5-17-2021

Enhancing pharmacy residency training program quality and efficiency through alignment of pharmacy residency programs within a multihospital health system

James S. Kalus
Henry Ford Health, JKALUS1@hfhs.org

Julie K. Dagam

Michael Hoying

Diane Erdman

Katherine D. Mieure

See next page for additional authors

Recommended Citation

Kalus JS, Dagam JK, Hoying M, Erdman D, Mieure KD, Melroy MJ, Beehrle-Hobbs D, and Silvester JA. Enhancing pharmacy residency training program quality and efficiency through alignment of pharmacy residency programs within a multihospital health system. Am J Health Syst Pharm 2021.

Authors

James S. Kalus, Julie K. Dagam, Michael Hoying, Diane Erdman, Katherine D. Mieure, Michael J. Melroy, Donna Beehrle-Hobbs, and Janet A. Silvester

Enhancing pharmacy residency training program quality and efficiency through alignment of pharmacy residency programs within a multihospital health system

Am J Health-Syst Pharm. 2021; XX:0-0

James S. Kalus, PharmD, FASHP, Department of Pharmacy, Henry Ford Hospital, Detroit, MI, USA

Julie K. Dagam, PharmD, BCPS, FASHP, Department of Pharmacy Services, Aurora St. Luke's Medical Center–Aurora Health Care, Milwaukee, WI, USA

Michael Hoying, RPh, MS, Cleveland Clinic Akron General Medical Center, Akron, OH, USA

Diane Erdman, PharmD, BCPS, CDCES, CPPS, BCACP, FASHP, Ascension St. Joseph Hospital, Milwaukee, WI, USA

Katherine D. Mieure, PharmD, BCPS, Wake Forest Baptist Medical Center, Winston-Salem, NC, USA

Michael J. Melroy, PharmD, MHA, BCPS, FASHP, New Hanover Regional Medical Center, Wilmington, NC, USA

Donna Beehrle-Hobbs, PharmD, West Palm Beach VAMC, West Palm Beach, FL, USA

Janet A. Silvester, PharmD, MBA, FASHP, American Society of Health-System Pharmacists, Bethesda, MD, USA

Address correspondence to Dr. Dagam (Julie.Dagam@aah.org).

Keywords: accreditation, alignment, multihospital health system, pharmacy residency, standardization

DOI 10.1093/ajhp/zxab205

Consolidation and formation of healthcare systems with multiple pharmacy entities under centralized leadership is common in today's healthcare marketplace.[1,2] The accreditation services division (ASD) of the American Society of Health-System Pharmacists (ASHP) estimates that there are as many as 500 health systems in which more than one accredited pharmacy residency program is conducted; with this trend, significant opportunity therefore exists to align residency training and the accreditation process. This alignment has potential to enhance the quality of residency training across programs through interventions targeted to capitalize on strengths and create process efficiencies. However, available guidance is limited for organizations desiring to standardize residency training program processes across a multihospital health-system pharmacy enterprise.

Members of ASHP's Commission on Credentialing collaborated to address this gap. This article identifies areas in the design and conduct of pharmacy residency programs that can be standardized across residency training programs within a multihospital health system or similar environment. The rationale for standardization is described within each area identified. Experiences from health systems that have successfully implemented standardized processes across multiple programs are summarized below and in Table 1. Resource needs and challenges that must be considered to advance this approach are also discussed.

What is the relationship between multihospital health systems and single-site or multiple-site residency program structures? As described in the ASHP regulations on accreditation of pharmacy residencies, each residency program is classified as either a single-site or multiple-site residency program.[3] In general, multiple-site ("multisite") programs utilize this structure because individual sites in the organization are unable to support residency training independently. Multihospital health systems can support any number of fully independent pharmacy residency programs of the same type at sites within the health system. Each program within a multihospital health system is classified as either a single-site or multisite program on the basis of individual program structure. Further, each program maintains its own accreditation, is led by its own residency program director (RPD), and is directly controlled by the site operating the residency program. This article is focused on strategies for standardization across several programs within a multihospital health system and does not address alignment across sites in standalone multisite residency programs.

What are the benefits to standardizing aspects of residency training across programs in a multihospital health system? Standardizing aspects of residency training can benefit the organization, the programs, and ultimately the residents. Regional and national resources targeted toward pharmacy education and training, such as conference programming and the pharmacy residency accreditation process, encourage sharing of innovative practices and strategies.[4] Sharing expertise concentrated at one site within a system, resources, and best practices across a health system elevates the training delivered to the residents in all programs. It also creates efficiencies, saving time and overall resource allocation for those responsible for conducting residency training. It can also lead to a more efficient accreditation process through better preparation.

How does standardization of residency training across programs in a multihospital health system impact pass-through funding eligibility through the Centers for Medicare and Medicaid Services? Ideally, standardization efforts should have no impact on eligibility for Centers for

Table 1. Standardization Opportunities

Opportunity	Potential Components	Tactics Systems Have Implemented
Accreditation readiness	Support	• Sharing best practices • Standardizing documents • Mentoring newer RPDs
Recruitment	Overall strategy, materials, website, events	• Single, unified recruiting strategy • Centrally coordinated participation and shared recruitment space at events • Common branded print materials, banners, etc • Ability to recruit for multiple programs in a system, allowing for fewer staff required to attend events
Policies	Onboarding/preemployment requirements, duty hours, licensure, leave, dismissal	See Table 3
Resident expectations	Residency certificate completion requirements, residency manual/"handbook," web resources	Requiring all residents across the system to participate in: • Resident team-led MUEs • System drug use policy or formulary committee meetings • A standardized research curriculum that provides instruction for all residents as they develop research protocols, prepare to collect and analyze data, and summarize results • Presentation of a "project defense" to receive feedback on project methodology from a diverse group of preceptors from all system sites In the future, one system is planning to drive similar practice-based skill development expectations across PGY1 residents at all sites by standardizing completion requirements related to clinical skill expectations.
Orientation	Onboarding activities	Providing orientation topics centrally to all residents across a system, including: • Electronic health record training • Resiliency awareness training • Team building activities and assessments • Residency class photo session • Resident research curriculum • Core residency policy awareness • Resident presentation skills
Learning experiences	Learning experience descriptions, definition of summative evaluation ratings	• Using a standardized learning experience description template across programs • Assigning the same objectives to a learning experience offered at multiple sites (ie, internal medicine) • Using the same learning experience description across programs
Development plan	Format	Standardizing the development plan template that includes specific guidance in each section to assist RPDs regarding what should be documented
Quality assurance	Formal annual program review	Using a standardized annual program assessment checklist across programs that assesses all areas of program execution, including: • Recruitment and the interview process • Residency manual contents • Orientation • Resident project selection and support • Staffing • Preceptor development • Learning experiences • Evaluation process • Resident presentations

Continued on next page

Continued from previous page

Table 1. Standardization Opportunities

Opportunity	Potential Components	Tactics Systems Have Implemented
RAC	Systemwide RAC (activities that may differ from those of a program-specific RAC), establish direction and residency training "philosophy"	Forming a systemwide RAC with program leadership representation from all sites in the multihospital health system
Preceptor development	Selection criteria, individual preceptor development, overall plan, shared development activities	• Using common preceptor selection criteria, standardized initial preceptor application documents, standardized preceptor renewal and goal-setting documents, and a standardized preceptor development plan document for preceptors-in-training across programs • Using common preceptor development needs assessment across programs • Creating a single preceptor development plan across programs, which includes identification, preparation, selection, and delivery of required and elective self-paced and live preceptor development offerings for all preceptors in any program
Residency projects	Management/oversight, system priorities, shared access to resources needed for projects, expanded impact through robust data and implementation at multiple sites	• Implementing system-level resident projects, using data from all sites rather than only the resident's primary hospital • Centralized project oversight through creation of a system committee responsible for project ideas, team members, selection, progression, and outcomes • Using a standardized project tracking tool
Drug use policy activities	Formulary monograph, policy/protocol/guideline development, medication use evaluation (can be system level)	Requiring residents to work with centralized drug use policy pharmacists on formulary monographs, system policies/protocols/guidelines, and MUEs that address system medication use priorities
Leadership	Leadership skill development, system-level decision-making and committee involvement	Providing system leadership topic seminars and other opportunities for residents to be involved in system-level decision-making and committees
Resident experience	Team building, cross-organizational work	Including all system residents in a residency scavenger hunt, an annual residency trip, and charitable fundraising events

Abbreviations: MUEs, medication use evaluations; PGY1, postgraduate year 1; RPDs, residency program directors; RAC, resident advisory committee.

Medicare and Medicaid Services (CMS) pass-through funding. However, anecdotally, ASD has received reports from programs indicating a recent uptick in the number of pharmacy residency programs audited and denied pass-through funding. There is also confusion in the pharmacy residency training community about expectations related to CMS pass-through funding eligibility, which ASHP is working to clarify. Therefore, if standardization is not approached thoughtfully, there could be some risk to residency programs. For programs that access CMS funding, independent operational control and decisional authority regarding educational aspects of individual residency program operations must remain with the individual program operator rather than with the health system. This requirement makes collaboration between programs to establish buy-in and determine best practices even more important, as it is critical for individual programs to adopt the proposed standardized practice rather than for this standardized practice to be mandated from the health-system level. As described in the examples below, collaboration between programs and a mechanism for individual programs to maintain autonomy in implementing standardized processes must be built into each initiative. In some cases, balancing standardization efforts with processes that preserve local control may present challenges to fully implementing best practices across programs, and ASHP continues to work with CMS to address these types of regulatory considerations.[5]

How can elements of pharmacy residency training be standardized across multihospital health systems? Many health systems have implemented some degree of standardization in selected areas. Areas of opportunity for standardization identified by residency program leadership in selected multihospital health systems and corresponding examples of tactics that one or more of these systems have successfully implemented are described below and in Table 1. The demographics of each of these health systems are described in Table 2. The standardization opportunities and tactics described are applicable to both large systems and smaller systems of even a few hospitals.

Accreditation readiness. When multiple pharmacy residency programs of the same type exist within a health system, there is great opportunity to enhance accreditation readiness. RPDs can collaborate to standardize documents, policies, or processes in a form found to meet accreditation standards when surveyed at one of the sites. It is also much easier for newer programs to get started in a multihospital health system, as there are many parts of a residency program that can be adopted by the new program, rather than created from scratch. In addition, experienced RPDs can mentor new RPDs and help them understand what is required to meet residency standards. Identification of the right RPD is integral to starting a new program, and having this support in place makes it easier to develop a new RPD from current staff.

The current accreditation process supports consolidating visits to programs conducted at the same site; however, expanding this consolidation to programs across a multihospital health system could have some advantages. If a multihospital health system is spread over a reasonable geographic area, there could be advantages to surveying all programs within a system at the same time. This would allow programs to work together to prepare for a survey and would avoid several trips to the same health system over multiple years. Because many multihospital health systems have created system pharmacy leadership structures, and these system pharmacy leadership teams generally aim to standardize pharmacy practice across the system, there could also be some efficiency gained during the survey process by discussing pharmacy services, policies, and leadership from a system standpoint, instead of from a local site standpoint. Common policies and other documents could also be reviewed one time instead of multiple times. This would not only increase efficiency but also ensure a consistent assessment of these aspects of the residency programs. It could be helpful for programs within a multihospital health system to be able to share content within a document sharing system or even within PharmAcademic (McCreadie Group Inc, Ann Arbor, MI), if such a capability becomes available to support these programs.

Recruitment. Multihospital health systems that establish central coordination of recruitment efforts benefit from efficiencies in the overall process. This strategy allows for leveraging of branding across all programs, which extends each program's reach by educating candidates about other programs within the organization in addition to the program that originally attracted the candidate. It also saves administrative time and costs through consolidation of registration fees, personnel costs, and recruiting materials. Several health systems have reported employing a centralized recruitment approach (Table 1).

In the experience of these systems, there were initial concerns about losing the ability to highlight the uniqueness of individual programs and losing desirable candidates to other hospitals within the same organization. These concerns can be addressed by having preceptors wear badges that highlight what hospital they represent. This strategy prevents confusion among interested parties and allows representatives to effectively direct candidates to specific programs of interest. Additional keys to success when coordinating recruiting efforts include communication and accountability.

Policies. Policies and procedures are essential for managing a pharmacy residency program. ASHP accreditation standards require residency programs to develop certain policies.[10-13] Select policies and procedures can be shared

Table 2. Demographics of Select Health Systems With Aligned Processes

System Type/Geography	Program Type (No. of Programs)
28-hospital integrated health system in 2 states[6]	• PGY1 pharmacy (6) • PGY1 community-based pharmacy (2) • PGY1/PGY2 combined (3) • PGY2 (8)
150-hospital integrated health system in 20 states and the District of Columbia[7]	• PGY1 pharmacy (28) • PGY1 community-based pharmacy (1) • PGY1/PGY2 combined (1) • PGY2 (8)
18-hospital integrated health system in 3 states and 3 countries outside the United States[8]	• PGY1 pharmacy (13) • PGY1 community-based pharmacy (1) • PGY1/PGY2 combined (3) • PGY2 (14)
5-hospital integrated health system in 1 state[9]	• PGY1 pharmacy (3) • PGY1/PGY2 combined (1) • PGY2 (4)

Abbreviations: PGY1, postgraduate year 1; PGY2, postgraduate year 2.

across multiple programs within a multihospital health system. Examples of policies and procedures that can be standardized and shared across a health system are summarized in Table 3. Collaboration among programs to develop and review the content of standardized policies and procedures promotes buy-in and increases the likelihood that each program will choose to utilize these standardized policies and procedures within their individual program operations.

Resident expectations. An important way to standardize the outcome of residency training in a multihospital health system is to standardize requirements for successful program completion. The current ASHP accreditation standards for both postgraduate year 1 (PGY1) and postgraduate year 2 (PGY2) training programs state that requirements for successful completion be formally documented.[10-13] Standardized residency completion requirements across programs within the same health system can ensure a similar product from residency training, regardless of the site in the system where the training was completed. Additional examples of specific resident expectations that have been standardized in some systems are included in Table 1.

Orientation. Aligning orientation and onboarding activities can increase the quality of residency training by establishing consistent expectations and promote efficiency by orienting all new pharmacy residents in a system at the same time and place. Several health systems have unified certain aspects of resident orientation across their programs. In these cases, residents are required to travel to the main campus in the system for certain orientation sessions, as agreed upon by program leadership at each site. Based on an individual program's ability to achieve training locally, some offerings are optional and can be engaged in via distance learning. The benefits of managing certain orientation elements centrally extend beyond the orientation time period. The collegial relationships and system thinking sparked early in the program during shared orientation activities can continue to be fostered through additional systemwide activities such as monthly

Table 3. Residency Policies That Can Be Standardized Across Programs in a Health System

Policy	Description
Selection of residents	Each program can be held to a similar application process, methodology in creation of a scoring rubric, interview process, and early commitment process for PGY2 programs.
Onboarding/preemployment requirements (eg, drug testing, background checks)	All programs can follow defined expectations for onboarding/preemployment requirements, including drug testing and background checks, that are consistent with the organization's human resources processes.
Resident licensure	All residents can be held to the same expectation of licensure timeline, including repercussions if licensure is not obtained on time.
Resident assessment	All programs can follow defined expectations of specific and timely narrative feedback, maintaining a resident portfolio.
Resident corrective action, failure to achieve certificate, involuntary dismissal	All residents can be held to the same definition of reasons for not achieving a certificate or being dismissed from the program. All residency program directors and preceptors can follow the same steps in corrective action when a resident's actions require improvement.
Resident leave/time off	All residents can receive the same number of days off in a year, the same expectations to request time off can be used, and all programs can use the same procedures for extended medical leave.
Resident duty hours	All residents and programs can be held to the same expectations for duty hours and tracking hours.
Resident research project	All programs can evaluate research project proposals with similar methods, all programs can have the same research project timeline, and all research project mentors can have the same defined expectations in developing resident research skills.
Residency advisor system	All programs can follow the same procedures for assigning formal advisors, and all preceptors serving in a formal advisor role can follow the same expectations throughout the year.
Preceptor appointment, responsibilities, and development	All preceptors can be appointed in the same procedures and have the same expectations for fulfilling the four roles of precepting, timeliness of submitting summative evaluations, attendance, and completion of development activities. All residents can have the same expectations of evaluated preceptors.

Abbreviation: PGY2, postgraduate year 2.

leadership web conferences, quarterly social events, and unified residency completion ceremonies. This connects residents to additional colleagues with similar experiences and opens training opportunities up within the system, which can enhance overall quality.

Learning experiences. Specific learning experiences offered within a program should be reflective of the site's environment, including the patient population, area(s) of expertise, pharmacy services, preceptor skill set, and resources available. When there are similarities between sites, and especially if the sites have the same practice model, opportunity exists to align elements of specific learning experiences between programs. When the elements of learning experiences to align are carefully selected, each program can utilize best practices and benefit from efficiencies, while maintaining the characteristics that make each program unique.

In addition, the RPDs for each residency program can collaborate to create a standardized definition for each rating used in summative evaluations and implement these definitions in every program across the system. Using a standard set of definitions provides consistency for a practitioner precepting in more than one residency program and for residents completing both a PGY1 and PGY2 program within the same multihospital health system. Consistency also allows preceptors to gain experience with the definitions, which may enhance the quality of the feedback provided. This process also creates efficiency when adding new programs, because adopting the existing set of standardized definitions during program development aids in accreditation preparedness. To facilitate portability of learning experiences, it would be advantageous if learning experience descriptions or templates could be shared across programs within a multihospital health system within PharmAcademic.

Selectively utilizing components of learning experience descriptions across programs where the resident expectations or experience is the same regardless of practice site or program promotes consistency in delivery, increases quality by creating a "best practice" concept, and creates efficiency in design and conduct of new learning experiences. Doing this, however, requires similarity in practice between sites, systemized thinking, and collaboration between programs. In health systems that have done this, a central individual knowledgeable about each program promoted this collaboration and was key to the success in implementing this standardization across programs.

Development plan. ASHP accreditation standards require residency programs to create an individualized development plan for resident progression throughout the residency and track each resident's progression toward achievement of the program's required competencies, goals, objectives, and completion requirements throughout the residency year.[10-15] Documentation templates for tracking residents' progress often vary from program to program within a multihospital health system and sometimes are missing important elements. Without a standard documentation process for the development plan, there could be the potential for bias, inconsistency, and, possibly, omission of important elements required by the standard. Therefore, this is a perfect opportunity for standardization across programs in a multihospital health system. The keys to success in implementing a standardized development plan template include engagement of each program's RPD and consideration of feedback on what should be standardized.

Quality assurance. Annual program assessment can be performed across a multihospital health system using common approaches, checklists, or documentation templates. An advantage of this approach is the ability to assess common aspects across all programs. This could lead to identification of opportunities for improvement that would benefit more than one program in a system.

Resident advisory committee. Several health systems have established a system residency advisory committee (RAC). The system RAC is typically chaired by an individual with RPD experience who is responsible for oversight of residency programs across the health system. System RAC membership includes RPD representation from across the system and may include additional key members of pharmacy leadership. The system RAC and its dedicated leadership are key to driving residency quality, creating individual program efficiencies, and supporting alignment efforts across a system.

The system RAC does not replace each individual residency program's RAC. The individual residency program's RAC maintains decisional authority over educational aspects of the program's operations, while the system RAC promotes collaboration across programs for those items that can be standardized across all programs, such as those described in this article. The overarching benefits of the system RAC are to reduce administrative workload for individual RPDs, promote information sharing, and ensure program compliance with elements of the ASHP accreditation standards,[10-13] which are universal across programs.

Preceptor development. Preceptor development is key to offering a high-quality residency training experience and is an opportunity for collaboration between sites and standardization across programs. Alignment allows programs to share resources, which can lead to higher-quality content, more efficient delivery, and increased variety in preceptor development offerings.

Aligning preceptor development activities across all residency programs allows for sharing of resources to develop efficient processes for preceptor selection and reappointment as well as for creating individual and overall preceptor development plans. The quality of preceptor development activities is enhanced through collaboration in planning and delivering activities, sharing expertise, and increasing opportunities. A standardized process for personal goal setting ensures that the needs of individual preceptors are addressed. Collaboration between programs is key to aligning activities related to preceptor development. The process approach used by one system is included in Table 1.

Residency projects. Aligning aspects of the residency project process across multiple programs within a health system can increase the overall quality of residency projects and create efficiencies in project delivery and execution. Health systems that utilize a single electronic health record platform are uniquely positioned to allow residents access to more data points, leading to more robust data, analysis, and interventions for each resident project. Each project's impact is expanded when project implementation expectations are spread across multiple sites. This is mutually beneficial to the resident and the health system; the resident benefits from a more robust research experience, while all sites benefit from each resident's work, regardless of the site at which the resident is based. Further, standardizing the project process by creating expectations, timelines, and checkpoints can ensure that the overall project process is consistent and that high-level project mentors/resources can be shared across sites within a system.

Expanded datasets and implementation plans that include multiple sites increase the overall quality of resident projects and impact to the health system, but also require a higher level of project management. A residency project advisory board can provide the framework to prioritize project ideas, allocate resources, and centrally manage residents' yearlong projects across all programs.[16] Use of a standardized project tracking tool also provides a mechanism for project preceptors and the residency project advisory board to ensure that each resident's data collection using the system's unified health record is supported and scoped appropriately to meet the project objective and that the project's progress is appropriately meeting implementation targets across multiple sites.

Drug use policy activities. Many multihospital health systems have created system pharmacy and therapeutics committee structures and have unified under a single formulary.[17,18] As such, much of the drug use policy activity in a multihospital health system tends to be centralized. Centralization of drug use policy activities limits the opportunity residents have to do this work at the site level, but a systemwide approach creates the opportunity to engage all residents on activities that impact the system, allows residents to work together on larger initiatives, and optimizes the use of all residents to support drug use policy activities.

Use of residents from across a multihospital health system to complete drug use policy work helps the centralized drug use policy leadership. Having residents work on a medication use evaluation (MUE) on a system team that includes both residents and preceptors from more than one hospital in the multihospital health system teaches the resident both MUE and project management skills, but also enhances the resident experience by teaching residents how to work with others in the health system who may not be at the same local hospital.

Leadership. Health systems that offer multiple residency programs are uniquely positioned to train residents in the concept of system thinking. Many of the strategies described in this article support this concept, which is enhanced by alignment across programs. Activities that can enhance leadership skills with a system focus are included in Table 1.

Resident experience. Multihospital health systems are well positioned to have residents work on cross-organizational teams. As mentioned above, a team of residents can work on a MUE that evaluates use across a system, rather than at just one site in the system. The obvious benefit of this would be to provide broader insight into medication use; however, it also allows residents to develop the skill of effectively working with pharmacy staff from other sites to accomplish a goal.

Some programs incorporate team building activities or social events into their residency training program, and inclusion of residents from across a system in these activities has value. When all residents from a system participate in these events, this allows for residents to build social networks with those completing programs at another site in the system. This is particularly beneficial for smaller programs with 1 or 2 residents, as these residents can feel connected to and be part of a bigger group.

What are additional considerations and challenges when standardizing residency training across multihospital health systems? The decision to standardize certain areas of residency training across multihospital health systems warrants an evaluation of individual program design and conduct. Consideration should be given to the overall impact on individual program design, structure, and classification, and any necessary adjustments are evaluated and addressed. Likewise, programs should consider whether single-site accreditation of several programs within a multihospital health system or the multisite accreditation classification is most appropriate. The focus of standardization should be on adopting the best approach for various residency issues within a system while decreasing redundancies and optimizing the use of resources to elevate the quality of training and replicate that quality, regardless of the site at which the training occurs.

Establishing system buy-in is central to the successful implementation of any area of standardization across programs within a health system. Support is necessary both from the leadership of each residency program and from system pharmacy leadership for success. Identifying an individual (or small group) to advance the concept, gain consensus, and champion new standard processes is critical to successfully aligning the identified aspect or aspects of training across programs. Those charged with advancing the residency program standardization efforts within a multihospital health system may consider establishing a common residency training program mission and vision statement, so that any adjustments made clearly link back to the shared purpose.

Multihospital health system residency programs should also ensure that each stakeholder has a basic knowledge of the design and conduct of each program in the system, make communication a priority, and develop a process for identification and evaluation of elements of residency training for standardization. Support from system leadership

can help set the direction, the degree to which each identified area can be standardized, and a longer-range timeline for additional adjustments.

Leveraging technology is another consideration that can help overcome standardization challenges. Employing technology to hold virtual meetings can help address distance barriers. Sharing resources among sites can be accomplished by utilizing a centralized internal website or other method for information sharing among team members.

Conclusion. Many opportunities exist to align residency training processes across programs within a multihospital health system. Potential benefits to aligning and standardizing processes include elevating the overall quality of residency training in all programs across the system and creating efficiencies for individual program delivery. Health systems desiring to align residency training processes should consider evaluating individual program design and conduct, assessing the overall impact of standardization, establishing support from both department and program leadership, identifying a central individual or group of individuals to champion alignment efforts, and implementing strategies to overcome actual or perceived barriers.

Disclosures

The authors have declared no potential conflicts of interest.

References

1. Vermeulen LC, Eddington ND, Gourdine MA, et al. ASHP Foundation Pharmacy Forecast 2019: strategic planning advice for pharmacy departments in hospitals and health systems. *Am J Health-Syst Pharm.* 2019;76(2):71-100.
2. Abramowitz PW, Chen DF, Cobaugh DJ. Multihospital health systems: growing complexity of pharmacy enterprise brings opportunities and challenges. *Am J Health-Syst Pharm.* 2018;75(7):417-418.
3. American Society of Health-System Pharmacists. ASHP regulations on accreditation of pharmacy residencies. Accessed April 9, 2020. https://www.ashp.org/-/media/assets/professional-development/residencies/docs/accreditation-regulations-residencies.ashx?la=en&hash=AA4A384DE7E2D709F529217011CB33BDA4FF35F4
4. American Society of Health-System Pharmacists. National Pharmacy Preceptors Conference. Accessed January 29, 2020. www.ashp.org/Meetings-and-Events/Meetings-and-Conferences/National-Pharmacy-Preceptors-Conference
5. Kraus T. ASHP requests for improvements to pharmacy residency program oversight. Published June 13, 2019. Accessed July 20, 2020. https://www.ashp.org/Advocacy-and-Issues/Key-Issues/Other-Issues/Letter-Improving-Pharmacy-Residency-Program-Oversight?loginreturnUrl=SSOCheckOnly
6. Advocate Aurora Health. Accessed April 9, 2020. www.advocateaurorahealth.org/about
7. Ascension. Accessed April 9, 2020. https://ascension.org/about
8. Cleveland Clinic Newsroom. Accessed April 9, 2020. https://newsroom.clevelandclinic.org/facts-figures/
9. Henry Ford Health System. Accessed April 9, 2020. www.henryford.com/about
10. American Society of Health-System Pharmacists. Guidance document for the ASHP accreditation standard for postgraduate year one (PGY1) pharmacy residency programs. Accessed April 9, 2020. https://www.ashp.org/-/media/assets/professional-development/residencies/docs/guidance-document-PGY1-standards.ashx?la=en&hash=23ED7EE0D27EEDADF11B7FEE9E2B207D9B04BCFA
11. American Society of Health-System Pharmacists and American Pharmacists Association. Guidance document for the accreditation standard for postgraduate year one (PGY1) community-based pharmacy residency programs. Accessed October 19, 2020. https://www.ashp.org/-/media/assets/professional-development/residencies/docs/ashp-apha-pgy1-community-based-standard-guidance.ashx?la=en&hash=6D566AD0D2B72A1778DB92013DC50D02290699FA
12. American Society of Health-System Pharmacists. Guidance document for the ASHP accreditation standard for postgraduate year one (PGY1) managed care pharmacy residency programs. Accessed April 9, 2020. https://www.ashp.org/-/media/assets/professional-development/residencies/docs/pgy1-managed-care-accreditation-standard-guidance.ashx?la=en&hash=5E914F07F7311A86372866CFEDE1AE77E5742E3A
13. American Society of Health-System Pharmacists. Guidance document for the ASHP accreditation standard for postgraduate year two (PGY2) pharmacy residency programs. Accessed April 9, 2020. https://www.ashp.org/-/media/assets/professional-development/residencies/docs/pgy2-guidance-document.ashx?la=en&hash=52D0B7CE0253D49A6298C0F068D07F3BA9E3608E
14. American Society of Health-System Pharmacists. Postgraduate year one pharmacy residencies–competency areas, goals, and objectives (CAGO) and guidance. Accessed April 9, 2020. https://www.ashp.org/Professional-Development/Residency-Information/Residency-Program-Resources/Residency-Accreditation/PGY1-Competency-Areas
15. American Society of Health-System Pharmacists. Postgraduate year two pharmacy residency training in advanced areas of pharmacy practice–competency areas, goals, and objectives (CAGO). Accessed April 9, 2020. https://www.ashp.org/Professional-Development/Residency-Information/Residency-Program-Resources/Residency-Accreditation/PGY2-Competency-Areas
16. Dagam JK, Iglar A, Kindsfater J, et al. Development and implementation of a residency project advisory board. *Am J Health-Syst Pharm.* 2017;74(12):919-925.
17. Reddan JG, Heck Sheehan A, Eskew J, et al. Integration of a medication management infrastructure in a large, multihospital system. *Am J Health-Syst Pharm.* 2004;61(23):2557-2561.
18. Leonard MC, Thyagarajan R, Wilson AJ, et al. Strategies for success in creating an effective multihospital health-system pharmacy and therapeutics committee. *Am J Health-Syst Pharm.* 2018;75(7):451-455.