



Saskatchewan

Drug

Information

Service

Regina Qu'Appelle Health Region Contract

On-Call Drug Information Service

Annual Report 2010 – 2011



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EXECUTIVE SUMMARY

The Saskatchewan Drug Information Service (SDIS) on-call service received 2900 calls during the fiscal year, April 1st 2010 to March 31st 2011, an average of 8.0 calls per shift. The invoiced cost per call was \$27.39. Seventy-eight percent of calls originated from the HealthLine. The majority (74 %) of callers were women. Two-thirds of the calls were placed by persons between the ages of 19 and 64 years. Calls were received from all of the Saskatchewan health regions. Thirty-one percent of calls originated in the Saskatoon health region and 20 % in the Regina Qu'Appelle region. The most common question categories were dose/administration, adverse reactions, general information, drug interaction and drug use during pregnancy and lactation. Eighty-six percent of the calls were rated as not serious, 13 % as potentially serious and 0.3 % as serious.

There is a continued demand for drug information service during the evening hours. Collaboration between HealthLine nurses and SDIS drug information consultants provided Saskatchewan healthcare consumers with convenient access to reliable drug information . This has eliminated the need to refer callers to pharmacies other than their usual pharmacy and likely reduced inappropriate use of hospital emergency departments.

1.0 Introduction

1.1 Saskatchewan Drug Information Service

The Saskatchewan Drug Information Service (SDIS) is an on-request drug information service staffed by licensed pharmacists. SDIS maintains two toll-free telephone inquiry lines: one for healthcare providers and one for healthcare consumers. The consumer arm of SDIS provides the general public with access to objective, accurate and current information on prescription drugs, over-the-counter medications and herbal products. Requests for information can also be submitted by voicemail, fax or by filling out a question template on the SDIS website at www.druginfo.usask.ca. There is no charge to the public for this service. The two major sponsors of SDIS are Saskatchewan Health and the Saskatchewan College of Pharmacists.

1.2 SDIS On-Call Service

Provision of on-call drug information for callers referred from HealthLine was initiated with a three month pilot study, December 2007 to March 2008. The pilot study indicated there was a need for evening on-call drug information for the general public and SDIS was subsequently contracted by HealthLine to continue providing this service. HealthLine is a free, confidential 24-hour health advice telephone line, staffed by registered nurses. It is a Saskatchewan Government program, with service provided by Regina Qu'Appelle Health Region. Funding for the SDIS on-call service is provided by Saskatchewan Health and administered by HealthLine.

After 5 PM and until midnight weekdays, weekends and holidays, a drug information pharmacist is available to answer questions from the general public on an on-call basis. Calls after SDIS regular office hours (8AM – 5 PM, Monday to Friday) are rerouted to the on-call pharmacist. This pharmacist has remote access to the SDIS consumer line computer terminal and the resources available on this computer. In addition, pharmacists are provided with the most frequently used hardcopy references.

HealthLine and SDIS provide complimentary information to callers, thus the collaboration between the two services works very well. Calls to HealthLine are triaged by HealthLine nurses and drug-related questions are referred to SDIS. When calls are transferred directly to the SDIS consultant by HealthLine, the nurse provides the drug information consultant with contact information for the caller, a brief review of the question and any recommendations she has made regarding the need for medical attention. This limits repetitive questioning that might irritate the caller and enables the drug information consultant to reinforce recommendations made by the nurse.

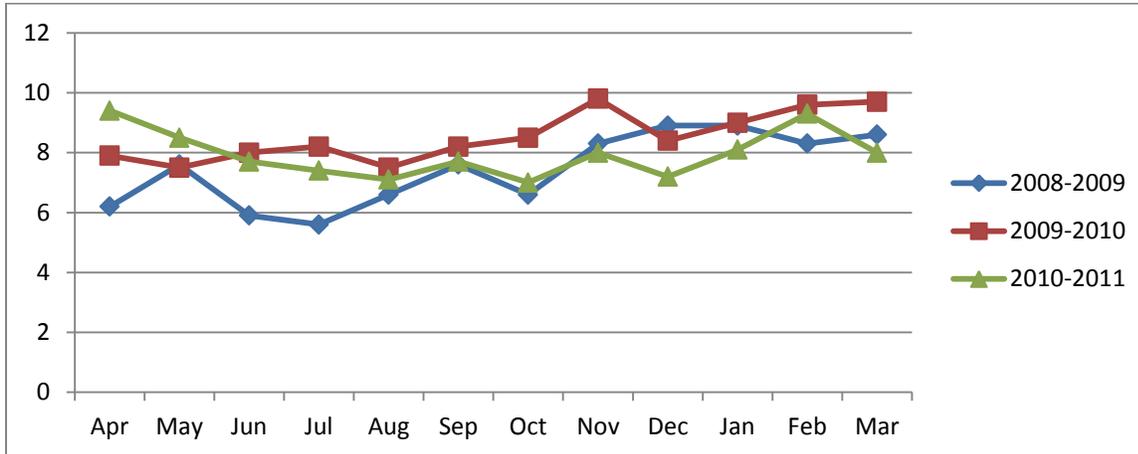
The on-call model of service gives pharmacists the opportunity to work from home. It allows SDIS to employ pharmacists at times when, and places where, they might not otherwise have been able to work professionally. This provides more flexibility to pharmacists in co-ordinating work and family and increases pharmacy human resources.

2.0 Utilization Statistics

2.1 Call numbers

A total of 2900 calls were received between April 1, 2010 and March 31st, 2011, 206 fewer than the previous year's total of 3106. Monthly variation in call numbers over the past three years is illustrated in Figure 1. The daily average in 2010-2011 was 8 calls per shift.

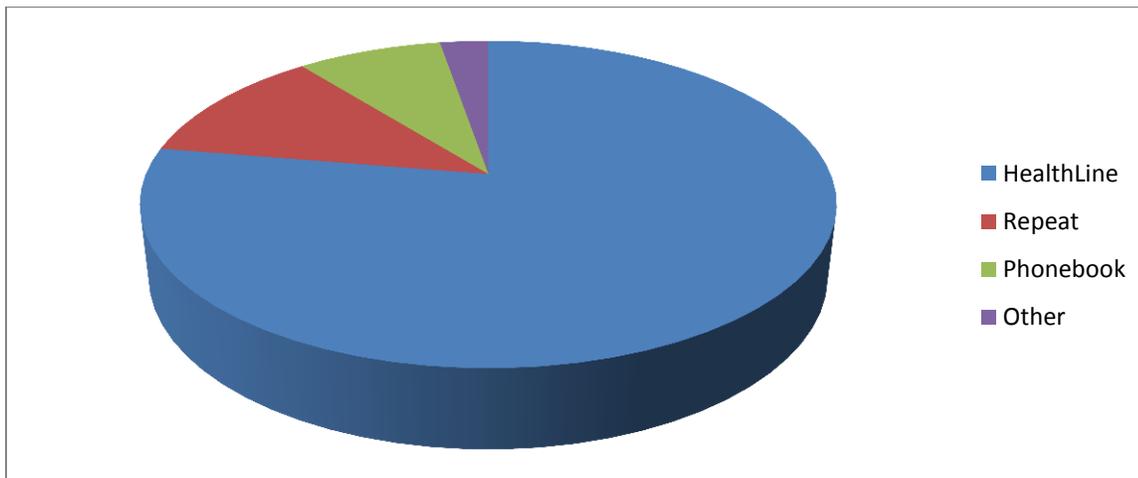
Figure 1: Average number of calls / evening / month



2.2 Source of Calls

The majority (78 %) of calls were transfers from HealthLine. Figure 2 details the different call sources.

Figure 2: Source of Calls

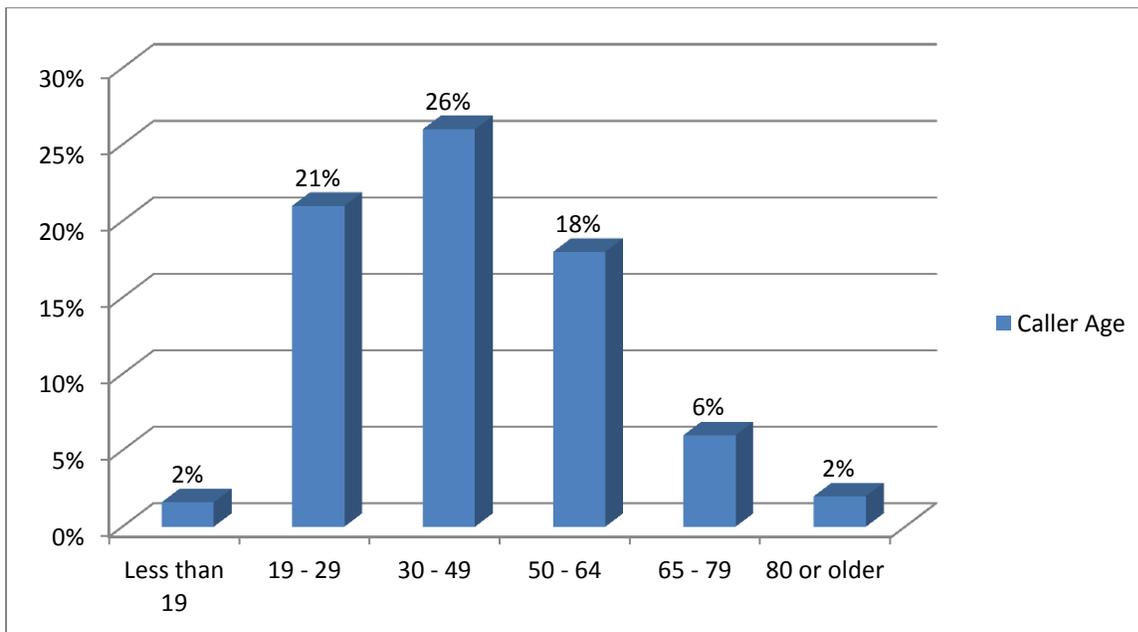


2.3 Caller Demographics

The majority of calls (2139 – 74 %) were placed by women. The percentage of male caller, however, increased by 7 percent this year. It will be interesting to see if this trend continues.

Sixty-five percent of calls were placed by patients between the ages of 19 and 64 years of age. Those in the 30 to 49 year old group were the most frequent callers (26 %), followed by the 19 to 29 year old group (21 %). (Figure 3)

Figure 3: Caller Age



2.4 Caller Residence

Calls were received from all of the Saskatchewan health regions. Thirty-one percent of calls originated from the Saskatoon region and twenty percent from the Regina Qu'Appelle region. Table 1 provides details on the number and percentages of calls received by health region.

Table 1: Calls by Health Regions

Health Region	Number (%) of Calls	Health Region	Number (%) of Calls
Saskatoon	911 (31 %)	Sun Country	114 (4 %)
Regina Qu'Appelle	579 (20 %)	Cypress	113 (4 %)
Prince Albert Parkland	199 (6.5 %)	Kelsey Trail	107 (3.5 %)
Prairie North	190 (6.5 %)	Mamawetan Churchill River	64 (2 %)
Five Hills	145 (4.5 %)	Keewatin Yatthe	25 (1 %)
Sunrise	138 (4.5 %)	Athabasca	4
Heartland	115 (4 %)	Unknown	196

2.5 Nature of Calls

SDIS consultants responded to a wide variety of questions about drugs and drug therapy. The most common categories were drug dose and administration, adverse reactions and general drug information . (Table 2)

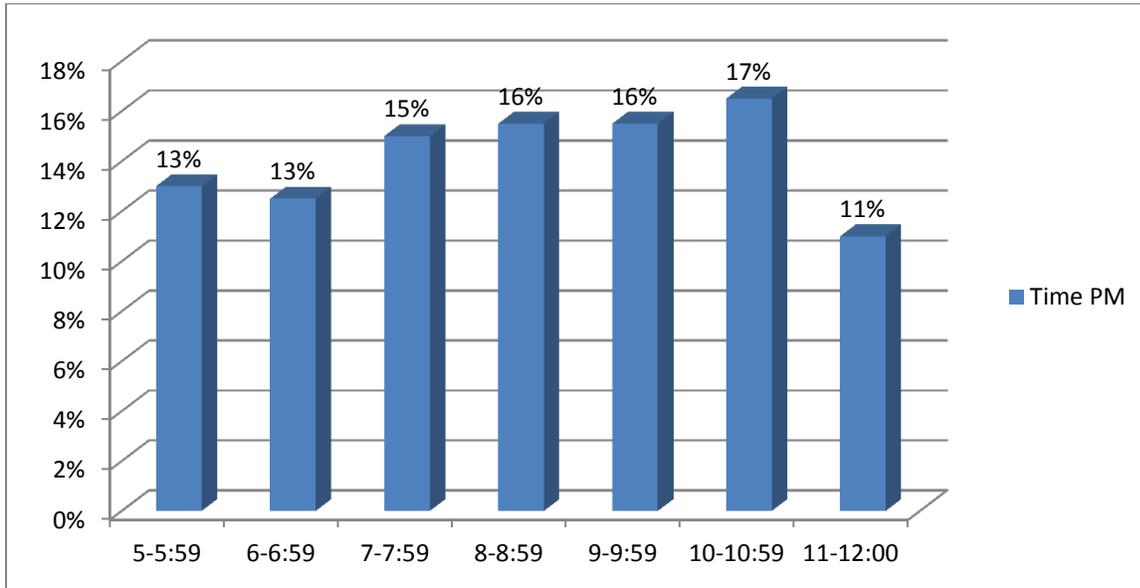
Table 2: Nature of Drug Information Questions

Nature	Number (%) of Calls
Dosage / administration	593 (20.5 %)
Adverse reaction	477 (16 %)
General information	472 (16 %)
Interaction	335 (11.5 %)
Pregnancy	201 (7 %)
Lactation	137 (5 %)
Therapeutic Use/Drug of Choice	127 (4.5 %)
Other (contraindication, identification, formulation, kinetics, toxicity, etc.)	593 (19.5 %)

2.6 Time of Call

Calls were received at a relatively consistent rate over the seven hours (5 PM to 12 midnight) the on-call service was available. (Figure 4)

Figure 4: Time of calls



2.7 Severity of Calls

Eighty-six percent of calls were rated as not serious. Callers were provided with information and / or advice and no further intervention was considered necessary. (Table 3)

Table 3: Severity Rating of Calls

Severity	Number of Calls (%)	Description
Not serious	2499(86 %)	No further action required
Potentially serious	392 (13 %)	Information immediately available is provided, caller is referred to appropriate healthcare professional
Serious	9 (0.3 %)	Caller is referred immediately to the Saskatchewan Poison Centre or nearest hospital emergency department

3.0 Personnel

SDIS on-call service currently employs eleven licensed Saskatchewan pharmacists on a casual basis as drug information consultants. Five consultants reside in Saskatoon, four in Regina and two in Prince Albert.

4.0 Discussion

SDIS on-call service responded to an average of eight calls per shift in the 2010-11 year. This is slightly lower than the previous year but 2009-10 was an exceptional year due to the H1N1 influenza pandemic in the fall of 2009. Over the past three years, daily call numbers have been relatively consistent around the eight call per shift median.

Most of the calls were rated as not serious. Callers were given information and / or advice and no further intervention was considered necessary. Having SDIS consultants on call during the evening may therefore have reduced unnecessary calls to physicians and unnecessary visits to hospital emergency departments. The on-call service has reduced the number of calls referred to pharmacies other than callers' regular pharmacies.

The collaboration between SDIS and HealthLine continues to work very well. Representatives from SDIS met with the HealthLine director and managers at the HealthLine call centre in November 2010. At this meeting it was decided that regular meetings between the organizations would be beneficial and a meeting in the spring of 2011 was tentatively scheduled. Issues which arose between meetings were discussed and resolved by HealthLine director, HealthLine managers and SDIS manager via telephone or email.

The HealthLine director attended the SDIS annual Advisory Board meeting in Saskatoon in August 2010. Issues discussed included a long-term funding plan for the on-call service and developing a strategy to handle drug-related calls between midnight and 8 AM.

5.0 Recommendations / Future Priorities

- That SDIS continue to provide on-call service to Saskatchewan healthcare consumers from 5 PM to 12 midnight. The call volumes over the past three years demonstrate a need for the service.
- That a long-term plan for funding for the service be secured. Ideally, Saskatchewan government funding for both the in-office and on-call service would be administered through the same department.
- That SDIS and HealthLine investigate options to cover the time period between midnight and 8 AM to eliminate the need to refer calls to 24-hour pharmacies.
- That SDIS and HealthLine continue to investigate other opportunities to collaborate and share office and human resources.

6.0 Financial Reports

6.1 Revenues and Expenditures

**SDIS – RQHR CONTRACT
FINANCIAL REPORT
April 1st, 2009 – March 31st, 2011**

REVENUE	\$79,249
Regina Qu'Appelle Health Region	

EXPENDITURES	
Salaries	75332
Books	412
Telephone	3700
Total	<u>79,445</u>

BALANCE	- \$196
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Cost per call = \$27.39

IN-KIND SUPPORT CONTRIBUTED BY SDIS / COLLEGE OF PHARMACY & NUTRITION

Administration 0.2 FTE	15,000	
Quality Assurance 3 hrs/wk	6,000	
Books/Software	5,000	
Office expenses	4,000	
Total		<u>30,000</u>

Cost per call including in-kind expenses = 37.74

6.2 Budget

**SDIS ON-CALL SERVICE
April 1st, 2011 – March 31st, 2012**

PROPOSED BUDGET for 2010 - 2011

REVENUE	
Saskatchewan Health	\$ 100,000

EXPENDITURES	
Salaries	
DI consultants	78,000
Administrator	15,000
Textbooks, software	2,500
Advertising / Promotion	500
Telephone	<u>4,000</u>
Total	\$ 100,000

Submitted by:
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April 30, 2011