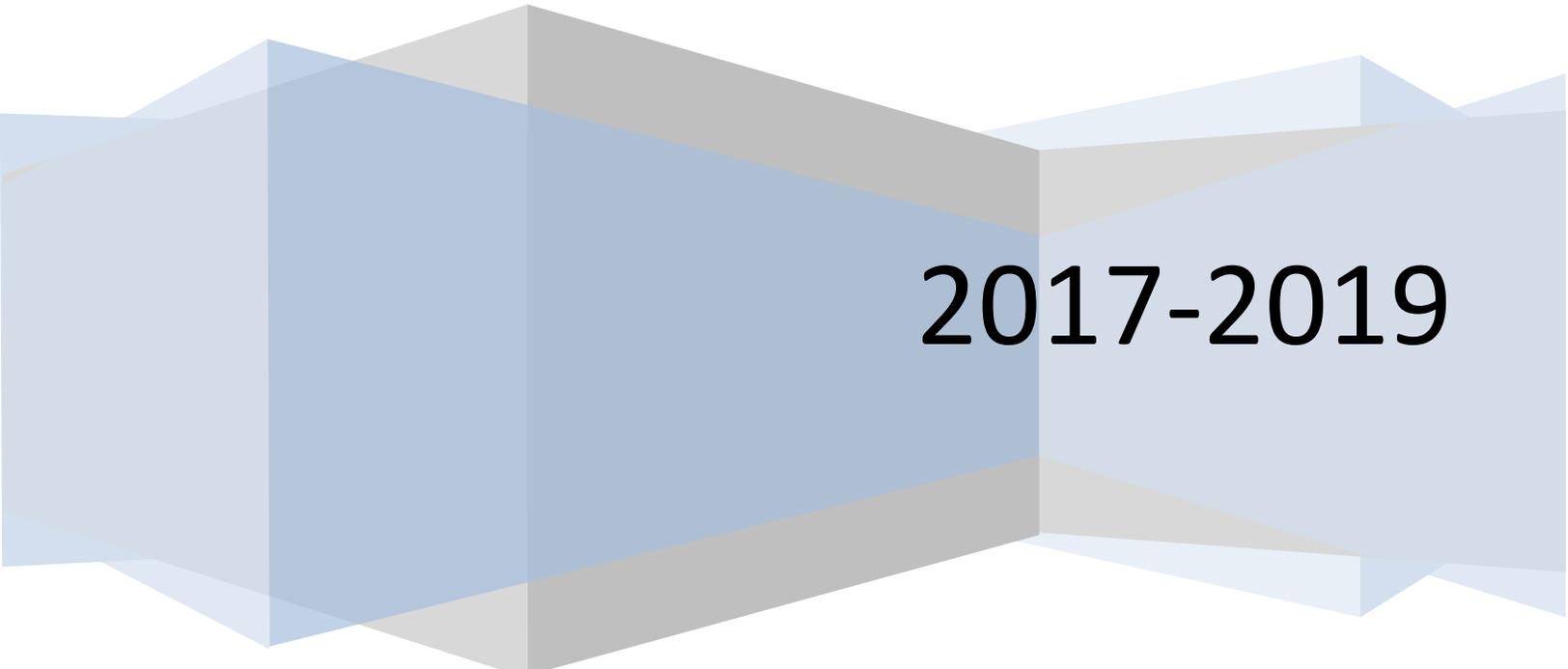


# ANNUAL PERFORMANCE REPORT CARD

Physician Assistant Program

School of Health Professions  
Baylor College of Medicine



2017-2019



**Standard A3.14b mandates that programs define, publish and make readily available to enrolled and prospective students general program information to include the success of the program in achieving its goals.**

**Standard C1.01 mandates that programs implement ongoing self-assessment process designed to document program effectiveness and foster program improvement.**

The mission and purpose of the Physician Assistant (PA) Program offered by Baylor College of Medicine is to educate PAs who will provide excellent healthcare to individuals and communities in a broad range of settings. In addition to national comparative performance of first time takers of the Physician Assistant National Certification Examination (PANCE), the BCM PA Program monitors its performance in eight goal areas. The objective factual data contained in this Annual Performance Report Card are also used to prepare the Academic Unit Annual Planning and Evaluation Report required of all BCM educational programs to fulfill the institutional effectiveness requirement of the Southern Association of Colleges and Schools.

The tables and graphs that follow were generated using a series of online tools for capturing student, course, rotation, instructor, preceptor, new graduate and employer data along with objective measures of student and graduate performance. The heading for each table and graph indicates the goal or goals being assessed with its associated narrative explaining the data and any abbreviated terms used within the charts and tables.

### **Program Goals**

- 1. Enrollment and Retention:** Recruit, enroll and retain diverse community of highly qualified applicants committed to the PA profession.
- 2. Curriculum:** Offer curriculum that provides foundational knowledge and skill requisite to entry-level practice as a Physician Assistant.
- 3. Knowledge and Analytical Skills:** Equip graduates with the knowledge and analytical skills required for practice-based learning and systems-based practice.
- 4. Graduate Preparation:** Prepare graduates that exhibit respect and compassion for others, responsiveness to diverse populations and a commitment to ethical, legal and regulatory standards guiding clinical practice.
- 5. Program Completion Time:** Prepare students to successfully complete the curriculum in the specific period of time.
- 6. National Credentialing Exam:** Preserve historical standard of excellence manifest by sustained high performance on the national credentialing exam.
- 7. Practice Preparedness:** Monitor satisfaction with training and performance abilities of entry-level graduates.
- 8. Accreditation:** Maintain accredited program that prepares entry-level graduates for the contemporary practice of medicine.



**Goal 1: Recruit, enroll and retain highly qualified applicants committed to the PA profession.**

<b>Goal 1: Applicant and Enrolled Student Data</b>							
Year	2013	2014	2015	2016	2017	2018	2019
<b>Applicants</b>							
Completed	1074	1237	1411	1642	1425	1058	897
Interviewed	112	163	167	176	157	160	150
Admitted	40	44	40	40	40	40	40
<b>Demographics</b>							
Mean Age (years)	25	25	26	25	24	25	26
% Texans	62	62	57	58	40	50	53
% Men	15	18	17	23	28	15	20
% Underrepresented	21	29	30	20	28	28	27
<b>Academics</b>							
GPA Overall (>3.20)	3.70	3.62	3.63	3.71	3.71	3.70	3.72
GRE Verbal (>50 <sup>th</sup> %)	55	55	58	75	83	78	75
GRE Quantitative (>50 <sup>th</sup> %)	69	67	50	59	73	74	55
GRE Anal. Writing (>50 <sup>th</sup> %)	73	64	56	70	74	54	70

The total applicant pool from 2013 through September 2018 (for 2019 entering class) was 8744 (mean 1249 per year). Approximately 3% of applicants have been admitted over the last five years. All applicants seeking entry to the PA Program must present with a minimum overall and overall science 3.2 GPA, 144 Quantitative, 153 Verbal, and 3.5 Analytical Writing scores on the Graduate Record Examination (GRE). The 6-year mean GPA for applicants is 3.51 with a mean range of 3.42 to 3.58. Enrollees during the same period of time had a mean GPA of 3.68 with a mean range of 3.62 to 3.71. The mean GRE percentile scores for classes enrolled during the same time period were: 67.8% Verbal, 65.3% Quantitative, and 65.2% Analytical Writing. The mean GPA and GRE values for the 2019 entering class were 3.70, 75%, 55%, and 70%, respectively. The data indicate that the BCM PA Program has been able to sustain the quality of its applicant pool despite the growth in numbers and continues to enroll academically well-prepared students. The demographic characteristics of each entering class have remained similar over the past six years with respect to mean age (24.7 years) and gender (19.8% men) while the percentage of Texans and underrepresented students enrolled has varied with each applicant pool. Together these data demonstrate a continued and long-term ability to recruit and admit highly qualified applicants.

### **Applicant feedback on admissions process**

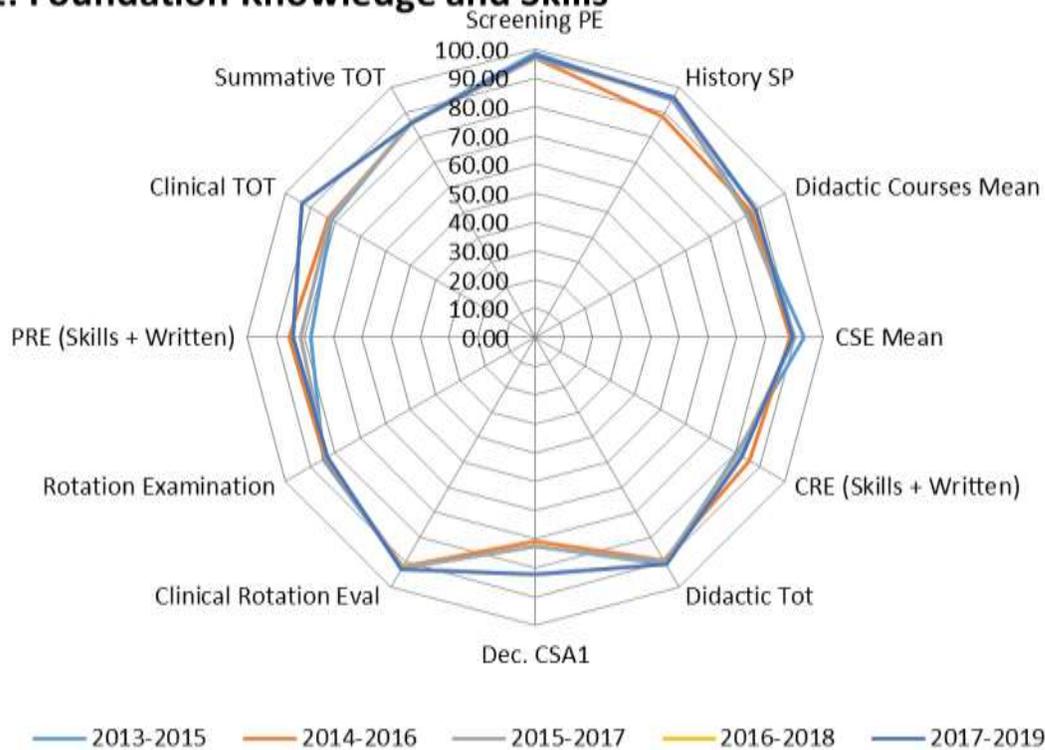
The Program also captures annual objective and subjective data on 31 parameters associated with the applicant interview process that is compared across cohorts. These data are summarized as follows:

1. Decisions to apply are influenced by the reputation of Baylor College of Medicine, the PA Program, espoused faculty values, clinical facilities in the Texas Medical Center, the cross-cultural aspects of curriculum, and the receptivity of the student body.
2. Application and interview process facilitated by program website, links to CASPA application and online registration for interviews;
3. Interview enhanced the enhanced understanding of didactic and clinical portions of the program extent of match between students and interviewees, faculty concern for students as individuals, and the interview decision process.
4. Program faculty and staff treated interviewees in cordial manner at all times and accurately described the program and its costs, and
5. Entire interview process and experience was much less stressful than it could have been.

## **Goal 2: Offer curriculum that provides foundation knowledge and skills requisite to entry-level practice as a Physician Assistant.**

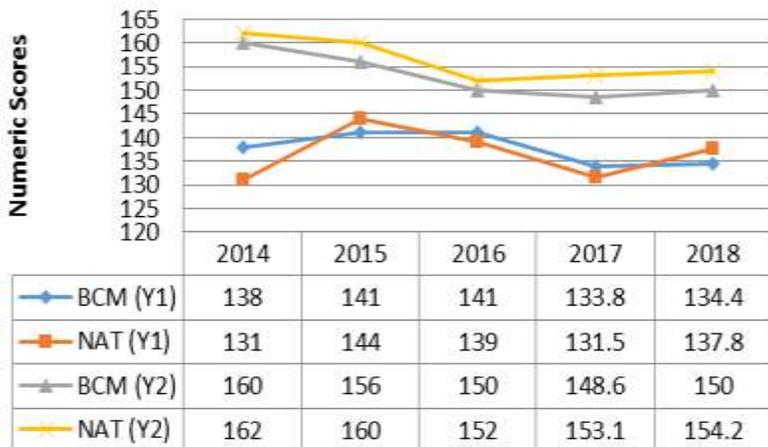
Both formative and summative measures assess student performance over the 30-month curriculum. The plot below compares cohort performance by year for the mean class performance on formative knowledge and skills exams administered during the didactic and clinical phases of the program, and comprehensive high-stakes exams of knowledge and skills at the end of the didactic and clinical curriculum. A separate report prepared for each student is used during required student advising meetings to discuss evolving performance against class peers and earlier cohorts at similar time periods in the curriculum. The mean values and ranges for each element depicted demonstrate continued class-specific performance at or above 80th percentile on all measures except the Clinical Skills Assessment (CSA) administered in December, four months into the clinical curriculum. The results of the CSA are discussed with students during scheduled advisor meetings in February and used to guide continued learning. As one moves clockwise from top center, the measures present students' forward progress in the curriculum. The five-year averages are found in the chart below. Successful completion of the CRE is the gateway to the clinical rotation phase of the program. The first performance measure is the CSA that is used as tool to counsel students about learning plans for rotations. The next measures are: preceptor evaluations, end-of-rotation clinical, Integration skills assessment, the summative Practice Readiness Exam (PRE), mean clinical year performance, and overall summed performance.

## Goal 2: Foundation Knowledge and Skills



In that the CRE and PRE are program tools for the formative and summative assessment of student performance other measures are also used to monitor the extent to which learning experiences offered students influence a change in their knowledge over time. The Physician Assistant Clinical Knowledge and Rating Assessment Tool (PACKRAT) is used to monitor for such change in comparison to other PA program student cohorts. The PACKRAT is administered at the end of the didactic (Y1) and core clinical (Y2) phases of the curriculum with scores reported by cohort in the below table. By example, students in the 2016 entering cohort completed PACKRAT 1 in July 2017 and will take PACKRAT 2 in July 2018. PACKRAT scores are used to assist students understand their areas of knowledge strength and weakness with the same scores used by Faculty Advisors to assist students develop plans to shore up areas of weakness. Performance scores for student cohorts by year of enrollment show continued patterns near or above the national norms. The data generated has likewise been used to review curriculum effectiveness.

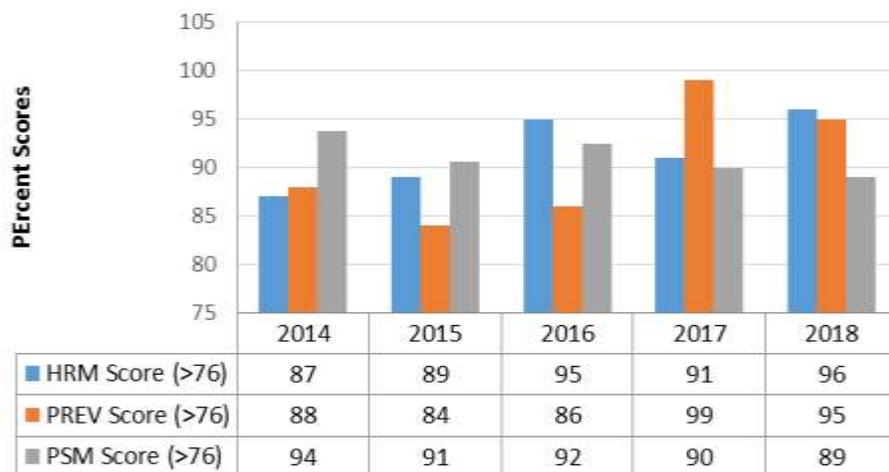
## Goal 2: Comparative Knowledge



## Goal 3: Equip graduates with the knowledge and analytical skills required for practice-based learning and systems-based practice.

Systems-based practice (SBP) involves using the healthcare system to improve the quality and safety of patient care whereas practice-based learning and improvement (PBLI) emphasizes the use of evidence-based medicine to improve the quality of care provided to individual patients. Both competencies require the ability to integrate clinical experience, patient values and the best available research information within the process of clinical decision making. Analytical skills needed include the ability to engage in efficient literature searching, the application of formal rules of evidence in evaluating the clinical literature and selecting the best evidence that will improve clinical care. Development of the critical thinking and analytical skills required to provide evidence-based care begins in the Health Research Methods (HRM), Problem Solving in Medicine (PSM) and Clinical Prevention (PREV) courses that occur during the didactic phase of the curriculum. Written case-based exercises delivered in a team-based learning setting require in-time online data retrieval and interpretation to successfully complete the PSM and PREV courses with critical thinking, analytic, and literature review exercises necessary to successfully complete the Health Research Methods (HRM) courses. Average class HRM, PREV and PSM scores are shown in the following table. Cohort performance by year is consistently well above the minimum grade required to pass each course evidenced by average. See below table.

### Goal 3: Knowledge and Analytical Skills



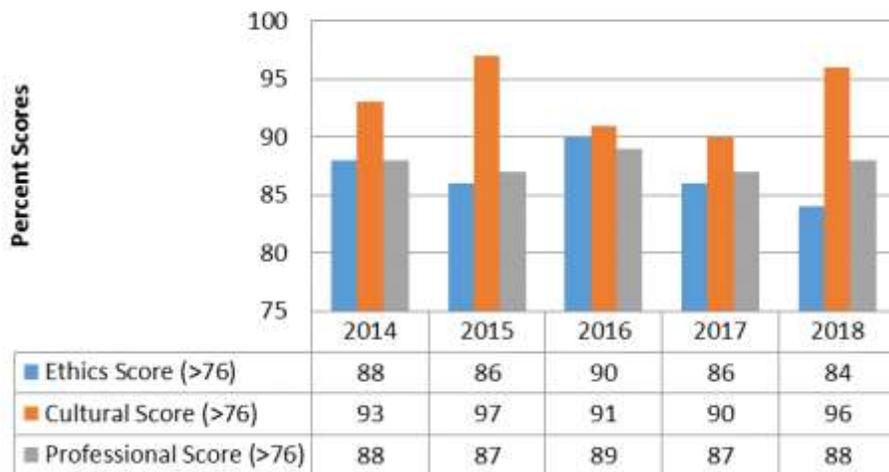
**Master's Paper Project:** The second measure of student ability to apply the principles of evidence analysis is the Masters Paper Project (MPP). Following completion of HRM and PREV and prior to the end of the didactic curriculum each student must identify a topic for their research. From 1990 through December 2019, PA students completed 860 original research projects resulting in written Master's Papers. Each project involved critical review of the literature, research design selection, data collection and interpretation using statistical analysis, and an oral poster presentation. The projects dealt with basic science, applied clinical, and health services issues. Both prospective and retrospective data collection methods were used. Surveys, experiments, and interviews were used to capture prospective data. Only five of the research projects utilized qualitative techniques. The level of statistical analysis encompassed the calculation of arithmetic means, the determination of significance, confidence intervals, analyses of variance, generation of factor analyses, and of survival curves.

**Goal 4: Prepare graduates that exhibit respect and compassion for others, responsiveness to diverse populations and a commitment to the ethical, legal and regulatory standards guiding clinical practice.**

Three learning experiences that begin in the didactic year and culminate at the end of the clinical phase of the curriculum are used to sensitize students to the cultural, ethical and regulatory aspects of clinical practice. The Cultural Competency (Culture) and Professional Role Issues (Professional) courses start during the first week of classes and end eight weeks prior to graduation. Lectures and seminars coupled with required critical reflection journals are used to stimulate and assess awareness of cultural, professional and regulatory issues. The interdisciplinary Medical Ethics (Ethics) course relies on lectures, small group case conferences, and clinical ethics rounds to develop students' understanding of ethics principles and their uniform application during interactions with patients.

Student mastery of the knowledge and skills associated with ethical decision making is judged using written examinations wherein they are asked to apply the principles to specific cases and defend their choices. Analyses and grading of critical reflection journals and written case-based exams are used to determine students' understanding of and sensitivity regarding issues related to professionalism and multiculturalism. Mean scores received for each cohort demonstrate content and skill mastery indicating that the learning experiences are able to impart the knowledge and skills required to respond to professional, ethical, legal and cultural issues. Interpretation of the legend below is important. By example, 2014 represents the year of cohort entry with graduation occurring in December 2016.

**Goal 4: Professionalism Values**

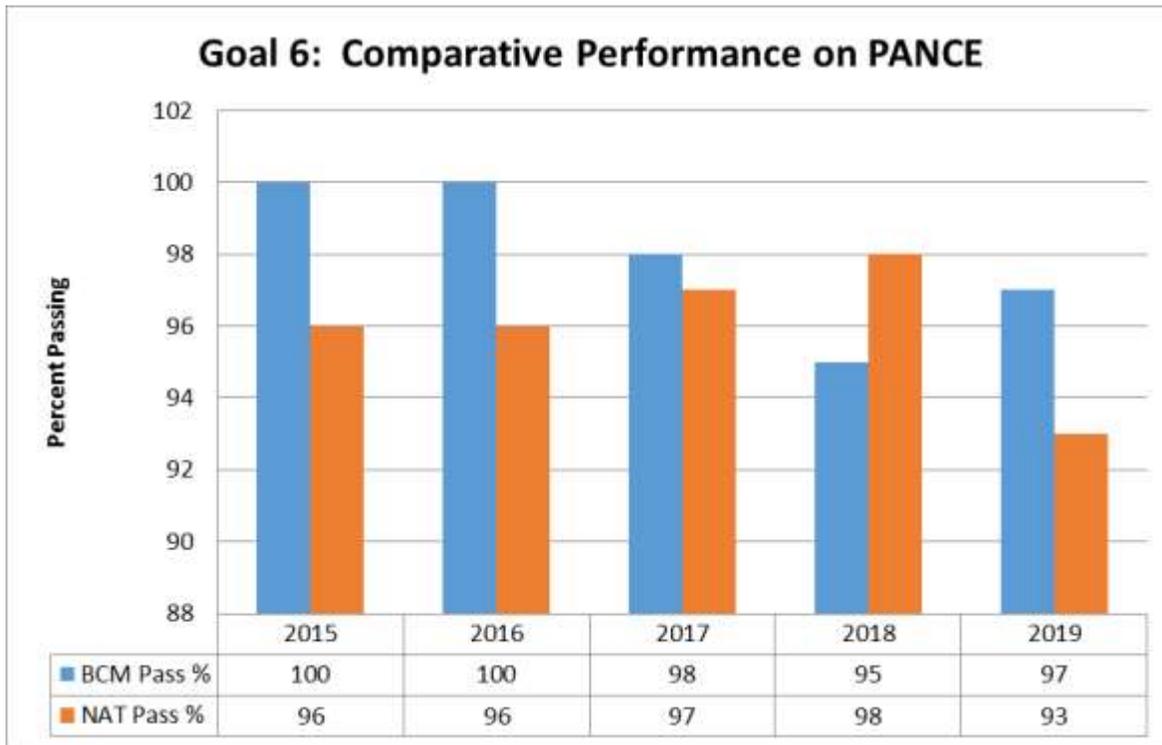


**Goal 5: Prepare students to successfully complete the curriculum in the specified period of time.**



Over the last six years, a total of 244 persons have enrolled in the program. Of this group, 232 are projected to graduate through December of 2020. Thirteen encountered difficulties of an academic or personal nature that affected their ability to complete the program. Of those, four have been decelerated (recycled) because of inadequate academic performance and ultimately were dismissed from the program. The nine remaining were decelerated due to a personal or academic nature and re-entered the program and graduated.

**Goal 6: Preserve standard of excellence manifest by sustained high performance on the national certification examination.**

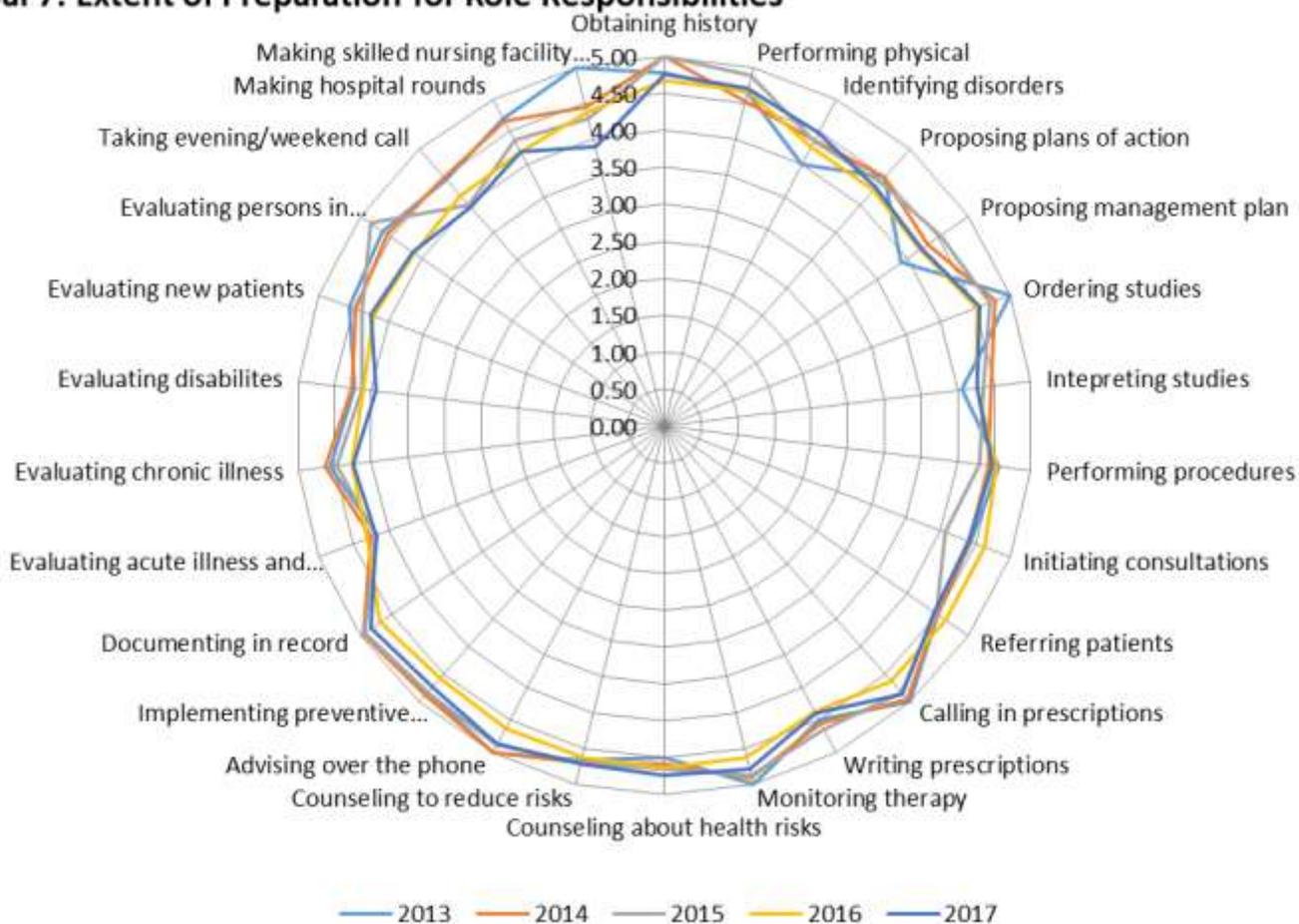


Readiness to assume the role responsibilities for entry to clinical practice is judged in multiple ways. High stakes exams described earlier are used to determine whether students are ready to progress from one phase of the curriculum to another (CRE), and subsequently into entry-level practice (PRE) as a Physician Assistant. In addition to these mechanisms, the PA Program relies on two other measures to understand readiness for entry-level practice. The first is the Physician Assistant National Certification Examination (PANCE) and the second, see next page, involves student self-perceptions of preparedness for clinical practice. The overall BCM PA Program PANCE pass rate since first administered in 1973 is 93.9% versus a national average of 86.53% indicative of an extended history of adequately preparing graduates for entry-level practice as measured by the PANCE.



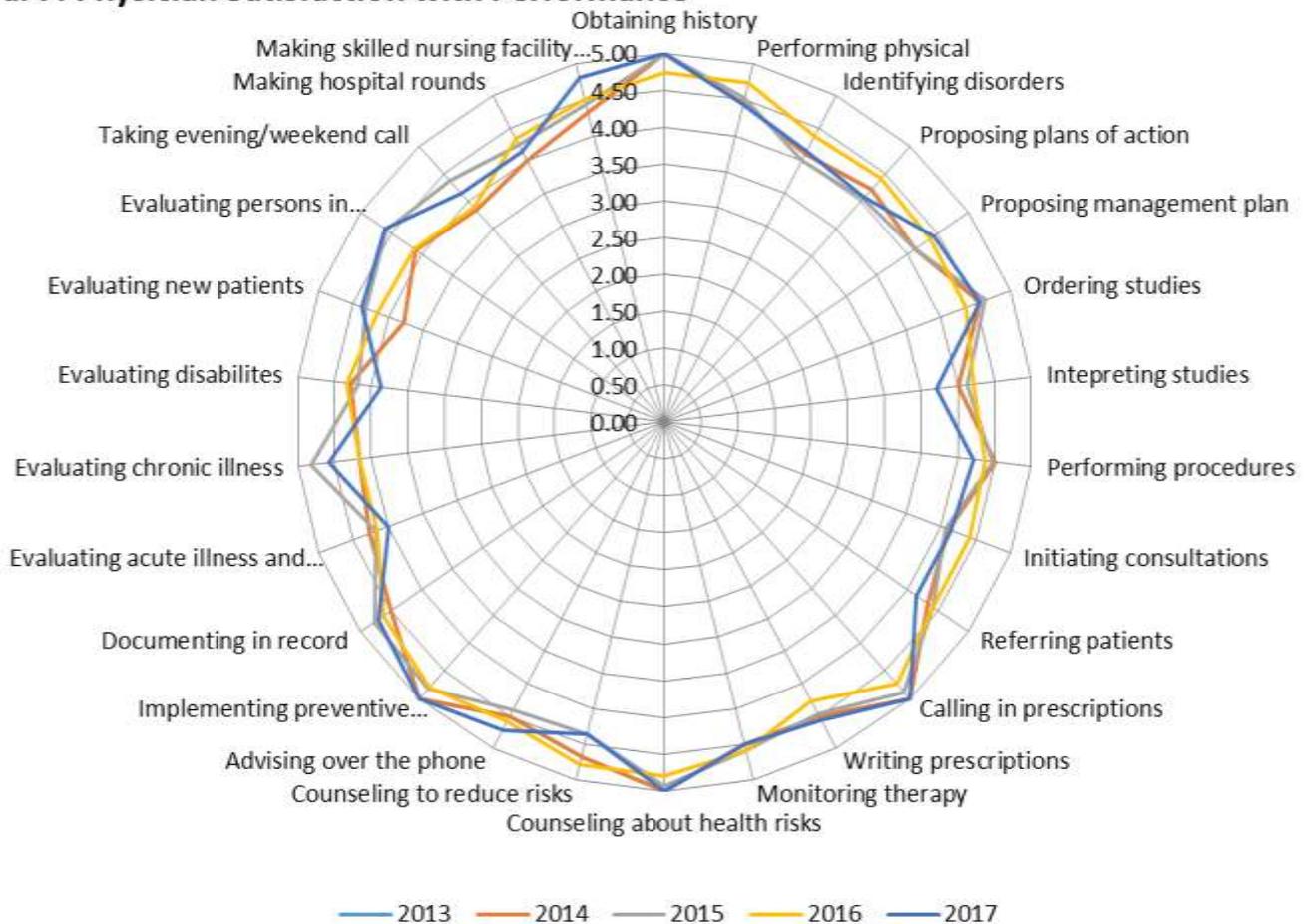
The second instrument used to understand the extent to which the curriculum of the PA Program prepares new graduates for entry-level practice as a PA is the Graduate Follow-up Survey administered to new alumni 6-9 months following graduation. The longitudinal data set asks about their actual preparedness to carry out 32 role responsibilities ranging from obtaining a medical history, and evaluating mental illness, to communicating bad news and initiating consultations and referrals (see below plot). Improvements were reported for the 2013-2016 graduates with respect to evaluating persons with disabilities resulting from implementation of the required Physical Medicine and Rehabilitation rotation in 2013. Other observations noted were the need for attention to communicating bad news, systems-based and evidence-based practice in the clinical setting, and using the principles of nutrition during prevention and chronic disease management visits. These data serve to direct faculty efforts toward continuous quality improvement.

### Goal 7. Extent of Preparation for Role Responsibilities



Another area of feedback comes from physicians working with new entry-level PA providers. Results gathered using the Employer Survey between 2004 and 2013, revealed a need for greater preparation of entry-level PAs in six areas: evaluating disabilities, evaluating new patients with varied problems, evaluating patients seen in the emergency room, taking evening and weekend call, making hospital rounds, and making skilled nursing home visits. Recent emphasis on home and skilled nursing home visits to the less able in the psychiatry and geriatrics rotations resulted in much improved MD views of preparation in these areas between 2013 and 2016. Implementation of a required PMR rotation resulted in improved perceptions of new graduates' capacity to assess persons with disabilities. Defined evening and weekend on-call hours in Surgery, Internal Medicine, Psychiatry, and Community Medicine contributed to improved ratings of ability to take night and weekend call. A change made to improve the evaluation of ER patients involved requirements for greater numbers of patient contacts in the same setting.

## Goal 7. Physician Satisfaction with Performance



## Goal 8: Maintain accredited program that prepares entry-level graduates for the contemporary practice of medicine.

The BCM PA Program has a long history of ARC-PA accreditation, with the first accreditation awarded in 1974 and continued accreditation to this point in time. The next review for continued accreditation occurs in 2029 with continued program evaluation reports due every two years. Participation in a comprehensive self-assessment process has afforded the faculty many opportunities to reflect on the quality and consistency of the administrative, instructional, and evaluative functions of the program over time. The structure, content and sequencing of the learning experiences contained within the curriculum of the program have evolved to ensure the graduates are prepared for the contemporary practice of medicine. New instructional methodologies have been introduced to address students' differing learning styles, develop collaborative learning and shared decision-making skills, and expand the role played by behavioral counseling in the practice of medicine. Unique clinical experiences in Physical Medicine and Rehabilitation have likewise been added to better prepare entry-level PA providers to care for persons with disabilities. Student, preceptor, graduate and MD provider feedback have demonstrated the value of a 360-degree approach to program performance assessment and curriculum reform. Each of these areas of responsibility is overseen by a highly experienced faculty and staff that have been with the program over an extended period of time. The stability has ensured that students are exposed to knowledgeable advisors, research mentors, instructors, and role models for lifelong learning, and that the program maintains the foundation essential for continued accreditation.

Requests for information on any aspect of the data contained in the Annual Report should be addressed to:

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713-798-3663.