

Health — Alberta Health Services — Managing Healthcare Waste Materials Follow-up

SUMMARY

What we examined

In 2012 we audited Alberta Health Services' systems to manage the handling and disposal of healthcare waste materials. For purposes of this report, the term "healthcare waste" includes biomedical and chemical waste as defined by AHS.¹

We made four recommendations in our July 2012 report.² In 2015 we conducted follow-up work to assess whether these recommendations have been implemented.

Overall Conclusion

Alberta Health Services has implemented all four recommendations.

What we found

AHS has:

- assigned the responsibility for oversight of healthcare waste at all AHS sites to its Linen and Environmental Services (LES) branch/function
- developed standardized waste management policies and procedures, and implemented monitoring and analysis of its compliance at AHS sites that produce large volume of healthcare waste
- developed an invoice verification process and started to implement it across large volume producing sites
- developed a process to assess the risk associated with the management of healthcare waste at contracted sites

Why this is important to Albertans

AHS's direct cost of managing healthcare waste materials is \$3 million.³ This expense is not a significant item in AHS's total annual budget of more than \$13.50 billion⁴ for 2014–2015. However, there are other significant risk factors:

- Health risk—infection or injury from direct contact with biomedical waste and other hazardous waste by patients, healthcare workers, hospital visitors, cleaning staff, waste collectors, processors, recyclers and the general public
- Environmental risk—healthcare waste materials may contain substances that are infectious, toxic, flammable, explosive, corrosive or otherwise harmful to the environment if not disposed of safely
- Reputational risk—healthcare waste incidents may impact the public's confidence in AHS

¹ Biomedical waste materials include human anatomical waste (body parts), human blood and body fluids, cytotoxic waste (chemotherapy), microbiological waste (laboratory cultures, vaccines) and used sharps (needles, blades and glass). Chemical waste is waste that contains one or a mixture of chemical compounds and is classified as hazardous or non-hazardous (e.g., solvents, reagents, chemical cleaning solutions, paints, fuels).

² *Report of the Auditor General of Alberta—July 2012*, page 14.

³ Numbers provided by LES.

⁴ Alberta Health Services Annual Report 2014-15, Financial Statements, page 132.

<http://www.albertahealthservices.ca/assets/about/publications/ahs-pub-2014-2015-annual-report.pdf>

AUDIT OBJECTIVES AND SCOPE

Our audit objective was to determine if AHS has implemented recommendations from our July 2012 report. In performing the audit we:

- interviewed AHS management and staff
- reviewed relevant documentation on management of healthcare waste
- conducted site visits to six AHS sites and one contracted healthcare provider site in Alberta

We conducted our field work between April and June 2015. We substantially completed our audit work on July 28, 2015. Our audit was conducted in accordance with the *Auditor General Act* and the standards for assurance engagements set out in the CPA Canada Handbook—Assurance.

FINDINGS

Oversight of healthcare waste materials at sites operated by AHS—implemented

Background

In 2012 we recommended that Alberta Health Services establish systems for overseeing management of healthcare waste materials at all AHS sites that generate these materials.⁵

AHS has a large number of sites throughout the province generating various types and volumes of waste. In our 2012 audit we noted that the Environmental Services branch within AHS had oversight responsibility for the management of healthcare waste materials only at AHS's large facilities. Comprehensive provincial oversight of healthcare waste was not in place.

Our audit findings

AHS has implemented this recommendation by assigning the responsibility for overseeing healthcare waste management at all AHS sites to its Linen and Environmental Services function. LES has developed a process for monitoring the types and volume of healthcare waste generated at sites and within programs that are part of, or are funded by, AHS. LES has identified about 900 such sites, which include hospitals, community health centres and clinics, labs and other healthcare facilities.

Waste handling policies and procedures—implemented

Background

In our 2012 audit we recommended that Alberta Health Services improve the handling and disposal of healthcare waste materials at its sites⁶ by:

- standardizing healthcare waste materials handling policies and procedures across sites
- establishing processes to monitor and enforce facility compliance with healthcare waste materials handling policies and procedures, and ensuring chemical waste hazards are promptly remediated
- pursuing more opportunities to reduce, reuse and recycle materials that could enter the healthcare waste stream

⁵ *Report of the Auditor General of Alberta—July 2012*, no. 1, page 15.

⁶ *Report of the Auditor General of Alberta—July 2012*, no. 2, page 16.

In 2012 we found that AHS did not have standardized policies or a training program for managing healthcare waste in the province. No formal program of monitoring was in place to assess whether policies and standards were being complied with at the sites. There were also no formal processes in place or guidance being provided regarding segregating reusable/recyclable materials from the general waste stream.

Our audit findings

AHS has implemented this recommendation. Linen and Environmental Services has developed standardized policies and procedures for healthcare waste management and is implementing a compliance monitoring process. LES is also working on developing a provincial waste management framework that would include a recycling strategy.

Standardizing healthcare waste materials handling policies and procedures across sites

AHS developed standardized policies and procedures for healthcare waste management in April 2015.

We visited six AHS sites and one contracted provider site that together generate over 50 per cent of all biomedical waste in the province. We found that the new policy and procedures were deployed at all sites visited, and were incorporated into standard education and training for staff.

Establishing compliance monitoring process

LES developed a process to monitor compliance with policies and procedures for handling healthcare waste materials. It started performing site compliance audits following a formal provincial audit schedule. The audit results are reported to site management and centrally to LES. We noted that LES analyzed audit results available to date and has taken appropriate action on identified deficiencies.

Although the implementation of the new compliance monitoring process is still underway, AHS has a clear plan, the right resources and has made sufficient progress for us to consider this part of the recommendation implemented.

Pursuing more opportunities to reduce, reuse and recycle materials that could enter the healthcare waste stream

LES is working on a provincial waste management framework that would include a recycling strategy for AHS. In addition, LES is developing a recycling toolkit that will be available for all AHS and non-AHS sites. The toolkit will provide staff with information, tools (forms, checklists, etc.) and process information on setting up recycling initiatives at their facility, department or unit. We were informed by LES that this toolkit is in the final stages of completion and should be available to AHS staff in August 2015.

Contract management for disposal of healthcare waste at AHS sites—implemented

Background

In our 2012 report we recommended that AHS take steps to improve its contract management processes for healthcare waste⁷ by:

- requiring sites to verify that services have been received before approving vendor invoices for payment
- developing risk-focused systems to monitor healthcare waste management for the purposes of controlling volumes and costs

⁷ Report of the Auditor General of Alberta—July 2012, no. 3, page 19.

In 2012 we noted that sites were not consistently monitoring the amount of waste they sent for disposal. With limited exceptions, there was no process to verify the volume of waste invoiced by the vendor before sites approved payment. In addition, waste volumes were not tracked by the sites in order to evaluate the annual volumes of healthcare waste produced, the cost of disposal, and to analyze individual sites for any outliers or discrepancies.

Our audit findings

AHS has implemented this recommendation. It has developed processes to verify invoices received from vendors for the disposal of biomedical waste. AHS has also started to implement this process across large volume producing sites. It is currently implementing the invoice verification process at all its remaining sites, and performs analysis on relative cost and volume across the sites. Although the implementation of the new invoice verification process is still underway, AHS has made sufficient progress for us to consider this recommendation implemented.

The new process covers two main types of sites, based on waste volume:

Large volume producing sites

Large hospitals are required to record the weight and the number of boxes containing healthcare waste before waste is picked up by the contactors for further processing and disposal (AHS requires all biomedical waste to be incinerated). Site management are required to subsequently verify that contractor invoices match the site's record before approving payment.

Small volume producing sites

Smaller hospitals, community clinics and health centres must follow the same process, but will not be required to record the weight of their healthcare waste. LES has a process to review weight reported on contractor invoices across all sites and then analyze the data for abnormalities.

During our site visits to six AHS hospitals, we noted that four had started to follow the new process. These four sites alone generate approximately 45 per cent⁸ of the total volume of biomedical waste in Alberta. The other two hospitals we visited are in the processes of implementing the new process. In addition, LES is working with the smaller AHS sites to implement the new verification process.

LES has developed a process to track waste volumes. It plans to begin variance (or trend) analysis on its data after it completes the implementation of the new invoice verification processes.

Healthcare waste at contracted health service providers—implemented

Background

In our 2012 report we recommended that AHS assess its risk related to healthcare waste produced by contracted health service providers, and ensure contract provisions manage that risk.⁹

We noted that AHS did not have any systems in place to determine whether and how its contracted service providers were managing risk associated with healthcare waste.

⁸ According to data provided by AHS for 2014–2015.

⁹ *Report of the Auditor General of Alberta—July 2012*, no. 4, page 21.

Our audit findings

AHS has implemented this recommendation. Linen and Environmental Services assessed the healthcare waste management policies and procedures used by contracted healthcare providers and found them to be comparable with AHS's own requirements.

LES established a Waste Management Steering Committee, which includes representatives from the operational and program areas of AHS, its subsidiaries, partners and contracted healthcare service providers. The committee meets monthly. It provides an important mechanism for information sharing and the alignment of healthcare waste management practices. Through this committee, LES, its partners and subsidiaries have established a joint semi-annual inspection schedule and plan to share inspection results across the participating organizations.

