing; and
- separate measures are needed to assess quality of care – in terms of both clinical quality and system wide quality.

2.21 The potential misuse of the ATS as an indicator of Emergency Department performance was highlighted by a number of Emergency Department and Health Directorate personnel during the audit. This is discussed further later in this chapter.

**THE NATIONAL EMERGENCY ACCESS TARGET**

2.22 The four hour National Emergency Access Target (NEAT) was implemented as part of the *National Partnership Agreement on Improving Public Hospital Services*, agreed to by the Commonwealth and all states and territories in 2011. The NEAT requires that 90 percent of all patients presenting to a public hospital Emergency Department either physically leave the Emergency Department for admission to hospital, be referred to another hospital for treatment, or be discharged within four hours.
National Partnership Agreement

2.23 The National Partnership Agreement will see investment of an additional $3.4 billion in funding going to public hospitals up until 2016-17. Of this, the agreement will provide $750 million nationally from 2009-10 to 2015-16 in capital, facilitation and reward funding specifically to improve Emergency Departments. Under the agreement, the ACT may be awarded a total of $8.5 million in capital funding (across the financial years 2009-10 to 2012-13), $4.7 million in facilitation funding (across the financial years 2010-11 to 2012-13) and a total of $3.2 million in reward funding (across the financial years 2012-13 to 2015-16).

Table 2.2: Capital Funding Allocation to the ACT compared to other states and territories

<table>
<thead>
<tr>
<th>Year</th>
<th>ACT ($m)</th>
<th>Other states and territories ($m)</th>
<th>TOTAL ($m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009-10</td>
<td>1.7</td>
<td>42.9</td>
<td>44.6</td>
</tr>
<tr>
<td>2010-11</td>
<td>3.4</td>
<td>102.0</td>
<td>105.4</td>
</tr>
<tr>
<td>2011-12</td>
<td>1.7</td>
<td>48.3</td>
<td>50.0</td>
</tr>
<tr>
<td>2012-13</td>
<td>1.7</td>
<td>48.3</td>
<td>50.0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>8.5</td>
<td>241.5</td>
<td>250.0</td>
</tr>
</tbody>
</table>

Source: Audit Office, based on data from the COAG National Partnership Agreement on Improving Public Hospital Services. (Figures do not add due to rounding).

2.24 Facilitation funding is being provided to assist jurisdictions to achieve the NEAT. Facilitation funding has been, and continues to be, contingent upon the provision of Implementation Plans and Progress Reports by jurisdictions to the Commonwealth. Table 2.3 shows the facilitation funding that is due to the ACT.

Table 2.3: Facilitation Funding Allocation to the ACT compared to other states and territories

<table>
<thead>
<tr>
<th>Year</th>
<th>ACT ($m)</th>
<th>Other states and territories ($m)</th>
<th>TOTAL ($m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2010-11</td>
<td>2.8</td>
<td>172.2</td>
<td>175.0</td>
</tr>
<tr>
<td>2011-12</td>
<td>1.2</td>
<td>73.8</td>
<td>75.0</td>
</tr>
<tr>
<td>2012-13</td>
<td>0.8</td>
<td>49.2</td>
<td>50.0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>4.7</td>
<td>295.2</td>
<td>300.0</td>
</tr>
</tbody>
</table>

Source: Audit Office, based on data from the COAG National Partnership Agreement on Improving Public Hospital Services. (Figures do not add due to rounding).

2.25 Table 2.3 shows that a comparatively small amount of total national facilitation funding has been allocated to the ACT.
2.26 Reward funding is also being provided to jurisdictions, based on their achievement in meeting the NEAT. Table 2.4 shows the reward funding that is due to the ACT if performance targets are met.

**Table 2.4: Estimated Reward Funding allocation to the ACT compared to other states and territories**

<table>
<thead>
<tr>
<th>Year</th>
<th>ACT ($m)</th>
<th>Other states and territories ($m)</th>
<th>TOTAL ($m)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012-13</td>
<td>0.8</td>
<td>49.2</td>
<td>50.0</td>
</tr>
<tr>
<td>2013-14</td>
<td>0.8</td>
<td>49.2</td>
<td>50.0</td>
</tr>
<tr>
<td>2014-15</td>
<td>0.8</td>
<td>49.2</td>
<td>50.0</td>
</tr>
<tr>
<td>2015-16</td>
<td>0.8</td>
<td>49.2</td>
<td>50.0</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>3.2</strong></td>
<td><strong>196.8</strong></td>
<td><strong>200.0</strong></td>
</tr>
</tbody>
</table>

Source: Audit Office, based on data from the COAG National Partnership Agreement on Improving Public Hospital Services

2.27 Table 2.4 shows that a comparatively small amount of total national reward funding is due to the ACT, provided that minimum performance requirements are met each year, and overall.

**Reward funding requirements**

2.28 In order to receive reward funding for a particular period a jurisdiction must achieve at least 50 percent of the target for the preceding period and the target for the current period. For example, if the target for the preceding period was 85 percent and the target for the current period is 87 percent, the minimum achievement for the period for reward funding to be paid is 86 percent.

2.29 Under the National Partnership Agreement, if a jurisdiction does not achieve the target for a period any unpaid reward payment will be added to the reward payment available to the jurisdiction in the next period. Any reward payments that are not made by the end of 2015-16 will not be provided to any jurisdictions.

2.30 Table 2.5 shows the implementation timeframe for the NEAT across all jurisdictions. The baseline identified in the table refers to 2009-10 performance. The table shows that the ACT had the lowest baseline of all jurisdictions and needs the most improvement to meet the NEAT.
### Table 2.5  NEAT baselines and targets

<table>
<thead>
<tr>
<th></th>
<th>NSW (%)</th>
<th>VIC (%)</th>
<th>QLD (%)</th>
<th>WA (%)</th>
<th>SA (%)</th>
<th>TAS (%)</th>
<th>ACT (%)</th>
<th>NT (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baseline</td>
<td>61.80</td>
<td>65.90</td>
<td>63.80</td>
<td>71.30</td>
<td>59.40</td>
<td>66.00</td>
<td>55.80</td>
<td>66.20</td>
</tr>
<tr>
<td>Jan 2012 to Dec 2012</td>
<td>69.00</td>
<td>72.00</td>
<td>70.00</td>
<td>76.00</td>
<td>67.00</td>
<td>72.00</td>
<td>64.00</td>
<td>69.00</td>
</tr>
<tr>
<td>Jan 2013 to Dec 2013</td>
<td>76.00</td>
<td>78.00</td>
<td>77.00</td>
<td>81.00</td>
<td>75.00</td>
<td>78.00</td>
<td>73.00</td>
<td>78.00</td>
</tr>
<tr>
<td>Jan 2014 to Dec 2014</td>
<td>83.00</td>
<td>84.00</td>
<td>83.00</td>
<td>85.00</td>
<td>82.00</td>
<td>84.00</td>
<td>81.00</td>
<td>84.00</td>
</tr>
<tr>
<td>Jan 2015 to Dec 2015</td>
<td>90.00</td>
<td>90.00</td>
<td>90.00</td>
<td>90.00</td>
<td>90.00</td>
<td>90.00</td>
<td>90.00</td>
<td>90.00</td>
</tr>
</tbody>
</table>

Source: National Partnership Agreement on Improving Public Hospital Services.

2.31 NEAT performance targets have been set for each of the next four calendar years from January 2012, and so it is too early to identify outturn figures for the ACT. However, based on the latest ACT ‘year to date’ performance report⁷, and recognising that some records have been changed during this period (see Chapter 4, paragraph 4.24), the 2012 reward funding may be at risk, as it appears that the ACT is making limited progress towards its 2012 NEAT performance targets. This would mean $800,000 in reward funding may not be available next year.

Expert Panel Review of National Partnership Agreement Targets

2.32 As part of the National Partnership Agreement on Improving Public Hospital Services, an Expert Panel was established to provide advice on the implementation of the targets and incentives. In June 2011 the Expert Panel provided a report on the implementation of the targets and incentives. The report noted *inter alia*:

The use of access targets is intended to increase access to services and therefore improve overall patient outcomes, but there are also well known potential risks of imposing performance targets, and these risks were an ongoing topic of concern through our consultation process. Broadly speaking they relate to gaming and target fixation, with both having possible consequences for the overall quality of patient health care.

‘Gaming’ involves both the intentional manipulation of demand and/or data with the predominant intention of meeting targets rather than patient care needs. It is most often referred to in the elective surgery context with the possible manipulation of urgency categories and waiting lists to meet the targets, although it can also occur with emergency departments and other areas of the hospital system.

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⁷  ACT Public Health Services Quarterly Performance Report Sept 2011
Many stakeholders expressed concern that the early imperative to meet targets will divert management and clinician attention and scarce resources away from the more difficult but necessary system changes towards implementing ad hoc changes in patient flows with immediate negative safety consequences, particularly for emergency department patients.

2.33 Recognising that ‘without careful implementation and management the targets themselves may pose a risk to safety and quality of patient care, as other aspects of care are neglected or care practices manipulated in order to achieve the targets’ the report noted:

In the face of this risk we are recommending jurisdictions regularly report to the public on their performance against a balanced suite of additional indicators which measure different dimensions of quality, with performance against a subset of the indicators also publicly reported by the soon to be established National Health Performance Authority. This will allow for appropriate monitoring and reporting of the impacts of the targets on the hospital system.

REPORTING OF EMERGENCY DEPARTMENT PERFORMANCE INFORMATION

2.34 Emergency Department performance information is seen as core data that reflects the performance of the whole health system. The performance information is easy to understand and can be observed and easily related to by the general public.

2.35 Table 2.6 shows how Emergency Department performance information is reported in the ACT.

Table 2.6: Emergency Department performance information reporting

<table>
<thead>
<tr>
<th>Report</th>
<th>Frequency</th>
<th>Audience</th>
</tr>
</thead>
<tbody>
<tr>
<td>1           Canberra Hospital &amp; Health Services Emergency Department Daily Report</td>
<td>Daily</td>
<td>Internal Report</td>
</tr>
<tr>
<td>2           Canberra Hospital &amp; Health Services Access Steering Committee Report</td>
<td>Weekly</td>
<td>Internal Report</td>
</tr>
<tr>
<td>3           Canberra Hospital &amp; Health Services Weekly ED Report</td>
<td>Weekly</td>
<td>Internal Report</td>
</tr>
<tr>
<td>4           Canberra Hospital &amp; Health Services Critical Care Scorecard Report</td>
<td>Monthly</td>
<td>Internal Report</td>
</tr>
<tr>
<td>5           Canberra Hospital &amp; Health Services Scorecard Report</td>
<td>Monthly</td>
<td>Internal Report</td>
</tr>
<tr>
<td>6           Calvary Public Hospital Scorecard Report</td>
<td>Monthly</td>
<td>Internal Report</td>
</tr>
<tr>
<td>7           Health Directorate Scorecard Report</td>
<td>Monthly</td>
<td>Internal Report</td>
</tr>
<tr>
<td>8           ACT Public Hospital Emergency Department Report</td>
<td>Monthly</td>
<td>ACT Minister for Health</td>
</tr>
<tr>
<td>9           NHRA Improving Public Hospital Services ACT Public Hospital</td>
<td>Monthly</td>
<td>ACT Minister for Health</td>
</tr>
</tbody>
</table>
Table 2.6 shows that there are a significant number of internal and external reports, through which Emergency Department performance information is reported. Audit notes that Emergency Department performance information is internally reported on a high-frequency basis, e.g. daily and weekly. Audit also notes that the primary focus of this reporting is quantitative data and there is minimal reporting on qualitative data and indicators of performance.

**EMERGENCY DEPARTMENT CLINICIAN VIEWS ON PERFORMANCE INDICATORS**

Audit discussed the role of performance indicators and publicly reported performance information with Health Directorate and Emergency Department representatives. Opinions and views on the importance or otherwise of the performance indicators were generally consistent. A key point consistently made to Audit was that Emergency Department personnel are primarily interested in ‘saving lives and providing high quality care, regardless of the existences of the targets.’

Audit notes that there was universal acceptance of the need to provide timely access to the Emergency Department, as well as the need to ensure patients’ length of stay in the Emergency Department was minimised. However, there was also widespread mistrust of the value of the timeliness performance
indicators, particularly the ATS timeliness indicators, their accuracy and relevance. With respect to the ATS timeliness indicators, Emergency Department personnel identified:

- ATS Category 1 and ATS Category 2 patients are almost always seen immediately in the Emergency Department and this necessarily reflects the triage priority that these patients should receive. Clinicians advise that they would be clinically and ethically obliged to commence treatment on these patients almost immediately, irrespective of whether there was an associated performance indicator; and

- the distinction between Category 3 and Category 4, and even Category 5 patients, is much more arbitrary and the value of timeliness targets for these patients is significantly diminished. Audit was advised that, in practice, clinicians tend to include their observation on ‘how sick a patient is’ in prioritising patients for admission, irrespective of the ATS category that has been assigned to the patient.

2.39 Audit notes that there was variable support for the four hour NEAT amongst Emergency Department personnel. Staff generally supported an overall ‘length of stay’ target, as the concept of minimising a patient’s stay in the Emergency Department was widely supported in medical literature and a ‘length of stay’ indicator could consequently serve as a useful quality indicator. However, some staff asserted that four hours was an arbitrary timeframe, for which there was no scientific or medical evidence.

Emergency Department role in the patient pathway

2.40 A key point that was also made by Emergency Department clinicians was that the performance indicators are not targets that can be achieved by Emergency Department personnel themselves, as they are dependent upon many variables that they have no control over, such as staffing, access block and demand for emergency services.

2.41 Audit notes that a hospital’s Emergency Department, as one of the primary means by which a patient may enter the hospital system, is the public face of the broader hospital system.

2.42 A key reason for Emergency Department overcrowding and failure to meet timeliness targets is the lack of availability of inpatient beds. Bed availability depends not only on the number of beds, but also on how beds are managed. Figure 2.3 shows the interrelationship of Emergency Department flow block with other processes in the rest of the hospital system such as ward management, discharge planning and the availability of sub-acute and community health care options. Figure 2.3 indicates that some of the cause, and potentially some of the solution, for Emergency Department overcrowding and failure to meet timeliness targets may be outside the direct control of the Emergency Department and its managers.
Figure 2.3: Patient flow pathways through the hospital

<table>
<thead>
<tr>
<th>Entry Phase</th>
<th>Ongoing Acute Treatment Phase</th>
<th>Exit Phase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Emergency Department</td>
<td>ICU</td>
<td>Referral to other hospital</td>
</tr>
<tr>
<td></td>
<td>Surgical Unit</td>
<td>Referral to sub-acute care facility</td>
</tr>
<tr>
<td></td>
<td>Specialty Ward</td>
<td>Delay in treatment</td>
</tr>
<tr>
<td></td>
<td>Short Stay Unit</td>
<td>Availability of specialists</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Delay in discharge</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Delay in acceptance by other hospital</td>
</tr>
</tbody>
</table>

Patient Flow Block
- ED overcrowding
- High bed occupancy
- Delayed diagnosis
- Delayed ward review and acceptance

Patient Flow Block
- Inappropriate placement
- Supply of sub-acute and community options

Patient Flow Block
- Availability of specialists
- Supply of transport
- Delay in discharge
- Delay in acceptance by other hospital


Qualitative indicators

2.43 An additional key point that was made by Health Directorate and Emergency Department personnel was that there was no corresponding focus on qualitative indicators of the Emergency Department’s performance, relating to quality of patient care or clinical outcomes. Health Directorate and Emergency Department staff noted that timeliness targets received an undue and disproportionate amount of attention, primarily because they could be ‘easily’ measured and understood.

2.44 Earlier in this chapter, Table 2.6 showed the extensive internal and external reporting of Emergency Department performance information. Key aspects of
external public reporting of Emergency Department timeliness performance information include:

- Health Directorate’s Annual Report. Performance against ATS categories is reported as one of the Health Directorate’s strategic indicators (strategic indicator 14);
- Health Directorate’s ACT Public Health Services Quarterly Performance Report. Performance against ATS categories, the four hour NEAT and other timeliness indicators are reported on a quarterly basis; and
- Health Directorate’s ACT Emergency Department Report Card. Performance against ATS categories, the four hour NEAT and other timeliness indicators are reported on a monthly basis.

2.45 At present, there is a lack of public reporting on qualitative indicators that could serve to provide an additional measure of Emergency Department performance.

2.46 Some qualitative evidence is gathered by the Health Directorate with respect to complaints and compliments. Some qualitative information is also collected for AIHW’s purposes, including patients’ satisfaction with Emergency Department services. With respect to patients’ satisfaction with Emergency Department services, Audit notes that a recent COAG Reform Council report titled *Healthcare 2010-2011: Comparing performance across Australia* reported that:

> The ACT had rates that were significantly higher than the national rates for four measures — being listened to carefully and shown respect by ED doctors, being listened to carefully by hospital doctors, and given enough time by hospital nurses.

2.47 Audit considers that there is an opportunity to develop a more extensive and effective suite of indicators for public reporting, including qualitative indicators, against which Emergency Department performance should be reported.

**Recommendation 1  (Chapter 1)**

The Health Directorate should review its performance indicators for publicly reporting the performance of Canberra’s hospitals’ emergency departments to include and give a greater emphasis to qualitative indicators relating to clinical care and patient outcomes.

**OTHER JURISDICTIONS’ EXPERIENCE OF PERFORMANCE INFORMATION REPORTING**

**United Kingdom**

2.48 In 2000 the United Kingdom implemented the Reforming Emergency Care initiative, which generated a major focus on system-wide emergency care, emergency department workforce and physical infrastructure enhancements, as well as the introduction of the four hour rule. The introduction of the ‘four hour rule’ was a key feature of the UK reforms. Similar to the Australian NEAT, the four hour rule required that all patients attending an emergency department
should be admitted, transferred or discharged within four hours. A two percent buffer of ‘clinical exceptions’ was allowed for those patients where it may be inappropriate for the patient to exit the emergency department for clinical reasons.

2.49 It has been suggested that ‘during the initial few years, the target appeared to be highly successful and many benefits accrued, including improvements in the [emergency department] workforce, recognition of the need for better processes, and some improvement in hospital capacity.’\(^3\) It has also been suggested that:

...these changes were not universally adequate to address an ever-increasing emergency care demand, and from 2006 many [emergency departments] were struggling to meet the target on a sustained basis. There was immense pressure on hospital managers to comply with the target, often it seemed at almost any cost. This led to pressures on managers and clinicians to achieve the target. In turn, this led to distortion of clinical care, gaming and widespread manipulation of data, all products of an unhealthy target culture.\(^4\)

2.50 In 2010, following widespread concerns about the use of the indicator as well as ‘some high profile examples in the United Kingdom of major safety compromise resulting from the target’ the College of Emergency Medicine, Royal College of Nursing and the Department of Health collectively developed a new set of indicators designed to reflect timeliness, quality and safety. It was suggested that:

...the suite of indicators should act as a group to provide a comprehensive set of balanced measures reflecting timeliness, quality and safety.

The spirit and intent is that these should function as indicators – not targets – to allow individual organisations to measure their current performance, establish the reasons for underachieving, and identify the measures required to improve followed by implementation of the new strategies.\(^5\)

2.51 In this respect it was suggested that ‘there is a very definite balance that should be struck between soft indicators, which may not generate focus and improvement, against a target culture, which results in distortion and dysfunction.’\(^6\)


Western Australia

2.52 Western Australia was the first jurisdiction in Australia to introduce the four hour rule in 2010. This followed ‘regular, high-profile media about awful [emergency department] conditions, ambulance delays, cancelled surgery and the serious adverse outcomes for patients caused by these conditions,’ which meant that ‘many clinicians not just in the [emergency departments] and administrators accepted the need for major systemic change and measures to drive it.’\(^7\) The UK’s four hour rule was identified as a suitable model for implementation.

2.53 A two year phased implementation of the four hour rule commenced in 2010, which is also supported by a ‘dashboard’ of other measures, which are primarily collected in order to ensure patient safety is not compromised and the risks of gaming are mitigated. This followed widespread recognition of the apparent failures in the implementation of the four hour rule in the UK, where ‘gaming’, ‘virtual wards’, resource-flooding during measurement or outright data fraud had occurred.\(^8\) However, despite the existence of these other measures, it is suggested that ‘the only system performance measure routinely reported publicly is the four hour target of the hospitals.’\(^9\) In this respect, it has been suggested that:

Targets are there to drive improvements for patients...A poorly focused, single universal target is likely to drive inappropriate change. Multiple targets covering the entire system and reported openly and publicly are far more likely to drive sustainable change and improve patient outcomes.\(^10\)

New South Wales

2.54 In 2008 Deloitte Touche Tohmatsu (Deloitte) was engaged by the NSW Department of Health to perform an internal audit of Emergency Department Key Performance Triage Indicators. The internal audit focused on the methods adopted to capture Emergency Department triage data, the accuracy of this data, consistency in approach in the processing of the data by eleven selected hospitals and reporting of the data. The internal audit identified a number of findings, which related to:

- variations in Emergency Department processes used to capture data, including the triage time and ‘seen time’ (when active treatment begins).

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The audit found the variations resulted from process and procedural differences and differences in definitions;

- inconsistent approaches across hospitals for processing the ‘first seen time’ in the system. In this respect, some hospitals identified that nursing staff performing certain clinical protocols fulfilled the ‘first seen time’ requirement while other hospitals did not; and
- different protocols being applied to documenting and recording the source of supporting information for any post hoc updates that are made to patients’ records with respect to waiting times performance.  

2.55 The audit also identified that the majority of hospitals used EDIS. The internal audit found that access controls within EDIS were ineffective and provided poor audit trail capabilities. In this respect, the audit identified a number of system weaknesses, including:

- the existence of a number of generic log-on and password combinations;
- the ability to modify patient data retrospectively; and
- limited ability to identify changes that had been made to assigned data.  

2.56 The audit report concluded *inter alia*:

Triage reports are currently limited in value as an accurate record of ED activity and performance due to inconsistencies in the way data is captured and recorded and the focus of such reports on the efficiency of processing patients, i.e. does not focus on other relevant areas such as quality of care and outcomes.  

**Victoria**

2.57 In April 2009 the Victorian Auditor-General’s Office (VAGO) released *Access to Public Hospitals: Measuring Performance*, which examined whether reported hospital access indicators used by the Victorian Department of Human Services were relevant, appropriate and fairly represent hospital performance.

2.58 With respect to emergency access indicators, VAGO reported that ‘it was not possible to assure that reported performance against the majority of the access indicators fairly represented actual performance.’ VAGO specifically concluded:

The hospitals inconsistently interpreted reporting rules, data capture methods were susceptible to error, and the accuracy of some data was impossible to check.

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This means incorrect data can go undetected. In one hospital, data manipulation had occurred.

Poor security of emergency department data, no computer audit logs and failure to audit the Victorian Emergency Minimum Dataset (VEMD), the DHS database used for emergency access indicator reporting, has contributed to this situation.\textsuperscript{15}

2.59 VAGO identified that data required for reporting the indicators measuring the percentage of ATS Categories 1, 2 and 3 patients was inconsistently recorded across the four audited hospitals, primarily due to different interpretations of the reporting rules at each site. VAGO also identified that processes for recording the time a patient is first seen in the emergency department, or the time they leave, were also variable and susceptible to error. VAGO identified that the information required to report against these indicators is often not captured in real time and that deferral of data entry and reliance on verbal communication increases the chance of error, resulting in ‘reported waiting times to be seen, and times to admission or discharge for some patients are likely to be inaccurate.’\textsuperscript{16}

2.60 The audit report also noted:

...none of the audited hospitals had documented instructions for relevant staff about how to correctly record data. Requiring clinicians, whose immediate priority is patient care, rather than data entry, to complete forms or leave the patient to find a computer, is unlikely to produce accurate data. As a result, the risk that emergency access indicator data is wrongly reported is further accentuated.\textsuperscript{17}

\textit{National implications}

2.61 Audit considers that the experiences in other jurisdictions, including the United Kingdom, New South Wales and Victoria suggests that there are risks associated with using timeliness performance indicators to measure Emergency Department hospital performance. Problems associated with gaming, deliberate manipulation and fraud have occurred in other jurisdictions. Audits in other jurisdictions have also highlighted the risks in the accuracy and integrity of Emergency Department timeliness performance information, due to different systems and practices, poor documentation of processes and differences in interpretation of guidelines.

2.62 The ACT Health Minister advised Audit that she has raised the issue of the risk of inaccurate measurement and reporting of performance indicators under the National Partnership Agreement at the National Ministerial Standing Council on Health.


3. SYSTEMS AND PROCESSES FOR REPORTING PERFORMANCE INFORMATION

INTRODUCTION

3.1 This chapter considers the systems and practices for preparing and reporting performance information relating to Emergency Department timeliness performance. Audit has examined systems and practices at both the Canberra Hospital and Calvary Public Hospital, as well as how performance information is gathered, reviewed and reported by the Health Directorate. Audit has specifically examined the capture and reporting of performance information relating to the ATS timeliness indicators and the NEAT. The practices with respect to any other performance information have not been examined.

SUMMARY

Conclusion

System and user controls over the management information system that is used to produce performance information at the Canberra Hospital are very poor. The lack of appropriate system and user controls provided the opportunity for data manipulation to occur. A newer version of the system at Calvary Public Hospital has some additional system and user controls, but some weaknesses remain.

Key findings

- An Emergency Department management information system primarily captures workflows and the allocation of patients for treatment according to ATS categories. The system also facilitates the recording of clinical and administrative data relevant to a patient’s treatment.

- The Canberra Hospital and the Calvary Public Hospital both use the iSOFT Emergency Department Information Solution (EDIS) system. EDIS had been in place at the Canberra Hospital for approximately 15 years, while EDIS was only introduced at the Calvary Public Hospital in January 2012. iSoft’s EDIS has been implemented in over 190 emergency departments across Australia, New Zealand, Canada and the United Kingdom.

- At the Canberra Hospital there is very poor EDIS system governance documentation, with no documentation for describing the system, its business owner, applicable policy, record-keeping obligations, training requirements and roles and responsibilities. While there was a lack of similar documents at the Calvary Public Hospital, Audit identified a range of governance documents reflecting the recent development and implementation phases of the new EDIS.

- At the Canberra Hospital, there is no identifiable EDIS system administrator with responsibility for managing internal administrative issues such as user
management and activity monitoring. The lack of an identifiable system administrator has lead to a number of policy breaches, administration gaps and poor system practices. Discussions with Health Directorate and Shared Services ICT staff indicated that each party thought the other was responsible for key system administration activities.

- There are no formal training arrangements in place at the Canberra Hospital with respect to the use of EDIS. At the Calvary Public Hospital, planned and structured training has necessarily been provided with respect to EDIS and its use, given that it is a newly implemented system. At the time of audit fieldwork, however, there were a number of Calvary Public Hospital potential users who are yet to receive training.

- System security controls over EDIS are very poor at the Canberra Hospital. The very poor system security associated with EDIS at the Canberra Hospital means that a number of Health Directorate and ACT Government policies have not been complied with. There is no evidence that EDIS and its data had been classified or that there is a documented system security plan, as required by the Shared Service ICT Security Policy.

- User access controls over EDIS are very poor at the Canberra Hospital. The proliferation of EDIS access throughout the hospital, the widespread use of generic user logons and the very poor password controls over the generic logons has severely compromised the integrity of the data in the system. The very poor user access controls associated with EDIS at the Canberra Hospital means that a number of Health Directorate and ACT Government policies have not been complied with.

- Computer terminals carrying the EDIS application are widely available throughout the Canberra Hospital, yet all EDIS applications use the same workstation identification. The use of a common workstation identification, combined with the use of generic accounts means that any audit log of EDIS access and EDIS use is ineffective. These practices mean that any improper changes made to EDIS records are impossible to trace to an individual user.

- User access controls over EDIS are more effective at the Calvary Public Hospital, but there remains some room for improvement. Key shortcomings relate to the proliferation of EDIS access throughout the hospital, the use of generic user logons and the very poor password controls over the generic logons.

- Due to poor user access controls and system security for EDIS, there is a risk at both hospitals that they do not meet the requirements of Principle 4.1 of the Health Records (Privacy and Access) Act 1997 relating to the safekeeping of personal health information.

- The use of, and practices supporting, EDIS within the hospitals was variable and has developed over time with respect to reporting key ‘clock starting’ and ‘clock stopping’ moments. The different practices mean that data accuracy over time
cannot be fully relied upon and publicly reported timeliness performance information should be treated with caution.

- The data validation process at the Canberra Hospital allows administrative staff to review Emergency Department presentations where timeliness targets have been breached for the day before the review occurs. The only purpose of the data validation process is to identify opportunities to improve publicly reported timeliness figures. Records where timeliness targets have been met are not reviewed as part of this data validation process.

- The Health Directorate has limited review and assurance processes over its publicly reported Emergency Department timeliness information. Despite the apparent importance and pre-eminence of Emergency Department timeliness performance information to the ACT Government, the ACT community and other stakeholders there is a lack of rigor in the monitoring, review and assurance processes over this information.

- Performance against ATS categories is not audited by the ACT Auditor-General’s Office on an annual basis as these indicators are not included in the Health Directorate’s Statement of Performance. These indicators were last included in the Health Directorate’s Statement of Performance in 2003-04, where the ACT Auditor-General’s Office identified an Emphasis of Matter in its audit report based on the finding that the results were unable to be independently verified due to incomplete records.

**EMERGENCY DEPARTMENT MANAGEMENT INFORMATION SYSTEMS**

3.2 An important patient management tool in an Emergency Department is a robust management information system. An Emergency Department management information system primarily captures workflows and the allocation of patients for treatment according to ATS categories. It enables Emergency Department clinical and administrative staff to track patients while they are in the Emergency Department and (potentially) onwards to their discharge or admission into other parts of the hospital.

3.3 An Emergency Department management information system also facilitates the recording of clinical and administrative data relevant to a patient’s treatment.

3.4 While an Emergency Department management information system may serve a number of different functions, a key function is to act as a real-time record of a patient’s progress through the Emergency Department. It is the primary means for capturing and reporting ‘clock starting’ and ‘clock stopping’ moments in the patient’s progress through the Emergency Department and is an essential tool for reporting on how long a patient waits to receive treatment and how long they stay in the Emergency Department.
Emergency Department Information Solution (EDIS)

3.5 The Canberra Hospital and the Calvary Public Hospital emergency departments both use the Emergency Department Information Solution (EDIS) developed and supported by the software company iSOFT.¹⁸ iSOFT’s EDIS has been implemented in over 190 emergency departments across Australia, New Zealand, Canada and the United Kingdom, making it one of the most widely used clinical information systems for emergency departments.

3.6 The Canberra Hospital has been using EDIS for approximately 15 years (although Audit could not identify exactly when the system was first implemented). The Canberra Hospital is currently using version 9.44, which was upgraded in 2007. Version 9.44 is no longer supported by the supplier, and a project was underway to upgrade the Canberra Hospital’s EDIS. This project has been put on hold, initially in order to review the new system’s implementation at the Calvary Public Hospital in January 2012 and identify lessons to be learned from this implementation.

3.7 On 17 January 2012 the Calvary Public Hospital implemented version 9.48 of EDIS. Prior to January 2012, the Calvary Public Hospital used a different system, referred to as the ‘IBA system’ as its Emergency Department management information system. The implementation of EDIS is part of a phased systems overhaul that will see a number of information systems, including EDIS and the main patient database for the Calvary Public Hospital, aligned to the information systems in place at the Canberra Hospital. The phased systems overhaul is being mostly funded by the ACT Health Directorate.

3.8 There are sound reasons why emergency departments within the ACT should have compatible patient information systems. There are patient, information and staff movements between the two hospitals, which are likely to become more efficient with shared information systems.

EDIS GOVERNANCE ARRANGEMENTS

3.9 Audit sought to understand the overall system governance arrangements associated with the hospitals’ use of EDIS. In this respect, Audit sought to understand whether there was:

- system governance documentation;
- identified roles and responsibilities for the system, including system owners and administrators;
- system guidelines and instructions; and
- training.

¹⁸ iSoft is part of the CSC group.
**System governance documentation**

3.10 Audit expected that there would be an overarching governance document with respect to EDIS, which describes the system, all roles and responsibilities associated with the system and its support (including third-party stakeholders such as Shared Services ICT), applicable policies, record-keeping obligations, training requirements, and what is monitored and audited to ensure compliance with the system governance document and relevant policies.

3.11 Audit could not find evidence of a system governance document at the Canberra Hospital. Neither Health Directorate hospital staff nor Shared Services ICT staff could identify any documentation which would serve to identify and document system governance arrangements. It appears that any documentation relating to the system has been lost over time and processes have been handed down from generation to generation of Health Directorate (and Shared Services ICT) staff.

3.12 At the Calvary Public Hospital, Audit could not find evidence of an overarching system governance document. However Audit identified a range of governance documents reflecting the recent development and implementation phases of the new EDIS, including:

- a business requirements document for the system’s implementation in January 2012;
- executive level EDIS review committee records;
- EDIS data validation sub group records; and
- training and user guidance.

3.13 Collectively, these documents serve as a basis for documenting aspects of the system’s governance at the Calvary Public Hospital. Audit suggests that it is appropriate for Calvary to incorporate key elements of these documents into an overarching governance document.
Recommendation 2 (Chapter 3)

The Health Directorate and Calvary Public Hospital should develop essential EDIS governance documentation, including:

a) an overarching governance statement that describes:
   i. the purpose and use of the system;
   ii. its business owner, system administrator and all roles and responsibilities associated with the system and its support (including third party stakeholders such as Shared Services ICT);
   iii. the security classification of the system and its data;
   iv. applicable policy and administrative guidance;
   v. record-keeping obligations;
   vi. training requirements; and
   vii. what is monitored and audited to ensure compliance with policy and supporting system documentation.

Roles and responsibilities for the system

3.14 At the Canberra Hospital, it was evident that the lack of system governance documentation was contributing to a number of policy breaches, administration gaps and poor system practices. These are discussed in more detail throughout this chapter. A key shortcoming of the poor system governance documentation was the lack of documentation of specific roles and responsibilities relating to aspects of business ownership and administration of the system.

3.15 Audit identified that a draft Business System Support Agreement between Shared Services ICT and the Health Directorate had been developed with respect to EDIS by Shared Services ICT. The draft agreement purportedly dates from July 2011, but the agreement has not been finalised. The agreement has major gaps in detail and also contains incorrect information which is due for updating (e.g. the agreement identifies Health Directorate personnel with system responsibilities who left the organisation in 2008). Audit considers that this document, in its current form, serves no purpose in identifying roles and responsibilities for EDIS.

3.16 With respect to system roles and responsibilities, of particular concern is the lack of an identified EDIS system administrator with responsibility for managing administrative issues associated with the system, such as user management and activity monitoring. Discussions with Emergency Department staff and Shared Services ICT staff revealed that each expected that the other was managing some of these technical aspects of the system.
3.17 An EDIS Data Manager is employed in the Emergency Department of the Canberra Hospital. Many stakeholders (within the Health Directorate and Shared Services ICT) suggested that the Data Manager had a de facto role as a system administrator. Audit’s discussions with the Data Manager suggested that the Data Manager did not believe that they had a role as a system administrator, and that many of the system administration functions were undertaken by Shared Services ICT. Finalisation of the draft Business System Support Agreement between Shared Services ICT and the Health Directorate should assist in removing this confusion.

3.18 The implementation of Recommendation 2(a)(ii) should mitigate the risks associated with the lack of clarity of roles and responsibilities associated with EDIS use and management at the Canberra Hospital.

**Recommendation 3  (Chapter 3)**

The Health Directorate should, in conjunction with Shared Services ICT, finalise the draft Business System Support Agreement between Shared Services ICT and the Health Directorate for EDIS.

3.19 One area at Calvary Public Hospital where documentation had weaknesses was in the definition of specific EDIS roles, and their lines of accountability. At the time of audit fieldwork, the following arrangements were in development:

- Data Manager’s role and responsibilities;
- specifications for some of the user categories, such as the administrator, ‘super user’ and visitor categories; and
- the accountable lead for each group of users such as clerks, clinicians, triage nurses and the responsibilities these leads have in the overall governance of EDIS.

3.20 Audit considers that the system roles and responsibilities at the Calvary Public Hospital should be developed and finalised as a matter of priority.

**System guidelines and instructions**

3.21 Audit expected that standard operating procedures for all EDIS roles and responsibilities would have been documented and regularly updated. This was not the case.

3.22 At the Canberra Hospital there was ad hoc documentation for the use of EDIS, including:

- ED Registrar or Consultant Rapid Initial Assessment Guidance Notes (date unknown);
- Emergency Department (The Canberra Hospital) Orientation for New Medical Staff (date unknown);
• Registrar Orientation Manual (October 2006); and
• Data Items to be Used to Determine and Correct the Accuracy of the “Time Seen by Doctor” (October 2004).

3.23 Audit notes that this documentation was minimal and, except for the last document, primarily related to the use of EDIS within the Emergency Department environment. There were no documented and maintained standard operating procedures related to system administration and management.

3.24 At the Calvary Public Hospital, Audit found EDIS procedures for the key user groups, that is nurses, doctors and clerical staff, and for the key episodes in EDIS for the patient’s journey through the Emergency Department. Audit did not find standard operating procedures covering key aspects of system administration and management, such as authorising new users and setting control levels, but these are currently being formalised.

**Recommendation 2**  (Chapter 3)

The Health Directorate and Calvary Public Hospital should develop essential EDIS governance documentation, including:

b) standard operating procedures for all roles and responsibilities associated with the system and its use;

**Training**

3.25 There are no formal training arrangements in place within the Canberra Hospital with respect to the use of EDIS. Clinical and clerical staff advised that training on the use of EDIS for new staff members is provided by peers and is primarily focused on the practical use of EDIS. Audit notes that this training does not formally and systematically address appropriate practices for the use of EDIS, including how to identify and record key administrative details such as patient seen times within the spirit and detail of the AIHW guidelines. A record of training is not maintained.

3.26 In addition, training takes place ‘on the job’ rather than in a training environment and practitioners (i.e. clerks, nurses and doctors) provide the training for their new colleagues. This leads to a risk of perpetuating poor practice and misunderstanding and the passing on of unauthorised ‘workarounds’.

3.27 At the Calvary Public Hospital, formal training has necessarily been provided with respect to EDIS and its use, given that it was a newly implemented system. Accordingly, Calvary’s approach to developing staff’s skills in using EDIS has been
much better organised and structured. Staff have had pre and post-launch training, as well as one-to-one training by the Data Manager, which has been informed by high frequency input errors. There is also an EDIS test module that is not ‘live’ and on-line guidance and role-specific self-help sheets.

3.28 Calvary’s training to date has covered most key staff groups and training and assessment records have been maintained. However there are some gaps, including:

- there are a large number of users that have been transferred across from the old emergency department system. It is not known how many are current users or will need to access the new EDIS system. These users represent an unmet training need and potentially a risk to the integrity of data in the system;
- nurses remain the largest group so far untrained in the use of EDIS. There are long standing difficulties in getting nurses ‘offline’ in order to give them EDIS post-implementation training; and
- group training to date has not focused on detailed interpretation of AIHW guidance, or feedback from high frequency errors.

**Recommendation 2** (Chapter 3)

The Health Directorate and Calvary Public Hospital should develop essential EDIS governance documentation, including:

c) training material that covers all dimensions of EDIS including user roles and responsibilities, processes described in standard operating procedures and specific policy that is applicable to the system;

**ACT GOVERNMENT LEGISLATION AND POLICY**

3.29 In the course of audit fieldwork, Audit identified that there were a number of Shared Services ICT and Health Directorate policies in place with respect to information systems. Where relevant, these policies have been discussed and potential breaches of these policies have been identified. Audit has also identified key legislation relevant to the management of health records, which is relevant to the use of EDIS within the two Canberra hospitals.

**Health Records (Privacy and Access) Act 1997**

3.30 One of the objects of the *Health Records (Privacy and Access) Act 1997* (the Health Records Act) is to ‘provide for the integrity of records containing personal health information.’ A health record is defined as:

- any record, or any part of a record-
- a) held by a health service provider and containing personal information; or
- b) containing personal health information.
3.31 The Health Records Act provides for a series of privacy principles. Subsection 6(1) of the Act provides that ‘a person to whom a privacy principle applies must not, without lawful authority, contravene the privacy principle.’

3.32 Principle 4.1 ‘Storage, security and destruction of personal health information – safekeeping’ states *inter alia*:

1. A record-keeper who has possession or control of a health record shall ensure that:
   a) The record is protected, by reasonable security safeguards against each of the following:
      a. loss;
      b. unauthorised access, use, modification or disclosure;
      c. other misuse...
   2. A record keeper must keep, and must not destroy, a health record about a consumer, even if it is later found to be inaccurate.

3.33 A record-keeper is defined as ‘an entity that has possession or control of a health record’, i.e. the Canberra Hospital and the Calvary Public Hospital.

***Shared Services ICT and Health Directorate policies***

3.34 A key, overarching Health Directorate policy document is the *ACT Health Public Health Records and Information Policy, Procedures and Disposal Authority Manual* (the Public Health Records Manual). The Public Health Records Manual ‘documents the policies and procedures for the effective implementation, management and disposal of public health records and information for ACT Health.’

3.35 The purpose of the Public Health Records Manual is identified as follows:

The aim of this document is to establish sound public health records and information management systems based on best practice standards. The procedures documented in this manual establish a consistent approach to the management of public health records and information in many formats, including paper files, electronic records, clinical reports, legal advice and technical information, forms and selected printed materials. This manual includes detailed instructions on how the systems should operate and outlines the tasks required to support a comprehensive and efficient public health records and information management system.

The objectives of the ACT Health, public health record and information management systems are to ensure public health records and/or information is available for patient care, and other authorised purposes, when required; and to ensure the physical security of the record and its content at all times; and to ensure the accuracy and completeness of the information collected and stored.
3.36 The Public Health Records Manual reiterates the requirements of the *Health Records (Privacy and Access) Act 1997* and the 12 principles for the collection, use and storage of information.

3.37 The Public Health Records Manual states that all ACT Health staff are required to *inter alia*:

   Maintain the records in a secure manner, so that information can be found quickly when it is needed and respects the privacy of the individuals concerned.

3.38 Where relevant, the requirements of the Public Health Records Manual are discussed throughout this chapter.

**Application of relevant ACT Government policies to Calvary Health Care ACT**

3.39 The Calvary Network Agreement, agreed to by the ACT and Calvary Health Care ACT Limited (Calvary), commenced on 1 February 2012. Under this agreement Calvary operates and manages the Public Hospital and provides services as a Network Service Provider. By virtue of clause 5.2 of the agreement, Calvary must *inter alia*:

   ...conduct the Public Hospital:
   
   - in accordance with sound modern hospital practices and the laws for the time being in force and applicable to the Public Hospital; and
   
   - by implementing and adopting policies, procedures and systems which Calvary reasonably determines to be the most appropriate and efficient for the Public Hospital.

3.40 Audit notes that there is no requirement for Calvary to recognise and adopt Shared Services ICT or Health Directorate policies with respect to information systems. By virtue of clause 20.1 of the agreement, however:

   The parties acknowledge that efficiencies and cost reductions in the delivery of services by the Public Hospital can be achieved by the increased utilisation and integration of existing and future Territory and Calvary operational management and support infrastructure, including accounts payable, accounts receivable, payroll, human resources, capital planning, assets management, information management and medical appointments (Infrastructure) in the Public Hospital.

3.41 Clause 20.2 states that:

   Calvary, in conjunction with the Territory and Calvary Network Committee, may identify and integrate infrastructure which in the performance of the Services it considers efficient and effective to do so.

3.42 Audit suggests that clause 20.1 and clause 20.2 may provide an opportunity for the ACT Government and Calvary to pursue a shared and common practice with respect to the management of information systems, including the adoption and implementation of relevant ACT Government and Health Directorate policies.
SYSTEM SECURITY AND ACCESS CONTROLS

3.43 Audit sought to understand what system security and access controls were in place with respect to the hospitals’ use of EDIS.

System security

3.44 Audit sought to understand whether there was an appropriate level of security classification over EDIS and its information as well as a documented system security plan.

Shared Services ICT Security Policy Version 2.0

3.45 The Shared Services ICT Security Policy Version 2.0 was implemented in November 2009. The policy ‘establishes the Information Security regulatory framework for information being processed in electronic form for the ACT Government and derives its authority from the ACT Protective Security Policy and Guidelines (PSP&G) and associated Federal and Territory legislation.’

3.46 With respect to information security, section 8.1 of the policy states:

Data Classification is the conscious decision to assign a level of sensitivity to data as it is being created, amended, enhanced, stored or transmitted. The classification of the data should then determine the extent to which the data needs to be controlled / secured and is also indicative of its value in terms of Business Assets.

The classification of data and documents is essential if you are to differentiate between that which is of little (if any) value, and that which is highly sensitive and confidential. When data is stored, whether received, created or amended, it should always be classified into an appropriate sensitivity level.

3.47 Section 13.2 of the policy also states:

The System Manager is responsible for the development, implementation maintenance of an approved Security Plan for his or her system.

3.48 The policy is not clear as to who is the responsible System Manager. Audit notes Recommendation 2(a)(ii) should assist in identifying a person who may considered to be the System Manager for the purpose of this policy.

Health Directorate Public Health Records and Information Policy, Procedures and Disposal Authority Manual

3.49 Paragraph 3.29 of the manual states:

ACT Health public records must be stored under adequate security at all times, whether in paper or electronic format. All staff are responsible for ensuring the safety of the records and confidentiality of the information held therein. Reasonable measures must be taken to prevent unauthorised access to the information.
Canberra Hospital

3.50 Audit could not find any evidence that EDIS and its data had been classified or that there was a documented system security plan, as required by *Shared Services ICT Security Policy Version 2.0*. Audit considers that this is a significant shortcoming of the overall governance arrangements of the system, given the extensive amount of sensitive information that is maintained in the system.

3.51 Based on the findings of the audit, as discussed in this chapter and Chapter 4, Audit considers that the requirement to maintain public health records under ‘adequate security’, as required by the Health Directorate’s *Public Health Records and Information Policy, Procedures and Disposal Authority Manual*, has not been met.

Calvary Public Hospital

3.52 At the Calvary Public Hospital, there is no specific data security policy, but there are a number of hospital-wide policies that relate to system controls and data security. These include policies for the *Management of personal patient information*, *Management of clinical records*, and *Acceptable access and use of IT*. There is not a documented security plan for the EDIS system.

**Recommendation 2 (Chapter 3)**

The Health Directorate and Calvary Public Hospital should develop essential EDIS governance documentation, including:

- d) a System Security Plan, which is informed by a risk assessment and risk management plan.

**User access controls**

3.53 Audit sought to understand whether there were appropriate controls over users’ access to the system.

*Shared Services ICT Security Policy Version 2.0*

3.54 With respect to access to information assets and ICT resources, section 1.1 of the policy states *inter alia*:

> Access to ACT Government computing resources is granted in a manner that carefully balances restrictions designed to prevent unauthorised access against the need to provide unhindered appropriate access to informational assets to carry out one’s duties.

> The purpose of access control is to ensure the confidentiality, integrity and availability of the network and the information for authorised personnel that meets security and business requirements.
Section 1.1 of the policy provides for a series of policy statements, which include *inter alia*:

Access to information stored on or processed in application systems or storage devices will be based on the Need-To-Know principle. Unauthorised access to information is strictly prohibited and failure to comply with this policy will render the offender subject to disciplinary sanctions under the PSMA and other legislative instruments.

All legitimate access to ACT Government information assets shall not compromise the Confidentiality, Integrity and Availability of that asset and shall be controlled and reviewed regularly.

With respect to acceptable use, section 1.3 of the policy states:

Your use and management of passwords must be in accordance with the Password Policy.

**Shared Services User IDs and Passwords Standard Version 2.2**

The *Shared Services User IDs and Passwords Standard Version 2.2* (User IDs and Password Standard) was implemented in June 2009. Section 3.2 of the standard states:

Access to a specific agency business application using a generic application is not recommended. However, where the agency business application does not contain or access any classified or sensitive information (including material covered under the Privacy Act), the ICT Manager and the application owner or their nominated representatives may permit generic user accounts subject to:

- a TRA indicating that the use of a generic user account may be appropriate (i.e. does not pose significant risk)
- the implementation of additional controls required to maintaining accountability
- written documentation outlining the reasons for the decision
- arrangements to manage the account for acceptable use
- approval on a case-by-case basis

The use of generic user accounts is generally not appropriate for any agency business application that contains or accesses personal information as defined by the “Privacy Act (1988)”. Where the agency business application does contain or access personal information, the ICT Manager, the application owner or their nominated representatives may permit generic User Accounts subject to:

- the requirements 4.3.2 above; and
- agreement in writing from the Office of the Federal Privacy Commissioner that the proposed controls satisfy the requirements of the “Privacy Act (1988)”.
In all cases, generic user accounts that access an individual agency business application must be kept confidential and restricted to members of the workgroup.

3.58 Section 5 of the User IDs and Password Standard states:

Consistent with the process outlined in the ICT Security Policy, if an agency is unable to adhere to a particular minimum requirement of this standard, then advice must immediately be provided to [Shared Services ICT]. [Shared Services ICT] is required to submit this to the IM/ICT Committee for information and comment, as soon as possible after the non-conformance is identified.

For example, where an agency considers that there are exceptional business considerations that require the use of a generic user account, and where a TRA indicates alternative controls that may be implemented, the agency must seek approval from [Shared Services ICT]. Approval for a generic user account will only be granted on a case-by-case basis. Generally, a generic user account requiring access to the Internet or Outlook will not be permitted. As a minimum...advice must include:

- details of the relevant requirement of the standard
- reasons for con-conformance
- strategies to be put in place to achieve conformance
- the period that non-conformance will be required
- perceive risks, and likely implications for other areas of government
- endorsement by the relevant Chief Executive Officer or, if the proposed alternative arrangements are not supported, detailed comments and suggested alternatives.

Public Health Records and Information Policy, Procedures and Disposal Authority Manual

3.59 Paragraph 3.18 of the Public Health Records Manual states:

Access to the consumer’s record should be restricted to health professionals currently involved in the continuing care of the consumer or their clinical management.

3.60 Paragraph 3.22 of the Public Health Records Manual states:

Computers will be logged off when not in use and patient/client details are to be removed from the screen after accessing information. Passwords shall not be displayed and will be accessible only to authorised persons. The use of generic passwords is not permitted.

Canberra Hospital

3.61 Audit considers that controls over users’ access to EDIS are very poor and that this is a significant shortcoming of the system.

3.62 Audit notes that there are approximately 259 workstations across the hospital where EDIS has been installed and 253 users with permission to access the EDIS
application. The current authorisation process to gain access to EDIS involves a prospective user applying for access through Shared Services ICT and, in doing so, identifying a supervisor who is asked to approve access. Shared Services ICT’s practice is to grant access based on the supervisor’s approval. The lack of EDIS governance documentation and an EDIS system administrator means that there is no review of access requests by an appropriate person to verify that access is being granted in accordance with agreed system documentation. There is also no review process to examine if user accounts within the system are still legitimate users and there is no process to remove those that aren’t.

3.63 While EDIS has been installed on approximately 259 workstations across the hospital and 253 users have permission to run the software, there are only 23 user accounts. Of these user accounts, only eight user accounts are used regularly. These include four named administrator accounts (specific to administrative staff) and four generic user accounts: CLERK, NURSE, DOCTOR and BEDMAN. The lack of EDIS governance documentation identifying roles and responsibilities means that there is no documentation associated with the generic users’ ‘access roles’ within the system.

3.64 There is no password management process for EDIS. Passwords for individual users have been set to expire after 999 days. The passwords for the four generic user accounts are very poor and have never been changed.

3.65 The vast majority of users’ interactions with EDIS are made through the four generic accounts, thereby making it virtually impossible to identify individual users’ use of, and interaction with, EDIS and any entries or changes they may have made.

3.66 Audit was advised that one of the rationales for using generic user accounts was the inherent difficulties associated with requiring users in a busy work environment such as an Emergency Department to log on and log off every time they used a computer terminal. This is a sound rationale within the Emergency Department itself, but the proliferation of EDIS access throughout the hospital and the lack of compensating controls means that these generic accounts may be used by any user of EDIS throughout the hospital, irrespective of whether they are operating in this busy Emergency Department environment. There is no sound rationale for the use of generic user accounts outside the Emergency Department itself.

3.67 A practice was also in place at the Canberra Hospital, whereby access to edit EDIS records was available for up to 72 hours after a patient’s treatment. The rationale for doing so was to allow any legitimate changes to be made to the EDIS record as part of the data validation process (discussed later in this chapter). This has created an opportunity for unauthorised changes to be made.

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20 The BEDMAN account represents the Canberra Hospital’s ‘Bed Manager’ function, which assists in managing patient flow throughout the hospital.
to EDIS records. The proliferation of EDIS access throughout the hospital, the use of generic accounts and the lack of compensating controls means that this practice has created an opportunity for data manipulation to occur.

3.68 Audit considers that the Health Directorate has not met the requirements of a range of ACT Government policies and internal Health Directorate policies, including:

- Shared Services ICT Security Policy Version 2.0;
- Shared Services User IDs and Passwords Standard Version 2.2; and
- Public Health Records and Information Policy, Procedures and Disposal Authority Manual.

**Calvary Public Hospital**

3.69 At the Calvary Public Hospital, Audit identified many weaknesses in user access controls similar to those at Canberra Hospital’s Emergency Department. This is despite the recent move at Calvary over to a new system providing the opportunity to fundamentally review access controls. Key weaknesses relate to:

- the common and encouraged practice of using generic logins by Emergency Department staff when accessing the Hospital IT network;
- the common use of group logins with commonly known password combinations when entering EDIS;
- the large number of PC terminals where the EDIS application is available; and
- the common practice of leaving terminals and applications open.

3.70 Audit found clinicians in the Emergency Department were advised to use generic logins for sound reasons of practicality and protecting staff’s personal data. However the hospital’s Acceptable Use of IT policy outlawed the use of generic system logins in October 2010. In a departmental ‘walkthrough’ Audit found around half of users were entering the Hospital’s IT network using generic login names and passwords. This means there is a conflict between practice and policy. It also means many network users are unable to be identified individually via this initial access control step.

3.71 In the departmental ‘walkthrough’ Audit also found most EDIS users (85 percent) enter the application using widely known group logins and passwords combinations. The use of generic logins is shared and encouraged during training. This means that the user is only identifiable by their functional group (i.e. NURSE, CLERK, DOCTOR) unless:

- they choose to use a free text box to identify themselves; or
- they are forced to identify themselves if prompted to enter a unique username and password. Some cells, as set by the administrator can be switched on to force a unique password prompt.
3.72 Similar to the Canberra Hospital, these functional groups follow a simplistic password rule which does not offer any access control. In practice, the group passwords are for administrative ease, as each group is presented with the screen and information that they are most likely to need. It does not prevent nurses, clerks or doctors from going into each others’ groups. Audit considers that it serves no purpose as a system access control.

3.73 Audit found that some key cells in terms of logging the patients’ care pathway were password protected, such as the triage time and category, or if changes are made to existing data. Others were not protected, meaning that any user can enter the system using the widely known group logins and passwords, remain anonymous, and be able to:

- assign a doctor to a patient if not already assigned;
- stop the clock and set the ‘seen’ time, if not already stopped;
- discharge or admit patients;
- enter or change less sensitive patient information; and
- input information into diagnostic notes.

3.74 What is more, until very recently administrators also had a group password, and so the person changing access controls or entering new user profiles was not identifiable from a group of five people. Unique logins were recently introduced for administrators.

3.75 There are 73 terminals where EDIS is available on the computer desktop. More than 25 are available in the Emergency Department. They are mainly located in the busy areas known as the ‘flight decks’. Audit was unable to establish the details of how the need is assessed for the application to be made available on a particular computer desktop. About two thirds of the terminals carrying the EDIS application have unique identities, so that EDIS user activity can at least be attributed to a location, if not to a particular user.

3.76 User logs identify that there are 724 users who are entitled to access the system. Each has authority to enter and use the EDIS system. It is not clear what the business case is for such a high number of users. There is a procedure in place via the Hospital’s in-house Information Technology helpdesk, the Data Manager and functional group leads to add new users, and this is documented, but there is no procedure yet for removing redundant users.

3.77 The practice was also in place at the Calvary Hospital, whereby access to edit EDIS records was available for up to 72 hours after a patient had left the department. At one stage this 72-hour period was relaxed to 30 days in order for data validation to continue.

3.78 The rationale for any continuing EDIS access after patients’ have left the Emergency Department is to allow any legitimate changes to be made to the EDIS record as part of the data validation process (discussed later in this
chapter). As at the Canberra Hospital, this creates an opportunity for unauthorised changes to be made to EDIS records.

**Recommendation 4  (Chapter 3)**

The Health Directorate and Calvary Public Hospital should:

a) review the current distribution of access to EDIS throughout the hospital and remove any users who do not have a specific and documented requirement for access to the system; and

b) develop policies, administrative procedures and system controls (if possible) that restrict the use of generic user accounts outside the Emergency Department work environment.

**Mechanisms to detect unauthorised system access**

3.79 Audit sought to understand whether there were mechanisms to detect unauthorised information processing activities.

**Health Directorate Data Quality Policy**

3.80 The Data Quality Policy was implemented in 2007. The primary purpose of the policy is to ‘ensure that quality data are available to inform and support ACT Health policy and program delivery with the aim to provide highest quality of care and safety of ACT Health clients.’ The policy states *inter alia*:

Data collection systems are to be proficient to capture and validate all the information required, and must also provide an audit trail of changes.

**Shared Services ICT Security Policy Version 2.0**

3.81 Section 7 of the Shared Services ICT Security Policy 2.0 policy requires:

The collection of audit trails for all ACT Government [information management systems] must comply with the provisions of Monitoring and Logging Standard.

**Shared Services Monitoring and Logging Standard Version 1.1**

3.82 Shared Services Monitoring and Logging Standard Version 1.1 (the Monitoring and Logging Standard) was implemented in November 2006. With respect to logging system use, the Monitoring and Logging Standard states:

Logging refers to automated collection of transaction records. These can be used for system maintenance and audit trail purposes as well as for logging the activities of individual users.

Audit logs recording exceptions and other security-relevant events will be produced and kept for an agreed period to assist in future investigations and access control monitoring.

Audit logs should include:
• user IDs
• dates and times for log-on and log-off
• terminal identity or location if possible
• records of successful and rejected system or service access attempts.

3.83 With respect to monitoring system use, the Monitoring and Logging Standard states:

Monitoring is necessary to ensure that users are only performing activities that have been explicitly authorised. Monitoring includes active, ongoing surveillance and monitoring of audit logs for specified events.

The level of monitoring required for individual facilities should be determined by a risk assessment. The results of monitoring should be reviewed regularly. The frequency of the review will be indicated by the risk assessment.

The result of the monitoring activities should be reviewed regularly. The frequency of the review should depend on the risks involved. Risk factors that should be considered include:

• the criticality of the application processes;
• the value, sensitivity or criticality of the information involved;
• the past experience of system infiltration and misuse; and
• the extent of system interconnection (particularly public networks).

Canberra Hospital

3.84 Audit considers that audit trails and user logs associated with EDIS were very poor and that this was a significant shortcoming of the system.

3.85 At the Canberra Hospital, there was no requirement to log activity that occurred in the system or for logging information to be kept or regularly reviewed. There were no proactive reviews of logging information, nor was there any definition of what constituted unacceptable activity.

3.86 While audit logs are created, the log data that has been modified is not a useful record. A feature of the logging record is that it logs the changed field in EDIS and a number of other fields simultaneously, while not identifying which field was changed and what its original value was. Accordingly, the logging record does not provide a sufficient record of changes that have been made to EDIS.

3.87 Audit also notes that the logging record is also ineffective, because every entry in EDIS is logged from “Workstation 14”. Although EDIS has been disseminated widely throughout the Canberra Hospital each of these users logs into EDIS using the common “Workstation 14”. This practice, combined with the use of generic user accounts, makes the EDIS logging information useless for investigations of unauthorised activity.
3.88 Audit considers that the Health Directorate has not met the requirements of a range of ACT Government policies and internal Health Directorate policies, including:
- Health Directorate Data Quality Policy;
- Shared Services ICT Security Policy Version 2.0; and
- Shared Services Monitoring and Logging Standard Version 1.1.

*Calvary Health Care ACT Data Quality Corporate Policy (2008)*

3.89 The policy stresses the importance of data being ‘entered or updated at the point of client contact to ensure the data has ongoing integrity’. In addition, the policy states ‘data collection systems are to be proficient to capture and validate all the information required and must provide an audit trail of changes’.

*Calvary Public Hospital*

3.90 At the Calvary Public Hospital, Audit found that there are controls in place to enable some of the key aspects of EDIS usage to be logged and attributed to specific users. The built-in EDIS system audit function is partially effective. For each record the audit function can show the identity of a unique user where this is prompted by a password protected cell, or where a user has chosen to go into the system using their unique login and password combination.

3.91 Most importantly, it is possible to identify system users uniquely where changes have been made to key data relating to monitoring and reporting waiting times. This means that systematic, post hoc manipulation to existing data will be visible, if those responsible for data integrity choose to look for it. This important distinction in the EDIS system controls at the two hospitals means there is a more limited risk of data manipulation occurring and of this going undetected at Calvary Public Hospital than at the Canberra Hospital.

3.92 However there is an exception. There is no means to identify who entered the data in the first instance, in some critical areas. As previously mentioned a key weakness is that it is not possible, on review, to always identify who assigned a particular doctor or stopped the clock when the patient was seen, or who discharged a patient and when.

3.93 In addition, there is currently no reporting script in the EDIS system to compare automated with manually recorded times, and no means of routinely checking which functional group is inputting key information. These are important reality checks that would assist those with managerial responsibility identify how EDIS is being used in practice. Data tracking reporting is currently being developed.

3.94 Audit suggests that Calvary should recognise these weaknesses in monitoring user access and implement appropriate user logging controls for EDIS and its use in the Calvary Public Hospital as a matter of priority.
**Recommendation 5  (Chapter 3)**

The Health Directorate and Calvary Public Hospital should:

a) identify and document responsibilities for user access management and log monitoring for EDIS;

b) develop a process to monitor user activity within EDIS and how to report and escalate unusual activity to the appropriate authorities.

**Summary of EDIS risks**

3.95 In summary, the proliferation of EDIS access throughout Canberra’s hospitals, the large number of staff entitled to use EDIS, the use of generic system logins and the lack of compensating controls creates an opportunity for data manipulation to occur by an anonymous user. This is clearly the case at the Canberra Hospital and, to a lesser extent, at Calvary Hospital too. The newer version of EDIS at the Calvary Public Hospital has improved system and user access controls, but some weaknesses remain, as highlighted in this report.

3.96 These control gaps present the following exposures:

- the Health Directorate and Calvary cannot ensure the confidentiality or integrity of any patient records or reporting data in the system;
- the Health Directorate and Calvary have limited means of identifying or controlling systemic integrity or confidentiality breaches; and
- the Health Directorate cannot assure consumers of its data that it is accurate.

3.97 As part of audit fieldwork, Audit engaged the services of Oakton (a professional services firm) to provide advice related to EDIS and its use. A report provided by Oakton to the ACT Auditor-General’s Office stated:

There is an EDIS upgrade project (currently on hold), that will upgrade EDIS from v9.44 (no longer supported by the vendor) with v 9.48. This version of the software has the capability of addressing some of the issues identified with this review, however, the scope of the upgrade project is to upgrade the software and underlying infrastructure – not to review and address current governance, user access or logging issues. If this project was to deliver upon its current scope, the issues that currently exist within EDIS would still remain.

3.98 The report provided by Oakton to the ACT Auditor-General’s Office also stated:

The systemic insecurity exhibited in EDIS is not one that can be rectified easily, overzealous an approach will impact the [Emergency Department] preventing them from servicing patients, however not addressing the issues discussed in this report leave the organisation at risk of significant reputational damage.
Because of this the recommendations in this audit identify governance controls that are required and short and longer term system controls that are required. The short term controls will address some of the symptoms currently exhibited by the system, and the longer term controls will address the underlying causes.

3.99 Audit notes that there is a broader Identity and Access Management and Rapid Sign-On project underway within the Health Directorate, with a series of initiatives aimed at implementing enhanced system controls that are capable of identifying individuals when accessing Health Directorate systems.

3.100 Audit considers that Recommendations 2 to 5 are short term controls that seek to improve the current management of the system. Recommendation 6 is a longer term consideration for the Health Directorate.

**Recommendation 6 (Chapter 3)**

The Health Directorate should:

a) review the current EDIS upgrade project and link it with current Health Directorate Identity and Access Management and Rapid Sign-On initiatives that are currently underway, to allow staff to be individually accountable for their actions; and

b) review all available Emergency Department software to evaluate whether or not the current EDIS should be replaced with one that has strong confidentiality and integrity controls as well as appropriate process linkages.

**EDIS PRACTICE IN ACT EMERGENCY DEPARTMENTS**

3.101 Audit has reviewed the practice in the two emergency departments of capturing and checking timeliness information entered into EDIS, by reviewing records and discussing practice with clinical and clerical staff who routinely interact with patients. Audit also discussed practice with administrative and managerial staff who generally do not directly interact with patients.

3.102 It should be noted that the reporting of Emergency Department performance information by the ACT Government to stakeholders uses aggregate figures derived from performance information from the two hospitals. Accordingly, inaccuracies in data from one hospital undermine the integrity of the figures reported at the Territory level.

**EDIS key features**

3.103 At both emergency departments, the expectation is that EDIS is used at the very least to:

- record the time a patient arrives in the emergency department;
- assign a triage category to a patient and register a patient’s details;
• assign a doctor to a patient and record the time the doctor sees the patient; and
• record when a patient leaves the department and why.

3.104 In practice, EDIS is used for many other clinical and administrative reasons, but these are the key aspects required in order to record and report emergency department performance in relation to ATS categories and NEAT performance indicators.

Contemporaneous use of EDIS

3.105 The system is designed to be used contemporaneously. This means that as an attending clinician sees a patient, notes can be directly entered into EDIS. As the attending clinician enters information into EDIS a time stamp is made. A time can also be manually added to the record at the same time, in the same way as a clinician would otherwise write a time down in paper notes.

3.106 In some situations record keeping cannot be achieved contemporaneously or it may be that 100 per cent completion cannot be achieved even where contemporaneous use of EDIS is attempted. In these instances, EDIS allows for records to be updated or added to later. The ability to do this is important in order to complete records, but it also introduces an opportunity to make data less accurate or even to deliberately falsify data.

3.107 It should be noted that EDIS workstations sit within the Emergency Department patient areas at the Canberra Hospital and are used to a large extent contemporaneously by clerks, nurses and clinicians although the practice is variable. At the Calvary Public Hospital, since December 2011, clinicians have been asked to do a greater share of the data entry directly into EDIS at workstations themselves rather than leaving this to clerical staff to do later.

Risk of inaccuracy during initial data entry

3.108 Audit identified a number of situations during the initial capture of Emergency Department data in the ACT that present a risk to the accuracy of timeliness performance information that is publicly reported. It should be noted that some of these situations are likely to:
• be intrinsic to reporting Emergency Department performance in any setting;
• be specific to the way services are configured at one or other of the two Emergency Departments in the ACT; or
• arise due to the way practice has developed over time.

3.109 Inaccuracies arising from these situations could lead either to a tendency to understate or overstate performance. In theory other situations could be exploited through deliberate manipulation to achieve a particular outcome, such
as reflecting poorer or better performance. This would be considered ‘gaming’ or data manipulation.

3.110 In practice, Audit did not find at either of the two Emergency Departments any instances of gaming, that is, systematic distortion of practice or recording of data during initial data entry.

3.111 However, one particular aspect of system design common to both departments does raise questions about its intended purpose. In both hospitals EDIS has been configured to automatically prompt the system user ‘do you know the target triage category time is exceeded?’ or ‘the patient stay is longer than four hours’. This prompt is only given where the system recognises a breach of the target will occur as a result of the ‘clock stopping’ time being entered. This is clinically unnecessary, and may affect consciously or unconsciously the behaviour of the person inputting the data.

3.112 Audit also found a range of situations in both emergency departments where data inaccuracy was a real possibility by virtue of particular clinical and administrative practices that are adopted in a busy work environment such as the Emergency Department. The following situations are examples from either or both hospital emergency departments of service configuration and practices that will lead to inconsistency in data entry and recording:

- for ATS Category 1 and 2 emergencies, clinical priority is such that EDIS and other record keeping is invariably completed after patient stabilisation;
- the time taken to triage a patient, particularly during busy periods, can take up to 10 minutes (a ‘clock starting’ moment);
- the recent change in how EDIS information is logged relating to the provision of painkilling medication at triage. This is recognised as a ‘clock stopping’ moment and will improve timeliness performance;
- time written in clinical records may be rounded to 5 minute intervals (potentially ‘clock starting’ or ‘clock stopping’ moments); and
- some attending doctors time stamp EDIS before seeing a patient, while others time stamp EDIS after seeing a patient.

3.113 Audit notes that there may be simple oversights due to the busy environment within which staff operate. For instance:

- clinicians may record seeing a patient on the system and then be re-tasked before physically seeing the patient;
- it is easy for clinicians to forget to discharge a patient on EDIS, even though they have been physically discharged from the Emergency Department; and
- the recording of the actual time patients leave the emergency department can be difficult to establish (potentially a ‘clock stopping’ moment).
Audit suggests that these practices mean that reduced assurance can be obtained with respect to the accuracy of reported timeliness performance. However, it should also be noted that the risk of inaccurate timeliness performance due to these practices are not confined to the Canberra hospitals and are likely to be experienced across hospitals in all states and territories.

**DATA VALIDATION ACTIVITIES**

In both the Canberra Hospital and Calvary Public Hospital, a series of data validation activities occurs. Validation occurs in the day(s) following a patient’s presentation and discharge from the Emergency Department. Audit examined the processes by which the hospitals review and validate EDIS data.

Ideally, the purpose of any validation process is to improve the completeness and accuracy of a dataset where it is legitimate to do so. This may mean addressing anomalies due to simple typographical errors, e.g. a patient whose age is erroneously recorded as 120. A data validation process may also be used to identify and resolve internal inconsistencies, such as where there is evidence of a doctor seeing a patient where the patient has also been identified as ‘did not wait.’ Further data validation may involve completing missing fields where this can be done by reference to other sources of evidence, such as doctors’ notes or evidence of the ordering of an ECG.

**Data validation at the Canberra Hospital**

At Canberra Hospital, as noted previously, EDIS records have remained open for up to 72 hours following the close of each Emergency Department day. During this 72 hour period, administrative staff are tasked with reviewing EDIS records in order to identify opportunities for improving the publicly reported performance of the Emergency Department.

There is minimal policy or administrative guidance in place to facilitate this process. Audit notes that there is a simple one-page document titled *Data Items to be Used to Determine and Correct the Accuracy of the “Time Seen by Doctor”*, which dates from October 2004, which Canberra Hospital Emergency Department staff identified as being of relevance to this process.

The data validation process involves administrative staff examining EDIS records in terms of the hospital’s performance in each of the ATS categories. The focus of the data validation process is solely on breaches of timeliness performance and not on records where the time target has been met. Administrative staff examine records where timeliness targets have not been achieved in order to see if there are opportunities, according to the evidence available to them, to improve the timeliness performance of that record. This process does not aim to improve overall data accuracy but is targeted at improving publicly reported information.
3.120 Audit notes that by only selecting breaches, attention is focused solely on one set of records and not the whole data set. Accordingly, any changes are likely to result in improved timeliness performance.

3.121 By way of example, an examination of the data validation process for one day in mid May 2012 shows that performance increases were significant for ATS Category 2 and Category 3 patients.

**Table 3.1:** Canberra Hospital data validation results

<table>
<thead>
<tr>
<th>ATS category</th>
<th>Number of patients</th>
<th>Data before validation</th>
<th>Data after validation</th>
<th>% increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Category 2</td>
<td>25</td>
<td>72</td>
<td>84</td>
<td>12</td>
</tr>
<tr>
<td>Category 3</td>
<td>61</td>
<td>51</td>
<td>64</td>
<td>13</td>
</tr>
<tr>
<td>Category 4</td>
<td>68</td>
<td>48</td>
<td>50</td>
<td>2</td>
</tr>
<tr>
<td>Category 5</td>
<td>9</td>
<td>78</td>
<td>78</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: Canberra Hospital Emergency Department Data Management validation records May 2012

3.122 Audit has highlighted the data validation process that is in place at the Canberra Hospital to exemplify the inherent difficulties associated with obtaining accurate and reliable timeliness performance information in a fast-paced environment such as the Emergency Department. Table 3.1 shows that on a single day in May 2012 there was an apparent mismatch between the times recorded on EDIS and the times which could be validly and accurately reported. Audit considers that while this practice does not constitute ‘gaming’, it prioritises performance improvement over data accuracy, and does not satisfy any clinical or administrative purpose that directly benefits patients.

**Data validation at the Calvary Public Hospital**

3.123 Calvary Public Hospital staff advised Audit that under the old IBA system, a clerk had responsibility for routinely validating all data by gap filling and reviewing anomalies. The Performance Unit from Calvary’s Corporate Services Branch produced breach reports on triage category timescales to assist this. Both practices were stopped at the end of 2011 with the introduction of EDIS. This was accompanied by a focus on greater personal responsibility by clinicians on initial data entry. As stated in paragraph 3.93 there is currently no way of discovering who it is that initially enters data, and therefore whether data entry is in accordance with agreed procedures over who enters data, and when.

3.124 During the first couple of months of the implementation of the new system, no procedure was in place to routinely validate data. Since March a structured
approach has been developed to validate activity, responding to high frequency errors, and this is overseen by a dedicated EDIS validation group. Formal validation protocols are being developed by this group.

3.125 Calvary Public Hospital’s Emergency Department data has also been subject to reviews and improvement actions by Calvary’s own Corporate Services Performance Unit team. Over the last five months, this work has included a number of audits, checks for continuity of data between old and new systems, and managerial oversight of EDIS controls and practice via an executive level EDIS committee and the validation working group.

3.126 Both emergency departments benefit from the weekly or monthly highlighting of anomalies that is undertaken by the Health Directorate’s Performance and Innovation Branch. However, this is responded to in a more structured way, and as part of a wider consideration of EDIS system improvements within Calvary Public Hospital.

Recommendation 7 (Chapter 3)

The Health Directorate should develop policy and administrative guidance for EDIS data validation activities for the two Canberra hospitals. The policy and administrative guidance should identify and document:

a) agreed Emergency Department actions which constitute ‘clock starting’ and ‘clock stopping’ moments for the purpose of EDIS timeliness records; and

b) protocols for data validation activities in the day(s) following a patient’s presentation to the Emergency Department.

MONITORING, REVIEW AND ASSURANCE OF PERFORMANCE INFORMATION BY THE HEALTH DIRECTORATE

3.127 Chapter 2 of the report has highlighted the significant emphasis that is placed on Emergency Department timeliness performance information. Table 2.5 identifies the significant number of internal and external stakeholders to which timeliness performance information is routinely reported.

3.128 Audit considers that, despite the apparent importance and pre-eminence of Emergency Department timeliness performance information to the ACT Government, the ACT community and other stakeholders (e.g. the Commonwealth) there is a lack of rigor in the monitoring, review and assurance processes over this data.

Performance and Innovation Branch

3.129 The Performance and Innovation Branch, located within the Health Directorate’s office at 11 Moore Street in Canberra City, has a role with respect to reviewing and validating a range of Health Directorate data.
3.130 With respect to Emergency Department data, activity and clinical data is collected through EDIS at both the Canberra Hospital and Calvary Public Hospital. An extract from EDIS, containing a range of data items for each patient attendance, is prepared and sent to the Performance and Innovation Branch on a monthly basis. The dataset is logged into a central database and stored on a secure directory.

3.131 During the loading and processing of Emergency Department data by the Performance and Innovation Branch, the incoming data is also validated. By virtue of this validation process the Performance and Innovation Branch identifies clinical records that have not met specified validation tests. The Performance and Innovation Branch prepares a monthly Validation Report, which is sent back to the originating hospital for review and consideration. Records appearing on the Validation Report are not necessarily data errors, but are for further investigation ‘at the point of service’ to determine if the record is or is not correct.

3.132 With respect to Emergency Department data, the validation checks that are performed have developed over time and have been discussed and agreed with the data providers. Audit has reviewed the validation checks that are performed and note that the validation checks are primarily focused on identifying potential administrative or clerical anomalies in the data including:

- missing or invalid data fields, e.g. incorrect entries in specific data fields;
- invalid date fields, e.g. impossible dates entered into date fields;
- duplicate records; and
- data mismatches, e.g. under 16 patients who may have been identified as ‘married’.

3.133 The data validation process does not provide any assurance over the integrity or accuracy of the timeliness information in the records, except to the extent that they may be identified in the validation checks identified earlier. The data validation process administered by the Performance and Innovation Branch did not identify the extensive manipulation of EDIS hospital records at Canberra Hospital, which appears to have taken place since 2009.

**Other assurance processes**

3.134 Audit notes that there are no other processes which provide assurance over the integrity or accuracy of the timeliness information in the records. Audit examined the Health Directorate’s internal audit activities since 2007-08 and notes that there has been no internal audit examination of the preparation of Emergency Department timeliness information.
ATS Category performance reported as a Health Directorate strategic indicator

3.135 The Health Directorate reports on its Emergency Department timeliness performance through its annual report. As noted previously, the ATS categories have been identified as a strategic indicator in the Health Directorate’s Annual Report.

3.136 The ACT Auditor-General’s Office does not audit the Health Directorate’s performance against strategic indicators as these are not contained within the annual Statement of Performance. By way of contrast, the ACT Auditor-General’s Office audits the Health Directorate’s performance against its accountability indicators, as these are contained in the Health Directorate’s Statement of Performance.

3.137 The ACT Auditor-General’s Office last audited the Health Directorate’s performance against the ATS categories as part of its 2003-04 annual report. The ACT Auditor-General’s Office identified an Emphasis of Matter in relation to reporting against the ATS Categories and concluded:

The Statement of Performance discloses that the results for the following performance measures [ATS categories] were ‘not independently verifiable’.

No audit opinion can therefore be expressed on these performance measures.

3.138 The ACT Auditor-General’s Office stated:

These results were unable to be independently verified due to incomplete written records available in the Emergency Departments to substantiate the electronic record.

3.139 The Health Directorate removed performance against the ATS categories from its Statement of Performance as of 2004-05.

Recommendation 8 (Chapter 3)

The Health Directorate should implement additional review and assurance controls over the preparation and reporting of Emergency Department timeliness performance information. These review and assurance controls should address both Canberra Hospital and Calvary Public Hospital performance information. The Health Directorate should consider whether the additional review and assurance controls should be applied to other performance information.
4. DATA MANIPULATION AT THE CANBERRA HOSPITAL

INTRODUCTION

4.1 This chapter discusses the circumstances associated with the manipulation of data at the Canberra Hospital.

SUMMARY

Conclusion
Records within Canberra Hospital’s EDIS have been changed to misrepresent the performance of the Emergency Department. EDIS patient records were accessed and changed in order to improve timeliness performance.

Key findings
- Approximately 11,700 EDIS patient records were changed between 2009 and 2012 so that Emergency Department waiting times and patients’ overall length of stay in the department appeared to be shorter than they actually were.
- The very poor EDIS user access and system controls and the very poor audit log function means that it is not possible to identify, based on EDIS records, the person or persons who may have deliberately changed the EDIS hospital records.
- A Health Directorate executive has admitted to changing EDIS records to Audit in an interview on affirmation, pursuant to section 14A of the Auditor-General Act 1996. While an executive has admitted to changing EDIS records, it is probable that EDIS records have also been manipulated by other persons with access to the system. The executive’s admission to Audit does not appear to account for all of the changes to EDIS records that have been made to improve timeliness performance.
- The executive has stated that they were not instructed or influenced to change EDIS records. Health Directorate personnel in the executive’s line of reporting up to and including the Director-General, the Minister for Health as well as a family member of the Minister for Health who has a close personal relationship with the executive, have advised Audit, under oath or affirmation, that they have not provided any direct or indirect instruction or influence to change hospital records.
- Audit considers that the actions of the executive who has admitted to manipulating hospital records is seriously inappropriate and improper conduct. The executive may have breached the ACTPS Code of Ethics and section 9 of the Public Sector Management Act 1994, as well the terms of their executive employment contract.
On 5 April 2012, representatives of the AIHW contacted the Performance and Innovation Branch of the Health Directorate to advise that some anomalies in the Health Directorate’s hospital performance information had been identified. The AIHW advised that anomalies had been identified in the Canberra Hospital’s Emergency Department performance information, specifically with respect to performance against ATS Category 3, ATS Category 4 and the four hour NEAT.

The AIHW had indicated that, for the identified ATS categories, there was an unusually high number of patients who were reported to have been seen at exactly the required time. For example, for ATS Category 3 patients (which had a performance indicator of 75 percent of patients to be seen within 30 minutes), there was an unusually high number of patients who were reported to have been seen at exactly 30 minutes. This was also the case for ATS Category 4 patients, where there was an unusually high number of patients who were reported to have been seen at exactly 60 minutes. With respect to the four hour NEAT, the AIHW identified that there was an unusually high number of people who had left the Emergency Department precisely 240 minutes after their recorded arrival.

The proportion of patients who were reported to have been seen at exactly the required time was significantly and unusually higher than the number of patients reported to have been seen at any other time interval. For example, for ATS Category 3 patients, the number of patients reported to have been seen at exactly 30 minutes was disproportionately higher than the number of patients seen at 29 minutes, 31 minutes or any other time interval. Ordinarly, it is expected that patients would be seen across a spread of minute intervals, both within the target and exceeding the target.

The following figures show the apparent anomalies in the Canberra Hospital’s timeliness data.

ATS Category 2 presentations

Figure 4.1 shows the distribution of waiting times leading up to and including the threshold for ATS Category 2 patients between 2009 and 2012.
4.7 Figure 4.1 shows:
- there is an apparent ‘spike’ in the number of patients who were seen at exactly 10 minutes;
- there is a significant difference in the number of patients who were seen at exactly 10 minutes and the number of patients who were seen at either exactly 9 or 11 minutes; and
- the ‘spike’ in the number of patients who were seen at exactly 10 minutes is more pronounced in 2011 and 2012.

4.8 Discussions with Health Directorate and Emergency Department personnel indicate that there is no valid reason for the ‘spike’ in the number of patients who have been seen at exactly 10 minutes. Ordinarily, it would be expected that there would be a more even distribution of patients who are seen up to and potentially beyond the 10 minute threshold.

**ATS Category 3 presentations**

4.9 Figure 4.2 shows the distribution of waiting times leading up to and including the threshold for ATS Category 3 patients between 2009 and 2012.
4.10 Similar to Figure 4.1, Figure 4.2 shows:

- there is an apparent ‘spike’ in the number of patients who were seen at exactly 30 minutes;
- there is a significant difference in the number of patients who were seen at exactly 30 minutes and the number of patients who were seen at either exactly 29 or 31 minutes; and
- the ‘spike’ in the number of patients who were seen at exactly 30 minutes is more pronounced in 2011 and 2012.

4.11 Similar to earlier discussion on ATS Category 2 distribution, discussions with Health Directorate and Emergency Department personnel indicate that there is no valid reason for the ‘spike’ in the number of patients who have been seen at exactly 30 minutes. It would be expected that there would be a more even distribution of patients who are seen up to and potentially beyond the 30 minute threshold.

**ATS Category 4 presentations**

4.12 Figure 4.3 shows the distribution of waiting times leading up to and including the threshold for ATS Category 4 patients between 2009 and 2012.
Figure 4.3: 2009-2012 ATS Category 4 wait minutes

Similar to Figure 4.1 and Figure 4.2, Figure 4.3 shows:

- there is an apparent ‘spike’ in the number of patients who were seen at exactly 60 minutes;
- there is a significant difference in the number of patients who were seen at exactly 60 minutes and the number of patients who were seen at either exactly 59 or 61 minutes; and
- the ‘spike’ in the number of patients who were seen at exactly 60 minutes is more pronounced in 2011 and 2012.

Similar to earlier discussion, discussions with Health Directorate and Emergency Department personnel indicate that there is no valid reason for the ‘spike’ in the number of patients who have been seen at exactly 60 minutes. It would be expected that there would be a more even distribution of patients who are seen up to and potentially beyond the 60 minute threshold.

**ATS Category 5 presentations**

Figure 4.4 shows the distribution of waiting times leading up to and including the threshold for ATS Category 5 patients between 2009 and 2012.
4.16 Similar to earlier figures, Figure 4.4 shows:

- there is an apparent ‘spike’ in the number of patients who were seen at exactly 120 minutes;
- there is a significant difference in the number of patients who were seen at exactly 120 minutes and the number of patients who were seen at either exactly 119 or 121 minutes; and
- the ‘spike’ in the number of patients who were seen at exactly 120 minutes is more pronounced in 2011 and 2012.

4.17 Similar to discussions over other ATS categories, discussions with Health Directorate and Emergency Department personnel indicate that there is no valid reason for the ‘spike’ in the number of patients who have been seen at exactly 120 minutes. It would be expected that there would be a more even distribution of patients who are seen up to and potentially beyond the 120 minute threshold.

**Manifestation of data anomalies**

4.18 It is difficult to identify with precision as to when the apparent anomalies in ATS Category performance first manifested. However, the following graphs suggest that the anomalies were significantly more pronounced throughout 2011.

4.19 Figure 4.5 shows the number of Emergency Department presentations with wait times that match the ATS Category threshold times between 2009 and 2012.
Data anomalies with respect to NEAT time performance have also become apparent. Figure 4.6 shows that there was a significant ‘spike’ in the number of Emergency Department presentations with a total length of stay of exactly 240 minutes from late 2011.

**Figure 4.6:** 2009-2012 Emergency Department presentations with wait times that match NEAT threshold

On the basis that the distribution of patient waiting times for the identified ATS categories was unusual, the Health Directorate commenced an internal investigation into the data anomalies with a view to ascertaining if the AIHW’s concerns were valid. In the course of these investigations, an executive at the...
Canberra Hospital met with the Director-General of the Health Directorate and admitted to manipulating hospital records with respect to the Canberra Hospital's Emergency Department performance.

4.22 Following the executive’s admission to the Director-General of the Health Directorate that they had manipulated Emergency Department hospital records, the Health Directorate engaged Pricewaterhouse Coopers (PWC) to conduct a more thorough investigation into the matter. PWC was engaged to ‘provide forensic services to determine the integrity of emergency department (ED) records and processes, and other information assets with the ACT Health Directorate.’

**DATA MANIPULATION**

4.23 Hospital records within EDIS have been changed to misrepresent the performance of the Canberra Hospital Emergency Department. EDIS patient records have been accessed and the ‘time seen’ fields changed in order to bring the record within identified timeliness performance requirements, e.g. ATS category timeliness targets or the NEAT.

4.24 PWC has concluded that approximately 11,700 records (6 percent of total records) were changed to or below the KPI threshold limit. This relates to approximately 10,200 ATS category changes and 781 NEAT record changes.

4.25 The following figures demonstrate the total number of changes to EDIS records, which have been made to improve timeliness performance. This includes all changes that have been made to EDIS records which have improved performance, irrespective of whether the change has resulted in a reported time that exactly met the ATS Category timeliness target (e.g. 10 minutes for ATS Category 2 and 30 minutes for ATS Category 3) or the NEAT.
Based on PWC’s analysis, Audit notes that:

- between 2009 and 2012, a significant number of changes were made to Canberra Hospital EDIS records, which improved reported performance against timeliness performance indicators, including ATS categories and the NEAT;

- a proportion of the changes to Canberra Hospital EDIS records can be attributed to Canberra Hospital administrative staff through the use of specifically attributable EDIS login IDs. Testing on the appropriateness or otherwise of these changes has not been conducted as it is assumed that these changes were made as part of the ‘data validation’ processes that were described in Chapter 3 of this report;

- between 2009 and 2012 a proportion of changes to Canberra Hospital EDIS records have been made using generic EDIS login IDs, including the NURSE, DOCTOR, CLERK and BEDMAN login IDs. As noted in Chapter 3 of this report, it is not possible to identify individual users who made changes to EDIS records using these accounts or the appropriateness or otherwise of these changes; and
from 2011 to early 2012 the generic NURSE login ID was used extensively to make changes to EDIS records. Between January 2011 and March 2012, the generic NURSE login was used to make changes to between 400 and 1000 records a month.

**Person or persons involvement in changing hospital records**

4.27 Audit interviewed the executive who initially admitted to changing the hospital emergency department performance records. The executive made an admission to Audit, on affirmation pursuant to section 14A of the *Auditor-General Act 1996*, that they had deliberately changed EDIS records to misrepresent performance.

4.28 The executive admitted to primarily using the generic NURSE login ID to:

- change EDIS records to improve reported performance of ATS categories and the NEAT;
- change EDIS records from late 2010 onwards; and
- change EDIS records for ATS categories and the NEAT so that the reported time that the patient was seen was exactly on the relevant time threshold (e.g. 30 minutes for ATS Category 3 or 60 minutes for ATS Category 4).

4.29 The executive advised that they may have also made some changes to EDIS records using the BEDMAN login ID.

4.30 Audit notes that changes to EDIS records had been made in 2009 and early 2010. The executive stated that they had made changes to EDIS records from late 2010, at a time when there was significant planning activity associated with the impending restructure of the Canberra Hospital and the Health Directorate.

4.31 Audit also notes that the executive admitted to making approximately 20 to 30 changes to hospital records each day. This appears to fall short of the number of records that have been changed on some days. For example, up to 120 records had been changed using the generic NURSE login ID on some days.

4.32 Audit notes that changes to EDIS records, albeit a much smaller number, appear to have been made on days when the executive was on leave (seven days in total in 2010-11 and early 2011-12). Information from Shared Services ICT indicates that EDIS cannot be accessed remotely and may only be accessed by computer terminals on the Health Directorate network, that is, computer terminals on Health Directorate premises. Accordingly, changes to EDIS records may only be made by a person who is physically located on the Health Directorate premises.

4.33 On one of the seven days that the executive was on leave, hospital security records show that the executive’s access pass was used to enter hospital premises. On the other six days, hospital security records do not have a record of the executive’s pass being used to enter hospital premises.
4.34 Chapter 3 of this report identified the very poor system and user access controls in place over EDIS. The very poor EDIS user access and system controls and the very poor audit log function means that it is not possible to identify, based on EDIS records, the person or persons who may have deliberately changed the EDIS hospital records.

4.35 While an executive at the Canberra Hospital has admitted to making changes to EDIS records, Audit concludes that it is likely that other persons have also changed EDIS records with a view to improving the reporting of timeliness performance. In support of this, Audit notes:

- changes to EDIS records had been made using a number of different generic EDIS login IDs, with the executive only admitting to using two of these, most frequently the NURSE login and on some occasions the BEDMAN login;
- changes to EDIS records, albeit a smaller number, had been made on days when the executive was absent from the hospital premises; and
- changes to EDIS records occurred as early as 2009 and in early 2010, while the executive had only admitted to making changes from late 2010 onwards.

**IMPLICATIONS FOR PERSON MANIPULATING HOSPITAL RECORDS**

4.36 The executive’s admission to Audit that they have changed hospital records to misrepresent actual performance means that there is a serious issue as to whether they have breached their obligations set out in section 9 of the Public Sector Management Act 1994 (PSM Act) (which this report refers to as the ACT Public Service Code of Ethics).

**Public Sector Management Act 1994**

4.37 The PSM Act sets out the expectations that the government and community have about the professionalism and probity of the ACTPS and the important values and principles that guide public administration. A failure to comply with section 9 is misconduct under the PSM Act.

4.38 Section 9 of the PSM Act requires that, in performing their duties a public employee must, *inter alia*:

(a) exercise reasonable care and skill;

(c) act with probity; and

(k) not take, or seek to take, improper advantage of his or her position in order to obtain a benefit for the employee or any other person.

4.39 The actions of the executive involving the manipulation of hospital records to misrepresent performance is inappropriate and improper conduct.
4.40 There is a serious issue as to whether the executive breached the Code of Ethics and engaged in misconduct. Appropriate consideration should be given by the Director-General of the Health Directorate, in consultation with the ACTPS Head of Service, to discipline action being taken according to the applicable misconduct procedures under the PSM Act.

**ACTPS Integrity Policy**

4.41 The ACTPS Integrity Policy was implemented in 2010. The policy ‘is designed to protect public money and property, protect the integrity, security and reputation of our public sector agencies while maintaining a high level of services to the community consistent with the good government of the ACT.’ The policy is specifically aimed at chief executives and senior managers, as well as Senior Executives Responsible for Business Integrity Risk, who have specific roles and responsibilities with respect to managing and responding to risks to integrity.

4.42 The policy defines fraud as:

...taking or obtaining by deception, money or another benefit from the government when not entitled to the money or benefit, or attempting to do so – this includes evading a liability to government.

4.43 The policy defines corruption (in relation to an employee) as:

The employee seeks, obtains or receives any benefit, other than lawful salary and allowances, on the understanding that the employee will do or refrain from doing anything in the course of their duties or will attempt to influence any other employee on behalf of any other person.

4.44 Offences of fraud or corruption against the Territory may be prosecuted under a number of different laws, including the *Criminal Code 2002* (ACT). Fraud against the Territory may include (but is not limited to):

- unlawful use of, or obtaining property, equipment, material or services;
- misuse of Territory assets, equipment or facilities;
- obtaining money or benefit from the Territory by false pretences or by false representation; and
- defrauding the Territory.

4.45 Audit is advised by the ACT Health Directorate that the actions of the executive are unlikely to meet the threshold as fraud or corruption under the ACTPS Integrity Policy.

**The executive’s employment contract**

4.46 The executive signed an executive employment contract with the ACT Head of Service under section 72 of the *Public Sector Management Act 1994*. The executive employment contract requires the executive to:

a) comply with the Performance Agreement;
b) carry out all duties as may be directed from time to time by the Employer; and  
c) comply with section 9 of the [Public Sector Management Act 1994],  
provided that any duties or objectives that the Executive shall be required to carry  
out or achieve shall be consistent with section 9 of the [Public Sector  
Management Act 1994] and the other laws of the Territory.

4.47 Clause 10.1 of the contract allows the Australian Capital Territory to terminate  
the contract for a number of reasons, including *inter alia*:

- if, in the reasonable opinion of the employer, the executive is guilty of any  
  misconduct (other than gross misconduct); and
- if, in the reasonable opinion of the employer, the executive has failed to  
  comply with the terms of the contract.

4.48 Clause 10.3 of the contract allows the Australian Capital Territory to terminate  
the contract without notice for gross misconduct.

4.49 Audit sought advice from the ACT Commissioner for Public Administration as to  
what may amount to gross misconduct for the purpose of terminating the  
executive’s contract. The Commissioner for Public Administration advised *inter  
alia*:

In general, in the event consideration were being given to applying clause 10.3 of  
the standard executive contract, then it would be necessary for the Director-  
General in consultation with Head of Service to determine that the conduct was  
indeed gross misconduct, as distinct from misconduct which is also a prescribed  
reason for termination (albeit in a different process and time frame). The  
decision-maker would also need to ensure that the usual matters of procedural  
fairness had been observed. In other words, that an appropriate investigation  
had been undertaken and that it is clear as a result that there has been gross  
misconduct, that the relevant outcomes of the investigation were given to the  
executive concerned and that the executive was given an opportunity to  
comment and that any comments made were considered. All of the  
circumstances need to be taken into account by the decision-maker.

In respect to what constitutes gross (or serious) misconduct, this is often  
characterised as misconduct that is so damaging to the organisation that the  
employment relationship must end immediately.

**MOTIVATION FOR DATA MANIPULATION**

4.50 The executive who admitted to manipulating the emergency department  
performance records provided a rationale for making the changes to Audit, on  
affirmation pursuant to section 14A of the *Auditor-General Act 1996*.

4.51 The executive advised that:

- initial changes to records that were made in late 2010 were made primarily  
  because of the executive’s fears for the executive’s job, and the jobs of  
  others, due to the impending restructure of the Health Directorate and  
  Canberra Hospital; and
Data manipulation at the Canberra Hospital

- changes made to records throughout 2011 and early 2012 were made because of significant managerial pressure that was placed on the executive to improve the publicly reported performance of the Emergency Department.

**Rationale for changing records in late 2010**

4.52 With respect to changes made to hospital records in late 2010, the executive advised Audit that:

In 2010 [an executive] advised me that unless the triage performance improved a number of jobs would go as part of the restructure. I understood that to mean [their] job, [another executive’s] job, my job and [a senior manager’s] job. Some – a small amount of data was manipulated at that point, just the Category 3s.

4.53 The executive also stated:

It [the data manipulation] started leading up to the restructure when that kind of increasingly immense pressure around the restructure would be the opportunity for people – that where people would lose their jobs because the triage performance was so poor. So it was then that it started.

... It was an increasing feeling in the environment at the time about – as part of the, kind of, looming restructure – that this was a time when people may not – this was an opportunity that people that were not performing would not perhaps have a job, as part of that restructure.

4.54 Audit notes the executive’s perception as to the environment that was in place at the time of planning for restructure. However, the Health Directorate advise that there was consultation with staff over a period of six months during which time it was repeatedly stated that no positions would be made redundant as part of the restructure.

**Rationale for changing records throughout 2011 and early 2012**

4.55 With respect to changes made to hospital records throughout 2011, the executive advised Audit:

The whole organisation at a senior level is focused on performance. It’s seen – it’s seen as an imperative politically to ensure that we meet the target and I think people felt at different levels increasing pressure that needed to be met.

4.56 With respect to changes made to hospital records throughout 2011, the executive also advised Audit of the following:

It’s an extremely high pressure environment. People work a little bit under the pressure that inability to meet performance indicators will result in, I guess, up to and including things like losing your job.

4.57 In response to Audit’s question ‘were people actually removed from their jobs because they didn’t meet these performance indicators?’ the executive advised:

I’ve gone through a handful of general managers and clinical – yes.
4.58 In response to Audit’s question ‘there’s a correlation between not meeting these targets and people actually losing their jobs?’ the executive responded ‘yes’.

4.59 In response to Audit’s question ‘[is it] the work environment pressure of high level performance that’s been the motive?’ the executive responded ‘yes’. Audit also notes that, as part of PWC’s investigation into the matter, the executive advised PWC that ‘the only thing that worked to achieve benchmark targets was to alter the data.’

**Direct or indirect instruction or influence to change records**

4.60 In response to questioning from Audit as to whether the executive had ever received any direct or indirect instruction or influence to change hospital records, the executive advised that they had not.

4.61 Audit conducted a series of interviews with key Health Directorate personnel under oath or affirmation pursuant to section 14A of the *Auditor-General Act 1996*. Audit conducted interviews with:

- Health Directorate personnel in the executive’s line of reporting, up to and including the Director-General of the Health Directorate;
- the Minister for Health; and
- a family member of the Minister for Health, who has a close personal connection with the executive.

4.62 All of the people interviewed advised Audit, under oath or affirmation, that they had not provided any direct or indirect instruction or influence to change hospital records.

4.63 Audit also notes that PWC, as part of its forensic investigation, reviewed email records of the executive. There was no evidence in the email records of any direct or indirect instruction or influence to change hospital records. Audit found no evidence in any other fieldwork activities, which suggested there was direct or indirect influence to change hospital records.

**Statement by the executive**

4.64 Audit invited the executive to provide a written statement for the purpose of the audit. The executive provided a written statement on 22 June 2012. The statement has been reproduced in full as follows:

Thank you for the opportunity to provide a written statement.

To the best of my recollection I first commenced altering the EDIS data in 2010. This continued and then increased throughout 2011 and 2012 as the pressure to demonstrate improved performance increased and my feelings of being trapped and fearful increased.

I am very sorry to be so vague about dates and times; it is not with any intent to be difficult or to cast blame or suspicion on anyone else. I accept full responsibility for all the data alterations. I
I have struggled to recall exact dates etc as I spent most of the time trying not to too consciously think about it. In regard to the actual altering of the data, at the time I tried to block it out.

In trying to understand how it came to this for me... While accepting it does not excuse or in any way mitigate my actions the feelings of fear, isolation and distress I was experiencing clouded my judgment and my reality. I am very ashamed and so very sorry.

The environment in the Executive at Canberra Hospital has increasingly become one where I felt fearful for myself and for other people that I work with.

Having been constantly told things like “Fix the numbers”, “I don’t care if you have to go down and stand at triage yourself to make sure they are referring patients to the Walk In Centre, get it done”, “I have told the Minister that we will be at 70% of patients being seen on time by December so make sure it happens” and “Your staff are not able to do their jobs and show no leadership” I could see no way out. I kept hoping that all the initiatives we were doing to improve ED would have an effect on the performance data and that I could stop.

I did not alter the EDIS data with any thought of personal or financial gain. I foolishly and stupidly did it in an attempt to protect myself and the staff who I work with. It is as simple, and as complicated, as that.

Clearly there are other people better placed than me to provide advice on how to reduce the risk of this happening again. From a data integrity perspective access to the system should be much more securely locked down. There should be a requirement for any data entry/alteration to be tied to a personal log on via a mechanism such as proximity card access as a minimum to ensure a more transparent audit trail. We should be very clear that all electronic information management information systems in Health are there to support eh work of delivering patient care, not become the work.

From a cultural perspective it would be good to see a more balanced approach to measuring the delivery of quality patient care in an environment that supports staff to do so and where we are collectively responsible for delivering that care. Where demonstrated quality outcomes such as re-presentation rates, hospital acquired infection rates and patient experience are at least as important, if not more so, than numerical measurements. Not only does this better demonstrate excellent care delivery, but experience in the literature from other jurisdictions demonstrates the more the focus is on purely a numerical figure as a measure of good patient outcomes the higher the likelihood of the figures being altered to reflect that.

I am so very sorry for everything.

Thank you.

Organisational change and performance improvement at the Canberra Hospital

4.65 As noted in the preceding sections, the organisational restructure that was underway at the Canberra Hospital in late 2010, followed by an increasing focus on performance achievement at the Canberra Hospital throughout 2011, is cited by the executive as reasons for why they manipulated EDIS records.

4.66 The executive identified that the constant and sustained focus on meeting quantitative performance targets was a key motivation for manipulating the
data. The executive advised Audit that, throughout 2011, monthly scorecard meetings were held where performance against indicators was discussed. The executive also advised Audit that:

I was expected to report on a daily basis...how we were tracking on a kind of daily, weekly and year to date against triage category for our access block. And why we weren’t meeting the target and how many extra we needed to see in any given day to meet the target.

Organisational change at the Canberra Hospital

4.67 Following the Health Directorate restructure in early 2011, an organisational change management agenda was implemented at the Canberra Hospital, which sought to drive improved performance at the Canberra Hospital. Improving performance and accountability for performance against publicly reported performance indicators was a key focus of this organisational change process. The current supervisor of the executive who manipulated hospital records was a key driver of organisational change at the Canberra Hospital.

4.68 Audit spoke with a number of Health Directorate staff in order to ascertain the type of work environment of the executive. The management style of executives who had either directly or indirectly supervised the executive was considered an issue by some staff.

4.69 Some staff asserted that the executive’s supervisor demonstrated inappropriate managerial behaviours.

4.70 Other staff gave credit to the executive’s current supervisor as having made a valuable contribution to the Canberra Hospital and the Health Directorate in general. Positive feedback has been provided with respect to this person’s strategic planning, operational management and coordination, financial management and communication and collaboration.

4.71 While no formal complaints were made regarding the executive’s supervisor’s behaviours, the Director-General of the Health Directorate was made aware of staff concerns in relation to two events and various actions have occurred, including:

- facilitated discussions between the supervisor and staff, which sought to identify and talk through the staff’s concerns in order to develop a shared understanding of the issues and a potential resolution; and
- additional support and executive counselling for the supervisor to improve their communication.

4.72 Organisational change can be challenging and confronting for staff. In relation to the organisational change process underway at the Canberra Hospital, one of the people spoken to by Audit stated:

The hospital is very resistant to outsiders coming in, very resistant. In a way, it’s a very protected community and it has developed from a small
regional hospital, you know, the Woden Valley Hospital, to the major
tertiary referral centre for the region. And one of the challenges...is
whether the change has happened as it’s needed to for staff to move into
that much more professional high-pressure dynamic organisation.

4.73 Audit notes that the current supervisor is an ‘outsider’ with a direct, task driven
and high pace managerial style. Audit also notes that the executive has admitted
to manipulating data prior to the appointment of the current supervisor.

Statement by the executive’s supervisor

4.74 Audit invited the executive’s supervisor to provide a written statement for the
purpose of the audit. The supervisor provided a written statement on 24 June
2012. The statement has been reproduced in full as follows:

I fully believe that the fraudulent behavior in relation to the alleged ED data manipulation
commenced before I started with the organisation. I would suggest that this is aligned to what I
believe has been a disregard for many aspects of local governance, effective systems, efficient
processes and culture. The new leadership team has been implementing many improvements to
address these issues.

I propose that as I tried to improve CHHS and bring more accountability and transparency, that
the alleged person become more stressed, I now recognise as we improved it became more
difficult to maintain this alleged fraudulent behavior.

I consider that this was very evident in the months previous to the full disclosure by the alleged
staff member. I feel that behaviors of this individual had a hugely negative impact on the
executive team and myself. I also believe that if this alleged person had stopped manipulating the
data at any point then the alleged deception would have been identified.

From my time within the organisation I advocate that the improvements needed across CHHS are
of a major nature and as with any considerable change some staff will agree with and support
what we are doing and some will not.

My intentions have always been to lead CHHS to establish new safe and effective processes and
ways of working to ensure a modern, flexible and responsive health services. To support me in
doing this a programme of development and support has been put in place and I have not
interpreted that this is in any way as a punitive measure.

I strongly advocate that all executives require and indeed expect their organisation’s to provide
programme’s that form a key part of an ongoing developmental approach to leadership at all
levels and indeed is one of the most important components to aid long-term effectiveness.

I am pleased to say we are seeing many improvements in many areas, and I am sure that the
community we serve fully expects a modern, flexible and responsive health services. I am also
reassured by the support from many colleagues as to some of the earlier work that we have
implemented that is now demonstrating positive outcomes such as ensuring that clinicians have a
strong voice in decision making processes. The recent staff survey also identified these
improvements and I believe that there is an appetite for clear leadership from staff who want to
do the best job that they can do and be empowered and supported to do so.

4.75 There is insufficient evidence for Audit to identify whether the executive’s supervisor has or has not displayed inappropriate workplace behaviours. Audit considers that the action being taken by the Director-General regarding issues raised is appropriate and that the situation should be monitored.

BREACH OF EMPLOYMENT CONDITIONS

4.76 The executive who has admitted to changing hospital records has done so since late 2010 in a systematic manner under two different supervisors. While manipulating the data may have been considered by this person as the only way to achieve performance targets, it is inappropriate, especially given their seniority and role. Audit considers that consideration should be given by the Director-General of the Health Directorate, in consultation with the ACTPS Head of Service, as to whether this executive has engaged in misconduct in breach of section 9 of the Public Sector Management Act 1994 and whether termination of employment is warranted.

4.77 Audit considers that the actions of the executive who has admitted to manipulating hospital records is seriously inappropriate and improper conduct. Consideration should be given by the Director-General of the Health Directorate, in consultation with the ACTPS Head of Service, as to whether this amounts to gross misconduct for the purposes of the terms of their contract.

Recommendation 9 (Chapter 4)

The Director-General of the Health Directorate and the ACTPS Head of Service note the findings of this report with respect to the executive who has admitted to manipulating hospital records, and consider whether this executive has engaged in misconduct in breach of section 9 of the Public Sector Management Act 1994 and their executive contract.

Recommendation 10 (Chapter 4)

The Health Directorate reinforce to Health Directorate employees, especially executive staff, the need to act with integrity with respect to the maintenance of health records and associated data.
APPENDIX A: AUDIT CRITERIA, APPROACH AND METHOD

AUDIT OBJECTIVE

The objective of the audit was to provide an independent opinion to the ACT Legislative Assembly on:

- the circumstances associated with the alleged misreporting of Canberra Hospital Emergency Department performance information;
- the effectiveness of the Health Directorate’s systems and processes for reporting Emergency Department performance information; and
- the financial implications for the Territory associated with any potentially misreported Emergency Department performance information.

SCOPE

When examining the circumstances associated with the alleged misreporting of Canberra Hospital Emergency Department, the audit sought to determine:

- whether there was evidence of deliberate manipulation of performance information by any person or persons; and
- whether there was evidence of any direct or indirect influence on any person or persons to manipulate performance information.

When examining the effectiveness of the Health Directorate’s systems and processes for reporting Emergency Department performance, the audit sought to examine whether existing systems and processes are effective to produce accurate and reliable performance information. This included consideration of:

- the appropriateness of administrative roles and responsibilities for producing performance information;
- the effectiveness of policy and procedural guidance for the preparation and reporting of performance information;
- the effectiveness of management information systems for the preparation and reporting of performance information, including the effectiveness of system access controls;
- the effectiveness of monitoring, review and other assurance arrangements associated with the preparation of performance information.

For completeness, and with the agreement of Calvary Health Care ACT Ltd, the audit also included consideration of Emergency Department performance information within the Calvary Public Hospital.
OUT OF SCOPE

The audit did not examine the effectiveness of the Health Directorate’s systems and processes for reporting other performance information.

AUDIT APPROACH AND METHOD

The performance audit was conducted under the authority of the Auditor-General Act 1996, and in accordance with the principles, procedures, and guidance contained in Australian Auditing Standards relevant to performance auditing. These standards prescribe the minimum standards of professional audit work expected of performance auditors. Of particular relevance is the professional standard on assurance engagements - ASAE 3500 Performance Engagements.

The audit took into consideration the findings and recommendations of the forensic investigation that was being undertaken by PricewaterhouseCoopers (PwC) on behalf of the Health Directorate.

The audit process included:

- a review of governance and administrative documentation associated with the preparation and reporting of performance information, including policy and procedural guidance;
- walk-throughs and documentation of processes for the preparation and reporting of performance information;
- examination and testing of relevant performance information (subject to the consideration of workpapers and other documentation associated with the forensic investigation);
- discussions with relevant Health Directorate staff and Calvary Public Hospital staff associated with the preparation and reporting of Emergency Department performance information; and
- discussions with other persons associated with the potential misreporting of Canberra Hospital Emergency Department performance information.

The audit involved exercising section 14A of the Auditor-General Act 1996. Section 14A of the Auditor-General Act allows the Auditor-General to require a person to answer questions under oath or affirmation.

The audit was conducted with the assistance of Oakton, which provided advice with respect to ICT systems and practices.
## AUDIT REPORTS

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