

*originalcontributions*

# The Evolving Role of Pharmacy Technicians in Wisconsin

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Advancing the role of pharmacy technicians was a core recommendation from the American Society of Health-System Pharmacists (ASHP) 2011 Pharmacy Practice Model Summit.<sup>1</sup> Harvey Whitney recognized the importance of this recommendation as early 1977, stating that in order to advance pharmacy practice, organizations would need to utilize technicians in new roles (at this time, drug dispensing and preparation).<sup>2</sup> These ideas continue to be echoed today; the utilization of pharmacy technicians in advanced distributive and administrative roles will continue to advance pharmacy practice, and allowing pharmacists to practice at the top of their licenses. A commentary published in the *American Journal for Health-System Pharmacy* implored pharmacy leaders to, “learn from health-system pharmacies that have invested in advancing technician roles” in order to identify opportunities to best utilize and leverage pharmacy technician skills within pharmacy operations.<sup>3</sup>

The Pharmacy Society of Wisconsin (PSW) Practice Advancement Leadership Team is a collaborative of health-system pharmacy department directors, pharmacy administration residents, and PSW staff members who work to advance pharmacy practice in Wisconsin through strategic projects and initiatives. Through this survey, we sought to evaluate the growth of advanced technician roles intended to support elevated pharmacy practice in Wisconsin.

## Methods

A 25 question online survey (Figure 1) was developed and distributed electronically to the pharmacy director or lead pharmacy manager at 135 hospitals across Wisconsin. A follow-up, reminder communication was emailed four weeks later to sites that had not yet completed the survey. The survey was designed to broadly explore pharmacy leaders’ opinions and current use of technicians in advanced roles. Advanced roles were described as any supportive pharmacy duties not included within our definition of traditional health-system pharmacy technician roles. Traditional roles were defined to include prescription/order-entry, medication

## Abstract

**Purpose:** Recommendations of the 2011 American Society of Health-System Pharmacists (ASHP) Practice Advancement Initiative (PAI) included advancing the role of pharmacy technicians to support clinical service expansion by pharmacists. We sought to evaluate how hospitals throughout an entire state were developing and advancing pharmacy technician roles.

**Summary:** An electronic survey was sent to pharmacy leaders at 135 hospitals within the state of Wisconsin. A total of 52 responses were received, and after duplicate and incomplete responses were removed, responses from 29 hospitals were included in the final analysis (21.5% response rate). Observations from this survey demonstrate that institutions of all sizes have developed expanded pharmacy technician roles and advanced career opportunities for pharmacy support personnel and that these organizations plan to continue advancing pharmacy technician roles. Respondents reported difficulty in recruiting skilled and competent pharmacy technicians. Furthermore, respondents reported they have observed a decrease in turnover rates for pharmacy technicians with advanced roles compared to traditional roles.

**Conclusion:** This survey highlights the ongoing efforts of hospitals throughout Wisconsin to leverage pharmacy technicians to expand pharmacists’ clinical services and support fulfillment of the ASHP PAI recommendations.

preparation, and distribution under the supervision of a pharmacist. The survey included a combination of multiple-choice, short answer, and Likert scale questions. Survey results were analyzed using descriptive statistics.

## Results

Responses were collected from 52 individuals. Incomplete responses (n=18) and duplicate responses from the same hospital (n=5) were removed. Responses from 29 unique hospitals were included in the final analysis correlating to a response rate of 21.5%. Six responses were received from hospitals with less than 50 beds, four

responses were received from hospitals with greater than 500 beds, and the other 19 responses were from hospitals with between 50 – 500 beds (Table 1).

Among respondents, 26 sites (90%) reported they were employing pharmacy technicians in advanced roles. Three sites reported they were *not* employing technicians in advanced roles, all three of which were hospitals with less than 50 beds. Among sites that reported employment of technicians in advanced roles, the full time-equivalents (FTE) dedicated to these roles increased as hospital bed size increased. Hospitals with less than 50 beds had an average of

**TABLE 1. Survey Results: Responses by Hospital Size**

Bed Size	Responses (Count)	Hospitals with Advanced Technician Roles (Count, Percentage)	Average Number of Advanced Technician FTE <sup>a</sup> at Hospitals with Advanced Technician Roles	FTE <sup>a</sup> Range
< 50 beds	6	3 (50%)	1.2	(1 - 1.5)
50-99 beds	5	5 (100%)	1.5	(1 - 1.9)
100-199 beds	6	6 (100%)	3.1	(2 - 5)
200-299 beds	4	4 (100%)	2.8	(2.5 - 3)
300-399 beds	3	3 (100%)	8.3	(6 - 13)
400-499 beds	1	1 (100%)	40	(40)
≥ 500 beds	4	4 (100%)	16.3	(1 - 40)
<b>Total</b>	<b>29</b>	<b>26 (90%)</b>		

<sup>a</sup> FTE = Full-time equivalent

**TABLE 2. Survey Responses: Advanced Technician Roles**

Pharmacy Technician Role	Count of Responses <sup>a</sup> (%)
Purchasing Agents (inventory management/control; pharmacy buyer; procurement technician)	22 (85%)
Automation Technician (information system automation/technology analysts)	12 (46%)
Medication History Technician	9 (35%)
Controlled Substance (drug diversion; narcotic medication management)	7 (27%)
Informatics Technician (electronic medical record)	5 (19%)
Prior Authorization Technician	4 (15%)
Drug Shortages Technician	3 (12%)
340B Technician	3 (12%)
Discharge Prescription Services Technician	2 (8%)
Financial Reimbursement Technician	2 (8%)
Vaccine Management Technician	2 (8%)
Ambulatory Infusion Coordination Technician	1 (4%)
Census Management Technician	1 (4%)
Centralized Order Entry Technician	1 (4%)
Investigational Drug Technician	1 (4%)
Medication Access Specialist Technician	1 (4%)
Pharmacy Associate Accountant Technician	1 (4%)
Pharmacy Benefit Manager Technician	1 (4%)
Pharmacy Billing Technician (inpatient)	1 (4%)
Prescription Renewal Technician	1 (4%)
Project Manager Technician	1 (4%)
Quality Improvement Technician	1 (4%)
Tech-Check-Tech	1 (4%)
USP 797/800 Compliance Technician	1 (4%)

<sup>a</sup>Survey respondents from hospitals with advanced technician roles (n=26) were asked to describe these roles. Due to the free-text design of this survey question, counts may be falsely low if respondents did not clearly describe all of their advanced technician roles.



1.2 FTE allocated to advanced roles while hospitals with over 500 beds maintained an average of 16.3 FTE. Results for all hospital sizes are presented in Table 1.

The most commonly reported advanced roles included: purchasing agents, medication history specialists, informatics/automation specialists, and controlled substance management technicians (Table 2).

We sought to use the survey to understand whether hospitals intended to expand technician roles moving forward. A majority of responding hospitals with advanced technician roles (n=26) planned to leverage technicians in new ways (n=18, 69%) in the future and this was consistent across all hospital sizes.

Survey results from all 29 hospitals included in the analysis indicated the majority (n=22, 76%) of hospitals have difficulty recruiting quality pharmacy technicians. Respondents indicated, on a scale of 1 – 10 (with 10 being the most difficult), how difficult it was for them to recruit and retain qualified technicians. A mean score of 6.4 was registered, with a mode of 8. The effect of advanced roles on recruitment and retention of technicians was also assessed. Respondents with advanced technician roles (n=26) were asked to indicate how their hospital's overall pharmacy technician turnover rate changed following the implementation of these positions. Survey respondents answered that overall technician turnover rates were lower (n=6, 23%) or similar (n=17, 65%) compared to pre-implementation of advanced technician roles. Three respondents indicated they were unsure how turnover rate changed. No survey responses indicated a higher rate of turnover. Additionally, turnover rates for technicians specifically employed in advanced roles were rated as lower than traditional roles by half of the question respondents (n=13), nine considered it to be comparable (35%), and only one considered it to be higher. Three respondents were unsure.

Wisconsin pharmacy regulations do not currently require technicians to obtain certification or licensure in order to practice. The survey assessed whether hospitals required pharmacy certification and whether training was required through an accredited training program. Of the 26 hospitals with advanced technician roles, 50% (n=13) reported technician certification was required at their facility while the other 13 hospitals did not require certification. Furthermore, only four of 26 respondents stated their advanced technicians were required to complete an accredited technician training program. The three sites lacking advanced technician roles did not require certification or completion of an advanced technician training program.

### Discussion

The results of this survey suggest many Wisconsin hospitals are expanding technician roles. Furthermore, responses

**FIGURE 1. Hospital Leadership Survey: Identifying Non-Traditional Pharmacy Technician Positions within Wisconsin**

1. Contact Information (internal use only; will not be distributed): a. Name: b. Organization: c. City: d. Email: e. Phone:
2. What is your role / position within your healthcare organization?
3. How many beds does your healthcare organization have? a. <50 beds b. 50 – 99 c. 100 – 199 d. 200 – 299 e. 300 – 399 f. 400 – 499 g. >500
4. Does your organization recruit and employ Non-Traditional Health-System Pharmacy Technicians? a. Yes b. No
5. How many FTE are dedicated to NON-TRADITIONAL pharmacy technician roles? (Free Response)
6. Do you have a specific position description (PD) for these roles? a. Yes b. No
7. Briefly describe the main responsibilities of each non-traditional technician role: (Free Response)
8. What are the intended (daily and long term) benefits of each non-traditional technician role? (Free Response)
9. Are financial metrics tracked for these positions at your healthcare organization? a. Yes b. No c. N/A
10. What shift do these non-traditional technicians typically work (AM, PM, Overnights, Weekends, Holidays, etc.)? (Free Response)
11. Are pharmacy technicians in these non-traditional roles within your organization required to be certified? a. Yes b. No
12. Must your non-traditional technicians complete an accredited technician training program? a. Yes b. No
13. If you were to give advice to other institutions intending to implement similar non-traditional positions: What legal concerns, regulatory concerns, and/or barriers should they address? (Free Response)
14. Are there any lessons learned you can share related to operationalizing these positions (i.e. workflow issues, unanticipated resources utilized)? (Free Response)
15. How have these positions allowed you to better utilize pharmacists' or other healthcare professionals' time? (Free Response)
16. Are you planning to leverage your pharmacy technicians in new ways in the future? a. Yes b. No
17. (If answered No to Question #4) Are pharmacy technicians within your organization required to be certified? a. Yes b. No
18. (If answered No to Question #4) Must your pharmacy technicians complete an accredited technician training program? a. Yes b. No
19. (If answered No to Question #4) How have these positions allowed you to better utilize pharmacists' or other healthcare professionals' time? (Free Response)

indicate that those who already have advanced technician roles plan to increase the number of advanced technician FTE within their hospitals. These findings are consistent across multiple hospital sizes. These findings suggest that hospitals recognize the cost-effective benefits of leveraging their technical workforce to complete tasks which were once assigned to pharmacists (e.g. medication histories) or in new areas of expansion such as medication prior authorizations.

Anecdotally, hospitals within the state of Wisconsin have had an increasingly difficult time hiring and retaining pharmacy technicians. With this survey, we looked to see if there was any relation between advanced pharmacy technician roles and retention of staff. Overall, respondents reported general difficulty in retaining pharmacy technician staff. However, we did see responses suggesting technicians in advanced roles had at least similar if not lower perceived turnover rates compared to technicians in traditional roles. These results argue that hospitals should look to develop more advanced roles for technicians in an effort to retain their strongest employees looking for new opportunities.

This survey sought to spark a discussion of advanced pharmacy technician roles in the state of Wisconsin. The relatively low number of unique survey responses (n=29) limits our ability to generalize these results. Further, results of the survey may be skewed by a selection bias, as the majority of those responding to the survey did have advanced roles. However, the survey was able to show that advanced roles were being utilized in hospitals with a range of bed sizes. The authors do feel that the results will be useful in continuing the promotion and development of advanced pharmacy technician roles throughout the state.

### Conclusion

Efforts continue within Wisconsin to collaborate across health-systems, share best practices and leverage pharmacy technicians to expand pharmacists' clinical services and support the advancement of pharmacy practice. This survey has demonstrated an expansion of advanced roles and the continued desire to build these positions in Wisconsin hospitals. We encourage

other states to consider undertaking similar initiatives to measure and share information about advanced roles for pharmacy technicians. ●

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**FIGURE 1. Hospital Leadership Survey: Identifying Non-Traditional Pharmacy Technician Positions within Wisconsin (Continued)**

20. (If answered No to Question #4) Are you planning to leverage your traditional pharmacy technicians in new ways in the future? a. Yes b. No
21. How has your overall pharmacy technician turnover rate changed since implementing non-traditional pharmacy technician roles? a. Higher b. Lower c. Similar d. N/A
22. Turnover rate for non-traditional roles is ____ compared to traditional technicians a. Higher b. Lower c. Comparable
23. What retention efforts does your institution employ to retain and advance quality pharmacy technicians? (Free Response)
24. Does your organization have difficulty recruiting quality pharmacy technicians? a. Yes b. No
25. On a scale of 1 to 10, how difficult is it for your healthcare organization to recruit pharmacy technicians right now (1 is least difficult, 10 is most difficult)?

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3. Whitney HA Jr. The pharmacy technician issue. *Drug Intell Clin Pharm.* 1977;11:56-57.

**New Members**

Welcome to the newest members of PSW (3/18/17 to 6/15/17)

- Allie, Gary, New Berlin, WI
- Biskobing, Tammy, Concordia University Wisconsin, Mequon, WI
- Blake, Sarah, Concordia University Wisconsin, Mequon, WI
- Boyd-Grant, Kristin, Elk River, MN
- Browne, Christina, Oconomowoc, WI
- Carpenter, Faith, Walworth, WI
- Cinnamon, Katie
- Collies, Edward, Madison, WI
- Colwell, Chad, Fitchburg, WI
- Ebensperger, Elizabeth, Balsam Lake, WI
- Eisermann, Jason, Richland Center, WI
- Fleischman, Daniel, Milliman, Brookfield, WI
- Foust, Brenda, East Dubuque, IL
- Gates, Rayeanne, Twin Lakes, WI
- Geyer, Jenna, Racine, WI
- Gonzales, Crystal, Kenosha, WI
- Graff LaDisa, Anne, Concordia University Wisconsin, Mequon, WI
- Halverson, Jessica, Poynette, WI
- Hartmann, Connie, Concordia University Wisconsin, Mequon, WI
- Hepner, Peyton, East Troy, WI
- Hewett, Matthew, Madison, WI
- Johnson, Lisa, Concordia University Wisconsin, Mequon, WI
- Jorgenson, Sarah, Eau Claire, WI
- Leonard, Danielle, North Aurora, IL
- Limbach, KC, Ascension Saint Michael's Hospital, Stevens Point, WI
- Mathews, Sara, Wautoma, WI
- Moss, Michael, Green Bay, WI

- Obermark, Molly, Oconomowoc, WI
- Owens, Kaitlyn, Black Earth, WI
- Paul, Lara, Madison, WI
- Povletich, Rebecca, Milwaukee, WI
- Pullen, Katy, Shopko Express #505, Appleton, WI
- Raksakhom, Nanda, Whitewater, WI
- Robertson, Shannon, ShopKo Pharmacy - Administrative Office, Green Bay, WI
- Rodriguez, Vidalia, Milwaukee, WI
- Shiroda, Cortney, Elkhorn, WI
- Sprecher, Janna, Milwaukee, WI
- Sprung, Kristy, Concordia University Wisconsin, Mequon, WI
- Stakston, Jackie, La Crosse, WI
- Stockheimer, Beatrice, Stratford, WI
- Tess, Colleen, Twin Lakes, WI
- Thometz, Miryam, Lake Geneva, WI
- Tschida, Nicole, Saint Paul, MN
- Wagner, Rajene, Racine, WI
- Witvoet, Kirsten, Lansing, IL