

The Educational Pipeline and Diversity in Dietetics

AS PRACTITIONER DIVERSITY has long been a concern in allied health care, it's no surprise that a profession whose face is predominantly white and female would look inward and outward for remedies.

How diverse is the dietetics profession? Following the typical approach to defining "diversity" narrowly as pertaining only to race and ethnicity, according to the Academy of Nutrition and Dietetics (hereafter referred to as "Academy") 2008 Needs Assessment, 11% of practicing members self-identified as belonging to a racial or ethnic minority group, and among the 30,000+ nonmember (but eligible) dietetics professionals, only 14% self-identified as diverse.¹

This gap is detectable across the trajectory to a career in dietetics. Although the period 2001–2008 saw gains in the ethnic diversity of students enrolled in and actually attending all dietetics program types, compared with the time period 1993–2000, the percentage of ethnic diversity in these institutions remained stagnant—specifically, as the number of Hispanic and Asian students increased, there was a decrease in the number of black students. There was also a decrease over time in the number of matriculated male students when comparing 1993–2000 with 2001–2008, particularly in coordinated programs.²

Furthermore, a disparity in the acceptance of minority students—sex, ethnic, and racial—into dietetic internship programs has been identified. Whereas average enrollment of diverse students across dietetics programs is 23%, the typical acceptance for internship programs is 16.3%² (note, however, this reality has only been ac-

knowledged but not studied in terms of cause and effect nor as part of a specific examination of diversity within the profession; the paucity of dietetic internships is a known problem not limited only to diversity-related concerns).

This divide in percentages is not unique to dietetics. Data from the American Association of Medical Colleges (AAMC)³ show that in 2007, whereas whites comprised 59.9% of the student body in medical schools, black students represented 6.4% and Hispanics 7.2% of medical students.⁴ The percentages of practicing physicians reflect nearly the same. In 2008, the AAMC reported that Hispanics and blacks separately comprised approximately 16% of the US population in 2008, but Hispanics represented fewer than 6% and blacks represented slightly more than 6% of all physicians.^{5,6} Blacks, Native Americans, and Hispanics together comprise only 6% of medical school faculty.⁷

Despite these challenges, this is not a reality that dietetics and other health care professions need simply to embrace. The educational pipeline through academics is an effective means for recruiting and retaining a more diverse student body with the intent of ultimately building a more diverse practitioner pool. Although many programs in other health care arenas—as well as a few in dietetics—have been launched, studied, and sometimes emulated with mixed results, a more robust pipeline to dietetics is necessary if an increase in the diversity among registered dietitians (RDs) and dietetic technicians, registered (DTRs), is to be realized.

DIVERSITY IN HEALTH CARE

Developing a practitioner pool that mirrors the demographic breakdown of racial and ethnic groups is a common goal among companies, professional associations, and institutions across the United States. However, despite lofty goals to increase the percentages of specific groups within a specific time frame, transforming the demographic

breakdown of a profession is a long-term, and far from simple, task.

The most basic case for inclusiveness in the general sense is that a range of experiences and world views can only enhance the collective. So, if it's not easy to accomplish diversity in percentages, why isn't enhancing the cultural competency of the existing dietetics workforce enough?

Cultural competence is an essential endeavor in health care, as practitioners who are "educated in environments that are emblematic of the diverse society they will be called upon to serve"⁸ are an asset to the profession. But beyond speaking the language or understanding the challenges of a diverse patient/client constituency, diversity among practitioners is seen as key to reducing disparities in delivery of care. Part of this effect is merely the result of the greater likelihood that health practitioners who themselves belong to racial and ethnic minority groups will provide care in medically underserved communities⁴ and that health care consumers indicate higher satisfaction when their providers are of their same ethnic background.⁹

Underrepresentation comes not simply by way of members of specific groups choosing not to enter a given field. A range of factors—from lack of academic preparation, economic ability, and support to basic lack of exposure to potential careers (including dietetics)—skews the demographic percentages in the health professions.

Recognizing that the increase in diverse members would require efforts at the academic level, in 1998, the Academy indicated a commitment to increasing diversity in educational preparation of underrepresented groups by 5 percentage points during a 6-year period.¹⁰ The Academy has made clear that it is dedicated to diversity. It has stated its belief that RDs and DTRs "... have an ethical responsibility to create social, evidence-based, and pragmatic solutions to eliminate dietetics-related inequalities"¹¹ and, like many branches of medicine, the belief is that this

This article was written by **Karen Stein, MFA**, a freelance writer in Traverse City, MI, consultant editor for the *Nutrition Care Manual*, and a former editor at the *Journal*.

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outcome can be achieved with a more diverse membership.

The Academy has also supplemented this philosophy with action. Among other activities, the Academy has issued an official Diversity Philosophy statement, developed the Diversity Mentoring Toolkit,¹¹ supported the creation of Member Interest Groups, founded the Diversity Action and Diversity Leaders Program awards, generated extensive cultural competency resources, and included pan-ethnic images in Academy messaging.¹² But the goal to increase the percentages of minority practitioners has not yet been realized—in fact, progress to date has been relatively minimal.¹³

WHAT IS THE EDUCATIONAL PIPELINE?

The educational pipeline in general terms is an integrated system of institutions, from primary schools to universities, that seeks to attract students to college with a goal of augmenting the percentage of skilled, knowledgeable individuals in the workforce.¹⁴ The emphasis in the general educational pipeline is on the socioeconomics of education—by involving the community, businesses, and parents—and on funding low-income school districts to foster improvement in basic academic skills and assisting first-year college students in attaining academic success. The goal is to capitalize on the economic benefits of the higher salaries and lower need for social service resources among college graduates.¹⁴

When speaking of the educational pipeline for professions, however, the emphasis is on programming to generate early interest among students from underrepresented groups who receive early exposure to professions to generate future interest in selecting those professions as a career as they move through K-12 and on to college. The Academy has noted that active, committed participation within academia is crucial for addressing the low percentages of diversity in dietetics. “The pipeline for ensuring the training of minority students rests largely within academia and, therefore, providers of dietetics education play a crucial part in providing training and opportunities for cultural awareness that ultimately reduce health disparities.”¹⁵

Frequently these programs are used as the potential means for increasing diversity (often defined in racial and ethnic terms) in a given profession. However, targeting specific students along the pipeline is not as easy as setting forth a quota for a specific number of people of a specific group and then taking the messaging to the schools. The disparity stems, in part, from a smaller pool of students of color moving past a high school-level education. From 1987 to 2006, among the 82% of individuals aged 18 to 24 who had completed high school, Hispanics had a graduation rate of 68% and blacks a rate of 76% compared with 87% of whites.⁴

Although diversity initiatives frequently focus on race and ethnicity, socioeconomic status is the major predictor of college readiness. Historically, low-income students have struggled more often in academics for various reasons, including family support. In 2006, only 10% of parents of low socioeconomic status believed their adolescent children were suited for college attendance. Furthermore, without accounting for risk factors that affect college readiness (eg, parental involvement, family structure), according to data published in 2001, only 29% of students of low socioeconomic status demonstrated the minimum qualifications for college.¹⁶ Comparatively, middle-income families have a higher likelihood of orienting their children for college readiness with extracurricular activities, out-of-school academic enrichment activities, and discussions in the home geared toward building critical thinking skills.¹⁶

Consider this added layer of complexity when reflecting on what prevents certain groups from following the path through undergraduate education and toward medical and allied professions. Among students attending the top 146 US colleges, only 10% are from families in the bottom 50% of the income distribution in the United States.¹⁷ High schools with a large population of low-income students cannot offer the research opportunities, collaboration with community-based health facilities, and partnerships with university-level health professionals and they lack the staff to adequately advise these students on the possibility of such careers. For the students who do demonstrate an interest in math and science, discouragement from enroll-

ment in college-preparatory and honors classes is not uncommon—at the same time that the interest of their peers in these subjects declines¹⁷—and they are unable to develop the necessary skills for rigorous advanced study.¹⁸ Frequently this outcome is because of substandard science programs in the schools, resulting from the lack of skilled science teachers.¹⁸

Additional academic challenges that underscore the need for the pipeline include the following¹⁶:

- negative perceptions of college attendance among peer groups;
- negative perception of college attendance among parents, often based on limited financial resources;
- substandard academic preparation, particularly in science and math;
- lack of support among teachers and guidance counselors who have lower academic expectations of minority and low-income students and who believe not all students are capable of collegiate preparation; and
- unfamiliarity with and inadequate guidance through the college planning, application, admissions, and financial aid processes.

Therefore, if the profession wishes to augment the numbers of underrepresented minorities, it must be noted that supporting these particular students early on and consistently throughout their educational experience is paramount.

THE NEED FOR A PIPELINE TO DIETETICS

Given that the dietetics profession is predominantly white and female (in fiscal year 2010, 85.3% of the total membership, 71,800 at that time, reported being white and 14.7% reported being “diverse”¹⁹), organizational focus on diversity in the profession has been on underrepresented minorities and men (not typically identified in the path to diversification). This focus has been evident since as early as 1984, when the Study Commission on Dietetics noted that even in the absence of actively restricting other racial groups and men from entering the profession, little ef-

fort had been made to encourage their recruitment.²⁰ Gains in percentages have been made. Although fewer than 5% of RDs in 2007 were black,⁹ this percentage marks an increase from 2.5% in 1997.²¹

Barriers to entering the profession are not necessarily related to existing percentages of diversity. A 2008 survey of students attending Virginia Polytechnic Institute and State University noted that, "The impact of the lack of diversity in dietetics was mixed among survey participants: some indicated that the lack of diversity in their future professions was not a turnoff to entering the field—in fact, a lack of diversity was perceived by some as an opportunity to serve as a role model for others; others, however, believed the lack of diversity in the classrooms, career fairs, and advisory boards was noticeable and negative."⁹ The rigorous science required in academic dietetics was not identified as a problem for students who participated in this survey—rather, the identified negative was the requirement for additional training and education beyond the bachelor's degree, as it could postpone their ability to earn a salary, pay off student loans, and build a career.⁹

The extension of the pipeline to K-12 is particularly necessary in the interest of recruiting students to dietetics. The decision to begin the academic path toward a career in dietetics is frequently made while enrolled at an undergraduate institution or when older than 21 years.²⁰ Among 1,695 dietetics students throughout the United States who completed a self-administered questionnaire regarding career selection, 55% noted their career decision was made in college and 10% noted that work experience later in life had influenced their decision.²⁰ In a 2000 study that explored minority recruitment in dietetics²¹ by way of telephone surveys of RDs and DTRs, most participants suggested that the lack of men entering the field was the result of lower salaries and the stereotype of dietetics as a "women's profession." Racial and ethnic minorities were thought to be underrepresented because of concern regarding the difficulty of the academic requirements—as well as the perception that faculty responded to them with an implicit expectation that they would have academic difficulties—and

the belief that a salary in dietetics is ultimately not proportionate to the effort it took to attain the credentials. However, the most frequent suggestion was that among minorities, there is a knowledge gap regarding the field as a career itself.²¹ Indeed, in the survey at Virginia Polytechnic, students not pursuing a dietetics major noted that dietetics as a career option was not necessarily presented to them in their earlier years of schooling; participants suggested targeting recruitment efforts to middle school and high school students.⁹

THE CHALLENGE TO PIPELINE PROGRAMS

Adding to the complexity of the need for pipeline programs is that although there has been a measured positive change in the number of underrepresented minority students attending college, this same outcome has not been noted in the number of college graduates. In the period 1976 to 2009, although the percentage of white students enrolled in college dropped from 83% to 62%, Hispanic students attending college increased from 3% to 12%; Asian/Pacific Islander students, from 2% to 7%; and black students, from 9% to 14%.²² However, the number of students actually graduating is far less. According to 2008 data, approximately three quarters of US high school students graduate within 4 years²³ but only 50% of college students graduate within 6 years—for example, 33% of students at the University of Massachusetts, fewer than 41% at the University of Montana, and 44% at the University of New Mexico graduate within 6 years²⁴—and only 39% of adults ages 25 to 39 years have received a postsecondary degree.²³

Pipeline programs are generally underfunded. TRIO and GEAR UP, two federal pipeline programs that focus on college preparation for low-income students, received only \$1.1 billion (combined) in 2011 in the federal budget, compared with \$35 billion budgeted for Pell grants, which are given to students already enrolled in institutions of higher learning.¹⁶

In fact, academic enrichment programs for underserved student populations are frequent targets for budgetary cutbacks.¹⁷ Pipeline programs targeting K-12 through college students in health profession programs saw steep

declines in their national funding from fiscal year 2004 to fiscal year 2006. For example, the Health Careers Opportunity Program, which provides academic and psychosocial support, career shadowing, scholarships, and stipends for K-12 and undergraduate students pursuing a degree (or potential degree) in allied health, saw funding drop from \$36,160,000 in 2004 to \$3,957,000 in 2006, while health education and training centers that offer academic support and community partnership building along the K-12 through faculty pipelines saw their funding cut from \$3,851,000 in 2004 to \$0 in 2006. And Centers of Excellence, which provide academic and financial support along with professional opportunities for K-12 through college students, health professionals, and faculty, saw the total number of award recipients drop from 34 institutions to four institutions from 2005 to 2006.²⁵

The skyrocketing cost of higher education—medical school in particular—is a significant deterrent for underrepresented minority and low-income students. In 2003, the average medical school debt was slightly more than \$109,000¹⁸; in 2007, this number had jumped to \$137,500.²⁶ Thus, these students will often select careers where financial stability is more easily and quickly attainable.

Also at issue is that affirmative action programs have been largely challenged in the courts, although with mixed results. Several states, including California, Nebraska, and Michigan, have effectively banned race-based collegiate admissions (and the US Supreme Court announced in February 2012 that it will hear an anti-Affirmative Action challenge from Texas). The courts, in determining whether race-based policies are constitutional under the Equal Protection Clause (14th Amendment), weigh against the legal standards of whether there is a compelling state interest to do so (that is, if it serves a legitimate and highly substantial governmental interest) and whether the program has been narrowly tailored based on necessity (viable alternatives considered), flexibility (race is only one of many factors considered), burden (if nonminorities are not unduly affected by the program), and periodic review (to ensure race continues to be an important factor over time).²⁷

The impact of these challenges has been measurable. In California, which successfully banned race-based admissions in 1996, there were immediate effects noted. Whereas California medical schools had accepted 233 minority residents in 1993, the number dropped to 157 in 1997 and 156 in 2001.²⁷ The college admissions for students of color continued to drop across the board. At California universities overall, between academic years 2002–2003 and 2003–2004, the decline in admissions for black, Native American, Hispanic, and Asian students were 15%, 9.2%, 3%, and 2%, respectively.²⁸

Affirmative action decisions should not have any bearing on pipeline programs. In fact, “there is not a specific body of equal opportunity case law that addresses the admission/selection of racial and ethnic minorities to precollege, outreach, pipeline, or preprofessional admissions programs”—particularly because the US Department of Education itself deems such programs to be enriching to the collegiate applicant pool by preparing more individuals to reach academic success.²⁷ Yet, many higher education officials and attorneys believe such rulings do apply to pipeline programs and so there has been increasing caution around the administration and funding of these programs.²⁷

Frequent barriers to the success of pipeline programs that target diversity in science and health professions are as follows¹⁷:

- Programs are brief and target a large number of students.
- Individual mentoring and personalized counseling are minimal.
- Program structures do not provide students with direct access to college life, professionals working in the field, or university resources.
- Lack of long-term support for the students once they have completed the program.
- Despite the best outcomes resulting from targeting students early in their academic trajectory, some programs focus on undergraduate students already in the higher education system.

A 2003 study of 92 underrepresented minority students—14 college students and 78 dental school students of vary-

ing socioeconomic statuses attending six colleges in four regions of the United States—noted that poor advising to help them prepare for the dental school application and lack of outreach from the schools themselves had had a negative effect on their experience. African-American students particularly felt isolated, with limited resources and unsupportive, nondiverse faculty in what they termed a “white environment.”²⁹ A 2006 follow-up study with 31 recent graduates with a dental practice (underrepresented minorities and not), deans, advisors, professors, and pipeline project directors sought to determine whether the concerns revealed in 2003 had been adequately addressed. Participants in the 2006 focus group believed that pipeline programs were addressing shortages of underrepresented minorities in dental schools but acknowledged that the lack of funds would not likely sustain the improvements in the long term.²⁹

A SAMPLING OF PIPELINE PROGRAMS

Associations frequently launch pipeline initiatives to reach out to underrepresented minorities and attract them to professions. For example, the American Medical Association’s Doctors Back to School program⁷ sends minority physicians and medical students to deliver presentations about studying for or practicing a career in medicine and to introduce professional role models to children at schools, community centers, or religious edifices. Participants are furnished with an action kit (<http://www.ama-assn.org/resources/doc/hit/doctors-back-to-school.pdf>) that provides details regarding how to arrange and conduct such presentations. Although such programs are useful in exposing children to consideration of a career in medicine, it is the more intensive programs that play a defining role in both attracting students to the health professions and guiding them through the process of joining their ranks.

Although there is a general consensus that targeting students earlier than college—and perhaps earlier than high school—yields the most benefits from the pipeline, some programs do target students who have already enrolled in undergraduate programs. For example, the Sophie Davis School of Biomedical Education,¹⁸ a City University of New

York program, targets inner city college-age individuals for a 7-year joint program for procuring a bachelor of science and medical degree. Approximately half of the incoming students in this program are first-generation college attendees. By deemphasizing premedical studies and the Medical College Admission Test, students are encouraged to increase their knowledge and become more effective physicians (rather than studying as a means to an end) and early labeling as “medical students” improves motivation and dedication to the goal of becoming physicians. The program also includes a health center clinic in culturally and racially different communities across the five boroughs of New York City. In 31 years, from the program’s inception to 2004, the program graduated 1,400 individuals (39% whites, 28% Asians, 25% blacks, 8% Latino; 60% female), with fewer than 1% of students failing to receive the degree in allopathic medicine (MD degree).¹⁸

There have been several longer-term pipeline programs that have sought to narrow the gap in minority/underserved population practitioner percentages and that have had varying degrees of success.

The Association of American Medical Colleges Project 3000 by 2000, launched in 1991, with the ultimate goal of adding 3,000 underrepresented minorities to the medical school. This number was based on the proportion of minorities in the United States at that time; when the program launched, there were 1,584 minorities attending medical schools.³⁰ Reflecting the program’s premise that the pipeline to schools in the health professions was a K-12 effort to keep students’ interest in science active and to bolster their capacity to serve in medicine—and that medical and health professional schools could not address the small percentage of minority student enrollment alone—Project 3000 by 2000 encouraged medical schools to develop educational partnerships with local school districts and undergraduate colleges that enrolled a high percentage of minority students.^{3,30}

The Health Professions Partnership—a collaboration between the Robert Wood Johnson Foundation and the W.K. Kellogg Foundation—was an offshoot of Project 3000 by 2000 and had the goal to form partnerships among school districts, community organiza-

Highlights from the University of Illinois at Chicago's School of Public Health

- Designed a curriculum for public health, including summer programming, for students in 6th through 8th grades.
- Launched public health sciences and careers club/summer public health institute for high school students.
- Offered programs to bolster academic performance, including a precollege course for disadvantaged students accepted into the School of Public Health.

Outcomes in the 5 years of the School of Public Health's Program

- 50% increase in the number of black and Hispanic applicants
- 78% increase in the number of minority enrollees
- 43% increase in the number of minority graduates

Figure. Details of one Health Professions Partnership Initiative program. (Source: Robert Wood Johnson Foundation.³⁰)

tions, and colleges to increase minority participation in the health professions. In its 10 years (1995–2005), the program provided 3 rounds of grants to fund a total of 26 projects (see the Figure for the outcomes in a program that targeted School of Public Health enrollment).

The initiative ultimately added approximately 2,000 minority students to the pool of students applying to a higher educational program in the health professions. Pipeline programs

toward health-related careers have been mostly successful in increasing the numbers of applicants, and sometimes matriculants, in higher education. Since 1989, pipeline programs in medicine have served 16,575 students. As of 2008, according to Association of American Medical Colleges data, the Robert Wood Johnson's Summer Medical and Dental Education and Minority Medical Education (now called Summer Medical Education) programs saw 8,903 undergraduate students (61% of the total 14,615 students) apply to medical school and 64% of applicants accepted.⁴ However, it must be emphasized that increasing the number of medical school applicants and accepted students is not in itself the end-goal. A postprogram assessment of the Health Professions Partnership Initiative concluded that although it seemed that gains were made, it was not possible to conclusively identify whether the programs would successfully achieve the ultimate goal—namely, adding minorities to the workforce.³⁰

The US Department of Health and Human Services in fiscal year 2011 launched its own initiative, intended to end racial and ethnic health disparities that includes \$2.1 million in grants for three groups to be used toward recruitment of undergraduate students from underserved communities to pursue study toward careers in public health and biomedical sciences.^{5,6,31} The Health Careers Opportunity Program expects grantees to use innovative strategies developed by the Health Resources and Services Administration to expand outreach, mentoring, and early educational opportunities for underrepresented minorities in schools of medicine, dentistry, allied health, phar-

macy, and public health, as well as graduate programs in behavioral/mental health.^{5,31}

Launched in 1988, the Stanford Medical Youth Science Program¹⁷ provides an excellent example of an effective pipeline program, as it targets students before they graduate high school and it includes some of the pipeline program features that are most crucial for success.

This summer residential program—premised on the belief that there are many low-income students who want to pursue studies in the health sciences but lack adequate, requisite resources—provides academic enrichment, personalized guidance, and long-term support for low-income and underrepresented minority students (high school juniors and seniors). Applicants to this program must come from low-income households, and priority is given to first-generation college students who lack role models and have “shown resiliency in the face of personal hardship.” (Determination of low-income status is based on education and occupation of the parent or guardian, family income and number of individuals it supports, and cost of living.) These students, however, are not required to be persons of color or to belong to an ethnic minority group. Among the students who participated in this program from its inception through 2005 (n=405), 33.3% were Latino, 26.7% were Southeast and East Asian, 21.7% were black, 7.2% white, 7.2% “other,” and 4.0% Native American. Staffed by Stanford students who serve as counselors, teachers, and role models, the program offers a two-student to one staff person ratio.¹⁷

Key features of the program include the following:

- personalized college admissions preparation and career counseling;
- exposure to college life;
- weekly meetings with a Stanford medical student, graduate student, or health professional of a similar ethnic and socioeconomic background;
- weekend field trips to cultural events and prominent universities and laboratories;
- direct interaction and apprenticeships with role models; and
- granting of 10 high school units of credit in physiology

Part of this program's success lies in its long-term support of the students who attend. Letters of recommendation for college and jobs, assistance in seeking out scholarships and research apprenticeships, and personal support in times of difficult personal challenges are part of the program experience.

Proving a success rate for pipeline programs, in general, is very difficult because limited funds translate to limited resources to conduct follow-up over the long term. However, because the Stanford program is dedicated to developing strong student-staff relationships and maintaining detailed databases of contact information, student outcomes have been recorded. All 405 Stanford program participants from 1988 to 2005 graduated high school, 99% went on to attend a 2-year or 4-year college, and 52% had graduated from or were attending medical/graduate school.¹⁷

Pipeline programs have also been attempted in dietetics. The Nutrition Discovery Experience at Saint Louis University (SLU) in St Louis, MO—funded by the Academy's Diversity Grant in 2009—was a one-time summer program developed by Lori A. Jones, MPH, MS, RD, LD, in the Department of Nutrition and Dietetics at SLU, in collaboration with the Department of Nutrition and Dietetics (the program was modeled on a similar program developed by SLU's medical school). Administrators of the program were hoping to recruit 10 high school students who had just completed their junior year and ideally who were minority and/or male (in concert with how the Academy defined diversity at the time), although

all interested parties were welcome to apply.

The program ultimately hosted five students—four of minority status and one not, three students finishing their junior year and two about to enter junior year. During a 2-week period, students spent half-days at SLU's Doisy College of Health Science, participating in informative and hands-on activities to expose them to the work of an RD, such as the following:

- baked muffins using three different techniques to explore food science;
- prepared food items for meal service;
- toured a hospital with a clinical RD;
- developed their own "Got Milk?" campaigns while working with a community dietitian;
- viewed a cadaver organ dissection to witness and understand how poor diet and unhealthy lifestyle affect the body;
- toured the school's garden with the master gardener to learn about herbs;
- cultured bacteria samples in a laboratory to identify bacteria on foodservice surfaces; and
- listened to presentations from specialist RDs, such as a sports nutritionist who is an RD, a chef who was an RD, and a master gardener who was also an RD.

Jones' premise in developing this program was in line with the results of previous surveys regarding minorities selecting dietetics as a career. "They were unfamiliar with dietetics as a profession, which limited their consideration of it as a major in college." Although it was a successful program—Jones notes that the students enjoyed the experience overall and developed a better understanding, and thus a more favorable opinion, of dietetics as a career—follow-up with participants revealed that none of the students selected SLU for college nor nutrition as a major at the institutions they did attend.

Jones believes that a major challenge to the pipeline's effectiveness is timing. "Junior year is too late to plant this

seed," she says. "We need to get them thinking about dietetics earlier and ensure their coursework is preparatory." This view echoes the sentiment of other groups that have offered pipeline programming. One of the major conclusions of the Health Professions Partnership Initiative was that interventions targeting high school and college-age students may be too late.³¹ Although it was a one-time offering, Jones is currently working on a proposal to build the program's capacity and modify the format, including targeting it to a slightly younger age group.

CONCLUSION

The Health Professions Partnership Initiative identified some crucial lessons learned with regard to the potential success or failure of a pipeline program and partnership³⁰:

- define goals and objectives clearly and ensure they have stakeholder consensus;
- develop a strategic plan that is implemented from day 1 of the program;
- investigate multiple funding sources to meet the program needs;
- specify the role each partnering institution will have while allowing for flexibility as changing needs of the program may present later;
- engage students in the pipeline as early as possible; and
- focus efforts on structured activities for small, clearly identified student cohorts.

As noted earlier in this article, "diversity" defined as belonging to a racial or ethnic minority group is quite narrow, and therefore the objective is not best served if "clearly identified student cohorts" are defined as "blacks" or "Asians" or similar. Flexibility in how "underrepresented" is defined is key. The Association of American Medical Colleges—in response to anti-affirmative action rulings that thwarted the success of Project 3000 by 2000—modified its definition of "underrepresentation" as applying to narrowly defined (ethnic and racial) groups to allow for continual evolution that "accommodates including and removing under-

represented groups on the basis of changing demographics of society and the profession.”³² In the current socio-economic climate, organizations and institutions of higher learning would benefit from expanding their perception of diversity to also encompass low-income and first-generation college individuals rather than focusing on race and ethnicity.

The bottom line, however, is that if members of a profession wish to dismantle barriers to underrepresented groups joining their ranks and expanding diversity, it cannot be a responsibility that falls on the member organization alone. Attempts must reflect a collaborative effort that involves an extensive list of stakeholders, including “parents, students, teachers, school counselors and administrators, parent/teacher associations and organizations, teaching training programs, state and local boards of education, school districts, libraries, government officials, and educational oversight and accreditation agencies,”²⁸ along with the institutions of higher learning that will ultimately be charged with educating future generations of practitioners. As noted by Judith Rodriguez, former Academy president, with regard to increasing the diversity of the dietetics profession: “This is a task we must all undertake together or we will fail together.”¹³

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