

Postbaccalaureate Premedical Programs in the U.S.: Results of a National Survey

This *Analysis in Brief* (AIB) presents results of a survey that gathered information about the postbaccalaureate premedical (PBPM) programs at institutions throughout the U.S. in order to determine the prevalence of different program types and to describe their characteristics. Despite the important role PBPM programs can play in enhancing preparation of students aspiring to careers in medicine and in increasing physician workforce diversity, the relative prevalence of different types of PBPM programs and their characteristics have not been described in detail.

PBPM programs provide resources and opportunities for college graduates who want to pursue careers in medicine. Career-changer programs are for students who have not completed premedical coursework, and academic-record-enhancer programs are for students seeking to enhance their academic credentials. Data from the 2017 Association of American Medical Colleges (AAMC) Matriculating Student Questionnaire (MSQ) suggest that about 14% of U.S. matriculants at medical schools accredited by the Liaison Committee for Medical Education (LCME®) participated in a nondegree postbaccalaureate program: 5% to strengthen academic skills, 7% to complete premedical requirements, and 2% to both strengthen academic skills and complete premedical requirements.¹

PBPM program participants contribute to the diversity of medical school matriculating classes, and, at medical school graduation, both career-changer and academic-record-enhancer PBPM program participants were more likely than their peers who did not participate in PBPM programs to report plans to

practice in underserved areas.² Some PBPM programs are defined by their program missions and goals as diversity-focused, which means that they explicitly aim to provide opportunities to pursue health professions careers for students of groups underrepresented in the health professions or from economically or educationally disadvantaged backgrounds. Medical school graduates of these diversity-mission-based PBPM programs increase the diversity of the U.S. physician workforce and access to care for underserved populations.³⁻⁵

Methods

Data in this AIB come from a confidential questionnaire that was administered to program directors and coordinators of PBPM programs in the U.S. during the 2016-2017 academic year. The 60-item, online questionnaire included questions about program mission and goals, student admission requirements, the curriculum, opportunities for program completers, and challenges that may be confronting the program. Questionnaire items were developed with input from an external advisory working group of PBPM program directors.

Questionnaires were emailed to designated program directors or coordinators of all PBPM programs listed in the AAMC Postbaccalaureate Premedical Programs Database (226 as of November 2018).⁶ Being listed in this electronic, searchable database is voluntary. A program is listed in the database only on request of the program director or coordinator, who confirms that the program is appropriate for inclusion. Additional PBPM programs were identified through

public domain information at LCME-accredited medical schools' websites and by reviewing publications about PBPM programs. For institutions with multiple PBPM programs, a separate invitation was sent to the designated individual(s) for each program. In total, questionnaires were sent to designated individuals for 229 PBPM programs: 141 programs at institutions with AAMC-member medical schools and 88 at institutions without AAMC-member medical schools. Descriptive data for responses are presented.

Results

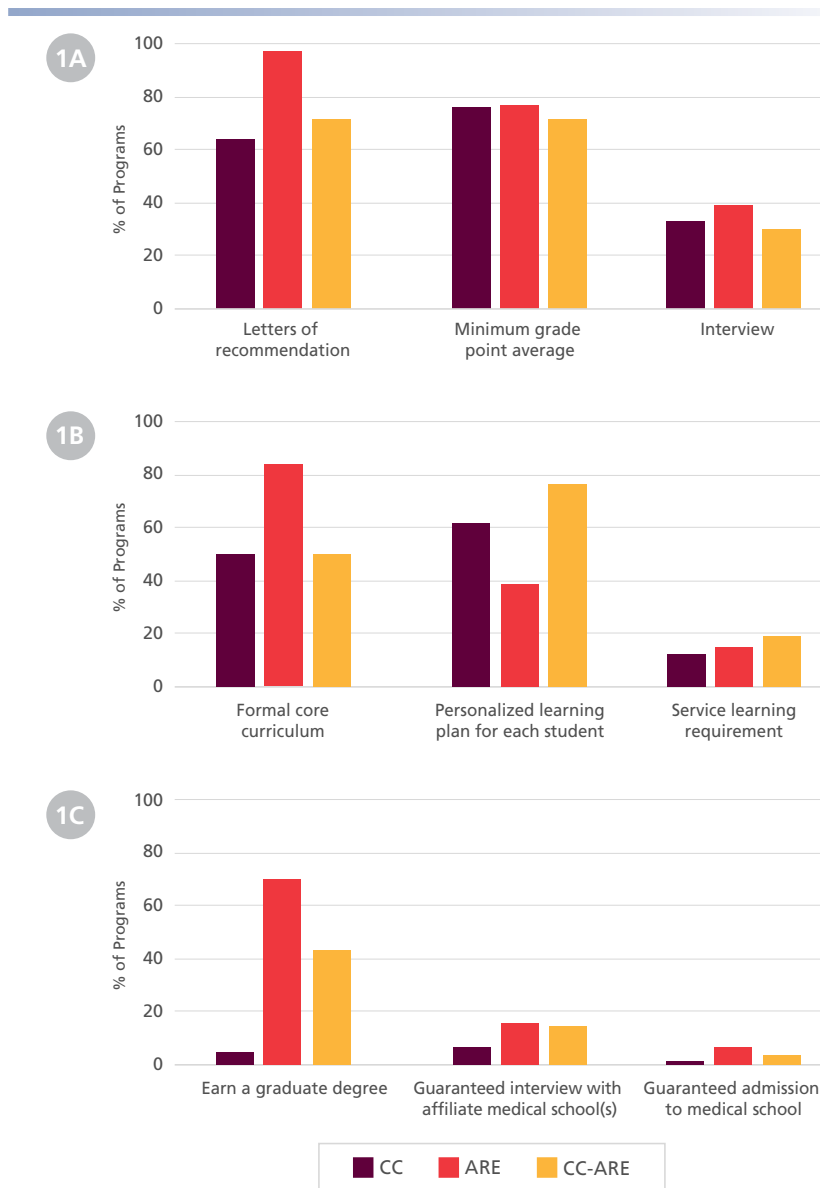
Questionnaires were completed for 171 of 229 programs (75%). Among the 171 programs, 138 different institutions were represented: 116 with one program, 15 with two programs, three with three programs, and four with four programs. The numbers of program enrollees reported for 2016-2017 varied widely and included 20 programs with fewer than 10 enrollees per program and 28 programs with at least 100 enrollees. Many programs had both part-time and full-time options, and costs for program participation also varied widely. Among programs that reported tuition on a per credit basis, cost per credit ranged from less than \$500 to \$1,600. Among programs that reported annual full-time tuition, tuition cost varied from less than \$10,000 (for in-state residents) at some public-institution programs to more than \$50,000 at some private-institution programs. Program types were determined by responses to a questionnaire item about the type(s) of students that the program was primarily designed to assist; multiple responses could be selected for this questionnaire item.

Career-Changer and Academic-Record-Enhancer Programs: Prevalence and Characteristics

Of the 157 programs that reported program type as career-changer and/or academic-record-enhancer, 42 were career-changer only, 61 were academic-record-enhancer only, and 54 were career-changer and academic-record-enhancer combined. Results show that for most PBPM programs, admission requires letters of recommendation and a minimum grade point average, but relatively few of these programs require an interview (Figure 1A). Results also show that most academic-record-enhancer programs have formal curricula, whereas most career-changer programs have personalized learning plans for each student; only small proportions of all these programs have service-learning requirements (Figure 1B). Finally, results show that at most academic-record-enhancer programs, completers earn a graduate degree, whereas at most career-changer programs, completers do not earn a graduate degree (Figure 1C); few programs guarantee their program completers an interview with affiliate medical school(s); and only eight of these 157 programs guarantee medical school admission to their program completers.

Diversity-Mission-Based Program Characteristics

Of the 170 programs that reported the types of students the program was primarily designed to assist, 63 (37%) included students from groups underrepresented in the health professions and/or students from economically or educationally disadvantaged backgrounds. For these 63 programs, all information included in response to an item requesting a mission statement was reviewed along with public domain website content. The review found that 18 of these 63 programs (29%) had explicit diversity-based missions. Of these 18 programs, nine were identified as academic-record-enhancer only, and one was identified as career-changer and academic-record-enhancer combined; eight were not further identified as career-changer or as academic-record-enhancer. Reported



Source: AAMC 2017 Post-Baccalaureate Premedical Programs Survey.

Figure 1. Characteristics of career-changer (CC, N=42), academic-record-enhancer (ARE, N=61), and career-changer-academic-record-enhancer (CC-ARE, N=54) programs. A, admission requirements; B, curriculum; C, program completers.

2016-2017 enrollment numbers for these 18 programs ranged from five to 62, with a median of 15 enrollees per program. Annual tuition costs were reported for 14 of these 18 programs; among 11 public-institution programs, median in-state tuition was \$14,000, and among three private-institution programs, median tuition was \$28,000.

Results show that these diversity-mission-based PBPM programs differed in many ways from all other PBPM programs (Table 1). All 18 diversity-mission-based PBPM programs are

at institutions with AAMC-member medical schools, most (14, or 78%) are at public institutions, and most require applicants to be interviewed. Many of these diversity-mission-based PBPM programs also require applicants to demonstrate a commitment to underserved communities for admission, and 28% have a service-learning requirement in the curriculum. Ten of the 18 diversity-mission-based PBPM programs guarantee medical school admission to program completers; only four confer graduate degrees to program completers.

Table 1. Characteristics of Specific Types of Postbaccalaureate Premedical Programs

Program Characteristic	All Programs (% of 171 total)	Diversity-Mission-Based Programs (% of 18 total)	All Other Programs (% of 153 total)
Institution has an AAMC-member medical school	108 (63%)	18 (100%)	90 (59%)
Institution is public	73 (43%)	14 (78%)	59 (39%)
Interview is required	62 (36%)	16 (89%)	46 (30%)
Applicant is required to have demonstrated commitment to underserved communities	19 (11%)	10 (56%)	9 (6%)
Program has a service learning requirement	27 (16%)	5 (28%)	22 (14%)
Program completers are guaranteed admission to medical school	14 (8%)	10 (56%)	4 (3%)
Program completers earn a graduate degree	76 (44%)	4 (22%)	72 (47%)

Many PBPM programs faced challenges; diversity-mission-based programs faced challenges at rates similar to or higher than all other programs based on data provided by most of the 171 programs. Of the diversity-mission-based programs that responded to each item, 22% (4/18) were challenged by their institution's desire to maintain the program (compared with 24% (36/152) for all other programs); 53% (9/17) were challenged by state legislation (compared with 11% (16/149) for all other programs); and 94% (17/18) were challenged by funding issues (compared with 58% (87/149) for all other programs).

Discussion

As these results show, PBPM programs vary considerably in selection criteria, curriculum design, tuition, and opportunities for program completers. The findings have several implications for both policy and practice. First, prehealth professions advisors may find the results informative in their work with students aspiring to careers in medicine; both advisors and their students should be aware that although outcomes data are not available for all PBPM programs, some programs do provide such information in

their AAMC Postbaccalaureate Premedical Programs Database⁶ listings or at their programs' websites. Next, directors and coordinators of specific types of PBPM programs may find value in sharing effective practices in program design and administration and in jointly examining outcomes for their programs' completers.

Third, knowledge of the characteristics of different PBPM programs can help inform medical school admissions officers' and admissions committee members' understanding of the wide range of PBPM programs available in the U.S. for students aspiring to careers in medicine. In evaluating the many applications from PBPM program participants, medical schools should consider the program type, admissions criteria, and curricular requirements of each PBPM program. Medical school admissions officers seeking to increase the diversity of their matriculating classes might develop approaches to encourage applications from students participating in diversity-mission-based PBPM programs, particularly those programs that do not offer any guarantee of medical school admission to their program completers.

Fourth, in supporting the success of all medical school enrollees (including those who entered medical school with diverse educational backgrounds and experiences), student affairs deans also may benefit from knowledge about specific PBPM programs in which their students participated.

Finally, in addressing LCME accreditation Standard 3.3, Diversity/Pipeline Programs and Partnerships,⁷ medical schools may want to consider developing diversity-mission-based PBPM programs that align with their institutional goals.

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Acknowledgments: We thank our external advisory working group members for their contributions to the questionnaire development and identification of diversity-mission-based postbaccalaureate premedical programs: Leon McDougale, MD, MPH, the Ohio State University College of Medicine; Wanda Lipscomb, PhD, Michigan State University College of Human Medicine; and Brenda Latham-Sadler, MD, Wake Forest School of Medicine.

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Notes

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