

Human Resources

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Human resource shortages continue to be a major issue in a number of healthcare professions. These ongoing shortages are reflected in the data for hospital pharmacists, and may have a significant impact on the provision of a wide variety of pharmacy services. The data from this survey indicate that there has been only a slight decline in the total number of pharmacist vacancies, compared to the results reported in the 2003/2004 survey.

With the aging workforce, the number of retirements is expected to increase over the next few years. In this survey the number of pharmacists expected to retire is almost equal to the number of current pharmacist vacancies. This will be a trend that needs to be monitored over time.

Staffing

Several changes were made, in this year's survey, that readers should be aware of as they review the results reported in this chapter. In the 2005/06 survey report, we are reporting staffing ratios as "budgeted hours per patient day", whereas in past surveys we used the term "paid hours per patient day". The methodology we use to determine this ratio has not changed. We have always used budgeted full-time equivalent (FTE) positions to calculate this ratio. We decided to change the name of this ratio to insure that the ratio is properly understood. In earlier years, when positions did not remain vacant for any significant period of time, there was very little difference between "paid" hours per patient day and "budgeted" hours per patient day. "Paid hours per patient day" was a descriptor that was often used interchangeably to describe the resources allocated to, and used by, the pharmacy department. In today's era of manpower shortages, we thought it was important to clarify that the ratio we calculate, budgeted hours per patient day, is an indicator of the human resources that the organization has committed for use by the pharmacy department; a ratio that is not affected by manpower shortages. Low "budgeted hours per patient day" cannot be attributed to manpower shortages, whereas "paid hours per patient day" could reflect either a low staffing allocation to a pharmacy department, or an inability to fill vacant positions. Knowing both the "budgeted hours per patient day" and the vacancy data that is also provided in this report allows the reader to assess both the resources that are committed to the pharmacy department and the pharmacy department's ability to actually acquire and use those human resources. The worst case scenario is one where low budgeted hours per patient day co-exist with high vacancy rates, which appears to be the case for several provincial jurisdictions in this year's report.

For teaching versus non-teaching hospital comparisons, please note that the teaching hospital definition has changed for the 2005/06 survey. The definition of a teaching hospital used in the 2005/06 survey (membership in the Association of Canadian Academic Healthcare Organizations) is more precise than the self-declared method used in 2003/04. As a result, the higher staffing inputs reported for teaching hospitals in the 2005/06 survey are believed to be a more accurate reflection of the human resources required by teaching hospitals. However, the difference between the reported 2003/04 staffing for teaching hospitals (0.89 budgeted hours per patient day) and the reported 2005/06 staffing (1.05 budgeted hours per patient day) may be due to true staffing increases and/or due to the change in the way that teaching hospitals were defined in 2005/06, which moved a number of facilities from the teaching to the non-teaching category.

- Overall, the average of reported budgeted hours per acute care patient day (excluding residents) has increased from 0.74 in 2003/04 to 0.81 in 2005/06 (Table F-1). It had remained constant between the 2001/02 and 2003/04 surveys, but has now resumed the upward trend that was reported in the surveys from 1997/98 through to 2001/02.
- Teaching hospitals reported higher budgeted hours per acute patient day (average of 1.05) than non-teaching hospitals (average of 0.72), as shown in Table F-2. Hospitals with more than 500 beds also reported higher budgeted hours per acute patient day (average of 0.95) than hospitals with 100 to 200 beds (average of 0.76) and hospitals with 201 to 500 beds (average of 0.77). These differences likely reflect the pharmacy resource needs associated with high-acuity, complex clinical programs (e.g. organ transplant programs, high-level critical care, etc.) that are most commonly found in larger/teaching hospitals.

- At the provincial level, the highest level of staffing was in Ontario at 0.96 budgeted hours per acute patient day and the lowest level was in BC at 0.65 (Table F-1). Compared to the 2003/04 survey results, gains in budgeted hours per acute patient day were made in Atlantic Canada (9% in New Brunswick/Prince Edward Island) and in Nova Scotia/Newfoundland (over 20%). Note: Results for Nova Scotia and Newfoundland were reported separately in 2003/04, but were combined in 2005/06 because of the low response rate from Newfoundland and Labrador in 2005/06. Budgeted hours per acute patient day increased in Ontario (14%) and Quebec (14%) whereas BC showed a decrease (8.4%). The Prairie Provinces remained fairly similar to the previous survey. Hospitals greater than 500 beds had an increase in budgeted hours per acute care patient day of 10% and hospitals with 100-200 beds showed an increase of 15%.
- Increases in budgeted hours per acute patient day were reported across all types of drug distribution systems with the largest increases reported in traditional systems (26%) and in the combination of traditional and CIVA systems (35%), as shown in Table F-2. Fewer hospitals in this survey were using traditional systems, in comparison to the last survey (16 vs. 28), and more hospitals were using unit dose systems, in comparison to the last survey (54 vs. 45). This may suggest that a number of hospitals converted to unit dose drug distribution between the two surveys, contributing to staffing increases since the last survey. With medication safety being a high priority nationally and provincially, resources added to facilitate safe practice could also be a driving force behind the increased staffing levels in 2005/06 versus 2003/04.

The above staffing data, presented as “budgeted hour per patient day”, allows for a department’s overall human resource allocation to be compared to other organizations, using a proxy workload denominator (patient days). However, it does not provide information that allows the staff composition of a pharmacy department to be compared to other departments. In order to provide data for this purpose, the Hospital Pharmacy in Canada report has also collected and reported data on the number of different types of staff that each respondent employs (i.e. managers, staff pharmacists, pharmacy technicians, support staff and pharmacy residents). This information is useful for examining issues like pharmacist to technician ratios, and differences in staff composition between different provinces, teaching versus non-teaching respondents, and hospitals of different sizes.

- Management positions have increased from a mean of 1.9 to 2.3 positions per respondent over the past survey. Alberta had the highest average number of management positions at 5.2, likely as a result of the fact that some large health regions in that province reported as a single organization, rather than as individual hospitals.
- The average number of pharmacist positions reported per respondent increased to 17.6 from 16.1 in 2003/04. Alberta reported the highest average number of pharmacists at 26.6, again probably as a result of the regional reporting that occurred in that province. All provinces reported an increase over 2003/04 except BC, which reported a decrease from 13.3 to 11.3 pharmacist positions per respondent.
- The number of technician positions increased from a mean of 18.4 in 2003/04 to 20.6 in 2005/06. Teaching hospitals showed the greatest increase in technician positions from 29.6 to 42.3 over the last survey, a result that may again be partly related to the shift from facility-specific to regional reporting.
- Support personnel showed no significant change except in Alberta, which reported an increase from a reported average of 10 FTEs in 2003/04 to 15.6 FTEs in 2005/06. Alberta has a category of support personnel (Pharmacy Assistants) that would be classified as technicians in many other provinces. This anomaly in Alberta should be considered when comparing technician and support staff resources across provinces.

- As expected, average budgeted pharmacy staffing rises with increased bed size and teaching status. The more labor-intensive drug distribution systems (UD and CIVA) also have higher budgeted pharmacy staffing. This holds true across all categories of staff. Staffing increases from the last survey could be related to more hospitals having UD and CIVA distribution systems. However, as more pharmacies take advantage of automation, the upward trend may not continue, or may even begin to reverse, since automated UD and CIVA systems require less manual labor.

Table F-1 Average Budgeted Pharmacy Staffing by Province 2005/06

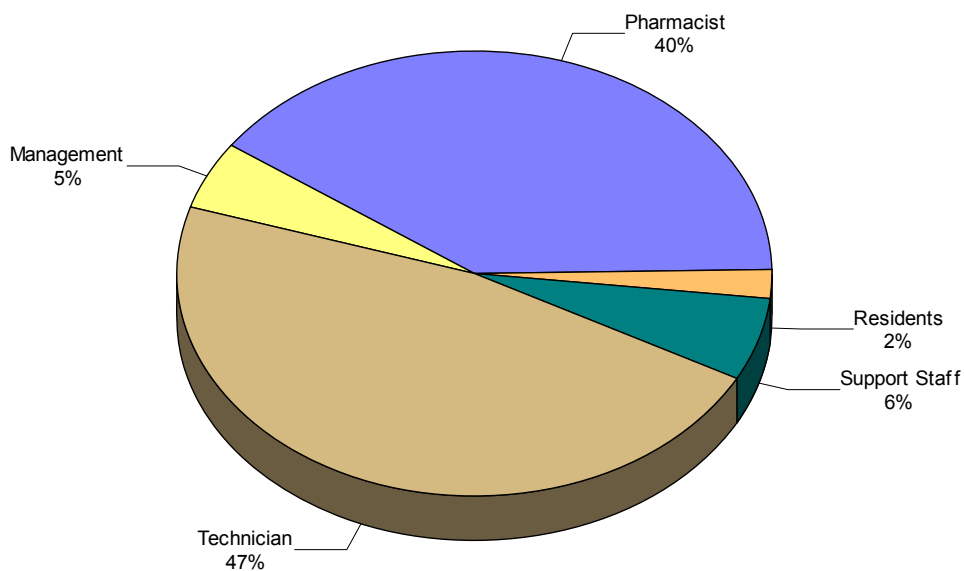
	All	Province							
		BC	AB	SK	MB	ON	QC	NB/ PE	NS/NL
Hospitals (n=)	(142)	(20)	(9)	(4)	(7)	(45)	(42)	(8)	(7)
Pharmacist	17.6	11.3	26.6	22.5	20.8	20.8	15.9	11.9	14.6
Management	2.3	1.9	5.2	3.3	1.7	3.1	1.4	1.6	1.8
Technician	20.6	14.5	28.3	23.5	18.8	26.9	17.0	15.4	15.3
Support Staff	2.8	0.8	15.6	1.7	1.6	2.6	2.0	1.5	1.2
Residents	0.7	0.5	0.7	1.1	0.0	0.7	1.0	0.3	0.4
Total FTE	44.0	29.0	76.5	52.0	42.9	54.1	37.4	30.6	33.3
Total Beds	423	382	582	482	352	439	441	317	276
Budgeted hours/ Acute Patient Day (excluding residents)	0.81	0.65	0.78	0.75	0.74	0.96	0.75	0.73	0.91

Table F-2 Average Budgeted Pharmacy Staffing 2005/06

	All	Bed Size			Teaching Status		Unit Dose	Traditional	CIVA	CIVA & UD	CIVA & Trad
		100- 200	201- 500	>500	Teaching	Non-Teaching	»90%	»90%	»90%	»90%	»90%
Hospitals (n=)	(142)	(27)	(78)	(37)	(37)	(105)	(54)	(16)	(88)	(39)	(9)
Pharmacist	17.6	5.7	13.6	34.4	38.1	10.4	19.1	16.1	20.5	22.7	12.9
Management	2.3	0.8	1.7	4.7	4.6	1.6	2.5	2.0	2.9	3.0	1.8
Technician	20.6	7.2	15.4	40.7	42.3	12.9	22.7	17.0	25.0	27.3	14.6
Support Staff	2.8	0.6	1.5	7.0	7.8	1.1	3.6	1.9	3.4	4.5	2.2
Residents	0.7	0.0	0.4	1.9	2.4	0.1	0.7	0.9	0.9	0.9	0.4
Total FTE	44.0	14.3	32.6	88.6	95.2	26.0	48.5	37.9	52.7	58.4	31.9
Total Beds	423	157	345	781	677	333	478	328	487	548	285
Budgeted hours/ Acute Patient Day (excluding residents)	0.81	0.76	0.77	0.95	1.05	0.72	0.88	0.83	0.87	0.93	0.92

Overall staff composition of pharmacy departments has changed very little from the previous two surveys. The proportions of technicians, pharmacists, management staff, support staff and residents were almost identical to 2003/04 (Figure F-1). The increase in the proportion of technicians reported in the last survey was attributed to expansion of the role of technicians in supporting pharmacy operations. No increase in this report suggests that technicians may be currently practicing near the full scope of their practice.

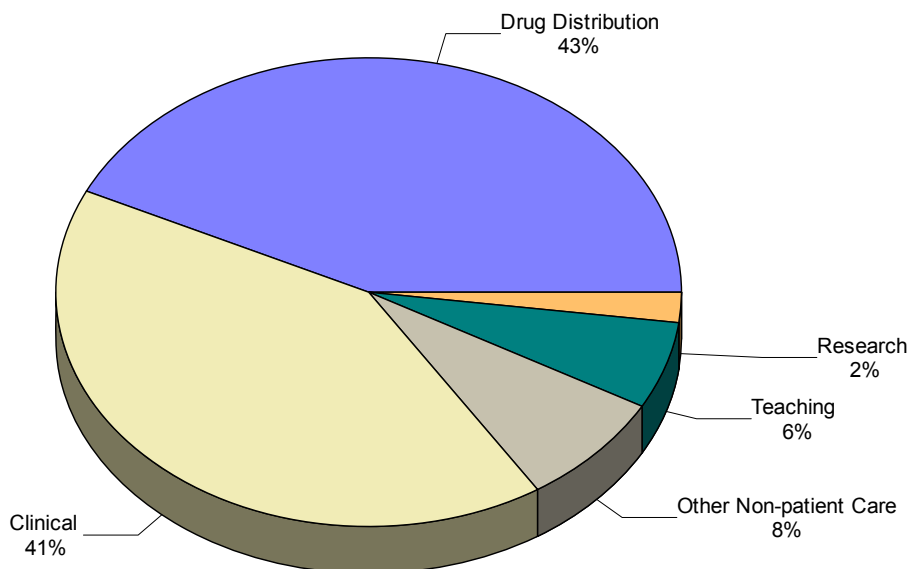
Figure F-1 Staff Composition of Average Hospital Pharmacy Department 2005/06



Base: All respondents (142)

Overall, the proportion of time that pharmacists spend in various functional areas has remained fairly consistent. Respondents reported that pharmacists spent approximately 41% of their time in clinical activities in 2005/06 (Figure F-2, Table F3), compared to 38% in 2003/04. This was offset by less time spent in drug distribution, 43% in 2005/06 compared to 48% in 2003/04. There has been a slow but steady increase in time spent on clinical activities. (Table F-3) The highest proportion of pharmacist time in drug distribution activities was in BC (50%) and Atlantic Canada (49%). Conversely, clinical activities were lowest in BC, Quebec and Atlantic Canada (all less than 40%).

Figure F-2 Proportion of Time Spent by Pharmacists in Each Category 2005/06



Base: All respondents (142)

Table F-3 Proportion of Time Spent by Pharmacists in each Category 1999/00-2005/06

	All	Bed Size			Teaching Status		Previous Surveys		
		100- 200	201- 500	>500	Teaching	Non-Teaching	2003/04	2001/02	1999/00
Hospitals (n=)	(142)	(27)	(78)	(37)	(37)	(105)	(144)	(123)	(115)
Drug distribution (including investigational drugs)	43%	49%	43%	38%	32%	46%	48%	46%	49%
Clinical activities	41%	35%	42%	44%	49%	38%	38%	39%	38%
Teaching	6%	6%	5%	7%	8%	5%	5%	6%	6%
Pharmacy research	2%	1%	2%	2%	2%	2%	1%	2%	1%
Other non-patient care activities	8%	9%	8%	8%	9%	8%	8%	7%	6%

Salaries

In the 2005/06 survey questionnaire dealing with pharmacy salaries, two new staff classifications were added - Practice Leader and Technician Manager. Previous comparisons for these two categories are not available.

- The salaries reported in the 2005/06 report (Table F-4) reflect those that were paid as of March 31, 2006. The average salary per FTE was reported as \$57,315 compared to \$54,959 for 2003/04 representing a 4.3% (2.1% annual) increase. This is substantially less than the 11.5% (5.6% annual) increase reported in the 2003/04 survey.
- Average salary increases at the top level for all staff ranged from 4.1% (2% annual) to 8.0% (3.9% annual) with the largest increase being reported for Pharmacist Managers at 8% (3.9% annual) and Pharmacy Staff Technicians at 7.8% (3.8% annual).
- Respondents reported staff pharmacists as having an overall salary increase at the top level of 5.6% (2.8% annual). This indicates a downward trend from the previous survey when an increase of 14% (6.7% annual) was reported, which may indicate that hospitals were more reluctant to raise salaries substantially as a means of attracting and retaining pharmacists, despite ongoing pharmacist shortages. The largest salary increases, for staff pharmacists at the top level were in Alberta at 11.3% (5.5% annual) and Nova Scotia/ Newfoundland at 10.3% (5% annual). All other provinces reported changes of less than 9% (4.4% annual). There were no notable differences in staff pharmacist salaries based on bed size or teaching status. Advanced practice pharmacists showed an increase in salary at the top level of 5.1% (2.5% annual) over the last survey.
- Technician salaries at the top level rose by 7.8% (3.8% annual) compared to 5.3% (2.6% annual) in the last survey. Senior technician salaries at the top level rose by only 4.1% (2% annual). Average start and top salaries for Senior Technician are lower than average start and top salaries for Staff Technician because of the high Alberta Staff Technician salaries in the absence of corresponding Senior Technician positions in Alberta.
- The Technician Manager category is new. Respondents reported an average salary at the top level of \$55,359 for this category of staff. There was a wide range of average salaries at the top level reported for Technician Managers, ranging from \$40,514 in Manitoba to \$68,511 in Alberta.
- The mean residency stipend rose considerably by 32% (14.7% annual) to \$35,198. Most provinces offered stipends at fairly similar rates to 2003/04, while Alberta, Ontario and Quebec reported marked increases in residency stipends.

Table F-4 Average Annual Salary by Position by Province 2005/06

	All	Province							
		BC	AB	SK	MB	ON	QC	NB/ PE	NS/NL
Hospitals (n=)	(142)	(20)	(9)	(4)	(7)	(45)	(42)	(8)	(7)
Pharmacist Manager									
Start Salary (n=91)	75,471	77,124	97,193	80,750	93,879	80,568	63,573	67,574	64,652
Top Salary (n=98)	91,436	94,948	104,540	87,801	105,360	97,797	84,623	74,095	78,834
Technician Manager									
Start Salary (n=31)	47,930	43,637	58,583	.	33,335	51,012	38,825	.	49,719
Top Salary (n=32)	55,359	45,941	68,511	.	40,514	60,429	51,215	.	52,825
Practice Leader (Pharmacist)									
Start Salary (n=31)	70,560	67,523	95,000	.	.	76,741	54,691	64,360	60,995
Top Salary (n=31)	84,704	84,204	.	78,095	.	90,229	80,050	69,238	70,297
Coordinator / Supervisor (Pharmacist)									
Start Salary (n=52)	67,470	68,583	79,393	72,503	92,815	72,576	53,491	68,222	77,999
Top Salary (n=55)	83,217	87,631	95,089	78,176	92,815	90,297	75,515	71,630	71,539
Staff Pharmacist (B.Sc.)									
Start Salary (n=118)	64,820	59,204	71,946	69,568	86,005	69,919	53,133	62,440	60,865
Top Salary (n=121)	77,969	71,828	89,806	73,669	88,440	83,827	71,784	69,036	68,161
Advanced Practice Pharmacist (Pharm.D. / M.Sc.)									
Start Salary (n=59)	66,663	65,530	81,632	84,435	97,275	73,175	52,866	66,024	74,457
Top Salary (n=61)	80,993	80,922	98,568	84,382	97,275	88,350	72,201	69,238	78,128
Technician - Level 2, Senior									
Start Salary (n=77)	34,969	40,072	.	36,388	37,573	43,241	27,124	32,679	33,922
Top Salary (n=80)	39,862	41,148	.	38,980	40,000	50,588	33,202	35,959	39,477
Technician - Level 1, Staff									
Start Salary (n=100)	36,390	37,761	43,578	33,402	32,188	39,801	27,368	30,954	31,264
Top Salary (n=103)	41,174	39,114	54,567	35,704	37,320	46,437	29,900	32,431	35,617
Resident Stipend, Average (n=40)	35,198	46,997	36,582	37,270	30,000	32,914	32,219	32,325	30,200
Average Salary (Salary budget/ total FTE without residents) (n=127)	57,315	60,693	58,391	60,797	65,215	63,222	50,259	48,543	46,559

- Respondents indicated that 89% of Pharmacy Directors earned over \$80,000 in 2005/06 compared to 76% who earned over that amount in 2003/04. (Table F-5). Forty-two percent of Directors reported earning over \$100,000 in 2005/06, compared to 15% in the previous survey. The trend of higher salaries for Directors of Pharmacy in teaching hospitals and larger facilities continues with this survey. Overall, Alberta and Ontario provided the highest Directors' salaries.

Table F-5 Distribution of Director Salary Ranges 2005/06

	All	Bed Size			Province							
		100- 200	201- 500	>500	BC	AB	SK	MB	ON	QC	NB/ PE	NS/NL
Hospitals (n=)	(142)	(27)	(78)	(37)	(20)	(9)	(4)	(7)	(45)	(42)	(8)	(7)
under \$70,000	1%	0%	1%	3%	5%	0%	0%	0%	2%	0%	0%	0%
\$70,000 - \$79,999	4%	15%	3%	0%	0%	0%	25%	0%	0%	7%	13%	14%
\$80,000 - \$89,999	27%	44%	26%	19%	35%	0%	25%	0%	9%	45%	63%	43%
\$90,000 - \$99,999	20%	15%	23%	19%	35%	0%	25%	29%	18%	19%	25%	14%
\$100,000- \$109,999	25%	15%	23%	35%	20%	44%	25%	57%	27%	19%	0%	29%
\$110,000- \$119,999	10%	4%	13%	8%	0%	33%	0%	14%	18%	5%	0%	0%
\$120,000- \$130,000	6%	0%	5%	14%	5%	22%	0%	0%	13%	0%	0%	0%
\$130,000+	1%	0%	0%	3%	0%	0%	0%	0%	2%	0%	0%	0%
no answer	5%	7%	6%	0%	0%	0%	0%	0%	11%	5%	0%	0%

Human Resource Shortages

Both this report and the 2003/04 report present vacancy rates on a weighted basis. These two reports can be compared but comparisons with reports previous to 2003/04 are not being presented in this report, due to that change in methodology.

- Seventy-three percent (103/142) of respondents reported having pharmacist position vacancies at March 31, 2006. (Table F-6) This was somewhat greater than in 2003/04, when 63% of respondents reported that they had pharmacist vacancies.
- Overall, respondents reported a total of 270 pharmacist position vacancies across Canada (Table F-7), which is slightly lower than the reported total of 331 from the 2003/04 survey. This number underestimates the actual number of vacancies in Canada as not all hospitals participated in the survey. British Columbia and New Brunswick/PEI reported the largest increases in pharmacist vacancies compared to the last survey. BC has one of the lowest starting and lowest top level salaries for pharmacists, and has one of the highest costs of living, which may contribute to the high pharmacist vacancy rate in that province.
- Positional vacancy rate for residents this year dropped to 6.2% from 13.8% in 2003/04, with the majority of vacancies in Alberta (21.4%) and Quebec (7.3%). All other provinces reported no residency vacancies. This is generally a favorable trend as the availability of skilled practitioners with post-graduate hospital based education is very important. Hiring of new graduates and pharmacists with only community pharmacy experience, in an effort to reduce vacancy rates, has reduced the proportion of hospital pharmacists with experience and/or postgraduate education. Experienced, well-trained hospital pharmacists, such as those with residency training, are necessary to mentor and train students and less experienced hospital pharmacists.
- There is no one province or region that is clearly in the worst or best position for overall labor shortages. Atlantic Canada has the longest duration of vacancies for pharmacists and BC has the highest average vacancy rate per respondent.

Table F-6 Percent Positions Vacant as of March 31, 2006 (Weighted Averages)

	All	Bed Size			Teaching Status		Province							
		100-200	201- 500	>500	Teaching	Non-Teaching	BC	AB	SK	MB	ON	QC	NB/PE	NS/NL
Hospitals (n=)	(142)	(27)	(78)	(37)	(37)	(105)	(20)	(9)	(4)	(7)	(45)	(42)	(8)	(7)
Pharmacists (n=103)	13.3%	22.7%	14.7%	11.4%	10.7%	16.9%	21.7%	11.6%	6.9%	7.0%	11.0%	17.4%	21.0%	4.8%
Management (n=97)	7.0%	0.0	11.1%	4.8%	5.0%	9.4%	12.7%	5.4%	0.0	0.0	8.0%	2.6%	8.5%	33.3%
Technicians (n=103)	2.1%	0.8%	2.0%	2.3%	2.3%	1.8%	3.6%	8.9%	4.0%	0.0	1.3%	0.3%	0.0	5.3%
Support Staff (n=85)	2.6%	0.0	4.4%	2.1%	1.9%	4.7%	0.0	4.4%	0.0	0.0	1.9%	1.8%	0.0	0.0
All positions (without residents) (n=103)	7.0%	9.9%	8.0%	6.0%	5.8%	8.5%	11.3%	8.6%	4.9%	3.5%	5.5%	7.9%	8.7%	6.1%

Table F-7 Total Number of Positions Vacant as of March 31, 2006

	All	Bed Size			Teaching Status		Province							
		100- 200	201- 500	>500	Teaching	Non-Teaching	BC	AB	SK	MB	ON	QC	NB/PE	NS/NL
Hospitals (n=)	(142)	(27)	(78)	(37)	(37)	(105)	(20)	(9)	(4)	(7)	(45)	(42)	(8)	(7)
Pharmacists (n=103)	270	23	122	124	127	143	40	26	6	10	91	77	19	2
Management (n=97)	19	0	12	7	7	12	4	2	0	0	10	1	1	1
Technicians (n=103)	49	1	18	30	30	19	8	21	4	0	14	2	0	1
Support Staff (n=85)	9	0	4	5	5	4	0	6	0	0	2	1	0	0
All positions (without residents) (n=103)	347	24	156	167	170	177	52	55	9	10	117	81	20	4

Pharmacists

- The average reported vacancy rate for pharmacists in 2005/06 was 13.3%, compared to 12.9% reported in 2003/04. British Columbia and New Brunswick/PEI respondents reported the highest pharmacist vacancy rates (21.7% and 21% respectively). It is interesting to note that these three provinces reported some of the lowest salaries at both the start and top levels of their salary ranges. High vacancy rates are likely primarily due to salaries but may not be related to salary alone. While Manitoba has the highest reported pharmacist salary at the top level, Saskatchewan offers salaries that are mid range, but both provinces reported a 7% pharmacist vacancy rate.
- Nova Scotia/Newfoundland reported the lowest (4.8%) vacancy rate, but this may not be truly representative due to the small number of respondents from these provinces who provided vacancy information.
- The average duration of pharmacist vacancies declined somewhat from 222 days in 2003/04 to 182 days in 2005/06. The average duration reported by respondents from hospitals with greater than 500 beds was 228 days compared to 267 days in 2003/04. The teaching hospital vacancy duration increased to 238 days from 193 days in 2003/04.

Technicians

- The reported vacancy rate for technicians has increased from 0.9% to 2.1% since 2003/04. This is still low compared to pharmacists but the upward trend may be of concern. The increased demand for technicians, due to the pharmacist shortage, could be difficult to meet if this trend continues. The highest vacancy rate for technicians was in Alberta at 9% while Manitoba and New Brunswick/PEI reported no vacancies.

Management

- Management vacancy rates were reported as 7.0% of total management positions, similar to that in 2003/04. The highest reported management vacancy rate was in Nova Scotia/Newfoundland (33.3%) and the lowest was in Saskatchewan and Manitoba (0%).

Retirements in the Next Five Years

- Projection of staff retirements is a new reporting parameter in this survey so there are no comparators from previous surveys. In total, 113 respondents indicated that 252 pharmacists (11.8% of all pharmacists) are expected to retire in the next 5 years. (Tables F-8 and F-9) Retirements may add to the overall vacancy rate that hospitals are now facing and it will be important to address this issue over the next few years. The highest average expected retirements were in the Prairie Provinces (2.9 pharmacists per reporting facility) and the lowest were in Atlantic Canada (1.4 pharmacists per reporting facility). This might be the result of a younger workforce in Atlantic Canada, or could be due to differences in the size of responding facilities in different parts of the country. Demographics of the workforce suggest that a significant percentage of the workforce will reach retirement age in the next 10-15 years.
- A total of 46 (16.2%) management staff are expected to retire in the next 5 years, which is higher than the percentage of pharmacists that is expected to retire during the same time period. This would be expected as more senior individuals usually occupy management positions. This group of managers may be challenging to replace, as it is becoming more difficult to attract pharmacists into leadership positions. More attention needs to be focused on mentoring, coaching and encouraging pharmacists to take on these roles. This particular trend needs to be carefully monitored and acted upon to insure that there are adequate numbers of future pharmacy managers.
- The pharmacy technician workforce is considerably younger than the rest of the pharmacy workforce. The total number of pharmacy technicians expected to retire in the next five years was reported to be 210 (8.4%). Nova Scotia/Newfoundland reported the highest percentage of expected retirements (24.1%) and BC and Alberta reported the lowest percentage (3.6%). As the technician workforce ages, this rate will rise over time.

Table F-8 Percent of Expected Retirements in the Next 5 Years (Weighted), as of March 31, 2006

	All	Bed Size			Teaching Status		Province							
		100-200	201- 500	>500	Teaching	Non-Teaching	BC	AB	SK	MB	ON	QC	NB/PE	NS/NL
Hospitals (n=)	(113)	(21)	(57)	(35)	(33)	(80)	(15)	(6)	(4)	(7)	(35)	(34)	(6)	(6)
Pharmacists (n=113)	11.8%	21.0%	13.0%	10.1%	9.2%	15.7%	12.6%	8.5%	21.1%	8.6%	11.1%	13.3%	8.4%	13.1%
Management (n=103)	16.2%	35.9%	12.8%	16.3%	15.7%	16.8%	17.9%	11.8%	61.5%	16.7%	12.5%	8.1%	36.4%	28.6%
Technicians (n=113)	8.4%	15.2%	7.6%	8.2%	7.8%	9.2%	3.6%	3.6%	6.4%	8.4%	9.0%	9.4%	5.6%	24.1%
Total retirements(n=113)	10.3%	18.9%	10.2%	9.5%	8.8%	12.4%	8.3%	6.5%	16.8%	8.8%	10.1%	11.1%	8.5%	19.8%

Table F-9 Total Number of Expected Retirements in the Next 5 Years, as of March 31, 2006

	All	Bed Size			Teaching Status		Province							
		100- 200	201- 500	>500	Teaching	Non-Teaching	BC	AB	SK	MB	ON	QC	NB/PE	NS/NL
Hospitals (n=)	(113)	(21)	(57)	(35)	(33)	(80)	(15)	(6)	(4)	(7)	(35)	(34)	(6)	(6)
Pharmacists (n=113)	252	26	103	122	119	133	25	18	19	13	84	76	7	10
Management (n=103)	46	6	13	27	25	21	6	5	8	2	14	4	4	3
Technicians (n=113)	210	23	69	118	113	97	9	8	6	11	89	58	6	23
Total retirements (n=113)	508	55	185	267	257	251	40	31	33	26	187	138	17	36

Summary

This year's survey illustrates that the problem of human resource shortages in Canadian hospital pharmacies is far from over. Based on trends from previous reports, the pharmacist shortage continues and may soon be exacerbated by retirements. A pharmacy technician shortage could be a future manifestation of the pharmacist shortage. Hospital pharmacy continues to struggle to provide appropriate, patient oriented professional practice with limited resources. With anticipated retirements, especially in pharmacy leadership positions, the profession could be faced with a different but equally difficult human resource problem. It will be important to monitor these trends in the next few reports and prepare pharmacists to assume future leadership roles.