Indiana University School of Medicine
Health Professions Programs

2019 – 2020 Assessment Report

The Health Professions Programs (HPP) include the ***undergraduate*** programs that reside within the School of Medicine. These include:

Program	Degree Awarded
Clinical Laboratory Science	B.S.
Cytotechnology	B.S.
Histotechnology	Cert., A.S.
Paramedic Science	A.S.
Respiratory Therapy	B.S.
Radiologic Sciences	
Radiography	A.S.
Nuclear Medicine Technology	B.S.
Medical Imaging Technology	B.S.
Radiation Therapy	B.S.

** Graduate and MD programs within the School of Medicine fall under the purview of different administrative offices. They are not included in this report.

Each of these undergraduate professional programs maintain separate accreditation through specialty accreditation organizations. The program directors and faculty of each of these programs is responsible for maintaining their accreditation. In addition to their program accreditors, the program directors and faculty are active in their professional practice organizations, national credentialing boards, and state licensure boards, which may set standards or offer guidance on student learning outcomes and other aspects of the educational program's design. Each program is required to have periodic site visits whose frequency is determined by their respective accreditation organization. Please note that in addition to the yearly IUPUI PRAC report, each Health Professions Program is required to submit an annual report to their accrediting agency. Although each annual report can vary in format per specific program accreditation guidelines, most reports include an analysis and action plan for each of the following:

- Student learning outcomes
- Accreditation board exam results
- Employer surveys (cognitive, affective and psychomotor domains)
- Graduate surveys (cognitive, affective and psychomotor domains)
- Attrition/retention
- Job placement

Program Structure and Student Population

All of the IUSM Health Professions Programs are cohort style and have selective admissions. Some programs are entirely online but these are typically taken by students who are full-time healthcare employees seeking additional certification and training. Each of the programs within HPP has evolved in unique ways in response to degree requirements, accreditation standards, availability of clinical placements, and the healthcare landscape in central Indiana. As an example, some programs (Clinical Laboratory Science & Cytotechnology) are 3+1, which means that students spend their first three years in University College or other schools as they prepare for the competitive application process. Radiation Therapy, Respiratory Therapy, and several others have adopted a 2+2 format with two years of prerequisites in University College or other school. In the case of Radiography, students will spend two semesters in University College before entering their associate's degree program in a 1+2 format. The Medical Imaging and Radiologic Sciences program at IUFW is a 1+ 3 format. As illustrated by these examples, there is wide diversity in program structure, length, and geographic location.

The Health Professions Programs draw secondary school students to the IUPUI campus from across the Midwest, but also draws a considerable number of transfer applicants from other post-secondary institutions. The first illustrative example is the Clinical Laboratory Science program, which has applications from every campus in the IU system and has an affiliation with Purdue whereby students take three years of prerequisite coursework in the Purdue system before completing their final year and earning a bachelor degree at IUPUI. HPP programs also have unique partnerships with area hospital systems and universities. The Respiratory Therapy program is a 2+2 program, which is part of a consortium between IUPUI, Ball State, University of Indianapolis, and IU Health. Each cohort in the Respiratory Therapy program is comprised of students from each member of the consortium. The Clinical Laboratory Science program exists as a co-teaching partnership with IU Health wherein each cohort of 24 students is split equally between the two programs. In this partnership IU system and Purdue system students enter the IU CLS program while students from numerous non-IU academic institutions such as Purdue, Ball State, Franklin, Indiana State, University of Miami, University of Indianapolis enter the IU Health program. The Paramedic Science is another partnership program between IUSM and Indianapolis Emergency Medical Service. A final example of the diversity of the HPP programs is the Histotechnology Program. The Histotechnology program is entirely online and enrolls students from across the country. The program relies on locally recognized clinical coordinators, distance education technology, and students mailing technical artifacts to faculty for the teaching and assessment of these students. In some of the partnerships previously listed, the program directors and faculty may be traditional full-time IUSM faculty with tenure or non-tenure track appointments. In other programs, faculty and program directors may have adjunct status with IUSM and have their primary employment within healthcare institutions such as IU Health or Indianapolis EMS.

As professional healthcare programs, every program within HPP has extensive clinical experiences. These clinical experiences are not only required for program accreditation leading to national certification and state licensure, but they are also critical opportunities for teaching and assessment. The goals and objectives taught and assessed during the clinical experiences are intertwined with and complementary to the learning objectives for lecture and student laboratory courses. The clinical experiences require

students to apply classroom knowledge, demonstrate technical skills in real-world situations, and practice skills within the affective domain.

In summary, the accreditors, academic departments, clinical affiliations, and numerous other stakeholders shape each HPP program within IUSM. The students are a diverse group that may hail from all IU campuses as well as other academic institutions. Once students matriculate into a program, their educational experiences are carefully crafted to empower them to meet learning goals and objectives across all domains of learning.

Advising

Students are not directly admitted to the IUSM Health Professions Programs. Prior to admission into IUSM, most advising for students is accomplished through academic advisors in University College, Health and Life Sciences Advising Center, and to a lesser degree in other schools. HPP has one academic advisor who advises students through the application process and assists programs in coordinating admissions. Once students are admitted to a program, their program director assumes most of the roles and responsibilities of an advisor with the assistance from the HPP academic advisor.

Profiles of Learning for Undergraduate Success

The structure of the HPP programs eliminates the possibility of longitudinally developing students from freshman to seniors in all areas of the Profiles. HPP faculty rely on University College and other schools to start student development in the Profiles and then we teach the professional curriculum once students are admitted to a HPP program. Since admissions is competitive and open to many different educational institutions, we have no clear way of identifying which freshman will enter our cohorts. Thankfully, the flexibility of the Profiles allow us to still teach and scaffold students in each of the attribute areas within our programs. However, we must accept the acknowledgement that for 3+1 and 2+2 programs there is less time to develop students in each of these attributes than other academic programs across campus may have. Additionally, since students are arriving from multiple campuses and institutions, there is a spectrum of familiarity and expertise in the Profiles amongst our student population.

Reflection on PRAC Data Collection

For over a decade, the HPP Annual PRAC Report was derived from a survey administered by the HPP's PRAC representative(s) to each of the program directors within HPP. These survey results were compiled and presented to PRAC. In the past few years, there were some changes in our representation to PRAC. We decided that the old survey was no longer capturing the information that we felt was important for our unit. In consultation with our Assistant Dean, we created a new survey. While we have always received generally positive comments from reviewers, we did reflect and act upon on reviewer comments to design this new survey. This survey was designed to be more explicit and set benchmarks that are more ambitious for our unit. After the December 2020 PRAC meeting, we realize that our old survey and our new survey may not be capturing the data the campus actually wants to collect. During the presentation, we listened to how other units were approaching the PRAC report with great interest. We are open to moving towards a new model for next year depending upon the feedback we receive this year.

HPP Benchmarks

I. HPP will retain or graduate 95% of the students who start their programs annually.
II. HPP will have at least a 95% pass rate on national board/certification exams.
III. The average score of each program on national board/certification exams will be at or above the national mean with respect to total score and content area scores.
IV. For HPP graduates seeking employment, at least 95% are employed within 12 months of graduation.
V. At least 50% of students in their final year will be involved in scholarly or creative activity.
VI. At least 10% of students in their final year will present or publish at a local, regional, or national level.
VII. At least 10% of professional students in their final year will participate in service activities.
VIII. All HPP students follow appropriate professional code of ethics.
IX. Using summative student satisfaction surveys, HPP programs will receive a summative evaluation rating of at least a 3 on a 5-point scale.
X. For employer surveys, HPP will receive a summative evaluation rating of at least a 3 on a 5-point scale.
XI. HPP faculty will provide at least one educational program annually.
XII. HPP faculty will provide at least 5 external presentations annually.
XIII. HPP faculty will have student evaluation ratings of at least a 3 on a 5-point scale.
XIV. At least 80% of HPP faculty will participate in service/leadership activities.
XV. At least 50% of HPP faculty will participate in scholarly/creative activity

Indiana University School of Medicine
Health Professions Programs
2019 – 20
Assessment of the Health Professions Programs Goals

Goal 1: To build upon sound principles of general education by preparing students to communicate effectively, exhibit quantitative skills, think critically, integrate and apply knowledge, exhibit intellectual depth and breadth, be intellectually adaptive, appreciate societal and cultural diversity, and apply ethical standards and values to professional practice.

IUPUI+ Profile	Program Competency	Teaching Strategy	Measures	HPP Benchmarks	Explanation & Representative Examples From HPP Programs	Met/ Unmet	Actions Taken
Communicator • Evaluates Information • Listens Actively • Builds Relationships • Conveys Ideas Effectively	Comprehend, Interpret, and Analyze Text Convey ideas and information effectively; including different perspectives or conflicting positions Demonstrate effective oral communication skills Solve quantitative problems	Research, Case Study, and other papers Case study presentations and other presentations Practical and Competency Assessments Clinical Experiences Laboratories	Scores and feedback on papers Student published papers Scores & feedback on presentations Student presentations at professional meetings Scores and feedback from classroom assessments Scores and feedback from lab/mock clinical experiences Ratings on clinical experiences Graduate Surveys Employer surveys	#6: At least 10% of students in their final year will present or publish at a local, regional, or national level	Clear and professional written and oral communication in healthcare are learning goals for most programs with HPP. 18 of 18 students from the IUFW Medical Imaging and Radiologic Sciences Program presented at a local conference 4 of 6 Nuclear Medicine Technology students presented at a local conference 15 of 15 Radiation Therapy students presented at a local conference	Met, 22% of students	None Required
				#5 at least 50% of students in their final year will be involved in scholarly or creative activity	Clear and professional written and oral communication in healthcare are learning goals for most programs with HPP. 34 of 34 Radiography students completed a poster or research paper for a local professional conference 8 of 8 Cytotechnology students wrote scholarly case study articles with one being accepted for national publication. 4 of 6 Nuclear Medicine Technology students presented at a regional professional meeting. One student was invited to present at national meeting.	Met, 66% of students	None Required
				#2: HPP will have at least a 95% pass rate on national board/certification exams.	The curriculum of HPP programs is designed to prepare future medical professionals to evaluate information and react appropriately. Across all of the programs, there are specific learning goals and objectives to assess competency in evaluating information. Additionally, all programs require some ability to solve quantitative problems as required by the Profiles whether that is in dosing of radiation, calculation of dilutions, or	Met; 99.3% of students	None required

					calculating breathing therapies. Board exams also assess these skills and therefore stand in as an appropriate measure. Across all HPP programs, 139 of 140 students passed their national board exams yielding a 99.3% pass rate.		
				#3: The average score of each program on national board/certification exams will be at or above the national mean with respect to total score and content area scores.	All HPP programs who are provided this data by their respective national exam boards have program means above the national mean. Three programs had at least one content area that was below the national mean. As a representative example, the IUFW Medical Imaging and Radiologic Sciences program had 1 of 8 content areas below the national mean. This program has been engaged in significant curricular redesign efforts as they joined HPP and transitioned from an associate degree program to a bachelor of science. Throughout the transition, the program mean has been improving. The program continues to implement changes but the impact of these changes may be influenced by the impact of the coronavirus pandemic.	Met; 100% above national mean; 73% above means in all content areas	
				#10: For employer surveys, HPP will receive a summative evaluation rating of at least a 3 on a 5-point scale.	Employers are surveyed by most Health Professions Programs either 6 months to 1-year post graduation. Employers are able to assess graduates on communication, teamwork, and patient interactions in the real world. Their assessment of our graduates drives program changes within the Profiles Communicator attribute. 7 or 7 employer surveys from the Clinical Laboratory Science program evaluated students with at least a 3 on a 5-point scale. However, free text comments from employers provided some specific examples of graduates being poor communicators. The program is addressing this issue by developing curriculum around working in an intergenerational workplace and conflict management. Data on the effectiveness of this change has not been collected yet.	Met; 100% of surveys	

IUPUI+ Profile	Program Competency	Teaching Strategies	Measures	HPP Benchmarks	Explanation and Representative Examples From HPP Programs	Met/ Unmet	Actions Taken
2. Problem Solver • Thinks critically • Collaborates • Analyzes, synthesizes, and evaluates • Perseveres	Use complex information from a variety of sources to solve problems Identify and propose solutions for problems using qualitative and quantitative tools, reasoning, and creative thinking Cultivate meaningful and civil relationships with others to form high performing teams Analyze complex issues, make informed decisions, evaluate decisions made Evaluate logic, validity, and relevance of information Persevere through challenging and ambiguous	Class discussions Article critiques Case Studies Practical Exams	Feedback on class participation Scores on critiques Ratings on clinical experiences Final Practical Exam Scores Graduate Surveys Employer surveys		All HPP programs prepare students for practicing their niches of medicine in the real world. The daily life of any medical professional requires the critical analysis of patient data, identifying and implementing established or novel procedures, and evaluating patient outcomes. Each patient or specimen is seen as a unique problem that needs to be solved. Perseverance is firmly embedded in our culture. When a medical professional does not persevere, the quality of care diminishes and patients may be harmed. The following three HPP benchmarks stand as measures of being a problem solver.		
				#2: HPP will have at least a 95% pass rate on national board/certification exams.	Board exams mirror the expected knowledge and skills needed to operate within our professions. Many of the questions are case study based requiring students to analyze patient data, think critically, and arrive at the best solution. Across all HPP programs 139 of 140 students passed their national board exams yielding a 99.3% pass rate.	Met 99.3% pass rate	None required
				#1: HPP will retain or graduate 95% of the students who start their programs annually.	Every HPP program has goals and learning objectives that assess problem solving and working as a member of a unified healthcare team. Two areas, which serve as illustrative examples, are practical/technical skill exams, evaluations, and assessments from clinical rotation. During practical/technical skill exams, mock patients (actors), practice models/simulators, or real patient specimens (for laboratory professions) will present novel challenges to students. Students are observed and assessed across multiple skills including verbal communication, gathering required information, analyzing and synthesizing results, developing and implementing a response, and evaluating the action. An example of this action in practice is with the Radiography program's "Skills Days". During clinical experiences, clinical preceptors are watching, guiding, and assessing students as they encounter real patients or patient specimens. In a similar manner to the aforementioned "Skills Days" throughout all of our programs, the clinical preceptors are watching, teaching and mentoring students as they practice their professional skillset.	Met; 98% graduation	None required

| | ideas, experiences, and situations in a flexible and ethical manner. | | | | As competency-based programs, students who fail to meet any standard be given remediation and reassessed or are dismissed from the program. Limits on what are considered "competent" are set for each learning objective. A very common standard is attaining a "C" or better but some objectives must be met with >90% or even 100%. As an example, in the Clinical laboratory science program on a peripheral blood differential practical exam, students must earn >90%. If they do not, individualized remediation is given and a new practical exam is administered. In the cohort reported, 12 of 12 students passed this exam with >90%.

HPP has a graduation rate of 98% for 1-year programs and students in the final year of a two-year program. This graduation rate is a summative measurement of our students accomplishing every learning objective in each program's curriculum. | | |
| | | | | #10: For employer surveys, HPP will receive a summative evaluation rating of at least a 3 on a 5-point scale. | Employer surveys serve as a valuable insight into how HPP graduates are performing in the healthcare environment post-graduation. Technical successes, technical errors, patient satisfaction surveys, professional relationships with other healthcare professionals, and many other things influence the data that is reported to us. Multiple survey items on each program's employer survey measure the IUPUI+ Program competencies

8 of 8 employer surveys from the Respiratory Therapy program evaluated students with at least a 3 on a 5 point scale

4 of 4 employer surveys from the Paramedic Science program evaluated students with at least a 3 on a 5 point scale | Met | None required |

					In addition to practical exams and clinical experiences, there are additional areas of HPP curriculum specifically address the Problem Solving profile. For instance in the Paramedic Science program students in their capstone experience practice decision making and critical thinking to manage patient care alongside faculty and clinical affiliates. Students in this program must learn to quickly assess patients and make life-sustaining interventions quickly and with great accuracy and precision in order to save lives. This is just one example in their curriculum where problem-solving skills are taught and assessed.		

IUPUI+ Profile	Program Competency	Teaching Strategies	Measures	HPP Benchmarks	Representative Examples From HPP Programs	Met/ Unmet	Actions Taken
Innovator • Investigates • Creates/designs • Confronts challenges • Makes decisions	Use quantitative data to inform decision-making Demonstrate deep knowledge in area of study Meet academic and professional competencies Create knowledge, procedures, processes, or products to discern bias, challenge assumptions identify consequences, arrive at reasoned conclusions, generate and explore new questions, solve challenges and complex problems, and make informed decisions.	Clinical experiences Capstone courses Summative Examinations Employer Surveys Community Service	Ratings on clinical experiences Capstone course grades Comprehensive Exam Scores Certification Examination Scores Ratings on Employer Surveys	#1: HPP will retain or graduate 95% of the students who start their programs annually.	Programs within HPP have goals and learning objectives, which require investigating, designing a solution, or making decisions in the patient's best interest. Two clear examples occur during clinical experiences and classroom problem-based learning. In both of these environments, students are presented with novel challenges where they must apply learning and technical skills to adapt or develop a solution. These challenges often cut across different courses and involve all domains of learning. For instance, in the cognitive domain data attained from instrumentation in a clinical laboratory may be incompatible with a diagnosis or physiologically impossible. Recognizing and troubleshooting these errors is critical for patient care. In a psychomotor domain, students in radiology and imaging sciences programs may need to be innovative when physically manipulating instruments and patients to perform imaging or delivering radiation to adapt to challenging circumstances. The HPP programs are competency based and set high academic standards for retention and graduation. Graduating from these programs means students are competent in all areas of our curriculum. Cytotechnology 8/8 = 100% Radiation Therapy 15/15 = 100%	Met; 98% graduation	None Required
				#3: The average score of each program on national board/certification exams will be at or above the national mean with respect to total score and content area scores.	99.3% of students across all reporting HPP programs passed their national certification exam. The entire program mean was above the national mean.	Met 99.3% of students	None Required

| | | | | #9: Using summative student satisfaction surveys, HPP programs will receive a summative evaluation rating of at least a 3 on a 5-point scale.) | When students graduate from an HPP program, they expect to be well prepared to enter their professions. Post-graduation surveys are a valuable tool for students to reflect on how well their programs prepared them for the workplace. Many HPP programs administer graduate surveys 6-12 months after graduation. As an example, the Clinical Laboratory Science program's graduate survey gathers information about each learning domain within the program's curriculum and the Profiles. The faculty formally reflect on this data, share the results during faculty meetings, share with an advisory board, and develop and action plan including further assessment to measure the impact of any changes. One example that has been unfolding over several years was that students felt ill prepared for working with body fluids. As a result, instruction and laboratory experiences were increased and more time was spent in this area during clinical rotations There is no longer a deficiency in this area of the curriculum. It is interesting to note that this deficiency was only seen on the graduate surveys, it was not detected on board exam scores or employer evaluations. Since we have updated the curriculum, we have added more student learning objectives to this area, which has provided a framework to assess our students and ensure they are competent and ready for the work force. | Met 100% of respondents | None Required |
| | | | | | | | |

IUPUI+ Profile	Program Competency	Teaching Strategies	Measures	HPP Benchmarks	Representative Examples From HPP Programs	Met/ Unmet	Actions Taken
Community Contributor • Builds Community • Respectfully engages own and other cultures • Behaves ethically • Anticipates consequences	Demonstrate substantial knowledge of at least one field of study Compare / contrast approaches to knowledge in different disciplines Modify approach to issue / problem based on contexts / requirements of situations	Clinical experiences Practical Exams Capstone Courses	Ratings on clinical experiences Final Practical Exam Scores Summative Exam Scores Certification Exam Scores Student Employment Scores from Employer Surveys	#1: HPP will retain or graduate 95% of the students who start their programs annually.	HPP programs are committed to preparing students to enter healthcare professions. Each program has goals and objectives that are in place to assess ethical behavior, respectful engagement with patients and colleagues, and professionalism. As competency-based programs, all students must meet all objectives. Therefore, graduation rates can serve as a measure of evidence for this profile. Students who fail to meet these objectives are subject to academic penalties, probation, and/or dismissal.	Met 98% graduation rate	None Required
				#8 All HPP students follow appropriate professional code of ethics	Across all HPP programs, no students were placed on probation or dismissed for academic misconduct as defined by the IU Student Code of Conduct. Across all HPP programs, no students were placed on probation or dismissed for professional misconduct as defined by the IU Student Code of Conduct, Program or Clinical Affiliate Standards, or professional practice standards.	Met; 100%	None required
				#7 At least 10% of professional students in their final year will participate in service activities	HPP students are encouraged to participate in service activities for their community or profession. This is a new benchmark for HPP and therefore only seven of our programs collected this data. Of the seven programs, 57 of 70 students (81%) participated in at least one service activity.	Met; 87% participated	None Required
				#3: The average score of each program on national board/certification exams will be at or above the national mean with respect to total score and content area scores.	99.3% of students across all reporting HPP programs passed their national certification exam. For all of the programs, the program mean was above the national mean. As an illustrative example of how categorical scores assess this profile, we can look at the Radiation Therapy program's board exam results, which specifically assess "Patient Interactions" and "Patient and Medical Record Management". Engaging patients respectfully and behaving ethically with patient records are assessed here and are a measure of this Profile.	Met	None Required
				#4: For HPP graduates seeking employment, at least 95% are employed	Successful placement of students 6 months to 1 year after graduation is a measure of a graduate's adherence to standards of professional practice. Of	Met 97.8% working or	None Required

				within 12 months of graduation.	the 135 students who responded to this request, 128 are employed. Four of the students who are not employed enrolled in a graduate program. This leaves just three students who are not employed. These three students are all from the Cytotechnology program and are choosing to not leave Indianapolis where the market is locally saturated. At the time this data was collected, students were <6 months post-graduation. The IUFW Medical Imaging and Radiologic Sciences program had 18 of 18 graduates employed. The Ultrasound program had 9 of 9 graduates employed The Histotechnology program had 41 of 41 graduates employed.	in graduate school	
				#10: For employer surveys, HPP will receive a summative evaluation rating of at least a 3 on a 5-point scale.	Employer surveys are a valuable tool for programs to assess how their graduates adhere to the professional standards of their profession, build community with their co-workers, and treat patients respectfully. All HPP programs who conducted employer surveys had an average of at least a 3 on a 5-point scale.	Met; 100%	None Required

Goal / Principle	Program Competency	Teaching Strategies	Measures	HPP Benchmarks	Representative Examples From HPP Programs	Met/ Unmet	Actions Taken
Society and Culture	Compare / contrast range of diversity and universality in human history Analyze and understand inter-connectedness of global and local concerns Operate with civility in a complex social world	Clinical experiences Problem-based learning exercises Expectations for professional behavior embedded in curriculum	Written papers Written exams Ratings on clinical experiences Graduate surveys Employer surveys	#8: All HPP students follow appropriate professional code of ethics.	Across all HPP programs, no students were placed on probation or dismissed for academic misconduct as defined by the IU Student Code of Conduct. Across all HPP programs, no students were placed on probation or dismissed for professional misconduct as defined by the IU Student Code of Conduct, Program or Clinical Affiliate Standards, or professional practice standards.	Met; 100%	None Required
Values and Ethics	Make formal and principled choices in conflicting situations / foresee consequences of choices Recognize importance of aesthetics in personal lives and to society	Class discussions Case study reports Clinical experience	Ratings on clinical experiences Employer surveys Critical incident reports	#10: For employer surveys, HPP will receive a summative evaluation rating of at least a 3 on a 5-point scale.	Employer surveys are a valuable tool for programs to assess how their graduates adhere to the professional standards of their profession, build community with their co-workers, and treat patients respectfully. All HPP programs who conducted employer surveys had an average of at least a 3 on a 5 point scale	Met	None Required
					100% of students in the CLS and Cytotechnology program receive formal training experiences on professional ethnics and ethics in biomedical research		

Goal #2: To provide undergraduate degree programs that offer education related to the provision and management of health services by the various health professions.

Goal / Principle	Program Competency	Teaching Strategies	Measures	Benchmarks	Representative Examples From HPP Programs	Met/ Unmet	Actions Taken
1. To provide undergraduate degree programs	Complete certificate or degree programs Obtain credentials required for practice	Capstone courses Clinical experiences Classroom learning	Final Course Grades Comprehensive Exams Final Practical Exams Certification Exam Scores	#1: HPP will retain or graduate 95% of the students who start their programs annually.	The IUSM Health Professions Programs serve a vital role in supplying highly skilled healthcare professions to Indiana and the region.	Met 98% graduated	None Required
				#3: The average score of each program on national board/certification exams will be at or above the national mean with respect to total score and content area scores.	139 of 140 students from all reporting HPP programs passed their national certification exam.	Met 99.3%	None Required

Goal #3: To contribute to the advancement of knowledge through research

Goal / Principle	Program Competency	Teaching Strategies	Measures	Benchmarks	Representative Examples From HPP Programs	Met/ Unmet	Actions Taken
1. Advance knowledge through research	Conduct literature review Collect data Analyze data Present results Conduct research	IUSM provides opportunity to participate in research endeavors IU provides opportunity to participate in research skill development	Peer reviewed articles Platform presentations Poster presentations Book chapters Grants submitted CD-ROM Textbook Abstracts Other journal articles	#15: At least 50% of HPP faculty will participate in scholarly/creative activity	The employment status of our faculty is important to understand when interpreting this benchmark. All of the faculty within the IUSM Health Professions Programs are clinical track or adjunct. The faculty of some programs such as Respiratory Therapy and Paramedic Science are not paid employees of IUSM but rather have an adjunct or lecturer status with their salaries being paid by local hospital systems. 16 of 24 full-time IUSM faculty participated in scholarly or creative activity.	Met 67%	None required
				#12 HPP faculty will provide at least 5 external presentations annually	Across all of the HPP programs, 32 scholarly presentations were given and HPP faculty completed 6 poster presentations.	Met 32 Presentations 6 Posters	None required

Goal #4: To provide continuing education for health professions practitioners wishing to further their career development

Goal / Principle	Program Competency	Teaching Strategies	Measures	Benchmarks	Representative Examples From HPP Programs	Met/ Unmet	Actions Taken
1. Provide continuing education for practicing professionals	Engage in lifelong learning Engage in activities that promote career development	Provide programs that are approved by professional organization continuing education program Provide programs that meet needs of practitioners	Number of CE units offered	#11: HPP faculty will provide at least one educational program annually.	IUSM HPP faculty frequently host continuing education programs to benefit practicing healthcare professionals. 11 programs were given by HPP faculty.	Met; 11 programs	None Required
				#12: HPP faculty will provide at least 5 external presentations annually.	Across all of the HPP programs 32 scholarly presentations were given and 6 poster presentations were completed by HPP faculty	Met 32 presentations 6 posters	None Required

Goal #5: To foster the development of lifelong habits for scholarship and service among faculty and students.

Goal / Principle	Program Competency	Teaching Strategies	Measures	Benchmarks	Representative Examples From HPP Programs	Met/ Unmet	Actions Taken
1. Encourage lifelong habits of service and excellence in teaching among faculty	Participate in service activities at all levels of professional and/or community life	Seek / accept membership on committees Seek / accept leadership roles	Performance indicator reports	#14: At least 80% of HPP faculty will participate in service/leadership activities.	For this data point, the program directors responded with all of the faculty included, regardless of whether they are paid by IUSM or not which yielded 25 of 31 faculty participated in service/leadership activities	Met 80%	None Required
				#13 HPP faculty will have student evaluation ratings of at least a 3 on a 5-point scale	Two HPP programs had a faculty member who earned lower than a 3 on a 5-point scale in at least one class he/she taught. One program did not renew the contract for the faculty member. The other program instituted mentoring sessions between the faculty member and the program director as well as CTL consultation. Ultimately, this faculty resigned. The other 8 reporting programs had no deficiencies in this benchmark.	Not met	Faculty members removed

2. Encourage life long habits of service among students	Participate in service in profession or community	Pursue membership in professional Organizations	Student reports of service Graduate surveys	#7: At least 10% of professional students in their final year will participate in service activities.	HPP students are encouraged to participate in service activities for their community or profession. This is a new benchmark for HPP and therefore only seven of our programs collected this data. Of the seven programs, 57 of 70 students (81%) participated in at least one service activity.	Met 81%	None Required
3. Provide faculty with opportunity to participate in scholarly or creative activities	Participate in continuing education Present academic instruction informed by current research and body of knowledge Participate in scholarly or creative activity Participate in patient education	SOM provides opportunity to participate in continuing education programs SOM provides opportunity to participate in scholarly or creative activities	Performance indicator reports	#15: At least 50% of HPP faculty will participate in scholarly/creative activity	16 of 24 full-time IUSM faculty participated in scholarly or creative activity.	Met 67%	None Required
4. Provide students with opportunity to participate in scholarly or creative activities	Participate in scholarly or creative activity with HPP faculty	Capstone projects	Final course project	#5: At least 50% of students in their final year will be involved in scholarly or creative activity.	34 of 34 Radiography students completed a poster or research paper for the local professional conference 8 of 8 cytotechnology students wrote scholarly case study articles with one being accepted for national publication. 4 of 6 Nuclear Medicine Technology students presented at a regional professional meeting. One student was invited to present at their national meeting.	Met, 66% of students	None Required

Special Emphasis 1: Impact of COVID-19 on assessment and improvement efforts and future plans.

COVID-19 has had a significant impact on our programs throughout 2020. As general background, during the Spring and Summer semesters of 2020 many of our clinical affiliates revoked the opportunity for our students to participate in clinical rotations. Some programs responded by creating online clinical rotations that accomplished learning objectives but were obviously not a comparable experience to working with real patients. An example of how programs adapted their assessments to these challenges can be seen by looking at the following four examples.

In the Cytotechnology program, students were prevented from participating in clinical rotations at their clinical affiliates. As a response, faculty sent microscopes home with the students along with carefully curated boxes of non-biohazardous specimens (fixed and stained glass slides). Students and faculty used Zoom, Kaltura, and photomicroscopy software to develop synchronous and asynchronous learning activities. Students evaluated slides in real time with faculty using Zoom and photomicroscopy software. Likewise, students were able to take assessments using recorded videos and pictures using Canvas "Quizzes". With their personal scopes, students were able to screen specimens and build practical skills in their personal residences.

In the radiography program, students were also prevented from participating in clinical rotations at their clinical affiliates. Faculty worked to create synchronous and asynchronous learning activities using videos of radiographic images to teach and assess students. Students were also required to demonstrate some of the clinical competencies such as positioning patients. For this activity, the students used roommates or family members and their webcams to demonstrate these skills to their faculty members.

Some programs such as Respiratory Therapy and Radiation Therapy quickly changed the scope and sequence of their programs in order to move classes that are more conducive to online learning to the summer and late fall while moving classes with more technical demonstrations and assessments to early fall. In the case of Respiratory Therapy, Governor Holcomb, in recognition that COVID-19 would place an increased need for Respiratory Therapists, signed an order encouraging this program (and similar programs state wide) to continue their training and clinical rotations. He also brought about temporary changes to licensure requirements in order to increase the pipeline of students entering specific professions.

Respiratory Therapy as well as other patient-facing Health Professions Programs have faced some difficulty with ensuring students are receiving clinical experiences in all modalities and areas of the hospital. Two things seem to have stood in the way of these programs' mission. First, earlier in the pandemic students were not allowed to work with patients who were positive or suspected of having COVID-19. This restriction, along with scaled-back hospital operations, and public apprehension to seek healthcare during a pandemic caused a reduced number of patients students could work with. The second factor was the lack of appropriate PPE for working with COVID-19 positive patients (such as n95 respirators). Once respirators became available, students needed to be fit-tested which caused another bottleneck in operations. This was compounded by difficulty in maintaining a steady supply of the same brand and style of n95 respirators because a fit-check is specific to the user, the brand, and style of mask.

Histotechnology and Medical Imaging Technology are both online programs taken by students who are already employees in a healthcare system. Since the students

are *employees*, these programs did not experience the same level of difficulty in maintaining clinical experiences for their students.

Despite all of the challenges mentioned above, our programs have been innovative and resourceful in responding to the challenges presented by the coronavirus pandemic. We have shared concerns with faculty across the University of Academic Dishonesty with online learning, but our faculty have been able to ensure learning goals and objectives are met with Respondus and demonstration of technical skills during in-person labs and clinical rotations.

Special Emphasis 2: Progress to date in implementing and assessing Profiles

All of the responding programs have mapped their program's learning goals and objectives to the Profiles. Most of the programs have managed to create tables that merge program specific accreditation standards, the Profiles, and the program's learning goals and/or objectives to ensure they are meeting the demands of all stakeholders.

Special Emphasis 3 If you are working on experiences to be included in the Record (or already have some), what are they? How are they being developed and designed/redesigned? Any assessment plans?

Every Health Professions Program has experiences that could be acknowledged in the Record. Our clinical experiences, as well as capstone/research experiences, would all be candidates for the Record. Within the HPP Executive Committee, we have discussed this, but there has not been much traction due to the distractions caused by the pandemic. As a group, we see a value in the Record. It is a great way for IUPUI graduates to provide a record of their experiential learning and accomplishments to employers. However, within our School there has not been a demand by students or employers to document experiential learning in this way. Certification (and licensure) of our graduates and accreditation of our programs are the only things that concern our employers and students. The vast majority of employers are also our clinical affiliates so they are participating first hand in the experiential learning of our students.