

# Nontraditional work schedules for pharmacists

LYNNAE MAHANEY, MICHAEL SANBORN, AND EMILY ALEXANDER

The report of the American Society of Health-System Pharmacists (ASHP) Task Force on Pharmacy's Changing Demographics revealed that the demand for pharmacy and other health care services will continue to increase as the U.S. population ages.<sup>1</sup> In 2000, approximately 40 million people in the United States were over 65 years of age. This number is expected to exceed 70 million by 2030.<sup>1</sup> As the demand for pharmacy services increases, several facts about the pharmacy work force must be recognized:

1. Since 2005, women have outnumbered men in pharmacy.
2. More women than men work part-time (24% versus 13%, respectively, in 2004).<sup>2</sup>
3. The number of average weekly hours worked by all pharmacists has decreased, primarily due to a demand for work-life balance by women and men, Gen-Xers, "Millennials," and baby boomers, as they work later into their lives or are forced to care for elderly parents.
4. Minority ethnic and racial groups continue to be underrepresented in the profession (i.e., Blacks, Hispanics, and American Indians).
5. The pharmacy work force is aging, with many projected impending retirements—one third of practicing pharmacists are older than 55 years of age, an increase of 8% in 4 years.

**Purpose.** Nontraditional work schedules for pharmacists at three institutions are described.

**Summary.** The demand for pharmacists and health care in general continues to increase, yet significant material changes are occurring in the pharmacy work force. These changing demographics, coupled with historical vacancy rates and turnover trends for pharmacy staff, require an increased emphasis on workplace changes that can improve staff recruitment and retention. At William S. Middleton Memorial Veterans Affairs Hospital in Madison, Wisconsin, creative pharmacist work schedules and roles are now mainstays to the recruitment and retention of staff. The major challenge that such scheduling presents is the 8 hours needed to prepare a six-week schedule. Baylor Medical Center at Grapevine in Dallas, Texas, has a total of 45 pharmacy employees, and slightly less than half of the 24.5 full-time-equivalent staff work full-time, with most

preferring to work one, two, or three days per week. As long as the coverage needs of the facility are met, Envision Telepharmacy in Alpine, Texas, allows almost any scheduling arrangement preferred by individual pharmacists or the pharmacist group covering the facility. Staffing involves a great variety of shift lengths and intervals, with shifts ranging from 2 to 10 hours. Pharmacy leaders must be increasingly aware of opportunities to provide staff with unique scheduling and operational enhancements that can provide for a better work-life balance.

**Conclusion.** Compressed workweeks, job-sharing, and team scheduling were the most common types of alternative work schedules implemented at three different institutions.

**Index terms:** Administration; Hours; Manpower; Pharmacists, hospital; Pharmacy, institutional, hospital

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6. The profession is experiencing a pharmacy leadership crisis, because pharmacists do not want the stressors or hours associated with the current leadership model.

After examining these demographic changes in the pharmacy work force, it is clear that pharmacy managers need to examine their current staffing and career development practices. In fact, one of the recommendations of the ASHP Task Force

on Pharmacy's Changing Demographics was to develop alternative work schedules (e.g., part-time work, flexible hours, job-sharing) to recruit and retain practitioners of all ages and to meet institutional needs.<sup>1</sup>

Pharmacy leaders must be increasingly flexible if they are to attract and retain high-quality staff. The ASHP Long-Range Vision for the Pharmacy Work Force stated that the shortage of pharmacists is expected to be chronic and that technology will not

LYNNAE MAHANEY, M.B.A., FASHP, is Chief, Pharmacy Service, William S. Middleton Memorial Veterans Affairs Hospital, Madison, WI. MICHAEL SANBORN, M.S., FASHP, is Corporate Vice President, Baylor Health Care System, Dallas TX. EMILY ALEXANDER, PHARM.D., is Director, Envision Telepharmacy, Alpine, TX.

Address correspondence to Mr. Sanborn at Baylor Health Care System, 3500 Gaston Avenue, Dallas, TX 75246 (mikesa@baylorhealth.edu).

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eliminate the shortage.<sup>3</sup> A recent survey on pharmacy staffing suggested a national pharmacist vacancy rate of 5.6% (range, 3.2–7.8%), representing an estimated 2700 full-time pharmacist vacancies at any given time.<sup>4</sup> The relative pharmacist shortage has created an environment where pharmacists can easily move from one facility to another based on the hospital's willingness to accommodate their personal and professional needs.<sup>5,6</sup> The purpose of this article is to provide examples of realistic alternative work schedules that address pharmacy's changing work force. Solutions deployed at three organizations of various sizes, patient populations, technological advancements, and purposes are described.

### William S. Middleton Memorial Veterans Affairs Hospital

**Description of the pharmacy.** This 87-bed tertiary care hospital is physically connected to the University of Wisconsin Hospital and Clinics. The inpatient pharmacy is open 365 days per year, 24 hours a day. The hospital also has primary and specialty clinics on campus, with nearly 1,000 visits per day. The hospital cares for over 35,000 veterans from the main campus as well as five smaller community-based clinics. The outpatient pharmacy on the main campus is open Monday through Friday from 8:30 a.m. to 5:30 p.m. and processes over 700,000 prescriptions per year, 600,000 of which are dispensed by the central mail-out pharmacy. The Veterans Affairs (VA) hospital has a computerized medical record system that has enabled the hospital to be nearly paperless.

In seven years, the number of full-time equivalents doubled from 15 to 30, resulting in a staff of over 40 pharmacists. The clinics are staffed by 8 pharmacy residents and 10 clinical pharmacists daily. Over 24 hours, the outpatient pharmacy is staffed by 5–7 pharmacists, and 8–9 pharmacists staff the inpatient

pharmacy daily. Pharmacists are scheduled centrally in the inpatient pharmacy to finish medication orders and supervise the unit-dose and i.v. admixture programs. They can also work in a decentralized location to work on monitoring of pharmacokinetics, i.v.-to-p.o. conversions, adverse-drug-reaction monitoring, medication reconciliation at admission and discharge, discharge patient counseling, and provision of drug information to staff. Pharmacists in the outpatient pharmacy perform traditional prescription-dispensing duties, counsel patients, and answer questions and drug information requests for patients and health care providers. The clinical pharmacists see patients in nearly all of the outpatient clinics (anticoagulation; diabetes; hypertension; rheumatology; primary care; ear, nose, and throat; infectious diseases; hematology and oncology; and gastroenterology) to manage medication therapy.

**Creative schedules.** Before 2002, pharmacists worked 8-hour shifts, days, evenings, and weekends starting at various times and totaling 40 hours over seven days. During the recruitment process for an experienced pharmacist who previously worked nights, the applicant requested “seven on and seven off days.” This led to the pharmacy's exploration and implementation of alternative work schedules.

Creative pharmacist work schedules and roles are now mainstays in the recruitment and retention of pharmacy staff. Over this six-year time period, four pharmacists moved out of state and four retired—they were not lost to “better” jobs. If any pharmacist has a personal scheduling need that does not affect staffing efficiency, patient safety, or the workload of his or her colleagues, the schedule is approved. The compliance of the proposed schedules are verified with the human resources and payroll departments and the union before implementation. This

flexible scheduling concept is also offered to our technical staff on a more limited basis.

One night-shift pharmacist works every other week, seven days on and seven days off, 10 hours per night. Two other clinical pharmacists rotate one week per month on nights, one week off, with the other two weeks as 8-hour days in their clinics (anticoagulation, infectious diseases, pain management, and medication management). This solved a problem encountered when one of the night pharmacists moved to her home state, and the two clinical pharmacists enjoy having an entire week off each month.

One clinical pharmacist works four 10-hour days in the anticoagulation clinic or inpatient pharmacy, and the anticoagulation clinic pharmacy manager works less than full time, at 0.8 full-time equivalent (FTE). Two inpatient pharmacists work seven days on and seven days off, 11 hours per day. They provide more weekend coverage than the rest of the staff, and the schedule is a win–win for all pharmacists. These inpatient pharmacists also provide coverage for the early morning and during the transition from night to day shifts.

The hospital hires pharmacists at whatever FTE they would like to work, including working on call. As salaries and the desire for work–life balance have increased in the profession, many people prefer to work less than full-time. Depending on the hours worked per week, some pharmacists work in only one area in order to maintain their competency there.

Most clinical pharmacists also have an inpatient or outpatient staffing role. This is done to integrate the practices of the pharmacists. It may be perceived that clinical pharmacists prefer not to have staffing duties; however, they appreciate the hands-on knowledge they maintain when they work in one of the pharmacies, and the rest of their

colleagues appreciate the expertise they provide.

Many pharmacists have VA computer access from home, which enables them to work on projects from their house. In addition, when the outpatient prescription queue is high, staff can work from the comfort and convenience of their homes to finish prescriptions. Minimum standards have been set for the prescription workload, and the accuracy of the work from home has been found to be much higher than in the facility, probably due to the lack of distractions at home. One former supervisory staff member moved to Michigan but finishes prescriptions 16 hours per week from home.

All of the pharmacy managers maintain a practice in some area of the hospital, so they can assist when needed and maintain hands-on knowledge of procedures. This is particularly important when procedures change, which can be frequent.

**Challenges.** Preparing a six-week schedule requires at least eight hours, and no software program has been found that could hasten the process. However, the time is well spent, since the pharmacists are happy with the flexible schedules.

Some staff have viewed the use of alternative scheduling as favoritism, but once the schedule has been in place for several months and is working successfully to meet the patient care needs of the service, the negativity evaporates.

Training new staff members who will work part-time can be challenging. They are usually asked to train more hours per week than they will be working long term in order to speed up the training process.

Maintaining competency is critical. For example, anticoagulation pharmacists are not expected to work in decentralized and centralized inpatient and outpatient pharmacies in addition to the anticoagulation clinic unless they are exceptional learners and enjoy such variety. Usually, they

work in one or two clinical areas and one staffing area. Some pharmacists work in only the inpatient or outpatient pharmacy for consistency in those areas, but most staff like the variety of working in multiple areas.

### **Baylor Medical Center at Grapevine**

**Description of the pharmacy.** Baylor Medical Center at Grapevine (BMCG) is a 244-bed facility with an average daily census exceeding 180 patients. The hospital is part of a larger 13 hospital system and is located in a suburb of the Dallas–Fort Worth, Texas, metroplex; BMCG is open 24 hours per day, 365 days per year. The main patient service areas include women’s health, cardiology and open heart surgery, neurosurgery, and many other individual specialties. BMCG also has a 29-bed emergency department that averages approximately 29,000 visits per year. The pharmacy is heavily automated, utilizing automated dispensing cabinets for the majority of drug dispensing and carousel technology in the central pharmacy. The department also has an order-scanning system that allows pharmacists to process medication orders from multiple locations throughout the hospital. Pharmacists provide traditional order-processing and -dispensing activities, and several pharmacists rotate through decentralized clinical positions. The department provides comprehensive pharmacokinetics and renal dosing programs in addition to drug therapy monitoring and intervention documentation. An electronic screening program that integrates demographic, laboratory, and medication data into reports is used to identify potential patient problems, and pharmacists evaluate these reports daily for additional opportunities to improve drug therapy.

Due to the hospital’s suburban location, a majority of the local pharmacy work force is composed of young working families, many

of whom do not want to work traditional 40-hour workweeks. Because of this challenge, pharmacy leadership has developed unique staffing arrangements over the past seven years to fill vacant positions. The pharmacy staff consists of 24.5 total FTEs, of whom 10.8 are technicians and 13.7 are pharmacists. There are one technician supervisor, a pharmacy director, a 0.5-FTE clinical coordinator, and a 0.8-FTE pharmacist who focuses primarily on information technology issues. Currently, there are 45 pharmacy employees, and slightly less than half of the 24.5-FTE staff work full-time. The majority of the pharmacy staff (78%) is female and generally prefers to work one, two, or three days per week. The majority of staff at BMCG work part-time, and 14 pharmacists and technicians assist with schedule coverage as needed. Due in large part to the changes described below, annual department turnover has averaged 1.9% (range, 0–4.1%) over the past five years.

**Creative schedules.** Highly customized self-scheduling for all positions is viewed as a distinct benefit by the staff. One pharmacist usually takes responsibility for the entire department schedule each month and works with the rest of the staff to fill open time slots. Appropriate limitations for overtime, minimum coverage, and “double backs” are set well in advance. The midnight shift is covered by 2 full-time pharmacists working seven days on and seven days off, with a 10-hour rotation, and all other shifts and holidays are rotated among the remaining staff. Since the majority of staff work part-time, there is actually added flexibility in many instances to fill necessary vacancies throughout the month. For example, a pharmacist that typically works two days per week is often able to add an additional workday or more as needed to allow another staff member to take vacation. The pharmacy director reviews the draft schedule before it

is finalized and makes minor adjustments as necessary.

A number of pharmacists participate in job-sharing arrangements in which a full week of shift coverage is provided by two or three pharmacists. Some pharmacists also arrange for half-shift coverage, with one person covering the morning portion of the shift and another covering the afternoon portion. Flextime is used whenever possible. Though most staff do not work full-time, very few have another job outside of the hospital and choose to work all of their available time at BMCG.

There are very few specialized shifts within the department, and most staff are able to have a balance of both order-entry and -verification duties and clinical responsibilities. Department efficiency is a primary focus for all staff, and the majority of drug preparation, compounding, and distributive responsibilities are addressed by pharmacy technicians. A split-function position of manager-pharmacist is also being considered.

**Challenges.** Having such a large number of pharmacists and technicians to manage creates some challenges. For instance, there are more performance evaluations to complete and competency validations to manage. Individual staff members may go for several weeks without seeing or interacting with one another. The large pool of as-needed personnel must be actively managed to make sure staff work a minimum number of days each schedule to remain current, as human resource department policy requires termination if an as-needed employee has not worked in 90 days. Also, a part-time vacancy can be hard to fill, especially if applicants are looking for full-time work. The willingness to be creative and accommodating with respect to schedules, however, has created significant staff loyalty, so turnover is very low.

Because most of the staff is available a limited number of days during

the week, effective communication of department information is often a challenge. To address this issue, staff meetings are held onsite but also employ a conference line for pharmacists and technicians to call in and participate in the meeting from their homes. Each staff member who was physically present at a meeting is assigned to communicate key elements of the meeting to at least three staff members who were not present.

Completing required job competencies can also be challenging when so many staff members do not work full-time. To improve access to educational programs and competencies, the Baylor system developed a series of online programs that are assigned to all staff and can be completed remotely. Monthly reports of completion are generated to make it easy to follow up with staff who have uncompleted education requirements. Each year, additional modules are added to complement staff learning needs.

### Envision Telepharmacy

**Description of the pharmacy.** Envision Telepharmacy is a Texas-licensed pharmacy that provides electronic supervision of pharmacy technician (EST) services for facilities with fewer than 101 beds, remote order-entry (ROE) services, and Pharm-Q, a Web-based system for order scanning and imaging. Services are provided 365 days per year and 24 hours per day. Within the parameters of a given state board's rules and regulations, services can be scheduled to remotely provide any number of coverage hours on an ongoing or temporary basis. ROE services focus on one task, while EST services involve performing tasks for full-service operations. Pharm-Q products support local electronic order-scanning, ROE, and EST services for facilities and pharmacists who wish to provide or receive remote pharmacy service.

Most of the pharmacists at Envision are married women age 30–50 years with at least one dependent liv-

ing at home. Twenty percent belong to a minority race, and 40% live in rural areas. The majority have other hospital pharmacy jobs as well.

Groups of three to nine pharmacists provide ROE services, with the majority of pharmacists working fewer than 20 hours per week. In all small and rural facilities currently using ROE services, the hours of coverage occur when there is no onsite pharmacist, typically evening hours and weekends. Service coverage occurs six or seven days each week and ranges from 47 to 92 hours weekly.

EST services are provided by groups of up to four pharmacists. Hours covered are typically daytime and weekday evenings. Service coverage ranges from one to seven days weekly and from 4 to 58 hours per week. Most pharmacists who cover EST services work more than 40 hours per week.

Serviced hospitals range from very small rural facilities to large urban facilities, and the level of onsite technology in place at the facilities varies enormously. For example, the smallest facility using EST services has 4 beds and no automation and lacks a computerized order-entry system. In contrast, a >350-bed ROE facility is heavily automated, utilizes pharmacy robotics, and has a completely paperless medication-order-processing system. For the purposes of this article, discussion will be limited to small (fewer than 101 beds) and rural hospitals.

Small hospitals currently receiving Envision's ROE services range from a bed size of 29 to 100 with 1–11 onsite pharmacists. Onsite pharmacy operation is provided 40–93 hours weekly during weekdays. Directors of pharmacy in small hospitals often perform some or all of the pharmacy staffing duties in their departments. When staff is short, it is usually pharmacy leadership that must fill in for staffing vacancies. They are generally faced with a comparable number of administrative tasks as their counter-

parts in larger facilities and have less support staff to accomplish them. When they fulfill staffing duties, their administrative work waits.

EST services are used in facilities with 4–40 beds and where consultant pharmacists are onsite fewer than five days per week or in facilities with a full-time pharmacist onsite but that wish to extend their hours of operation into the evenings or weekends. The smallest hospital receiving EST services is staffed with a consultant pharmacist who is present one day weekly, while the hospital with the largest staff receiving EST services has 1.5 pharmacist FTEs. Onsite pharmacist-directed operation is provided 4–40 hours weekly. Full pharmacy operation (onsite plus remote) is provided 8–58 hours weekly.

**Creative schedules.** For Envision Telepharmacy, the schedule is created by a central scheduler. Technology is used to collaborate, coordinate, confirm, and view shift coverage. Envision's scheduling philosophy includes the idea that pharmacies should be staffed in a manner that the workload during a shift enables pharmacists to take care of all medication-related issues in a timely manner and that the onsite pharmacist can return to work without any leftover tasks. Consequently, more staff may be scheduled during higher-volume hours. Coverage requested by a hospital in addition to its usual coverage and any open shifts are filled by the pharmacists on a first-come, first-served basis.

As long as the coverage needs of the facility are met, almost any scheduling arrangement preferred by individual pharmacists and/or the pharmacist group covering the facility is acceptable. Staffing involves a great variety of shift lengths and intervals. Shifts range from 2 to 10 hours. The shortest workweek is 2.5 hours for a single pharmacist, and the longest workweek is 63 hours for pharmacists who work schedules of seven days on and seven days off.

There is also considerable variation in terms of cross-training between pharmacist groups for individual pharmacists or for cross-coverage of multiple facilities. Pharmacists may choose to work for one facility on some of their shifts and for another facility on other shifts or simply always work for a single facility.

Seventy-four percent of Envision pharmacists rated their satisfaction with their work as a 5 on a scale of 1 to 5, where 5 represents a rating of very satisfied. To date, no pharmacists have initiated termination of their working relationship with the program. Some pharmacists work from the pharmacy (Envision Telepharmacy), while others work remotely using the Envision website as a virtual site from which to provide services. Experienced hospital pharmacists who wish to reduce their time commitments in their careers find remote work a suitable practice. In addition, pharmacists who frequently relocate can continue to keep the same work schedule and work site.

Workload reports and errors are tracked for Envision pharmacists both during the start-up phase of services and on an ongoing basis. Error rates during the three-month start-up period range from 0.12% to 0.5%, and ongoing error rates range from 0.02% to 0.06%. For facilities willing to share their internal error rates and turnaround time reports, the Envision Telepharmacy's error rate and turnaround time are the same as or, more frequently, below those of the onsite pharmacists. Pharmacists periodically receive reports on their workload volumes and turnaround times along with comparative data for the facility. The high-tech workplace gives pharmacists with interests in information technology an opportunity to work with cutting-edge technology. Ease of access through a Web-based electronic order-management system allows for communication with the nursing or pharmacy technician on

duty at the serviced facility as well as the returning onsite pharmacy department staff. Technology offers pharmacists an opportunity to experience work in a specialty practice area to which they might not otherwise have geographic access.

Scheduling philosophy varies regarding onsite and remote staffing among the serviced hospitals. Some facilities use remote services due to lack of availability of a pharmacist in their area, some regard remote staffing as a way to provide partial or full services during lower-volume hours at a reduced cost, and some wish to extend hours of service by using remote pharmacists. Hospitals may utilize remote services to supplement their onsite staffing in order to free up time for the onsite pharmacists to provide clinical or administrative duties, or simply to take the order-entry burden off of the onsite staff during high-volume hours or periods of pharmacist shortages. Even if the pharmacy leader does not routinely staff the pharmacy, remote pharmacists can be used to staff a pharmacy department during the temporary pharmacist shortage that may occur during holidays, vacations, continuing-education attendance, sick time, and family and medical leave.

Rural hospitals use remote services to comply with regulatory or accreditation agencies, as well as to increase patient safety with the use of experienced hospital pharmacists and increased prospective review of medication-related processes. To more successfully recruit and retain onsite pharmacists in their pharmacy departments, rural hospitals use remote services with the goals of eliminating or greatly reducing the volume of after-hours calls to the hospital's on-call pharmacist and allowing the onsite pharmacist to return to the department with work caught up and documentation intact on activities occurring since his or her departure.

The most common scheduling philosophy adopted by facilities desir-

ing EST services is that patient safety is enhanced when the medication-related processes of the hospital are prospectively reviewed and controlled by a remote pharmacist rather than by nursing or unsupervised pharmacy technicians coupled with retrospective review by an onsite pharmacist. The philosophy often encompasses the belief that consultant pharmacist time spent on retrospective review of supportive personnel can be eliminated or greatly reduced and that this time can be spent on departmental management and administration, regulatory and quality processes, staff education, and cost-saving clinical activities. The cost of EST services is reliably less than the cost of an onsite pharmacist. For facilities with a full-time pharmacist, this staffing model can be most cost-effective during evening or weekend hours or to fill needs during a short shift. For a facility with less than a full-time onsite pharmacist primarily providing retrospective review of limited pharmacy activities (order review, medication removal from the pharmacy by nonpharmacists), the service can affordably shift the activities toward prospective review and full pharmacy services.

**Challenges.** Due to the nature of remote work and the hours the pharmacists typically provide service, administrative staff are lacking in frequent face-to-face interactions with pharmacists. As well, pharmacists who work together may not have even met face-to-face. For administrative staff, excellent telephone and electronic communication skills are essential to successful operation of the service and in building a relationship with the pharmacists. Communication systems are in place for the pharmacists both to communicate facility-specific information and to collaborate with one another while on duty. Camaraderie and team building are evidenced through use of those systems by the pharmacists and the rapid filling of open shifts.

Scheduling of the pharmacist staff is complex. The large variation in preferences for shift lengths and the number of pharmacists and facilities, along with numerous licensure and split-shift combinations, present an ongoing challenge for the central scheduler. Changes to schedules or requests for additional hours with short notice are difficult to fill. Electronic communication systems are in place for schedule posting, viewing, confirmation, and review.

Not all pharmacists are well suited to provide remote services. Pharmacists who are self-motivated, like independent work, and have the ability to learn about and become comfortable with the capabilities and limitations afforded by computer technology can thrive in this practice setting.

EST service is not, nor is it designed to be, as efficient as an onsite pharmacist. An adequate technician staff, as well as onsite pharmacist and administrative support, is essential to the success of this practice model. Attempts to utilize this service in a busy environment are self-limiting, since facilities whose medication volume warrants a full-time pharmacist over long periods of time simply cannot be served adequately by this practice model. Although satisfaction surveys have not been distributed, feedback received from nursing is consistently positive or neutral, with the following exception: in facilities with rapid onsite dispensing times (<15 minutes) for medications that must be supplied from the pharmacy, the relative wait time for medication to be delivered to the floor is increased. For example, in a small facility, a delivery time of 30 minutes for a new medication ordered for a patient before discharge may seem unacceptable to a nurse, even though the pharmacy may be feeling the pressures of being in the first hour of operation for the day and of the morning medication pass due within the hour.

## Discussion

These case studies present several examples of how unique and alternative work schedules can be integrated into the day-to-day operations of health-system pharmacies. The most recent ASHP staffing survey found pharmacist and technician turnover rates of 9% and 12.4%, respectively, and 48% of respondents were considering nontraditional staffing solutions in an effort to recruit and retain staff.<sup>7</sup> While no two hospitals or pharmacy practice environments are exactly the same, it is up to each pharmacy practice manager through collaboration with the staff to come up with solutions that can meet the needs of the changing pharmacy work force.

## Conclusion

Compressed workweeks, job-sharing, and team scheduling were the most common types of alternative work schedules implemented at three different institutions.

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