



**Saskatchewan
Drug
Information
Service**

Annual Report

April 1, 2009 – March 31, 2010



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EXECUTIVE SUMMARY

The Saskatchewan Drug Information Service (SDIS) received a total of 7509 requests for information between April 1st, 2009 and March 31st, 2010; 2478 from healthcare professionals and 5031 from consumers. This is an increase of 631 (9 %) compared to the total in the previous year. The increase in call volume was due to an increase in the number of consumer calls both during regular office hours and during the on-call hours evenings and weekends. There was virtually no change in the volume of calls from professionals.

The most frequent callers to the healthcare professional line were community pharmacists, responsible for 68 % of queries, 5 % fewer than during the previous year. Nurses placed 11 % of the calls, physicians 4 % and hospital pharmacists 3 %. Calls to the professional line were made from 79 different Saskatchewan communities. The highest percentages of calls continued to originate in Saskatoon (35 %) and Regina (23 %). The categories of drug information most commonly requested were therapeutic use, drug interaction, formulation, dosage, adverse reaction, availability and general information. SDIS staff continued to provide very timely service to professional line callers, responding to 88 % of calls the same day the requests were submitted.

Consumer line consultants responded to 1925 calls during regular daytime hours (Monday to Friday, 8 :00 AM to 5:00 PM) and 3106 calls during evening hours (5:00 PM and 12:00 midnight, 7 days a week). Approximately 80 % of consumer line callers were women. Evening callers tended to be younger than daytime callers. The most common questions concerned therapeutic use, drug interaction, formulations, dosage, adverse reactions, availability and general information. Consultants required less than 10 minutes of research to answer the majority of questions. Conversations with callers lasted a mean of 5 – 10 minutes. Referral from the HealthLine was the most frequent source of calls: 46 % of calls during the day and 82 % of calls in the evening. Repeat callers were responsible for 29 % of daytime calls and 10 % of the evening calls.

SDIS consultants were also active in other avenues of drug information. Four issues of the SDIS Drug Information Newsletter were distributed to Saskatchewan pharmacies and posted on the SDIS website for individual viewing. SDIS consultants provided drug interaction lectures, drug toxicology lectures, drug information tutorials and experiential training in the specialty of drug information to undergraduate students at the College of Pharmacy and Nutrition, University of Saskatchewan. In addition, SDIS consultants exhibited posters and gave oral presentations at various pharmacy and healthcare professional events. SDIS provided consultant services to the Saskatchewan College of Pharmacists, Lung Association of Saskatchewan and RxFiles.

The twelfth meeting of the SDIS Advisory Board was held August 12th, 2009. The Board assists SDIS in strategic planning and meeting goals and objectives. The on-going priorities for SDIS are maintaining or increasing call volumes for both the healthcare professional and consumer arms of the service while ensuring callers continue to receive timely and quality service; maintaining collaborations with HealthLine, RxFiles and the Lung Association; promoting increased use of the SDIS website; incorporating follow-up into the regular routine of the information services; and instituting and evaluating quality control procedures for the services. New priorities include investigating innovative roles for SDIS in providing drug information to healthcare professionals and searching for funding sources to replace industry donations. Additional priorities will be added as suggested by the Advisory Board at the annual meeting in August, 2010.

1. INTRODUCTION

1.1 Background

In September of 1974, the College of Pharmacy and the College of Medicine at the University of Saskatchewan established Dial Access, the first province-wide drug information service in Canada. This telephone inquiry service continues to be available to all healthcare professionals in Saskatchewan as an arm of the Saskatchewan Drug Information Service (SDIS). A toll-free number (1-800-667-3425) is maintained to provide easy access for callers in all areas of the province. The service is staffed Monday to Friday, 8:30 AM to 4:30 PM, by licensed pharmacists who research and respond to queries. On-call service is available 5 PM – midnight daily. Question templates on the SDIS website allow callers to leave queries at their convenience 24 hours a day.

The Consumer Drug Information Centre was initiated in 1990 as a one-year pilot project for residents of Saskatoon and area. Funding for the project was provided by a grant from the Saskatchewan Minister of Health based on a recommendation of the Advisory Committee on the Safe Use of Medicines. In January of 1991, the centre was expanded to cover the entire province via a toll-free telephone line (1-800-665-3784) and approval was granted for subsequent years of operation. The consumer line office hours are Monday to Friday, 8:00 AM to 5:00 PM. On-call service between 5:00 PM and 12:00 AM midnight was initiated in December, 2007 as a pilot project in collaboration with the HealthLine and was subsequently extended to cover the 2008- 9 and 2009-10 years. Consumer queries can also be submitted via voicemail or by filling out the question template available on the SDIS website.

In 2001, the Dial Access Drug Information Service and the Consumer Drug Information Centre were consolidated into one organization, the Saskatchewan Drug Information Service, in order to simplify administration and maximize the use of available resources.

1.2 Goals and Objectives of the Service

1.2.1 Healthcare Professional Information Service

- Upon request, provide pharmacists and other healthcare providers in Saskatchewan access to objective, current and concise information on drugs and drug therapy, in a timely manner.
- To provide continuing education related to drugs and drug therapy to healthcare professionals in the province.
- To serve as an experiential training site for pharmacy students, pharmacy residents and postgraduate students.
- To contribute to the advancement of knowledge in the area of drug information.

1.2.2 Consumer Information Service

- To provide Saskatchewan healthcare consumers with immediate access to objective, current and concise information on drug-related questions.
- To direct patients with serious adverse reactions and other problems to adequate medical follow-up.
- To provide and enhance educational and training programs for a variety of audiences including consumers and health professionals.
- To develop a comprehensive database of information by gathering epidemiological information regarding drug-related problems in the community. This information can be used to assist regional planning agencies.
- To enhance interdisciplinary collaboration and the public image of healthcare professionals.

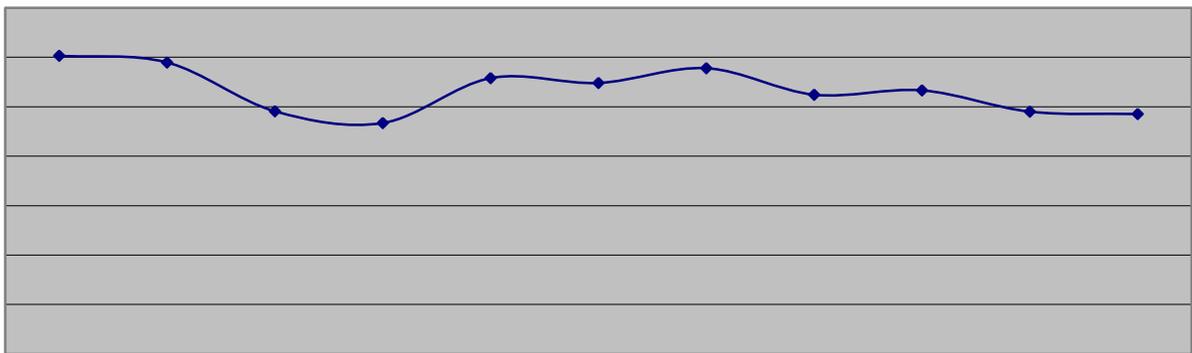
2. UTILIZATION STATISTICS: APRIL 2009 – MARCH 2010

2.1 Healthcare Professional Service

a) Number of Calls Received

The healthcare professional line received **2,426** requests for information during regular office hours in the 2009 – 2010 fiscal year, 24 fewer calls than in the previous year. Call volumes for the past ten years are shown in Figure 1. Although there has been a downward trend over the past few years, there was only a minor decrease in call number this past year.

Figure 1: Call Volumes By Year



b) Profession of Callers

As in previous years, the majority of calls (68 %) were from community pharmacists. Nurses (public health, travel clinics, etc.) were the next largest group accounting for 11 % of the professional calls, followed by physicians at 4 % and hospital pharmacists at 3.0 %. Table I lists the number and percentage of calls placed by each profession.

Table I: Calls by Profession

Profession	Number (%)	Profession	Number (%)
Community pharmacist	1657 (68)	Pharmacy instructor	25 (1)
Nurses	257 (11)	Dietician/nutritionist	8
Pharmacists (other)	150 (6)	Physiotherapist	7
Physician	103 (4)	Student (other)	6
Pharmacy student	71 (3)	Dentist	2
Hospital pharmacist	69 (3)	Other	33 (1.5)
Nurse practitioner	38 (1.5)		

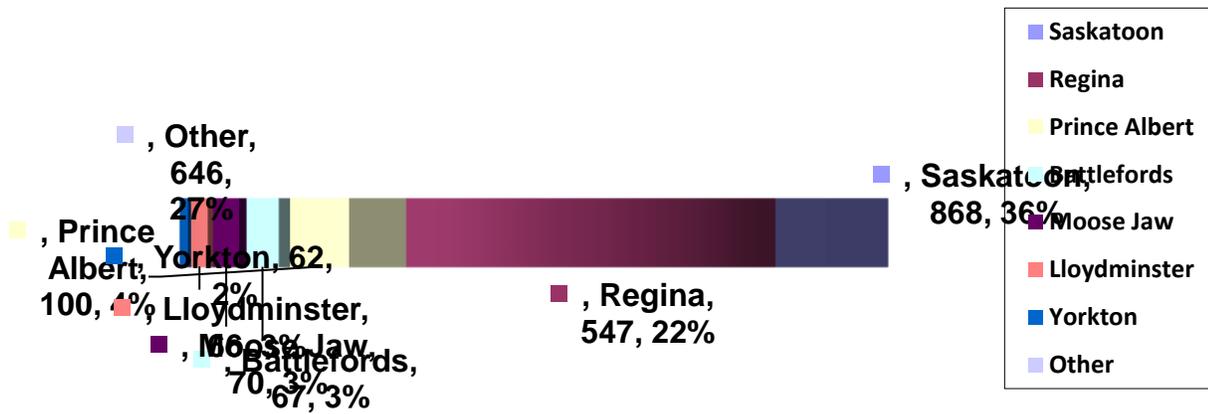
c) Geographical Location of Callers

As detailed in Table II, requests for information over the past year came from 79 different communities across Saskatchewan. In addition, there were 15 calls from healthcare professionals practicing outside of Saskatchewan. The highest percentage of calls continued to originate in Saskatoon, decreasing slightly from 38 % last year to 35 % this year. The percentage of calls from Regina increased from 22 % to 26 %. Figure 2 (next page) illustrates the percentage breakdown of calls received from Saskatchewan cities.

Table II: Location of Healthcare Professional Service Callers

SASKATCHEWAN			
Number of Calls	Community	Number of Calls	Community
868	Saskatoon	20	Indian Head, Melfort
547	Regina	16	Fort Qu'Appelle, Kelvington
100	Prince Albert	13	Wadena
88	Unity	12	Estevan, Maple Creek
70	Moose Jaw	11	Imperial, Shellbrook
66	Lloydminster	9	Biggar, Luseland, St. Walburg
62	Yorkton	8	Ituna, Kerrobert, Oxbow
60	Humboldt	7	Turtleford
51	Tisdale	6	Carnduff, Leader, Rosetown
38	North Battleford	5	Assiniboia, Buffalo Narrows, Kamsack, Kindersley, Maidstone, Meadow Lake, Naicam, Rosthern, Warman, Wynyard
30	Weyburn	4	Carrot River, Duck Lake, Hafford, Watrous
29	Battleford, Swift Current	3	Broadview, Carlyle, La Ronge, Lanigan, Nokomis, Radville, Wakaw
27	Humboldt	2	Cut Knife, Foam Lake, Kipling, Langenburg, Norquay, Rocanville, Shaunavon, Spiritwood, Wilkie
24	Melville	1	Balcarres, Beauval, Bengough, Bruno, Cudworth, Davidson, Gull Lake, La Loche, Leask, Lumsden, Martensville, Whitewood, Wolseley
23	Nipawin		
OUTSIDE SASKATCHEWAN			
Number of Calls	City/ Province		
15 Out of Province Calls	Charlotte town PEI; Flin Flon MB, Fort McMurray AB, Nelson BC, Ottawa ON, Rankin Inlet NU, Rustin MB, San Francisco CA, Sarnia ON, Unknown BC, Unknown ON		

Figure 2: Call Volumes by City



d) Contact Method

Most questions are still submitted by telephone. Last year 90 % of calls from health care professionals were by telephone. Of these, 1640 (73 %) were taken in person by drug information consultants and 588 (27%) were left on voicemail. Two hundred and twenty-two questions (9 %) were submitted electronically (e-mail or via the website), a slight increase as compared with the previous year (194 – 8 %).

e) Nature of Information

The most frequent categories of questions posed to the service were therapeutic use, drug interaction, formulation, dosage, side effect /adverse reaction and product availability. A complete list of the nature of professional calls by number and frequency is shown in Table III.

Table III: Nature of Information Requested by Healthcare Professionals

Nature of Request	Number	Percentage
Therapeutic Use/ Drug of Choice	310	13
Interaction	260	11
Formulation	226	9
Dosage	215	9
Adverse reactions	212	9
Availability	177	7
Gen information	148	6
Administration	116	5
Other	107	4
Pregnancy	106	4
Precautions	100	4
Pediatric	70	3
Lactation	67	3
Identification	64	2
Stability	51	2
Contraindications	50	2
Coverage/legalities	50	2
Kinetics	35	1.5
New product	12	0.5
Toxicity	10	0.5
Pharmacology	10	0.5
Abuse	9	0.5
Other	21	1.0

Four and one-half percent of questions involved herbal products.

f) Time Required to Answer Requests

The amount of time spent by drug information consultants on research ranged from zero to six hours per question. Table IV provides a comparison of research times over the past seven years. Beginning in 2005, there appears to be a trend towards a higher percentage of calls requiring extended periods (> 1 hour) of research. Answers were provided to most callers (88 %) the same day the query was submitted. When appropriate, additional documentation concerning the request was sent to the caller by postal mail, facsimile or email.

Table IV: Time Required to Research Requests

TIME	2003-2004	2004-2005	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010
5 min. or less	30 %	35 %	37 %	37 %	35 %	37 %	32 %
6 – 15 min.	42 %	25 %	20 %	19 %	19 %	20 %	27 %
16 – 30 min.	19 %	28 %	24 %	24 %	26 %	25 %	23 %
31 – 60 min.	7.5 %	11 %	12.5 %	13 %	14 %	12 %	13 %
> 60 min.	1.5 %	1.5 %	6.5 %	7 %	6 %	6 %	5 %

g) Difficulty of Questions

As of October 1st, 2009, DI consultants were asked to rate the difficulty of each question. This was in preparation for the quality assurance program (Section 2.5). The majority of questions were considered “not difficult”. (Table V)

Table V: Difficulty Rating of Questions

Difficulty Rating	Number of Calls	Percentage of Total
1 = not difficult; straight forward question	1004	83 %
2 = required some research and/or interpretation	199	16 %
3 = required extensive search and some interpretation	7	1 %
4 = required extensive search and extensive interpretation	1	

2.2 Pilot of On-Call Service for Healthcare Professionals

Beginning October 1st, 2009, we began a pilot of evening and weekend on-call service for healthcare professionals. The purpose of the pilot study was to determine (1) if there was a demand for drug information service outside regular office hours and (2) if it was feasible for DI on-call consultants to handle calls from both lines. Based on the number of voicemail messages left evenings and weekends, it was assumed that there would not be more than 1 or 2 calls from healthcare professionals per on-call shift. Consultants were instructed not to spend more than 30 minutes on an individual question; if the consultant was unable to find an answer or if more research was needed, the question was documented and left for the office consultant to complete.

Over the 6 month period of the pilot (Oct. 1st, 2009 – Mar. 31st, 2010), 52 professional line calls were received (average 8 – 9 calls per month). Most of the calls were from pharmacists (47 - 92 %). Three calls were placed by nurses and two by physicians. The majority of calls were placed from Saskatoon and Regina, 40 % and 23 % respectively. The remainder were from smaller centres including one call from the Muskeg Lake Indian Reserve and one from Fort Qu'Appelle. Consultants were able to answer 12 % of questions in 5 minutes or less; 36 % within 15 minutes, 44 % within 30 minutes. Twelve percent of calls required more than 30 minutes of research. Forty-four callers (85 %) received a response within 24 hours. The major question categories involved dose and administration (24 %), formulation (12 %), interaction (12 %), adverse reactions (10 %), general information (8 %), pregnancy and lactation (8 %). Sixty-two percent of questions were rated as not difficult, thirty-one percent required some interpretation and/ or more research and eight percent required extensive search and interpretation.

After the 6 month pilot, the on-call consultants were asked to evaluate their experience with the professional line calls. Some consultants were concerned that service to consumer could suffer if the number of professional calls were to increase. Another commented that professional calls can involve lengthy research which is difficult when also fielding consumer calls. They were in favour of continuing to provide the service for the time being but not in favour of promoting the extended hours of service.

2.3 Consumer Service

a) Number of Information Queries

A total of **5031** calls were received by the SDIS consumer service during the 2009 – 2010 fiscal year compared to 4428 during the 2008 – 2009 year. Figure 3 illustrates the trends in annual call totals since the inception of the consumer information service in 1991. Call volumes reflect variations in the hours of service provided over the years. The steep increase beginning in 2007 is directly associated with the initiation of evening on-call service for the consumer line. During office hours (8:00 AM – 5:00 PM, Monday through Friday), 1925 calls were received, an increase of 14 % over the previous year. During evening hours (5 PM – 12 midnight daily), 3106 calls were received, an increase of 13 %.

Figure 3: Consumer Calls by Year

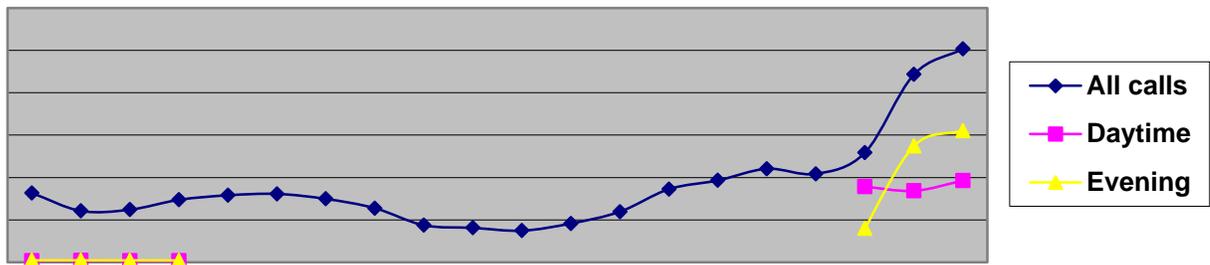
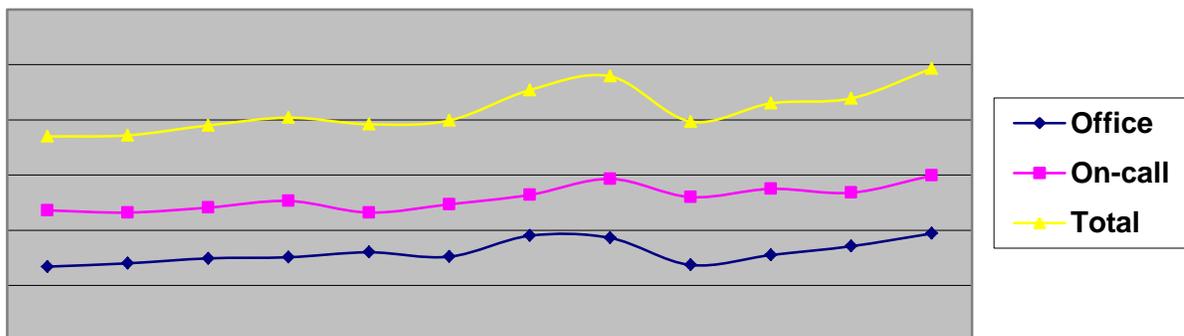


Figure 4 illustrates the monthly variations in daytime and evening call numbers. The peak in November corresponds to the height of the H1N1 pandemic. The busiest month of the year, though, was in March.

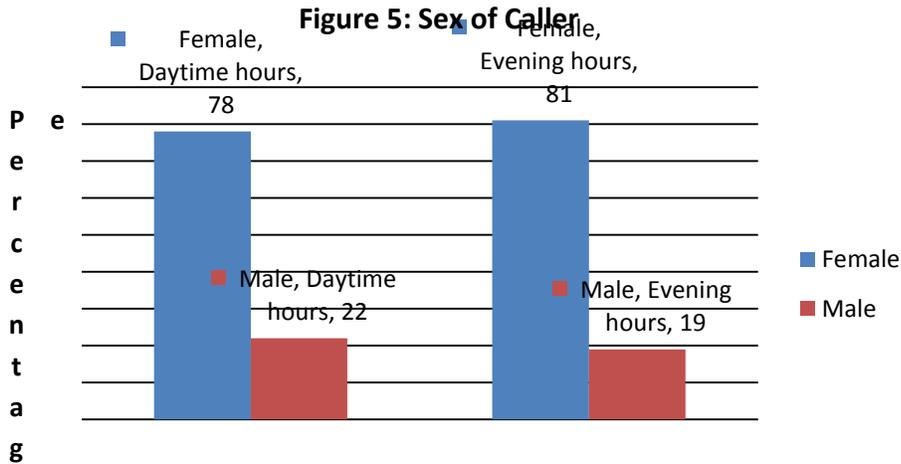
Figure 4: 2008-2009 Consumer Calls by Month



b) Caller Demographics

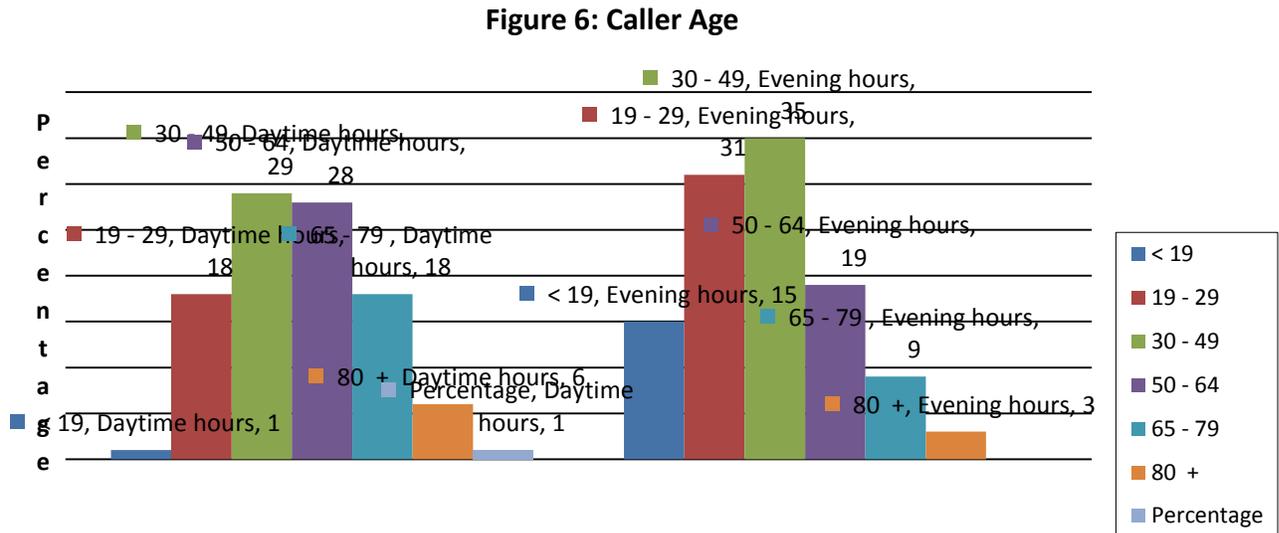
Sex

As in previous years, the majority of callers were women. The gender ratio of calls has remained consistently at approximately 4:1 female to male for the past 10 years.



Age

The age categories of daytime callers are similar to those in previous years. Figure 6 compares the distribution of caller ages between daytime and evening hours. Evening callers tend to be younger than daytime callers.



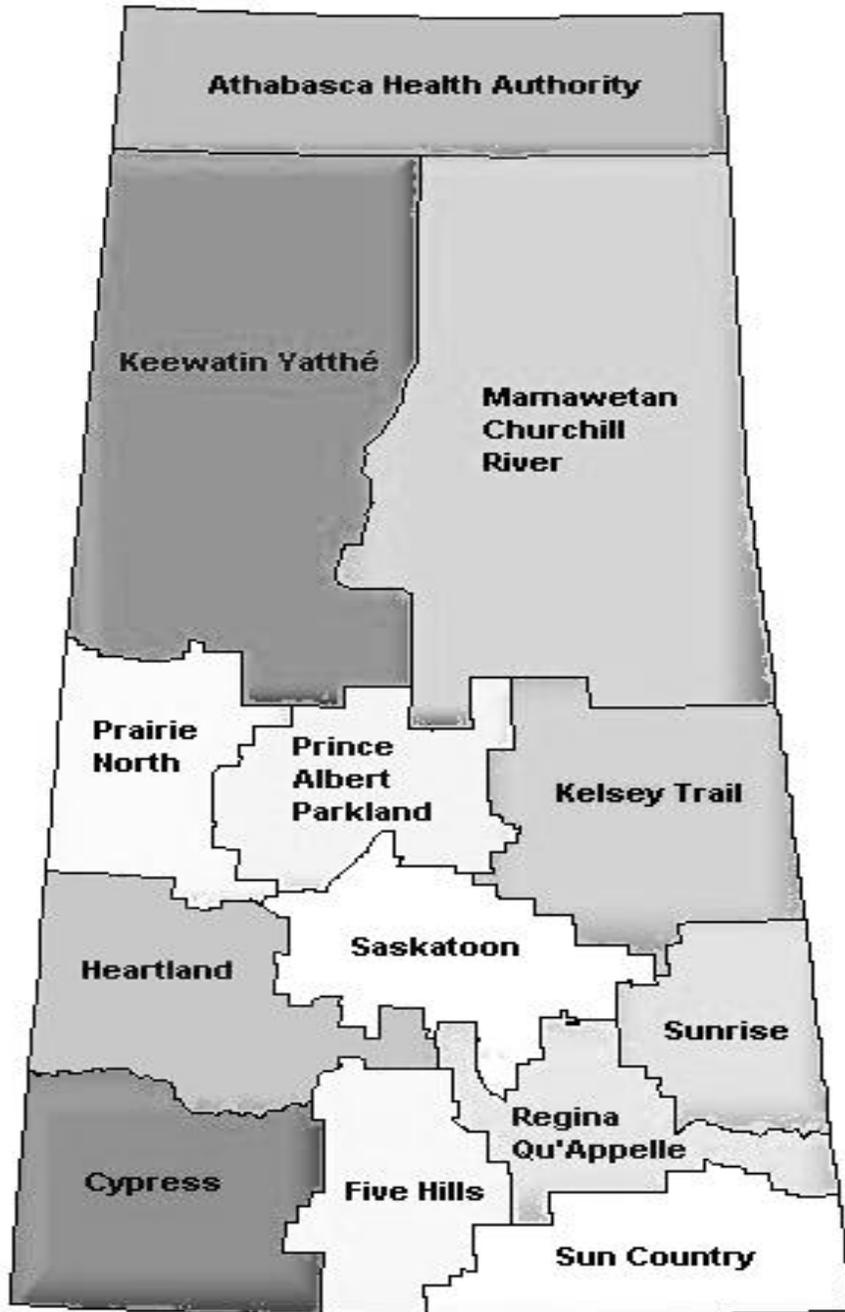
c) Geographical Location of Callers

Table VI details call numbers by Regional Health Authority. As in previous years, the highest percentage of calls originated in the Saskatoon region (42 % during the day and 32 % in the evening) and the Regina Qu'Appelle region (20% daytime and 21.5 % evening). The rest of the calls came from residents of over 200 different communities situated within the other Saskatchewan health regions (Figure 7). During the day, a higher percentage of calls originated from the Saskatoon Health Region while a higher percentage of calls originated from the less populated health regions during the evening. This could indicate that callers are getting their drug information locally (from drug stores, clinics, etc.) during the day and using the information line at night when these sources are not available.

Table VI: Consumer Calls by Regional Health Authority

Regional Health Authority	Daytime Calls Number (%)	Evening Calls Number (%)
Saskatoon	818 (42)	987 (32)
Regina Qu'Appelle	390 (20)	663 (21.5)
Prairie North	110 (6)	198 (6.5)
Cypress	92 (5)	133 (4)
Sunrise	89 (4.5)	175 (5.5)
Prince Albert Parkland	82 (4)	201 (6.5)
Heartland	78 (4)	134 (4.5)
Five Hills	75 (4)	142 (4.5)
Sun Country	48 (2.5)	165 (5.5)
Kelsey Trail	43 (2)	88 (3)
Mamawetan Churchill River	21 (1)	73 (2.5)
Keewatin Yatthe	10 (0.5)	41 (1.5)
Athabasca	2	3
Unknown / Anonymous	67 (3.5)	81 (2.5)

Figure 7: Saskatchewan Regional Health Authorities



d) Contact Method

Most consumers submitted questions by telephone (98 % during office hours; 99.5 % during the evening). Calls were answered in person by a drug information consultant 84 % of the time during the day and 95 % of the time during the evening. Only 20 questions were submitted electronically.

e) Nature of Information Requested

Table VII details the categories of consumer information requests by frequency and time of call (daytime and evening hours). The most frequent category during both daytime and evening hours was side effects / adverse reactions. A higher percentage of calls during the day were about drug coverage /legalities, drug availability and drug abuse while a higher percentage of evening calls were about interactions, dosage /administration and pregnancy.

Table VII: Summary of Calls by Nature of Information

Nature of Request	Daytime Hours Number (%) of Calls	Evening Hours Number (%) of Calls
Adverse reaction	348 (18)	510 (16.5)
Interaction	319 (16.5)	326 (10.5)
General information	308 (16)	564 (18)
Dosage / administration	229 (12)	637 (20.5)
Therapeutic use / drug of choice	174 (9)	176 (5.5)
Lactation	79 (4)	162 (5)
Pregnancy	77 (4)	202 (6.5)
Contra-indication	55 (3)	41 (1.5)
Formulation/pharmaceutics	40 (2)	20 (0.5)
Toxicity	24 (1)	19 (0.5)
Kinetics	22 (1)	38 (1)
Identification	16 (1)	24 (1)
Other (abuse, coverage, storage, etc.)	12.5 %	13 %

Fourteen percent of daytime calls involved herbal or complementary products. Only 1.5 % of evening callers inquired about herbal products.

f) Potential Severity of Inquiry

All consumer requests for drug information are subjectively ranked as to the potential severity of the situation from which the question arises. Most of the calls, daytime and evening were classified as “not serious”.

Table VIII: Severity of Consumer Calls

Severity Rating	Description	Daytime Hours Number (%) of Calls	Evening Hours Number (%) of Calls
Not serious	No further action required	1669 (87 %)	2675 (86 %)
Potentially serious:	Information immediately available is provided, caller is referred to appropriate healthcare professional	254(13 %)	414(13.5%)
Serious	Caller is referred immediately to the Saskatchewan Poison Centre or nearest hospital emergency department	2	17 (0.5 %)

g) Time Required to Answer Requests

Tables IX and X provide a breakdown of the time required to research and discuss consumer questions. When requested, additional information was sent to callers by mail or facsimile.

Table IX: Time Required for Research Per Call

Time Required Per Question	Daytime Calls	Evening Calls
0 – 5 minutes	980 (51 %)	2347 (73 %)
6 – 10 minutes	342 (18 %)	623 (19 %)
11 – 15 minutes	215 (11 %)	124 (4 %)
16 – 30 minutes	290 (15 %)	90 (3 %)
31 – 60 minutes	79 (4%)	19 (0.5 %)
More than 60 minutes	19 (1%)	3

Table X: Discussion Time Per Call

Time Required Per Question	Daytime Calls	Evening Calls
0 – 5 minutes	1140 (59 %)	1776 (57 %)
6 – 10 minutes	523 (27 %)	997 (32 %)
11 – 15 minutes	176 (9 %)	242 (8 %)
16 – 30 minutes	59 (3 %)	77 (2.5%)
31 – 60 minutes	7	12
> 60 minutes	0	2

h) Difficulty of Questions

Consumer line consultants were also asked to begin documenting question difficulty as of October 1st, 2009. (TableXI) The majority of questions were considered not difficult and rating percentages were exactly the same for both office and evening time periods.

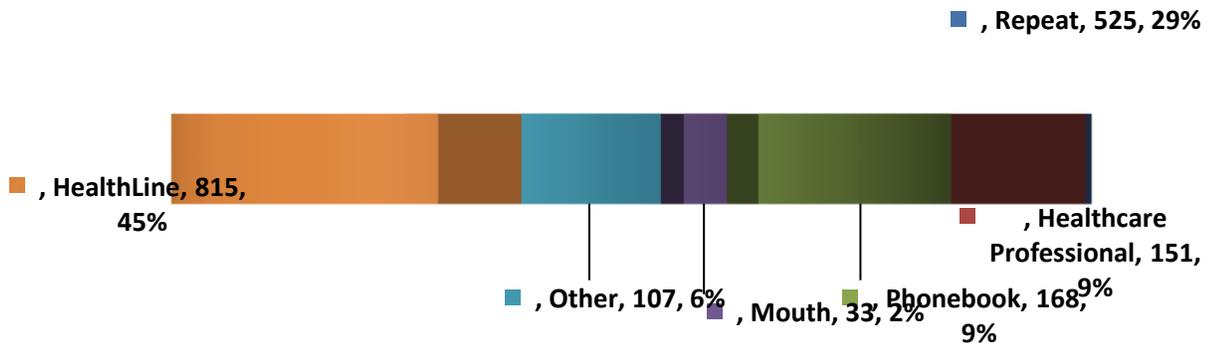
Table XI: Difficulty Rating of Questions

Difficulty Rating	Daytime Calls # (%)	Evening Calls # (%)
1 = not difficult; straight forward question	1343 (82 %)	820 (82 %)
2 = required additional research and/or interpretation	274 (17 %)	175 (17 %)
3 = required extensive search and some interpretation	17 (1%)	8 (1%)
4 = required extensive search and extensive interpretation		

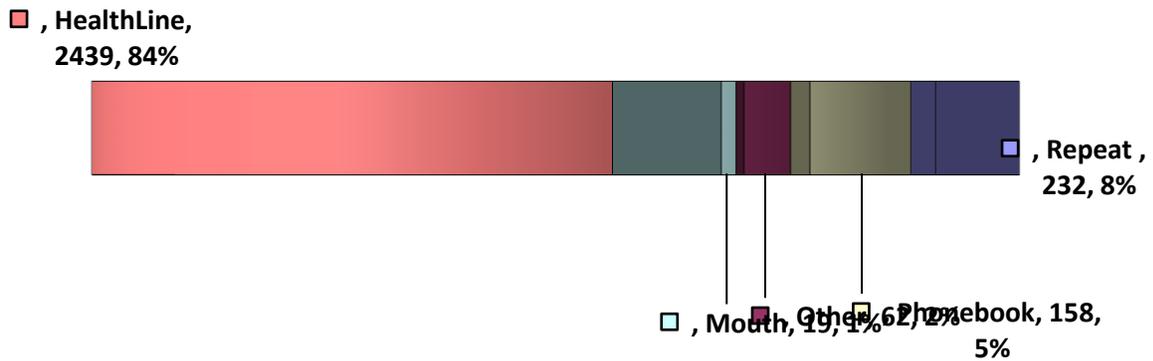
i) Source of Consumer calls

To determine the most effective strategies for promotion of the SDIS consumer line to Saskatchewan residents, callers are asked how they learned about the service. Figures 8 and 9 summarize the answers provided to that question in 2009 – 2010. Although the number of callers referred from the HealthLine and the number of repeat callers were somewhat lower than in the previous year, the proportion of calls in each category remained fairly constant.

**Figure 8: Source of Consumer Requests
Daytime Hours**



**Figure 9: Source of Consumer Requests
Evening Hours**



HealthLine Referrals

The HealthLine refers callers with questions about drugs and drug-related therapy to their physician, their pharmacy and the SDIS consumer line. Since the establishment of the HealthLine August 1, 2003, referrals from this service have become the most common source of consumer calls. Forty-six percent of daytime callers and eighty-two percent of evening callers were referred to SDIS by the HealthLine.

Repeat Callers

Repeat calls accounted for 29 % of daytime calls and 10 % of evening calls on the consumer line. This suggests that utilization increases once consumers are aware of the service and that consumers are satisfied with the information provided by the consumer line drug information consultants.

Professional Referrals

Referrals by healthcare professionals (other than HealthLine nurses) were responsible for 8 % of calls made to the consumer line during the day. SDIS consultants continue to encourage pharmacists to contact the service on the patient's behalf rather than recommending the patient call him/herself.

Phone Books

Listings in phone books are a modestly effective means of directing Saskatchewan residents to the consumer information line. Approximately 9% of daytime callers and 5 % of evening callers reported learning about the service by coming across the consumer line number in the phone book.

Print

The percentage of consumer line callers who became aware of the services through printed material was minimal this year. We continued to distribute brochures to various consumer healthcare organizations and also sponsored an ad in a number of rural newspapers.

2.4 Follow-up calls

Drug information consultants followed up on 123 calls (0.25 %) during the 2009 – 2010 year. Consultants are asked to follow up with all serious and potentially serious calls to ensure caller safety. This target is not currently being achieved.

2.5 Quality Assurance

We had planned to initiate a quality assurance program in September using an audit template adapted from the MUN School of Pharmacy. We asked members of the College of Pharmacy & Nutrition Clinical Practice faculty if they would be able to do some of the auditing but because of workload and other time constraints no one was available during the past year. For the coming year, we have budgeted funds to hire an external auditor and will proceed with the program as soon as possible.

2.6 Summary

Overall, SDIS received a total of **7509 calls** in the 2009 – 2010 year, an increase of 631 calls (9 %) compared to the previous year's total, 2478 from healthcare professionals and 5031 from healthcare consumers. The increase in call volume was primarily due to a rise in the number of calls to the consumer line. In comparison to the previous year when the call volume increased due to the extended hours of service, the number of calls increased during regular office hours as well as the evening shifts. Call volume on the professional line did not change significantly.

A pilot project investigating extended hours of drug information service for healthcare professionals was initiated in October 2009. Only 8 or 9 calls were received monthly. On-call consultants did not feel confident about their ability to handle more professional calls and still keep up with the regular consumer calls so the extended hours are not being promoted at this time.

3. SDIS PERSONNEL 2009 – 2010

3.1 Director: Dr. Yvonne Shevchuk PharmD, BSP

3.2 Manager: Karen Jensen MSc, BSP

3.3 Drug Information Consultants:

- Carmen Bell BSP
- Gary Berg BSP/ Lisa Hupka BSP
- Alana Berg BSP
- Aldona Torgunrud BSP
- Dorothy Sanderson BSP
- Debbie Maczek BSc (Pharm)
- Jean Macpherson BSP
- Christina Swiatecki BSP
- Audrey McLelland BSP
- Charlene Chursinoff BSP
- Jahnaya Mann BSP
- Amanda Kongawi BSP
- Loren Regier BSP

Gary Berg, the permanent part-time consultant on the Consumer Line resigned in May, 2009 and was replaced by Lisa Hupka. Lisa divides her time between SDIS and Westgate Shoppers DrugMart in Saskatoon. Charlene Chursinoff (Regina) and Amanda Kongawi (Prince Albert) were recruited for the on-call service in 2009. Debbie Maczek left the service in October, 2009.

3.4 Summer Students

SDIS and the C-Patch study (Principle investigator – Dr. David Blackburn) jointly hired a third year pharmacy student for three months during the summer of 2009. The student, Kerri Fitzpatrick, worked on transferring data from the Drug Information Service hard copy disease and drug files to an electronic filing system. She also updated a literature search on women's issues in pharmacy, applied for Ethic's approval for a survey on this topic and set up the survey on the University of Saskatchewan website for pharmacy student access. The survey was administered to first and fourth year students in January 2010.

Donica Janzen, a third year pharmacy student, has been hired for the summer of 2010. Her time will be divided between SDIS and Dr. Shevchuk's research projects.

4. AUXILIARY SDIS ACTIVITIES

a) Website Postings

Consumer Questions

April 9, 2010

Q. How long can a bottle of sun screen be used for?

January 12, 2010

Q. What is the dose of aspirin needed for stroke prevention?

December 14, 2009

Q. What can I do to prevent a hangover after drinking alcoholic beverages?

November 25, 2009

Q. How do I know if I have H1N1?

November 25, 2009

Q. How is H1N1 influenza treated?

November 25, 2009

Q. Do any medications interact with the H1N1 vaccine? c

November 25, 2009

Q. Is there any reason a person should not get the H1N1 vaccine?

November 25, 2009

Q. How long does it take for the H1N1 vaccine to become effective?

September 28, 2009

Q. If I want to stop taking my sleeping pills can I stop all of a sudden or should I go off of them gradually?

July 31, 2009

Q. When will the new vaccine for shingles be available and who should be vaccinated?

b) Newsletters

Four issues of the SDIS Drug News were mailed to Saskatchewan pharmacies and posted on the SDIS website.

1.  [Vol. 27, No.1 New Oral Anticoagulants](#)

February 2010

2.  [Vol. 26, No. 3 Fever](#)

December 2009

3.  [Vol. 26, No. 2 Neuropsychiatric Adverse Effects](#)

October 2009

4.  [Vol. 26, No. 1 Which Contraception Methods to Recommend for Breastfeeding Women ?](#)

May 2009

c) Consultation / Contract work for other organizations

- Annual review and updates of the information in the drug therapy section of the Canadian Lung Association website funded by the Lung Association of Saskatchewan.
- The Saskatchewan College of Pharmacists contracted SDIS to prepare guidelines for the Minor Ailment (Selfcare) Prescribing component of Level I Pharmacist Prescribing. When completed and reviewed, the final version of the guidelines will be posted on the SDIS website for easy access by Saskatchewan pharmacists.

d) Pharmacy Undergraduate Curriculum

- NUTR 440.6: Clinical Nutrition – 1 lecture on “Food – Drug Interaction” (*K. Jensen*).
- PHAR 372.2: Research Methods and Evidence-Based Practice – computer lab tutorials on “Electronic Drug Information Resources” and “Evaluation of Internet Information” (*K. Jensen*); Problem-Based Learning Tutorials (*L. Hupka, K. Jensen*)
- PHAR 418.2 Issues in Pharmacy I – 3 lectures on toxicology (*C. Bell*).
- PHAR 455.7: Pharmacotherapeutics I - 3 lectures on “Principles of Drug Interaction” (*K. Jensen*); 1 lecture on “Adverse Drug Reactions” with Nancy Saunders, Co-ordinator of the AR Program (*K. Jensen*)
- PHAR 472.2: Evidence-Based Practice – Computer lab tutorials on “Evidence-Based Medicine Resources” (*K. Jensen*) and “Collecting Data for a Drug Information Request” (*C. Bell, K. Jensen*); 1 lecture on “Drug Information for Consumers” (*K. Jensen*).
- PHAR 400.1: Pharmacy Skills IV – Orientation and supervision of third year students in an introductory experience in drug information research.
- PHAR 557.6: Pharmacotherapeutics III - 3 lectures on toxicology (*C. Bell*).
- PHAR 565.2: Drugs in Pregnancy – 1 lecture (*C. Bell*).
- PHAR 580.16: Structured Practice Experience – SDIS provided a specialty practice site for three fourth year students’ rotations.

e) Presentations

- September 2009: Antimalarial presentation to the International Travel Clinic nurses (*K. Jensen*); “Improving Health Product Safety: Research, Resources, and Reporting” – Co-presentation with Nancy Saunders, Co-ordinator of the AR Program, Health Canada, at the InterD3 conference. (*K. Jensen*)
- “Empowerment through Information and Action” - Co-presentation with Nancy Saunders, Co-ordinator of the AR Program, Health Canada, at the Alzheimer Society of Saskatchewan annual conference. (*K. Jensen*)
- November 2009: “Troubleshooting Consumer Drug Information Requests: Approach & Resources” co-presented at the Practical Management of Common Medical Problems conference (Saskatoon) with Dr. Jeff Taylor. (*C. Bell*).
- January 2010: “Selfcare Prescribing” - nominal group meetings with community pharmacists in Saskatoon and Regina (*K. Jensen, Y. Shevchuk*)
- March 2010: Presentation on SDIS - Pharmacy Awareness Week Admissions Night. (*C. Bell*)

f) Poster Presentations

- April 2009: Pharmacists Association of Saskatchewan annual conference in Saskatoon - SDIS poster. (*K. Jensen*)
- March 2010: Drug Therapy conference in Saskatoon - SDIS poster. (*C. Bell*)

g) Promotion / Fundraising

- SDIS brochures and stickers were mailed out to various healthcare organizations and seniors’ centres in October, 2009
- A promotional advertisement for SDIS consumer line was placed in a number of small community newspapers in February, 2010.
- Magnetic strips with SDIS contact information were included with the donation request letters mailed to Saskatchewan pharmacy owners / managers.
- Lisa Green and her replacement, Ashala Jacobson, College of Pharmacy & Nutrition Development Officers, and Karen worked together on the annual fund-raising campaigns. Pharmaceutical industry was targeted in July 2009 and Saskatchewan pharmacies were in February, 2010.

5. PARTNERSHIPS WITH OTHER HEALTHCARE ORGANIZATIONS

a) HealthLine

The HealthLine, a 24 hour toll-free telephone health advice service staffed by registered nurses, was set up by Saskatchewan Health in 2003. Callers with drug-related questions are referred by HealthLine nurses to their physicians, their pharmacies, or the SDIS consumer information line. Since December 2007, SDIS has been contracted by HealthLine to provide on-call service on the consumer drug information line between the hours of 5:00 PM and 12 midnight daily. For more information, see the 2009 – 2010 Annual Report on the Regina Qu'Appelle Health Region contract with SDIS posted on the SDIS website.

b) RxFiles

SDIS and the RxFiles continue to collaborate on drug information research and newsletter distribution. SDIS consultants investigated several drug information questions for RxFiles academic detailers. The charts and newsletters provided by RxFiles are very useful references for SDIS consultants. Three issues of SDIS Drug News were mailed with RxFiles newsletters and postage costs were shared. RxFiles will be providing SDIS with an honorarium (\$2,400) for contribution toward drug information assistance and reviews during 2009-2010. This is in part related to the fact that some of this information supports the out of province work and revenue of RxFiles .

c) Committees

- Karen is a member of the Saskatchewan College of Pharmacists Professional Practice Committee. The objective of this committee is to provide direction related to the quality of pharmacy practice and service, incorporating the concepts of pharmaceutical care. The committee meets twice annually.

6. ADVISORY BOARD

The purpose of our Advisory Board is to ensure that SDIS is meeting its goals and objectives. Advisory Board members for the year 2009 – 2010 were:

- Saskatchewan College of Pharmacists – Ray Joubert
- Saskatchewan Health – Kevin Wilson
- Canadian Society of Hospital Pharmacists (SK Branch) – Shannan Neubauer
- Canada's Research-Based Pharmaceutical Companies – Theo Pauls (Pfizer Canada Inc.)
- College of Pharmacy and Nutrition – Yvonne Shevchuk
- Community Pharmacy Representative – Brenda Yuzdepski

The twelfth annual meeting of the Advisory Board was held on August 12th, 2009. We greatly appreciate the valuable advice and support the board members provide us, both at the annual meeting and throughout the year.

7. PRIORITIES FOR 2010 - 2011

a) Ongoing priorities

- Maintain / increase usage of the healthcare professional and consumer information service lines.
- Ensure callers continue to receive timely, quality service from both drug information lines.
- Maintain collaborative relationships with HealthLine, RxFiles and the Lung Association of Saskatchewan
- Promote increased use of the SDIS website.
- Institute and evaluate quality assurance policies and procedures that have been designed for SDIS services.
- Encourage SDIS staff to follow-up with callers as part of the regular routine of the healthcare professional and consumer services.

b) New Priorities

- Investigate expanded roles for SDIS services in providing drug information to healthcare professionals e.g., collaboration with CPDP (Continuing Professional Development for Pharmacists) in providing training for pharmacist prescribing.
- Search for alternate sources of funding to replace donations from industry.
- Additional priorities will be added as suggested by the Advisory Board at the annual meeting in August, 2010.

8. FINANCIAL REPORT

The 2009 – 2010 Financial Statement is attached (Appendix I).

We wish to express our sincere appreciation to the organizations that provided financial support for the Saskatchewan Drug Information Service over the past year:

- Saskatchewan Health, Prescription Drug Services Branch
- Saskatchewan College of Pharmacists
- Canadian Society of hospital Pharmacists – Saskatchewan Branch
- College of Pharmacy and Nutrition, University of Saskatchewan

And to all the Saskatchewan pharmacies that contributed to SDIS (See Appendix II).

We also gratefully acknowledge the generous contributions made to SDIS business plan activities by the following pharmaceutical companies:

- Eli Lilly Canada Inc.
- AstraZeneca Canada Inc.
- Pfizer Canada Inc.
- Bayer Canada Inc.
- Rx&D Health Research Foundation
- Purdue Pharma
- Servier Canada Inc.

David S. Hill, Ed.D., FCSHP
Dean of Pharmacy and Nutrition

Y. M. Shevchuk, Pharm D, FCSHP
Director

K. A. Jensen, MSc, BSP
Manager

APPENDIX I

SDIS Financial Reports

	Budget 2009 – 10	Actual 2009 – 10	Budget 2010 - 11	Comments
REVENUE				
Sask Health - SPDP	173,000	173,005	180,000	
SCP	47,000	47,000	49,000	
Donations - Pharmacies	30,000	27,140	30,000	
Donations - Industry	30,000	23,500	20,000	
Contracts	3000	900	15,000*	SCP, RxFiles
Sundry	1000		1,000	
Subtotal	284,000	271,545	295,000	
EXPENDITURES				
Salaries	259,000	252,994	263,000	
Quality Assurance			5,000	
Office supplies	500	202	500	
Books	1000	852	1000	
Printing	2500	1851	2000	
Telephone and Fax	3000	3215	3500	
Postage	2000	1716	1500	
External services	250	51	50	
Website design and maintenance	0	0	250	
Advertising and Promotion	1500	284	1000	
Hospitality / working lunches	250	168	250	
Membership fees & dues	4000	3654	4000	
Registration - conferences/workshops	1000	682	1000	
Software licenses	6000	11996*	8500	3 yr sub Pharm Let, Nat Med
Travel	1000	293	1000	
Computers	1500	0	1000	
Equipment	500	496	500	
Subtotal	284,000	278,545	294,050	
TOTAL REVENUES LESS EXPENDITURES	0	- 6309	- 50	
U of S Fund Balance		3852		Reserve from previous year

APPENDIX II
Donations from Pharmacies / Pharmacists 2009 - 2010

PHARMACY	TOWN/CITY
Leslie's Drug Store	Biggar
Wakaw Pharmacy	Wakaw
Carrot River Pharmacy	Carrot River
Shellbrook Pharmacy	Shellbrook
Broadway Ave Pharmacy	Saskatoon
Lakeview Pharmacy	Saskatoon
My Pharmacy	Prince Albert
Laurier Dr Pharmacy	Saskatoon
Midtown Medical Pharmacy	Saskatoon
Lorne Drugs	Regina
Kipling Pharmasave	Kipling
Midway Pharmacy	Davidson
Redberry Pharmacy	Hafford
College Ave Drugs	Regina
Dragan Drugs	Indian Head
Fisher's Drug Store	North Battleford
Saskatoon Co-op Pharmacy Circle Dr	Saskatoon
Battleford Drug Mart	Battleford
River Height Drugs	Regina
Carlton Trail Pharmacy	Duck Lake
Henders Drugs	Estevan
McQuoid's Pharmacy Ltd	Wolseley
Grey Chemists	Prince Albert
Rubicon Pharmacies	Weyburn
Foam Lake Pharmacy	Foam Lake
Raymore Pharmacy	Raymore
Towers Pharmacy	Regina
Saskatoon Co-op Pharmacy 8th St	Saskatoon
Medical Arts Pharmacy	Saskatoon
Wheatland Drugs	Rosetown
R & C Drugs	Regina
Safeway Pharmacies	Saskatchewan
Pharmasave #415	Biggar
Gravelbourg Drugs	Gravelbourg
Sametz Pharmacy	Ituna
Edmunds Pharmacy	Tisdale

Canora Pharmacy	Canora
Lansdall Pharmacy	Maple Creek
Harbour Pharmacy	La Ronge
Dewdney Drugs	Regina
Medicine Shoppe Broadway Ave	Saskatoon
Co-op Pharmacy Attridge	Saskatoon
Hearn's Pharmacy	Yorkton
Rubicon Pharmacies	Weyburn
Rosthern Pharmacy	Rosthern
Rose Valley Pharmacy	Rose Valley
Earl's Pharmacy	Saskatoon
White's Pharmacy	Saskatoon
Louck's Pharmacy	Yorkton
Valley Drug Mart	Fort Qu-Appelle
Royal Drug Mart	Melville
Wynyard Pharmacy	Wynyard
Coteau Hills Pharmacy	Beechy
Lacroix Drugs	Tisdale
Watrous Pharmacy	Watrous
Hill Ave Drugs	Regina
Medicine Shoppe 5th Ave	Saskatoon
Medicine Shoppe 33rd St	Saskatoon
Pharmacists' Association of Saskatchewan	Regina
Luseland Pharmacy	Luseland
Wadena Drugs	Wadena