



Saskatchewan Drug Information Service

On-Call Drug Information Service

Regina Qu'Appelle Health Region Contract

Annual Report 2008 - 2009



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EXECUTIVE SUMMARY

SDIS on-call service received 2744 calls during the fiscal year, April 1st 2008 to March 31st 2009, an average of 7.5 calls per evening. Most of these calls (86 %) were transferred to the service by HealthLine nurses. The majority (81 %) of callers were women. Over 60 % of the calls were placed by persons between the ages of 19 and 49 years. Twenty-five percent of calls originated in the city of Saskatoon and 17 % in Regina. Calls were received from all Saskatchewan health regions. The most common question categories were drug interaction, dose/administration, therapeutic use, adverse reactions, drugs in pregnancy and lactation and general information. Five minutes research or less was sufficient to provide responses to 69 % of the questions. Finding information for the remaining 31% of questions required more lengthy research. Discussions with 62 % of callers lasted up to 5 minutes. Longer explanations were necessary in response to 38 % of callers. Eighty-three percent of the calls were rated as not serious, 16 % as potentially serious and 1 % as serious.

The demand for drug information service during the evening hours during the past fiscal year was slightly higher than that demonstrated during the pilot project. The call volume was relatively consistent hour by hour between 5 PM and 12 midnight. Collaboration between HealthLine nurses and SDIS drug information consultants provides Saskatchewan healthcare consumers with convenient access to reliable drug information during the evenings, thus decreasing the number of calls to late-night pharmacies and potentially reducing the inappropriate use of hospital emergency departments.

Introduction

1.1 Saskatchewan Drug Information Service

The Saskatchewan Drug Information Service (SDIS) is a free, confidential drug information service staffed by licensed pharmacists. SDIS maintains two toll-free telephone services: one for healthcare professionals and one for healthcare consumers, i.e., the general public. The two major sponsors of SDIS are Saskatchewan Health and the Saskatchewan College of Pharmacists. The consumer arm of SDIS provides callers with access to objective, accurate and current information on prescription drugs, over-the-counter medications and herbal products. Callers with serious adverse reactions or other problems are directed to adequate medical follow-up. The toll-free telephone line is staffed in office by trained drug information pharmacists Monday to Friday 8 AM to 5 PM. Requests for information can also be submitted by voicemail, by fax or on the SDIS website 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 in December 2007. The pilot study indicated that there was a demand for on-call drug information service 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 and 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 by the HealthLine nurse, 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.

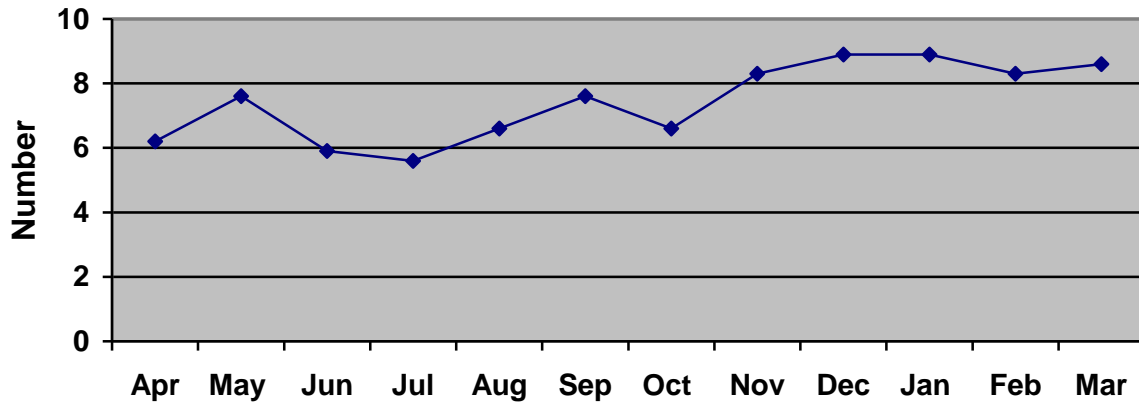
The on-call model of service gives pharmacists the opportunity to work from home. It allows SDIS to employ pharmacists at times when, and places where, they might not otherwise have been able to work professionally, thus giving pharmacists more flexibility and making better use of pharmacy human resources.

2.0 Utilization Statistics

2.1 Call numbers

A total of 2744 calls were handled by SDIS on-call drug information pharmacists between the hours of 5 PM and 12 midnight during the year ending March 31, 2009. As illustrated in Figure 1, the average number of calls per evening dipped during the summer months, then increased again over the winter months. The overall yearly average was 7.5 calls per evening.

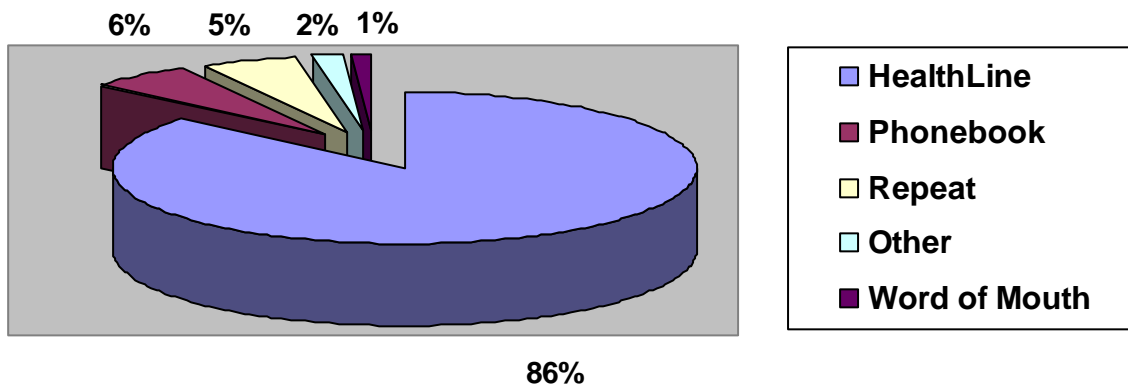
Figure 1: Average number of calls / evening / month



2.2 Source of Calls

The majority (86 %) of calls were transfers from the HealthLine. (Figure 2)

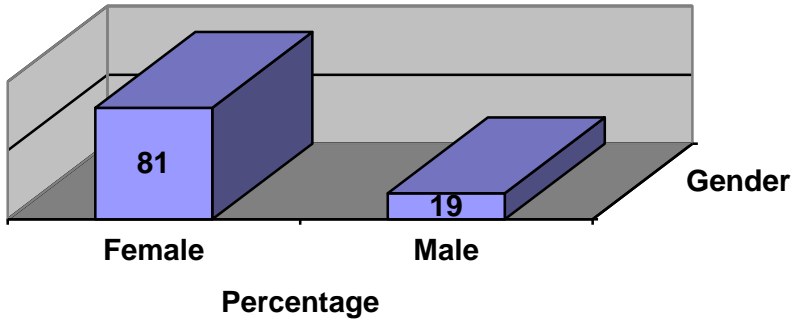
Figure 2: Source of Calls



2.3 Caller Demographics

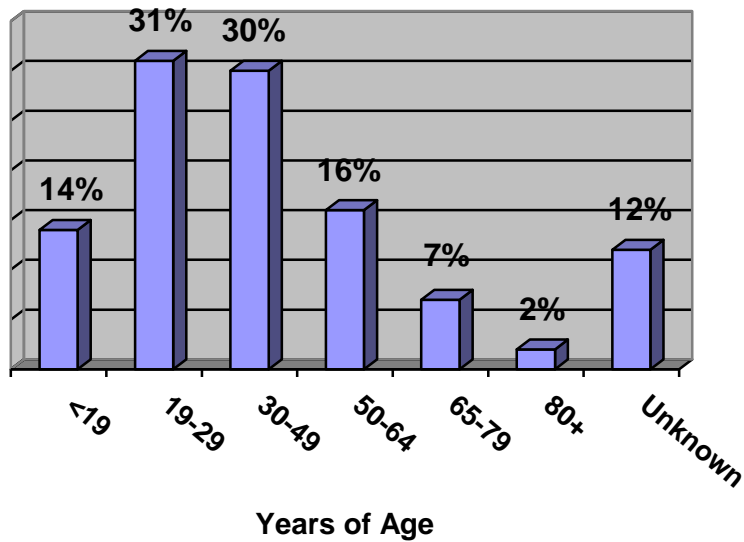
As Figure 3 illustrates, the majority of calls (2210) were placed by women.

Figure 3: Gender of callers



Over 60 % of the calls were made by patients between the ages of 19 and 49 years. Those in the 19 to 29 year old group were the most frequent callers (31 %), followed closely by the 30 to 49 year old group (30 %). (Figure 4)

Figure 4: Caller Age



Caller Residence

Calls were received from all of the Saskatchewan health regions. Calls originating from the Saskatoon and Regina Qu'Appelle health regions accounted for over 50 % of the volume. Tables 1 and 2 provide details on the number and percentages of calls received from the health regions and larger urban centres.

Table 1: Calls by Health Regions

Table 2: Calls by City

Health Region	Number (%) of Calls	City	Number (%) of Calls
Saskatoon	846 (31)	Saskatoon	698 (25)
Regina Qu'Appelle	608 (22)	Regina	465 (17)
Prairie North	199 (7)	Prince Albert	100 (4)
Prince Albert Parkland	159 (6)	Moose Jaw	80 (3)
Sunrise	149 (5)	Swift Current	58 (2)
Sun Country	131 (5)	Battleford/North Battleford	56 (2)
Five Hills	102 (4)	Yorkton	55 (2)
Cypress	99 (4)		
Heartland	99 (4)		
Kelsey Trail	84 (3)		
Mamawetan Churchill River	68 (2)		
Keewatin Yatthe	35 (1)		
Athabasca	1		
Anonymous	145 (5)		
Unknown	16 (0.5)		
Out-of-Province	3		

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)

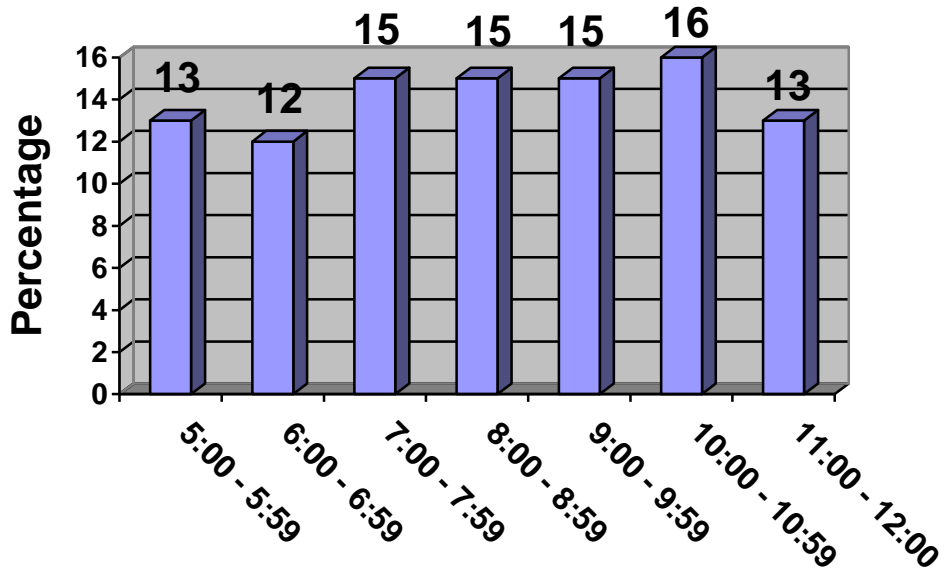
Table 3: Nature of Drug Information Questions

Nature	Number (%) of Calls
Interaction	577 (21)
Dosage / administration	504 (18)
Adverse reaction	429 (15)
General information	379 (14)
Pregnancy	213 (8)
Therapeutic Use/Drug of Choice	205 (7)
Lactation	165 (6)
Other	97 (4)
Kinetics	52 (2)
Contra-indication	43 (1.5)
Identification	28 (1)
Formulation/pharmaceutics	24 (1)
Toxicity	24 (1)

2.4 Call time statistics

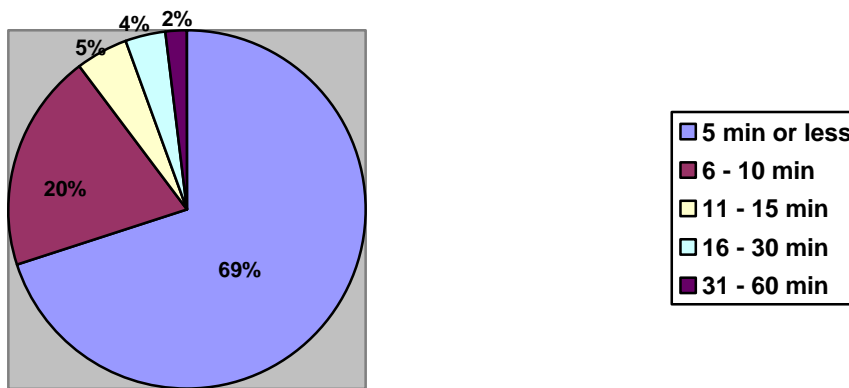
Call volumes are distributed fairly evenly throughout the on-call shift, 5PM to 12 midnight. (Figure 4)

Figure 4: Time of Initial Call to SDIS



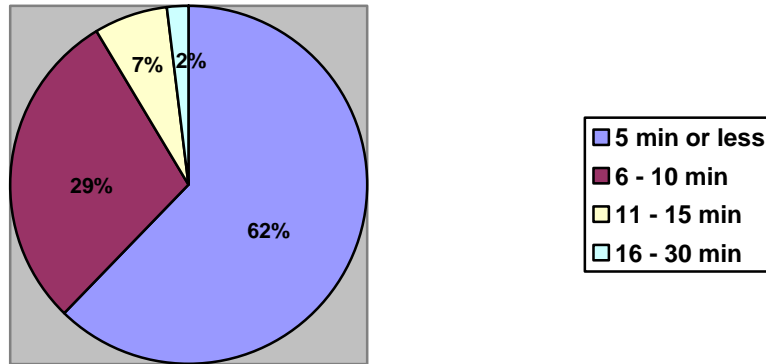
For the majority of calls (69%), drug information consultants spent up to five minutes researching the question. More lengthy research was required to respond to the remainder of calls. (Figure 4)

Figure 4: Research Time Per Question



For the majority (62 %) of calls, drug information consultants spent five minutes or less in discussion with caller. The remainder of callers required more lengthy explanations.

Figure 5: Discussion Time Per Call



2.5 Severity of Calls

Eighty-three percent of these 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	2288 (83 %)	No further action required
Potentially serious	441 (16 %)	Information immediately available is provided, caller is referred to appropriate healthcare professional
Serious	15 (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, one from Regina, one from Swift Current and one from Esterhazy.

4.0 Discussion

SDIS on-call service responded to an average of 7.5 calls per evening between April 1st, 2008 and March 31st, 2009, slightly more than the average number (7 per evening) in the pilot project. This indicates a sustained demand for access to drug information during the evening hours.

Most of the calls were rated as not serious. Callers were provided with information and / or advice and no further intervention was considered necessary. Having SDIS consultants on call during the evening reduces the number of information calls referred to late-night pharmacies. This was a concern to these pharmacies because referred callers were usually not their customers. The on-call service likely also reduces the number of inappropriate visits to the hospital emergency departments.

The collaboration between the SDIS and HealthLine continues to work very well. Anecdotally both nurses and pharmacists appear to be quite satisfied with the working arrangement. An issue that has recently arisen is how to ensure callers who express suicidal ideas receive timely intervention. HealthLine nurses have protocols for this situation as well as an in-office mental health consultant. However, there have been a couple of instances recently where this concern was identified after the caller had been transferred to the drug information consultant. SDIS and HealthLine staff are working on a protocol to handle these situations.

7.0 Recommendations / Future Priorities

- That SDIS consultants continue to provide on-call service to Saskatchewan healthcare consumers during evening hours. Calls were spread out fairly evenly over the evening suggesting that the current hours of operation, 5 PM to 12 midnight, are warranted.
- That SDIS drug information consultants continue to be paid on an on-call basis unless call numbers increase appreciably.
- That SDIS and HealthLine work to develop strategies to handle difficult situations such as potentially suicidal callers.
- That SDIS and HealthLine consider options to optimize use of human resources in both services

9.0 Financial Reports

9.1 2008 – 2009 Revenues and Expenditures

**SDIS – RQHR CONTRACT
FINANCIAL REPORT
April 1st, 2008 – March 31st, 2009**

REVENUE		\$80,058
Regina Qu'Appelle Health Region		
EXPENDITURES		
Salaries	70,655	
Salaries (carried fwd from 07-08)	1670	
Books	157	
Telephone	<u>4314</u>	
Total		<u>\$76,796</u>
BALANCE		\$3262

9.2 2009 – 2010 Budget

**SDIS – RQHR CONTRACT
2009 – 2010 Budget**

REVENUE		\$ 105,000
Regina Qu'Appelle Health Region		
EXPENDITURES		
Salaries	96,000	
Textbooks, software	1,500	
Advertising / Promotion	500	
Travel	1,000	
Telephone	<u>6,000</u>	
Total		<u>\$105,000</u>
BALANCE		\$0

Submitted by:
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May 31st, 2009