



College of Pharmacy and Nutrition
University of Saskatchewan
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Annual Report

April 1, 2013 – March 31, 2014

EXECUTIVE SUMMARY

medSask medication information service continues to provide healthcare professionals and the general public in Saskatchewan with timely access to current, relevant, evidence-based information on drug therapy. Two toll-free telephone lines, one for professional callers and one for consumers, are staffed by licensed pharmacists who respond to queries 365 days a year. In addition, medSask personnel provide lectures and tutorials to College of Pharmacy & Nutrition undergraduate students, contribute to continuing education programs for practicing pharmacists and other healthcare providers and work with various healthcare associations on drug therapy-related projects.

ON-REQUEST DRUG INFORMATION SERVICE

Between April 1st, 2013 and March 31st, 2014, the medication information service received a total of 7213 queries, 2392 from healthcare professionals and 4821 from consumers, an increase of seven percent compared with the previous year.

Healthcare Professional Service Utilization

Eighty percent of calls on the professional line were placed by pharmacists, ten percent by nurses, five percent by physicians and five percent by various other healthcare providers. Thirty-four percent of calls originated in Saskatoon, and twenty percent in Regina. The rest of the calls were placed from more than 80 different communities across Saskatchewan. The categories of information most frequently requested were 1) administration / dosage, 2) compatibility/formulation/stability, 3) therapeutic use/drug of choice, and 4) drug interaction. Ninety percent of callers received an answer within 24 hours of submitting their queries.

Consumer service

Thirty-nine percent of calls received on the consumer line were placed during daytime office hours (8 AM to 5 PM, Monday to Friday) and sixty-one percent during evening on-call shifts (5 PM – 12 midnight, 7 days a week). Women continue to outnumber male callers during both the daytime and evening shifts. There is a trend for evening callers to be somewhat younger than daytime callers. Calls were placed from every health region within the province. The geographic distribution of callers was consistent with community populations with over fifty percent of calls originating in Saskatoon and Regina. The most common question topics were adverse reactions, general information, drug interaction, and dosage /administration. Referral from HealthLine, Saskatchewan's

24-hour health information and support service, was the most frequent reason given for consulting the service; the second most cited reason was previous use of the service.

Quality Assurance and Improvement

An internal auditing process is in place to evaluate responses provided during on-call consumer line shifts.. Response accuracy and quality of conclusions were rated as good to excellent for over 95 % of calls. Selected calls on the professional line are now also being subjected to the same process.

EDUCATION

medSask staff delivered lectures and tutorials to pharmacy, nutrition and physiotherapy students on various drug information topics including drug interaction, drug toxicology, and drug information retrieval. medSask also served as a specialty experiential training site for fourth year pharmacy students and employed a student to work on research projects during the summer.

For practicing healthcare professionals, medSask staff prepared and distributed drug therapy information via newsletters, hot topics and a question and answer database posted on the medSask website and presentations at a number of healthcare professional events.

For consumers, medSask staff maintain a “Frequently Asked Questions” page on the medSask website and provided oral and poster presentations to consumer healthcare groups.

CONTRACTS / CONSULTATION

medSask provided consultant services to the Saskatchewan College of Pharmacists, Saskatchewan Prescription Drug Plan, Lung Association of Saskatchewan and RxFiles Academic Detailing program.

NEW ACTIVITIES

- Offices moved from the Thorvaldson Building to the new E-wing of the Health Sciences Building. The larger facilities allow the potential for expansion of the information services offered from medSask and the accommodation of more student experiential rotations.
- Collaboration with the Canadian Dietetics Association and the College of Pharmacy & Nutrition Division of Nutrition to submit a proposal to SaskHealth for a Nutrition Advice Line operating out of the medSask office.

- Contracted with Continuing Professional Development for Pharmacists (CPDP) program to prepare and present training seminars on new Minor Ailment conditions in April and May, 2014
- Contract with team of MBA students to design a marketing plan for medSask.

CHALLENGES

- Aligning medSask services with the changes in professional practice
- Declining pharmacy donations
- Promotion of medSask to other healthcare professions

GOVERNANCE

The annual medSask Advisory Board annual meeting was held June 27th, 2013. The board consists of representatives of the major stakeholders in the service. It assists medSask in meeting its goals and objectives and in setting priorities.

PRIORITIES FOR 2014-15

- Implement strategies recommended in the MBA student marketing plan
- Promote use of medSask website
- Pursue opportunities for grants and / or service contracts
- Recognize 40th anniversary of the drug information service
- Organize a continuing education workshop for medSask consultants
- Additional priorities as suggested by the Advisory Board at the annual meeting in August, 2014

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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. The service continues to be available to all healthcare professionals in Saskatchewan as an arm of medSask. A toll-free number (1-800-667-3425) is maintained to provide easy access by telephone from all areas of the province. Queries can also be submitted by email, texting and via the medSask website (medsask.usask.ca). The service is staffed by licensed pharmacists who research and respond to queries in a timely fashion. The hours of operation are 8 AM to midnight Monday through Friday, 5 PM to midnight weekends and holidays.

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 ongoing operation of the information service. Consumer line office hours are Monday to Friday, 8:00 AM to 5:00 PM with on-call service between 5:00 PM and 12:00 midnight 365 days a year. Evening on-call was initiated in December, 2007 as a pilot project in collaboration with HealthLine, the 24 hour nurses' information service. The project identified a demand for drug information in the evening hours and Saskatchewan Drug Information Service (now medSask) was contracted to provide this service. In addition to telephone, consumers can submit queries by leaving voicemail messages or by filling out the question template available on the medSask website (medSask.usask.ca).

In 2001, Dial Access Drug Information Service and the Consumer Drug Information Centre were consolidated into one organization, the Saskatchewan Drug Information Service (SDIS) to simplify administration and maximize the use of available resources. In 2013, as part of a rebranding process for the drug information services, SDIS was renamed **medSask; Your Medication Information Service**.

1.2 Goals and Objectives of the Service

1.2.1 Healthcare Professional Information Service

- Upon request, to provide pharmacists and other healthcare providers in Saskatchewan with objective, current, evidence-based 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 enhance interdisciplinary collaboration and the public image of healthcare professionals.
- 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 timely access to objective, current, evidence-based information on drugs and drug therapy.
- 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.
- 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.

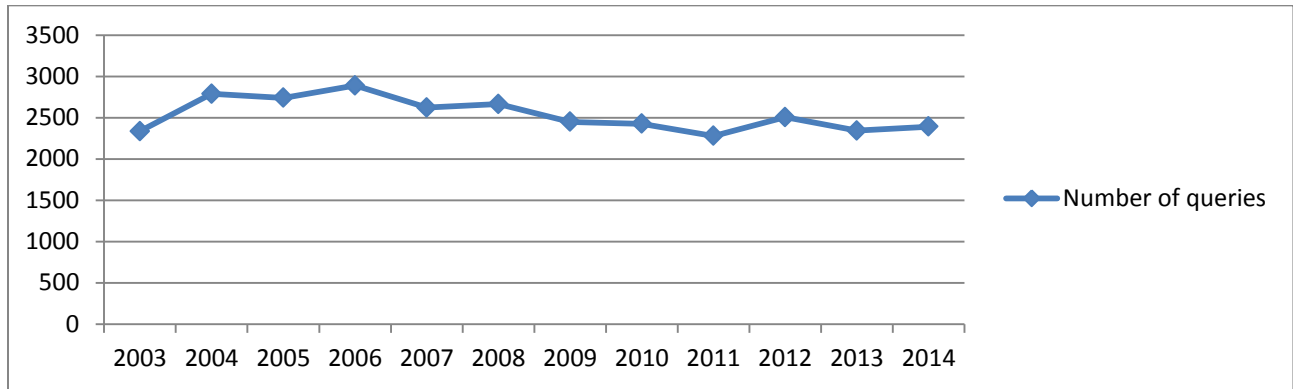
2. Utilization statistics

2.1 Healthcare Professional Service April 1st, 2013 to March 31st, 2014

a) Number of queries

The healthcare professional service received 2392 requests for information in 2013-14, 48 (2 %) more than during the previous year. Annual totals for the past twelve years have been relatively consistent averaging around 2500 queries per year. (Figure 1).

Figure 1: Number of healthcare professional queries by year



b) Profession of healthcare providers submitting queries

There were no significant changes in the percentage of callers by profession. As in previous years, the majority of queries (70.5 %) were from community pharmacists. Nursing (public health, travel clinics, etc.) was the next largest group accounting for 10 % of the professional queries, followed by hospital pharmacists at 5% and physicians at 5 %. Table I lists the number and percentage of queries placed by each profession.

Table I: Calls by Profession

Profession	Number (%)	Profession	Number (%)
Community pharmacist	1687 (70.5)	Nurse	240 (10)
Hospital pharmacist	116 (5)	Physician	121 (5)
Pharmacists (other)	95 (4)	Nurse practitioner	34 (1.5)
Pharmacy student	50 (2)	Other	40 (1.5)
Pharmacy instructor	19 (0.5)		

c) Geographical location of healthcare providers utilizing medSask

medSask provided drug information services to healthcare providers in more than 80 different communities across Saskatchewan (Table II). In addition, the service responded to 28 queries from outside the province. The percentage of queries from Saskatoon and Regina remained relatively consistent with the past year at 34 % and 20 % respectively.

Table II: Location of Healthcare Professional Service Callers

SASKATCHEWAN			
Number of Calls	Community	Number of Calls	Community
821	Saskatoon	13	Warman
482	Regina	12	Meadow Lake, Melfort
73	Nipawin	11	Biggar, La Ronge, Lanigan
55	Moose Jaw, Unity	10	Buffalo Narrows, Kelvington
44	Ile-a-la-crosse	9	Shellbrook, Wadena
43	Humboldt	8	Esterhazy, Kindersley, Melville, Moosomin
39	Swift Current	7	Canora, Carrot River, Ituna, St. Walberg
38	Indian Head	6	Broadview, Kerrobert, Outlook, Oxbow
36	Yorkton	5	Carlyle, Radville, Rosthern, Wakaw
35	Lloydminster, Tisdale	4	Foam Lake, Grenfell, Kipling, Luseland, Whitewood
32	North Battleford	3	Assiniboia, Carnduff, Cupar, Duck Lake, Fort Qu'Appelle, Martensville, Nokomis, Onion Lake, Rose Valley, Watrous, Wolseley, Wynyard
27	Battleford	2	Arborfield, Balcarres, Black Lake, Kamsack, Carlisle, Christopher Lake, Porcupine Plain, Raymore, Rocanville, Sandy Bay
20	Kamsack, Weyburn	1	Carlton, Coronach, Cudworth, Cuthbert, Cutknife, Dalmeny, Day's Beach, Delisle, Gravelbourg, Hodgeville, Hudson Bay, Indianhead, Krydor, Leader, Lumsden, Maple Creek, Maymont, Milden, Moose Mountain, Norquay, Preeceville, Punnichy, Redvers, Spiritwood, Waldheim, Wilkie
19	Turtleford		
17	Rosetown		
OUTSIDE SASKATCHEWAN			
Number of Calls	City/ Province		
28 Out of Province Calls	Calgary AB, Courtney BC, Fort Smith NWT, Golden BC, Hay River NWT, Kelowna BC, Mill Bay BC, Swan River MB, Surrey BC		

d) Contact Method

Telephone continues to be the most popular method of accessing the service. Eighty-nine percent of queries from health care professionals were submitted by telephone. Eight-six percent of telephone calls were received in person by a medSask consultant; fourteen percent were left on voicemail. Nine and one-half percent of queries were submitted by email. Text queries doubled from six to eleven but texting remains a very minor route for access.

e) Nature of Information

Administration/dosage was the most common question category, followed by compatibility/formulation/stability, therapeutic use/drug of choice and drug interaction. The number of queries involving extemporaneous compounding and stability increased compared with the previous year likely due to shortages of certain frequently prescribed manufactured pharmaceuticals which occurred during the current year. A detailed list of the nature of professional calls by number and frequency is shown in Table III. Natural products were involved in 4.5 % of the questions.

Table III: Nature of Information Requested by Healthcare Professionals

Nature of Request	Number	Percentage
Administration / Dosage	435	18
Compatibility/Formulation/Stability	406	17
Therapeutic Use/ Drug of Choice	395	16.5
Interaction	238	10
Availability/Identification	180	7.5
Adverse reaction	174	7.5
General information	154	6.5
Other	127	5.5
Pregnancy/lactation	111	4.5
Pediatric	70	3
Contraindications/Precautions	47	2
Coverage/legalities	32	1.5
Kinetics	23	1

f) Research and response time

Consultants required up to 15 minutes research per question to respond to over 50 % of the healthcare professional calls. For a few questions, over eight hours of research was needed. Table IV provides a comparison of research times over the past eight years. Since beginning to record this statistic in 2003, there has been a marked increase in the percentage of queries requiring more extensive research.

Table IV: Research Time Required Per Call

TIME (min.)	2003 - 2004	2004- 2005	2005 - 2006	2006 - 2007	2007 - 2008	2008 - 2009	2009 - 2010	2010 - 2011	2011 - 2012	2012 - 2013	2013- 2014
≤15	72%	59.5%	57%	56%	54%	57%	59%	53%	57%	57%	58%
16–30	19%	28%	24%	24%	26%	2 %	23	25%	22%	24%	24%
31 – 60	7.5%	11%	12.5%	13%	14%	12%	13%	15%	13%	13%	12%
> 60	1.5%	1.5%	6.5%	7%	6%	6%	5%	7%	8%	6%	6%

Most callers (90 %) received a response to their query the same day it was submitted. When appropriate, additional information was sent to the caller by postal mail, facsimile or email.

g) Difficulty of Questions

Consultants are asked to rate the difficulty of each question based on the amount of research and synthesis required to formulate a response. This is a component of the quality assurance audit (Section 2.3). The 2010-2011 statistics provide the first full year of data for this field. Over the past year, 25 of questions required more extensive research and/ or extensive interpretation in order to formulate a response. (Table V)

Table V: Difficulty Rating of Questions

Difficulty Rating	2009-10 Number(%)	2010-11 Number(%)	2011-12 Number (%)	2012-13 Number(%)	2013-14 Number(%)
1 = not difficult; straight forward question	1004 (83)	1782 (79)	1819 (73)	1782 (76)	1759 (74)
2 = required additional research and/or interpretation	199 (16)	444 (20)	662 (26)	523 (22)	588 (25)
3 = required extensive search and some interpretation	7 (1)	24 (1)	24 (1)	35 (1.5)	44 (2)
4 = required extensive search and extensive interpretation	1	0	0	4	1

h) On-Call Service for Healthcare Professionals

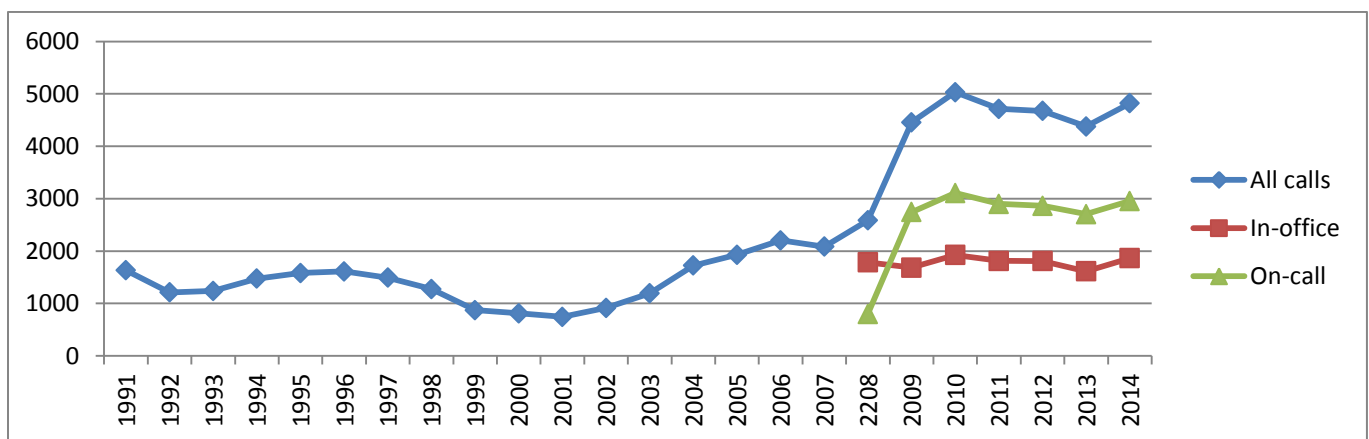
On-call consultants handled 194 professional line queries during their evening shifts compared to 113 the previous year. This suggests a significant demand for drug information service in the evening hours.

2.2 Consumer Service April 1, 2013 to March 31, 2014

a) Number of Information Queries

A total of 4821 queries were received by the medSask consumer service in 2013-14, 445 (10 %) more than the previous year. During office hours (8:00 AM – 5:00 PM, Monday through Friday), 1865 calls were received compared to 1673 in 2012-13, an increase of 11 %. During evening on-call shifts (5 PM – 12 AM daily), 2956 queries were received compared to 2703 in 2012-13, an increase of 9 %. Figure 2 illustrates the trends in annual call totals since the implementation of the consumer drug information service in 1991. Call volumes reflect variations in the hours of service provided over the years. The steep increase beginning in 2007 corresponds to the initiation of evening on-call service for the consumer line.

Figure 2: Number of consumer calls by year

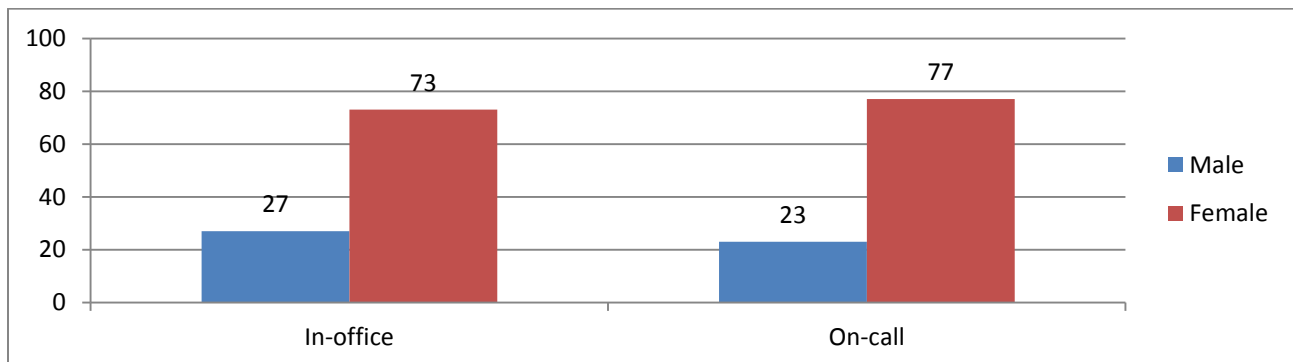


b) Caller Demographics

Sex

As usual, the majority of callers on the consumer line were women (see Figure 3). The gender ratio of calls has remained relatively constant at approximately 4:1 female to male for the past 10 years.

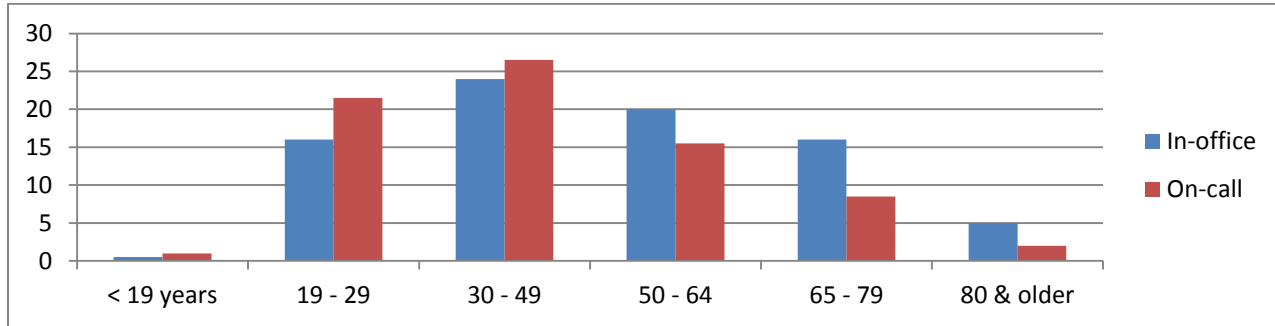
Figure 3: Sex of caller (in percentages)



Age

The distribution of age categories for daytime callers is similar to that in previous years. Figure 4 compares the ages of callers during daytime and evening hours. Callers in the evening tend to be younger than daytime callers.

Figure 4: Age of callers (in percentages)



c) Geographical Location of Callers

Table VI categorizes calls by regional health authority of origin. As in previous years, the highest percentage of calls were submitted from the Saskatoon region (43 % in-office calls ; 30.5 % of evening calls) and the Regina Qu'Appelle region (18.5 % of in-office calls ; 24.5 % of evening calls). Calls were placed by residents from over 200 communities situated within the other Saskatchewan health authorities. (See the map of Saskatchewan Health Authorities at <http://www.health.gov.sk.ca/health-regions-map>.) This information helps the service identify areas of low utilization and suggests targets for future promotion.

Table VI: Consumer calls by regional health authority

Regional Health Authority	In office Calls Number (%)	Evening Calls Number (%)
Athabasca	0	4
Cypress	40 (2.5)	66 (2.5)
Five Hills	20 (1)	106 (4)
Heartland	53 (3)	84 (3)
Keewatin Yatthe	4	28 (1)
Kelsey Trail	56 (3.5)	116 (4)
Mamawetan Churchill River	26 (1.5)	56 (2)
Prairie North	57 (3.5)	192 (7)
Prince Albert Parkland	67 (4)	167 (6)
Regina Qu'Appelle	302 (18.5)	660 (24.5)
Saskatoon	700 (43)	828 (30.5)
Sun Country	37 (3.5)	118 (4)
Sunrise	71 (5)	151 (5.5)
Unknown	88 (5.5)	127 (6)

d) Contact Method

Most questions were submitted by telephone (97 % office hours; 99.5 % on-call). Calls were received in person by a drug information consultant 88 % of the time during the day and 91.5 % of the time during the evening. Thirty-two questions were submitted by email and nine by fax.

e) Nature of Information Requested

Table VII details the different categories of consumer information requests by frequency and time of call (daytime or evening). The types of information most frequently requested during both daytime and evening hours were side effects / adverse reactions and general information. 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	295 (16)	411 (14)
Dosage/administration	253 (15.5)	678 (23)
General information	314 (17)	435 (14.5)
Interaction	206 (11)	470 (16)
Pregnancy/lactation	188 (10)	335 (11.5)
Therapeutic use/drug of choice	207 (11)	227 (7.5)
Other - availability, coverage, formulation, identification, kinetics, stability, contra-indication, etc.	19.5 %	9.5 %

Ten percent of daytime calls involved herbal or complementary products. Only two percent of evening callers inquired about herbal products.

f) 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	In-office Number (%)	On-call Number (%)
Not serious	No further action required	1762 (94)	2580(87)
Potentially serious:	Information immediately available is provided, caller is referred to appropriate healthcare professional	103 (6)	370 (13)
Serious	Caller is referred immediately to the Saskatchewan Poison Centre or nearest hospital emergency dept	0	6

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. Of note, more time is spent researching calls received in the office than for calls received during the evening on-call shifts. This is likely due to differences between the nature of calls received during daytime and evening shifts. For example, a higher percentage of evening calls are about dose and administration and these questions tend to have relatively straight forward answers.

Table IX: Research time per call

Time Required Per Question	Daytime Calls Number (%)	Evening Calls Number (%)
0 – 5 minutes	1351 (72.5)	2463 (83)
6 – 10 minutes	265 (14)	325 (11)
11 – 15 minutes	101 (5.5)	93 (3)
16 – 30 minutes	107 (5.5)	67 (2)
31 – 60 minutes	33 (1.5)	7
More than 60 minutes	8	0

Table X: Discussion time per call

Time Required Per Question	Daytime Calls Number (%)	Evening Calls Number (%)
0 – 5 minutes	1153 (62)	1630 (55)
6 – 10 minutes	498 (27)	916 (31)
11 – 15 minutes	144 (7.5)	319 (11)
16 – 30 minutes	66 (3.5)	88 (3)
31 – 60 minutes	4	3
More than 60 minutes	1	

h) Difficulty of questions

Consumer line consultants are also asked to rate the difficulty of each question (Table XI). The majority of questions placed during the past year were rated as “not difficult”. Percentages for the different difficulty categories were similar for calls received in-office and during evening on-call shifts.

Table XI: Difficulty rating of questions

Difficulty Rating	In-office Number (%)	On-call Number (%)
1 = not difficult; straight forward question	1760 (94.5)	2760 (93.5)
2 = required additional research and/or interpretation	98 (5.5)	191 (6.5)
3 = required extensive search and some interpretation	4	3
4 = required extensive search and extensive interpretation	1	2

i) Source of consumer queries

To determine the most effective strategies for promotion of the medSask consumer line to Saskatchewan residents, callers were asked how they learned about the service. Figures 5 and 6 summarize the answers provided to this question during the past year. During regular office hours, repeat callers and referrals from HealthLine were the most frequent sources of calls. In the evening, most of the calls were referrals from HealthLine.

Figure 5: Source of in-office queries

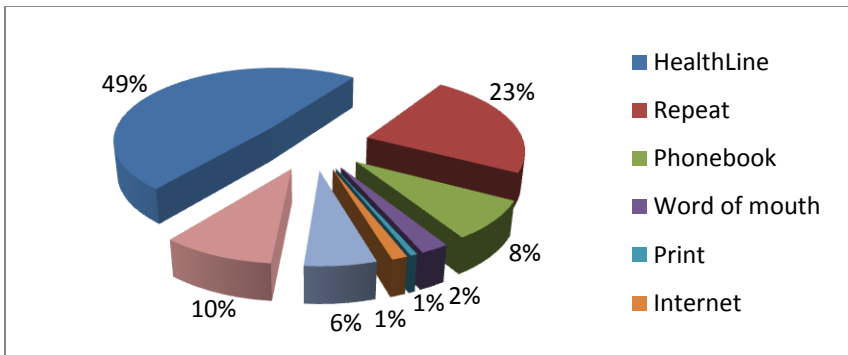
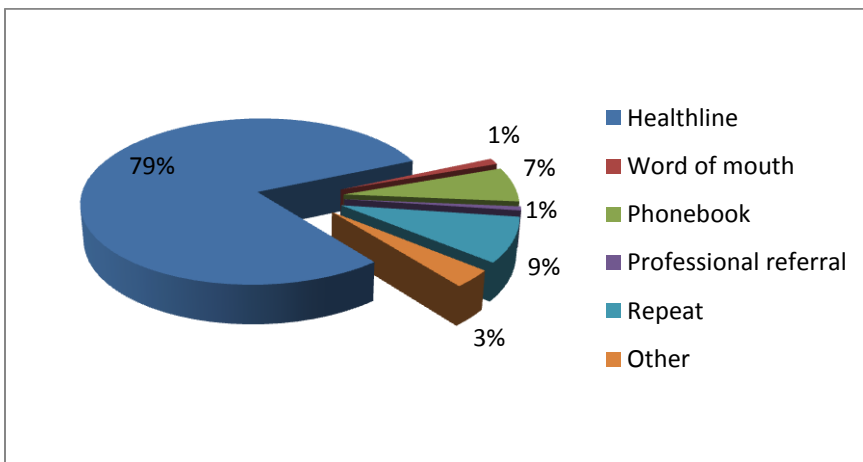


Figure 6: Source of on-call queries



2.3 Follow-up calls

Drug information consultants followed up on 452 calls (9.5 %) in 2013 – 2014. Consultants are asked to follow up with all serious and potentially serious calls to ensure caller safety. To improve compliance with this criteria, an automatic prompt to follow-up on specific calls was set up on the consumer line utilizing Outlook’s built-in task feature. This resulted in a four-fold increase in the number of follow-up calls.

2.4 Quality Assurance and Improvement

Our quality assurance program utilizes an audit template adapted from the MUN School of Pharmacy. medSask in-office staff use the template criteria to assess responses provided during the on-call shifts. Accuracy and quality of conclusions were rated as good to excellent for more than 96 % of calls in 2013-14. The potential impact of the information on callers / patients was assessed as somewhat significant for 42 % (less than five percent chance of noticed effect), significant for 16 % (more than five percent chance of noticed effect), and very significant (prevents major adverse effect) for 2 % of queries. These results provide reassurance that medSask consultants are providing a valuable service to our evening callers.

Selected calls on the professional line are subjected to internal audit before being uploaded to the professional question and answer database on the website. As of yet, we have not been able to set up an external auditing procedure for calls answered from the medSask office.

2.5 Website Analytics

The website was visited approximately 19,000 times in the past year (50% new visitors; 50 % returning visitors) versus 39,000 in the previous year (72 % new visitors, 28 % returning visitors). Reasons for the marked drop in visits may include the change in the website name and the creation of the national drug shortages website. There were no new minor ailment conditions added to the guidelines during the 2012 – 2013 which may explain the reduced use of this section of the website. Anecdotally, pharmacists prefer to download the guidelines and use the hard copy rather than referring back to the online version. Table XII lists the five most popular landing pages and the number and frequency of visits to these pages

Table XII: Most frequently viewed web pages

Page	Number of page views (% of total)	
	2012-13	2013-14
Minor Ailment guidelines	23228 (60)	12678 (67)
Drug Shortages	13027 (33)	1576 (8)
Drug news	1632 (4)	1125 (6)
Hot Topics	237 (0.5)	872 (4.5)
Consumer Frequently Asked Questions	1974 (5)	595 (3)

3. EDUCATION

a) College of Pharmacy and Nutrition Undergraduate Curriculum

- medSask personnel provided various lectures and tutorials to undergraduate University of Saskatchewan students in Terms 1 and 2, 2013-2014 as detailed in Table X11.

Table XII: Lectures and tutorials provided by medSask

CLASS	Number of lectures/labs	Classroom time
NUTR 440.6	1 lecture, 1 lab	3.5 hr
PHAR 372.2	4 computer labs	4 hrs
PHAR 372.2	2 lectures	2 hrs
PHAR 418.2	3 lectures	4.5
PHAR 455.7	4 lectures	8 hrs
PHAR 455.7	2 tutorials	3 hrs
PHAR 472.2	8 computer labs	8 hrs
PHAR 472.2	1 lecture	1 hr
PHAR 472.2	2 journal clubs	2 hrs
PHAR 557.6	3 lectures	6 hrs
PHAR 565.2	1 lecture	1 hr
PBL tutorial	3 sessions	6 hrs
PTH 808	2 lectures	2 hrs
TOTAL		51 hrs

- medSask provided a specialty SPEP site for four fourth year pharmacy students in 2013, two in the first and two in the second rotation. We plan to host six SPEP students next year.

b) Summer Research Students

- medSask employed a second year pharmacy student, Joanne Fontaine, during the summer of 2013. She implemented a pilot of a consumer marketing plan prepared for medSask by third year pharmacy students.
- Joanne Fontaine has been rehired this year for summer research. She will analyze and prepare a report on the marketing project she initiated last year and design a pilot project to test the feasibility of adding uncomplicated urinary tract infections to the Minor Ailment program.

c) Post-graduate Education

- medSask will provide a drug information rotation site for a University of Toronto PharmD student in December 2014.

d) Continuing Education

medSask provided pharmacotherapeutic information to pharmacists and other healthcare providers in a variety of forms.

- Newsletters mailed to Saskatchewan pharmacies and posted on the medSask website (medsask.usask.ca – Drug News):
 - Vol. 31, No. 1 Approach to Medication Management of Chronic Disease in Pregnancy (766 KB)
 - Vol. 30, No. 6 Guide to Medication Crushing (298 KB)
 - Vol. 30, No. 5 The 2013 - 2014 Influenza Vaccines (270 KB)
 - Vol. 30, No. 4 New findings with citalopram and QT prolongation (531 KB)
 - Vol. 30, No. 3 Age-related macular degeneration -- review of evidence for supplements (490 KB)
- Hot Topics posted on the medSask website (medsask.usask.ca – Hot Topics)
 - Reduced Effectiveness of ECP
 - Generic vs. brand name drugs
 - Nurse Practitioner Controlled Drug Prescribing
 - Yaz-Yasmin clot risk revisited
- Articles in Postscript - the Canadian Society of Hospital Pharmacists, Saskatchewan Branch newsletter.
- Lab value review: Basics for pharmacists – PAS continuing pharmacist education Telehealth videoconference, Sept. 2013 – prepared by medSask consultants and presented by Terry Damm
- U of S College of Nurses E-learning televideo presentation - Caring for Drug Exposed Infants; antenatal and postnatal effects of maternal drug use during pregnancy & lactation – Mar. 2013 – Karen Jensen
- Drug Interactions - Drug Therapy conference, Mar 2013 – Terry Damm

e) Consumer Information

- Frequently Asked Questions posted on the medSask website. (medSask.usask.ca – Consumer General Public – Frequently Asked Questions). Examples include:
 - Q. Can honey be used to treat a burn?
 - Q. Can my pet make me sick?
 - Q. Can I still get a flu shot for this season?
 - Q. Do generic drugs actually work as well as brand name drugs?
 - Q. Do I need a prescription to get the shingles vaccine?
 - Q. Is it true that people with egg allergies can now get the flu shot?

4. CONTRACTS / CONSULTATIONS

- Lung Association of Saskatchewan - annual review and updates of the information in the drug therapy section of the Canadian Lung Association website.
- Minor Ailment prescribing
 - Maintained and updated prescribing guidelines for Minor Ailments on the medSask website.
 - Developed training modules for seven newly approved Minor Ailment conditions.
- Drug shortages – maintenance of a database of shorted drugs on the medSask website. The Saskatchewan Prescription Drug Plan has provided funding for the development of therapeutic alternative protocols included in the database.

5. COLLABORATIONS

a) HealthLine

The HealthLine, a 24 hour toll-free telephone health advice service staffed by registered nurses, was established by Saskatchewan Health in 2003. Callers with drug-related questions are referred by HealthLine nurses to their physicians, their pharmacies, or the medSask consumer information line. In December 2007, medSask was contracted by HealthLine to provide on-call service on the consumer drug information line between 5:00 PM and 12 midnight daily. The contract for the on-call service has been transferred to the Saskatchewan Prescription Drug Plan (SPDP) and funding for this service is included in the annual grant SPDP provides to medSask.

Calls to HealthLine are triaged by HealthLine nurses and callers with drug-related questions are referred to their pharmacy, physician or medSask. Calls can be transferred directly to a medSask consultant by HealthLine nurses. The collaboration between the two services works very well for several reasons. The information provided by the nurses and DI consultants is often complimentary. The nurse can transfer information already collected from the caller which limits repetitive questioning of the caller. The nurse can also brief the DI consultant on any specific concerns or recommendations. This alerts the DI consultant to potential problems and provides the opportunity to reinforce the nurses' recommendations as appropriate.

The on-call model of service gives pharmacists the option of working from home. medSask can employ pharmacists who might not otherwise be able to work professionally thus providing greater flexibility for pharmacists to co-ordinate work and family and at the same time increasing utilization of pharmacy human resources.

b) RxFiles Academic Detailing program

medSask and RxFiles continue to collaborate on drug information research and newsletter distribution. medSask consultants investigate drug information questions for RxFiles academic detailers and review RxFiles charts and newsletters. In return, these charts and newsletters provide a valuable resource for medSask consultants.

RxFiles and medSask are in the process of finalizing a formal contract which would provide for payment of medSask for services rendered to RxFiles (other than providing responses to specific questions posed by physicians to RxFiles detailers).

c) Committees

Karen Jensen is a member of the Saskatchewan College of Pharmacists Professional Practice Committee, the Interdisciplinary Advisory Committee on Prescriptive Authority, the Baby Friendly Initiative (BFI) Coalition and the BFI Human Milk Subcommittee.

Terry Damm was a member of the Planning Committee for the 2013 Practical Management of Common Medical Problems continuing medical education conference.

Carmen Bell is a member of the Drug Shortages - Best Practices for Contracting and Procurement Working Group.

6. PROMOTION / FUNDRAISING

- Flyers and business card magnets were distributed at various meetings and conferences
- Poster presentations at healthcare organization conferences:
 - Pharmacists Association of Saskatchewan 2013 annual Conference – May 2013
 - Practical Management of Common Medical Problems continuing medical education conference, Nov. 2013
 - POGO Women’s and Children’s Health Conference in Regina – Feb. 2014
 - Drug Therapy Conference, Saskatoon – Mar. 2014
- Heather Dawson, College of Pharmacy & Nutrition Communications Officer, and Karen Jensen worked together on the annual fund-raising campaigns. Requests for contributions were sent to Saskatchewan pharmacies in January 2014. See Appendix II for the list of donors.

7. ADDITIONAL ACTIVITIES

- med Sask offices were moved from Thorvaldson Building to the the E-wing of the new Health Sciences Building. The new space is much larger and brighter and provides the opportunity to incorporate new services and accommodate more student experiential rotations.

8. ADVISORY BOARD

The purpose of our Advisory Board is to ensure that medSask is meeting its goals and objectives. We greatly appreciate the valuable advice and support the board members provide us, both at the annual meeting and throughout the year.

Advisory Board members for the year 2013 – 2014 were:

- Saskatchewan College of Pharmacists – Ray Joubert
- Saskatchewan Health – Kevin Wilson
- Canadian Society of Hospital Pharmacists (SK Branch) – Audrey Smycniuk
- College of Pharmacy and Nutrition – Yvonne Shevchuk
- Community Pharmacy Representative – Grace Rieder
- College of Physicians & Surgeons of Saskatchewan – Doug Spitzig
- Pharmacist's Association of Saskatchewan – Myla Wollbaum

The annual meeting of the Advisory Board was held on June 27, 2013. The priorities set at this meeting and the actions taken were as follows:

- Strategic planning initiatives
 - Establish business plan committee as soon as possible
 - *Contracted MBA student team to prepare a marketing plan for medSask. The report was submitted June 30, 2014.*
- Expand and improve Quality Assurance program
 - *Increased the number of follow-up calls*
 - *Streamlined the QA documentation process*
- Investigate opportunities for promotion and fundraising suggested by Board members
 - *Market the program for Minor Ailments*
 - *CPDP contract to provide training seminars for new Minor Ailment prescribing conditions*
 - *College of Pharmacy & Nutrition Gift Officer is currently investigating opportunities for funds for medSask*
 - *medSask link displayed on SCP, PAS, RxFiles, PIP, HealthLine online websites*
 - *Contracts with RxFiles, PAS, SCP, CPDP, PACT*

9. PRIORITIES FOR 2014 – 2015

- Implement strategies recommended in the MBA student marketing plan
- Promote use of medSask website
- Pursue opportunities for grants and / or service contracts
- Recognize 40th anniversary of the drug information service
- Organize a continuing education workshop for medSask consultants
- Additional priorities as suggested by the Advisory Board at the annual meeting in August, 2014

10. FINANCIAL REPORT

The 2013 – 2014 financial statements are attached (Appendix I).

We wish to express our sincere appreciation to the organizations which provided financial or in-kind support for medSask 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
- Pharmacists Association of Saskatchewan
- RxFiles, Saskatoon Health Region
- Saskatchewan pharmacies (Donors listed in Appendix II)

11. MEDSASK PERSONNEL 2013 – 2014

Director: Dr. Yvonne Shevchuk PharmD, BSP

Manager: Karen Jensen MSc, BSP

Drug Information Consultants:

In-office staff

- Carmen Bell BSP
- Lisa Hupka BSP
- Terry Damm BSP
- Jean Macpherson BSP

On-call consultants

- Dorothy Sanderson BSP
- Jean Macpherson BSP
- Audrey McLelland BSP
- Amanda Kongawi BSP
- Terry Damm BSP
- Shannon Appel BSP
- Ally Skolney BSP
- Zack Dumont BSP
- Justin Kosar BSP
- Barbara Aucoin NSP

APPENDIX I: Financial Statements

APPENDIX I: Financial Statements	2012-13 Actual	Budget 2013-14	2013-14 Actual	Budget 2014-15	Budget 2015-16	Comments
REVENUE						
Sask Health - SPDP	285,624	289,385	289,385	292,279	295,200	
SCP	49,000	49,000	49,000	51,500	55,000	
Donations - Pharmacy	22,035	30,000	19,114	30,000	30,000	
Contracts	20,364	30,000	44,275	30,000	30,000	
Sundry		1500	0	1500	1500	Stipend for 2014 SPEP rotations pending
Subtotal	377,023	399,855	401,775	405,279	411,700	
EXPENDITURES						
Salaries	362,863	365,000	369,648	374,500	381,000	
Quality Assurance	0	1000	0	0	0	
Office supplies	88	100	19	100	100	
Books	1402	1000	260	500	500	
Printing	972	1000	977	1000	1000	
Telephone and Fax	4718	5000	4318	4500	4750	
Postage	683	500	64	100	100	
Website maintenance	869	500	90	500	500	
Advertising and Promotion	125	2500	1293	2000	2650	
Hospitality	89	250	89	250	100	
Strategic Planning	1443	0	0	2500	0	MBA report
Membership fees & dues	3519	3600	3693	4000	4000	
Registration - conferences	1438	1500	0	1000	1000	
medSask workshop			0	0	2000	
Software licenses	12676	15000	7285	12000	12000	
Travel	1333	1000	525	1000	1000	
Computers	232	1500	0	750	750	
Equipment	0	435	0	500	250	Pull-up banner
Subtotal	392,450	399,885	388,281	405,200	411,550	
TOTAL REVENUES - EXPENDITURES	-15871		13,504	79	0	
Balance forward	5,297		-10,574			
Current balance	-10574		2930			

APPENDIX II: DONATIONS

PHARMACY	CITY/TOWN
Arcola Pharmacy	Arcola
Babers Pharmacy	Balcarres
Balfour Drugs	Kipling
Brunskill Pharmacy	Saskatoon
Canora Pharmacy	Canora
Carrot River Pharmacy	Carrot River
Cheetham's Pharmacy	Saskatoon
Coteau Hills Pharmacy	Beechy
Delta Co-op Drug Store	Unity
Dragan Drugs	Indian Head
Foam Lake Pharmacy	Foam Lake
Forest Drugs	Hudson Bay
Friesen Drug	Rosthern
Galloway's Pharmacy	Central Butte
Gray Chemists	Prince Albert
Hender's Drugs	Estevan
Humboldt Medical Dispensary	Humboldt
Jae's Pharmacy	Shaunavon
Kelvington Pharmachoice	Kelvington
Laurier Drive Pharmacy	Saskatoon
Lorne Drugs	Regina
Luseland Pharmacy	Luseland
Medical Arts Pharmacy	Saskatoon
Medicine Shoppe 33rd St	Saskatoon
Medicine Shoppe 5th Ave	Saskatoon
Midtown Medical Pharmacy	Saskatoon
Midway Pharmacy	Davidson
My Pharmacy	Prince Albert
Our Drug Store	Unity
Pharmasave	Tisdale
Pharmasave	Melville
R & C Drugs	Regina
Raymore Pharmacy	Raymore
Redberry Pharmacy	Hafford
River Heights Pharmacy	Regina
Rocanville Super Thrifty Drug Mart	Rocanville
Rose Valley Pharmacy	Rose Valley
Rosthern Pharmacy	Rosthern

Rubicon Pharmacies	Saskatchewan
Saskatoon Co-operative Association	Saskatoon
Shellbrook Pharmacy	Shellbrook
Shoppers DrugMart	Saskatoon
Stueck Pharmacy	Leader
Towers Pharmacy	Regina
University Park Pharmacy	Regina
Valley Drug Mart	Fort Qu'Appelle
Wakaw Pharmacy	Wakaw
Watrous Pharmacy	Watrous
Wynyard Pharmacy	Wynyard