

Health and Alberta Health Services — Select Electronic Health Record Processes Follow-Up

BACKGROUND

In 2009 we conducted an audit of select electronic health record processes, which focused on the Department of Health's and Alberta Health Services' processes for managing the implementation of electronic health record systems.

Electronic health records are a collection of health data from various sources which is stored in many systems that reside in many locations throughout the province. These systems are under the control and direction of multiple organizations. The scope of our audit was limited to examining whether the department implemented the recommendations we made in 2009, which included elements of governance, project management and IT security. Our audit did not examine the processes at non-government entities such as clinics, pharmacies and laboratories. We did not examine the department's processes for planning and budgeting new initiatives, nor did we evaluate the implementation of the overall electronic health record strategy.

When we refer to electronic health record systems, we refer only to systems within the scope of our original audit.

EHR consists of repositories of information about patients, health care providers and health care facilities. It has data systems including lab test results, diagnostic images and prescription information. These systems exist in multiple locations under the controls of multiple organizations, including the Department of Health and Alberta Health Services. Data flows between these systems and is presented to the end user through a portal called Netcare.

Our audit was conducted in accordance with the *Auditor General Act* and the standards for assurance engagements set by the Canadian Institute of Chartered Accountants.

This section reports on the results of our follow-up of the three recommendations we made during our original audit that the department and AHS have implemented.

FINDINGS AND RECOMMENDATIONS

The department and Alberta Health Services have fully implemented three of our four recommendations. They have improved the governance structure of the electronic health record steering committees and the integration between their strategic and delivery plans. The department also improved its processes to monitor and report on costs, timelines and progress of projects. The department has also improved processes to conduct monthly audits of Netcare logs.

The department has not yet fully implemented our recommendation to follow its own policies for creating and removing user accounts in Netcare. This recommendation is distinct from the recommendation on monitoring Netcare logs, which we concluded is implemented. While our concerns relating to monitoring

Netcare logs have been resolved, management has not yet improved its processes for creating user accounts in Netcare and removing them when access is no longer required. We will follow up and report on this recommendation when management indicates it is implemented, which is expected to be complete by 2015.

Oversight and accountability for electronic health records—implemented

Background

In October 2009 we recommended that the Department of Health and Alberta Health Services improve oversight of their electronic health record systems by:¹

- maintaining an integrated delivery plan that aligns with the department's strategic plan
- improving systems to regularly report costs, timelines and progress

Our audit findings

The department and AHS implemented our recommendation by:

- improving the governance model for monitoring EHR initiatives
- having a documented plan that connects objectives and priority of individual projects to the department's five-year IT plan
- establishing a process to provide governance committees with information they need for decision making

Improved governance model

The department improved the IT governance structure by creating the Health Information Executive Committee, of which AHS is a member, to provide strategic direction for information technology at the provincial level. The department also created the EHR Sponsors Committee to oversee initiative steering committees, monitor progress of all initiatives and identify risks and issues across initiatives. Seven steering committees monitor individual initiatives and report to the EHR Sponsors Committee.

Aligning integrated delivery plan with strategic plan

The department implemented our recommendation to integrate their strategic and delivery plan by approving a five-year IT plan, which functions as their strategic plan. The five-year IT plan summarizes the provincial health system IT commitments from 2011 to 2016, and identifies several programs and initiatives. The department and AHS also developed a consolidated business case for all the EHR information systems, which they use as their delivery plan; it is aligned with the priorities of the five-year IT plan.

Improving systems to regularly report costs, timelines, progress and outcomes

The department and AHS now manage EHR costs at the operational level and have implemented a process to keep governance committees informed about projects that are not on track or need a change of scope.

Each project team holds regular status meetings for individual projects. The department's EHR delivery services division consolidates the project teams' status report and provides them to the EHR sponsors committee monthly and focuses on projects where teams expect to encounter issues with budget, schedule or scope. During this process, when a project team, either from the department or AHS, identifies resource priorities or risks that could affect its expected deliverable, the team informs the initiative steering committee responsible for that particular project. For projects that require changes to

¹ Report of the Auditor General of Alberta—October 2009, no. 6, page 73.

delivery schedules, budget or scope, the initiative steering committee will ask the EHR sponsors committee to make a decision based on the team's recommendation and rationale.

At the operational level, all project teams meet bi-weekly to discuss the status of each project so that teams identify challenges and dependencies among them, and actions needed for fixing these challenges and dependencies. Twice a year, managers from the department's EHR delivery services division prepare an EHR release planning document based on the information gathered from the project team's bi-weekly meeting reports.

Project management—implemented

Background

In our October 2009 report we recommended that the Department of Health follow established project management standards for electronic health record initiatives and projects.²

Our audit findings

The department has implemented a number of project management processes, including producing business cases to justify developing new components or enhancements to existing EHR systems. The department tracks the cost of all projects at the project level and provides information to relevant initiative steering committees if projects are not on time, are not meeting cost estimates or need scope changes. It developed quality management plans that outline how management should review project deliverables and how it should document project progress.

Each project has bi-weekly status reports that include variance explanations if deliverables are late and describe the effects delays have on specific milestones of the projects. The department has improved documentation and records management and have sign offs for project deliverables. Project managers regularly update risk assessments of projects as part of bi-weekly status reports.

Monitoring the EHR—implemented

Background

In October 2009, we recommended that the Department of Health proactively monitor access to the portal (Netcare), through which the electronic health records can be viewed, reviewing it for potential attacks, breaches and system anomalies.³

Our audit findings

The department has drafted new procedures for doing the monthly audits and following up on issues identified during those audits. The process relies on reports generated from logs of Netcare user activity. The procedure requires the analyst to:

- manually select a sample of the activity in the report
- follow up with the appropriate personnel to assess whether any suspicious activity is appropriate
- summarize and report the results of the monthly audits to the EHR Data Stewardship Committee

The department has implemented a technological solution to give them better access to the log data to ensure they can consistently generate the Netcare log reports and perform the monthly audits. As of May 2013, the analyst had completed two audits following the new procedures.

² *Report of the Auditor General of Alberta—October 2009*, no. 7, page 75.

³ *Report of the Auditor General of Alberta—October 2009*, no. 8, page 78.

