Strategies and Recommendations to Increase Diversity in Dietetics

As the population in the United States becomes more diverse, health professions in the country require a diverse workforce to ensure proper and more personalized care for patients. Currently, whites account for more than 80% of the health professional workforce, whereas minorities are underrepresented in the field.

The field of dietetics looks racially and ethnically similar to other health professions; according to the Commission on Dietetic Registration (CDR), of 99,770 registered dietitian nutritionists (RDN) as of January 8, 2018, 76,229 (76.4%) of them are white. Furthermore, no clear increase in diversity has happened in the past few years; racial minorities constituted 11.9% of RDNs in 2013 and 11.7% in 2018 (not including “other” or unreported categories) (Table).

Of greater concern, we have seen an 11.6% decrease in the number of black (not Hispanic) students/interns in the last 18 years. Positive changes have occurred as well: notably, a 133% increase in Hispanic students/interns occurring during the same time. Because RDNs remain overwhelmingly white, the number of RDNs from different racial and ethnic backgrounds must increase dramatically to keep up with the changing American population, because the minority population is expected to rise in the United States to 56% by 2060. Equally important is the need to ensure equity and reduce institutional barriers that perpetuate disparities in dietetics.

Although the Commission on Dietetic Registration and the Academy of Nutrition and Dietetics (Academy), like many groups of health professionals, recognize the need for and importance of having a diverse workforce that reflects the patient population, fewer minority students are completing degrees in the sciences, despite the fact that they major in health fields at the same rates as whites. The lack of diversity in the student pool can be partially attributed to the inequality that has long existed in the higher education system. The result of this educational inequality may affect students’ educational attainment, competence in their respective health fields, and ultimately career advancement. To achieve a diverse workforce, a clear need exists to decrease the achievement gap by addressing the knowledge, skills, and resources that disadvantaged students may be lacking. This article examines current barriers to diversity in nutrition and dietetics, as well as solutions to address the institutional barriers that prevent an increase in diversity and equity in the field.

OBTAINING THE REGISTERED DIETITIAN NUTRITIONIST CREDENTIAL

To become an RDN, students are required to complete a series of courses from an accredited Didactic Program in Dietetics (DPD) and obtain a bachelor's degree. Students then apply for and match with a Dietetic Internship (DI) and, on successful completion of the DI, are eligible to sit for the national RDN examination. However, admission to a DI program is a very competitive process, and the odds of getting matched to a DI have not exceeded 56% over the past 5 years. When applicants are considered for acceptance to a DI, two critical areas by which they are assessed are academic performance and experience in the field. High academic achievement is a challenge for students of low socioeconomic status (SES). Many prospective interns gain experience in dietetics by volunteering. However, this may be a particular challenge for low-SES students, because they may not have the flexibility to work for little or no wages.

Additional factors such as the cost of DIs and lack of familiarity with competitive applications may present additional barriers for minority or low-SES students. Compared with their more affluent peers, socioeconomically disadvantaged students are more likely to struggle from the burden of college tuition. The financial burden of a DI is high as well; students are encouraged to apply to several DIs, some of which may be out-of-state or require relocation, and students are expected to absorb all costs. In addition, many minority students may be the first members in their family to graduate from a 4-year postsecondary institution. As a result, they may lack the knowledge, information, or other resources needed to navigate the competitive DI application process. These issues are increasingly important because, in 2024, a master’s degree will be required to become an RDN, which will increase the expense for students. Furthermore, admittance to a master's program often depends on a student's Graduate Record Examination score, which may present an additional achievement barrier for low-SES students.

EDUCATIONAL ATTAINMENT IN HEALTH PROFESSIONS

Medical School

Although research about the educational attainment of minority students in dietetics is limited, more research has been conducted in the field of medicine. According to the American Association of Medical Colleges
(AAMC), over 85% of medical students have at least one parent with a college degree, and over 50% have at least one parent with a graduate degree. A strong correlation between SES and access to medical school is also well documented by AAMC; in general, higher SES leads to a greater chance of gaining admission.

Furthermore, economic and racial/ethnic disadvantages are reflected in traditional medical school selection factors. For instance, Medical College Admission Test scores and undergraduate grade point average, two decisive selection criteria for medical school admission, are closely related to race and SES; both lower-income and minority applicants are disadvantaged in gaining admission to medical schools based on their Medical College Admission Test scores and undergraduate grade point averages. Given the similarities in selection criteria for medical school and DIs, these findings may be similar in dietetics.

**Clinical Social Work**
The National Association of Social Workers is explicitly dedicated to social justice and reducing racial and ethnic disparities, which is evident in their demographic breakdown. Thirty-seven percent of baccalaureate students, 38.7% of full-time master’s students, and 42.3% of part-time master’s students are from underrepresented groups. One example of a policy aimed to increase the success of low-SES and minority students defines what counts toward supervised field experience. Baccalaureate and master’s-degree programs require hundreds of hours of field education (400 and 900, respectively) to fulfill the degree requirements. One becomes a Licensed Master Social Worker after passing a board examination and completing an additional 3,000 hours of field education. To complete these required hours, students may obtain compensated entry-level jobs in the field while working toward a degree or credential.

**Nursing**
One can become a Registered Nurse with only an associate’s degree, although a bachelor’s degree in nursing is more frequently obtained (33.6% and 44.7% of nurses in 2016, respectively). Regardless of the educational differences in earning the Registered Nurse credential, minorities are not adequately represented in the nursing field; only 19% of all nurses are from racial or ethnic minority groups. To increase diversity, pipeline programs have been championed by the American Association of Colleges of Nursing to promote diversity in the field. In the last 10 years, more than $31 million in scholarship funds has been distributed to minority students through collaborations between the American Association of Colleges of Nursing and charitable organizations. The funds are offered through mentorship and leadership programs that provide not only financial but academic support.

Literature has shown that minority students or those of lower SES do not perform as well as their peers from high-SES families during postsecondary education. Low-SES students experience delayed graduation rates because of academic difficulties and nonacademic problems (e.g., personal, medical) at higher rates than their higher-income peers. Clearly, low SES puts students at various disadvantages at multiple levels throughout the education system, including college enrollment, course performances, and final degree attainment. Dietetics might look to other fields to explore opportunities to support low-SES and minority students, which may help increase the academic success and mitigate the financial burden of becoming an RDN.

### CURRENT SOLUTIONS AND OPPORTUNITIES IN DIETETICS

During the last 2 decades, the Academy has implemented several strategies to increase diversity, which are focused mostly on increasing access to and the affordability of undergraduate education and training. Examples of the Academy’s efforts are the Diversity Mentoring Toolkit, member interest groups, mentoring programs, diversity promotion grants, and extensive cultural competency resources. However, these resources and interventions have not addressed the institutional barriers to diversity, which may be one reason disparities persist. Suggestions and opportunities to increase the diversity of dietetics and reduce the financial burden on students are presented in the following sections and in the Figure.

**Pipeline Programs and Mentoring**
Pipeline programs have been one impactful way to mitigate the need for diversity in dietetics, because they can serve as a vehicle to ignite early interest in students from underrepresented groups in primary and secondary school. However, since it was proposed in 2013, no formal pipeline has been established or funded for dietetics. Because pipeline programs are often underfunded, a lower-cost
approach such as holistic admissions may be warranted. One suggestion to increase diversity in the field that emerged from interviews with minority dietitians was to include minority RDNs in early recruitment efforts. Holistic admissions encourages admissions committees to consider a broader range of factors reflecting an applicant’s academic readiness, contribution to the incoming class, and potential for success both in school and later as a professional, as well as specifically considering race and ethnicity in admissions decisions. Evidence shows that other health professions’ programs that use holistic admissions strategies experience greater diversity of the student body, maintain academic quality of incoming student cohorts, maintain or slightly increase student retention, maintain or improve student academic performance (including the number of students passing licensing examinations), and improve student engagement across races and ethnicities. Already adopted and promoted in nursing programs, holistic admissions may be beneficial for undergraduate, graduate, or DI programs.

Mentoring is a powerful and supportive learning relationship to improve professional development. In

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<tr>
<td>Didactic Program in Dietetics (DPD) Program Recruitment, Admissions, and Academic Support</td>
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<tr>
<td>Pipeline programs</td>
<td>Academy members, DPD students, faculty, and graduates</td>
<td>Pipeline programs generate interest in careers while students are enrolled in primary and secondary school. Members of the Academy who are DPD Program graduates can reach out to underserved schools in their areas to introduce students to dietetics. DPD faculty may attend career fairs that cater to high school students.</td>
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<td>Holistic admissions</td>
<td>Admissions personnel &amp; DPD Directors</td>
<td>Instead of focusing solely on test scores and grade point average, holistic review committees consider factors including race, ethnicity, sex, socioeconomic status, experience, and perspective as a strategy to make programs more diverse.</td>
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<td>Mentoring programs</td>
<td>DPD Directors &amp; program faculty</td>
<td>Mentoring programs improve students’ exposure to the field, support for persistence in a program, professional skills, and confidence</td>
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<td>Paid supervised practice</td>
<td>DPD Directors &amp; dietetics internship (DI) Directors</td>
<td>Many other health professions offer paid supervised practice or incorporate supervised practice into coursework, which helps reduce the financial burden on students. Universities that house both DPD and DI programs could incorporate more supervised practice into DPD programs and give credit for those hours in the internship (more below).</td>
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**Dietetic Internship Support**

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<td>Free/heavily subsidized dietetic internships</td>
<td>DI Directors</td>
<td>Creating free or heavily subsidized internships may not be feasible initially, but creating scholarships to provide one or two free internships each year may be awarded to students who demonstrate great need.</td>
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<td>Loan repayment</td>
<td>DI Directors, Academy members</td>
<td>The National Health Service Corps offers loan repayment to many other behavioral health program clinicians. Though the Academy has recommended that dietetics be included in these programs, a higher level or coordinated advocacy by DI Program Directors and Academy members is warranted.</td>
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<td>Credit for prior learning</td>
<td>DI Directors, Academy leadership</td>
<td>DI Directors should grant credit for prior learning to interns with experience that meet the required competencies (either for pay, as a job, or in previous coursework). More Academy resources should be made available to guide this strategy for students and DI Directors.</td>
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**Figure.** Strategies to increase the diversity of registered dietitian nutritionists.
fact, mentoring has been shown to be an effective means to diversify the health professions. Mentorship programs in dietetics provide opportunities for minority students to practice and advance the skill sets that they may be lacking (eg, networking, interviewing, resume development, and presenting) in various settings. By increasing students’ exposure to professional settings in dietetics and enhancing their confidence as well as competence, mentoring activities may help attract diverse students to the dietetics profession.

For example, mentoring programs that include both educational events and formal and informal social events are shown to retain Hispanic undergraduates in the dietetics profession. A recent study found that both dietetics and non-dietetics black students indicated that they were more likely to declare a major in a particular field with black faculty members, if the need for black students in their major were publicized, and if there were recruitment and retention practices targeted toward blacks. The recruitment and retention of underrepresented mentors in an educational setting should be intentional through promotion and tenure, especially at research-intensive universities.

Increasing equity in the admissions process and support during a dietetics program is critical. Recent research indicates that minority dietetics students experience bias in their education. Disparities occur in where they experience it; black respondents had the lowest mean scores on DPD faculty support and application fairness scales, whereas Asian respondents had the lowest mean scores on DPD peer support and faculty support for supervised practice application scales. Hispanic respondents had the lowest mean scores on DPD financial support. Whites reported receiving a higher level of faculty support in all phases of their dietetics education than students from other backgrounds. Taken together, these findings indicate the need for more robust support for dietetics students in many areas of their education and training. Although several peer and faculty mentoring programs have been tested, they may not be adopted widely enough to have the desired effect of increasing the success of minority students, or mentoring programs alone may not be enough.

Financial Support

Financial incentives, such as free internships and scholarships to subsidize education and training, have been suggested by minority students to increase DPD and DI affordability. Making all DIs free could be a future approach, because requiring interns to pay to work has been considered unethical by many professionals other than dietetics. In other health professions, like social work, nursing, and medicine, supervised practice is compensated or incorporated into coursework. Although this may not be attainable for DIs in the near future, identifying and pursuing sources of funding that could be used to reduce the financial burden on low-SES dietetics students is important. Unfortunately, current DIs that are tuition-free and provide stipends are still limited in number; the exact number is known. A survey of non-university-affiliated dietetic internship directors indicated that the financial burden for low-SES students of color is
of particular concern as the educational requirements to become an RDN increase.39

Loan repayment programs are another opportunity to decrease the financial burden on students who obtain loans to complete dietetic education. The National Health Service Corps (NHSC) Loan Repayment program offers primary care medical, dental, and mental/behavioral clinicians up to $50,000 to repay their health profession student loans in exchange for a 2-year commitment to work at an approved NHSC site in a high-need underserved area.40 In 2016, the Academy recommended that dietetics or nutrition be included in the professions that qualify for the repayment program; however, to date, RDNs are not included.41 Continued advocacy for inclusion in the NHSC loan repayment programs should be a priority.

DI Credit for Prior Learning
DI preceptors have the flexibility to minimize the amount of time students spend in an unpaid DI, because hours worked in the field or prior coursework may be counted toward supervised work experience.42 The number of hours that can be credited toward a student have no limit. The degree to which DI directors who serve minority or low-SES students make use of this policy is unknown. Furthermore, the degree to which dietetic interns are aware of this policy is unknown. DIs should establish a policy and a process for offering this pathway to students and for assessing achievement of competencies for students who have experience that may be credited. By granting credit, DI directors could help reduce the amount of time students spent in an unpaid work-based learning model and return students to the workforce.

FUTURE DIRECTIONS
Increasing ethnic and socioeconomic diversity in health care is essential to ensure that practitioners provide effective and personalized care for patients. Although the Academy has established a clear goal to increase diversity within the field of dietetics, and many important steps have been taken to achieve a more diverse workforce of dietitians, RDNs remain overwhelmingly white. Most importantly, minorities who enter the field successfully report being very satisfied with their careers and would like to encourage other minorities to pursue a career in dietetics.9

More data should be publicly available to monitor progress to meet diversity goals, such as which students enter into accredited DPDs and into DIs; the number of DPD programs that serve minority students; DPD program completion by minority students; DI match rates of minority students who successfully complete DPD programs; and pass rates on the examination to become RDNs by SES.

To develop bottom-up, innovative solutions that address the concerns and needs of minority students, understanding the perceptions of underrepresented students to entering the dietetics field is critical. More research should be done to explore the barriers that minority and low-income students experience and to identify strategies that have the potential to increase students’ academic and professional achievement. Ultimately, the findings of this research could be used to improve the resources and support vital to making the field of dietetics more racially, ethnically, and socioeconomically diverse.

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