# PHARMACY SPECIALIZATIONS

## Table of Contents

- Pharmacy Careers and Interests
- Ambulatory Care Pharmacy
- Association Management
- Chain Community Pharmacy
- Clinical Academia
- Community Health Center Pharmacy
- Compounding Pharmacy
- Contract Research Organization
- Corporate Management
- Economic, Social, and Administrative Sciences Academia
- Home Health Care Pharmacy
- Independent Community Pharmacy
- Industry Research & Development
- Industry Sales & Marketing
- Inpatient Health System Pharmacy
- Long-Term Care Pharmacy
- Mail Service Pharmacy
- Managed Care Outpatient Pharmacy
- Medical Communications/Drug Information
- Nuclear Pharmacy
- Office Based Medication Management
- Outpatient Health System Pharmacy
- Pharmaceutical Sciences Academia
- Pharmacy Benefit Management
- Pharmacy Informatics
- Pharmacy Law/Regulatory Affairs/Public Policy
- Specialty Pharmacy
Pharmacy Careers and Interests

Using your results from the below mini-assessment, begin researching careers in Pharmacy that may be a good fit! Your Holland Code The goal of this activity is to help you find work environments and careers that are a good match for you. This exercise is based on Dr. John Holland’s theory that people and work environments can be classified into six general groups: Realistic, Investigative, Artistic, Social, Enterprising, and Conventional.

Imagine that you walk into a party with six groups of people. The descriptions of the type of people in each group are in the boxes below. Chose the first group you are most drawn to, the second group, and the third group. For example, if you chose the Realistic, Enterprising, and Social groups, your codes would be RES.

List your Holland Codes: Choice 1 _____ Choice 2 _____ Choice 3 _____
Social- People who like to work with people to enlighten, inform, train, or cure them
- Ambulatory Care
- Chain Community Pharmacy
- Community Health Care
- Home Health Care
- Independent Community Pharmacy
- Pharmaceutical Industry: Marketing and Sales
- Outpatient Health Systems
- Long Term Care
- Office-Based Medication Management

Social & Investigative
- Ambulatory Care
- Long Term Care

Social & Conventional
- Chain Community Pharmacy
- Home Health Care
- Outpatient Health Systems
- Office-Based Medication Management

Social & Enterprising
- Community Health Center
- Independent Community Pharmacy
- Industry: Marketing/Sales

Investigative- People who like to observe, learn, analyze, investigate, evaluate, or solve problems
- Academia
- Contract Research Organization
- Pharmaceutical Industry: Research and Development
- Nuclear Pharmacy
- Specialty Pharmacy

Investigative & Social
- Academia

Investigative & Enterprising
- Contract Research Organization
- Specialty Pharmacy

Investigative & Realistic
- Industry: Research & Development
- Nuclear Pharmacy

Investigative & Social
- Association Management
- Corporate Management
- Pharmacy Benefit Manager
- Managed Care
- Medical Communications
- Pharmacy Law

Investigative & Investigative
- Pharmacy Benefit Manager
- Medical Communications
- Pharmacy Law

Investigative & Conventional
- Inpatient Health Systems
- Mail Service Pharmacy
- Pharmacy Informatics

Enterprising- People who like to influence, persuade, or managing for organizational goals
- Association Management
- Corporate Management
- Pharmacy Benefit Manager
- Managed Care
- Medical Communications
- Pharmacy Law

Enterprising & Social
- Association Management

Enterprising & Conventional
- Corporate Management
- Managed Care

Enterprising & Investigative
- Pharmacy Benefit Manager
- Medical Communications
- Pharmacy Law

Enterprising & Realistic
- Compounding Pharmacy
- Pharmaceutical Industry: Medical Science Liaison

Enterprising & Enterprising
- Compounding Pharmacy
- Pharmaceutical Industry: Medical Science Liaison

Conventional- People who like to work with data, have clerical or numerical ability, carry out tasks in detail or follow others’ instructions
- Inpatient Health Systems
- Mail Service Pharmacy
- Pharmacy Informatics

Conventional & Enterprising
- Inpatient Health Systems

Conventional & Social
- Mail Service Pharmacy

Conventional & Investigative
- Pharmacy Informatics

Conventional & Realistic
- Compounding Pharmacy
- Pharmaceutical Industry: Medical Science Liaison

Realistic- People with athletic or mechanical ability, who prefer to work with objects to be outdoors
- Compounding Pharmacy
- Pharmaceutical Industry: Medical Science Liaison

Realistic & Conventional
- Compounding Pharmacy
- Pharmaceutical Industry: Medical Science Liaison

Artistic- People who have artistic, innovating or intuitive abilities and like to work in unstructured situations using their imagination and creativity.
Ambulatory Care Pharmacy
Holland Code: SIR

Background

Ambulatory care pharmacy is a fairly new focus for pharmacists. In June 2007, the Board of Pharmacy Specialties (BPS) received the Report of the Role Delineation Study of Ambulatory Care Pharmacists, which delineated five domains of practice including: Direct Patient Care, Practice Management, Public Health, Medical Informatics and Professional Development, and patient advocacy. BPS now offers the opportunity for pharmacists to become certified in this field.

The BPS website provides the following description of ambulatory care pharmacy: Ambulatory care pharmacy practice is the provision of integrated, accessible health care services by pharmacists who are accountable for addressing medication needs, developing sustained partnerships with patients, and practicing in the context of family and community. This is accomplished through direct patient care and medication management for ambulatory patients, long-term relationships, coordination of care, patient advocacy, wellness and health promotion, triage and referral, and patient education and self-management. The ambulatory care pharmacists may work in both an institutional and community-based clinic involved in direct care of a diverse patient population.

Ambulatory care pharmacists work in a variety of environments in both hospital and community-based settings. Each site has its own unique practice style and may focus on primary care or focus on one specific disease state.

Characteristics

Eighty-three ambulatory care pharmacists responded to the 2012 APhA Career Pathway Evaluation Program survey. Twenty-three percent of respondents held an entry-level pharmacy degree; 79% held the PharmD degree. Eleven percent indicated that they also had a non-pharmacy bachelor’s degree and 10% indicated an advanced degree (MA, MS, MBS, PhD, or other). Fifty-six percent had been through a residency program, 48% had been through a certificate training program, 32% held a BPS certification, and 3% reported having been through some form of other training. Respondents’ average age was 40 years old. Seventy-nine percent of respondents were female. Income data show 4% earn between $80,000–$100,000, while 85% earn $100,000 or more per year, with 4% earning greater than $150,000. The average time worked per week was 41 hours.

An overwhelming majority of respondents indicated that they were satisfied with their job, with 57% indicating “extremely satisfied” and 32% indicating “somewhat satisfied.” Similarly, most respondents indicated that they felt the job was challenging, with 46% indicating “extremely challenging” and 51% indicating “somewhat challenging.”

Insider’s Perspective

What aspects of the job are most appealing?

Direct patient care/patient interactions were listed by 42% of respondents as the most appealing aspects of their role. Twenty-nine percent of the respondents listed the interaction with physicians, nurses, and other professional staff as also being an appealing aspect of their role. One respondent indicated enjoyment from “working directly with patients to improve care.” Another respondent indicated “working closely with doctors, nurses, [and] patients in a team effort to care for patients” was an appealing aspect of the role.
What is true for one ambulatory care practice is not necessarily true for other practices as the practice settings and disease states covered differ. Some respondents work within the U.S. Department of Veterans Affairs (VA) system while others indicated practice sites such as a university hospital or a group practice. Disease states that are treated vary greatly from oncology to immunization clinics to diabetes clinics and others.

With respect to the aforementioned information on direct patient care and interaction with other health care providers, it makes sense that applying medical knowledge was the highest rated critical factor. One respondent summed up what many indicated by noting enjoyment from the “patient, clinician, and professional staff interactions and the ability to make independent clinical decisions on medication therapy.” Another respondent indicated enjoying “the ability to work closely with both patients and providers in providing patient-centered care.” One respondent was very encouraging and stated that the best part of the position was “direct patient care, managing therapy, working at the top of my license.”

**What aspects of the job are least appealing?**

Documentation/paperwork were cited by 21% of pharmacists as one of the least appealing aspects of their roles. In addition, heavy workload was cited by 10% of the respondents. A respondent mentioned, “Administrative aspects take away from patient care activities. Documentation to demonstrate value.” Another respondent voiced concern about volume as the clinic has a “large patient volume (for the number of) clinical pharmacist [full-time equivalent] FTEs to care for patients.” One respondent put an interesting perspective on the least appealing aspect stating, “Ambulatory care is a newer specialty and it is sometimes difficult to convince other providers that you are complementing their work, not trying to do their job.”

**What advice should students and practitioners consider when selecting the option of ambulatory care pharmacy?**

Fifteen percent of the respondents commented that they encourage students to gain experience prior to seeking a role in this field, either in the hospital setting or through a residency. In addition, a few focused on the aspects of being self-motivated in lifelong learning. Because this is a newer area, one respondent stated that a student would “have to prove yourself [to providers] but there is also a lot of opportunity for development.” One respondent provided some important advice that students “must be comfortable directly interacting with medical providers and confident enough in your clinical abilities to perform the daily tasks, which are very rewarding to both you and your patients. Must enjoy talking with patients and working as a member of a multidisciplinary team.”

Adapted from the American Pharmacists Association
Association Management
Holland Code: ESI

Background

A large number of pharmacists serve as volunteers in a variety of pharmacy-related professional (individual members) and trade (company members) associations—either as officers (elected) or as committee members (appointed). A smaller but still substantial number of pharmacists choose association management as a career pathway, turning their pharmacy background, experience, and leadership skills into a challenging, full-time career.

There are many functional areas found within the scope of pharmacy association management including government relations, clinical education, professional development, and professional advocacy. Today, more than 151,000 associations exist in the United States, representing nearly every industry, profession, charity, hobby, cause, and interest. There are associations at the local, state, regional, national and international levels.

Pharmacy has many national, state, and local associations. “Broad spectrum” associations, representing all pharmacists, such as the American Pharmacists Association, exist at the national level and in all 50 states. Narrower, special-interest organizations of pharmacists (e.g., representing various practice areas) exist at the national level and to a lesser degree at the state or local levels. Virtually all such organizations have pharmacists employed within their full-time professional management team, frequently including the chief executive officer.

Recognizing the need to educate pharmacists for careers in association management, the American Society of Health-System Pharmacists (ASHP) began an Executive Residency in Association Management in 1968. Other pharmacy associations began residencies and fellowships in the 1990s and those currently offering programs include the American Pharmacists Association Foundation, the National Association of Chain Drug Stores (NACDS), and the National Community Pharmacists Association (NCPA), the Academy of Managed Care Pharmacists (AMCP), and the Pharmacy Quality Alliance (PQA). The American Pharmacists Association (APhA) also offers APPE rotations and internship opportunities.

Characteristics

Forty pharmacists identified themselves in this category in the 2012 APhA Career Pathway Evaluation Program survey. Forty-six percent hold a PharmD degree up significantly from 2007 when only 16% of respondents had either an entry level or post baccalaureate PharmD. Thirty-eight percent indicated they had an advanced degree (MA, MS, MBS, PhD, or other), while 42% had been through a residency program. In addition, 38% had been through a certificate program and 11% reported completing other training. Such additional education might be outside the field of pharmacy, as would be the case in attaining Certified Association Executive status from the American Society of Association Executives (ASAE).

Nearly all respondents indicated that they were satisfied with their job with 75% indicating “extremely satisfied” and 20% indicating “somewhat satisfied.” Similarly, the respondents said that they felt the job was very challenging with 52% indicating “extremely challenging” and 43% indicated they felt the job was “somewhat challenging.” Respondents’ average age was 45 years old. More than half (58%) of the respondents were male. Income and hours worked per week is highly variable in this field. Fifteen percent reported incomes less than $100,000 and 33% reported greater than $150,000. The average time worked per week was 44.5 hours with a standard deviation of 16.
Insider's Perspective

What aspects of the job are most appealing?

Associations offer a number of programs and services to their members and the public, including professional education meetings, public information and education, codes of conduct/ethics, professional and safety standards, and/or the development of statistical information that are heavily depended upon by businesses and government. This diversity of scope is reflected by respondents, with 52% stating that the most appealing aspect of the position is diversity of the work. Forty-three 43% cited the ability to “advocate on behalf of the profession” and “influence public policy” as the most appealing aspect of association management.

What aspects of the job are least appealing?

No one single factor was listed by the respondents as a least appealing feature of the position. Both the amount of travel and long hours were each cited by several of the respondents as the least appealing aspects they see. Other comments such as “continuous email,” “demanding workload,” and “long time away when traveling” were frequently repeated.

What advice should students and practitioners consider when selecting the option of association management?

Many of the respondents recommended that pharmacists have prior practice experience if contemplating a career in pharmacy association management. Communication skills were cited as being vitally important for this field. Several indicated that those considering this field need the ability to be self-starters and to multitask.

Adapted from the American Pharmacists Association
Chain Community Pharmacy
Holland Code: SCE

Background

Chain pharmacy provides two primary career paths for pharmacists: management and staff. As a general definition, a community pharmacy is considered a “chain community pharmacy” if the organization consists of four or more stores.

Community pharmacy is often seen as an excellent opportunity to conduct basic preliminary health assessments of patients. Quick evaluation of symptoms, laboratory values, and other indicators can be helpful in directing patients’ therapy, especially as the community pharmacists’ role in overall patient care continues to expand, such as by providing immunizations and medication therapy management (MTM) services.

In chain community pharmacy, the breadth of duties of a manager is defined by the size and requirements of the pharmacy or organization. At the store level, the pharmacy manager is typically in charge of the staff, patient care services, inventory management, recruitment, training and development, and general business management. In larger chains, especially those that are corporately owned or franchised, there are many more levels of management that extend from district managers to pharmacy operation executives, with the scope of responsibilities expanding accordingly. Pharmacists are critical in upper management of corporate chains because they provide real-world practice knowledge and experience when making crucial pharmacy business decisions. More details about this type of role can be found in the profile for Corporate Management.

As the provision of pharmacists’ patient care services within the community setting expands, there are new positions emerging in chain community pharmacy that are focused on the management and training of pharmacists delivering these services. The role of these pharmacists – whose titles may include “clinical coordinators” – varies in different chains but can include providing direct patient care to many pharmacies within a district, training staff pharmacists to provide new clinical services, seeking out contracts with local health care payers such as employers, public health entities and collaborating with other health care providers.

Characteristics

One-hundred sixty-nine chain community pharmacists responded to the 2012 APhA Career Pathway Evaluation Program Survey. Forty-nine percent reported having a PharmD degree. Seventeen percent had obtained an advanced degree such as an MA, MS, MBA, PhD, or other. Six percent had been through a residency, 45% had some type of certification, and 8% had completed some other type of training. Respondents’ average age was 46 years old. Slightly more than half (57%) of respondents were female. Income data show 27% earn less than $100,000 (includes those working part time) and 48% earn $100,000 - $130,000. The average time worked per week was 46 hours.

Most of respondents indicated that they were satisfied with their work, with 23% indicating “extremely satisfied” and 44% indicating “somewhat satisfied.” Thirty percent of respondents said that they felt the work was “extremely challenging” and 49% indicated it was “somewhat challenging.”

Insider’s Perspective

What aspects of the job are most appealing?

Many of the respondents indicated that the time that they get to spend interacting with patients is the most appealing aspect of their job. Some mentioned that the appreciation shown to them by customers
and the ability to fill their needs are particularly rewarding. One respondent commented that "working in a pharmacy in a grocery store in the community where I live is like an old-fashioned community pharmacy. I know my patients and they know me. Also it affords a great opportunity to discuss how lifestyle changes can make a difference in health." Other pharmacists commented that they enjoyed the flexible work hours, good salary, working with students and providing MTM and immunization services.

**What aspects of the job are least appealing?**

Many pharmacists made comments about how difficult it can be at times to operate under the stress of filling a large volume of prescriptions quickly. Others said that it is sometimes difficult to take breaks when there are many patients waiting for their medications. One pharmacist said that "the pace of the work place is too fast some days to give the patient the time they need."

Keeping in mind that patients often go to the pharmacy at the end of a long day of being sick and waiting for doctor appointments, it makes sense that some pharmacists said that patients are sometimes difficult to deal with. Many pharmacists also said that it is challenging to work through billing and insurance problems.

**What advice should students and practitioners consider when selecting the option of chain community pharmacy management?**

Many of the respondents to this survey said that it is very important for someone considering a career in chain pharmacy to be a "people person" because of all the work that is done with the public. One pharmacist had the following advice: "Need to be a people person and a good multitasker. Be willing to get involved in your community and with community and other healthcare organizations. Stay informed about and get engaged with state and national issues that impact pharmacy practice."

*Adapted from the American Pharmacists Association*
Academia: Clinical Practice
Holland Code: ISC

Background

Academia is an attractive option for pharmacists who enjoy working with students while engaging in clinical practice and/or in clinical research. With the increase in the diversity of academic positions, it can no longer be said that an academician’s career is confined to the laboratory or classroom.

Clinical practice academicians often work with other health care professionals in a consultative capacity to select medication and develop therapeutic regimens for patients. In addition, many are involved with medication therapy management programs and services. Therefore, academicians have both a direct and an indirect impact on patient care.

The “Academia” category may be loosely defined as belonging to a university faculty, usually that of a college of pharmacy. However, clinical practice pharmacists may also hold academic positions in medical, veterinary, and other health care–related educational institutions. Positions may range from the dean of a college of pharmacy to a teaching clinical pharmacy position at an off-campus site or to a classroom setting.

Duties of an academic pharmacist may include administrative activities, scientific research, teaching professional student pharmacists, supervising research and teaching graduate students, speaking and/or publishing in scientific venues, student advising, and teaching student pharmacists through experiential practice sites.

Characteristics

Two hundred thirteen respondents to the 2012 APhA Career Pathway Evaluation Program survey identified themselves as practicing in this area. Ninety-three percent of the respondents had a PharmD degree with 55% of them being earned as an entry level degree.

This is a change from the 2007 survey results where a majority of the respondents had earned their PharmD post BS. Sixty-eight percent of respondents had a residency with 11% having a fellowship. Twenty-nine percent reported an advanced degree (MA, MS, MBA, PhD, other); this is up from 17% in 2007. An additional 40% indicated certificate training of some kind and 40% also reported having earned a Board of Pharmacy Specialties Certification.

Respondents’ average age was 42 years old. Two thirds (67%) of respondents were female. Income data show that nearly half (48%) earn less than $100,000 (includes respondents who held a residency for half of the year and consisted of 8% of respondents), while 50% earn $100,000 or more per year. The average time worked per week was 47.8 hours.

A majority of respondents indicated that they were satisfied with their job, with 51% indicating “extremely satisfied” and 42% indicating “somewhat satisfied.” On a similar scale, respondents said that they felt the job was challenging, with 45% indicating “extremely challenging” and 51% indicating “somewhat challenging.”
Insider's Perspective

What aspects of the job are most appealing?

Reflecting the different type of activities involved in academia, 35% of respondents said the most appealing aspect of their work was its “flexibility” or “variety.” Many respondents said that working with students and patients was most appealing.

What aspects of the job are least appealing?

Working within a large organization like a university necessarily involves a considerable administrative load. Wearing “five hats at once,” reported by one respondent, makes “work life balance difficult.” Several respondents noted that the politics of academia can make the job frustrating at times.

What advice should students and practitioners consider when selecting the option of Academia?

Several respondents cautioned that you should make sure to have clear expectations at the outset of this career. Since time is split between both teaching and practice, it needs to be clear to the employee and the employer(s) (often both the university and a clinical setting) how much time should be spent on each activity. Many also advised that gaining clinical practice experience is highly valuable before pursuing a career in academia.

Adapted from the American Pharmacists Association
Background

Community health center (CHC) pharmacists play an important role in providing needed health care services and information to the underserved. These pharmacists fulfill the medication and information needs of patients in an outpatient setting and advise health care professionals working with outpatients at CHCs and clinics. Working with a broad range of patient ages and disease states, these pharmacists typically have full access to medical records. In addition, direct patient care is seen as a very strong component in many of the practice environments. The scope of practice and responsibilities in CHCs varies significantly by individual location. Pharmacists can be in a CHC with or without a dispensing component.

CHC pharmacists have diverse responsibilities in the health care system. Twenty-three percent of their time is spent dispensing medications (including the associated patient counseling). An additional 18% is spent on business and department management, followed by 18% for patient care services (e.g., medication therapy management, disease management), and 8% for personnel management.

Pharmacists in these settings also conduct wellness and preventive health programs. Some states allow CHC pharmacists to serve as primary care providers working within collaborative practice agreements with physicians following agreed upon protocols. This type of protocol may include prescribing authority. One pharmacist commented that students and other practitioners interested in CHC pharmacy should understand that “working in community health is rewarding and meaningful—there are opportunities to really impact the quality of care patients receive.”

Characteristics

Twenty-six CHC pharmacists responded to the 2012 APhA Career Pathway Evaluation Program survey. Sixty-four percent of respondents held PharmD degrees. Five percent indicated an advanced degree (MA, MS, MBS PhD, or other). Twenty-eight percent had been through a residency program (nearly double from 2007 data), 65% had been through a certificate training program (significantly increased from the 15% reported in 2007), and 10% reported having been through some form of other training.

Respondents’ average age was 44 years old. Seventy-three percent of respondents were female. Sixty-eight percent indicated some type of management role. Income data show just over half (60%) earn between $90,000–$120,000 per year. The average time worked per week was 42.4 hours. An overwhelming majority of respondents indicated that they were satisfied with their work, with 68% indicating “extremely satisfied” and 28% indicating “somewhat satisfied.” Similarly, most respondents indicated that they felt the work was quite challenging, with 56% indicating “extremely challenging” and 32% indicating “somewhat challenging.”

Insider’s Perspective

What aspects of the job are most appealing?

Owing to the variety of work environments, duties, and responsibilities, the most appealing aspects of the role vary with the setting. Many respondents indicated that “counseling patients” and “direct patient care” were the two most appealing aspects of their work. A number indicated that providing services to those who most need it is very rewarding. One respondent expressed enjoyment in having “connections with providers and patients so I can be open with both in discussing the patient’s health.”
What aspects of the job are least appealing?

Competing for scarce resources was listed respondents as one of the least appealing aspects of their work. One respondent wrote of concern for “dealing with insufficient grant monies to further the missions of our CHC.” Other pharmacists indicated that administrative and regulatory duties are the least appealing aspects they encounter. Also cited were language barriers and paperwork as areas that are of concern.

What advice should students and practitioners consider when selecting the option of becoming a CHC pharmacist?

One theme was repeated by respondents about their career choice: many asked that students and practitioners be open to the idea of working in a CHC. Many advised visiting a variety of centers to see how different they are. In addition, respondents commented on the “clinical nature” of the practice and the ability to use “communication skills.” One respondent gave the following words of advice: “Consider working within training programs for other health care providers. Strong communication skills in the language of another profession will open doors.”

Adapted from the American Pharmacists Association
Compounding Pharmacy
Holland Code: RCI

Background

Compounding pharmacy may be defined as practicing the duties of a pharmacist with an emphasis on preparing customized dosage forms and/or prescription medications to meet an individual patient’s or physician’s needs. Because every patient is different and has unique needs, customized medications are a vital part of quality medical and patient care. Today, compounding is also addressing the needs of veterinarians, dentists, and their patients.

Compounding prescription medications was a common activity in pharmacy prior to the advent of manufactured medicines in the 1960s. There has been a “rebirth” of compounding in the past decade because of the need for specialized medications for individual patients. A pharmacy compounding provision was attached to the Food and Drug Administration Modernization Act of 1997 recognizing the importance of compounding and providing for its continued practice. Recent concerns about appropriate and safe compounding practices have been addressed in draft legislation by sectors of the government.

The basis of the profession of pharmacy has always been the “triad”: the patient-physician-pharmacist relationship. Through this relationship, patient needs are determined and decisions are made about treatment regimens, which may call for a compounded medication, including but not limited to:

- **Medications that are not commercially available**—Manufacturers must be ensured that there will be a return on their investment when entering the marketplace with a drug product. Therefore, limited chemical forms, dosage forms, strengths, flavors, and packaging are available for the physician to prescribe and the pharmacist to dispense. Compounding allows the physician to prescribe a custom-tailored medication that is not available commercially.

- **Medications that are not stable**—Pharmacists prepare small quantities of a prescription more frequently to ensure stability of the product for its intended use.

- **Altered commercially available medications**—Physicians prescribe a commercially available medication in a different dosage form to meet a specific patient need and ensure patient adherence. For example, a patient may be allergic to a preservative or dye in a manufactured product for which compounding pharmacists can prepare a dye-free or preservative-free dosage form. Some patients have difficulty swallowing a capsule and require a troche or lozenge. Many pediatric patients are non-adherent because their medications are bitter, but become adherent when the medication is flavored to their liking.

No health care professionals, other than pharmacists, have studied the physical and chemical compatibilities of medications and can prepare extemporaneous dosage forms. Even when modern scientific technologies have produced new chemical entities, the ability to combine one or more chemicals into a new preparation, or process the existing dosage form into one that is better suited to the patient’s needs, has remained the domain of the pharmacist. The right—if not the obligation—to compound exists under the pharmacy laws of each of the 50 states and is pervasively regulated by the states. Many schools and colleges of pharmacy, as part of their core curriculum, instruct student pharmacists on the compounding of pharmaceuticals.

Respondents indicated that they spend 29% of their time compounding. This is followed by 18% in the role of medication dispensing (including associated counseling). Thirteen percent of their time is spent on business management and another 13% on medication management services (where the unit of focus is on medications). In describing the appeal of such a practice, one respondent from summed it up as “working extremely close with physicians to find the best therapy options for our patients.”
Characteristics

Sixty-seven percent reported having a bachelor’s degree in pharmacy, with 41% having earned a PharmD degree. Another 8% reported having an advanced degree (MA, MS, MBA, PhD, or other) with an additional 16% earning a non-pharmacy BA or BS degree. Fifty-nine percent reported having achieved a certificate for special training, and 26% reported completion of a residency. The mean age of these respondents is 53 years, with 67% being male. More than half (67%) reported that they are in management.

Income data show that of those that responded, 25% earn between $120,000–$130,000, 25% earn greater than $150,000, 42% earn between $100,000 - $120,000, and only 8% earn less than $80,000 per year. The average time worked per week was 36 hours. Compounding pharmacists enjoy their area of practice: 53% are “extremely” satisfied and 35% are “somewhat” satisfied. Only slightly different is their response regarding their level of challenge in this career path. A majority (65%) are extremely challenged, with 35% reporting they are somewhat challenged.

Insider’s Perspective

What aspects of the job are most appealing?

These are “people” pharmacists. A large number of respondents indicated “interaction with people”/“direct patient care” as the most appealing aspect of this practice area. One respondent stated, “I actually help patients fix the issues they present.” Another enjoyed the ability to “employ all areas of science.”

What aspects of the job are least appealing?

In contrast to the most appealing aspects, only one item seemed to resonate with some of the respondents. A couple listed “difficult patients” as the least appealing. Concerns also were expressed about insurance issues. Given the unique customized nature of the products they compound, third-party reimbursement problems may be greater for these pharmacists than other practitioners.

What advice should students and practitioners consider when selecting the option of compounding pharmacy?

Compounding pharmacists indicate that they are passionate about their work. One stated, “I’ve never met an unhappy compounding pharmacist.” Another indicated the importance of being a people person as “you deal with people every day.” One respondent had a slightly different take in that one must be “willing to work in a team with other health care professionals.”

A respondent who focuses more on the nonhuman aspects of compounding stated, “I consult and provide medications for lab animals. I have daily interactions with lab animal veterinarians and preclinical researchers.”

Adapted from the American Pharmacists Association
Contract Research Organization

Holland Code: IEC

Background

A contract research organization (CRO) is a company or organization that offers a wide range of pharmaceutical services primarily to the pharmaceutical and biotechnology industries. The government defines a CRO as a corporation that assumes, as an independent contractor with the sponsor, one or more of the obligations of a sponsor to design, select, monitor, evaluate, and/or prepare materials to be submitted to the Food and Drug Administration [21 CFR 312.2(b)]. Services can include but are not limited to: product development, formulation activities, phase I through IV activities, data entry and management, project management, institutional review board (IRB) approval, statistical analysis, and other required activities necessary to apply for a New Drug Application (NDA) or an Abbreviated New Drug Application (ANDA). In addition to medications, CROs serve as contractors for sponsors of medical devices. Pharmacists can play an integral role in each step of the process through direct management or oversight, and as a team member. There are a variety of career paths within CROs for pharmacists. This profile provides aggregate data of those respondents employed in CROs.

Respondents indicated that 30% of their time is spent on research activities. Fifteen percent is spent on project/case management and 10% spent on data management. An additional 8% and 8% spent in two areas: business/organization/department management and service (such as committee work).

Characteristics

A total of 13 CRO pharmacists responded to the survey. Sixty-two percent reported having a PharmD degree. Forty-six percent had obtained an advanced degree, such as an MS (23%) or PhD (15%). Thirty percent had been through a residency, and an additional 10% completed a fellowship. Ten percent indicated having some type of certification. Additionally, 10% have completed some other type of training. Respondents’ average age was 40 years old. More than half (60%) of respondents were female. Income data show 50% earn less than $100,000 and 30% earn more than $120,000. The average time worked per week was 36 hours.

The majority of respondents indicated that they were satisfied with their work, with 33% indicating “extremely satisfied” and 42% indicating “somewhat satisfied.” Fifty percent of respondents said that they felt the work was “extremely challenging” and 42% indicated that they felt it was “somewhat challenging.”

Insider’s Perspective

What aspects of the job are most appealing?

Many of the respondents indicated that “flexibility in scheduling” was one of the most satisfying aspects of their work. One respondent said they enjoyed, “working with a diverse group of colleagues with varying backgrounds (medical doctors having different specialties, statisticians, medical writers, etc.)” and “exposure to the all the steps in the drug approval process and the opportunity to move into a different job within the company if desired.”

What aspects of the job are least appealing?

No one specific item stood out for this group. Several issues were mentioned including billing for time, length of hours worked, and no direct patient contact. One respondent said that they didn’t like that the job is “very highly detail oriented.”
What advice should students and practitioners consider when selecting the option of CRO pharmacist?

Many of the respondents indicated that pharmacists should be flexible in looking at their career path. One respondent stated, "Look and think outside the box." Another indicated that it is important to “remain flexible, be positive, and maintain a personal and professional balance.”

Adapted from the American Pharmacists Association
Corporate Management
Holland Code: ECS

Background

Corporate management is a broad term used to describe management positions for pharmacists who work in a corporate environment. This type of role can be found in all areas of pharmacy practice including, but not limited to, chain community pharmacy organizations, health systems, wholesale organizations, pharmacy benefits management, and the pharmaceutical industry. The responsibilities vary greatly depending on the type of corporation and the level of management status achieved. Corporate management positions are found in functional areas, such as store or site operations supervision, regulatory affairs, clinical support, human resources, information technology, merchandising, and marketing.

Respondents indicated that 39% of their time is spent on business/organization/department management. 18% is spent on project management with an additional 12% spent on personnel management. Eight percent is spent each on data management, service (such as committee work), and “other.”

Characteristics

A total of 34 corporate management pharmacists responded to the survey. Forty percent reported having a PharmD degree. Fifty-four percent had obtained an advanced degree such as an MA, MS, MBA, or PhD. Twenty-two percent had been through a residency. Thirty-five percent indicated having completed a certificate training program and 7% reported a Board of Pharmacy Specialties Certification. Additionally, 4% have completed some other type of training. Respondents’ average age was 49 years old. Two-thirds (66%) of respondents were male. Income data show 18% earn less than $100,000, and 46% earn more than $150,000. The average time worked per week was 43 hours.

All respondents stated that they were satisfied with their work, with 62% indicating “extremely satisfied” and 38% indicating “somewhat satisfied.” Seventy-five percent of respondents said that they felt their work was “extremely challenging” and 19% indicated that they felt it was “somewhat challenging.”

Insider's Perspective

What aspects of the job are most appealing?

Several respondents indicated that they most enjoyed that their position allowed them to increase the ability of pharmacists to provide clinical services. Another said that they enjoy the ability to impact many pharmacists and therefore many patients. Along the same lines, one respondent said that they enjoyed leading others in the “evolution of community pharmacy practice.” Others enjoyed the work schedule, variety of work, and the flexibility to work from home.

What aspects of the job are least appealing?

Many respondents indicated that the extensive travel that is sometimes required can be taxing in these positions. Others indicated that they didn’t like dealing with corporate “politics” and paperwork.

What advice should students and practitioners consider when selecting the option of corporate management pharmacist?

One respondent gave the following advice “managing a pharmacy operation requires the ability to empower people, think ahead, and learn from the past. It requires discipline, juggling multiple projects,
and setting priorities.” Another advised, “You need to have a commitment to pharmacy as a profession. If pharmacy is just a job for you, don’t pursue this area.”

Adapted from the American Pharmacists Association
Academia:
Economic, Social, and Administrative Sciences
Holland Code: ISC

Background
Academia is an attractive option for pharmacists who enjoy working with students while having opportunities to engage in research. With the increase in the diversity of academic positions, it can no longer be said that an academician's career is confined to the laboratory or classroom.

Economic, Social, and Administrative Science (ESAS) academicians often work with other health care professionals in a consultative capacity or as a lead investigator in research. Moreover, the opinions of ESAS academicians are frequently solicited by the pharmaceutical industry and the government before making policy decisions. Therefore, ESAS academicians have an indirect impact on patient care.

The “Academia” category may be loosely defined as belonging to a university faculty, usually that of a college of pharmacy. However, ESAS academicians also hold academic positions in medical, veterinary, public health, public policy, marketing, and other health care–related educational institutions. Positions may range from the dean of a college of pharmacy to a teaching clinical pharmacy position at an off-campus or remote hospital to a classroom professor.

Duties of an ESAS pharmacist may include administrative activities, scientific research, teaching student pharmacists, supervising research and teaching graduate students, speaking and/or publishing in scientific venues, and teaching student pharmacists through experiential practice sites.

Characteristics
Sixty-four individuals responded to the 2012 APhA Career Pathway Evaluation Program survey in this career area. Seventy percent of the respondents had an entry-level degree in pharmacy, with 16% having earned a PharmD degree. Eighteen percent of respondents had a residency or fellowship. Seventy-three percent reported an advanced degree (PhD) with an additional 13% holding an MBA. An additional 11% indicated certificate training of some kind.

Respondents’ average age was 45 years old. Slightly less than two thirds (61%) of respondents were male. Income data show over one third (36%) earn between $80,000–$100,000, while 45% earn $100,000 or more per year. Consultative fees are included in the income figures. The average time worked per week was 50.7 hours, among the highest of all job areas surveyed. Respondents represented 30 states.

A large majority of respondents indicated that they were satisfied with their job, with 69% indicating “extremely satisfied” and 28% indicating “somewhat satisfied.” On a similar scale, respondents said that they felt the job was challenging, with 72% indicating “extremely challenging” and 28% indicating “somewhat challenging.”

Insider’s Perspective
What aspects of the job are most appealing?

Reflecting the different types of activities involved in ESAS, 25% of respondents said the most appealing aspect of their work was its “flexibility.” “Working with students,” was cited by 16% of the respondents with “freedom” listed by 10% of the respondents. “Freedom to do what you like—teaching, research, service” was one Minnesota respondent’s message of the most appealing aspect of the position. Independence, teaching student pharmacists, and working with graduate students were cited in comments, indicating the satisfaction level previously noted.
What aspects of the job are least appealing?

Among the least appealing aspects of an academic position was a 14% response for both “bureaucracy” with “administrative activities.”

Working within a large organization, like a university, usually requires a considerable administrative workload in addition to teaching and research responsibilities. “Bureaucratic and political concerns, along with not always working with like-minded folks,” was noted by one Washington respondent. Another stated, “Sometimes I feel my group’s work is not considered important by the remainder of pharmacy.” Just under 8% indicated their concerns for low salaries and long hours as least appealing aspects.

What advice should students and practitioners consider when selecting the option of academia in economic, social, and administrative sciences?

The ability to work independently was the most frequent factor cited by respondents, as 12% indicated this need. One respondent from Arizona wrote that pharmacists need the “ability to self-motivate, ability to manage time among multiple responsibilities, and be project oriented.” Other respondents included the thoughts of looking at the “larger issues confronting pharmacy and health care.”

Adapted from the American Pharmacists Association
Home Health Care Pharmacy
Holland Code: SCI

Background

Home health care is a practice that specializes in treating patients in their homes or other residential facilities, such as assisted living communities. Most of the prescription therapy is directed toward intravenous (IV) admixtures that are compounded by the home health care pharmacist at the direction of the physician. This type of practice also may focus on other complex therapy regimens. Because of the complexity of the medications and setups required, home health care pharmacies tend to concentrate on fewer patients than other types of pharmacies. It is typical for a home health care pharmacy to service as few as 50 to 80 patients at a time. Pharmacists working in a home health care role may partner with hospice organizations, visiting nurse teams, and social services team members.

According to the respondents in this survey, 21% of respondents’ time is spent in patient care services. An additional 18% is spent dispensing medications (including the associated patient counseling). Medication management takes up an additional 15%, followed by medication preparation at 10% (including the preparation of complex parenteral prescription medications).

Characteristics

Thirty-two home health care pharmacists responded to the 2012 APhA Career Pathway Evaluation Program survey. Seventy percent held a PharmD degree. Twenty-four percent indicated an advanced degree (MA, MS, MBS, PhD, or other). Twenty-two percent completed a residency program, 43% completed certificate training, and 8% reported to have completed some form of other training. The respondents’ average age was 47 years old. Over two-thirds of the respondents (70%) were female. Close to half of the respondents (48%) report that they are in management positions. Annual income data indicated 21% having an income of less than $100,000. Thirty-four percent earn between $100,000 and $120,000 and 44% earning over $120,000.

The majority of respondents indicated that they were satisfied with their work, with 44% indicating they are “extremely satisfied” and 44% indicating “somewhat satisfied.” Similarly, these pharmacists (38%) find their career “extremely challenging” and another 53% indicated “somewhat challenging.”

Insider’s Perspective

What aspects of the job are most appealing?

Many home health care pharmacists highly valued the time that they were able to spend with and the direct impact made on patients. One pharmacist said that they most enjoyed: “Helping patients at home by providing the medicine they need, so they can go home from hospitals early.” Another enjoyed that they were a valued part of the care team: “We are totally involved with our patients, caregivers and prescribers. Our input is considered very important and appreciated.” Other aspects of the job that were appealing to these pharmacists included the flexible work schedule and minimal weekend and holiday work.

What aspects of the job are least appealing?

Several respondents said that they didn’t particularly enjoy being on-call. Others disliked the paperwork that is required and shortages in staffing. A few respondents reflected on the burden of insurance issues: “sometimes involved in coordinating patient's insurance problem that not related to pharmacist's clinical work.”
What advice should students and practitioners consider when selecting the option of home health care pharmacy?

One respondent recommended that “Student pharmacists need to have good basic clinical skills, dosing monitoring skills, medication monitoring experience and telecommunication skills prior to considering home health care setting.” Another said that “you need to be able to work very independently, [have] VERY good time management skills, [and] need to love driving and working in your car.”

Adapted from the American Pharmacists Association
Independent Community Pharmacy
Holland Code: SEC

Background

An independent community pharmacy may be a single store with a sole proprietor or may consist of several stores owned by an individual or small group. Some independent pharmacy owners own multiple locations, making it seem like more of a regional chain. Since the stores are owned by an individual or a small private group, they are considered “independent.” In practice, small chains with four or more stores may function much more like a traditional independent pharmacy rather than a chain, if that is the objective of the owner(s).

Owning an independent pharmacy can be very rewarding. It provides the opportunity to practice pharmacy in accord with one’s personal style. Changes can be implemented quickly and pharmacists in independent community pharmacy can offer specialty services or fill a niche in the community. Yet, with opportunity come demands—particularly on time. In addition to clinical and traditional pharmacy services, independent pharmacists typically get involved to a greater extent in merchandising, marketing, and other general management functions.

Management of an independent community pharmacy is usually the duty of the owner. In some settings, the manager may be an employee pharmacist, particularly when the pharmacy consists of two or more community outlets. In some independent community pharmacies, the staff pharmacist is also the assistant manager of the pharmacy. Occasions can arise when independent community pharmacists decide to sell their store(s), such as when they feel it is time either to have someone else take over the management side of the business or upon retirement. An independent pharmacy owner may be willing to work out creative financing and will often be interested in continuing to work on at least a part-time basis.

Staff pharmacists in independent pharmacy often report to the owner(s) directly. This can create unique challenges and opportunities. Building and maintaining relationships with patients in the community is an important responsibility of pharmacists in independent community pharmacies, one that is appealing to most pharmacists in this setting. These relationships are often the foundation on which the business has been built and prospered.

The roles and responsibilities of a staff pharmacist will vary at different pharmacies. A pharmacist at one independent pharmacy may be primarily responsible for patient services while at another pharmacy the staff pharmacist may be primarily responsible for supervising technicians. A staff pharmacist in an independent community pharmacy is often in a position to bring about change and implement new services, including medication therapy management (MTM). Good communication skills and an outgoing personality are valuable traits for pharmacists interested in pursuing independent community pharmacy.

Fifty percent of the respondents’ time is spent dispensing medications, including the associated patient counseling. Business/department management requires an additional 11%, followed by medication preparation/compounding at 10%.

Characteristics

One hundred one pharmacists in independent community pharmacy responded to the 2012 APhA Career Evaluation Pathway Program survey. Fifty-two percent held a bachelor of pharmacy degree and 40% of respondents held a PharmD degree. Seven percent reported having an MBA. Eleven percent had been through a residency program; 59% had been through a certificate training program, and 13% reported having been through some form of other training. Respondents’ average age was 49 years old. Just over half (51%) of respondents were female. Sixty-three percent indicated some type of
management role. Income data show 24% of respondents earn $80,000–$100,000. Forty-six percent earn less than $100,000; 23% earn between $100,000 and $120,000; and 26% earn greater than $120,000. The average time worked per week was 41 hours.

Respondents indicated that they were satisfied with their work, with 51% indicating “extremely satisfied” and 38% indicating “somewhat satisfied.” Similarly, most respondents indicated that they felt the work was quite challenging with 41% indicating “extremely challenging” and 52% indicating “somewhat challenging.”

**Insider’s Perspective**

**What aspects of the job are most appealing?**

By far the most frequent response to this dealt with the ability to work with patients in a meaningful way. Independent pharmacists really feel that they are able to have an impact on their patients’ health in a positive way. The main reason many independent community pharmacists initially entered the profession was to help patients. One respondent indicated enjoyment in “working with my patients, the opportunity to know them all by name and assist them with a variety of health issues.”

Another recurrent theme was the enjoyment in the autonomy of an independent pharmacy environment and the variety in daily activities. One pharmacist said they enjoyed “the opportunity to solve new problems every day.”

**What aspects of the job are least appealing?**

Insurance and billing issues were common concerns for these pharmacists. Comments included: “working with insurance companies to get prior authorizations approved” and “dealing with the insurance company or PBM and making sure we are getting paid enough to at least cover the cost of the drugs.”

While many pharmacists said that they really liked the variety of daily activities this also comes with a negative of balancing competing responsibilities. One pharmacist said that they struggled with “trying to manage my time between pharmacy operations and managerial duties of the business.” Others reported problems with the physical demands of a full time community practice career. Pharmacists in this setting often are on their feet for the entire shift which could be very long. This is not unique to independent pharmacies and is also a concern for chain community pharmacists.

**What advice should students and practitioners consider when selecting a management position in independent community pharmacy?**

Overall, most indicated the need to have good communication skills and a strong desire to help others. This cannot be overemphasized considering the fact that community pharmacists are generally the most accessible health professional. This is especially true in rural communities where patients are not bashful about calling their pharmacist at home for much-needed advice or to have a prescription filled.

Others commented on the importance of learning sound business skills, which aren’t always emphasized during pharmacy school. Included in this area are marketing skills, personnel management, etc. One pharmacist gave the following advice: “Working for a small business often means the buck stops with you. Be invested in the business, be prepared to make decisions and judgment calls, and defend them.”

*Adapted from the American Pharmacists Association*
Pharmaceutical Industry: Research and Development  
Holland Code: IRC  

Background  

Pharmacists in industry are employed in a variety of positions. Although practice titles, descriptions, and prerequisites differ by company, the educational requirements for these positions are often similar. Most pharmacists in industry work in the following areas: research and development (R&D), all phases of drug product development, sales and marketing, corporate administration, all phases of clinical trials research, drug information, manufacturing, regulatory affairs, health policy, scientific/professional affairs (e.g., professional relations, professional education, medical science liaison, medical information), and quality control.  

Pharmaceutical industry corporate facilities are located throughout the United States, although there is heavier geographic concentration in the Northeast (including Delaware, New Jersey, New York, and Pennsylvania), the Midwest (including Illinois and Indiana), the Mid-Atlantic (North Carolina), and the West Coast (California), where many biotechnology start-up firms are headquartered. Regional plants and offices exist throughout the country.  

R&D pharmacists in the pharmaceutical industry spend 23% of their time doing research. This is followed by 21% of their time spent on project management, 19% of their time for business/organization/department management activities, and 12% for data management. R&D activities may take on many forms ranging from the development of new chemical/drug entities to the evaluation of existing products for alternative indications.  

Characteristics  

Forty-nine research and development pharmacists responded to the 2012 APhA Career Pathway Evaluation Program survey. Half of the respondents had a PharmD degree. Fifty-nine percent indicated an advanced degree (MA, MS, MBA, PhD, or other). Twelve percent had completed a residency program, 22% a fellowship, 14% had received certificate training, and 12% reported that they had been through some form of other training. Respondents’ average age was 48 years old. More than half (51%) of respondents were female. Income data show only 3% earn less than $100,000. Forty percent indicated that they earn more than $150,000 per year. The average time worked per week was 40 hours.  

The majority of respondents indicated that they were satisfied with their work, with 67% indicating “extremely satisfied” and 25% indicating “somewhat satisfied.” The same percentages also were mentioned by respondents related to their work being challenging, with 71% indicating “extremely challenging” and 25% indicating “somewhat challenging.”  

Insider’s Perspective  

What aspects of the job are most appealing?  

Two qualities cited by several pharmacists were variety and intellectual stimulation. Three additional items were mentioned by the respondents were new product development, schedule, and the environment itself. A pharmacist wrote of enjoying the “environment, lots of variety, people, and job flexibility.” One respondent summed up the thoughts of many colleagues by stating enjoyment in the “intellectual stimulation, camaraderie with peer scientists, innovative atmosphere, location, corporate objectives, and compensation/ benefits.”
**What aspects of the job are least appealing?**

In contrast to the most appealing aspects, pharmacists indicated that pressure/stress was the least appealing aspect of their work. Also mentioned were politics and no direct patient contact. Others listed a lack of resources as a concern. A respondent indicated one of the least appealing aspects was the “high pressure,” which was supported by a colleague who stated the least appealing aspect was the “high degree of pressure/stress.”

**What advice should students and practitioners consider when selecting the option of working in the pharmaceutical industry doing research and development?**

Most respondents indicated the need for pharmacists to look at lifestyle considerations and the opportunities available. Others wrote that it is important to look at additional training, both formal degree training and information training, because this is a requirement in many positions. One respondent indicated the importance of pharmacists’ “willingness to seek additional advanced education.”

Adapted from the American Pharmacists Association
Pharmaceutical Industry Sales and Marketing
Holland Code: SER

Background

Many definitions have been applied to the pharmaceutical industry sales and marketing divisions. Some aspects focus on the capability to analyze the needs of a given market and others on developing communications about specific therapies and products. This is the business of promoting pharmaceuticals both for the clinical aspects of the product as well as gaining market share. Pharmacists in this field follow guidelines and rules supported throughout the industry. PhRMA—the Pharmaceutical Research and Manufacturers of America—created a code several years ago for sales and marketing personnel to follow. The information below gives a glimpse of the depth of the PhRMA Code*:

In addition to prohibiting small gifts and reminder items such as pens, notepads, staplers, clipboards, pill boxes, etc., the revised Code:

1. Prohibits company sales representatives from providing restaurant meals to health care professionals, but allows them to provide occasional meals in health care professionals’ offices in conjunction with informational presentations.

2. Includes new provisions requiring companies to ensure their representatives are sufficiently trained about applicable laws, regulations, and industry codes of practice and ethics.

3. Provides that each company will state its intentions to abide by the Code and that company CEOs and compliance officers will certify each year that they have processes in place to comply.

4. Includes more detailed standards regarding the independence of continuing medical education.

5. Provides additional guidance and restrictions for speaking and consulting arrangements with health care professionals.

*PhRMA Code—revised guidelines 2009

In addition to the traditional sales calls, there has been an emergence of new communication vehicles used. Social media technologies are changing the pharmaceutical marketing process. The opportunities to work with multiple media vehicles have opened new marketing strategies and sales initiatives.

Characteristics

Twenty-four pharmaceutical sales and marketing pharmacists responded to the 2012 APhA Career Pathway Evaluation Program survey. Seventy-three percent of respondents held an entry level BS pharmacy degree; 26% held the PharmD degree; 6% indicated that they also had a non-pharmacy bachelor’s degree and 40% indicated an advanced degree (MA, MS, MBS, PhD, or other). Six percent had been through a residency program, 13% had been through a certificate training program, and 13% reported having been through some form of other training. Respondents’ average age was 47 years old. Forty percent of respondents were female. Income data show less than 1% earn between $80,000–$100,000, while 99% earn $100,000 or more per year, with 67% earning greater than $150,000. The average time worked per week was 41 hours.

An overwhelming majority of respondents indicated that they were satisfied with their role, with 65% indicating “extremely satisfied” and 26% indicating “somewhat satisfied.” Similarly, most respondents
indicated that they felt the job was challenging, with 52% indicating “extremely challenging” and 44% indicating “somewhat challenging.”

Insider’s Perspective
What aspects of the job are most appealing?

Because of the great variety of positions in the pharmaceutical sales and marketing areas, duties, and responsibilities, there are only a few items that all respondents indicate as most or least appealing aspects. Numerous items were provided by less than 10% of respondents. What is true for one specialty practice is not necessarily true for other practices. One of the most appealing aspects of these roles, cited by 27% of pharmacist respondents, was related to the impact they can have on patients. For many, this is an indirect benefit of the role. The same percentage also indicated that an appealing aspect was working and collaborating with other health care professionals (i.e., pharmacists, physicians, nurses, or others).

One respondent stated, “Love interaction with clinicians throughout the health care market.” Another added enjoyment in “Working with pharmacists and nurses to improve patient safety and save costs.” Thirteen percent cited the work environment as one of the most appealing aspects of their role. Many corporate offices are modern and have amenities that can be used by employees. One commented on working in a “very nice work environment.”

What aspects of the job are least appealing?

Bureaucracy and politics were both cited by 18% of pharmacists as among the least appealing aspects of their role. These pharmacists are very satisfied with the work they perform, but one respondent stated finding the “administrative work and the politics of a large corporation” as a least appealing aspect of the role. Administrative paperwork and travel were cited by 9% of the respondents. One respondent indicated not liking the “travel and being away from clinical practice.”

What advice should students and practitioners consider when selecting the option of becoming a pharmaceutical sales and marketing pharmacist?

Comments were broad based with no specific theme. Two pharmacists’ comments provide a general feeling for what most of the respondents suggested: “Work outside the industry first—community or institutional. Working your way through the various positions becomes an enabler for [pharmacists] to expand their sphere of influence. [Pharmacists] can more successfully articulate their solutions when they’ve experienced the challenges of the job.” “Need a personal interest in non-clinical setting; need hands-on clinical experience to develop knowledge base in many therapeutic categories; need high level of intellectual curiosity; have to be highly motivated with good written and verbal communications skills; need entrepreneurial instincts/drive.”

Adapted from the American Pharmacists Association
Health System Pharmacy
Inpatient
Holland Code: CES

Background

The inpatient setting of health system pharmacy is unique in a number of ways. The patients treated by a health system pharmacist typically have more complicated conditions than those in an ambulatory setting and take multiple medications. A staff pharmacist may have exposure to oncology, intravenous (IV) medication therapy, neonatal care, nutrition, pain therapy, geriatrics, and much more. Staff pharmacists face a varied set of responsibilities including dispensing medication, making purchasing decisions, monitoring drug therapy, preparing IV medication, and overseeing drug administration.

The location and layout of the pharmacy can vary greatly among health systems. Some are centralized, with all of the pharmacy staff and equipment located in a single area of the hospital, usually on one of the lower floors. Another format is the decentralized pharmacy, where there is a main pharmacy in a central location but there are also “mini-pharmacies,” called satellites, located throughout the health system at key patient care units. The type of the pharmacy depends on the size, needs, resources, and focus of the health system.

Health system pharmacists interact with nurses and physicians in their positions. Often, they do not work directly with the patient, but rather with the other health care providers to optimize the patient’s therapy. In some health systems, however, there are opportunities for pharmacists to see patients by rounding with physicians and nurses or by providing discharge counseling.

Twenty four percent of a health system inpatient pharmacist’s time is spent on medication dispensing and associated patient counseling. Eighteen percent of their time is spent on medication management services and another 14% is spent patient management services.

Characteristics

One hundred thirty-nine health system staff pharmacists responded to the 2012 APhA Career Pathway Evaluation Program survey. Seventy percent of respondents indicated having a PharmD degree. Twenty-three percent of respondents earned an advanced degree such as an MA, MS, or MBA. Twenty-four percent had been through a residency, and 26% indicated they had been through certificate training. Twenty percent of respondents indicated that they had obtained BPS certification. The respondents’ average age was 45 years old. Well over half of the respondents (65%) were female. Annual income data show 25% reporting an income between less than $100,000, 37% earning between $100,000 - $120,000, and 34% earning over $120,000.

The majority of respondents indicated that they were satisfied with their job with 44% indicating “extremely satisfied” and 46% indicating “somewhat satisfied.” Respondents felt the job was challenging with 36% indicating “extremely challenging” and 53% indicating “somewhat challenging.”

Insider’s Perspective

What aspects of the job are most appealing?

Respondents seemed to emphasize that they really liked the interaction that they have with their pharmacist and interdisciplinary colleagues. Pharmacists also felt that they were able to positively influence patient care and health system policy in their position within the inpatient pharmacy. One
pharmacist articulated his feelings in this way: “There are opportunities to influence medication use at both the organizational level; and at the individual patient level through collaborative direct patient care.”

Many other respondents indicated that they enjoyed the flexibility and variety of their daily work. One respondent said that she enjoyed “the variety of the work and the opportunity to expand my scope of practice and always look for new challenges.”

**What aspects of the job are least appealing?**

Many of the respondents indicated that workload and long hours were the least appealing aspect of their work. Others were concerned with the management and administration, workflow issues, and medication shortages. One respondent summed up many concerns about the bureaucracy within a large health system by expressing that the least appealing aspect is “the centralized top-down organizational decision making structure with limited opportunities for non-managers to participate more actively in departmental decision-making.”

**What advice should students and practitioners consider when selecting the option of health system staff pharmacy?**

Many pharmacists recommended that residency training should be completed before pursuing a career in an inpatient setting. Other skills that were considered critical included the ability to problem solve, being open to lifelong learning, and being open to varying opportunities.

Adapted from the American Pharmacists Association
Long-Term Care Pharmacy
Holland Code: SIC

Background

As a general rule, a long-term care pharmacist is engaged by a long-term care pharmacy to provide pharmacy, infusion, education, consulting, and related services for a specific patient population. There are two general career paths in long-term care pharmacy: one focuses on dispensing/management operations and the other on consultant services. This profile addresses both roles.

With the “aging of America,” the proportion of people needing long-term care can be expected to increase. Long-term care pharmacists practice in a variety of settings, including hospitals that own skilled nursing facilities, long-term care pharmacies, nursing homes, and rehabilitation facilities, or they may practice as independent consultants. Pharmacists in this field work with medication dosage requirements, drug interactions, drug therapy regimens, and formulary decisions that differ from those used in other population segments. They may be restricted to a limited number of medications to treat patients because of the therapeutic effects of drugs in elderly patients. Although generally a geriatric population, some long-term care facility populations include the placement of non-geriatric residents such as those with HIV infection, multiple sclerosis, amyotrophic lateral sclerosis, or developmentally challenged residents.

Characteristics

According to the survey results, 26% of work time is spent on medication management services. This is followed by 24% spent on medication dispensing (including associated patient counseling), 10% on data management, and 10% on patient management services.

Fifty long-term care pharmacists responded to the 2012 APhA Career Pathway Evaluation Program survey. Fifty-seven percent had a bachelor of pharmacy degree and 52% held a PharmD degree (this includes those with a Post BS PharmD degree. Eleven percent indicated they earned an advanced degree (MA, MS, MBA, PhD, or other). Notably, 42% had completed some certificate training, 21% had been through a residency program, and 12% completed some form of other training. Respondents’ average age was 50 years old. Just over two thirds (65%) of respondents were female. Thirty-two percent indicated some type of management role. Income data show 36% earn between less than $100,000, 60% earned more than $100,000 or more per year, and 6% indicated that they earn more than $170,000. The average time worked per week was 47 hours. Respondents represented 22 states.

Most respondents indicated that they were satisfied with their work with 38% indicating “extremely satisfied” and 73% indicating “somewhat satisfied.” On a similar scale, respondents said they felt the work was challenging, with 46% indicating “extremely challenging” and 73% indicating “somewhat challenging.”

Insider’s Perspective

What aspects of the job are most appealing?

Many of the long-term care pharmacists who responded to this survey cited the flexibility of their schedule as one of the most appealing aspects of this work setting. Others liked things such as the “opportunities to use clinical training,” “working with a unique and extremely complex patient population,” “analysis of medication results in geriatric settings,” and “working for a privately held company.” One pharmacist said, “With the aging population, pharmacists are the ideal “patient advocate” regarding safe medication use, appropriate drug therapy, unnecessary medications, cost-saving factors, [and] more in long-term care.
settings. Collaborating with the health-care team is beneficial for all of our seniors overall well-being as they age.”

**What aspects of the job are least appealing?**

Many respondents indicated that the “workload” and/or the “long hours” are the least appealing aspects of the work. Several others said that “paperwork” was one of the least appealing aspects. Others discussed the burden of regulatory requirements, management challenges, and a lack of resources as difficulties for some in this position.

**What advice should students and practitioners consider when selecting the option of long-term care pharmacy?**

One respondent gave the following, comprehensive advice about long-term care pharmacy: “Consulting at LTC facilities can require significant driving time and distances. You have to have a sound clinical backing, be able to do "on the spot" research in areas you may not be as familiar with, have a sense of humor, be able to communicate with other professionals and the public, and accept that there are limits to what you will be able to accomplish.” Another pharmacist simply said: “Develop a passion for serving, caring for, [and] advocating for the geriatric community and the rest will fall in place.”

Adapted from the American Pharmacists Association
Mail Service Pharmacy

Holland Code: CSI

Background

Mail service pharmacy has changed over the past decade with more third-party insurance organizations, public and private employers and Internet pharmacy service expansion. Insurance coverage for many plans includes a mail service option, which may reduce the overall co-payment for the patient and can provide an extended supply of medication (up to 3 months).

While, historically, mail service pharmacy had been utilized purely for medication dispensing, today's mail service pharmacist can be involved in broader patient care. A respondent from Nevada indicated liking “being able to focus on patient care and satisfaction.” Another from Texas provided insight into the newer roles that pharmacists now have in mail service, stating enjoyment in “being a counseling pharmacist in mail order, even though [you] don’t see the patients you are speaking to, you are helping people and saving lives every single day.”

Twenty-three percent of respondent’s time is spent on medication dispensing, including associated patient counseling. In addition, time required for two categories were listed at 17% each: health professional consulting and patient care services (e.g., disease management, medication therapy management). This was followed by 11% of time for organization and business management, and 9% for personnel management. The other time is split across a number of different functions with 13% allocated to “other” activities.

Characteristics

Twenty-five mail service pharmacists responded to the 2012 APhA Career Pathway Evaluation Program survey. Seventy-one percent of respondents held an entry-level pharmacy degree, with 16% having a PharmD degree. Seven percent indicated they earned an advanced degree (MA, MS, MBA, PhD, or other). Only 3% had completed some type of certificate training and 2% had been through a residency program. Respondents’ average age was 43 years old. Just under two thirds (60%) of respondents were male. Twenty-nine percent indicated some type of management role. Income data show 36% earn between $80,000–100,000, while 60% earn $100,000 or more per year, and 2% indicated they earn more than $170,000. The average time worked per week was 42 hours. Respondents represented eight states with the majority of respondents from Texas and Nevada.

Respondents indicated that they were satisfied with their work, with 35% indicating “extremely satisfied” and 50% indicating “somewhat satisfied.” On a similar scale, respondents said they felt the work was challenging, with 21% indicating “extremely challenging” and 60% indicating “somewhat challenging.” An Ohio respondent indicated that mail service pharmacy is a “constantly changing environment with challenging and rewarding opportunities.”

Insider’s Perspective

What aspects of the job are most appealing?

Twenty-nine percent of the respondents indicated that patient care was the most appealing aspect of their work. A Texas respondent found that “working in mail order [there was] more time to counsel patients than ever.” Twenty-four percent of the respondents indicated that the hours/schedule was a most
appealing aspect of the position. A Texas respondent stated having “sufficient time to take care of each patient—great schedule.” An additional 7% indicated that the benefits were appealing as well.

What aspects of the job are least appealing?

In contrast to the most appealing aspects, 17% stated that they have to deal with nonpharmacy issues and insurance coverage, which is a least appealing aspect of the position. An additional two areas were both mentioned 8% of the time as being least appealing aspects: repetition and schedule. This is of interest because schedule also was listed by some respondents as an appealing aspect of the position. Perhaps this discrepancy depends somewhat on the specific mail service environment, which was highlighted by a Nevada respondent who summed up both of these issues when stating that the least appealing aspects were the “repetitive [nature of the work] and the frequent schedule changes.”

What advice should students consider when selecting the option of working in mail service pharmacy?

No one single theme emerged from respondents as they provided insight across a wide variety of areas. A Virginia mail service pharmacist stated that one must “be able to communicate well—[especially] with upset members on occasion.” A Nevada respondent thought it important to let others know that they need an “enhanced grasp of drug information.”

Adapted from the American Pharmacists Association
Managed Care Outpatient Pharmacy  
Holland Code: ECS

Background

Pharmacists employed by managed care organizations are responsible for a broad and diversified range of clinical, quality-oriented, drug management services. Pharmacists in managed care strive to provide the highest quality drug therapy management for the members in a plan, while considering the pharmacoeconomic implications for the entire group of patients. Most pharmacists in managed care work for health plans and pharmacy benefit management (PBM) companies. They perform a wide array of critical tasks that allow individual patients to get the appropriate drug at the right time in a convenient, cost effective manner. Pharmacists in managed care perform a variety of functions, including drug distribution and dispensing, patient safety monitoring, clinical program development, business operations, analysis of therapeutic outcomes, and cost management.

Managed care pharmacists have diverse responsibilities in the health care system. According to respondents, 24% of their time is spent on medication dispensing (including associated patient counseling), 23% is spent on business/organization/department management, and 11% is spent on personnel management. Notably, the managed care environment is rather diverse and a pharmacist might work with a local group of patients or with patients from across the country.

Characteristics

Thirty-two managed care pharmacists responded to the 2012 APhA Career Pathway Evaluation Program survey. Eighty-eight percent held a bachelor of pharmacy degree, 6% had a post BS PharmD, and 12% had an entry level PharmD degree. Sixty-four percent indicated an advanced degree (MA, MS, MBA, PhD, or other). Twenty-nine percent had been through a residency program and 40% had been through certificate training. Respondents’ average age was 50 years old. Just over half (53%) of respondents were female. Income data show that 19% earn less than 100,000, while the rest earn $100,000 or more per year. Thirteen percent earn more than $150,000. The average time worked per week was 43.4 hours.

Respondents indicated that they were satisfied with their work, with 55% indicating “extremely satisfied” and 36% indicating “somewhat satisfied.” Similarly, most respondents indicated that they felt the work was quite challenging, with 52% indicating “extremely challenging” and 42% indicating “somewhat challenging.”

Insider’s Perspective

What aspects of the job are most appealing?

Responses to this question were highly variable, showing that there are many favorable aspects to working in a managed care outpatient setting. One pharmacist said that they enjoyed “working in a managed care setting [where] I have the opportunity to interact with clinicians. It is a more clinical feel than retail.” Several did comment on the advantage of working closely to the physicians in the managed care organization. One pharmacist said that they enjoyed having “freedom to apply change and efficiency.” One respondent, in a leadership position within the organization, said, “As an Executive, I am thrilled to work in an integrated, non-profit, delivery system with our own physicians.”

What aspects of the job are least appealing?

Several respondents commented that the salary in this setting is lower than in others; one respondent said: “Salary is 10 to 20% less competitive than market although benefits long term is superior.” Other
respondents mentioned the managerial burden and budgeting process as unappealing aspects of the work.

**What advice should students and practitioners consider when selecting the option of managed care pharmacy?**

Many respondents recommended considering further education and training if considering a job in this role. One said that it would be helpful to become a Certified Diabetic Educator, another recommended two years of residency and BPS Certification, and still another said to consider getting work experience in another setting before moving into the managed care outpatient pharmacy setting. One respondent said to consider that the “pay is lower than traditional retail, but quality of life is better.”

*Adapted from the American Pharmacists Association*
Medical Communications/Drug Information
Holland Code: EIS

Background

Pharmacists who specialize in medical communications/drug information provide educational services about pharmaceutical products for health care professionals, pharmaceutical industry personnel, and consumers. They may be employed by medical communications firms, pharmaceutical manufacturers, academic institutions, managed care organizations, hospitals, professional associations, clinical research organizations, or other health care settings. Their responsibilities vary by the type of setting in which they practice.

Their efforts may be internally focused, for example providing services to employees of a pharmaceutical manufacturer or as an in-house library and information service. Or their clientele may be the general public, for example providing information in a poison control center in response to queries from physicians, nurses, other pharmacists, or the general community. Perhaps more frequently, these pharmacists are manufacturers’ employees with the responsibility for providing authoritative information on their company's products to pharmacists or physicians with specific information needs regarding a particular product (e.g., special dosage needs, unusual reactions). Additionally, many pharmacists are employed by medical communications companies or professional associations that publish authoritative drug information references.

Medical communications/drug information pharmacists have diverse responsibilities in the health care system. According to the survey, 26% of their time is spent on the “other” category. This likely includes the literature searching and writing that they do. Nineteen percent is spent on data management, followed by 12% on patient management services, 10% on teaching, and the remainder divided across a variety of other functions.

Characteristics

Fifteen pharmacists responded to the 2012 APhA Career Pathway Evaluation Program Survey. Among the respondents, 63% had earned a PharmD degree. Fifty-four percent had an advanced degree (MA, MS, MBA, PhD, or other degree). Many have undertaken educational or training programs beyond their earned pharmacy degree. Twenty-six percent had completed a residency, 35% had earned a certificate, and 9% had taken other training. The mean age was 43 years old and about two thirds (64%) were female. Almost two thirds (64%) identify themselves as being in management. Income data from this survey show that 22% of these pharmacists report that they earn between $80,000–100,000 annually. Thirty-three percent earn $110,000 - $130,000 and 44% earn $140,000 or more. Medical communications/drug information pharmacists work an average of 42.5 hours per week.

Sixty-seven percent report that they were “extremely satisfied” with their work, with the remaining 33% indicating they were “somewhat satisfied.” The exact same proportion of responses were seen regarding how challenging the work is with 67% reported being “extremely challenged” with their work and the remaining 33% reported “somewhat challenged.” None were dissatisfied or unchallenged in their practice settings, which is similar to the survey conducted in 2007 of these pharmacists.
Insider's Perspective

What aspects of the job are most appealing?

Medical communications/drug information pharmacists really seem to enjoy the work that they do. Many respondents said that their work is highly rewarding and has an optimal work schedule. One said, "I find the fact that through my work in medical informatics/drug information I help keep millions of patients safe from medication errors the most satisfying aspect of my job. There is excellent work/life balance - we keep Monday through Friday business hours." Similarly, another respondent said they enjoyed "The ability to work independently, research new topics from multiple angles, and create my own schedule."

What aspects of the job are least appealing?

Some found that the solitary nature of these positions were less appealing. One respondent said that the least appealing aspect of their job is the "lack of colleagues to… bounce ideas off of." Another liked their position so much that they answered this question by saying, "I can't think of any aspects of my current work that are not appealing. I wish it had not taken 20 years of my career to find this amazing opportunity."

What advice should students and practitioners consider when selecting the option of medical communications/drug information pharmacy?

Several respondents advised that pharmacy experience is helpful before working in this field. One respondent said, "I would recommend gaining clinical and practical experience prior to joining the pharmaceutical industry, a lot more doors will be available to open." Another echoed this sentiment saying, "My success in my current work setting hinges on years of experience in many aspects of pharmacy practice (retail - independent and chain practice sites, hospital, clinical specialist, academia and long-term care). Try many opportunities and gain as much experience as possible in order to be prepared for the most appealing position." Other respondents advised "time management skills are critical; have to cope with meeting deadlines" and "have multiple resources of information at your fingertips."

Adapted from the American Pharmacists Association
Nuclear Pharmacy
Holland Code: IRC

Background

Nuclear pharmacy was the first pharmacy specialty established by the Board of Pharmaceutical Specialties (BPS) in 1978. This specialty area is involved with the preparation of radioactive materials to improve and promote health through the safe and effective use of radioactive drugs to diagnose and treat specific disease states.

There are two main types of environments where nuclear pharmacists are employed. Institutional nuclear pharmacy is usually linked to a major medical center/hospital where preparations are made on-site. This is in contrast to the commercial centralized nuclear pharmacy where radiopharmaceuticals are prepared and then delivered to the hospital and/or clinic. While the quantity of radiopharmaceuticals used is relatively small in both settings, nuclear pharmacists must complete additional training in radiation safety regarding the compounding, preparation, and delivery of radioactive materials. Because nuclear pharmacy is a unique field, this profile offers a non-inclusive list of responsibilities encountered by pharmacists in this career:

- Ordering, receiving, storing, and controlling inventory of radioactive drugs (radiopharmaceuticals), other drugs used in nuclear medicine, and related supplies.
- Preparing radiopharmaceuticals by combining radioisotopes with reagent kits and compounding radiopharmaceuticals that are not commercially available.
- Performing functional checks of instruments, equipment, and devices and determining radiopharmaceutical quality and purity.
- Filling prescription orders.
- Packaging, labeling, and transporting radiopharmaceuticals.
- Properly handling hazardous chemicals and biological specimens.
- Communicating radiopharmaceutical-related information to others.
- Ensuring that patients receive proper preparation before radiopharmaceutical administration and trouble-shooting unanticipated outcomes.
- Laboratory testing of new radiopharmaceuticals, new compounding procedures and quality control methods and participating in clinical trials.

As one can see in the above list, nuclear pharmacists have diverse responsibilities. According to survey results, 37% of their time is spent on medication preparation/compounding. Sixteen percent is spent on medication dispensing (including associated patient counseling), followed by 11% on service (such as committee work for the institution), and the remainder split across a variety of other functions.

Characteristics

Thirty-two pharmacists responded to the 2012 APhA Career Pathway Evaluation Program survey. Among the respondents, 75% had earned a PharmD degree. Fifteen percent had earned an advanced degree (MS) and 35% indicated earning some other degree (other than MA, MS, MBA, or PhD). Forty-five percent achieved BPS Certification, 66% had earned a certificate and 14% had taken other training. The mean age of respondents was 41 years old. Seventy-five percent were male. Just over half (55%) identified themselves as being in management. None of the respondents to this survey earned less than $100,000. Fifty percent earned $100,000 - $120,000, 20% earned $120,000 - $140,000 and 30% earned greater than $140,000. Twenty-one percent of these pharmacists reported that they earn between $80,000–$100,000 per year. Nuclear pharmacists work an average of 46 hours per week.
Fifty-five percent reported that they are “extremely satisfied” with their job and 42% indicating they are “somewhat satisfied” with their work. Similarly, 32% report being “extremely challenged” with their work and 58% reported “somewhat challenged.”

**Insider’s Perspective**

**What aspects of the job are most appealing?**
Most respondents said that they really enjoyed their work environment. Specifically, “it’s dynamic and changing, so it’s not boring,” “It’s hands on work, you’re not behind a desk all day long,” and “work[ing] directly with hospital staff to determine what each patient needs.” Several respondents enjoyed that their job did not include insurance or billing issues. “We are not open to the public and do not have any involvement with patient insurance.” Another respondent said that nuclear pharmacy “combines the science with the art. [There is] not much patient contact but [the job] still requires [a] broad clinical background.”

**What aspects of the job are least appealing?**
Many pharmacists shared that they didn’t enjoy the hours that are typical of nuclear pharmacy practice. “Due to the time sensitive nature of radiopharmaceuticals, the hours worked are frequently during the night.” In some instances, pharmacists also have to be on call, which was mentioned as a negative. Others mentioned that they miss patient and colleague interaction as nuclear pharmacists rarely see patients and there is typically a small staff in the pharmacy.

**What advice should students and practitioners consider when selecting the option of working in nuclear pharmacy?**
The majority of respondents recommended that when considering nuclear pharmacy, make sure that the hours will work for you. Be ready to work early hours, be on call, and to work the midnight shift. One pharmacist said that, despite the challenging schedule, “nuclear is the best kept secret in pharmacy.”

*Adapted from the American Pharmacists Association*
Office-Based Medication Management
Holland Code: SCI

Background

Office-based medication management involves the role of those pharmacists who are actively providing medication management in a variety of ways including medication therapy management (MTM) programs. Some pharmacists specialize in a given disease state and are affiliated with a medical practice while others work out of their own office.

These practitioners also are positioned to be involved with accountable care organizations (ACOs) and patient-centered medical homes (PCMHs). Of interest is the complexity that may exist for billing of services provided. Many of the pharmacy associations are working together for pharmacists to become recognized as providers; provider status will help as practitioners will be able to have the appropriate coding and billing requirements.

Characteristics

Twenty-five office-based medication management pharmacists responded to the 2012 APhA Career Pathway Evaluation Program survey. Eighty-eight percent of respondents held an entry level pharmacy degree; 81% held the PharmD degree, and 13% percent indicated that they also had a non-pharmacy bachelor’s degree. Forty-two percent had been through a residency program, 42% had been through a certificate training program, and 6% reported having been through some form of other training. Respondents’ average age was 44 years old. Eighty-one percent of respondents were female. Income data show 7% earn between $80,000–$100,000, while 64% earn $100,000 or more per year, with 7% earning greater than $150,000. The average time worked per week was 42 hours.

An overwhelming majority of respondents indicated that they were satisfied with their job, with 54% indicating “extremely satisfied” and 38% indicating “somewhat satisfied.” Similarly, most respondents indicated that they felt the job was challenging, with 42% indicating “extremely challenging” and 54% indicating “somewhat challenging.”

Insider’s Perspective

What aspects of the job are most appealing?

Two specific areas of these roles were listed as the most appealing aspects by the respondents. Twenty-four percent cited direct patient care and the flexibility they have in scheduling. Working with other health care professionals and autonomy were listed by 12% of the respondents as appealing aspects. Respondents also indicated that they spend 35% of their time on patient care services focused on the medication aspects of care. One respondent stated that “working with patients to review their current medications for optimal pharmaceutical care while reducing medication duplication, errors, and cost” is a very appealing aspect of the role. Another added that “working on one on one with patients and physicians” is appealing.

What aspects of the job are least appealing?

Income was cited by 12% of pharmacists as the least appealing aspect of their jobs. Even with the lower income, these pharmacists are satisfied with the work they perform. Some also mentioned they do not enjoy having to repeatedly explain the value of what they do.
What advice should students and practitioners consider when selecting the option of becoming an office-based medication management pharmacist?

Twelve percent of pharmacists cited three distinct areas to consider for a role in office-based medication management: the importance of keeping up on reading the literature, being able to work independently, and staying motivated in an office-based environment. This is especially true as most students do not get exposed to this practice environment during their academic training. One respondent summed up what many indicated, stating the need to do “many hours of reading to stay current on most up-to-date guidelines to ensure evidence-based medication therapy management.” Another stated the need to have a “high level of resolve to diplomatically yet firmly act as patient advocate in applying the patient’s wishes and best clinical practices often in the face of opposition from prescribers and sometimes family members.”

Adapted from the American Pharmacists Association
Health-System Pharmacy: Outpatient
Holland Code: SCI

Background

Outpatient pharmacy can be described as a diverse clinical practice environment. Most pharmacists in the outpatient setting provide multiple roles ranging from dispensing and counseling to medication therapy management (MTM) services and transition of care. The environment provides patients with the opportunity to speak one-on-one with a pharmacist and schedule MTM services and/or disease management services.

Outpatient pharmacy can be primary care–based or disease-specific services. For example, outpatient clinics can focus on HIV/AIDS, immunizations, lipids, diabetes, and other areas. The unique aspect of the environment is access to the patient’s medical record and the multidisciplinary approach where pharmacists work in teams with other health care providers.

Characteristics

Forty-seven outpatient pharmacists responded to the 2012 APhA Career Pathway Evaluation Program survey. Sixty percent of respondents held an entry-level pharmacy degree; 40% held the PharmD degree. Fifteen percent indicated that they also had a non-pharmacy bachelor’s degree and 21% indicated an advanced degree (MA, MS, MBS, PhD, or other). Twenty-three percent had been through a residency program, 39% had been through a certificate training program, and 14% reported having been through some form of other training. Respondents’ average age was 46 years old. Sixty percent of respondents were female. Income data show 10% earn between $80,000–$100,000, while 77% earn $100,000 or more per year, with 13% earning greater than $150,000. The average time worked per week was 44 hours.

An overwhelming majority of respondents indicated that they were satisfied with their job, with 49% indicating "extremely satisfied" and 42% indicating "somewhat satisfied." Similarly, most respondents indicated that they felt the job was challenging, with 36% indicating "extremely challenging" and 53% indicating "somewhat challenging." Respondents indicated that they spend 38% of their time in the role of dispensing medication along with the associated patient counseling. Interacting with co-workers was one of the highest-rated critical factors for this group.

Insider’s Perspective

What aspects of the job are most appealing?

Two of the most appealing aspects of these roles include collaboration with other health care providers and patient care/direct patient contact, cited by 19% of outpatient pharmacists. One respondent indicated “collaboration with health care providers in diabetes, hypertension, asthma, and immunization care” as an appealing aspect of the role. Another respondent stated, “What I like most is the one-on-one patient care, but also like the teamwork experience. Discharge counseling was cited by 16% of the respondents as one of the most appealing aspects of what they do. Pharmacists often work in settings with challenges that vary from day to day, thereby presenting opportunities to learn and grow professionally. One respondent summed up what many stated: the appeal of the position comes from “direct patient care—drug information—patient counseling.”

What aspects of the job are least appealing?

Administration (bureaucracy) and workload (short staffing numbers) were each cited by 16% of pharmacists as the least appealing aspects of their roles. These pharmacists are very satisfied with the
work they perform, but do not enjoy how some policies and protocols are implemented. One respondent who was concerned with staffing levels stated, "I feel rushed rather than feeling as though I have as much time as patients need." Another respondent was to the point when stating that the least appealing aspects were "long hours, short staffing." Respondents indicated that they spend approximately 29% of their time on administrative roles.

What advice should students and practitioners consider when selecting the option of health-system outpatient pharmacy?

Twenty-five percent of the outpatient pharmacists cited the importance of being open to alternatives because there are multiple opportunities in some of the environments. Continuing education and training are important to succeed in this environment. Sixteen percent indicated that good communication skills—written and oral—are essential for the role.

One respondent indicated, "Those who seek to work in [outpatient pharmacy] must be able to communicate effectively with patients and allied health care providers alike." Another stated that students should "be open-minded to the types of environments that they work in."

Adapted from the American Pharmacists Association
Academia: Pharmaceutical Sciences
Holland Code: ISC

Background

Academia is an attractive option for pharmacists who enjoy working with students while also having opportunities to engage in research. With the increase in the diversity of academic positions, it can no longer be said that an academician’s career is confined to the laboratory or classroom.

Pharmaceutical sciences faculty often work with other health care professionals in a consultative capacity or as a consultant for government and industry research endeavors. Therefore, these academicians have an indirect impact on patient care.

The “Academia” category may be loosely defined as belonging to a university faculty, usually that of a college of pharmacy. However, pharmacists in this area also hold academic positions in medical, veterinary, dental, and other health care–related educational institutions. Positions may range from the dean of a college of pharmacy to an entry-level teaching/research position. In addition, pharmaceutical sciences faculty have expertise in a variety of areas including but not limited to: anatomy, physical/chemical sciences, pharmacology, toxicology, cell and molecular biology, biochemistry, immunology, formulation, biological sciences, and pharmaceutics.

Duties of pharmaceutical sciences faculty may include administrative activities, scientific research, teaching student pharmacists, supervising research and teaching graduate students, speaking and/or publishing in scientific venues, and teaching student pharmacists through experiential practice sites.

Characteristics

Sixty-nine individuals responded to the 2012 APhA Career Pathway Evaluation Program survey in this career area. Seventy-two percent of the respondents had an entry-level degree in pharmacy, with 24% having earned a PharmD degree. Twenty-nine percent of respondents had a residency or fellowship. Seventy-four percent reported an advanced degree (PhD). An additional 11% indicated certificate training of some kind. Respondents’ average age was 51 years old. More than half (63%) of respondents were male.

Income data show that over half (56%) earn over $110,000 per year, with 17% earning greater than $150,000. These salary figures include consultative fees that are received. The average time worked per week was 50.5 hours. The majority of respondents indicated that they were satisfied with their work, with 57% indicating “extremely satisfied” and 34% indicating “somewhat satisfied.” On a similar scale, respondents said that they felt their work was challenging, with 54% indicating “extremely challenging” and 40% indicating “somewhat challenging.”

One Ohio respondent summed up the thoughts of others regarding satisfaction for the position, stating the most appealing aspects of the job are: “The interaction with students [and] the ability to work on projects that you truly enjoy and are interested in.”

Insider’s Perspective

What aspects of the job are most appealing?

Thirty-five percent of the respondents said the most appealing aspect of their work was “working with students.” The second highest ranked item was “research,” cited by 24% of the respondents. One
respondent indicated that appealing aspects of the position included “presenting science information for pharmaceutical application.” Working on clinical trials, academic freedom, and flexibility were cited in comments as positive aspects of the position.

What aspects of the job are least appealing?

Among the least appealing aspects for these faculty members included committee work and meetings, administrative work, grant writing, and a heavy workload. Working within a large organization, such as a university, usually requires a considerable administrative workload in addition to teaching and research responsibilities.

What advice should students and practitioners consider when selecting the option of academia in the pharmaceutical sciences?

One respondent wrote: “This aspect of pharmacy is only for those that love learning, love people, and want to work hard to make a difference for everyone.”
Pharmacy Benefit Management  
Holland Code: EIC

Background

Historically, a pharmacy benefit manager (PBM) is a third-party administrator of prescription drug programs. PBMs are primarily responsible for developing and maintaining the formulary, contracting with pharmacies, negotiating discounts and rebates with drug manufacturers, and processing and paying prescription drug claims. For the most part, they work with self-insured companies and government programs striving to maintain or reduce the pharmacy expenditures of the plan while concurrently trying to improve health care outcomes.

Today, PBMs also offer programs that provide value and flexibility to participants to help control prescription costs. Some of these areas include information about tablet splitting, lower-cost therapeutic alternatives, tiered trial of specific medications in a therapeutic class, evaluating clinical programs for large populations, medication therapy management programs and mail order service.

PBM companies can be very diverse, ranging from small to large in size. Pharmacists who are employed as PBMs spend 23% of their time on data management followed by 17% on project/case management. Thirteen percent of their time is spent on business/organization/department management and 12% on both medication management and “other”. The remainder of their time is divided among a variety of areas.

Characteristics

Forty-two pharmacists from PBMs responded to the 2012 APhA Career Pathway Evaluation Program survey. Among the respondents, 65% had earned a PharmD degree. Thirty-five percent had earned an advanced degree (MS, MBA, or “other degree”). Twenty-five percent had completed a residency, 10% had completed a fellowship and 20% had earned a certificate. The mean age of respondents was 44 years old. Forty-five percent were male. Less than half (45%) identified themselves as being in management. Only 6% of these pharmacists reported that they earn less than $100,000. The remaining 94% reported annual income in excess of $100,000 with 24% indicating they earn $150,000 or more. PBM pharmacists work an average of 44 hours per week.

Forty-six percent reported that they are “extremely satisfied” in their positions with 37% indicating they are “somewhat satisfied.” Similarly, 56% report being “extremely challenged” with their work and 37% report being “somewhat challenged.”

Insider’s Perspective

What aspects of the job are most appealing?

Responses to this question were widely variable. Some examples are: “Client interaction,” “constantly changing issues and challenges; flexible schedule,” “researching and evaluating clinical studies and other peer-reviewed literature,” and “the opportunity to change pharmacy to a provider profession.”

What aspects of the job are least appealing?

Some respondents didn’t enjoy “sitting at a desk for 8-10 hours a day,” “the day-to-day functions – answering emails,” “statistics,” and “paper work.” One respondent said “we do not have patient contact, I miss working with patients helping provide them solutions.” A respondent from Wisconsin stated concern about “long hours.” While a Connecticut pharmacist listed a least appealing aspect stating, “There is no direct contact with patients, but there certainly is patient impact.” This was reinforced by a pharmacist from Washington who indicated the “lack of patient/provider contact” as a concern.
What advice should students or practitioners consider when selecting the option of working in pharmacy benefit management?

Many of the respondents indicated that someone considering a career as a PBM pharmacist should have an understanding of economic principles and pharmacoconomics. One pharmacist stated that colleagues interested in PBM “must have a strong interest in pharmacoconomics and understanding of business practices.” Additionally, many indicated the importance of not having an uninformed bias about the role that PBMs play in cost control because the work is much broader than this area.

Adapted from the American Pharmacists Association
Pharmacy Informatics  
Holland Code: CIR

Background

It is impossible to imagine a pharmacy practice environment that is not heavily supported by information technology (IT). As the first health care profession to widely adopt computers, pharmacy has a history of utilizing IT to support patient care. Pharmacy informatics is a unique field that brings people, information, and systems together to support safe and effective medication-related outcomes. Pharmacy informaticists work collaboratively with other pharmacists, physicians, nurses, information systems personnel, and a variety of other health care professionals. At the end of the day, pharmacy informaticists’ goal is to ensure that appropriate systems are in place to support an informed practice environment. These systems include e-prescribing, computerized prescriber order entry (CPOE), electronic medical records (EMR), bar code dispensing and administration systems, and automated dispensing cabinets, to name just a few.

All PharmD programs are required to provide pharmacy informatics education. Some programs provide elective and experiential pharmacy informatics education. PharmD graduates can also pursue additional education and training through residencies, fellowships, and graduate school. Pharmacy informaticists are employed by hospitals, information systems companies that support acute and ambulatory care, governmental agencies, colleges of pharmacy, knowledge vendors (First DataBank, Multum, etc.), and a variety of other opportunities. Through their involvement with the systems that support patient care, pharmacy informaticists are able to have a broad impact on patient care.

Pharmacists’ responsibilities

Pharmacists have unique, comprehensive knowledge about the safe and effective use of medications. More importantly, pharmacists understand core pharmacy operations and have developed expertise in end-to-end medication-use management, including communication with other information systems. Pharmacists provide the expertise to effectively translate and seamlessly communicate the language of medication use across the continuum of care. They can interpret and implement requirements to ensure the safe and comprehensive communication of medication orders. An experienced pharmacist is skilled in the use of electronic medication-order-entry systems and has knowledge of human factor issues (e.g., interpretation of ambiguous clinical data) and the development of interfaces to disparate applications and systems.

Currently, there are many paths to becoming a pharmacy informaticist, with a growing number of training and residency programs focusing on this area. Although some pharmacy informaticists have formal academic or experiential training, the typical pharmacy informaticist is a pharmacist who has knowledge of computer systems, medication-use processes, safety issues, clinical management of medications, drug distribution, and administration and has developed extensive expertise in using technology to support these activities. Pharmacy informaticists are well suited to address the myriad issues involved with health care technology initiatives and provide leadership in the field of medical informatics. The pharmacy informaticist’s responsibilities include active participation and leadership in all medical informatics activities that support medication use; education of pharmacy students, pharmacists, pharmacy technicians, health care colleagues, and administrators; and research on the core areas of medical informatics.

How to learn more about pharmacy informatics

✔ Talk with the Informatics professor at your school; seek out and interview working professionals.  
✔ Take any didactic informatics electives your school offers.  
✔ Try to think “out of the box” to distinguish human error from technological malfunction.
- Ask questions about the technology used in the pharmacy environment in which you may work.
- Consider an elective experiential rotation focusing on pharmacy informatics.
- If you are considering a residency, look for an institution with elective rotations in informatics or sites with a PGY-2 Informatics Pharmacy Residency.

Adapted from the American Association of Colleges of Pharmacy and American Society of Health-System Pharmacists
Pharmacy Law/Regulatory Affairs/Public Policy
Holland Code: EIC

Background

This profile is a compilation of three different groups, however they are related in many ways. They are occupied with laws and regulations as well as the population-based impact of their work. Pharmacy law looks specifically at those laws and regulations that govern pharmacists, the pharmaceutical industry, and the profession. These pharmacist lawyers work in the areas of patent law, academia, medication-related litigation, boards of pharmacy, and related careers. The American Society for Pharmacy Law is an organization that provides insights for its members regarding food, drug, and medical device policies.

Regulatory affairs pharmacists are concerned with the regulations and guidelines for clinical trials and other aspects of human research. As most countries require some type of government approval for a product to reach the market, there are regulations that must be followed in conducting a clinical trial. A career in regulatory affairs would involve pharmacists working through a variety of processes that are designed to protect human subjects participating in a trial. Pharmacists in this field can earn the professional credential of Regulatory Affairs Certification (RAC).

A pharmacist in public policy works to determine how regulations, guidelines, and laws affect the patients for whom pharmacists provide care. In addition, professionals in this field may reach beyond pharmacy to population-based analysis not only in the United States but across the globe.

Characteristics

Thirty-seven pharmacy law, regulatory affairs, and public policy pharmacists responded to the 2012 APhA Career Pathway Evaluation Program survey. Seventy-five percent of respondents held an entry-level BS pharmacy degree; 30% held the PharmD degree; and 55% indicated an advanced degree (MA, MS, MBS, JD, PhD, or other). Twenty percent had been through a residency program, 15% had been through a certificate training program, and 20% reported having been through some form of other training. Respondents’ average age was 51 years old (one of the oldest average ages for the APhA Career Pathway Evaluation Program survey). Fifty-five percent of respondents were female. Income data show 21% earn between $80,000–$100,000, while 74% earn $100,000 or more per year, with 37% earning greater than $150,000. The average time worked per week was 35 hours.

An overwhelming majority of respondents indicated that they were satisfied with their job, with 63% indicating “extremely satisfied” and 34% indicating “somewhat satisfied.” Similarly, most respondents indicated that they felt the job was challenging, with 51% indicating “extremely challenging” and 37% indicating “somewhat challenging.”

Insider’s Perspective

What aspects of the job are most appealing?

Because of the variety of the roles in pharmacy law, regulatory affairs, and public policy, the most and least appealing aspects can overlap. One of the most appealing aspects of these roles, cited by 25% of pharmacist respondents, was their impact on public and patient safety. Many pharmacists working in these areas make decisions that affect the overall process for clinical research, patient care, and public safety relative to medications. Nineteen percent of the respondents cited the diversity of issues that they work on as one of the most appealing aspects of their jobs. Flexible work hours also were indicated as an appealing aspect by 19% of respondents. The daily challenges and changes in the field were cited by 16% of respondents as some of the most appealing aspects of their work. Several respondents also mentioned travel as a plus (although this was also a least appealing factor for other respondents).
One respondent stated that the job requires “always dealing with current ‘hot’ issues; New challenges every day.” Another respondent indicated having the opportunity for “international travel/exposure to multiple cultures,” which this individual found appealing. Finally, one respondent provided insight into the diversity of issues by stating that “the work is always varied, and provides an opportunity to support large scale changes in health care systems.”

What aspects of the job are least appealing?

Administration (bureaucracy) and politics were cited by 25% of pharmacists as one of the least appealing aspects of their role. These pharmacists are very satisfied with the work they perform, but do not enjoy dealing with the politics in their work. One respondent summed up this aspect when stating having a hard time “dealing with company management that does not understand the difference between sales and marketing and regulatory affairs and public policy.” Interestingly, travel was cited by 16% of the respondents. As noted earlier, what is an appealing aspect of a role to one pharmacist may be unappealing to another. The international travel quoted above by one respondent as appealing is countered by another who states having “excessive travel and time away from home” as a least appealing aspect.

What advice should students and practitioners consider when selecting the option of becoming a pharmacy law, regulatory affairs, or public policy pharmacist?

One respondent provided a broad-based statement that captured what many were also saying: student pharmacists “need the ability to study and understand federal and state regulations and apply them to diverse practice settings in addition to various accreditation program criteria while keeping public and patient safety top of mind.” Another respondent summed up the patient and public safety side that is appealing to the group: “always question what is in the best interest for patients.”

Adapted from the American Pharmacists Association
Specialty Pharmacy
Holland Code: IEC

Background

The definition of specialty pharmaceuticals and specialty pharmacy continue to change as the field begins to segment itself from traditional pharmacy. Many pharmacy organizations — including the American Pharmacists Association (APhA), the Association of Managed Care Pharmacy (AMCP), the National Association of Chain Drug Stores (NACDS), and the Specialty Pharmacy Association of America (SPAARx)—have provided definitions of specialty pharmacy.

For this background section, information is provided from the NACDS document titled Specialty Pharmacy in Community Pharmacy: The Time Is Now—and How! The basic premise is that a specialty pharmacy dispenses medications (injectable, intravenous, or oral) in certain chronic and life-threatening disease states. Specific clinical monitoring is required for some of the medications. Many of the medications also have a high cost associated with their use and may have adverse event profiles that are more complex than other medications. As noted by NACDS:

Specialty pharmacy is defined as the service created to manage the handling and service requirements of specialty pharmaceuticals, including dispensing, distribution, reimbursement, case management, and other services specific to patients with rare and/or chronic diseases.

The focus on appropriate drug utilization in conjunction with the ongoing monitoring of patient care is an essential element of the specialty pharmacy field. Examples of the types of diseases addressed within the scope of specialty pharmacy services include:

- Cancer
- Crohn’s disease
- Gaucher’s disease
- Growth hormone deficiency
- Hemophilia
- Hepatitis C
- HIV/AIDS
- Immune disorders
- Infertility
- Multiple sclerosis
- Pulmonary hypertension
- Rheumatoid arthritis
Characteristics

Twenty-seven pharmacists in specialty pharmacy responded to the 2012 APhA Career Pathway Evaluation Program survey. Thirty-five percent of respondents held an entry-level pharmacy degree; 65% held the PharmD degree. Thirty percent indicated they held an advanced degree (MA, MS, MBS, PhD, or other). Thirty percent had been through a residency program, 30% had been through a certificate training program, and 5% reported having been through some form of other training. Respondents’ average age was 46 years old. Forty percent of respondents were female.

Income data show 13% earn between $80,000–$100,000, while 51% earn $100,000 or more per year, with 13% earning greater than $150,000. The average time worked per week was 41 hours.

An overwhelming majority of respondents indicated that they were satisfied with their role, with 61% indicating “extremely satisfied” and 31% indicating “somewhat satisfied.” Similarly, most respondents indicated that they felt the job was challenging, with 54% indicating “extremely challenging” and 42% indicating “somewhat challenging.”

Insider’s Perspective

What aspects of the job are most appealing?

Specialty pharmacy is a growing field and the practice environment itself is changing. One of the most appealing aspects of these roles, cited by 24% of pharmacists, was their work schedule. This was followed by 12% who indicated that the benefits provided to them also are a very appealing aspect of the work. Respondents indicated that they spend 32% of their time on patient care services including counseling when dispensing a medication. Additional comments included the appealing aspect of working with a team of professionals and the challenges of clinical practice in the specialty area. One respondent summed up many of the thoughts expressed when stating that the role was appealing because of “work with other pharmacists and nurses, and have the ability to work from home when needed—have a flexible schedule. The benefits package is tremendous.”

What aspects of the job are least appealing?

Specialty pharmacists listed three areas equally as least appealing aspects of the role in an open-ended section of the survey. Travel, volume of prescriptions processed, and low patient interaction were cited by 12% of pharmacist as least appealing aspects of their roles. An important distinction to make is the different roles that pharmacists have in the specialty area. Some roles are more dispensing based while others are more patient-centered information based. One respondent indicated that “some travel is involved, which leads to lots of communication issues.” Another just used one word to describe the least appealing aspect of the work—“travel.”

What advice should students and practitioners consider when selecting the option of specialty pharmacy?

One practitioner noted that students should “try to work in a specialty pharmacy, ask a lot of questions, and observe the clinical and financial aspects of the practice.” Another added, “If students are able to think creatively and have the patience to address and resolve issues, specialty pharmacy will employ many of these skills including many they will learn that are not taught in pharmacy school.”

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