



2004 ASHP Pharmacy Staffing Survey

Results

Objective

The objective of the Annual ASHP Pharmacy Staffing Survey is to gauge the supply and demand of pharmacists and to measure perceptions about pharmacy shortages. A core set of questions are asked each year to measure trends and additional questions are added to shed light on pharmacy shortage issues.

Methodology

On April 13, e-mail invitations with a link to an on-line survey were sent to 2,936 ASHP members identified as pharmacy directors. Reminder e-mails were sent to nonresponders on April 20 and April 27 and the survey was closed on May 6. A total of 517 questionnaires were completed yielding a 19% adjusted response rate (190 of the e-mail addresses were undeliverable). Only U.S. non-federal practice setting questionnaires were included in this analysis (490 questionnaires).

The maximum sampling error associated with this survey does not exceed $\pm 4.4\%$ at the 95% confidence level. However, sampling error may vary depending on the number of respondents and variability within each subgroup studied.

Contacts

This survey was conducted by Doug Scheckelhoff, Director of Pharmacy Practice Sections and Colleen Bush, Manager of Market Research, in cooperation with the Section of Pharmacy Practice Managers. For more information, contact Mr. Scheckelhoff at 301-657-3000 x1350 or dscheckelhoff@ashp.org.

2004 ASHP Pharmacy Staffing Survey Detailed Results

Vacancy Rates

The average vacancy rate was calculated by dividing the mean number of positions vacant by the mean number of currently budgeted positions. The average vacancy rate for pharmacists in 2004 is 5.0%; this is a continuation of a downward trend indicated by the survey since 2000 when the mean vacancy rate was 8.9%. There are no measurable differences in pharmacy vacancy rates by facility demographics.

Table 1: Pharmacist Vacancy Rates

	2004	2003	2002	2000	1999
Positions Budgeted	14.9	13.4	13.6	16.7	14.2
Positions Vacant	0.75	0.74	0.94	1.5	1.1
Vacancy Rate	5.0%	5.6%	6.9%	8.9%	7.7%

While not as steep, the 2004 vacancy rate for pharmacy technicians (3.7%) also depicts a downward trend. The vacancy rate in 2002 for technicians was 4.6%. (This question was not asked prior to 2002.)

Table 2: Pharmacy Technicians Vacancy Rates

	2004	2003	2002
Positions Budgeted	14.9	12.6	13.8
Positions Vacant	0.56	0.54	0.64
Vacancy Rate	3.7%	4.3%	4.6%

The vacancy rate for pharmacy technicians was lower in rural settings (2.0%) than in suburban settings (4.4%) and urban settings (3.9%).

Turnover Rates

The average turnover rate (% of resignations per budgeted number of positions) was calculated by dividing the mean number of resignations by the mean number of currently budgeted positions. The average turnover rate in 2004 for pharmacists is 7.5% which is level to the turnover rate for 2003. While the 2004 turnover rate for technicians is lower (11.8%) in 2004 than 2003 (13.3%), the change is not significantly different.

Table 3: Pharmacist Turnover rate

	2004	2003	2002
Positions Budgeted	14.9	13.4	13.6
Resignations in last 12 months	1.1	1.0	1.2
Turnover rate (% resigned)	7.5%	7.5%	8.5%

Table 4: Pharmacy Technician Turnover rate

	2004	2003	2002
Positions Budgeted	14.9	12.6	13.8
Resignations in last 12 months	1.8	1.7	1.7
Turnover rate (% resigned)	11.8%	13.3%	12.3%

Consistent with last year's findings, the mean turnover rate decreases as the average daily patient census increases. As displayed in Table 5, the highest mean turnover rate for pharmacists (12.5%) is at small facilities (with an average daily census less than 100 patients) and the lowest turnover rate (5.4%) is at large facilities (with an average daily census of 400 or more). There are no statistically significant differences in turnover rates for pharmacy technicians by average daily patient census.

Table 5: Turnover Rate by Average Daily Patient Census

Average Daily Census	Pharmacists	Technicians
1 – 99	12.5%	13.3%
100 – 199	10.2%	10.4%
200 – 299	6.4%	13.2%
300 – 399	7.4%	10.8%
400 or more	5.4%	12.1%

Pharmacy Shortage Perceptions

Pharmacy directors rated their perceptions about the availability of qualified staff for six pharmacy positions. A five point scale was used where:

- 1=Severe shortage
- 2=Moderate shortage
- 3=Balanced
- 4=Moderate excess
- 5=Severe excess

Table 6 displays the 2004 results with a moderate or severe shortage combined and labeled "shortage" and a moderate or severe excess combined and labeled "excess." The comparable ratings follow in Table 7 for 2003 results.

Table 6: 2004 - Perceptions of Availability

Pharmacy Position	Shortage	Balanced	Excess
Manager (Director/Asst. Director)	77%	21%	2%
Clinical Specialist	64%	27%	10%
Entry-level Frontline Pharmacist	69%	29%	3%
Experienced Frontline Pharmacist	89%	9%	2%
Entry-level Pharmacy Technician	20%	50%	31%
Experienced Pharmacy Technician	67%	27%	6%

Bolded figures indicate the largest changes from 2003 data.

Table 7: 2003 - Perceptions of Availability

Pharmacy Position	Shortage	Balanced	Excess
Manager (Director/Asst. Director)	74%	23%	3%
Clinical Specialist	67%	26%	7%
Entry-level Frontline Pharmacist	75%	23%	3%
Experienced Frontline Pharmacist	90%	8%	2%
Entry-level Pharmacy Technician	22%	50%	28%
Experienced Pharmacy Technician	74%	21%	5%

Table 8 displays the percentage of respondents indicating that there is “severe shortage” by position. “Severe shortage” perceptions have trended downward for all positions since 2002 with the exception of pharmacy manager positions.

Table 8: Perceptions of a Severe Shortage

	2004	2003	2002
Manager (Director/Asst. Director)	36% ✓	27%	32%
Clinical Specialist	18%	19%	26%
Entry-level Frontline Pharmacist	17%	20%	27%
Experienced Frontline Pharmacist	45%	54%	67%
Entry-level Pharmacy Technician	1%	1%	3%
Experienced Pharmacy Technician	17%	22%	28%

Length of Time to Recruit

On average, employers reported that it took 5.3 months to hire a pharmacist and 1.8 months to hire a pharmacy technician. This length of time is not significantly different from last year’s estimated time (5.8 months and 1.9 months, respectively.)

Table 9: Number of Months to Hire

	2004	2003	2002
Pharmacists	5.3	5.8	5.7
Pharmacy Technicians	1.8	1.9	1.8

It took longer to recruit for pharmacists in rural settings (6.9 months, on average) compared to suburban facilities (4.4 months) and urban facilities (4.8 months). There are no significant differences in time to hire pharmacy technicians by facility location.

Pharmacy Technician Certification

The percentage (49%) of pharmacy technicians certified by the Pharmacy Technician Certification Board (PTCB) is similar to the percentage reported last year (47%). Both 2004 and 2003 results are significantly higher compared to the percentage reported in 2002 (37%).

Fourteen percent of the directors reported that *none* of their pharmacy technicians are certified and 22% reported that *all* of their technicians are certified. There are no measurable differences in the percentage of technicians certified by facility demographics.

Residency Trained Pharmacists

In this year's survey, pharmacy directors were asked how many of their pharmacists are residency trained. In total, 14% are residency trained. The directors were also asked if they had completed a pharmacy residency and 28% indicated that they had. In the facilities where the pharmacy directors *had* completed a residency, the percentage of staff with residency training was significantly higher (29%) than staff at facilities where the pharmacy directors had *not* completed a residency (8%).

Other facilities with notably higher than average residency-trained pharmacy staff are those in larger hospitals (18% for hospitals with an average daily census of 400 or more), facilities in urban settings (19%), academic facilities (20%), and facilities located in the Western region of the country (22%).

Impact of Vacancy and Turnover on Job Satisfaction

The survey results indicate that pharmacy staffing shortages have a negative impact on the job satisfaction of pharmacy directors. Directors responding to the survey were asked to rate their level of satisfaction with their current job position using a five point satisfaction scale. Table 10 displays the satisfaction levels of responding directors and for each level of satisfaction shows the corresponding vacancy and turnover rates for pharmacists.

Table 10: Pharmacist Vacancy and Turnover Rates by Level of Satisfaction

Satisfaction Scale	% Rating:	Pharmacist Vacancy Rate	Pharmacist Turnover Rate
Very Satisfied (5)	31%	3.3%	6.1%
Somewhat Satisfied (4)	44%	5.3%	6.5%
Neither Satisfied Nor Dissatisfied (3)	8%	5.9%	10.9%
Somewhat Dissatisfied (2)	15%	6.6%	10.1%
Very Dissatisfied (1)	3%	8.0%	12.7%
All	100%	5.0%	7.5%

There is an inverse relationship between satisfaction levels and pharmacist vacancy and turnover rates. For example, directors reporting that they are "very satisfied" with their current position (31% of responders) also report a pharmacist vacancy rate of 3.3%. Directors who are "very dissatisfied" with their current job position (3% of

responders) report a vacancy rate of 8% which is more than double that of “very satisfied” directors.

This same analysis was conducted for technician vacancy and turnover rates and there are no significant relationships with satisfaction levels of directors.

Demographics

The demographic profiles of the respondents in the 2004 and 2003 study are very comparable, as shown in Tables 11 through 13. Table 14 and 15 show facility type and location for the 2004 survey (which was not part of the last year’s survey).

Table 11: Region

Region	2004	2003
Northeast	17%	16%
South	36%	37%
Midwest	30%	30%
West	17%	17%

Table 12: Practice Setting

Practice Setting	2004	2003
Hospital/Health-system	85%	85%
Other	15%	15%

Table 13: Average Daily Census

Average Daily Census	2004*	2003
1-99 beds	36%	39%
100-199 beds	25%	25%
200-299 beds	14%	14%
300-399 beds	10%	9%
400 or more beds	16%	12%

*6% said not applicable

Table 14: Facility Type

Facility Type	2004
Academic	13%
Community	69%
Other	18%

Table 15: Facility Location

Facility Location	2004
Rural	32%
Suburban	31%
Urban	38%