



**Saskatchewan**

**Drug**

**Information**

**Service**

**Regina Qu'Appelle Health Region Contract**

**On-Call Drug Information Service**

**Annual Report 2009 - 2010**



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## EXECUTIVE SUMMARY

The Saskatchewan Drug Information Service (SDIS) on-call service received 3106 calls during the past fiscal year, April 1<sup>st</sup> 2009 to March 31<sup>st</sup> 2010. This is an average of 8.5 calls per evening shift. The cost per call was \$27.38. Most of the calls (79 %) were transfers from HealthLine nurses. The majority (81 %) of callers were women. Two-thirds of the calls were placed by persons between the ages of 19 and 49 years. Calls were received from all Saskatchewan health regions. Thirty-two percent of calls originated in the Saskatoon health region and 21 % in the Regina Qu'Appelle region. The most common question categories were dose/administration, adverse reactions, drugs in pregnancy and lactation, drug interaction and general information. Up to five minutes of research was sufficient to provide responses for 73 % of the questions. Finding information for the remaining 27 % required more lengthy research. Verbal responses to callers took up to 5 minutes for 58 % of questions. Longer explanations or discussion were necessary to respond to 42 % of callers. Eighty-six percent of the calls were rated as not serious, 13 % as potentially serious and 1 % as serious.

The demand for drug information service during the evening hours over the past fiscal year was significantly higher than during the previous year. Some of this increase was likely due to the fall H1N1 influenza pandemic. Monthly totals were, however, consistently higher than those in the previous year suggesting there is a growing demand for access to drug information during the evening hours. Collaboration between HealthLine nurses and SDIS drug information consultants provided Saskatchewan healthcare consumers with convenient access to reliable drug information during the evenings. This likely decreased the number of calls to late-night pharmacies and 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, no-charge drug information service staffed by licensed pharmacists. SDIS maintains two toll-free telephone services: one for healthcare professionals and one for healthcare consumers. The two major sponsors of SDIS are Saskatchewan Health and the Saskatchewan College of Pharmacists. 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. The toll-free telephone line is staffed by trained drug information pharmacists. 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](http://www.druginfo.usask.ca) .

### 1.2 SDIS On-Call Service

Provision of on-call drug information by SDIS was initiated with a three month pilot study, December 2007 to March 2008. The pilot study indicated that there was a demand for 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 office hours are rerouted to the on-call pharmacist. This pharmacist has remote access to the SDIS consumer line computer and the resources available on this computer. In addition, pharmacists are provided with commonly used textbooks not available in electronic format.

HealthLine and SDIS provide complimentary information to callers, thus the collaboration between the two services works 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 the HealthLine, the nurse provides the drug information consultant with contact information for the caller, a brief review of the question and any recommendations that have been made regarding the need for medical attention. This prevents repetitive questioning that might irritate the caller and enables the drug information consultant to reinforce recommendations made by the nurse. If the call is inadvertently cut off, having the caller's contact information enables the drug information to reconnect with the caller.

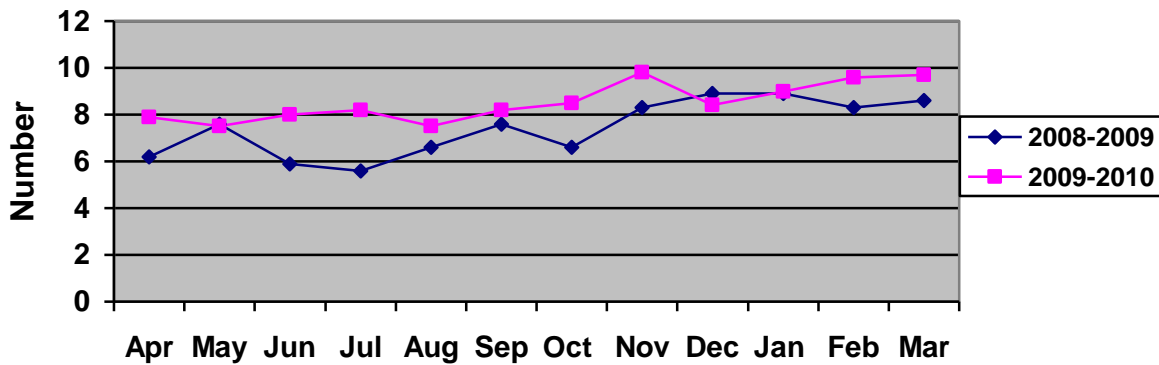
The on-call model of service gives pharmacists the opportunity to work from home. It allows SDIS to employ pharmacists at times when, and places where, they might not otherwise have been able to work professionally, thus giving pharmacists more flexibility and making better use of pharmacy human resources.

## 2.0 Utilization Statistics

### 2.1 Call numbers

A total of 3106 calls were received between April 1, 2009 and March 31<sup>st</sup>, 2010, an increase of 13 % (362 calls) compared with the previous year. As illustrated in Figure 1, call numbers were relatively consistent over the spring and summer then peaked in November (corresponding with the H1N1 pandemic), dropped in January but rose again in February and March. The average number of calls over the entire year was 8.5 calls / 7 hour shift.

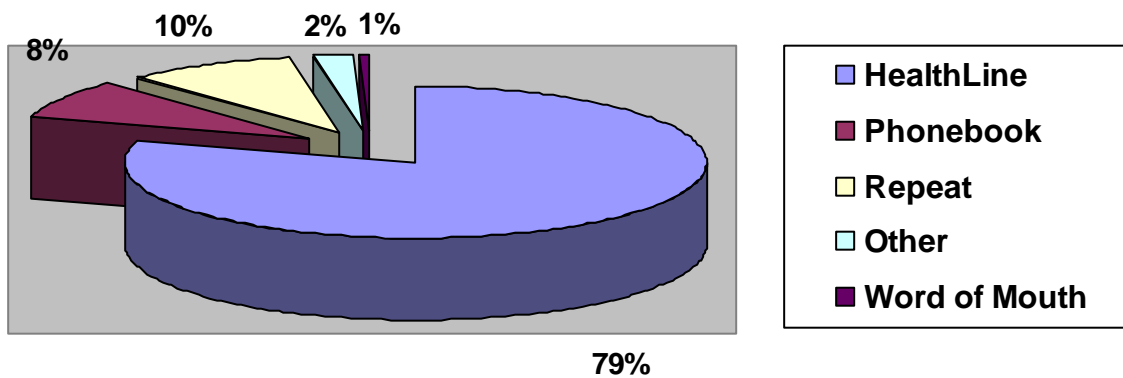
Figure 1: Average number of calls / evening / month



### 2.2 Source of Calls

The majority (79 %) of calls were transfers from the HealthLine. (Figure 2)

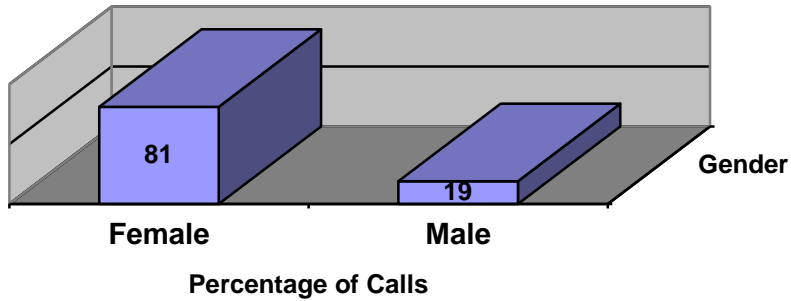
Figure 2: Source of Calls



### 2.3 Caller Demographics

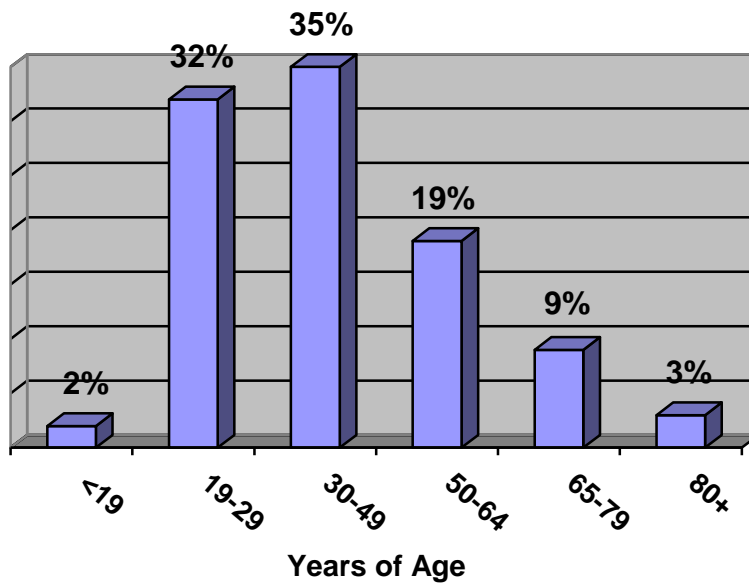
The majority of calls (2210 – 81 %) were placed by women.

**Figure 3: Gender of callers**



Two-thirds of calls were made by patients between the ages of 19 and 49 years. Those in the 30 to 49 year old group were the most frequent callers (35 %), followed closely by the 19 to 29 year old group (32 %). (Figure 4)

**Figure 4: Caller Age**



## Caller Residence

Calls were received from all of the Saskatchewan health regions. Thirty-two percent of calls originated from the Saskatoon region and twenty-one 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
Saskatoon	987 (32 %)
Regina Qu'Appelle	663 (21 %)
Prince Albert Parkland	201 (6.5 %)
Prairie North	198 (6.5 %)
Sunrise	175 (6 %)
Sun Country	165 (5.5 %)
Five Hills	142 (4.5 %)
Heartland	134 (4.5 %)
Cypress	133 (4 %)
Kelsey Trail	88 (3 %)
Mamawetan Churchill River	73 (2.5 %)
Keewatin Yatthe	41 (1.5 %)
Athabasca	3
Anonymous	81 (2.5 %)
Unknown	22 (0.5 %)

### 2.3 Nature of Calls

SDIS consultants responded to a wide variety of questions about drugs and drug therapy. The most common categories were drug interaction, drug dose and administration, adverse reactions and general drug information . (Table 3)

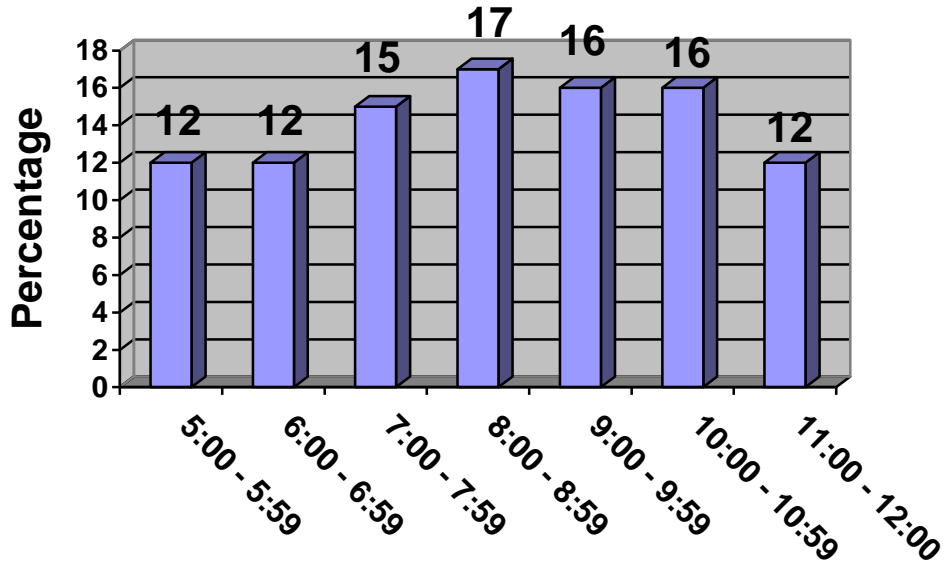
**Table 3: Nature of Drug Information Questions**

<b>Nature</b>	<b>Number (%) of Calls</b>
Dosage / administration	637 (20.5 %)
General information	564 (18 %)
Adverse reaction	510 (16.5 %)
Interaction	326 (10.5 %)
Pregnancy	202 (6.5 %)
Therapeutic Use/Drug of Choice	176 (5.5 %)
Lactation	162 (5 %)
Contra-indication	41 (1.5 %)
Kinetics	38 (1 %)
Identification	24 (0.75 %)
Formulation/pharmaceutics	20 (0.5 %)
Toxicity	19 (0.5 %)
Other	149 (5 %)

## 2.4 Time of Call

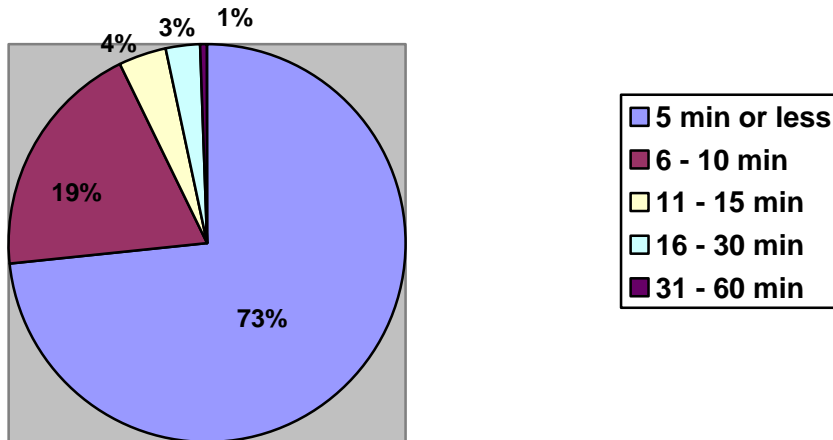
Sixty-four percent of calls were placed between 7:00 and 11:00 PM. The remaining 36 % were distributed evenly over the first two hours and the last hour of the evening shift. (Figure 4)

Figure 4: Time Calls Received by SDIS



Five minutes or less of research was sufficient to respond to the majority of calls (73 %). More extensive research was required to respond to the remainder of calls. (Figure 4)

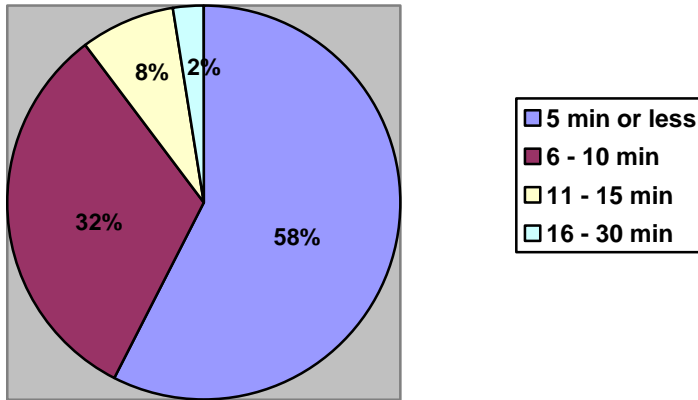
Figure 4: Research Time Per Question





For the majority (58 %) of calls, drug information consultants spent five minutes or less in discussion with the caller. The remainder of calls required more lengthy communications.

**Figure 5: Discussion Time Per Call**



## 2.5 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 4)

**Table 4: Severity Rating of Calls**

Severity	Number of Calls (%)	Description
Not serious	2675 ( 86 %)	No further action required
Potentially serious	414 ( 13 %)	Information immediately available is provided, caller is referred to appropriate healthcare professional
Serious	17 (1 %)	Caller is referred immediately to the Saskatchewan Poison Centre or nearest hospital emergency department

### **3.0 Personnel**

The SDIS on-call service currently employs ten licensed Saskatchewan pharmacists on a casual basis as drug information consultants. Five consultants provide their service from Saskatoon, two from Prince Albert, three from Regina, and one from Swift Current.

### **4.0 Discussion**

SDIS on-call service responded to an average of 8.5 calls per evening shift between April 1<sup>st</sup>, 2009 and March 31<sup>st</sup>, 2010, an increase on average of one call per shift compared with the previous year. Some of this increase was likely due to the fall H1N1 influenza pandemic. However, monthly totals were consistently higher than the previous year which suggests there is a growing demand for access to drug information during the evening hours.

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 reduce unnecessary calls to physicians and 24 hour pharmacies and unnecessary visits to hospital emergency departments.

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 May 2009 and again in January 2010. The few issues which arose during the year were resolved over the telephone by the SDIS manager and HealthLine director and managers.

The HealthLine director attended the SDIS annual Advisory Board meeting in Saskatoon in August 2009. Future initiatives discussed included improving the current cell phone system of communication between HealthLine and SDIS and the possibility of HealthLine stations in the SDIS office in the new University of Saskatchewan Health Sciences building currently under construction.

### **7.0 Recommendations / Future Priorities**

- That SDIS continue to provide on-call service to Saskatchewan healthcare consumers from 5 PM to 12 midnight. The increase in call volume over the past year suggests this service is both needed and desired
- That SDIS consultants be given an increase of \$0.50/call effective April 1, 2010. This increase has been included in the attached budget for 2010 – 2011.
- That SDIS and HealthLine investigate options to improve the communication system currently being used by the on-call service.
- That SDIS and the HealthLine continue to investigate strategies to collaborate on office and human resources.

## 9.0 Financial Reports

### 9.1 Revenues and Expenditures 2009-2010

**SDIS – RQHR CONTRACT  
FINANCIAL REPORT  
April 1st, 2009 – March 31<sup>st</sup>, 2010**

<b>REVENUE</b>		<b>\$85,544</b>
Regina Qu'Appelle Health Region		
<b>EXPENDITURES</b>		
Salaries	80,152	
Books	303	
Telephone	3624	
Software	1196	
Staff appreciation	60	
Travel	312	
Total		<b><u>\$85,647</u></b>
<b>BALANCE</b>		<b>- \$103</b>

### 9.2 Budget for 2010-2011

**SDIS – RQHR CONTRACT  
2010 – 2011 Budget**

<b>REVENUE</b>		<b>\$ 100,000</b>
Regina Qu'Appelle Health Region		
<b>EXPENDITURES</b>		
Salaries	93,000	
Textbooks, software	1,500	
Advertising / Promotion	500	
Travel	1,000	
Telephone	<u>4,000</u>	
Total		<b><u>\$100,000</u></b>
<b>BALANCE</b>		<b>\$0</b>

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April 30, 2010