



Getting Started in a
Pharmacy
Residency

Chapter 1

Deciding on Postgraduate Training

By Deanna Kania and Monica L. Miller

Why should you pursue postgraduate training? A key reason is to gain a competitive advantage in the job market by building specialized skills and deepening your experience. Options include completing a pharmacy residency, earning an advanced degree, such as a master's or PhD, or doing a fellowship in an academic health center, the pharmaceutical industry, or other setting where you can pursue in-depth research. Today, residency programs are a popular choice for postgraduate training in pharmacy, with close to 20% of recent graduates enrolling in Postgraduate year 1 (PGY1) residencies.

In the past 20 years, the number of pharmacy residency programs has multiplied tenfold, to more than 1400. Although this number includes both PGY1 and Postgraduate year 2 (PGY2) programs, the majority of programs—roughly 900—are PGY1. New programs are springing up because of demand by employers looking for residency-trained pharmacists, and also because of pharmacy's expanding role in direct patient care services. Many experts believe that eventually all pharmacists who provide direct patient care will be required to complete a residency before entering practice.

The profession of pharmacy continues to grow, reinvent itself, and become more competitive every year. To set myself apart from other pharmacists and job candidates, a residency was the perfect place to start. Additionally, the training that is received throughout the residency year is unmatched. The ability to be exposed to such a variety of practice settings and specialty areas is unique to the experience and cannot be gained in the regular job setting. For me, my residency was the first step toward obtaining career goals.

—Amanda Bishop

Residency training gives you extensive, hands-on experience in working with patients. Sidebar 1-1 provides a detailed summary of important benefits of completing a residency. A few general reasons residencies are worthwhile include the following:

- Building a network of professional contacts and colleagues in your field, which will be an important source of information, support, and career advice for years to come.
- Figuring out what type of practice suits you the best.
- Getting a broader view of the pharmacy profession, learning to work comfortably with other members of the health team, and developing leadership skills.

My Residency Choice

When I (Monica) decided to complete a residency, my reasons were simple: I wanted to gain expertise in caring for patients, learn how to conduct pharmacy practice-based research, and develop my teaching skills. My career goal was to become a clinical faculty member with a college or school of pharmacy.

After searching and interviewing at various programs, I selected a two-year pharmacotherapy residency that met my main objectives—giving me clinical experience and the opportunity to conduct research over a period longer than a year. The program also allowed me to earn a master's of science in pharmacy. I completed the program, offered through The University of Texas Health Science Center in San Antonio and the University of Texas at Austin, in 2008.

I wanted to pursue a career in pharmacy outside the norm of community and hospital staff positions. I was unsure whether I wanted to do clinical work or shift directions entirely to do more administrative/public health type work. I felt that pursuing a residency would help me gain experience to decide if this career path was right for me and help broaden the options for what my next move would be.

—Isabel Hagedorn

Among the many things my residency program taught me was that I could handle a heavier workload—and more stress—than I thought, which ultimately boosted my confidence for pursuing a clinical faculty member position. It prepared me for the real world by giving me independence

Sidebar 1-1. Benefits of Completing a Residency

Completing a residency program offers many benefits, some of which can be quantified, such as knowledge gained and skills developed. Others are more intangible, such as the relationships you form and the opportunities that become available to you. Below is a list of key benefits.

Improved clinical skills, confidence, and critical thinking. You gain more experience in direct patient care, project development, management, and other activities where you can apply knowledge you learned in the pharmacy curriculum and expand your problem-solving skills.

Competitive advantage in the job market. Many pharmacy positions today, especially those associated with direct patient care, require some level of residency training. Both the American College of Clinical Pharmacy (ACCP) and the American Society of Health-System Pharmacists (ASHP) House of Delegates have indicated that by the year 2020, completing an ASHP-accredited residency should be required of all new college of pharmacy graduates who will be providing direct patient care.^{1,2} In some fields a residency is already a prerequisite for a job, and this trend will continue as the job market becomes more competitive. Additionally, as the practice of pharmacy keeps shifting further from a product-oriented profession to one focused on patient care, pharmacy graduates will need to obtain the knowledge, clinical experience, and problem solving, communication, leadership, and interpersonal skills needed to optimize outcomes and excel in managing patients.

More effective teaching. Every day, pharmacists are teachers to patients, caregivers, other health care professionals, students, and colleagues. Residency programs often offer many teaching opportunities, which allow you to become comfortable in teaching roles and adapt to different learners. You may precept student pharmacists completing rotations during pharmacy school, teach didactic lectures, provide continuing education or staff development programs, conduct nursing or physician in-service training, or lead community service activities, such as brown bag lunches or health fairs. You may also have the opportunity to take part in formal teaching certificate programs.

Networking opportunities. Each residency program has preceptors who will work with you as a coach and mentor, modeling clinical skills and providing valuable lessons in patient care, communication, and leadership. You may have a chance to work with different residents, depending on the size of the

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Sidebar 1-1. Benefits of Completing a Residency, *continued*

residency, and to interact with past program participants. You may be able to build relationships with physicians, other health care professionals, and academicians—relationships that open doors and help you with future career planning. You also can network at regional residency conferences and professional meetings.

Development of leadership skills. As a resident, you may serve on committees in your institution or take on leadership roles in the department or service. You will get to work on a research project and will likely be exposed to other project management opportunities throughout the year. You also may see how pharmacy is practiced in different parts of the country and in different settings, which exposes you to new ideas and different ways of thinking and helps you craft your personal practice style.

and many responsibilities to juggle at one time. I had strong mentors and graduate advisors to help guide my path, but they also allowed me freedom to explore different pharmacy and research opportunities. In addition, my residency helped me begin to develop my teaching skills.

Along the way, I ran into a few surprises—such as learning that I enjoyed internal medicine in a hospital setting. Before starting my residency, I thought I would definitely become an ambulatory care pharmacist. I also discovered that I liked working on research projects—and I don't mean the stuff I did back in chemistry lab, which is what the word "research" used to conjure up for me. I found it utterly absorbing to work on research projects that seek to answer clinical questions.

The long hours, hard work, and lack of sleep were worth it, because I'm now a clinical assistant professor at Purdue University with a practice site at a county hospital as an internal medicine specialist. I'm also a member of a global health team in the Purdue Kenya Program, which focuses on providing and expanding clinical pharmacy services in Western Kenya. I feel fortunate to be able to care for patients in both the United States and abroad, to educate students and residents, and to conduct research to help improve patient care. Without completing a residency program, I don't think I'd have the skills to be where I am—and I doubt if my job would be as professionally rewarding as the one I have.

Residency Program Overview

As defined by ASHP, the accrediting body for all accredited pharmacy residencies, a residency is “an organized, directed, postgraduate training program in a specific area of pharmacy practice.”³ It focuses on helping you develop the knowledge, attitudes, and skills to become a competent practitioner responsible for managing medication-use systems and accountable for optimal drug therapy outcomes. Residency programs are offered in many settings, including health systems, community pharmacies, long-term-care facilities, and managed care organizations.

Residency training gives you extensive, hands-on experience in working with patients.

Residency training is primarily divided into two postgraduate years. PGY1 is more generalized, exposing you to a broad range of clinical scenarios and disease states. PGY2 programs allow you to specialize in an advanced area of pharmacy practice and increase the depth of knowledge, skills, and abilities you acquired during the PGY1 year. Before you can take part in a PGY2 residency, you must complete a PGY1 program. PGY2 programs are usually separate from PGY1 programs and require their own application and interview process. Some PGY1 programs are designed to be two years and participants in these programs sign a two-year contract with the site.

Postgraduate Year One (PGY1)

PGY1 residency programs provide a general pharmacy experience in hospitals and health systems, community practices, or managed care environments. ASHP has set standards and desired outcomes for these residency programs, which differ slightly based on the setting (see Tables 1-1 and 1-2).⁴

Hospital or Health-System PGY1 Programs

ASHP has developed standards for accrediting residency programs to ensure that residents receive structured training with direct supervision in a variety of practice settings. During a PGY1 residency you gain experience managing acutely ill and ambulatory care patients and you get

Table 1-1 | Required Educational Outcomes for PGY1 Residency Programs

PGY1 Pharmacy Residency Program	PGY1 Community Pharmacy Residency Program	PGY1 Managed Care Pharmacy Residency Program
		Outcome R1: Understand how to manage the drug distribution process for an organization's members.
Outcome R1: Manage and improve the medication-use process.	Outcome R1: Manage and improve the medication-use process.	Outcome R3: Ensure the safety and quality of the medication-use system.
Outcome R2: Provide evidence-based, patient-centered medication therapy management with interdisciplinary teams.	Outcome R2: Provide evidence-based, patient-centered care and collaborate with other health care professionals to optimize patient care.	Outcome R2: Design and implement clinical programs to enhance the efficacy of patient care.
Outcome R3: Exercise leadership and practice management skills.	Outcome R3: Exercise leadership and practice management skills.	Outcome R6: Exercise leadership and practice management skills.
Outcome R4: Demonstrate project management skills.	Outcome R4: Demonstrate project management skills.	Outcome R7: Demonstrate project management skills.
Outcome R5: Provide medications and practice-related education and training.	Outcome R5: Provide medication and practice-related information, education, and/or training.	Outcome R4: Provide medication and practice-related information, education, and/or training.
		Outcome R5: Collaborate with plan sponsors to design effective benefit structures to service a specific population's needs.
Outcome R6: Utilize medical informatics.	Outcome R6: Utilize medical informatics.	

Source: Adapted from American Society of Health-System Pharmacists. Required and elective educational outcomes, goals, objectives, and instructional objectives for postgraduate year one (PGY1) pharmacy residency programs, 2nd edition—effective July 2008. Available at: <http://www.ashp.org/DocLibrary/Accreditation/Regulations-Standards/RTPPGY1GoalsObjectives.aspx>. Accessed May 20, 2012.

Table 1-2 | Elective Educational Outcomes for PGY1 Residency Programs

PGY1 Pharmacy Residency Program	PGY1 Community Pharmacy Residency Program	PGY1 Managed Care Pharmacy Residency Program
	Outcome E1: Provide public health programs for health improvement, wellness, and disease prevention to the community.	
		Outcome E1: Added knowledge and skills to manage the drug distribution process for the organization's members.
Outcome E1: Conduct pharmacy practice research.	Outcome E3: Conduct pharmacy practice research.	Outcome E7: Conduct pharmacy practice research.
Outcome E2: Exercise added leadership and practice management skills.	Outcome E4: Exercise additional leadership and practice management skills.	Outcome E4: Exercise added leadership and practice management skills.
		Outcome E2: Provide evidence-based, patient-centered medication therapy management with interdisciplinary teams.
Outcome E3: Demonstrate knowledge and skills particular to generalist practice in the home care practice environment.	Outcome E9: Demonstrate knowledge and skills particular to generalist practice in the home care practice environment.	
		Outcome E3: Added knowledge and skills to provide medications and practice-related information, education, and/or training.
Outcome E4: Demonstrate knowledge and skills particular to generalist practice in the managed care practice environment.	Outcome E5: Demonstrate knowledge and skills for successful community practice interface with the managed care or self-insured employer environment.	

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Table 1-2 | Elective Educational Outcomes for PGY1 Residency Programs, *continued*

Outcome E5: Participate in the management of medical emergencies.	Outcome E2: Participate in planning for and/or management of medical and public health emergencies.	
		Outcome E5: Participate in the process by which managed care organizations contract with pharmaceutical manufacturers.
Outcome E6: Provide drug information to healthcare professionals and/or the public.		
		Outcome E6: Conduct outcomes-based research.
Outcome E7: Demonstrate additional competencies that contribute to working successfully in the health-care environment.		Outcome E9: Demonstrate additional competencies that contribute to working successfully in the health-care environment.
	Outcome E6: Demonstrate skills required to function in an academic setting.	
	Outcome E7: Create a community pharmacy drug information library.	
	Outcome E8: Participate in the organization's formulary management processes.	
		Outcome E8: Participate in the management of business continuity.

Source: Adapted from American Society of Health-System Pharmacists. Required and elective educational outcomes, goals, objectives, and instructional objectives for postgraduate year one (PGY1) pharmacy residency programs, 2nd edition—effective July 2008. Available at: <http://www.ashp.org/DocLibrary/Accreditation/Regulations-Standards/RTPPGY1GoalsObjectives.aspx>. Accessed May 20, 2012.

exposure to many disease states and pharmacotherapy issues. You rotate through different areas for a well-rounded learning experience, committing no more than a third of the year to any one specialty area, such as oncology or pediatrics.⁴ For most rotation experiences, you work with a variety of preceptors, but this may not be true if you are at a small program or if one pharmacist covers several teams. You also get the opportunity to learn about drug information, drug-policy development, pharmacy administration, or practice management during rotations or longitudinal experiences throughout the entire residency year.

To learn about practice management, you are expected to function as a staff or clinical pharmacist within the department. Understanding an institution's distribution process gives you a good grasp of the importance of drug dosing, preparation, and delivery and how they relate to optimal clinical pharmacy decisions. The type of activities required of you and the time you must spend in the operational pharmacy (staffing) component of programs varies among institutions. Some options include:

- Working weekend shifts, such as every third weekend.
- Working one weekend evening per week.
- Being on call for designated periods each month.
 - Providing 24-hour clinical in-house coverage, which may require an overnight stay at the hospital.
 - Providing 24-hour coverage with availability via a pager, which requires accessibility via pager but no overnight stay at the hospital.
 - Being available for on-call clinical activities that may include code participation, pharmacokinetic assessments, antibiotic stewardship activities, nutrition support, and drug information services.

If you spend dedicated time on individual rotations or learning experiences in addition to carrying out the operational pharmacy component, you must comply with the Pharmacy Specific Duty Hours Requirements for the ASHP Accreditation Standards for Pharmacy Residencies, which are essentially your scheduled clinical and academic duties.⁵ Such duties include any activity that can meet a residency standard (health fairs, staff-

ing, rotations, teaching, and committee meetings). Each resident is not allowed to work more than 80 hours per week.

PGY1 residency programs in health systems differ based on the following:

- The overall health system, such as community hospital, academic medical center, or Veterans Affairs (VA) medical centers.
- The services the hospital or health system provides.
- The facility's affiliation with a college of pharmacy.

Table 1-3 lists some characteristics and differences in PGY1 residencies according to type of setting. Academic medical centers or large health systems tend to have more specialized patients and perform more interprofessional rounds because they have affiliations with schools of medicine, nursing, or pharmacy, as compared with community hospital settings. Community hospital residencies may have fewer residents, which can allow for more individualized training and learning opportunities that may not happen in larger institutions. If the residency is in a government institution, you can get experience in collaborative practice models and patient-centered medical home (PCMH) models. The VA model for PCMH is called a Patient Aligned Care Team. Electronic medical record systems and other technologies are integrated throughout national systems, such as the VA, whereas in local health-systems providers do not usually have access to patient records outside of their network.

Programs affiliated with a school or college of pharmacy tend to offer formalized teaching instruction, many teaching opportunities, and even teaching certificate programs, which can be important if you plan to seek an academic position when you complete your residency. Finally, some PGY1 programs also offer PGY2 programs at the same site, which is an advantage for those who want to pursue specialized training after the PGY1 year.

If you graduate from a PGY1 health-system residency and wish to pursue a PGY2 program, you can choose from a variety of practice settings, including academia. You can also move into a position as a full-time clinical pharmacy specialist, clinical coordinator, or clinical faculty member. Or you might go for a hybrid position with a mix of traditional dispensing roles and patient care activities.

Table 1-3 | Differences in PGY1 Health-System Residencies

	Academic Medical Centers or Large Health Systems	VA Medical Centers	Community Hospitals or Smaller Health Systems
Rounding	Daily rounds and collaboration with large interprofessional teams	Daily rounds and collaboration with interprofessional teams	May have less formalized daily rounds with more independent monitoring
Patient Population	May involve some specialized patient populations such as pediatrics, transplant, oncology, etc., in addition to general medicine and trauma patients	U.S. armed service veterans; large ambulatory care programs in a variety of disciplines; less acute care	Typically involves a generalized patient population in the areas of internal medicine, cardiology, common infectious diseases, etc.
Technology	Is usually integrated throughout entire system	A nationwide computer system	Is usually present but may not yet be integrated into entire system
Size of Residency Program	Typically a larger number of residents, which brings the potential to expand networking opportunities and collaborate on activities and projects; may have larger variety of preceptors and less flexibility with rotation schedule	Often small to medium programs	Often smaller numbers of residents, which brings the potential for more flexibility of rotations and learning opportunities, individualized training, and consistent feedback
Teaching Opportunities	Depending on affiliations with colleges or schools of pharmacy, it's common to have didactic teaching opportunities, a teaching certificate program, and precepting opportunities	Usually has precepting opportunities, may have a teaching certificate program, may be affiliated with colleges or schools of pharmacy	Usually has precepting opportunities and may have a teaching certificate program
Additional Training	Common to have PGY2 programs available at same site	Common to have PGY2 programs available at same site	May have PGY2 programs available at same site

Community Practice PGY1 Programs

The American Pharmacists Association established Community Pharmacy Residency Programs (CPRPs) in 1986 and partnered with ASHP to develop accreditation standards for CPRPs.⁶ Practice training sites include chain, independent, supermarket, and health-system pharmacies. Community pharmacy residencies give you the opportunity to develop new patient care programs and work to change the community pharmacy setting. Specifically, you will:

- Provide evidence-based, patient-centered care in collaboration with other health care professionals.
- Focus on public health programs for wellness and disease prevention.
- Learn how to develop innovative pharmacy services to lead the community pharmacy profession into a more focused patient care arena.

Although you receive structured training, it is often longitudinal, in which you achieve objectives and have your learning assessed over a longer period of time than in hospital or health-system residencies. You typically have a primary preceptor for the entire residency year. In addition, you may take part in individual rotations for electives, specialty clinics, or pharmacy administration—a component of the residency program in which you devote time to business plan composition, new service development and implementation, marketing, and technology.

Like some health-system PGY1 programs, many community pharmacy residencies are affiliated with colleges and schools of pharmacy, which can give you opportunities to teach, get formalized teaching instruction, and take part in teaching certificate programs. In contrast to health-system PGY1 programs, community pharmacy residencies have an expectation that a resident will learn how to develop, implement, and evaluate a new or existing patient care service.⁶

If you graduate from a PGY1 CPRP, you may complete PGY2 programs or fellowships in various settings, including community pharmacy practice or academia, or you may accept a position as pharmacy owner, clinical coordinator or manager, clinical faculty member, or full-time clinical specialist in patient care activities. You may also elect a hybrid position that mixes traditional dispensing roles and patient care activities.

Managed Care PGY1 Programs

In managed care pharmacy, an expanding area of the health care field, efforts are made to balance cost efficiency with quality patient care while coordinating medical services and maintaining the best possible patient outcomes. The Academy of Managed Care Pharmacy worked with ASHP to design the standards used to accredit managed care residency programs,⁷ which commonly occur within pharmacy benefit manager organizations, health maintenance organizations (HMOs), or health plans.

Managed care PGY1 pharmacy residencies give you experience in prescription benefits management, prior authorizations, drug utilization reviews, outcomes research, and specialty medication therapy management. You learn about resource utilization, preventive care benefit services, and disease state management programs through structured training in all of these areas. As in community pharmacy programs, the training is often longitudinal, so you achieve objectives and are assessed based on activities that span the entire residency as opposed to being assessed based on each monthly rotation completed.

In managed care residencies, you typically have few to no “staffing” requirements and you get less direct face-to-face interaction with patients than in other residency settings. Even so, you still participate in patient-centered care by managing cases, reviewing medication histories, and following up on recommendations.

If you graduate from a PGY1 managed care residency, you are likely to obtain positions with HMOs, pharmaceutical companies, medication therapy management vendors, consulting firms, drug information centers, or the VA health care system. You will probably start as a clinical managed care staff pharmacist, and then you may move into managerial and directorship roles.

Postgraduate Year Two (PGY2)

PGY2 residency programs train the resident in a designated specialty area. Unlike PGY1 programs, PGY2 programs are not classified as being in a hospital/health system, community, or managed care setting; they can be in a variety of areas within pharmacy. As you can see in Table 1-4, many options are available for a second, more advanced year of residency

Table 1-4 | Options for PGY2 Residencies

<ul style="list-style-type: none">• Ambulatory Care Pharmacy• Cardiology Pharmacy• Critical Care Pharmacy• Drug Information• Emergency Medicine• Geriatrics Pharmacy• Health-System Pharmacy Administration• Infectious Disease Pharmacy• Informatics• Internal Medicine Pharmacy• Medication-Use Safety• Nuclear Medicine Pharmacy• Nutrition Support Pharmacy• Oncology Pharmacy• Pain Management and Palliative Care• Pediatrics Pharmacy• Pharmacotherapy• Pharmacy Residency Training in an Advanced Area of Practice*• Psychiatric Pharmacy• Solid Organ Transplant Pharmacy

**Requires the development of outcomes, goals, and objectives.*

Source: American Society of Health-System Pharmacists. Residency accreditation. <http://www.ashp.org/menu/Accreditation/ResidencyAccreditation.aspx>. Accessed May 20, 2012.

training. Table 1-4 is not an exhaustive list, but it does give an idea of accredited programs recognized by ASHP at the time this book went to press. Some PGY2 programs may take longer than a year to complete, especially if they are offered in combination with a master's degree, fellowship, or other type of training program. Similar to PGY1 programs, accredited PGY2 programs include both required and elective components, which are individualized for each specialty area.⁸ But in contrast to the approach in many PGY1 programs, PGY2 programs may have residents work with only a few preceptors throughout the year. Completing PGY2 programs can prepare you for specialized clinical positions, research, academia, or leadership roles.

Nontraditional Programs

Nontraditional programs, which are designed for pharmacists already in practice, are becoming more common as the need grows for health systems to expand pharmacy services within their institutions. You usually complete the residency requirements over two to three years, depending on the site, but the program's goals and objectives must follow ASHP standards to maintain accreditation. If you're a nontraditional resident, you continue to serve as a staff or clinical pharmacist at your institution, and your residency rotations are scheduled around your service commitments.

To apply for some of these programs, you may have to be an employee of the institution for a certain period before the application process, and you may have to agree to a certain length of service after the residency is complete. Advantages that pharmacists gain from taking part in such programs include:

- Completing a residency program while maintaining employment and a full pharmacist salary.

I had not anticipated working in the hospital setting after pharmacy school, so I had focused on other skills during my last couple years of school and during rotations. After realizing I was not stimulated by retail pharmacy, I found a job working in a hospital as a staff pharmacist. However, I did not feel satisfied with how much I knew. I wanted to dig deeper into disease state management skills I could utilize in the hospital setting. So I sought a residency to help grow my knowledge base and find an area to specialize in.

—Eve McMichael

Chapter 1

- Balancing residency training with family commitments.
- Receiving advanced training from a structured practice experience.

Benefits to the site may include:

- Having an advanced staff development program.
- Allowing for the potential expansion of clinical services.
- Increasing the likelihood of employee retention.

Accredited versus Nonaccredited Programs

Residency programs can be either accredited or nonaccredited. ASHP, which first started accrediting pharmacy residencies in 1962, is the only accrediting body for pharmacy residencies. To become accredited, an institution or site must demonstrate compliance with established standards of practice and offer a residency program that meets the requirements of training. Accredited programs undergo an on-site peer-review survey every six years. Survey teams comprise residency directors, preceptors, and other pharmacists knowledgeable about the residency process. Additionally, programs are required to submit written materials about the program at least every three years to maintain their accreditation in good standing.

The peer-review process ensures that accredited programs have excellent practice environments and that they achieve all requirements for the site, preceptors, and residency director. To complete accredited programs, residents must demonstrate proficiency in a set of defined outcomes and goals. The accreditation process helps ensure consistency among programs regardless of practice setting or physical location.

For various reasons, not all residencies seek accreditation status, such as having a unique program that does not fit a predetermined classification and set of standards. Some programs are not accredited simply because it is their first year of existence and, although they have started the accreditation process, they are not eligible to earn accreditation until their first resident has graduated from the program. If a program that interests you is not accredited,

it is important to assess why not and consider the reasons in your decision-making process. To be part of the ASHP Resident Matching Program (the Match), which places applicants into pharmacy residency training positions in the United States, a residency must be accredited or must have initiated the process. (For further information on the Match, see Chapter 8.)

Fellowship Programs

A fellowship is an individualized postgraduate training program that is more research focused and less clinically oriented than a residency program. Programs are usually affiliated with a college or school of pharmacy, an academic health center, or the pharmaceutical industry (see Chapter 9). The purpose of fellowship programs is to develop independent and collaborative researchers.

If you pursue a fellowship, you build competency in the scientific research process, including how to design studies, obtain grants, collect, analyze, and interpret data, present research and findings, and submit manuscripts for publication. Before you start your program, you are expected to have practice skills relevant to the fellowship area—skills that you can acquire through previous practice or residency experience.⁹ Fellowships generally take a minimum of two years to complete, but a few one-year programs are available, as well.

Graduate Degree Programs

The United States has many graduate degree programs, and each has different characteristics, including duration, content, requirements for candidates, program requirements for coursework and research, and so on. Pharmacy graduates who pursue master's degrees often choose science, public health, health care administration, or business administration. Common doctorate programs pharmacy graduates seek out include education (EdD), doctorate of public health, and doctorate of social and administrative pharmacy.

You can earn some advanced degrees in conjunction with doctor of pharmacy (PharmD) programs, residencies, and fellowship programs. Although it's beyond the scope of this book to discuss each type of program in detail,

you can find more information on the websites of pharmacy colleges and schools, as well as on professional websites such as the ACCP directory of residencies, fellowships, and graduate programs and the ASHP residency directory site.

Conclusion

Residency programs are often the first step in making the transition from PharmD curriculums to clinical practice in health systems, community settings, or managed care. Participation in residency programs brings you both tangible and intangible benefits, such as advanced knowledge, solid skills, valuable contacts, in-depth exposure to new practice areas, and enhanced confidence in your clinical and leadership abilities.

I decided to pursue a residency after I'd been practicing in the community retail setting for three years. During my third year as a staff pharmacist at Kroger Pharmacy, I discovered the combined program offered by Duke and GlaxoSmithKline and thought it sounded like a perfect fit for what I was looking for.

I received many raised eyebrows when I told other pharmacists, residents, and students that I wanted to go back for a residency. My advice to anyone out there is that if you are motivated and passionate about specialization, it is never too late to pursue residency training. Leaving my position in community practice was not a difficult decision because I was excited and motivated to begin my new career path.

—Megan Zolman

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