



**2014 NATIONAL
PHARMACIST
WORKFORCE SURVEY**

**EXECUTIVE SUMMARY OF THE FINAL REPORT
OF THE 2014 NATIONAL SAMPLE SURVEY OF THE PHARMACIST
WORKFORCE TO DETERMINE CONTEMPORARY DEMOGRAPHIC PRACTICE
CHARACTERISTICS AND QUALITY OF WORK-LIFE**

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Project Commission

This current investigation was commissioned by the Pharmacy Workforce Center, Inc. (PWC). The PWC is comprised of American Association of Colleges of Pharmacy (AACCP), American College of Clinical Pharmacy (ACCP), American Pharmacists Association (APhA), American Society of Health-System Pharmacists (ASHP), Board of Pharmacy Specialties (BPS), Bureau of Health Workforce (BHW), National Alliance of State Pharmacy Associations (NASPA), National Association of Boards of Pharmacy (NABP), National Association of Chain Drug Stores (NACDS) Foundation, National Community Pharmacists Association (NCPA) and Pharmacy Technician Certification Board (PTCB). The American Association of Colleges of Pharmacy serves as secretariat to the PWC.

Repository for Project Materials and Data

Project materials and data are stored at University of Minnesota, College of Pharmacy, Department of Pharmaceutical Care & Health Systems, 308 Harvard Street, S.E., Minneapolis, MN 55455.



Executive Summary

Section 1: Background, Study Objectives, Methods and Response Rate

BACKGROUND

This study provides an update on the pharmacist workforce in 2014 and examines changes since 2009 when the last national assessment of the pharmacist workforce was conducted. Comparisons to the 2009, 2004 and 2000 National Pharmacist Workforce Surveys are highlighted where applicable.

Many factors and changes since 2009 shaped the context for this national pharmacist survey. Significant changes to health care delivery and financing have begun in response to the Patient Protection and Affordable Care Act (PPACA). Emphasis on improving health care quality and safety while reducing cost has continued to be a health care mantra. The aging population and ever-advancing health care technologic capability have continued to increase demand for health care services, including pharmacy. The increased number of graduates from U.S. pharmacy schools has added capacity to the pharmacist workforce. And last, but perhaps not least, between 2009 and 2014 the U.S. economy improved considerably, with national unemployment recovering from 10% in December 2009 to a modest 5.5% in December 2014.



To meet the objectives of the project, a cross-sectional, descriptive survey design was used for collecting and analyzing the data.



STUDY OBJECTIVES

The primary purpose of this project was to collect reliable information on demographic characteristics, work contributions and the quality of work-life of the pharmacist workforce in the United States during 2014. The results allow for a continuation of the analyses and trends, whenever possible, from previous surveys that have been done on an approximately four-to-five-year cycle. The project obtained information from a nationally representative sample of pharmacists. Specific objectives included

- Describe demographic and work characteristics of the pharmacist workforce in the United States during 2014.
- Describe work contributions of the pharmacist workforce in the United States during 2014.
- Describe the work environment and quality of work-life of the pharmacist workforce in the United States during 2014.

METHODS

To meet the objectives of the project, a cross-sectional, descriptive survey design was used for collecting and analyzing data. Data were collected using an 11-page self-administered questionnaire that was mailed to subjects.

Survey Questionnaire

Questions comprising each section of the survey were taken primarily from previous workforce surveys conducted by members of the project team. The survey questionnaire included six sections: 1) General Employment Status and Work Environment, 2) Your Work, 3) Your Practice Site, 4) Quality of Work-Life, 5) Your Career and 6) Information about Yourself.

Survey Administration

Survey procedures included four subject contacts: a pre-notification letter and postcard, the main initial survey mailing, a second mailing of the survey packet, and a final two-page survey to pharmacists who did not respond to the second mailing of the survey form. As part of the fourth contact, sampled pharmacists were given the option of also completing the 11-page questionnaire electronically. A pilot test was conducted to determine the feasibility of these proposed methods.

Sampling Strategy

Two lists were obtained from KM Lists (a national medical marketing data warehouse): a random sample of 6,000 pharmacists and another random sample of 1,000



pharmacists licensed between 2011 and 2013, so the final sample would contain between 7% and 10% of graduates from the most recent years. From these two lists, we randomly selected a sample of 5,200 (5,000 for the main survey and 200 for a pilot test).

Data Analysis

Surveys were returned to the University of Minnesota, College of Pharmacy and processed for data entry. Data were extracted from the database and analyzed for this report using descriptive statistics. This report presents data in a manner that allows comparison to 2009, 2004 and 2000 findings whenever possible, since not all the same questions were included in each administration of the survey.

RESPONSE RATE

Our rigorous survey method, with up to four contacts for each individual in the sample, resulted in a total 2,446 responses. After removal of undeliverable surveys, an overall response rate of 48.2% was achieved (2,446/5,073). Responses were received from each state except the District of Columbia.

Assessment of Response

We used two methods to assess non-response bias: The first compared available characteristics of pharmacists who responded to the workforce survey with characteristics of non-responders. The second method compared specific pharmacist characteristics between respondents to the first and last mailings of the survey forms.

Overall, our assessment of the response indicated a geographically diverse sample in that respondents represented all regions of the United States in proportion to the nationwide distribution of licensed pharmacists and to our sampling frame. However, some regions of the country may be over-represented (Midwest), while others may be under-represented (South). In addition, our sample, in contrast to previous reports, may be slightly over-represented by more recently licensed pharmacists.

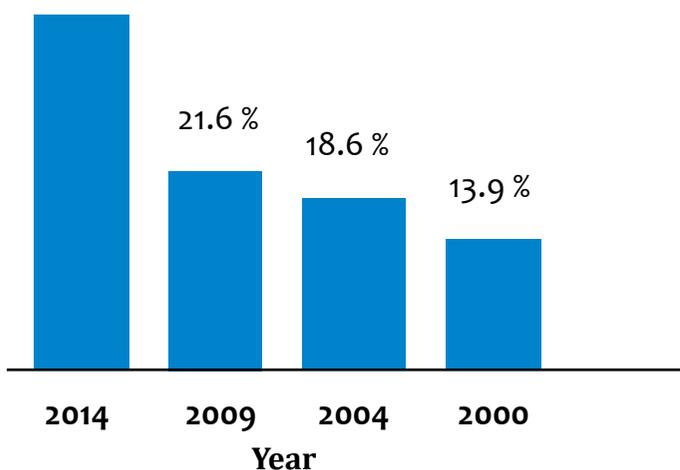
Section 2: Demographic and Work Characteristics of the Pharmacist Workforce: Comparisons between the Years 2014, 2009, 2004 and 2000

Characteristics of Licensed Pharmacists

Overall, 75.0% of licensed pharmacists responding to the survey in 2014 were working and practicing as a pharmacist or working in a pharmacy-related career. This compares to 88.3% in 2009, 86.0% in 2004 and 88.2% in 2000. By gender, 65.2% of male and 83.9% of female pharmacists were working as a pharmacist or in pharmacy-related work. The proportion of pharmacists who are licensed but not working in any profession doubled from 2009. In 2014, 22% of the respondents were either retired or not working, with 31.6% of male pharmacists and 13.5% of female pharmacists not working. The racial diversity of licensed pharmacists in the United States continues to not represent the racial diversity of the U.S. population. In 2014, 85.1% of pharmacists were white, which is down slightly from 2009 (86.5%), 2004 (87.7%) and 2000 (87.8%). The proportion of licensed pharmacists who held a



Proportion of licensed pharmacists who held a PharmD as highest degree
37.8 %



PharmD as their highest degree increased to 37.8% in 2014 from 21.6% in 2009, 18.6% in 2004 and 13.9% in 2000. In 2014, 37.4% of pharmacists were 55 years or older. This is approximately the same percentage as in 2009 (37.1%).

Characteristics of Actively Practicing Pharmacists

Actively practicing pharmacists represent a subset of licensed pharmacists who work as a pharmacist in a licensed pharmacy or in a pharmacy-related field. Of this group, in 2014, 83.6% of males and 81.3% of females were actively practicing pharmacy. In 2014, actively practicing pharmacists age 40 or younger comprised 31.6%; pharmacists who were 55 years or older comprised 30.6%. The proportion of actively practicing pharmacists working in traditional community pharmacy practice settings (independent, chain, mass merchandiser, and supermarket pharmacies) decreased in 2014 to 44.1%; however, an increase was seen in hospital pharmacy (29.4%), other patient care practice (16.7%) and other (non-patient care) practice (7.5%) from 2009. Five percent of respondents were owner/partners in 2014. This compares to 8.1% in 2009, 6.5% in 2004 and 7.0% in 2000. Only 2.4% of owners were female in 2014. This compares to 8.1% in 2009 and is similar to findings in 2004 (2.1%) and 2000 (2.3%). Approximately 30% of respondents were in management positions and 65% were in staff positions. Most notably, the proportion of females who were in management positions was greater than the proportion of males for the first time since our first survey in 2000. In 2014, 55.2% of managers were female while 44.8% were male. Patterns of part-time work in the 2014 responses revealed that although

the proportion of women working part-time continues to be greater than for men, the gap between males and females working part-time is narrowing for women under 40 years of age and between 46 and 55 years of age. Gender representation of pharmacists across settings showed the highest male pharmacist ratio in independent community pharmacy (55.9%), while the highest representations of females were in industry (65.8%) and other (non-patient care) settings (61.1%).

Hours Worked by Actively Practicing Pharmacists

Among pharmacists working full-time, the gap in hours worked between males and females continues to narrow. In 2014, males contributed 0.95 FTE (full-time equivalent) and females contributed 0.93 FTE. Overall, pharmacists working full-time worked an average of 44.2 hours per week in 2014, 43.8 hours per week in 2009, 43.4 hours per week in 2004 and 44.2 hours per week in 2000. For part-time pharmacists, the average hours worked per week did not change significantly (20.1 hours in 2014, 19.4 hours per week in 2009, 19.1 hours per week in 2004 and 19.0 hours per week in 2000). In 2014, 2009 and 2000, pharmacists worked the most part-time hours in mass merchandiser and supermarket settings. In 2014, overall, nearly 8% of pharmacists had secondary jobs that translated into nearly 6 additional hours per week worked by pharmacists who had secondary employment. The most common primary employment settings for pharmacists with a secondary position were industry (10.5%), hospital (9.2%), and other (non-patient care) (9.2%).

Changes in Base Pay and Additional Earnings

Overall, an increase in pay over the past year was experienced by nearly two-thirds of pharmacists, and few pharmacists (less than 6%) had decreases in pay. The most common reason for a base pay change was merit. The average percentage increase in base pay was 2.3%, with owners having the highest per-



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centage increase (4%) and the chain pharmacy setting having the lowest (1.8%). The most common type of additional earnings was bonuses (47.3%), followed by overtime pay (37.9%).

Work History of Actively Practicing Pharmacists

For 2014, pharmacists reported working with their current employer the longest in independent and chain (both 12.9 years), hospital and mass merchandiser (11.8 and 11.3 years, respectively), and the least (9.0 years) in other patient care practice settings. The work settings with the highest proportion of full-time pharmacists working for less than three years were other (non-patient) care (25.8%), and industry (24.0%). The mean number of employers went down in 2014 (3.3 employers) compared with 2009 (3.8 employers), 2004 (3.9 employers), and 2000 (3.7 employers), as well as the mean years per employer. Pharmacists spent 7.9 years per employer in 2014, 8.2 years in 2009, 6.8 years in 2004 and 6.5 years per employer in 2000. In terms of practice setting, pharmacists who worked

“Pharmacists with five years or less of experience reported having repaid 30% of their student loan debt.”

in chain settings or supermarket pharmacies worked the longest per employer in 2014. This finding was inconsistent with 2009, 2004, and 2000, when the longest time per employer was in the independent setting.

Ratings of Workload by Pharmacists Working Full-Time

Overall, 66% of pharmacists in 2014 rated their workload level at their place of practice as high or excessively high. Furthermore, 64% of pharmacists who reported working full-time in 2014 reported that their workload increased or greatly increased compared to a year ago. Forty-five percent of pharmacists in 2014 reported that current workload had negative or very negative effects on mental/emotional health. Pharmacists working in chain (68%) and mass merchandiser (63%) settings indicated that their current workload had negative or very negative effects on the time spent with patients. From 2004 to 2014, generally a larger proportion of staff pharmacists rated the effects of workload as negative or very negative for each job-related, pharmacist-related, and patient-care-related item relative to pharmacists in management positions.

Debt Load for Pharmacists Working Full-Time

In 2014, pharmacists reported an average current student loan debt of \$18,131 compared to \$38,136 when they graduated. Pharmacists with five or fewer years

of experience reported an average student loan debt of \$108,407 when they graduated and a current student loan debt of \$76,791. In 2009, these figures were \$79,895 and \$61,667, respectively, and in 2004 these figures were \$42,600 and \$28,854. Females tended to have more student loan debt regardless of years of experience than males.

Section 3: Pharmacists' Work Activities and Work Environment

Work Activities for Pharmacists Working Full-Time

Full-time pharmacists in 2014 devoted 49% of their time to patient care services associated with medication dispensing, 21% of their time to patient care services not associated with medication dispensing, 13% to business/organization management, 7% to education, 4% to research, and 6% to other activities. This compares to 55% of their time in medication dispensing, 16% in patient care services, 14% in business/organization management, 5% in education, 4% in research, and 5% in other activities in 2009. The majority of pharmacists indicated that they spent nearly the same amount of time in each activity, compared to a year ago, but it is interesting to note that even though the percentage of time spent in each activity did not change much between 2014 and 2009, an average of 35.3% of the respondents in community pharmacy settings indicated that the amount of time spent over the last year in patient care services not associated with medication dispensing was much more.

Pharmacy Staffing

In 2014, 76% of pharmacists overall reported they worked with one or more pharmacists during their workday; a higher proportion of pharmacists in hospi-

tal settings (89%) worked with one or more pharmacists. In 2004, more than half of independent (52%), chain (52%) and supermarket (61%) pharmacists did not work with another pharmacist. In 2014, approximately two-thirds of pharmacists in hospital pharmacy settings reported working with three or more technicians, and less than 25% of pharmacists in community settings, except in mass merchandiser settings, reported working with three or more technicians. Extending comparisons back to 2000, a general trend has been for pharmacists to work with more colleagues around them, predominantly support staff, but also sometimes peers.

Workplace Labor Reductions Reported by Pharmacists Working Full-Time

Of the four workforce adjustments we describe in this study, the most common workforce adjustment reported by pharmacists was “restructuring of pharmacist work schedules to save labor costs” (35%), fol-

lowed by “mandatory reductions in pharmacist hours” (17%), “pharmacist layoffs” (9%), and “early retirement incentives for pharmacists” (6%). These proportions were all higher than in 2009 (26%, 13%, 6% and 4%, respectively). “Pharmacist layoffs” were most common in industry, other patient care and other (non-patient care) employment settings. “Restructuring of pharmacist work schedules” was more commonly reported by pharmacists practicing in chain and hospital settings. Also, “mandatory reductions in pharmacist hours” was more commonly reported by pharmacists practicing in chain pharmacies.

Current and Potential Service Provision at Practice Settings

The most common services reported by pharmacists as offered at their practice sites were medication therapy management (60%), followed by immunizations (53%) and adjusting medication therapy (52%). In 2004, only 13% of respondents report-



ed that their pharmacies offered medication therapy management and 15% offered immunizations. Forty-eight percent of pharmacists in chain sites and 57% of pharmacists in supermarket sites reported their pharmacies offer health screenings. This compares to 7% and 27%, respectively in 2004. Seventy-seven percent of hospitals offered medication reconciliation in 2014. Over 25% of other patient care settings and hospital pharmacies have collaborative practices agreements in place. These are all significant changes in the amount of services offered across practice settings. In 2014, pharmacists reported that overall their practice sites had “good to very good” resources regarding their skills to provide services, resources to obtain payment for services, and had skills to market services. The resource that did not change to a great extent in 10 years was staffing. Pharmacists reported in 2014 that staffing was “fair to good” for both pharmacist and technician staffing, which is slightly higher than in 2004. Over one-third of pharmacists reported that in 2014, the emphasis on patient (non-dispensing services), the system for documenting



services, and access to electronic patient data had changed “a lot” over the last two years, but 70% of pharmacists felt that financial incentives for pharmacists had “not changed at all” in the last two years.

Work Contributions (Hours per Week) Expected in Three Years

The majority of pharmacists (70%) expected to be working the same amount or more hours per week three years from now. This proportion is virtually the same as it was in 2009.

Section 4: Pharmacists’ Quality of Work-life

Work Attitudes

In 2014, more than one-half of the respondents in all practice settings except other patient care and other (non-patient care) settings reported high levels of work-home conflict. Community pharmacy (independent, chain, mass merchandiser, and supermarket) practice settings were experiencing much lower levels of job satisfaction than in 2004, but the levels were similar to 2000. Job satisfaction was particularly high (83%) in other (non-patient care) settings in 2014. Interestingly, high levels of career commitment were found in 2014 (66%) and 2004 (65%) compared to 2000 (50%). Only one-third of respondents felt they had a high level of control in their work environment with higher levels in independent community pharmacy (61%) and other (non-patient care) (57%) areas. Males had higher levels of job satisfaction and experienced a higher level of control in their work environment than females. Females had a higher level of career com-

Services

The most common services pharmacists offered at their practice sites represent important patient care and public health needs:

60%

Medication therapy management services

53%

Immunization

52%

Adjustment of medication therapy

mitment, comparable work-home conflict, organizational commitment, and home-work conflict and lower levels of control in the work environment than males. Pharmacists in practice for less than five years gave the highest ratings for all work-attitude items except home-work conflict when compared to those with more than 30 years' experience. In contrast to 2004, the work-attitude ratings of the least experienced group often were very similar to those in the most experienced group.

Job Stress

The most stressful event for all practice settings, (except independent community pharmacy) in 2014 was "having so much work to do that everything cannot be done well" (45%). Independent community pharmacists reported that "doing excessive paperwork" (38%) was the most stressful in both 2014 and 2004 (42%). More than one-half of chain and mass merchandiser pharmacists found "having to meet quotas" as highly stressful and "not being staffed with an adequate number of technicians" was highly stressful for pharmacists in chain (67%), mass merchandiser (53%), supermarket (45%) and hospital (32%) pharmacy settings in 2014.

Current Job

There was considerable variability in the percentages of pharmacists reporting how difficult it would be to find another job with different specific characteristics. In 2014, higher proportions of pharmacists for each of the characteristics reported it would be difficult to find another job with the different characteristics compared to 2004 and 2000. This suggests that their current job

In 2014, the most stressful event for most practice settings was "having so much work to do that everything cannot be done well" (45%)

is more consistent with what pharmacists want and/or it would be harder to improve the level of that characteristic by switching jobs. But, differences were found by years of experience. The proportions of pharmacists with zero to five years of experience that rated it difficult to find another job were lower for the specific characteristics of more intellectual challenge (39%) and better professional role opportunity (36%), and fewer pharmacists who have been in practice between 21 and 30 years reported more patient contact (29%) would be difficult to find in another job. Comparisons to 2004 suggest that more years of experience lead to more pharmacists feeling they would have less difficulty in finding a job with better professional treatment by management and better relationships with patients. These results suggest a negative correlation between dissatisfaction with these characteristics by years of experience.

Future Career Plans

The majority of pharmacists expected to be working with their current employer three years from now (78%). Pharmacists currently working at chain pharmacies had the highest proportion reporting that they planned to be retired or out of the work-

place three years from now (12%), followed by supermarket pharmacies (11%), and mass merchandiser pharmacies had the lowest proportion (7%). Approximately 15% of male and 6% of female pharmacists expect to be retired by 2017.

LIMITATIONS

The results and our interpretation of them should be tempered by the limitations of the study. The results are based on respondents' self-reports, raising questions regarding the extent to which respondents gave socially desirable responses or the extent to which they correctly interpreted the questions. By conducting a pilot test of our questionnaire and study procedures, we found that the questions appeared to be interpreted correctly and that our study design was feasible.

Our findings showed that we achieved a geographically diverse sample of pharmacists for this study in that all regions of the United States were represented in proportion to the U.S. population and in proportion to our sampling frame. Thus, while we achieved good geographic coverage, some areas of the country were disproportionately represented in this study. To overcome this limitation, we report aggregate data and not state- or region-specific findings.

Non-response bias is another limitation. It is possible that responders were more interested in the topic we studied or had stronger opinions about the questions we asked than those who chose not to respond. Our

“ Opportunities for pharmacists will grow, as the number of patients with chronic conditions grows. ”

findings suggest that pharmacists who were licensed up to 1980 were more likely to respond. This may have been due to our study methods in which we encouraged all of those with a pharmacy license to respond even if they were not currently practicing pharmacy. We also over-sampled pharmacists who were more recently licensed, so their views are a greater part of our study sample than in past studies.

CONCLUSIONS

Overall, the results of this study suggest that we are living in dynamic times as a health profession. We have shifted from a male-dominated to a female-dominated profession. Male pharmacists will continue to retire in large numbers, given that almost 50% of actively practicing pharmacists who are over 55 years old are male. In 2014, 38% of pharmacists have a PharmD degree, a 42% increase since 2009. More pharmacists are reporting their pharmacies are providing patient care services. As the area of coordination of care for patients with chronic conditions grows, the number of opportunities for pharmacists in new roles is likely to increase. Pharmacists have the highest level of commitment to the profession seen in the past 15 years.

The increase in services and new roles has led to more job stress and dissatisfaction for pharmacy practitioners. The most satisfied pharmacists are those outside of patient care areas. In addition, pharmacists are feeling less able to change jobs and move around as they have in the past.

The pharmacy profession currently has, and will continue to build, capacity for contributing to the U.S. health care system. However, as shifts in professional roles occur, deployment of capacity must meet the requirements of changing service models. Strategic decisions regarding pharmacy workforce, educational training, professional training and redeployment, updates to practice acts and regulations, new documentation and billing systems, enhanced information exchange, collaborative practice models, infrastructure, technology, policy, and new business models are crucial. An understanding of the most appropriate timing for making such changes can lead to cost-effective use of scarce and limited resources for improving patient care. Since personnel costs are a major component of pharmacy operating costs, changes in the pharmacy workforce are important to monitor.

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