

Chapter 20

Use of Surgical Facilities at Regina Qu'Appelle Regional Health Authority

1.0 MAIN POINTS

Regina Qu'Appelle Regional Health Authority (Regina Qu'Appelle) is responsible for the planning, organization, delivery, and evaluation of health services within its health region. As part of its mandate, Regina Qu'Appelle provides surgical procedures to residents of Regina Qu'Appelle and residents of other southern health regions.

The effective and efficient use of surgical facilities is vital for providing timely surgical services to patients and to help reduce wait times. Utilization of surgical facilities depends on the availability of surgeons, healthcare staff, anaesthesiologists, specialized surgical equipment, and inpatient beds.

Determining the capacity available (e.g., optimal hours of the use of existing facilities), planning for the efficient use of that capacity within available resources (e.g., the suitability of the facility for specific surgical procedures, equipment, and staffing availability), and appropriate scheduling (e.g., balancing patient needs with length of wait times), are crucial to effectively utilize resources and address longer-than-targeted wait times. Regina Qu'Appelle could not tell us how much of its current capacity is used to provide surgical services.

Monitoring and analyzing the actual usage compared to the planned usage of surgical facilities can help Regina Qu'Appelle identify and address reasons that may inhibit the efficient use of existing surgical facilities and identify where and when more resources are needed. Regina Qu'Appelle does not consistently and routinely collect this information.

This audit examined the effectiveness of Regina Qu'Appelle's processes for the efficient use of its surgical facilities from March 1, 2012 to February 28, 2013. Regina Qu'Appelle did not have effective processes to support the efficient use of its surgical facilities; therefore, its ability to provide surgical care in a timely manner could be compromised. This may result in a loss of public confidence in the healthcare system and the uneconomical use of public money.

Regina Qu'Appelle needs to:

- › Have complete, approved standards, policies, and guidance to improve consistency of the scheduling surgical procedures and the use of surgical facilities
- › Develop consistent processes for the composition, review, and approval of surgery schedules to improve the efficient scheduling of surgical procedures
- › Collect and analyze information on the use of surgical facilities to determine factors that inhibit and impact the efficient use of surgical facilities
- › Determine needed actions and implement those actions to improve the efficient use of surgical facilities



- › Monitor progress for efficient scheduling of surgical procedures and report to the Board
- › Establish and use performance measures and targets designed specifically for assessing the efficient use of surgical facilities

In this chapter, we make nine recommendations to Regina Qu'Appelle. On May 7, 2013, management indicated that Regina Qu'Appelle has begun to address these recommendations.

We encourage other regional health authorities to look to the audit criteria and recommendations described in this chapter to assess their own processes for providing surgical services in their regions.

2.0 INTRODUCTION

Under *The Regional Health Services Act*, regional health authorities (RHAs) are responsible for the planning, organization, delivery, and evaluation of health services within their respective health regions. As part of this mandate, RHAs are responsible for the provision of surgical services within their health regions.

The provision of surgical services is an important part of the provincial healthcare system. In 2010, the Ministry of Health (Ministry) released a framework for surgical care entitled *Sooner, Safer, Smarter: A Plan to Transform the Surgical Patient Experience*. To implement this framework, the Ministry created the Saskatchewan Surgical Initiative and developed targets to offer surgical procedures to all patients within six months of patient assessment¹ by 2013, and to all patients within three months of patient assessment by 2014.²

This audit examined the effectiveness of Regina Qu'Appelle Regional Health Authority's (Regina Qu'Appelle) processes to support the efficient use of its surgical facilities. Surgical facilities refers to those facilities – both operating rooms and procedure rooms – that are subject to scheduling by Regina Qu'Appelle. This includes operating rooms and procedure rooms in Regina Qu'Appelle's hospitals, as well as those in privately-operated third-party facilities. Effective management of surgical facilities has a significant role in reducing wait times.

When Regina Qu'Appelle does not have effective processes to support the efficient use of its surgical facilities, its ability to provide timely surgical care could be compromised, which could contribute to a delay in patients receiving surgical procedures and result in a loss of public confidence in the provincial healthcare system.

¹ Saskatchewan Surgical Initiative website; www.sasksurgery.ca, (10 April 2013) - Patient assessment - standardized, two-step process of assessing and classifying patients' need for surgery.

² Saskatchewan Surgical Initiative website; www.sasksurgery.ca, (10 April 2013).

3.0 BACKGROUND

Regina Qu'Appelle is one of the province's largest RHAs, serving a population of over 260,000.³ It also acts as a hub for surgical and specialist services, and patients from other RHAs in southern Saskatchewan are often referred to Regina Qu'Appelle for services that are unavailable in those regions. In its role as a provider of services for residents in southern Saskatchewan, Regina Qu'Appelle provides a large number of surgeries.

Regina Qu'Appelle is involved in the provincial Government's efforts to improve surgical care through reductions in wait lists and a better patient experience. Regina Qu'Appelle has recognized this responsibility in its *Revised 2012 Surgical Initiative Plan*.⁴ Because Regina Qu'Appelle provides surgical services to residents of other health regions, its ability to manage its surgical facilities affects the provincial healthcare system.

3.1 Surgical Funding, Targets and Performance

In 2012-13, the Ministry dedicated an extra \$60.5 million⁵ over RHAs' regular funding to the Saskatchewan Surgical Initiative in order to meet its targets. Regina Qu'Appelle received \$10.7 million⁶ of this funding. It expects to spend \$9.5 million in 2012-13 (see **Figure 1**).

Figure 1 – Breakdown of Number of Surgeries and Funding at Regina Qu'Appelle in 2012-13

| | | Revised Target Number of Surgeries to Perform | Actual Number of Surgeries Performed and Projected* | Funding Provided (Estimated Based on Projection) |
|---|-------------------|---|---|--|
| Ministry of Health Regular Funding | | | | |
| | Day Surgery | 11,465 | 11,465 | \$17,369,475 |
| | Inpatient Surgery | 10,285 | 10,285 | \$109,854,085 |
| Saskatchewan Surgical Initiative Funding | | | | |
| Volume funding | Day Surgery | 1,214 | 1,296 | \$1,963,440 |
| | Inpatient Surgery | 736 | 539 | \$5,757,059 |
| Capital funding | | | | \$1,733,300 |
| Total | | 23,700 | 23,585 | \$135,397,990 |

* Based on actual number of surgeries performed to February 28, 2013 and projected volumes to be performed in March, 2013 (see **Section 3.5**)

Source: Documentation provided by Regina Qu'Appelle Regional Health Authority

In March 2012, Regina Qu'Appelle's original target was for the provision of 24,200 surgical procedures in 2012-13.⁷ In June 2012, Regina Qu'Appelle determined it would need to perform 27,000 surgical procedures to meet the provincial target of completing over 90% of surgeries within six months in 2012-13.⁸ In October 2012, Regina

³ Regina Qu'Appelle Regional Health Authority. *2011-12 Annual Report*, p. 16.

⁴ Regina Qu'Appelle Health Region. *RQHR Revised 2012 Surgical Initiative Plan*. (May 2012).

⁵ Saskatchewan Ministry of Health; *Backgrounder, Saskatchewan Surgical Initiative Funding 2012-13*.

⁶ *Ibid.*

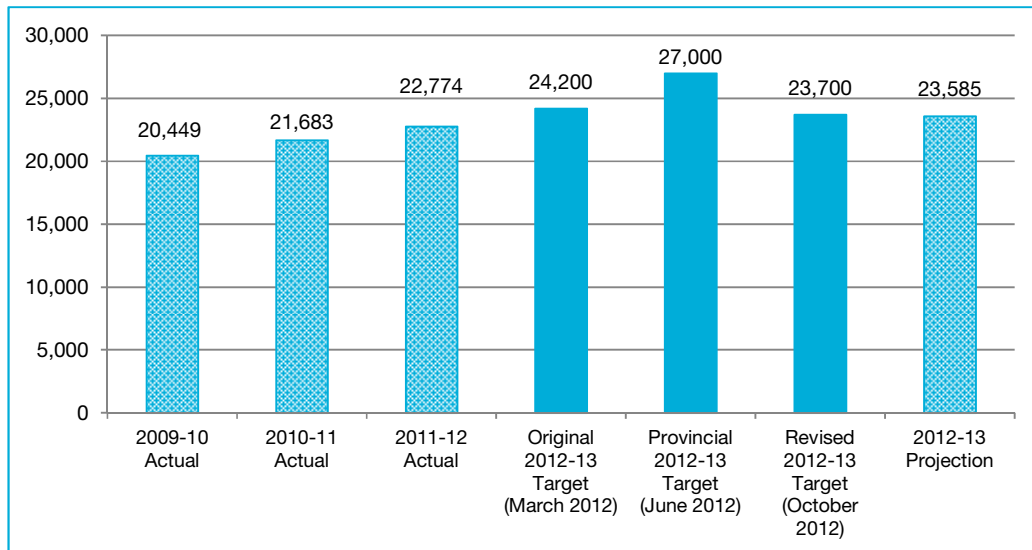
⁷ Regina Qu'Appelle Regional Health Authority; *2012-13 Accountability Document*, p. 14.

⁸ Regina Qu'Appelle Regional Health Authority. *Revised 2012 Surgical Initiative Plan*.



Qu'Appelle worked with the Ministry to set a revised target of 23,700 procedures for the year when it determined that it could not achieve the target of 27,000 surgical procedures. Management advised us that the 27,000 target was unattainable with the available resources. **Figure 2** shows the original and revised 2012-13 targets and the actual procedures projected for the year as well as procedures performed in the previous three fiscal years.

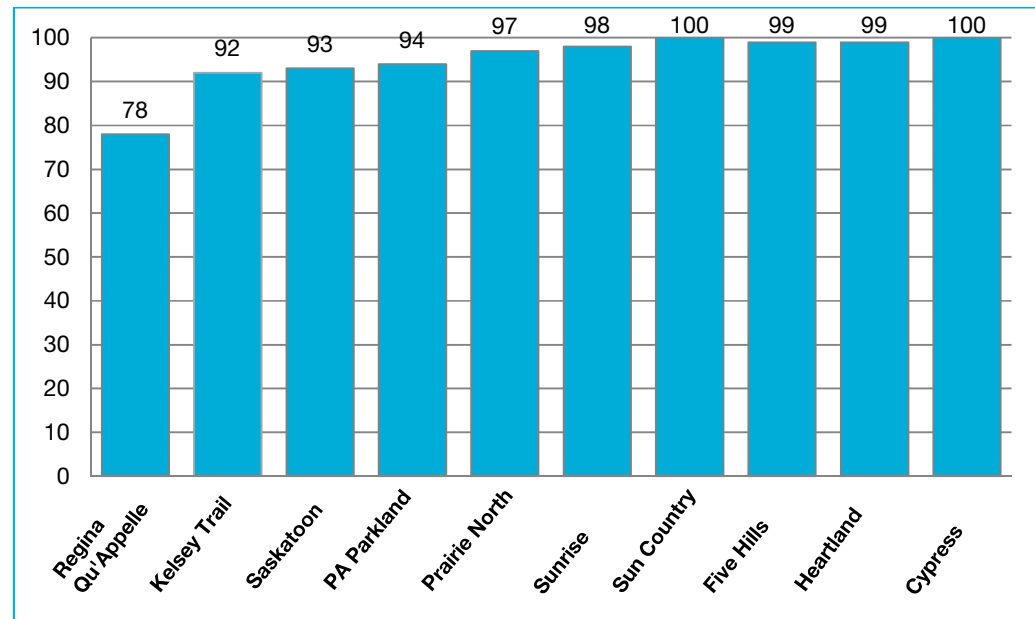
Figure 2—Regina Qu'Appelle Number of Surgical Procedures: Actual, Targets, and Projection



Source: Documentation provided by Regina Qu'Appelle Regional Health Authority

At February 28, 2013, Regina Qu'Appelle was significantly below the provincial six-month surgery target for 2012-13. Regina Qu'Appelle would have needed to complete 27,000 surgical procedures in order to achieve this target. **Figure 3** shows that 78% of patients requiring surgery in Regina Qu'Appelle facilities received their surgery within six months. All other regions provided surgeries within six months more than 90% of the time.

Figure 3—Percentage of All Surgical Procedures Performed within Six Months by Regional Health Authority⁹ at February 28, 2013



Source: Saskatchewan Surgical Initiative website; www.sasksurgery.ca (22 April 2013)

3.2 Surgical Facilities

Regina Qu'Appelle has available 19 surgical facilities¹⁰ in its two hospitals, and seven surgical facilities¹¹ in two privately-operated clinics (external facilities) to provide surgical care to patients. External facilities are used for providing day surgeries only.¹² All are located in the city of Regina. Facilities are also used to provide surgical services paid for by others (e.g., Workers' Compensation Board, Saskatchewan Government Insurance, uninsured services).

These surgical facilities typically run eight hours per day, five days per week. Regina Qu'Appelle has granted surgical privileges to 85 physicians in the region.¹³

Regina Qu'Appelle is responsible for scheduling all insured¹⁴ surgical procedures in all surgical facilities. It also schedules surgical procedures paid for by others in its own surgical facilities. If surgical procedures paid for by others can be provided in an external facility, individual physicians usually arrange the scheduling directly with the external facility.

3.3 Overview of Surgical Procedure Delivery System

To effectively deliver surgical services, Regina Qu'Appelle is responsible for scheduling surgeries in appropriate facilities and allocating surgical facility time to specific surgeons

⁹ Mamawetan Churchill River and Keewatin Yatthé Regional Health Authorities do not routinely provide surgeries. Patients from those two regional health authorities requiring surgery are transported to other health regions for the service.

¹⁰ Regina Qu'Appelle Regional Health Authority Surgical Allocation.

¹¹ Ibid.

¹² Day Surgery – a patient is discharged the same day as the surgical procedure is performed.

¹³ Saskatchewan Surgical Initiative website www.sasksurgery.ca/specialist-information.htm. (11 April 2013).

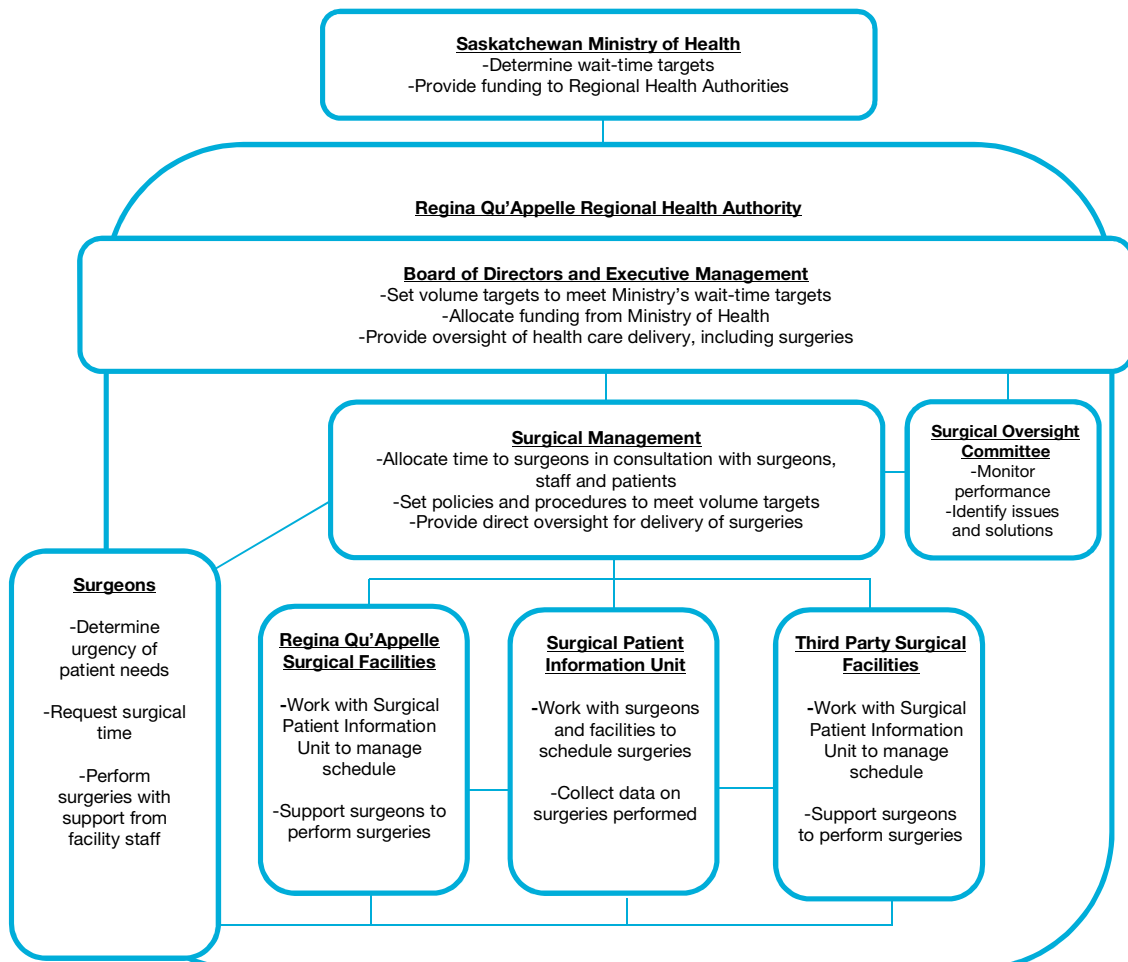
¹⁴ Insured services – medical services covered under *The Saskatchewan Medical Care Insurance Act*.



who have been granted privileges in its hospitals. It is also responsible for coordinating the scheduling of other staff such as nurses and anaesthesiologists, and ensuring that the necessary medical equipment and instruments are available for scheduled surgeries. Scheduling the use of surgical facilities is a vital component of the effective and efficient use of those facilities.

Figure 4 shows how the surgical delivery system generally works. The system for delivering surgical procedures begins with the setting of provincial surgical targets and the provision of funding to deliver those surgical services by the Ministry of Health. Regina Qu'Appelle allocates resources to meet those targets. This requires planning and coordination by Regina Qu'Appelle management, healthcare staff, third party external facilities, and physicians. Regina Qu'Appelle has assigned the planning and coordination for the provision of surgical services to senior management (as described in **Figure 5**). Senior management is responsible for ensuring the plan is executed effectively and efficiently.

Figure 4—System to Plan, Schedule, and Deliver Surgical Procedures



Source: Provincial Auditor of Saskatchewan, April, 2013 (compiled from information provided by the Ministry of Health and Regina Qu'Appelle Regional Health Authority)

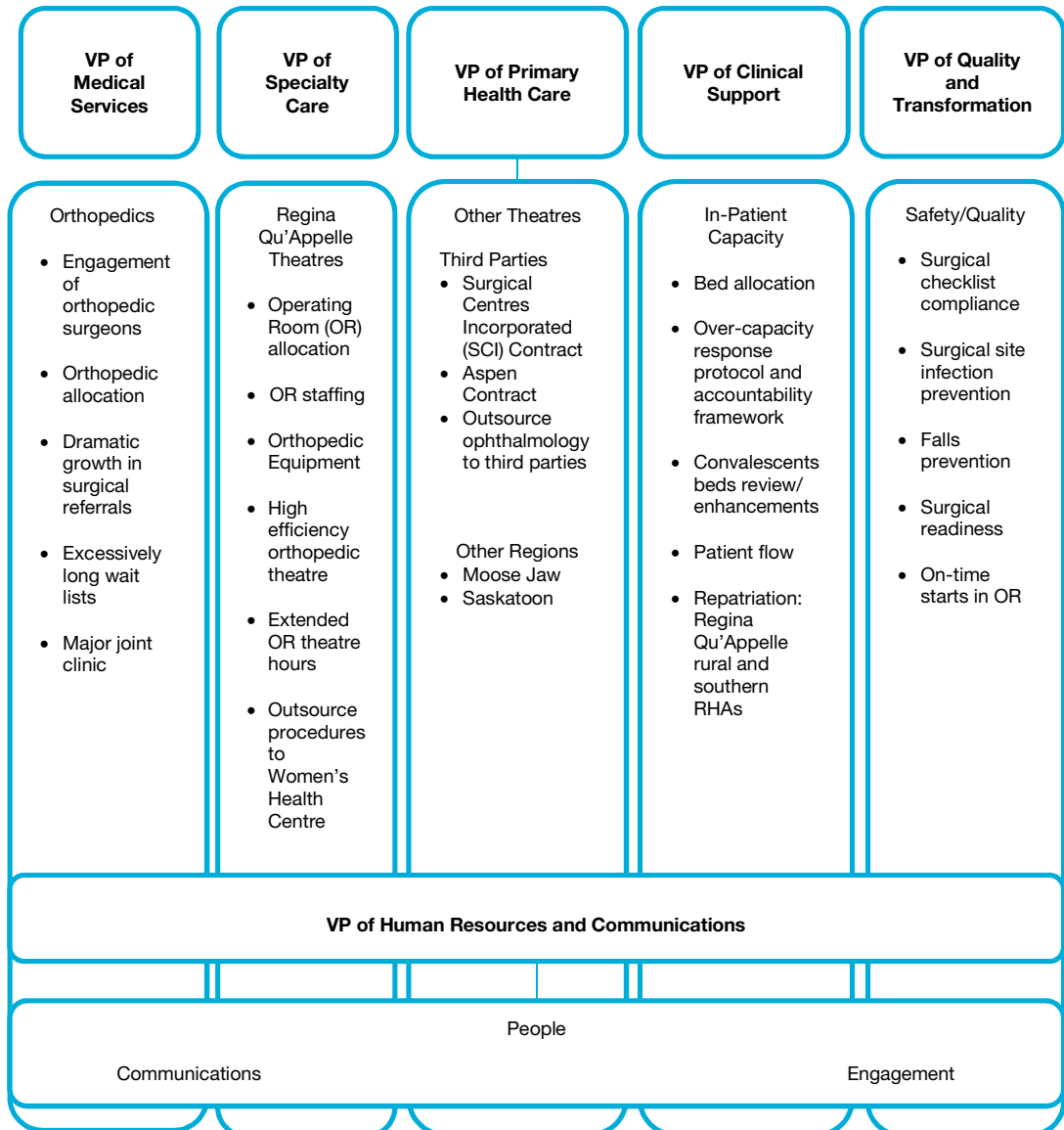
3.4 Surgical Management Oversight for the Delivery of Surgeries

Oversight for the delivery of surgeries is provided by Regina Qu’Appelle’s executive management team, with specific responsibilities set out in its Surgical Accountability Framework shown in **Figure 5**.

The executive management team is led by the President and Chief Executive Officer of Regina Qu’Appelle.

Regina Qu’Appelle’s executive management team experienced significant change during the last six months of our audit period (e.g., President and Chief Executive Officer, Chief Financial Officer, Vice President, Specialty Care).

Figure 5—Regina Qu’Appelle Surgical Accountability Framework



Source: Regina Qu’Appelle Health Region Surgical Accountability Framework

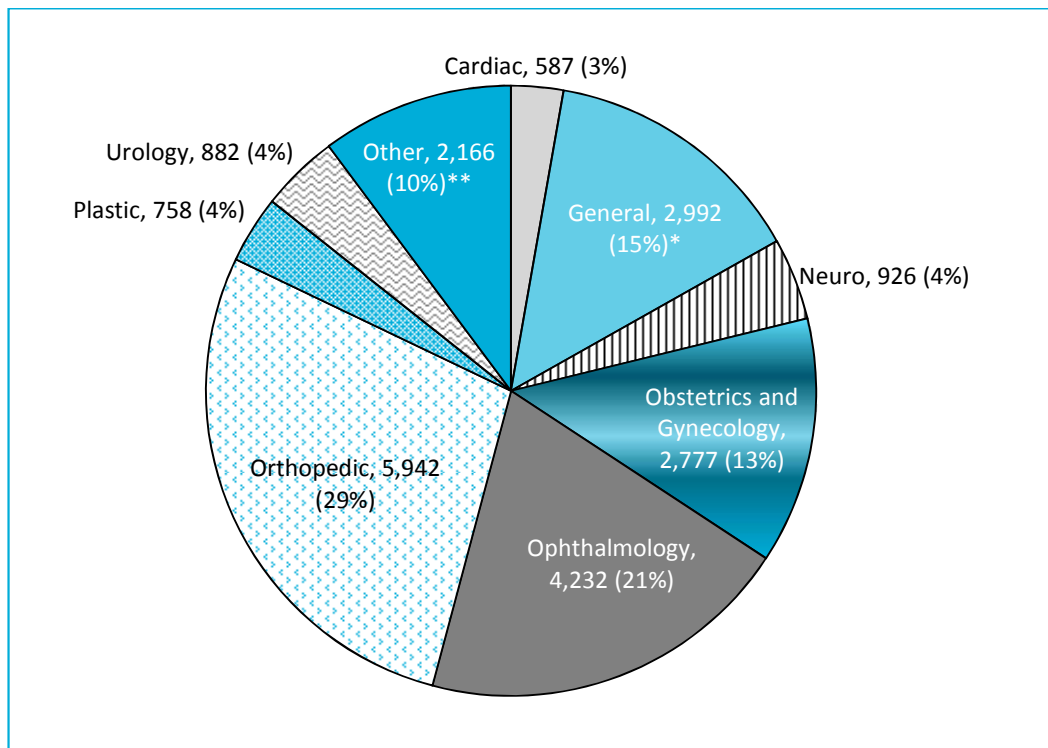


3.5 Surgeries Performed at Regina Qu'Appelle

From April 1, 2012 to February 28, 2013, Regina Qu'Appelle had conducted 21,262 surgeries¹⁵ and projected 2,323 surgeries would be performed in March 2013. Using this projection, Regina Qu'Appelle estimates that it will perform 23,585 surgical procedures in 2012-13.

Figure 6 shows the types and number of surgeries conducted by Regina Qu'Appelle up to February 28, 2013.

Figure 6—Distribution of Types of Surgeries Provided by Regina Qu'Appelle Between April 1, 2012 and February 28, 2013



Source: Saskatchewan Surgical Care Network

*General surgery includes mastectomy and surgeries involving the appendix and gall bladders.

**Other includes oncology, dental, otolarangology (ear, nose, and throat), and vascular surgeries.

4.0 AUDIT OBJECTIVE, SCOPE, CRITERIA, AND CONCLUSION

The objective of this audit was to assess the effectiveness of Regina Qu'Appelle's processes to support the efficient use of surgical facilities for the period from March 1, 2012 to February 28, 2013.

To conduct this audit, we followed the *Standards for Assurance Engagements* published in the *CICA Handbook - Assurance*. We examined Regina Qu'Appelle's surgical scheduling processes, reports to management, and other relevant documents. We also interviewed key managers and staff of Regina Qu'Appelle.

¹⁵ Saskatchewan Surgical Care Network database.

To evaluate Regina Qu'Appelle's processes, we used criteria based on the work of other auditors and current literature listed in the selected references. Management agreed with the criteria in **Figure 7**.

Figure 7 – Audit Criteria

To have effective processes for the efficient use of surgical facilities, Regina Qu'Appelle should:

- 1. Plan for the effective use of surgical facilities**
 - 1.1 Assign responsibility for managing, monitoring, and reporting on surgical facility use
 - 1.2 Set standards for the use of surgical facilities
 - 1.3 Set guidance for assigning use of surgical facilities
 - 1.4 Set performance measures and targets for the use of surgical facilities
- 2. Develop schedule**
 - 2.1 Schedule use of surgical facilities based on set standards and guidelines
 - 2.2 Coordinate schedule with other departments (e.g., pre-operative screening, post-operative care)
 - 2.3 Modify schedule when circumstances change
- 3. Analyze key information affecting surgical facility use**
 - 3.1 Have a system for collecting information on surgical facility use
 - 3.2 Collect information on surgical facility use
 - 3.3 Analyze information
- 4. Take corrective action to improve utilization**
 - 4.1 Determine what factors are inhibiting full utilization of surgical facilities
 - 4.2 Determine what actions need to be taken to address inhibiting factors
 - 4.3 Implement actions addressing inhibiting factors
 - 4.4 Compare results to performance measures
 - 4.5 Report to senior management on key information

We concluded that for the period March 1, 2012 to February 28, 2013, Regina Qu'Appelle Regional Health Authority did not have effective processes to support the efficient use of surgical facilities. To improve its processes, Regina Qu'Appelle needs to:

- › **Have complete, approved standards, policies, and guidance to improve consistency of the scheduling surgical procedures and the use of surgical facilities**
- › **Develop consistent processes for the composition, review, and approval of surgery schedules to improve the efficient scheduling of surgical procedures**
- › **Collect and analyze information on the use of surgical facilities to determine factors that inhibit and impact the efficient use of surgical facilities**
- › **Determine needed actions and implement those actions to improve the efficient use of surgical facilities**
- › **Monitor progress for efficient scheduling of surgical procedures and report to the Board**
- › **Establish and use performance measures and targets designed specifically for assessing the efficient use of surgical facilities**



5.0 KEY FINDINGS AND RECOMMENDATIONS

In this section, we set out our findings and recommendations related to the criteria in **Figure 7**.

5.1 Improve Planning for the Effective and Efficient Use of Surgical Facilities

5.1.1 Responsibility Clearly Assigned

Regina Qu'Appelle has a clearly-defined delegation of responsibility for the operation, monitoring, and reporting of its surgical facilities (see **Figure 5**). Specialty Care is primarily responsible for the delivery of surgical services. Specialty Care has staff responsible for perioperative¹⁶ services, supervision of surgical facilities, the pre-admission clinic, and day surgeries. It also is responsible for individual hospitals' surgical units and surgical patient information management including the scheduling of individual procedures and the collection of data on surgical facility use. Scheduling of individual surgical procedures (described in **Section 5.2**) is done by staff of the Surgical Patient Information Management Unit. There are eight scheduling staff and one manager in this unit.

In September 2012, the Surgical Steering Committee became responsible for the oversight of surgical performance in Regina Qu'Appelle. This Committee is described in **Section 5.4.4**.

We also noted that Regina Qu'Appelle established the Surgical Accountability Framework (see **Figure 5**) at the same time to ensure:

- › Appropriate executive-level oversight over all aspects of the surgical plan
- › Effective implementation of specific initiatives
- › Timely response when corrective action is necessary
- › Organization-wide commitment to the surgical plan

The Framework clearly assigns responsibility to appropriate staff for orthopedics, Regina Qu'Appelle surgical facilities, other surgical facilities (i.e., external surgical facilities and facilities in other regions), inpatient capacity, safety and quality, and human resources.

5.1.2 Standards for the Use of Surgical Facilities Not in Place

Regina Qu'Appelle does not have a comprehensive and approved set of standards to efficiently manage surgical facilities. It must set such standards. Once it has established standards, Regina Qu'Appelle should then establish policies and procedures as

¹⁶ Perioperative is defined as the period of time extending from when the patient is admitted to the hospital for surgery until the time the patient is discharged.

guidance for staff to follow for efficiently providing surgeries and for safe patient care. For example, standards should address:

- 】 Consistent patient screening and prioritization based on urgency and time waited (e.g., equitable patient screening for elective surgery, timely access to surgery based on severity of the patient's condition and the time the patient has waited)
- 】 Capacity and optimal usage expectations for surgical facilities (e.g., hours of availability of surgical facilities, compliance with scheduled surgical times, and surgery duration estimates)
- 】 Allocation of surgical time and facilities to surgeons (e.g., effective allocation of facility time to surgical departments [i.e., urology, orthopedics, etc.] including consideration of surgeons' wait lists)
- 】 Composition of daily surgical schedules¹⁷ (i.e., standards and guidance for the composition of the daily slate; See **Section 5.1.3**)
- 】 Equipment standardization and availability (i.e., ensure required, standard equipment is available for procedures scheduled)
- 】 Staff coordination and availability (i.e., ensure required staff [e.g., anaesthesiologists, surgical assistants, surgical nurses, etc.] are available for procedures scheduled)

Without clear standards for the use of surgical facilities, staff may do their work inconsistently. This can lead to the inefficient use of surgical facilities and potential risks to patient health and safety.

1. We recommend that Regina Qu'Appelle Regional Health Authority establish and approve standards for the use of surgical facilities.

5.1.3 Clear Guidelines for Allocating Surgical Time Not in Place

Currently, Regina Qu'Appelle has Operating Room Business Rules (business rules), which give some guidance for operating its surgical facilities. The business rules outline certain procedures for scheduling, contacting patients, dealing with cancellations, communicating the daily schedule (the daily slate), and restrictions due to conditions or acuity of patients that require special consideration by surgical staff. For example, external facilities cannot provide higher-risk patient surgeries.

Regina Qu'Appelle's business rules do not provide adequate, comprehensive guidance for the use of surgical facilities. The business rules do not give staff guidance, for example, on:

¹⁷ Composition of the schedule includes, for example, which procedures are scheduled at what times in the day, the volume of particular surgeries, and the number of similar procedures performed in a row in a surgical facility.



- › Optimum time usage (e.g., hours facilities are used per day, number of procedures per room per day, etc.)
- › Tracking required equipment availability
- › Procedures for moving equipment in and out of surgical facilities
- › Coordination of surgical staff (e.g., surgeons, surgical assistants, anaesthesiologists, surgical nurses)
- › Communication with other departments such as post-operative and housekeeping

Regina Qu'Appelle uses two steps, **allocation** and **daily slate**, for allotting time and surgical facilities:

- › **Allocation** is the master allotment of surgical facility time and location for surgeons and surgical groups. The allocation is a weekly calendar for each of the region's surgical facilities (both Regina Qu'Appelle-owned and external) with blocks of time reserved for individual surgeons or surgical groups. Allocations are developed two or three times a year and last for four to six months until a new allocation is developed.
- › **Daily slate** is the schedule of individual surgeries within the allocation. After the allocation has been developed, Regina Qu'Appelle schedules the daily allotted time to specific patients and surgeries as requested by surgeons. The slate is published every day for the subsequent day, with the schedule of individual surgical procedures for every surgical facility.

Prior to 2012, the development of the allocation was done by a working group that consisted of members of the Regina Qu'Appelle surgical executive team and surgeon representatives. The development of the allocation can be complex, requiring consideration of differing priorities and perspectives. Accordingly, in March 2012, Regina Qu'Appelle included a wider group of stakeholders to participate in developing the allocation. Patient representatives, anaesthesiologists, nurses, and scheduling staff were invited to participate in a survey and discussion of the allocation. Staff we spoke to indicated that this process led to improvements in allocating blocks of surgical time.

However, Regina Qu'Appelle has not established policies relating to membership of an allocation working group (e.g., specifying who participates in the process to develop the allocation) or the working group's terms of reference (e.g., decision-making ability). Nor has it approved any guidance regarding allocations for the use of surgical facilities, or processes to gather input (e.g., surveys, forums, meetings).

Developing clear policies and guidance for the allocation of surgical time and facilities to surgeons will facilitate consistent practices. Without clear guidance for developing the allocation of surgeries, staff may not apply consistent criteria in allocating time and facilities for surgeries to surgeons resulting in the inefficient or inequitable use of surgical facilities and the inappropriate management of surgical wait lists.

- 2. We recommend that Regina Qu'Appelle Regional Health Authority develop and approve clear policies and guidance for allocation of time and surgical facilities to physicians who provide surgical services.**

Composing the daily slate (as described in **Section 5.2.1**) includes balancing a number of perspectives. For example, surgeons may want certain surgical procedures scheduled for the end of the day while post-operative recovery staff may want those procedures scheduled at the beginning of the day to give patients more time to recover. Patients having day surgeries may prefer early procedures to reduce required fasting time, but surgical staff may prefer these procedures at the end of the day as they are easier to cancel and reschedule if more complicated surgeries take longer than the allotted time.

The business rules give some guidance on the process to compose the daily slate. However, without approved standards, individual scheduling staff can apply different judgments which could lead to inconsistent and inefficient scheduling practices.

- 3. We recommend that Regina Qu'Appelle Regional Health Authority develop and approve clear policies and guidance for scheduling time and surgical facilities for individual patients receiving surgical services.**

5.1.4 Measures and Targets Needed for Assessing the Efficient Use of Surgical Facilities

Regina Qu'Appelle has developed volume-based measures and targets to monitor the performance of surgical services. For example, it measures:

- 】 Number of procedures per day and month by specialty (e.g., hip and knee replacements)
- 】 Number of available operating rooms per day
- 】 Percentage of capacity used (i.e., how many available rooms are being used on a given day)
- 】 Proportion of surgeries performed by different urgency categories (i.e., urgent, emergency, elective)

For most of these measures, Regina Qu'Appelle has also established targets. For example, Regina Qu'Appelle has a target for the number of hip replacement procedures performed, which is tracked monthly.

Efficiency-based performance measures could provide Regina Qu'Appelle with valuable information to identify factors inhibiting the efficient use of surgical facilities. This could help surgeons and staff better manage wait lists and guide patient-scheduling decisions (i.e., improve scheduling patterns). Efficiency-based measures may identify inefficiencies



in Regina Qu'Appelle's current system for scheduling surgeries. Examples of efficiency-based measures could include:

- ▶ Capacity measures (i.e., actual hours facilities used compared to planned hours of use)
- ▶ Unplanned surgical facility closures and reason for closure (e.g., post-operative beds¹⁸ not available as planned)
- ▶ Actual surgery durations compared to estimated surgery durations
- ▶ How many surgeries start and/or finish late
- ▶ Delays caused by late start of the first surgery of the day
- ▶ Number of cancellations on the day of surgery by reason for cancellation
- ▶ Number of cancellations within 48 hours of a scheduled surgery by reason for cancellation

As described earlier, Regina Qu'Appelle formed the Surgical Oversight Committee in September 2012. The Committee has identified other information and measures it would like Regina Qu'Appelle to collect in order to analyze and determine what actions it needs to take. For example, in October 2012, the Surgical Oversight Committee requested that Regina Qu'Appelle track registered nurse vacancies by surgical facility to provide greater understanding of how staffing was affecting capacity.

Once Regina Qu'Appelle has determined what performance information to collect and analyze, it should set targets and compare to actual results. While some performance information is being collected, more comprehensive monitoring of the actual use of facilities compared to the planned use would highlight unused capacity or factors inhibiting the efficient use of surgical facilities.

4. We recommend that Regina Qu'Appelle Regional Health Authority establish efficiency-focused performance measures and targets for assessing the use of surgical facilities.

5.2 Schedule Development and Maintenance Needs Improvement

5.2.1 Formal Standardized Processes for Scheduling Surgeries

As stated in **Section 5.1.3**, the process for scheduling surgeries takes place in two separate steps: the development of the allocation, and the development of the daily slate.

¹⁸ Post-operative bed space is needed for admission surgeries which require more than one day of recovery before discharge.

Figure 8—Daily Slate Process

1. The surgeon sends the surgery request package, with a request form and supporting information.
2. Scheduling staff enter information from the request package into the scheduling system and the Saskatchewan Surgical Care Network system.
3. Scheduling staff store the patient file in a filing cabinet organized by surgeon.
4. Scheduling staff begin to compose the daily slate (up to several weeks before the date). Staff refer to the surgeons' lists of waiting patients and enter information into the daily slate.
5. The scheduler telephones the patient to inquire whether the proposed date will work for the patient. If the time works, the procedure is confirmed. If not, the scheduler attempts to find an alternate time.
6. The daily slate is published at 11 a.m. the day before procedures begin.

Source: Provincial Auditor Saskatchewan

Once the allocation has been set (as described in **Section 5.1.3**), the process of scheduling individual surgical procedures into the surgeons' time allotment begins (i.e., the development of the daily slate [see **Figure 8**]). Scheduling staff in Regina Qu'Appelle's Surgical Patient Information Management Unit are responsible for this process (as described in **Section 5.1.1**).

When surgeons have assessed that a patient needs surgery, they are required to submit a surgery request package to the scheduling unit. This package includes a request form and supporting documentation including medical information that the surgeon will require when the patient is in the hospital for surgery.

The surgery request package process is entirely paper based. Because Regina Qu'Appelle's scheduling system, Pathways, does not allow electronic communication of surgical request packages, packages are either faxed, mailed, or couriered to the office.

We reviewed a sample of surgery request packages used by surgeons and found them to be inconsistent. More than ten different request forms are used, based on the preference of individual surgeons. Request forms do not always contain the same information, and vary in the level of detail.

Scheduling staff input information from the surgical request forms into the Pathways system to schedule individual surgical procedures in the daily slate. We observed that inconsistent, sometimes illegible request forms made this task needlessly difficult. For example, we examined a faxed request form that was completely illegible. These inconsistent and illegible forms increase the risk of entering inconsistent or inaccurate information and require extra time to be spent handling them. Inconsistent and inaccurate information could require changes to the schedule at a later date, resulting in lost efficiency and a compromised patient experience.

In August 2012, Regina Qu'Appelle proposed a new standardized request form. Staff stated that surgeons were resistant to use the new request form because of the detail of information they needed to provide. The use of one agreed-upon standardized form should improve the efficiency of the scheduling process.

5. We recommend that Regina Qu'Appelle Regional Health Authority work with surgeons to develop a standard surgical request form that surgeons must use.

As described in **Section 5.1.3**, without clear standards and guidelines for developing the daily slate (e.g., what types of procedures to schedule at what time of day), scheduling



staff may compose the daily slate inconsistently, and potentially negatively impact the efficient use of surgical facilities.

After both the allocations and daily slates are developed, the schedule must be maintained by adjusting it to meet changing circumstances. These circumstances are dynamic and require flexibility and co-operation between surgeons and Regina Qu'Appelle. The process for adjusting the daily slate is described in **Section 5.2.3**.

5.2.2 Coordinate Schedules with Other Departments

While the scheduling office is primarily responsible for the development of the daily slate, a great deal of communication between different departments (e.g., pre-operative, surgical, post-operative and housekeeping¹⁹ departments) within Regina Qu'Appelle is also required, so that these departments know how to prepare for their work.

Coordination between departments begins with the allocation. The allocation process allocates time to surgeons coordinated with operating room and post-operative recovery staff. For example, a planned reduction in the time allocated to surgeons is made to accommodate peak staff vacation periods. However, as described in **Section 5.1.3**, Regina Qu'Appelle does not have clear policies to guide the allocation of surgical facility time.

Regina Qu'Appelle does not currently track what and when surgical equipment is available. Ensuring needed equipment is available is essential when scheduling procedures into the daily slate. Also, surgical staff are responsible for preparing surgical facilities for surgeries, ensuring appropriate equipment is available, and supporting surgeons in their work. Therefore, they must understand and agree with daily slates and procedures scheduled.

We noted that scheduling staff maintained surgeon preference information but did so informally. For example, one surgeon may prefer a particular type of equipment while another surgeon prefers a different model. This informal tracking of individual preferences for the 85 surgeons in the region is difficult and time consuming.

The scheduling office communicates with staff of the surgical and post-operative departments using a summarized weekly list of the number of expected procedures for the following few weeks. Phone calls and emails between surgical facility managers and the manager responsible for scheduling are frequently used to identify potential conflicts and issues with the daily slate, such as the availability of required equipment. Weekly meetings between management of the surgical units and the scheduling offices are used to communicate concerns or issues with the daily slate and the composition of the surgeries scheduled (i.e., which procedures are scheduled at what times in the day, the volume of particular surgeries, the number of similar procedures performed in a row in a room).

While daily slates may require a high level of flexibility, having approved standards (e.g., the number of particular surgeries that can be performed in a day) and guidance for composing, reviewing, and approving daily slates (e.g., approval sheets) could help to address communication gaps and may reduce conflicts, issues and concerns.

¹⁹ In Regina Qu'Appelle, the housekeeping department is responsible for cleaning surgical facilities between procedures.

- 6. We recommend that Regina Qu'Appelle Regional Health Authority establish formal processes for the composition, review, and approval of scheduling daily surgeries.**

5.2.3 Schedule Revised to Reflect Changing Circumstances

Regina Qu'Appelle staff regularly adjust the daily slate to reflect changing circumstances. For instance, patients may have a change in condition or situation that prevents them from having their scheduled surgery. Scheduling staff work to find a later time for patients in these circumstances, and then find other patients to take the vacated time. This process becomes more complicated the closer the daily slate comes to being realized. Sometimes patients may cancel their surgeries with very little notice. In these cases, surgical facility staff and scheduling staff work with surgeons to find patients who can accept surgeries on short notice.

We found that Regina Qu'Appelle adjusts its schedule as circumstances require.

5.3 Efficiency-focused Information Not Consistently Collected

5.3.1 System to Collect Information on Cancelled Surgeries Needed

Regina Qu'Appelle uses the Horizons Surgical Management database for the collection of information on surgeries performed. Data entry clerks in the Surgical Patient Information Unit use the Operative Case Report (scrub sheet), which is completed for every surgery by surgical staff, to input information for completed surgeries. The scrub sheet includes data such as:

- 】 Length of the surgery
- 】 Start time and if delayed
- 】 Surgeon and staff who performed the surgery
- 】 Types of anaesthesia used
- 】 Equipment used
- 】 What procedures were performed during the surgery

Once stored in the Horizon system's database, the information can be used for generating reports, graphs, and charts to analyze and display the information.

However, Regina Qu'Appelle does not have a system to collect information on when and why surgeries are cancelled. It reviews the daily slate after the date to record cancelled surgeries in Pathways in order to rebook procedures if required. However, information



on cancelled surgeries is not easily retrievable from Pathways. This information would be valuable in assessing the efficient use of surgical facilities.

7. We recommend that Regina Qu'Appelle Regional Health Authority implement a system to collect all needed information relating to the efficient use of surgical facilities.

5.3.2 Analysis of Information Needs Improvement

As described in **Section 5.3.1**, Regina Qu'Appelle's data collection system collects information on completed surgeries and uses it to generate reports, charts, and graphs on volume-based measures for analysis. Every week, as part of LEAN,²⁰ staff review the information and managers analyze and assess what can be improved to better serve patients.

However, Regina Qu'Appelle does not routinely collect all the information that it should (e.g., information on cancelled surgeries). The monitoring and subsequent analysis of this type of information would be valuable in assessing the efficient use of surgical facilities.

8. We recommend that Regina Qu'Appelle Regional Health Authority monitor efficiency-focused information about the use of surgical facilities.

5.4 Need to Take Corrective Actions to Improve Utilization

5.4.1 More Work Required for Identification of Factors Inhibiting Efficiency

In 2012, Regina Qu'Appelle undertook a number of projects to identify factors affecting the efficient delivery of surgical procedures in the Region. In one project, management identified the inconsistent surgical request forms as a barrier to efficiency. Regina Qu'Appelle also identified the lack of effective business rules and inefficient surgical facility changeover (i.e., preparing rooms between surgeries) as issues.

Regina Qu'Appelle continues to identify factors that adversely affect surgical services but process changes still need to be made. Management plans to engage external surgical efficiency consultants to recommend better processes for scheduling surgeries, as well as revisiting the business rules.

²⁰ LEAN is a quality improvement methodology currently being used by the Ministry of Health, RHAs, and the Saskatchewan Cancer Agency to identify and reduce inefficiencies in service delivery.

Also, management regularly but less formally identifies issues affecting performance. For example, weekly review meetings of the daily slate serve as a forum for management in different departments to discuss concerns with capacity, human resources, and scheduling. As discussed in **Section 5.2.2**, Regina Qu'Appelle can improve this process by establishing a clear process for reviewing and approving the daily slate.

However, until Regina Qu'Appelle determines the performance measures it needs to monitor (see **Sections 5.1.4** and **5.3.2**), and analyzes the relevant information it collects, it may not know what factors are inhibiting the optimum use of its surgical facilities.

5.4.2 Implement Actions that Need to be Taken

Regina Qu'Appelle has identified some actions that need to be taken in order to address issues. As noted in **Section 5.2.1**, when it identified inconsistent surgery request forms as an issue affecting scheduling, it proposed a new request form. Also, as noted in **Section 5.1.3**, when the process to develop the allocation was identified as not being sufficiently inclusive for different departments, it included a broader range of stakeholders. However, many of the suggested actions (e.g., a standardized surgical request form) have not yet been implemented or were only partially implemented.

9. We recommend that Regina Qu'Appelle Regional Health Authority take timely action to address issues that negatively impact the efficient use of surgical facilities.

5.4.3 Comprehensive Information on Results Compared to Targets Needs to be Analyzed

On a regular basis, Regina Qu'Appelle's management compares its current volume-based performance measures (e.g., the number of procedures completed) to targets and offers explanations if performance is not meeting targets, as well as possible initiatives to improve performance. The Surgical Oversight Committee also regularly discusses why some targets are not being met and what measures need to be refined or developed to more accurately capture performance information in the region.

However, as we noted in **Section 5.1.4**, Regina Qu'Appelle has not developed the efficiency-based measures and targets it needs for assessing and monitoring the efficient use of surgical facilities.

5.4.4 Reporting to Senior Management

Regular progress reports are provided to the Board on Regina Qu'Appelle's surgical initiatives using existing volume-based performance measurements.

The Surgical Oversight Committee, formed in September 2012, provides executive oversight for the delivery of surgical services in Regina Qu'Appelle. The Surgical Oversight Committee has terms of reference and the membership includes the Chief Executive Officer, representation of the Regina Qu'Appelle Board of Directors (including



the Board Chair), Ministry of Health representatives, Regina Qu'Appelle surgical management, and patient representatives.

During its monthly meetings, the Surgical Oversight Committee reviews reports on volume-based performance measures such as number of procedures performed and projections for future months, and discusses issues that have been identified and initiatives in place to address issues. However, as noted earlier, Regina Qu'Appelle has not yet adequately developed performance measures and targets relating to the efficient use of its surgical facilities, nor has it adequately identified factors that inhibit efficient use. It needs to do so in order to explore how to improve its use of facilities.

Once it has identified factors inhibiting the efficient use of its surgical facilities (as described in **Section 5.4.1**), Regina Qu'Appelle should set targets, take actions, measure progress, and provide regular reports to the Board. These reports should describe how it is progressing towards achieving its targets to ensure that the Board has complete information on surgical performance.

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