DOMINICAN UNIVERSITY

Physician Assistant Studies Program

Progress on Meeting Program Goals – July 2018 Update

GOAL 1: Recruit highly qualified applicants to include those underrepresented* in health care and U.S. military veterans.

Outcome measures: Academic and demographic profile of the matriculated cohort

Benchmark: 1) Matriculated cohort will exceed national average in PA program enrollment of underrepresented minorities, and 2) Matriculated student cumulative UG GPA, Cumulative UG science GPA and GRE scores will meet national averages.

Cohort profile	Cohort 1: Enrolled January 2017 N = 30	Cohort 2: Enrolled January 2018 N = 30	National Comparison
Demographic Profile			
	Dominican PAS	Dominican PAS	CASPA & PAEA data
Gender	20% Male 80% Female	26% Male 74% Female	26% Male 73% Female
Average age	26.7 years	25.0 years	24.8
Underrepresented minorities in medicine	17%	17%	12%
Military veterans	7%	0%	2%
First-generation to enroll in college	20%	33%	18%
Academic Profile			
Average science undergraduate GPA	3.41	3.37	3.51
Average overall GPA	3.45	3.43	3.57
Average GRE Percentile – Analytic writing	4.13	4.08	4.0
Average GRE Percentile – Quantitative	152.6	153.7	153.2
Average GRE Percentile – Verbal	152.6	152.3	154.8
Health Care Experience	80% with > 2,000 hours	66% with > 2,000 hours	NA
Average Health Care Hours	3,920	2,807	NA
Possess prior graduate degree	13%	20%	NA

Progress on meeting goal and benchmark target:
The program is meeting its goal to **exceed the national average** in enrolling underrepresented students and first-generation to college students. We exceeded the national average in enrolling military veterans in the first cohort, but did not in our second cohort. We continue to reach out to veteran applicants in our recruitment efforts. We fall slightly short in reaching the same undergraduate overall and science GPA in comparison to the national CASPA / PAEA statistics for Cohort 1. GRE scores approached the national average in Cohort 1 and increased in Cohort 2 for quantitative to meet the most recently available national average. As a result, we conclude that our students fall well-within the highly-qualified range.

GOAL 2: Develop, implement, and maintain a program whose focus is to graduate students with the knowledge, technical and professional skills for embarking on a physician assistant practice.

Outcome measures: 1) Clinical Preceptor Evaluation of Student Preparedness Student Didactic Year Survey – rating of preparation, 2) Student Didactic Year Survey rating confidence in preparation

Benchmark: 1) > 80% Strongly agree (5) or Somewhat Agree (4) with item; and achieve a 3.5 mean on preceptor evaluation of student preparedness, 2)

Preceptor Evaluation of Student Preparedness - Key	
Survey item scale	Strongly agree (5), Somewhat Agree (4), Neither agree nor disagree (3), Somewhat Disagree (2), Strongly Disagree (1)
PAS Program Benchmark:	% of preceptors who strongly agree (4) or agree (3) with item
PAS Program Item Benchmark Targets:	> 80% Strongly agree (5) or Somewhat Agree (4) with item; and achieve a 3.5 mean
	Item at or above benchmark target
	Item approaching benchmark target
	Item below benchmark target

Preceptor rate of students' behavior and knowledge areas	Benchmark: % of Preceptors who strongly agree or somewhat agree with item Target = > 80%			
	Percentage of Strongly AND Somewhat Agree	Mean	Standard Deviation	Benchmark met
Understanding the role of the PA	92.31%	4.62	0.62	Yes
Self-confidence	92.31%	4.38	0.62	Yes
Knowledge of diagnostic studies	92.31%	4.15	0.53	Yes
Factual knowledge and concepts	100.00%	4.46	0.50	Yes
Problem-solving/ critical thinking	100.00%	4.46	0.50	Yes
Relating to patients	100.00%	4.69	0.46	Yes
Reliability and dependability	100.00%	4.85	0.36	Yes
Professionalism	100.00%	4.92	0.27	Yes
Relating to colleagues	100.00%	4.92	0.27	Yes
Total fields meeting benchmark on an item				**9 out of 9 items met**

Preceptor rate of students' skills and abilities	Benchmark: % of Preceptors who strongly agree or somewhat agree with item Target = > 80%			
	Percentage of Strongly AND Somewhat Agree	Mean	Standard Deviation	Benchmark met
Medical interview	100.00%	4.46	0.5	Yes
Physical examination	100.00%	4.38	0.49	Yes
Oral case presentation	100.00%	4.54	0.5	Yes
Written patient record	92.31%	4.38	0.62	Yes
Ability to perform clinical procedures	61.54%	3.92	0.83	No
Assessment/differential diagnosis	100.00%	4.38	0.49	Yes
Ability to form a management plan	100.00%	4.38	0.49	Yes
Ability to implement a management plan	76.92%	4.31	0.82	No
Total fields meeting benchmark on an item				6 out of 8 items met

Preceptor rating of program	Benchmark: Percent of students who strongly agree or somewhat agree with item; Target = > 80%			
	Percentage of Strongly AND Somewhat Agree	Mean	Standard Deviation	Benchmark met
PAS provides preceptors with clear guidance on the specific learning outcomes expected of students	69.23%	4.00	0.96	No
PAS provides clear policies and expectations regarding the preceptor's role in supporting students' personal security and safety.	53.84%	3.92	0.92	No
DU students clearly and consistently identify themselves as PA Students and distinguish themselves from physicians, medical students, and other health professionals.	93.31%	4.92	0.27	Yes
Clinical rotation learning opportunities enable students to meet the specific learning outcomes expected of students.	100.00%	4.69	0.46	Yes
Total fields meeting benchmark on an item				2 out of 4 items

Analysis of meeting benchmarks

This baseline survey data reveals that our benchmark targets were met for 17 of the 21 survey items, and were missed for 4 items. In the case of survey items where the benchmark was missed, a closer analysis however, shows that there was no "disagreement" (strongly disagree or somewhat disagree), noted by the preceptors, rather only the more neutral ("neither agree nor disagree") response was chosen, resulting in a lower mean rating overall and missed benchmark.

Preceptors rated our students highest with regard to professionalism, relating to colleagues and patients, reliability/dependability, and identifying themselves as PA students. We attribute this effect to the emphasis we place on discussing and evaluating professional behaviors throughout our didactic year coursework and

mentoring, and is a further reflection of our relationship-driven culture. Furthermore, this data correlates with the data collected in the peer-to-peer evaluations we require at the conclusion of the didactic year. Here, students rated each other highest with regard to their collaboration, integrity and professionalism.

Preceptors rated student skills highest with regard to oral case presentations, the medical interview, assessment/differential diagnosis, the physical examination – data we correlate with the emphasis we place on the standardized patient encounters we include in the didactic year. While all preceptors agreed that our students were prepared to "form a management plan," only 77% agreed about their ability to "implement" a management plan (here again, those 23% who did not agree were only "neutral," none disagreed). We attribute the cause here to the challenge of observing the actual implementation of a plan in the intensive cycle of a 4-week rotation. We conclude that this cause and effect is also evident in the missed benchmark for the item "ability to perform clinical procedures," where 61% agreed but over one-third (38%) of the preceptors were neutral or not able to draw an opinion about this ability. Application of this conclusion prompts us to keep a close watch on the extent to which our sites provide access to patients and relevant clinical experiences. We see some emerging correlations here with our student evaluations of the clinical site, where two of our sites missed our 80%-agree benchmark for "being organized and ready for students" and "patient load and type were adequate." This concern supports our area for improvement where we plan to increase our capacity to communicate and visit with preceptors and sites with greater frequency, and provide more content resources in the clinical courses we provide.

Preceptors were also more neutral, resulting in a missed benchmark, in their assessment that the PAS program provides 1) clear guidance about the specific learning outcomes expected and 2) clear policies and expectations regarding the preceptor role in supporting students' security and safety. We attribute this as indicative of our new program, learning the most effective ways to communicate and distribute information to the diversity of preceptors/sites in this first year, and the time required in building relationships. This also supports our area for improvement of increasing our capacity to communicate and visit the clinical sites.

While we are pleased with the analysis of the preceptor data as largely positive, we stopped short in drawing too many conclusions or applying this data too broadly given that it reflects only 5 months of experiences in our first clinical year. As our experiences and relationships grow with these individuals, and we improve our communication efforts (and capacity to do so) we are confident we can achieve an even higher response rate. As a result, we look forward to applying more trend data, across a larger population of clinical preceptors.

Actions taken as a result
We took immediate action to remove a clinical site from our rotation when it was clear the students would not be given the opportunity to see a diversity of patients or experience sufficient patient volume and procedures.

The adjustments to our curriculum also align with and respond to the preceptor evaluation analysis. To make improvements in preparedness for diagnostic skills, we added a medical decision-making class as a part of Clinical Medicine II – III. For cohort 2, we reorganized the Patient Assessment and Counseling course sequence to have a decidedly more diagnostic focus, taught by the same faculty member across the sequence, therefore providing more consistency and seamless transitions in content. To infuse more simulation experiences and improve students' diagnostic skills, we purchased more simulation cases, adding 5 sim schedules to Clinical Medicine II and III, and enhanced the Bridge Course (PAS 600) linking didactic and clinical year to add more clinical pharmacology, ENT, Ophthalmology, Dermatology, Immunizations. We have begun to improve our communication with the clinical sites, sending out an additional documentation explaining our expected learning outcomes and clinical experiences.

Student evaluation of the didactic curriculum:

Survey scale (6-point scale)= Extremely prepared (6), Moderately prepared (5), Slightly prepared (4), Slightly unprepared (3), Moderately unprepared (2), Extremely unprepared (1)

PAS Program Benchmark: Item mean at $\geq$ 4.0/6.0 scale to reflect majority at extremely to moderately prepared

Benchmark: Item mean > 4.0 on 6.0 scale		
PROFESSIONAL PRACTICES	**Mean**	**Std. Dev**
Uphold the professional conduct standards of the PA profession	5.67	0.60
Work collaboratively in interprofessional teams	5.13	1.06
Work with diverse populations	5.00	1.00
Provide medical care to diverse populations	4.97	0.80
Use problem-solving skills to make medical decisions	5.03	0.66
Use good communication skills to effectively exchange information with patients and their families	5.37	0.66
Use good communication skills to effectively exchange information with other health professionals	5.20	0.98
Effectively diagnose patients	4.70	0.86
Educate and counsel patients	4.97	0.98
Search and evaluate medical literature	4.90	1.14
Total items meeting benchmark	**100%**	

Benchmark: Item mean > 4.0 on 6.0 scale		
BODY SYSTEMS	**Mean**	**Std. Dev**
Cardiovascular system	5.28	0.64
Respiratory system	5.17	0.59
Gastrointestinal system	4.59	1.07
Musculoskeletal system	5.10	0.96
Eyes, ears, nose, & throat	5.07	0.94
Reproductive system	5.03	0.61
Endocrine system	4.93	0.88
Genitourinary system	4.68	0.97
Nervous system	4.72	0.87
Psychiatry & human behavior	5.14	0.63
Dermatology	4.76	1.04
Hematology	4.48	1.16
Infectious diseases	4.66	1.09
Total items meeting benchmark	**100%**	

Benchmark: Item mean > 4.0 on 6.0 scale		
POPULATIONS	**Mean**	**Std. Dev**
Prenatal care	4.17	1.23
Infants	4.28	1.05
Children	4.69	0.88
Adolescents	4.83	0.87
Adults	5.21	0.66
The elderly	4.72	0.87
Total items meeting benchmark	**100%**	

Analysis of the student holistic evaluation of didactic year curriculum:
Analysis of the holistic didactic year survey data (available for Cohort 1 demonstrates high levels of student confidence in our didactic curriculum. All benchmarks were met across student evaluation of curriculum with regard to preparation for professional practices, body systems and patient populations. Students did perceive, however, inconsistent levels of preparation across the lifespan. For example, aggregate data shows a lower mean in preparation for (younger) pediatric populations than for adolescent, adult and elderly populations. We concluded that this was a result of the challenge we faced in finding and offering pediatric standardized patients – as adult standardized patients are more available to us. We also realize the need to be much more explicit in each course lecture about the specific lifespan being covered so that students could be more aware of the population diversity we are addressing.

Further analysis of the didactic year survey body systems section surfaced hematology, infectious diseases and gastrointestinal systems as three specific areas for improvement given student perception of preparedness. We concluded through this data and our resulting course review process that content on these three body systems could be better aligned and sequenced with timing of similar content across the courses as well as allow for increased in lecture and simulation time. The data also suggests that students felt less confident about their ability to effectively diagnose patients, but felt more confident in communicating with patients and other medical professionals. We connected this data with the slightly lower evaluation of the course organization and assignments in Patient Assessment and Counseling series, prompting a need for increased emphasis on diagnostic skills and medical reasoning. Course improvements have been employed to impact these areas of concern.

Review of the qualitative data in the student evaluation of the didactic year courses shows consistency with the quantitative course evaluation data where students prioritize content connections to clinical relevance, simulation experiences and "hands-on" pedagogies in the classroom as most valued – and hoped for these strategies to increase. Course methods such as the standardized patients, mannequins, iHuman and the Boot Camp ranked highest for effectiveness.

We are encouraged by the highly consistent theme across both the qualitative and quantitative data in which students report our supportive and effective faculty as our program strength.

GOAL 3: Prepare and graduate physician assistants as generalists with multi-potential medical skills needed in contemporary healthcare practice with a focus on primary care.

Outcome measures: Cohort persistence and graduation rate, PANCE first-time test scores

Benchmark: 1) Meet or exceed the national PA graduation rate (94.8%) in each cohort; 2) Each cohort will meet or exceed the national average on the PANCE.

- **Attrition and Graduation rates**

We remain on track to meet our goal of at least 94.8% completion. Retention rate in Cohort 1 is 97% and 100% in Cohort 2 as of 8/1/2018.

- **PANCE scores**

Our first cohort will be eligible for the PANCE in January 2019. We will update this report as soon as test scores are available.

GOAL 4: Emphasize the need for faculty, staff and students to become involved in professional and local community engagement activities.

Outcome measures: 1) Percentage of students who volunteer or are engaged in community activities, and 2) Percentage of faculty and staff who are engaged in community and professional activities

Benchmark: 1) All PAS students, faculty and staff will be involved in at least one community or professional association volunteer activity per year, and 2) All PAS faculty will be involved in university service (committees, task forces/working groups) and participate in professional organizations

- **Student volunteer and community engagement**

Cohort 1: 84% (n = 25) of students in Cohort 1 participated in at least 4 hours of volunteer service in year 1. Average hours volunteered per student = 8.14. Cohort 2: Data not available until December 2018.

- **Faculty community engagement and professional growth**

In the annual evaluation of faculty, all PAS faculty met or exceed expectations for engaging in university service (committees outside of the PAS department) and/or professional associations. As our program development is now well underway, we have set a strategic goal to focus more energies on promoting faculty scholarship and involvement in professional organizations outside of the University.

Annual Evaluation of Faculty by Dean - Summary for Service and Professional Growth
N = 6*

Legend: ■ Does not meet expectations ■ Meets Expectations ■ Exceeds Expectations

University and departmental service: 50% (3) Exceeds Expectations, 50% (3) Meets Expectations

Professional growth: 100% (6) Meets Expectations