

## RESEARCH

# Institutional Strategies to Achieve Diversity and Inclusion in Pharmacy Education

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**Objective.** To evaluate the impact of institutional initiatives to enhance recruitment of minority students as a strategy to increase diversity and inclusion.

**Methods.** The Office of Recruitment, Development, and Diversity Initiatives (ORDDI) was established and several initiatives were developed within the UNC Eshelman School of Pharmacy to promote student diversity and engagement. Applicant demographics and admission data were tracked from 2007-2012 to assess program performance and effectiveness.

**Results.** Over the 6-year period, 812 recruitment events were facilitated. Twenty-nine percent of the students admitted from 2007-2012 participated in 1 or more ORDDI recruitment programs prior to admission. Forty-two percent of this cohort were minorities. The overall average minority profile of students increased from 19% to 25% after establishing the ORDDI.

**Conclusions.** To achieve student diversity and inclusion, a multifaceted effort is required, involving a continuum of institutional strategies, including innovative practice models and high impact programs.

**Keywords:** admissions, diversity, inclusion, recruitment, best practices

## INTRODUCTION

One of the greatest challenges faced by institutions of higher education in the United States, particularly in the health sciences field, is the engagement and full utilization of the population's talent.<sup>1,2</sup> According to the 2010 US Census Bureau, by the middle of the 21st century, minorities will be the majority in America. Minorities are classified as those of any race other than non-Hispanic, single-race white, and currently this population constitutes a third of the US population. While minorities are expected to represent 54% of the population in 2050, within professional programs, including pharmacy, the percentage of minorities does not reflect population trends.<sup>1,2</sup>

This striking shift in the US population demographic and the existing underrepresentation of racial and ethnic minority groups in the pharmaceutical sciences poses a challenge to US pharmacy colleges and schools to recruit, retain, educate, and produce a generation of pharmacy leaders who reflect the population they serve. Conversely, this trend presents a unique opportunity to

reevaluate and enhance current practices to build a sustainable infrastructure to support diversity and inclusion.<sup>3,4</sup>

The total minority population as of 2012 was 36.2% in the United States and 34.5% in North Carolina.<sup>1</sup> The University of North Carolina at Chapel Hill was the first and is one of the largest public institutions of higher education in the state. As such, the UNC Eshelman School of Pharmacy is expected to lead efforts to produce a workforce that mirrors and meets the needs of the state.

The most compelling argument for a diverse health sciences workforce is that it can lead to improvements in healthcare.<sup>5-7</sup> Minority populations often have less access to care and are less satisfied with the healthcare that they receive.<sup>8</sup> A diverse healthcare workforce can reduce health disparities and facilitate racial concordance between patients and providers, which has been shown to enhance perceived quality of care. When patients feel that they are receiving adequate care, they are more likely to seek out and trust medical advice, thus improving outcomes.<sup>9</sup> Pharmacists are an integral part of the healthcare team; therefore, increasing ethnic and racial diversity in the pharmaceutical sciences is imperative.<sup>10</sup>

The pharmacy profession has acknowledged the importance of achieving inclusive educational environments. The Accreditation Council for Pharmacy Education standards and guidelines recommend the inclusion

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of diversity goals for colleges and schools of pharmacy and acknowledge their curricular impact on teaching and learning methodologies.<sup>11,12</sup> In 2010, American Association of Colleges of Pharmacy (AACP) developed a Task Force on Diversity to further aid colleges and schools of pharmacy in identifying challenges within the profession and academia that prevent underrepresented minorities from pursuing a career in pharmacy and establishing best practices to increase diversity within the profession.<sup>9</sup> The American Society of Health-System Pharmacists published a statement in 2007 that emphasized the importance of diversity in reducing racial and ethnic healthcare disparities.<sup>13</sup>

Some of the greatest challenges to achieving diversity and inclusion in higher education are lack of institutional leadership and diverse faculty and administration to model cultural differences and mentor students. Other barriers include cost; inadequate support, infrastructure, and pipelines to adequately prepared underrepresented applicants; recruiters with little or no experience or proven history; unclear goals; lack of strategy, creativity, and innovation; little emphasis on retention; and weak metrics of success.<sup>4</sup> These challenges can be exacerbated by the inability or unwillingness to discuss diversity openly because of discomfort and social and political aspects; however, they can be overcome through changing culture and intentional strategies to increase diversity.

This manuscript will describe the impact of various strategies used from 2007-2012 to facilitate recruitment of a diverse student body. It also will make recommendations based upon experience gained to help establish best practices.

## **METHODS**

The UNC Eshelman School of Pharmacy is ideally located to recruit students because of the presence of a number of strong regional universities (Duke, North Carolina State, Wake Forest), access to the remaining universities in the 17-campus UNC system, and several historically minority-serving colleges and universities. In addition, the school is conveniently accessible by nearly 50 high schools, and surrounded by a strong presence of pharmacologic research both locally in North Carolina's Research Triangle Park and in the Southeastern/Eastern region of the United States.

In response to the school's critical need to recruit, retain, and develop the next generation of pharmacy leaders with a variety of perspectives reflective of an increasingly global society, the Office of Recruitment, Development, and Diversity Initiatives (ORDDI) was implemented in 2007. The Office contains 2.75 FTE employees, including a program director, academic postdoctoral

fellow, and administrative assistant, and has an annual budget for activities of \$10,000.

In 2007, the ORDDI identified and established 8 strategic goals: (1) establish office leadership and accountability; (2) articulate and publicize the school's commitment to diversity and inclusion; (3) target recruitment efforts towards specific institutions, student groups, and organizations; (4) develop a pharmacy student recruitment ambassadors program; (5) develop and nurture strong professional relationships to establish a recruitment pipeline; (6) create and sustain retention models; (7) conduct educational research and evaluation; and (8) develop and implement pharmacy awareness and enrichment programs to engage prospective students. Based on these goals, a comprehensive system of recruitment strategies, as well as tracking and assessment tools were developed and implemented.

The ORDDI's definitions of minority classifications are based on the 2010 US Census Bureau, which collects data on race in accordance with guidelines provided by the US Office of Management and Budget. These categories are consistent with AACP data for pharmacy school enrollment and applications and with PharmCAS statistics.<sup>1,2</sup> Underrepresented minorities include blacks or African Americans, American Indians/Alaska Natives, Hispanics or Latinos, and Hawaiian or Pacific Islanders, and represented minorities include Asian Americans.<sup>4</sup> For the purposes of this study, based on the UNC Provost's Office classification, Asian Americans and Pacific Islanders were considered as 1 group. Although Asian Americans are minorities who are well represented in pharmacy education, they represent less than 10% of the population of the United States. Pacific Islanders reflect a smaller portion of the population across higher education and the United States.<sup>1,14</sup>

Program initiatives were implemented to engage prospective students from a variety of ethnic and cultural backgrounds, with a focus on increasing the number of minority and underrepresented individuals who applied, were admitted, matriculated, and graduated from the institution (Table 1). Within the first year of the ORDDI's creation, the following details were outlined and articulated in the recruitment plan: when the programs would occur; how they would be implemented; who the program target audience would be; and how the programs were related and would reinforce exposure, mentorship, and personal and leadership development. These programs attempted to address recruitment at numerous levels from high school through graduate school. They were also intended to build and sustain partnerships with administrators, faculty members, staff members, and program directors.

Table 1. Programs Established by the Office of Recruitment, Development, and Diversity Initiatives

<b>Program</b>	<b>Year Established</b>	<b>Target Audience</b>	<b>Description</b>	<b>Program Duration</b>
PCAT Review	2004 (2007) <sup>a</sup>	Undergraduate Post-graduate	Two-day intensive PCAT examination review. Program includes examination section review, test-taking strategies, preparatory materials, and mock examination. Open to all students preparing for the PCAT examination and run by pharmacy student leaders.	2 day program
Recruitment Ambassadors Program	2008	High school Undergraduate	Program that uses student leaders to represent the school and provide the pharmacy student perspective at open house programs, campus visits, campus tours, and other recruitment events.	Academic year
Pre-Pharmacy Club	2009	Undergraduate	Student organization founded to provide an educational forum dedicated to informing undergraduate students at the University of North Carolina about various career opportunities in pharmacy.	Academic year
LEAD <sup>b</sup> Program	2009	High School Undergraduate Post-graduate	Preparatory and professional development program geared toward underserved and underrepresented high school, college, and post graduate students interested in exploring career opportunities in pharmacy.	2 day program
Leadership Academy	2011	High School Undergraduate Post-graduate	Program offering seminars, academic enrichment activities, and networking opportunities for students that previously attended the LEAD Program.	Monthly during spring semester
Mentoring Academy	2011	Undergraduate	Program provides a professional support system that meets the diverse individual needs of undergraduate students interested in pursuing a career in pharmacy. Prospective students are paired with current PharmD student mentors and participate in monthly events.	Academic year
Educators Academy	2011	High school	Program partnering with high school administrators and teachers to provide resources and access to information about careers in pharmacy and opportunities at the school.	Academic year

<sup>a</sup> Pharmacy College Admission Test Review implemented in 2004, sustained from 2007-2012 in the Office of Recruitment, Development, and Diversity Initiatives.

<sup>b</sup> Leadership, Excellence, and Development Program (LEAD)

A Pharmacy College Admissions Test (PCAT) Review session was established in 2004, prior to establishing the ORDDI, however program oversight was maintained by the ORDDI which facilitated quality control and oversaw program content, pedagogy, and instructor selection. Student leaders from the pharmacy school hosted this 2-day intensive PCAT examination preparation review each summer. These sessions included distribution of preparatory materials, content reviews, test-taking strategies, mock admission interviews, and a practice examination. This course was facilitated by doctor of philosophy (PhD) candidates from the biology, chemistry, English, and mathematics departments on campus, and designed to provide prospective pharmacy students with a review of essential science, mathematics, and verbal concepts, as well as instruction on the skills needed to be successful on the PCAT examination.

The Recruitment Ambassadors Program, established in 2008, included current doctor of pharmacy (PharmD) and PhD students, alumni, and faculty members. These ambassadors executed a highly structured outreach process that allowed them to recruit prospective students at targeted events throughout the state. These events targeted high school, college, and postgraduate students, and exposed them to the field of pharmacy and the broad spectrum of career opportunities available.

The Pre-Pharmacy Club was established in 2009. This student organization was founded to provide an educational forum dedicated to informing undergraduate students at the university of the various career opportunities in pharmacy and to serve as an information and resource center for students with regard to the preparation, application, and interview process for pharmacy school. The club also provided opportunities for students to network, share their ideas and questions, and learn about and participate in numerous shadowing experiences.

The Leadership, Excellence, and Development (LEAD) Program was developed in 2009 and served as an exploratory and preparatory program for underserved and underrepresented students interested in exploring career opportunities in pharmacy and learning how to be a competitive applicant in the admissions process. The program was conducted over 2 days, with 1 day devoted to high school students and the other to college and graduate students. Program participants were exposed to and engaged in a number of activities with current students, residents, faculty members, and practitioners. Program participants were selected through an application process based on academic performance and leadership potential.

The Professional Development Academy was launched in 2011. This programmatic initiative was a 3-pronged approach intended to sustain relationships with prospective

students after they had attended the LEAD Program. Components included professional development, mentoring, and education. The first of this 3-pronged approach was the Leadership Academy, which was a 3-month program that provided prospective students with an extended opportunity to interface with leaders from a variety of health-science settings, while receiving professional development skills through a seminar series, enrichment classes, and group activities. Program participants who attended the LEAD program received a formal invitation to participate in the Professional Development Academy. The primary objective of the academy was to retain relationships with prospective students and to facilitate personal and leadership development.

The second component was the Mentoring Academy, established to pair prospective students with PharmD candidates and host bimonthly activities that built a mentoring partnership focused on engagement, career exploration, and networking. This opportunity was available to all prospective students. The third component of the program series was the Educators' Academy, an outreach effort geared towards equipping high school administrators and teachers with a variety of information, resources, and materials to increase their ability to share pharmacy career opportunities with their students and served as a platform to enhance relationships with target institutions.

In addition to these programming initiatives, partnerships with several key university-based and external pipeline programs were established to increase the recruitment of underrepresented and minority students. Also, an extensive marketing and media campaign was developed and implemented. Efforts were focused on strategically targeting prospective students via our school Web site, social media networks, and innovative marketing materials.

In 2007, the first recruitment DVD, *360° of Opportunity*, was produced by the ORDDI in collaboration with a multimedia company. This DVD was widely distributed and featured on the UNC-Chapel Hill YouTube page. The most recent video, produced in 2009, was entitled *Want More, Do More*. Both DVDs explore the profession of pharmacy and the wealth of career opportunities within the field, while highlighting the UNC Eshelman School of Pharmacy.

In 2011, *Who's Your Hero?* a leadership magazine featuring outstanding students and alumni was also released. This professional publication, available in both print and electronic format, highlighted the unique and trendsetting accomplishments of the school's student leaders, both current and former. In addition, a new set of marketing materials and posters that featured the school and students were designed and distributed at recruitment events throughout the country.

The school Web site underwent major enhancements to reflect institution’s commitment to recruiting the best talent into the program. Visitors to the recruitment Web site increased significantly after these enhancements, receiving nearly 10,000 hits during a 3-month span from January 1, 2012, to March 30, 2012. Facebook and Twitter accounts were used to update prospective students on upcoming events and current news. Additionally, the first annual Virtual Recruitment Forum was held in 2011 with over 137 participants. A new online prospective student community was designed and developed. This database allowed ORDDI to track student engagement with the school from the point of students’ first recruitment interaction all the way through their first career milestone. A student blog, *UnScripted*, featuring highlights from the daily experiences of current PharmD candidates, was also developed and launched in the fall of 2012 via the school Web site.

Students admitted to the school who were involved in any of these initiatives were highly encouraged to maintain involvement with the ORDDI. Students were provided multiple opportunities to interface with the ORDDI through leadership in program initiatives, service as a recruitment ambassador, or participation with focus groups, or by visiting the ORDDI to seek guidance and pursue professional development. This was referred to as the “360-degree approach” in that students who the ORDDI recruited were now engaging and recruiting prospective students. This allowed for mentoring on multiple levels, and served as a productive aspect of professional fulfillment and retention of students.

Participant contact information was obtained at all recruitment events, meetings, and special presentations. This documentation was used to identify and track prospective student’s interaction with the ORDDI and to assess outcomes.

In order to evaluate the impact of the continuum of institutional strategies offered by the ORDDI the following primary outcomes were established: the total number of and demographic information for prospective students who used/participated in the ORDDI’s professional development programs, and the total number who applied and were admitted from this cohort. Secondary outcomes assessed included the total number of recruitment events

held by the ORDDI and the office’s ability to sustain relationships with prospective students once they were admitted.

## RESULTS

From the time the ORDDI at the UNC Eshelman School of Pharmacy was established in 2007 to 2012, 812 recruitment events were facilitated. Sixty percent involved engagement of underrepresented minorities. Of the more than 2,300 prospective students who interfaced with the ORDDI from 2007-2012, 76% were at the college level or graduate level and 24% were high school students. These students attended 1 or more recruitment events, meetings, or presentations hosted by the ORDDI and comprise the “ORDDI cohort” referred to below. Over the 6-year period, 80% (265/329) of the ORDDI cohort who applied were admitted and comprised 29% (265/927) of all students entering the PharmD program. From 2007 to 2012, the ORDDI cohort comprised 22%-39% of admitted students. In addition, 36% (n=96) of individuals in the ORDDI cohort of admitted students were from minority backgrounds (Table 2).

Since the inception of the ORDDI’s PCAT Review program in 2004, 112 attendees were admitted to the PharmD program. Forty-three prospective students admitted attended the LEAD program. Partnerships with pipeline programs within the university and outside entities such as Project SEED, Summer Bridge, Project Uplift, the North Carolina Health Careers Access Program, the Office of Undergraduate Admissions, and the Covenant Scholars allowed for the targeted recruitment and admittance of 26 students. Ninety-one interactions were made through programs and meetings with prospective students prior to admission in 2012.

Racial demographics for the ORDDI student cohort and the overall student body were analyzed and are presented in Table 3. The percentages were similar for all cohorts except African Americans. African Americans comprised 17% percent of the ORDDI cohort and 6% of the student body. Overall, 80% of African Americans admitted between 2007 and 2012 interfaced with the ORDDI. The average age for both the ORDDI and student body cohorts was 23 years. The average percentage of

Table 2. Race Demographics for Students Admitted Who Were Part of the Office of Recruitment, Development, and Diversity Initiatives Cohort

Race	2007, No. % (n=31)	2008, No. % (n=36)	2009, No. % (n=46)	2010, No. % (n=43)	2011, No. % (n=64)	2012, No. % (n=45)	Average, % (n=265)
White/Caucasian	17 (55)	15 (42)	33 (72)	23 (53)	38 (59)	32 (71)	60
Minorities	12 (39)	20 (56)	9 (20)	19 (44)	24 (38)	12 (27)	36
Other/Unknown	2 (6)	1 (3)	4 (9)	1 (2)	2 (3)	1 (2)	4

Table 3. A Comparison of Diversity in the ORDDI<sup>a</sup> Cohort and the Overall Student Body Among Students Admitted to the UNC Eshelman School of Pharmacy (2007-2012)

Student Group	White/Caucasian,	Black/African	American	Hispanic/Latino,	Asian/Pacific	Other/Unknown,
	No. (%)	American, No. (%)	Indian/Alaska Native, No. (%)	No. (%)	Islander, No. (%)	No. (%)
ORDDI <sup>a</sup> Cohort (n=265)	158 (60)	44 (17)	3 (1)	2 (<1)	47 (18)	11 (4)
Student Body (n=927)	626 (68)	55 (6)	7 (<1)	20 (2)	146 (16)	73 (8)

<sup>a</sup> The Office of Recruitment, Development, and Diversity Initiatives at the UNC Eshelman School of Pharmacy (ORDDI).

male students for the ORDDI and overall student body cohort was 26% and 33%, respectively.

ORDDI has also been successful in the retention of students in its cohort, as 99% (263/265) are either matriculating through or have graduated from the PharmD program. To support retention, each year approximately 40 admitted students from the ORDDI cohort are appointed to a leadership position or participate in program initiatives within the ORDDI.

As a result of its diverse cohort, the ORDDI has had a significant impact on the student body (Table 4). Before the inception of the ORDDI in 2007, the percentage of minorities represented in the student body ranged from 16% to 22%. Since its inception, minority representation has remained above 20%, ranging from 25% to 29%, with 17% of the current student body being admitted from minority-serving institutions.

## DISCUSSION

Development and implementation of a comprehensive institutional strategy intended to create an inclusive

educational environment resulted in a paradigm shift in the way diversity has been achieved at the UNC Eshelman School of Pharmacy. The data suggest that a concerted effort to recruit, educate, and develop the next generation of pharmacy leaders can have an impact on diversity and inclusion statistics. Identifying strategic programs and partnerships, developing and sustaining relationships with other institutions, collaborating within existing program infrastructures, and creating programming initiatives increased the efficacy and breadth of recruitment practices.

A strategic recruitment process throughout the state has proven to be beneficial. An aggressive outreach effort was facilitated with over 800 recruitment events as of 2012. Furthermore, being able to sustain connections with over 2300 prospective students through e-mail, listservs, and social media has served as an effective avenue for recruitment event marketing. This consistent line of communication and follow-up allows for further building of relationships among the partners and prospective students. Monitoring application and enrollment trends has

Table 4. Race Demographics for the UNC Eshelman School of Pharmacy Student Body, %

PharmD Program Admission Year	White/Caucasian	Black/African American	American Indian/Alaska Native	Hispanic/Latino	Asian/Pacific Islander	Total Minority	Other/Unknown
Fall 2000	83	5	1	0	10	16	1
Fall 2001	81	8	0	1	10	19	0
Fall 2002	75	11	1	3	10	25	0
Fall 2003	86	4	1	2	7	14	0
Fall 2004	82	2	0	0	16	18	0
Fall 2005	75	8	1	0	11	20	5
Fall 2006	68	10	1	2	9	22	10
Average Pre-ORDDI <sup>a</sup>	79	7	<1	1	10	19	2
Fall 2007	68	4	0	2	19	25	7
Fall 2008	69	7	0	2	15	24	7
Fall 2009	70	3	0	3	15	21	9
Fall 2010	68	8	0	0	17	25	7
Fall 2011	67	8	2	2	13	25	8
Fall 2012	63	5	1	4	19	29	8
Average Post ORDDI <sup>a</sup>	68	6	<1	2	16	25	8

<sup>a</sup> The Office of Recruitment, Development, and Diversity Initiatives at the UNC Eshelman School of Pharmacy (ORDDI).

been a key aspect of optimizing processes. This knowledge will better position the school to establish an inclusive educational environment.

Students who attended the LEAD program and the PCAT Review make up the largest percentage of students engaged with the office who were admitted to the PharmD program. These prospective student-oriented programs emphasize career exploration and preparation, both of which are important factors in the admissions process. Interaction of prospective students with faculty members, current students, and alumni at these programs has resulted in increased mentoring opportunities, as well as the development of more professional networking relationships.

Access to an office specifically dedicated to recruitment, development, and diversity initiatives allows for the ability to mentor and retain students from the point of interest, application, and enrollment. Further data collection is needed to assess and support the additional impact that these recruitment efforts have had on students as they complete the PharmD program and as they develop professionally within the pharmacy career path of their choice.

To advance knowledge and innovation in order to take on the world's most complex challenges and educate our students, we must attract and cultivate the finest diverse talent. Diversity and inclusion is an indispensable precondition that enables the school to capitalize on the diverse skills, perspectives, and experiences of its faculty and students, allowing the school's research and education mission to advance. A diverse healthcare community will make healthcare professionals better at what they do as they become broader and deeper thinkers, more effective collaborators, and more creative teachers, leaders, and providers of care.

Colleges and schools of pharmacy are challenged to accommodate the changing demographics of society, and are expected to produce a proportional number of diverse graduates. Incorporating a formal recruitment strategy with explicit goals for diversity into organizational structures within colleges and schools of pharmacy can have a significant impact on the recruitment of both minority and majority students. Such a strategy should include effective tracking methods, proper allocation of resources, accountability, and a multifaceted approach that incorporates best practices outlined in this paper, such as identifying partners and building relationships; program development to facilitate exposure; high levels of engagement and a sustained effort; rethinking recruitment and admission practices to capture the broad perspectives and experiences needed to produce the next generation of pharmacy leaders. Any recruitment program must also

have a rigorous plan for assessment and evaluation of its activities and achievements.

Finally, monitoring regional and national trends in pharmacy school applications and admissions will also be important to gain an accurate perspective on the challenges faced and the strategies and outcomes needed to develop an effective future plan. Failure to consider this information in recruitment planning may significantly decrease the effectiveness of program efforts. These aspects will be important in creating a results-oriented recruitment process that will better position colleges and schools of pharmacy to achieve diversity and inclusion in pharmacy education.

Limitations with this study involved inconsistent demographic identifiers among programs and institutions, along with use of categories such as "2 races" and "other," can pose challenges in program monitoring and assessment. Limited access to demographic information on prospective students significantly influenced student data collection. For example, the prospective student database containing 2,300 individuals comprised those with minimal interaction, who were not asked to supply extensive demographic information to those with a high level of engagement who were asked to supply demographic information. Additionally, the number of students not reporting their ethnicity or being classified as "other" increased from 2% to 8%, which may hinder reporting of diversity outcomes. In addition, marginal response rates to requests for information presented challenges in tracking all of an individual's engagement with ORDDI. Therefore, demographic information and number of interactions may not be available until prospective students attend an ORDDI program that requires them to provide this information.

Results of this study are preliminary because of the relatively recent implementation of some of the programs and the wide range of prospective student groups, spanning from high school to graduate students, involved in them. Therefore, the true impact of the ORDDI cannot be realized at this time.

## **CONCLUSIONS**

Establishment of the Office of Recruitment, Development, and Diversity Initiatives within the organizational structure at the UNC Eshelman School of Pharmacy allowed the school to centralize and intensify its recruiting efforts, as well as maximize limited personnel resources available for these endeavors. From 2007-2012, the total minority admissions at the UNC Eshelman School of Pharmacy increased from 19% to 25%. The average admission rate for white, non-Hispanic, single-race students decreased by 10%, while that of

Asian/Pacific Islanders increased by 6%; however, there was no change in the average percentage of underrepresented minorities. Committed resource, leadership, infrastructure, and accountability are required to facilitate diversity and inclusion. Continued efforts will be required to increase the number of underrepresented minorities.

## REFERENCES

1. United States Census Bureau. US/States resources page. <http://quickfacts.census.gov/qfd/states/37000.html>. Accessed June 10, 2012.
2. Census 2010. United States Census, 2010. <http://www.census.gov/2010census/data/>. Accessed May 10, 2012.
3. Maine L. Diversity, value, and communications. *Am J Pharm Educ.* 2003;67(4):Article 126.
4. Chisholm-Burns MA. Diversifying the team. *Am J Pharm Educ.* 2008;72(2):Article 44.
5. Chisholm M. Diversity: a missing link to professionalism. *Am J Pharm Educ.* 2004;68(5):Article 120.
6. Hayes B. Increasing the representation of underrepresented minority groups in US colleges and schools of pharmacy. *Am J Pharm Educ.* 2008;72(1):Article 14.
7. Crabtree B. Rewarding diversity of excellence. *Am J Pharm Educ.* 2007;71(5):Article 102.
8. Somnath S, Komaromy M, Koepsell TD, Bindman AB. Patient-physician racial concordance and the perceived quality and use of health care. *Arch Intern Med.* 1999;159(9):997-1004.
9. American Association of Colleges of Pharmacy. AACP Task force on diversity report to the AACP council of deans. <http://www.aacp.org/resources/research/institutionalresearch/Documents/AACP%20Task%20Force%20on%20Diversity%20Report.pdf>. Accessed May 10, 2012.
10. Missing Persons: Minorities in the Health Professions. *A Report of the Sullivan Commission on the Diversity in the Healthcare Workforce.* Executive summary. 2004;1-2.
11. Accreditation Council for Pharmacy Education. Accreditation standards and guidelines for the professional program in pharmacy leading to the doctor of pharmacy degree. ACPE. [https://www.acpe-accredit.org/pdf/ACPE\\_Revised\\_PharmD\\_Standards\\_Adopted\\_Jan152006.pdf](https://www.acpe-accredit.org/pdf/ACPE_Revised_PharmD_Standards_Adopted_Jan152006.pdf). Accessed May 10, 2012.
12. Nkansah NT, Youmans SL, Agness CF, Assemi M. Fostering and managing diversity in schools of pharmacy. *Am J Pharm Educ.* 2009;73(8):Article 152.
13. American Society of Health-System Pharmacists. ASHP statement on racial and ethnic disparities in health care. *Am J Health-Syst Pharm.* 2008;65:728-733.
14. American Association of Colleges of Pharmacy. 2011 profile of pharmacy students. <http://www.aacp.org/resources/research/institutionalresearch/Pages/StudentApplications,EnrollmentsandDegreesConferred.aspx>. Accessed January 16, 2013.