

JOHNS HOPKINS UNIVERSITY

Master of Education in the
Health Professions
and
Graduate Certificate in
Evidence-Based Teaching in
the Health Professions

Proposal for the JHU
Office of the Provost and
Deans of the Participating Schools

12/24/2009

Bloomberg School of Public Health, Carey Business School, School of Education,
School of Medicine, School of Nursing

Table of Contents

I. Executive Summary	Page 3
II. Committee Membership	Page 6
III. Rationale and Need for the Program	Page 7
IV. Course of Study Leading to the Proposed Degree	Page 12
V. Faculty	Page 23
VI. Accreditation	Page 24
VII. Cooperative Arrangements	Page 24
VIII. Library Requirements	Page 26
IX. Facilities and Equipment	Page 27
X. Minority Student Achievement	Page 28
XI. Low Productivity Programs	Page 28
XII. Deliverables	Page 28
XIII. Finance	Page 30
Appendix A – Comparison of Medical and Health Education Programs	Page 36
Appendix B – Internal School of Medicine Survey Results	Page 45
Appendix C – Growth Projections	Page 55

I. Executive Summary

The JHU Master of Education in the Health Professions (MEHP) is proposed to be a world-class degree jointly offered through an association of the Johns Hopkins University Schools of Education, Medicine, Nursing, Public Health, and Business with the goal of graduating a cadre of professional educators for schools and training programs related to medicine, nursing, public health and other health professions. The program will target educators and education researchers in health professions who want a high quality, part-time learning experience with direct application to their work environments.

The need for this degree arises from rapid curricular changes occurring in many health professions schools, the recent expansion of schools and training programs intended to address health care workforce shortages, and the survival of professional educators as tenured faculty. The MEHP is designed to provide graduates the skills requisite to success as excellent educators, educational leaders, innovators and scholars in health professions education.

The first segment of the program is an 18-credit graduate certificate which can be taken as a stand-alone curriculum, with emphasis in preparing health professionals to teach effectively. Themes of evidence-based practice and scholarship are integral to each of the six certificate courses: Adult Learning; Evidence Based Teaching, Assessment and Feedback, Curriculum Development, and Instructional Strategies I and II.

For participants choosing a full master's degree, the second segment of 15 credits offers two tracks, one in Educational Leadership in the Health Professions, and one in Educational Research in the Health Professions. Both tracks also allow for some customization through electives. In both concentrations, participants will work for a year with a mentor or advisor to develop, implement, and write about a capstone project applying knowledge, skills and dispositions acquired throughout the program.

In its first year of delivery the MEHP program will be offered in a face-to-face format with Web and technology enhancements, targeting local—and in particular, Hopkins-based—participants. In the second year of delivery and beyond, the certificate and full master's degree will be offered in an online format with residential requirements, to attract a national and international audience. Both the certificate and the master's degree will be conferred by the School of Education, with one other school of the candidate's choice jointly represented on the diploma.

The program will be led by a Director responsible for overseeing a curriculum committee, reviewing and approving student applications, developing and monitoring course evaluations and directing the development of the online components of the program. The Director will report to an Executive Committee composed of two members from each of the five schools, selected to serve by their respective deans. An Online Instructional Design Team, the Masters Faculty, and a Curriculum Oversight Committee, composed of selected program faculty to assist

the director in curriculum development, evaluation and ongoing quality improvement, would report to the Director completing the organizational structure.

The program is priced competitively and will accommodate Hopkins participants by permitting tuition remission benefits to be applied to the program. The proposed credit hour rate will be \$700 per credit hour. Hopkins participants could pay for up to 7.5 credits annually using current tuition remission guidelines (\$5,250 annual limit), allowing them to complete a certificate in a little over two years and the master's in two additional years.

Further budget assumptions include the following: forty (40) students will be enrolled the first year and six (6) classes, each at three (3) credits, and each holding 20 students will be provided. Thus, there will be an income generated of \$252,000 in the first year. In the second year, the number of part-time students will double to eighty (80) with fourteen (14) classes being offered. In Year-3 and onward, a minimum of twenty-two (22) classes will be offered with a plan of eighty (80) students continuing each year through the curriculum. The break-even point is expected to occur by Year 3 of the program as described in the budget section of this report.

The program requires approximately \$750,000 in start-up support. After adjusted expenses and once a surplus has been established, it is proposed that fifty percent (50%) of the surplus be reinvested in the program with the remainder used to reimburse supporting schools' investments. Once all paybacks are completed, it is proposed that additional surpluses be evenly distributed (10% each) to each of the five participating schools. Surplus distribution is expected to begin in Year 9.

Based on an internal survey of 127 clinician educators in the School of Medicine in October 2009, 30 (24%) indicated that they would be highly interested in obtaining the 18 credit certificate, and 31 indicated they would be in interested in obtaining the 33-credit Master's degree. An additional 21 faculty indicated some interest in the certificate and 16 some interest in the masters for a total of 51 and 47 potential SOM Hopkins participants in the certificate and master's programs, respectively. Thus, it appears we have a significant population of potential participants in the SOM alone to fill the program during the first two years of operation.

Health professional schools are increasingly recognizing the importance of the educator career path. For educators in the health professions to be successful in their own careers, they must develop as effective scholars in education. It is also clear that advancement of the profession needs this scholarship. Benchmarking with five of the nation's most well-known Master's programs in medical or health professions education indicates that this proposed Master's program is both unique in terms of its niche and in alignment with other programs nationally in terms of credits and costs. The Hopkins program will be singular in its focus on evidence-based teaching and skill-building in educational scholarship. The Hopkins MEHP program will share a foundation in educational theory, practical approaches to teaching, evaluation of learner and program outcomes, and leadership with other benchmarked national programs. This program will be offered for a total of 33 credits compared to a range of 30 to 45 credits, putting the

program in alignment with most programs that are offered in the range of 30-33 credits. The proposed tuition model of \$700 per credit also places the Hopkins program within the range of benchmarked schools, two of which are slightly lower than our proposed rate (\$668 and 678/credit) and two representing the high end of the programs reviewed (\$1,100 and \$1,263/credit).

The following proposal provides further details of particular interest to the JHU Offices of the Provost and to the Deans of the five participating schools. The proposal also offers information requested or required by the Maryland Higher Education Commission. Questions and suggestions about the proposal can be directed to the Committee Co-chairs, John Flynn and Lisa Heiser, the Curriculum sub-Committee Co-chairs, Anne Belcher and Betsy Lowry, as well as to any of the school representatives serving on the Committee.

The support of the Provost, Vice-Provost, Deans and Vice Deans of the five participating schools will now be essential to enable us to bring the work of this committee to full fruition. Any and all support will be vital to our continued success and greatly appreciated.

Respectfully submitted,

John Flynn and Lisa Heiser, Co-Chairs

Anne Belcher and Betsy Lowry, Co-Chairs, Curriculum Sub-committee

JHU Master of Education in the Health Professions Committee

December 24, 2009

II. Committee Membership

Committee members represent each of the five participating schools of The Johns Hopkins University. Many are recognized as educational leaders nationally and in their respective schools.

This initiative originally began by building on two earlier School of Medicine efforts to create a Master's of Medical Education degree in partnership with the School of Education, thus the co-chairs are both affiliated with the SOM. Based upon the initial promise of exciting new opportunities associated with this third attempt and the interests of the Deans of the Bloomberg School of Public Health, Carey Business School, and School of Nursing, the current proposed initiative quickly evolved into a multi-disciplinary, multi-divisional effort involving the following five schools of The Johns Hopkins University: the Bloomberg School of Public Health, Carey Business School, School of Education, School of Medicine and School of Nursing. Committee members now include the following:

John Flynn, MD, MBA, FACP, FACR, Professor of Medicine, Clinical Director, Division of General Internal Medicine, School of Medicine, Co-Chair

Lisa Heiser, MA, Assistant Dean for Faculty Development and Equity, School of Medicine, Co-Chair

Anne Belcher, PhD, RN, AOCN, CNE FAAN, ANEF, Associate Professor and Director, Office for Teaching Excellence, School of Nursing

Joseph Cofrancesco, MD, MPS, FACP, Associate Professor of Medicine, Director, Institute for Excellence in Education, School of Medicine

Harry Goldberg, PhD, Assistant Dean/Director Office of Academic Computing, School of Medicine

Loretta Hoepfner, MS, Change Consultant, Division of General Internal Medicine, Department of Medicine, School of Medicine

David Kern, MD, MPH, Director, Division of General Internal Medicine, Johns Hopkins Bayview Medical Center, Director, Curriculum Development Program, Faculty Development Program for Clinician Educators, Professor of Medicine, School of Medicine

Betsy Lowry, EdD, Assistant Dean, Teaching, Learning and Assessment, Associate Director, Center for Technology in Education, School of Education

Greg Nass, MBA, Sr. Administrative Manager, Center for Technology in Education, School of Education

Jacqueline Nunn, PhD, Associate Dean of Educational Technology, School of Education

Stephen Teret, JD, MPH, Associate Dean, Professor, Health Public Policy Division, Bloomberg School of Public Health

Patricia Thomas, MD, Associate Dean Curriculum, Associate Professor, School of Medicine

Toni Ungaretti, PhD, Assistant Dean, Office of Learning, Assistant Professor of Management, Carey Business School

III. Rationale and Need for the Program

- A. Describe the extent to which this program is central to the institutional mission, the planning priorities of the campus, and its relationship to instructional program emphasis.

The mission of the Johns Hopkins University is to educate its students and cultivate their capacity for life-long learning, to foster independent and original research, and to bring the benefits of discovery to the world. In no area has this impact been greater than that of biomedical discovery and health care. The university and its Schools of Medicine, Nursing and Public Health have international pre-eminence as educators of health professionals that serve national and international populations. With new university leadership in 2009, there has been increased interest in collaborations across the various divisions that build on synergies of expertise. As an example, the 2008 *Framework for the Future* strategic planning process specifically called for a collaborative decentralization, in which “divisions... take joint responsibility for Johns Hopkins’ contributions to society. In such an environment, cross-cutting initiatives will be more likely to arise and thrive.”¹ This proposed degree program, jointly sponsored by five divisions of the university, (the Bloomberg School of Public Health, Carey Business School, School of Education, School of Nursing, and School of Medicine), will be a new model of collaboration for the institution.

The university has a vested interest in development of its faculty. The health professional schools are increasingly recognizing the importance of the educator career path. For educators in the health professions to be successful in their own careers, they must develop as effective scholars in education. It is also clear that advancement of the profession needs this scholarship. There are few professions with more costly educations or more critical outcomes, yet the evidence base for educational methods in health professions is meager. Educational leaders have expressed concern that the growth in medical and nursing education research publication has not informed educational practice.^{2,3} Having been established as the first research university in the country and now holding a rich research portfolio, JHU is poised to develop those educational researchers who will advance the professions through efficient, cost effective and outcomes-based education.

- B. Describe how this program meets a critical and compelling regional or statewide need as identified in the Maryland state plan.

¹ Framework for the Future. Johns Hopkins University, February 2009. Accessed at: http://web.jhu.edu/administration/provost/docs/Framework_090227.pdf.

² Cook DA, Bordage G, Schmidt HG. Description, justification and clarification: a framework for classifying the purposes of research in medical education. *Medical Education* 2008;42:128-33.

³ Norman GR. Research in medical education: three decades of progress. *BMJ* 2002;324:1560-2.

The 2009 Maryland state plan for higher education⁴ articulated 5 goals for postsecondary education: 1) quality and effectiveness; 2) access and affordability; 3) diversity; 4) a student-centered learning system; and 5) economic growth and vitality. The proposed degree program addresses each of these goals, since health and health care delivery impact each of these goals. As noted above, improving the quality of teaching faculty and promoting evidence-based teaching methods is central to the premise of the degree program; the impact of these teaching faculty on professional education will, in turn, improve access and affordability of that education. Health care professional schools are deeply invested in diversity initiatives, since providing a diverse health care workforce is known to improve the quality of health care for an increasingly diverse population. We anticipate that targeted learners will reflect this diversity and incorporating diversity into educational efforts, including knowledge of health care disparities and cultural competency training, will be a strong theme of the degree program. Given this emphasis in cultural competence, candidates will be assessed in this area in many of their courses. In addition, this will be a component that is assessed in the capstone/portfolio project whereby candidates must provide specific evidence of their understanding of issues of cultural competency in their teaching, leadership, and research. Foundations courses will emphasize modern learning theory and student-centered learning will be modeled in the curriculum of the degree program. The Maryland State Plan acknowledges the importance of addressing health care workforce issues, especially nursing education, in maintaining the economic growth and vitality of the state. This degree program will most likely have its greatest impact in local and regional schools and programs initially, and facilitate the ability of schools to graduate the highest quality of health care workers in the years to come.

- C. State the specific local, State and/or national needs for graduates of the proposed program. Describe the job opportunities that are available to persons who complete the program. Provide evidence of market demand through supporting data including results of surveys which have recently been conducted. Present data showing the current and projected supply of graduates from existing programs in the State if any.

Health professional education has undergone rapid change and expansion in recent decades, in an attempt to meet the societal health care needs of modern times. Nearly every medical school, including the JHU School of Medicine, has implemented or planned to implement a major curriculum reform.⁵ The reasons for professional education reform have been promulgated by several expert consensus panels who note the gaps between knowledge of health, disease and best practice, and the health care outcomes achieved.^{6,7} In nearly every discussion of health care reform, be it patient safety and quality care, cultural competency,

⁴ Accessed at: http://www.mhec.state.md.us/higherEd/2004Plan/JUNE_2009_FinalEdited.pdf.

⁵ Christakis NA. The similarity and frequency of proposals to reform US medical education: constant concerns. *JAMA* 1995;274:706

⁶ Cuff PA, Vanselow NA (eds). *Improving Medical Education: Enhancing the Behavioral and Social Science Content of Medical School Curricula*. Washington, DC: The National Academies Press, 2004.

⁷ Cooke M, Irby DM, Sullivan W, Ludmerer KM. American medical education 100 years after the Flexner Report. *N Engl J Med* 2006;355:1339-44.

workforce issues or professionalism, there is an embedded message that change is rooted in the education of new professionals.⁸

Curriculum reform often includes new content, such as behavioral and social sciences, new technology, such as informatics and database management, new skill sets, such as culturally sensitive communication and therapeutic partnership building, and management of resources. Faculty trained in prior systems are content experts, but lack the background knowledge of educational theory or requisite training in teaching skills that will facilitate development and delivery of effective curricula in this broadened landscape. In addition, few have had educational experiences in interprofessional education. In order to impact the next generation of health professionals, we need a cadre of faculty with not only expertise in their content area, but also knowledge of effective teaching methods cultural competency, modern technologies, curriculum planning and confidence in managing organizational change.

A related need of health professionals in the state of Maryland and beyond, which translates to a need in health professions education, is addressing health disparities and cultural competence. The issue of health disparities in relation to the health care of ethnic, sexual and ability minorities and women will be highlighted throughout the courses, examples, and assignments in this program.

Even in a troubled economy, the health care sector continues to expand, and the changing demographics of the U.S. population have prompted calls for increasing numbers of professional graduates. Following an Association of American Medical Colleges (AAMC) call for a targeted 30% increase in the number of medical school graduates to address projected workforce needs, several US medical schools have expanded class sizes in recent years. In 2006 a AAMC survey found that current expansion plans would result in a 17% increase in matriculants from 2002 to 2012.⁹ By 2007, 85% of existing medical schools had increased class size, more than a dozen new medical schools were scheduled to enroll additional medical students, and the AAMC projected the targeted 30% increase in matriculants would be reached by 2017.¹⁰ The growing number of students implies a need for more teachers and educational administrators.

The American Association of Colleges of Nursing indicated in 2008 that US nursing schools turned away almost 50,000 qualified applicants from baccalaureate and graduate programs due in large part to an insufficient number of faculty.¹¹ In a Special Survey on Vacant Faculty Positions (AACN, 2008), a total of 814 faculty vacancies were identified in 449 nursing schools with baccalaureate or graduate programs. This does not include the shortage of faculty for

⁸ Jones R, Higgs R, deAngelis C, Prioleaux D. Changing face of medical curricula. *Lancet* 2001;357:699-703.

⁹ Center for Workforce Studies. Medical School Expansion Plans: Results of the 2006 AAMC Survey. February 2007. Accessed at <http://www.aamc.org/workforce/2006medschoolsextension.pdf>.

¹⁰ Center for Workforce Studies. Medical School Enrollment Plans: Analysis of the 2007 AAMC Survey. Accessed at www.aamc.org/workforce.

¹¹ AACN (2008). 2008-2009 Enrollment and Graduations in Baccalaureate and Graduate Programs in Nursing.

associate degree programs.¹² The Maryland Hospital Association, in collaboration with schools of nursing throughout Maryland, indicated that 340 new nursing faculty are needed in order to educate current and future nurses in the 15 associate degree, 8 baccalaureate, and one baccalaureate completion program.¹³

In the state of Maryland, only 48% of currently employed nursing clinical instructors have a Masters degree. This group would be a rich source of students for this program.

D. State the Unique Features of the Proposed Program and Contrast This Program with Existing National and Regional Programs

The committee benchmarked against five of the nation's most well-known Master's programs in medical or health professions education:

- University of Cincinnati Master of Education for Physicians and Other Health Care Professionals
- University of Illinois at Chicago College of Medicine, Master of Health Professions Education
- University of Michigan Master's Concentration in Medical and Professional Education
- University of New England College of Osteopathic Medicine, Master of Science in Medical Education Leadership
- University of Southern California Keck School of Medicine, Master of Academic Medicine

Details regarding the benchmarked programs are available in Appendix A.

We found that benchmarked schools shared a common foundation in educational theory, practical approaches to teaching, and the evaluation of learner and program outcomes. Some schools also focused on developing leaders. While sharing the above goals with other schools, the Hopkins program will be unique in its focus on evidence-based teaching and skill-building in educational scholarship.

Programs ranged from requiring 30 credits (U. of Michigan) to 45 credits (U. of Cincinnati) to complete the Master's Degree with four of the five programs requiring credits in the range of 30-33 credits. The Hopkins program is in alignment with the most common credit requirements at 33 credits for the Master's.

Program costs to complete the Master's degree for benchmarked schools ranged from schools at the low end:

¹² AACN (2008). Special Survey on Vacant Faculty Positions.

¹³ Who Will Care (2008). Maryland Hospital Association.

- University of Cincinnati (\$668/in state;\$678/credit out of state)
- University of Illinois at Chicago College of Medicine (\$675/credit)

To schools at the high end:

- University of Michigan (\$1,100/credit in state; \$2,200/credit out of state)
- University of Southern California Keck School of Medicine(\$1263/credit)

Programs range from fully online (e.g., University of Cincinnati) to fully on-site (e.g., University of Michigan) to blended learning with a combination of online and in person requirements (e.g., University of Southern California Keck School of Medicine). The JHU program will be offered onsite in a face-to-face format with some technology enhancements the first year to appeal to and accommodate the needs of the local Hopkins community, and will move to an online program with residential requirements of greater interest to a national and international audience in downstream years.

The proposed JHU Master of Education in the Health Professions degree will occupy a unique niche related to the above trends. It will provide high quality education using teams of educators from both the School of Education and East Baltimore health professions schools to develop and deliver the curriculum. This program stands in marked contrast to most degree-granting programs currently available that generally rely on educators from Schools of Education alone to design and deliver their content. This curriculum will also use evidence-based educational strategies and methodologies and will provide participants the opportunity to acquire critical skills in health professions educational scholarship so vital to educators' career success. With these unique features, the Hopkins program is well- positioned to be not only a national leader but a world-class program that can be expected to attract a national and international audience.

- E. Provide evidence of student interest in the program. What are the projections of program majors full-time or part-time for each of the first five years of the program?

Based on an internal JHU survey of 127 clinician educators in the School of Medicine in October 2009, 30 (24%) indicated that they would be highly interested in obtaining the 18 credit certificate, and 31 indicated they would be interested in obtaining the 33-credit Master's degree. An additional 21 faculty indicated some interest in the certificate and 16 some interest in the masters for a total of 51 and 47 potential SOM Hopkins participants in the certificate and master's programs, respectively. Thus, it appears we have a significant population of potential participants in the SOM alone to fill the program during the first years of operation. Details on the internal SOM survey of educators are provided in Appendix B.

Based on a survey of existing masters degrees in education available in the U.S. to health professionals and a regional survey conducted of the Baltimore-Washington D.C. metropolitan area, we anticipate easily meeting the projected enrollments for the first years of the program

as described in the Financial Data Table in Section XIII. We anticipate that most students will be part-time and fully employed. As the availability of online delivery of content is further developed, we anticipate significant growth beyond the regional area.

- F. Project the number of graduates for the first five years of the program following the first year of awarding the degrees.

See Financial Data Table in Section XIII and Appendix C.

- G. If a similar program exists in the state, describe the similarities or differences in the degree to be awarded, the area of specialization and the specific academic content of the program or course of study. Despite the prominence of health care and health education in the state of Maryland, there is no degree program in the state that addresses the needs of health professionals' education.

There is no similar degree program in the State of Maryland or through regional Schools of Education, which have traditionally focused on K-12 education.

IV. Course of Study Leading to the Proposed Degree

- A. State the educational objectives of the program.

The goals of the Master of Education in the Health Professions program are to produce graduates who:

- Will be excellent teachers
- Will be effective researchers
- Will be leaders in their field

- B. Describe the program, as it would appear in a catalog, including each area of concentration.

The Master of Education in the Health Professions (MEHP) is proposed to be a world-class degree jointly offered through an association of the Johns Hopkins University Schools of Education, Medicine, Nursing, Public Health, and Business. The program will target educators and education researchers in medical schools, nursing schools, schools of public health, and other health professions, who want a part-time learning experience with direct application to their work environments. The first segment of the program is an 18-credit graduate certificate which can be taken as a stand-alone curriculum, with emphasis on preparing health professionals to teach effectively. Themes of evidence-based practice, cultural competence, technology integration and scholarship are integral to each of the six certificate courses. Those students completing certificates also will prepare a professional portfolio through their coursework to advance their career and preparation for promotion. For participants choosing a full master's degree, the second segment of 15 credits offers two tracks, or concentrations, one

in Educational Leadership in the Health Professions, and one in Educational Research in the Health Professions. Both tracks share a core course that emphasizes leadership, cultural competence, and application of effective teaching to a broader level focusing on larger-scale program development and delivery. Both tracks also allow for some customization through electives, and continued development of a professional portfolio. Finally, in both concentrations, participants will work for a year with a mentor or advisor to develop, implement, and write about a capstone project applying knowledge, skills and dispositions acquired throughout the program.

In its first year of delivery the MEHP program will be offered in a face-to-face format with Web and technology enhancements, targeting local—and in particular, Hopkins-based—participants. In the second year of delivery and beyond, the graduate certificate and full master’s degree will be offered in an online format with residential requirements, to attract a national and international audience. Both the graduate certificate and the master’s degree will be conferred by the School of Education, with one other school of the candidate’s choice jointly represented on the diploma. The School of Education will serve as the home school for the certificate and the master’s degree, bringing expertise in pedagogy, teaching skills, and preparation of educators.

- C. List the courses (title, number, semester credit hours, and catalog description) that would constitute the requirements and other components of the proposed program. Indicate which are currently offered and which will be new (indicate new courses with an X).

Course Outline Summary

Note: This is a preliminary draft version. Courses, course sequence and lead schools may be reconsidered through the work of the cross-school MEHP Curriculum Committee.

YEAR ONE (18-credit Graduate Certificate – Evidence-Based Teaching in the Health Professions)

Educational Theory and Evidence Based Practice Block (Fall Semester, 6 credits)

- 1) Foundation to Innovation: Adult Learning
- 2) Evidence-Based Teaching

Curriculum Design Block (Spring Semester, 6 credits)

- 3) Ensuring Learning through Assessment and Feedback
- 4) Curriculum Development

Instructional Practice Block (Summer Semester, 6 credits)

- 5) Instructional Strategies I

6) Instructional Strategies II

YEAR TWO (for students continuing on to complete the master's degree -- 15 credits; pursuing either the Educational Leadership in the Health Professions track or the Educational Research in the Health Professions track)

Educational Leadership Track Option

(Fall Semester, 6 credits)

- 1) Development and Evaluation of Health Professions Programs
- 2) Leading to Build and Manage Health Professions Educational Programs

(Spring Semester, 6 credits)

- 3) Leading to Mentor and Influence for Health Professions Educational Programs
- 4) One of two elective options:
 - a. Faculty Development
 - b. Writing Grant and Contract Proposals

(Summer Semester, 3 credits)

- 5) Professional Development Projects in Health Professions Education (capstone)

Educational Research Track Option

(Fall Semester, 6 credits)

- 1) Development and Evaluation of Health Professions Programs
- 2) Understanding Educational Research

(Spring Semester, 6 credits)

- 3) Two or more of seven elective options (courses listed are temporary placeholders that may be replaced by existing research courses across the partner schools or through new course development):
 - a. Quantitative Research Methods
 - b. Qualitative Research Methodology I
 - c. Qualitative Research Methodology II
 - d. Statistics I: Basic Statistics with SPSS

- e. Statistics II: Intermediate Statistics with SPSS
- f. Statistics III
- g. Writing Grant and Contract Proposals

(Summer Semester, 3 credits)

4) Research Projects in Health Professions Education

Course Descriptions

A majority of the courses in this program will be new, to allow for integration of health professions scenarios, issues, and examples, while also building on expertise brought from all five participating schools. Additionally, development of new courses will ensure that themes of evidence-based teaching, leadership, cultural competence, technology integration, and scholarship are addressed throughout the program. The first course, *Foundation to Innovation: Adult Learning* is an existing course, and will continue to reside solely in the School of Education. The research courses that are part of the research track for the master’s degree will also be existing courses. Students will have options to select research courses from a defined set across the participating schools.

Core/Mandatory Courses for the Graduate Certificate and MEHP Programs

ED.610.610 Foundation to Innovation: Adult Learning (3 credits)

In this course, participants examine the history, philosophy, theories and breadth of the field of adult learning to inform construction of their personal philosophy of adult learning. Through analysis of seminal works in the field, participants will learn how to link empirical data to the theories of effective teaching and adult learning. Participants explore traditional and emerging views of the practices of adult learning, such as andragogy, transformative learning, social and cognitive constructivism, and critical reflection, and their application to education in the health professions. Investigation of topics will include the contextual elements of epistemology and cultural issues such as class, gender, and race. Participants will begin development of a professional portfolio in this course.

XXX.XXX Evidence-Based Teaching (3 credits)

This course prepares participants for leadership in education through translation of the best available evidence and application of research into educational practice. Students will develop the skills and knowledge needed to review and synthesize the strength of evidence available, and recommend educational practice changes if indicated. Topics include: a review of the research process, research critique, rating and synthesizing the strength of evidence, decision-making for educational practice in the health professions, and research and research translation

opportunities. Participants will add relevant content to their professional portfolio through this course.

XXX.XXX Ensuring Learning through Assessment and Feedback (3 credits)

This course prepares participants to demonstrate their ability to build an educational experience from the perspective of assessing student learning achievement. They will review the literature on assessment and examine the processes to align learning goals and objectives with corresponding learning experiences, assessments and scoring guides. In addition they will examine the use of formative and summative feedback to monitor and evaluate learning. Moreover, they will explore approaches to providing feedback and will engage in scenarios to practice and evaluate its use. Finally, participants will critique and evaluate approaches to assessment and feedback in health profession settings. Artifacts from course activities will be posted in participants' professional portfolios.

XXX.XXX Curriculum Development (3 credits)

In this course, participants will propose a curricular project in health professions education, which will be documented in their professional portfolio. They will learn and apply 6 steps to curriculum development: problem identification and general needs assessment, targeted needs assessment, writing goals and specific measurable objectives, choosing educational strategies, implementation, and evaluation. Educational methods include readings, mini-lectures, interactive web modules, discussion groups, and application exercises. The course also addresses issues related to curriculum maintenance and enhancement, and dissemination of curriculum-related work.

XXX.XXX Instructional Strategies I (3 credits)

In this course, participants will learn about various instructional strategies to enhance interdisciplinary learning experiences in health professions education. Instructional methods will include such collaborative educational models as small and large group teaching, team-based, interactive and experiential case-based learning. Techniques will include the use of simulations as well as teaching at the bedside with a focus on educator behaviors that stimulate achievement of learners. With an appreciation of the diversity of the student body, participants will effectively integrate and apply technology into instruction to develop and deliver health professions curricula including web-based teaching environments, content management systems, collaborative project development, and interactive media with an emphasis on instructional design advancements which affect the learning environment. Evidence of participants' knowledge and application of course topics will be captured in a professional portfolio.

XXX.XXX Instructional Strategies II (3 credits)

In this course, the principles underlying the assessment and teaching of adult learners will be applied to classroom and clinical settings in both academic and practice environments. Selected learning style models and technology integration strategies will be examined. Emphasis is placed on the selection and application of practical teaching strategies to diverse learners. Specific teaching skills will be analyzed for their applicability to specific methodologies, settings and learners. Course related reflections and products will be posted in participants' professional portfolios.

Educational Leadership Track Option (for the master's degree)

XXX.XXX Development and Evaluation of Health Professions Programs (3 credits)

In this course, participants will demonstrate their ability to implement a systemic approach to program development and evaluation. They will review the literature on program effectiveness and examine the components that contribute to success. They will also approach program development from the perspective of its critical components – population characteristics, needs assessment, content, logistics, instructional formats, implementation, assessment, and evaluation using quantitative and qualitative methods. In addition, participants will incorporate a continuous process of program improvement that includes closing the loop by analyzing information on student performance, stakeholders, trends, and funding to identify changes that will enhance the effectiveness of the program. Course products and reflections will be highlighted in a professional portfolio.

XXX.XXX Leading to Build and Manage Health Professions Educational Programs (3 credits)

This course will address major leadership theories. Participants will develop an understanding of their preferred leadership style through a variety of assessment instruments and create an individually tailored leadership development plan that will be placed in a professional portfolio. Participants will review the literature on the task and people dimensions of leadership in health professions education. As current and future leaders of health professions educational programs, centers, and schools, they will learn how to write program proposals, create budgets, apply accounting and finance principles for educational programs, develop a plan to market and sell their program concepts to leadership, manage projects, use decision-making and risk taking paradigms, and delegate and manage execution through accountability structures. They will also learn how to hire and staff health professions educational organizations, apply cultural competence in building diverse organizations, and use interpersonal skills to manage and improve performance, enhance team building and group dynamics, recognize and reward contributions, and resolve conflicts through effective communication, mediation and dispute resolution strategies.

XXX.XXX Leading to Mentor and Influence for Health Professions Educational Programs (3 credits)

In this course, participants will learn how to be mentors and advocates for health professions educators and agents of influence and change within and outside their institutions. They will review the literature on faculty development and learn how to develop and mentor faculty who plan to build careers as health professions educators. They will learn how to provide effective feedback, support the career development of educators, evaluate educators' portfolios, and mentor faculty in teaching skills, educational scholarship and program building. Participants will develop an understanding of strategic planning processes, and will develop advocacy skills including building internal and external relationships and influencing and negotiating for change. They will learn how to structure and chair committees, build trust, and manage meetings effectively. They will develop and apply an understanding of the principles and techniques of fundraising and development. They will practice presentations for influence, change and crisis management to internal and external stakeholders including institutional leaders, legislative groups and the media. Participants will examine the concept of a moral compass as a foundation for responding effectively to the ethical challenges of leadership and professionalism within the context of the health professions education environment. Knowledge, skills and dispositions gained and applied in this course will be captured as artifacts in participants' professional portfolios.

XXX.XXX Faculty Development (3 credits – elective)

The focus of this course is on four components of faculty development: professional development, instructional development, leadership development, and organizational development. Participants will develop the knowledge and skills needed to address such specific areas of development as orientation of new faculty; presentation of educational sessions and programs to address teaching methods and educational technology; promotion of research and scholarship in education; and identification of resources needed to facilitate excellence in teaching.

ED.871.525 Writing Grant and Contract Proposals (3 credits – elective)

Participants in this course gain practical experience in writing grant and contract proposals for submission to state and federal agencies and to private organizations. Course topics include: (1) the purposes of federal grant and contract programs, (2) private and public sources of financial assistance for research and development activities, and (3) methods and procedures for writing technically sound proposals. Each participant writes a complete grant or contract proposal during the course.

XXX.XXX Professional Development Projects in Health Professions Education (3 credits) (Capstone for students in the Educational Leadership Track)

This year-long 3-credit course is a requirement for the Master of Education in the Health Professions with a concentration in Leadership of Educational Programs. Participants apply principles learned in courses in curriculum development, teaching, assessment, and adult learning by designing, implementing, evaluating, and writing up a professional development

project in health professions education leadership. Degree candidates work with an advisor with experience in professional development and adult learning toward the end of the Graduate Certificate program or upon entering the master's degree program. The advisor helps the candidate choose a meaningful and achievable project. Participants have the option of identifying an additional mentor at their home institution. Educational methods include regular meetings with advisors, periodic deadlines for achieving interval work, capturing reflections and artifacts in a professional portfolio, and end of program oral abstract presentation and paper. Participants may use their professional development projects in application exercises during courses in teaching, assessment, and curriculum development methodology.

Educational Research Track (for the master's degree)

XXX.XXX Development and Evaluation of Health Professions Programs (3 credits)

See above for descriptor.

ED.883.510 Understanding Educational Research (3 credits)

In this course, participants explore the processes and approaches to research in education. Participants critique published research studies and examine both quantitative and qualitative research methodologies. Class members conduct a computerized literature search and prepare a research review in their respective areas of concentration. This review will be highlighted in participants' professional portfolios.

ED.883.710 Quantitative Research Methods (3 credits – elective)

In this course, participants prepare to conduct research in the behavioral sciences, particularly descriptive, correlational, experimental, and quasi-experimental research designs. Participants develop a research proposal in their respective areas of concentration.

ED.883.711 Qualitative Research Methodology I (3 credits – elective)

In this course, participants are introduced to qualitative research methodology and designs in education. The theory and principles of observational research techniques and interpretative methodology are examined. Students are assisted in identifying components of qualitative research to look at patterns and relationships between subject and variables in a natural setting.

ED.883.712 Qualitative Research Methodology II (3 credits – elective)

In this course, participants develop necessary skills to design and conduct qualitative research studies. This course covers key strategies of qualitative inquiry, common qualitative methods, and elements of effective qualitative research proposals. Through course readings, discussions, and assignments, students are encouraged to explore, critique, design, and conduct qualitative research for the examination of educational issues.

ED.883.507 Statistics I: Basic Statistics with SPSS (3 credits – elective)

With the use of microcomputer statistical packages, this course introduces participants to basic descriptive and inferential statistics. Topics include the summary and analysis of data using graphs, measures of central tendency, regression, correlation, and one-way analysis of variance. Although mathematical analyses are utilized, the course emphasizes the understanding of statistical concepts.

ED.883.714 Statistics II: Intermediate Statistics with SPSS (3 credits – elective)

This course extends the basic statistical methods covered in Statistics I (883.507) to include inferential statistical tests of significance and non-parametric tests. Instruction includes classroom lectures, computation, and interpretation of statistical tests combined with utilization of PC-based software statistical packages for Windows-based and Apple computers.

Prerequisite(s): ED.883.507

ED.883.715 Statistics III (3 credits – elective)

This course extends materials covered in Statistics I (883.507) and Statistics II (883.714) to include multivariate statistical analyses. Tests of significance include Multiple Regression, Discrimination Function, ANCOVA , MANOVA , and Factor Analysis.

Prerequisite(s): ED.883.507 and ED.883.714

ED.871.525 Writing Grant and Contract Proposals (3 credits – elective)

See above for descriptor.

XXX.XXX Research Projects in Health Professions Education (3 credits) (Capstone for students in the Educational Research Track)

This year-long 3-credit course is a requirement for the Master of Education in the Health Professions with a concentration in Educational Research. Participants apply principles learned in courses in research methodology by designing, implementing, presenting, and writing up a research project in health professions education. Degree candidates are assigned a Johns Hopkins mentor with experience in educational research toward the end of the Graduate Certificate program or upon entering the master's degree program. The mentor helps the candidate choose a meaningful and achievable project. Participants have the option of identifying an additional mentor at their home institution. Educational methods include regular meetings with mentors, periodic deadlines for achieving interval work, capturing reflections and artifacts in a professional portfolio, and end of program oral abstract presentation and paper. Participants may use their research projects in application exercises during courses in research methodology.

- D. If applicable, describe any selective admissions policy or specific criteria for students selecting this major field of study.

The standard admission policy for the School of Education will be used as the base level criteria for student selection. Additionally, candidates must have experience working in a health profession. Candidates who choose the Educational Research Track for the full master's degree must also submit a research project proposal at the time of admission to the Master of Education program.

The five participating schools will maintain a joint committee for program management which will engage collaboratively in the admissions review process for new candidates, with the guidance of a program director. The definition and details of this process will be determined through a Memorandum of Understanding between the five schools. (See Section VII on page 24 for a proposed governance structure.)

- E. Describe expected student learning outcomes for the proposed program and directly relate these to the general curricular requirements of the program.

The graduates of the MEHP program will:

Function as excellent teachers

1. Apply evidence-based strategies and methodologies to teach in a variety of settings.
2. Know how to use the assessment of learner needs in order to differentiate instruction.
3. Provide interdisciplinary learning experiences.
4. Incorporate their knowledge of standards and standards-based instructional approaches to teaching.
5. Know collaborative and clinical teaching models.
6. Assess learning.
7. Effectively integrate current and emerging technology into instruction.
8. Demonstrate understanding of adult learning principles, theory, and development.
9. Function as reflective practitioners.
10. Know how to design, implement, and evaluate curriculum.
11. Enhance cultural competence and understand its applicability to effective teaching, learning and communication.
12. Advise students effectively.

Curricular requirements which support these outcomes include activities in the following areas:

- Educational theory/adult learning theory
- Instructional strategies
- Assessing learning through assessment and feedback
- Curriculum development and Instructional Design/Methods
- Teaching skills

- Evidence-based teaching
- Applicability of cultural competence to teaching and learning

Be effective researchers

1. Know how to experiment to determine the effectiveness of knowledge transfer.
2. Analyze empirical data to support the theories of effective teaching and adult learning theory.
3. Know how to design studies to empirically test hypotheses about educational methods and outcomes.
4. Apply knowledge of cultural, racial and ethnic diversity considerations to the design, implementation, analysis and reporting of educational research.

Curricular requirements which support these outcomes include activities in the following areas:

- Program development and evaluation
- Quantitative and qualitative research methodologies
- Statistical methods
- Scholarship/Practicum
- Capstone application project
- Evidence of diversity considerations in research practices

Be leaders in their fields

1. Serve as a mentor to others in their institution.
2. Build professional development programs.
3. Evaluate professional development programs.
4. Be a change agent in their organization.
5. Appreciate the contributions of various health professions.
6. Demonstrate negotiation skills.
7. Apply cultural competence to educational program development and delivery.

Curricular requirements which support these outcomes include activities in the following areas:

- Program development and evaluation
- Educational management and administration
- Educational leadership and influence strategies
- Scholarship/Practicum
- Capstone application project
- Evidence of cultural competence in education program development and delivery

Members of the Curriculum Sub-committee include the following:

Anne Belcher, PhD, RN, AOCN, CNE FAAN, ANEF, Associate Professor and Director, Office for Teaching Excellence, School of Nursing, Co-chair
 Betsy Lowry, EdD, Assistant Dean , Teaching, Learning and Assessment, Associate Director, Center for Technology in Education, School of Education, Co-Chair
 Linda Carling, Sr. Program Coordinator, Center for Technology in Education, School of Education
 John Flynn, MD, MBA, FACP, FACR, Professor of Medicine, Clinical Director, Division of General Internal Medicine, School of Medicine
 Lisa Heiser, MA, Assistant Dean for Faculty Development and Equity, School of Medicine
 Loretta Hoepfner, MS, Change Consultant, Division of General Internal Medicine, Department of Medicine, School of Medicine
 David Kern, MD, MPH, Director, Division of General Internal Medicine, Johns Hopkins Bayview Medical Center, Director, Curriculum Development Program, Faculty Development Program for Clinician Educators, Professor of Medicine, School of Medicine
 Anika Spratley, Assistant Professor, Department of Teacher Preparation, School of Education
 Stephen Teret, JD, MPH, Associate Dean, Professor, Health Public Policy Division, Bloomberg School of Public Health
 Patricia Thomas, MD, Associate Dean Curriculum, Associate Professor, School of Medicine
 Toni Ungaretti, PHD, Assistant Dean, Office of Learning, Assistant Professor of Management, Carey Business School

V. Faculty

A. Provide a list of current faculty (and areas of expertise) who will teach in the program.

School of Education:

Betsy Lowry, Ed.D. – Teacher Development and Leadership, Instructional Technology, Online Learning
 Linda Adamson, Ed.D. – Teacher Preparation
 Anika Spratley, Ph.D. – Teacher Preparation
 Mavis Sanders, Ph.D. – Teacher Development and Leadership
 Debbie Carran, Ph.D. – Statistics and Research Methods
 Michael Rosenberg, Ph.D. – Special Education, Teacher Preparation, Research Methods

School of Medicine:

John Flynn, M.D., M.B.A., F.A.C.P., F.A.C.R. – General Internal Medicine, Instructional Methods, Scholarship, Practicum Teaching
 Pat Thomas, M.D., – Medicine, Curriculum Development, Instructional Design and Methods
 David Kern, M.D., M.P.H. – General Internal Medicine, Curriculum Development, Scholarship, Teaching Skills

Jorie Colbert, Ph.D., – Statistics, Research Methods

Scott Wright, M.D., – Education Research and Scholarship, Role Modeling as Teaching
Methodology, Mentoring

Elizabeth Hunt, M.D., Ph.D. -- JHU Simulation Center, Simulations and Emerging
Technologies in Medical Education

School of Nursing:

Anne Belcher, Ph.D., R.N., A.O.C.N., C.N.E., F.A.A.N., A.N.E.F. – Nursing Education

Pamela Jeffries, D.N.S., R.N., F.A.A.N., A.N.E.F. – Nursing Education, Simulation, Online
Learning

Carey Business School:

Toni Ungaretti, Ph.D. – Educational Theory, Adult Learning Theory

Doug Hough, Ph.D. – Leadership and Organizational Behavior

James Calvin, Ph.D. – Leading Organizations, Leadership and Management, Organizational
Learning and Culture

VI. Accreditation

- A. Does the institution intend to seek accreditation for this program by one of the specialized accrediting bodies recognized by the U.S. Department of Education?

No.

- B. Does the institution intend to seek any State licensure or certification requirements which may be necessary for graduates to be employed in this field of study?

No.

- C. Describe any additional resources, including facilities, required to gain accreditation or licensure.

Not applicable.

VII. Cooperative arrangements and Future Governance Structure

- A. Describe cooperative arrangements with other institutions and organizations that may be used to offer this program. Specify the nature of such agreements and attach any formal statements of agreement that have been developed.

This program does not have a cooperative arrangement with another institution. However, there is a unique collaboration across five schools within the university.

The JHU Bloomberg School of Public Health, Carey Business School, School of Education, School of Medicine, and School of Nursing have worked collaboratively on the design of this proposed

program. Faculty members from each division have served on the MEHP Committee for program planning. With the support of the Deans of the Schools, many of these individuals will serve as faculty and student advisors in the program.

The proposed governance structure for the program is provided in Figure 1 below. The program will be led by a Director responsible for overseeing a curriculum committee, reviewing and approving student applications, coordinating the Masters faculty, developing and monitoring course evaluations and directing the development of the online components of the program. The Director will report to an Executive Committee composed of two members from each of the five schools, selected to serve by their respective deans. An Online Instructional Design Team, the Masters Faculty, and a Curriculum Oversight Committee will report to the Director completing the organizational structure.

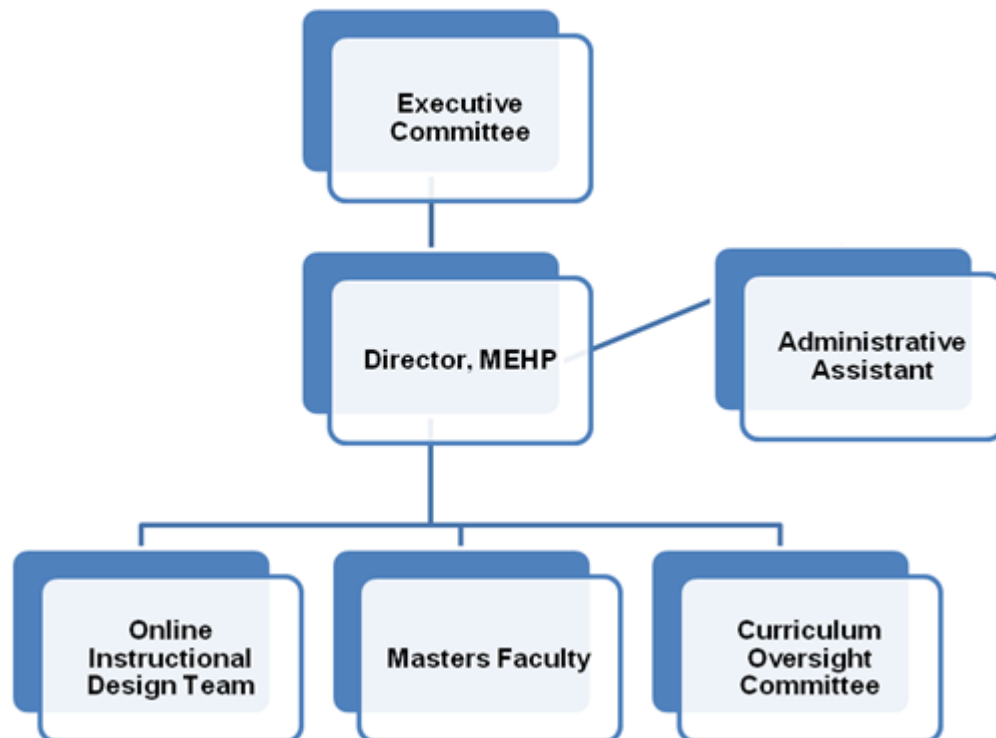


Figure 1. Organizational Chart for the Master of Education in the Health Professions Program

Executive Committee

The Executive Committee will be composed of two members from each of the five schools (Bloomberg School of Public Health, Carey Business School, School of Education, School of

Medicine, and School of Nursing) to meet on a quarterly basis. The committee will provide in-kind support to assist in program development and on-going program administration.

Online Instructional Design Team

The Online Instructional Design Team will develop, implement, and maintain the online curriculum, instructional design, and technical support for the program, working closely with faculty members as content experts.

Curriculum Oversight Committee

The Curriculum Oversight Committee will be composed of selected program faculty to assist the Director in curriculum development, evaluation, and ongoing quality improvement.

Prior to program implementation the five participating schools will enter an agreement through a formal Memorandum of Understanding.

- B. All public institutions shall show evidence of the development and dissemination of Recommended Transfer Programs (RTPs) in cooperation with sending/receiving institutions. All institutions shall also provide evidence that the RTPs are available to students through ARTSYS or in written form. In order to foster articulations with K-12, community colleges will also identify parallel curricula to secondary schools.

Not applicable.

VIII. Library requirements

Provide a brief shelf analysis of existing resources to support the proposed program. Indicate the need for additional on-site resources and over what time period you expect that they will be acquired. Discuss additional provisions for access to library holdings – e.g. inter-library loan, local library holdings, the UMS integrated library system, and/or other computerized systems that allow access to library resources housed at other institutions. Attach letters of agreement if appropriate.

The resources and professional staff of the Johns Hopkins University Milton S. Eisenhower Library (MSEL) support students in the School of Education. A full-time dedicated librarian coordinates all resources for the education curricula and oversees a staff of part-time librarians who provide both classroom and research support at off-campus sites in Columbia, Montgomery County, and Washington, D.C. The central holdings of MSEL can be distributed via campus mail, or made available via the MSEL “electronic library” available to students anytime, anywhere. Here students can access the library’s online catalog, find special subject-oriented information and reference materials, and connect to a wealth of government information.

Students in the MEHP program will also have access to the William H. Welch Library collects current scholarly information, in print and Electronic formats that support the research,

teaching, and patient care goals of the Johns Hopkins Medical Institutions (JHMI). The collection includes research literature, methodological literature, reviews or state-of-the-art reports, and in depth, authoritative analyses of such areas as the practices of medicine, nursing, and public health, as well as related biomedical and allied health disciplines. Students may register as a library user to search a range of databases and to take advantage of the Library information services and classes. The Welch Gateway is available 24 hours per day via the JHMI network or a modem connection. Library cardholders are also eligible for a personal email account on the Library Internet host computer Welchlink. Welch Gateway provides access to a variety of electron health-related files including MEDLINE, EMBSE, Scopus, ISI Web of Science, UpToDate, MDConsult, CINHL, PsychINFO, EbscoHost, LEXIS NEXIS< WebSPIRS, MICROMEDIEX, Wilson Web, FirstSearch, and Proquest, to name a few. In addition, the Library supports a number of electronic journals, accessing them remotely on the Worldwide Web and providing full-text locally for approximately 4,500 titles. Welch's collections contain more than 370,000 bound volumes, 2,300 audiovisual programs, and current subscriptions to over 3,000 journals. Staff are always available to assist students and faculty with inter-library loan request, including access to the library holdings of such institutions as the University of Maryland at Baltimore and the University of Maryland at College Park. The computer laboratory is equipped with 22 IBM PCs, two WELMED (Welch database) terminals, six interactive videodisk workstations, printers, modems, and file service.

IX. Facilities and Equipment

A. How will the proposed program impact on the use of existing facilities and equipment?

The proposed degree program will be supported by the resources of the Schools of Education, Nursing, Medicine, Public Health, and Business. Classroom and administrative facilities for the School of Education are available at the Education Building on the main Homewood Campus. The School of Education provides support services to students at all on and off-campus centers (admissions, financial aid, registration, special student services, and career planning) from its Columbia location. Student advising is also available from the Education Building on the main Homewood Campus. The Schools of Nursing, Medicine and Public Health are located on the East Baltimore campus of the Johns Hopkins University. The three schools have close ties with one another, sharing not only classroom and conference space in their buildings but also computer, simulation, and other resources. Courses will be taught on the campuses of the Schools of Education, Nursing, Medicine, and Public Health.

As the degree conferring unit, the School of Education will provide Financial, Human Resource and Payroll, and Information Technology support to this degree program as needed. Funding for this support is provided through the School of Education's administrative budget structure. Marketing and outreach efforts will be shared among the five schools. Funds for this purpose are referenced separately in the proposed budget.

- B. Describe additional facilities, facility modifications, and equipment that will be required for use in the proposed program. Indicate the status of the facility and equipment requests to support your needs.

No additional facilities or equipment and no modifications to existing facilities and equipment will be required for this program.

X. Minority Student Achievement

Identify specific actions and strategies which will be utilized in the recruitment and retention of other-race students.

The Schools of Education, Medicine and Nursing, the Bloomberg School of Public Health, and the Carey Business School are committed to diversity in all of their programs and to the success of all of their students.

To recruit ethnic minorities, the participating schools create and publish advertisements specifically geared to minority publications. Each Office of Admission recruits minority students at professional meetings and conferences. Each school's web site also features minority students in photos and in stories, as well as via blogs. The schools of Education, Medicine, Nursing and Public Health will all engage in recruitment and retention efforts.

XI. Low-Productivity Programs

Those low-productivity programs directly related to the proposed program should be addressed. Careful review should consider the fiscal resources (faculty, administration, library resources, and general operating expenses) currently devoted to the low-productivity programs and how those resources can be redistributed to help fund the proposed program.

There are currently no low-productivity programs related to this proposal.

XII. Deliverables

The following deliverables will be available according to the projected time frame outlined below:

Year-0, FY10

Curriculum will be developed for the following courses:

- Educational Theory and Evidence-Based Practice Block (Fall Semester, 6 credits)
 - Foundation to Innovation: Adult Learning
 - Evidenced-Based Teaching
- Curriculum Design Block (Spring Semester, 6 credits)
 - Assuring Learning Through Assessment and Feedback
 - Curriculum Development

- Instructional Practice Block (Summer Semester, 6 credits)
 - Instructional Strategies I
 - Instructional Strategies II

Marketing efforts and class enrollment will be initiated.

Year-1, FY11

Curriculum will be provided in the classroom.

Creation of online Year-1 curriculum to be delivered during Year-2.

Curriculum for Year-2 will be designed.

Specific courses include:

Leadership Track Option

- (Fall Semester, 6 credits)
 - Development and Evaluation of Health Professions Program
 - Leading to Build and Manage Health Professions Educational Programs
- (Spring Semester, 6 credits)
 - Leading to Mentor and Influence for Health Professions Educational Programs
 - One of two electives:
 - Faculty Development
 - Writing Grant and Contract Proposals
- (Summer Semester, 3 credits)
 - Professional Development Projects in Health Professions Education (Capstone)

Research Track Option

- (Fall Semester, 6 credits)
 - Development and Evaluation of Health Professions Programs
 - Understanding Educational Research
- (Spring Semester, 6 credits)
 - Two of following elective options:
 - Statistics
 - Qualitative Research
 - Quantitative Research
 - Writing Grant and Contract Proposal
- (Summer Semester, 3 credits)
 - Research Projects in Health Professions Education (Capstone)

Year-2, FY12

Delivery of classroom second-year curriculum.

Delivery of online first-year curriculum.

Development of the Year-2 online curriculum.

Year-3, FY13

Delivery of classroom third-year curriculum.

Delivery of Year-1 and Year-2 curriculum online.

XIII. Finance

The income of this budget provided in Table 1 below is modeled on the assumption that all participating students will be part-time. It is planned that the credit hour rate will be \$700 per credit hour and that there will be forty (40) students enrolled the first year. Six (6) classes, each holding twenty (20) students and each at three (3) credits will be provided. Thus, there will be an income generated of \$252,000 in the first year. In the second year, the number of part-time students will double to eighty (80) with fourteen (14) classes being offered. In Year three and onward, a minimum of twenty-two (22) classes will be offered with a plan of eighty (80) students continuing each year through the curriculum.

The model for expenses includes startup costs to be assumed in the year prior (Year-0) to the initiation of the program. In the first year, we have modeled 0.8 FTE for faculty. This number increases up to 2.2 FTE faculty over the next two years. Budgeted support staff to develop an online component of this curriculum begins in Year-1. The break-even point occurs in Year 3 of the program as described below, and requires approximately \$750,000 in start-up support. In Year 3, the program is able to begin paying off start-up funds, and moves toward becoming both self-sustaining and revenue producing.

After adjusted expenses and once a surplus has been established, it is proposed that fifty percent (50%) of the surplus be reinvested in the program with the remainder used to reimburse each of the supporting schools' investments. Once all paybacks are completed, it is proposed that additional surpluses be evenly distributed (10% each) to each of the five participating schools: Bloomberg School of Public Health, Carey Business School, School of Education, School of Medicine, and School of Nursing). Surplus distribution is expected to begin at Year 9.

Table 2. Expenses Years 1-10 for the Master of Education in the Health Professions

(Years 1-5 on pages 32-33 and Years 6-10 on pages 34-35)

Faculty	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Course Preparation (12K per course* 15 courses)	\$48,000.00	\$72,000.00	\$60,000.00	\$0.00	\$0.00	\$0.00
Classroom: 10K per class (2 co-instructors)	\$0.00	\$60,000.00	\$60,000.00	\$60,000.00	\$40,000.00	\$0.00
On-line: 10K per class (1 instructors)	\$0.00	\$0.00	\$80,000.00	\$160,000.00	\$220,000.00	\$220,000.00
Curriculum Committee (5% for 6 members)	\$45,000.00	\$45,000.00	\$45,000.00	\$45,000.00	\$45,000.00	\$45,000.00
Fringe @ 35.0 %	\$32,550.00	\$61,950.00	\$85,750.00	\$92,750.00	\$106,750.00	\$92,750.00
Subtotal	\$125,550.00	\$238,950.00	\$330,750.00	\$357,750.00	\$411,750.00	\$357,750.00
Professional Staff						
# FTE	2.50	3.25	4.25	3.50	3.25	3.25
Program Director (100K* 25%FTE)	\$25,000.00	\$25,750.00	\$26,522.50	\$27,318.18	\$28,137.72	\$28,981.85
Project Manager (70K* 100% FTE)	\$70,000.00	\$72,100.00	\$74,263.00	\$76,490.89	\$78,785.62	\$81,149.19
Instructional Design (60K * varying FTE)	\$15,000.00	\$46,350.00	\$63,654.00	\$32,781.81	\$16,882.63	\$17,389.11
Technical Developer (40K *varying FTE)	\$0.00	\$10,000.00	\$41,200.00	\$31,827.00	\$32,781.81	\$33,765.26
Secretarial Support (\$38K* varying FTE)	\$12,540.00	\$12,916.20	\$26,607.37	\$41,523.63	\$42,769.33	\$44,052.41
Fringe @ 35%	\$42,889.00	\$58,490.67	\$81,286.41	\$73,479.53	\$69,774.99	\$71,868.24
Subtotal	\$165,429.00	\$225,606.87	\$313,533.28	\$283,421.03	\$269,132.10	\$277,206.07

MEHP Proposal

Dec 2009

Other	Year 0	Year 1	Year 2	Year 3	Year 4	Year 5
Equipment/Materials/Software	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00
Library	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Space	\$0.00	\$8,000.00	\$8,000.00	\$8,000.00	\$8,000.00	\$8,000.00
Marketing	\$40,000.00	\$40,000.00	\$40,000.00	\$40,000.00	\$40,000.00	\$40,000.00
Travel Residency	\$0.00	\$0.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00
Other expenses	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00
Subtotal	\$51,000.00	\$59,000.00	\$69,000.00	\$69,000.00	\$69,000.00	\$69,000.00
TOTAL EXPENSES	\$341,979.00	\$523,556.87	\$713,283.28	\$710,171.03	\$749,882.10	\$703,956.07
<i>Number of full (20)classes</i>		6	14	22	26	22
Income (Based on \$700 per credit hour)	\$0.00	\$ 252,000	\$ 588,000	\$ 924,000	\$ 1,092,000	\$ 924,000
Surplus/Loss	-\$341,979.00	(\$271,557)	(\$125,283)	\$213,829	\$342,118	\$220,044
Running total	-\$341,979.00	(\$613,536)	(\$738,819)	(\$524,990)	(\$182,872)	\$37,172
Surplus reinvested (50%)	\$	\$	\$ -	\$106,914	\$171,059	\$110,022
Surplus payback (50%)	\$	\$	\$ -	\$106,914	\$171,059	\$110,022
Payback Balance	-\$750,000.00	(\$750,000)	(\$750,000)	(\$643,086)	(\$472,027)	(\$362,005)
Five Schools Distribution (50%)	\$0.00	\$ -	\$ -	\$ -	\$ -	\$ -

MEHP Proposal

Dec
2009

Faculty	Year 6	Year 7	Year 8	Year 9	Year 10
Course Preparation (12K per course* 15 courses)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Classroom: 10K per class (2 co-instructors)	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
On-line: 10K per class (1 instructors)	\$220,000.00	\$220,000.00	\$220,000.00	\$220,000.00	\$220,000.00
Curriculum Committee (5% for 6 members)	\$45,000.00	\$45,000.00	\$45,000.00	\$45,000.00	\$45,000.00
Fringe @ 35.0 %	\$92,750.00	\$92,750.00	\$92,750.00	\$92,750.00	\$92,750.00
Subtotal	\$357,750.00	\$357,750.00	\$357,750.00	\$357,750.00	\$357,750.00
Professional Staff					
# FTE	3.25	3.25	3.25	3.25	3.25
Program Director (100K* 25%FTE)	\$29,851.31	\$30,746.85	\$31,669.25	\$32,619.33	\$33,597.91
Project Manager (70K* 100% FTE)	\$83,583.66	\$86,091.17	\$88,673.91	\$91,334.12	\$94,074.15
Instructional Design (60K * varying FTE)	\$17,910.78	\$18,448.11	\$19,001.55	\$19,571.60	\$20,158.75
Technical Developer (40K *varying FTE)	\$34,778.22	\$35,821.57	\$36,896.22	\$38,003.10	\$39,143.20
Secretarial Support (\$38K* varying FTE)	\$45,373.99	\$46,735.21	\$48,137.26	\$49,581.38	\$51,068.82
Fringe @ 35%	\$74,024.29	\$76,245.02	\$78,532.37	\$80,888.34	\$83,314.99
Subtotal	\$285,522.25	\$294,087.92	\$302,910.55	\$311,997.87	\$321,357.81

MEHP Proposal

Dec 2009

Other	Year 6	Year 7	Year 8	Year 9	Year 10
Equipment/Materials/Software	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00
Library	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Space	\$8,000.00	\$8,000.00	\$8,000.00	\$8,000.00	\$8,000.00
Marketing	\$40,000.00	\$40,000.00	\$40,000.00	\$40,000.00	\$40,000.00
Travel Residency	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00	\$10,000.00
Other expenses	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00	\$1,000.00
Subtotal	\$69,000.00	\$69,000.00	\$69,000.00	\$69,000.00	\$69,000.00
TOTAL EXPENSES	\$712,272.25	\$720,837.92	\$729,660.55	\$738,747.87	\$748,107.81
<i>Number of full (20)classes</i>	22	22	22	22	22
Income (Based on \$700 per credit hour)	\$ 924,000	\$ 924,000	\$ 924,000	\$ 924,000	\$ 924,000
Surplus/Loss	\$211,728	\$203,162	\$194,339	\$185,252	\$175,892
Running total	\$248,899	\$452,061	\$646,401	\$831,653	\$1,007,545
Surplus reinvested (50%)	\$105,864	\$101,581	\$97,170	\$92,626	\$87,946
Surplus payback (50%)	\$105,864	\$101,581	\$97,170	\$92,626	\$87,946
Payback Balance	(\$256,141)	(\$154,560)	(\$57,390)		
Five Schools Distribution (50%)	\$ -	\$ -		\$35,236	\$87,946

In the Expense Table “Year 0” indicates the year prior to the initiation of the curriculum with associated startup costs. In both the Income and Expense Tables, Year-1 indicates the first year that the curriculum is delivered and the initiation of the development of the online curriculum. Year-2 indicates three (3) additional classroom courses as well as the initiation of four (4) separate online courses. This transition continues through Year-3 with Year-4 culminating in the provision of all courses online.

Appendix A
Comparison of Medical and Health Education
Programs

<i>Institution</i>	<i>Type of Program/s</i>	<i>Goals</i>	<i>Content</i>	<i>Costs</i>
University of Cincinnati Cincinnati, Ohio	Master of Education for Physicians and Other Health Care Professionals 45 credits entirely online Certificate of Medical Education Curriculum and Instruction 15 credits entirely online	<ul style="list-style-type: none"> Programs for physicians and other health care providers involved with or interested in medical teaching and learning or educational research. The emphasis of these programs is on adult learning, curriculum and teaching methods, and medical education evaluation and research. 	The Online Master of Education consists of: 18 credit hours of required core courses 18 credit hours of required content area courses 3 credit hours of required elective 3 credit hours of required practicum 3 credit hours of required final master project Core Courses (all are required): <ul style="list-style-type: none"> 18 CI 701-707 Masters Research Seminar 18 CI 702-707 Inquiry into Teaching and Learning 18 CI 704-707 Forces Shaping the Curriculum 18 CI 705-707 Addressing Diversity in Education 18 CI 776-707 Applying Technology for Effective Learning 18 EDST 675-707 Human Learning Content Area Courses (all are required): <ul style="list-style-type: none"> 18 CI 850-707 Program Development in Higher Education (aka Adult Learning in the Health Professions) 18 CI 885-707 Attitude Formation and Change 18 EDST 710-707 Introduct to Statistical Methods 18 EDST 721-707 Measurement and Assessment 18 EDST 802-707 Introduction to Field Methods in Educational Research 18 EDLD 812-707 Program Evaluation 	\$668 per credit in-state \$678 per credit out-of-state

			<p>Elective Courses (one required):</p> <ul style="list-style-type: none"> • 18 CI 801-707 Topical Seminar (Medical Informatics) • 18 CI 871-707 Individual Study in Curriculum & Instruction <p>Culminating Experiences (all are required):</p> <ul style="list-style-type: none"> • 18 CI 523-707 Field Experiences Practicum • 18 CI 874-707 C&I Individual Master’s Project <p>The Certificate in Medical Education: five courses:</p> <ul style="list-style-type: none"> • Inquiry into Teaching and Learning (18 CI 702-707) • Attitude Formation and Change (18 CI 885-707) • Applying Technology for Effective Learning (18 CI 776-707) • Human Learning (18 EDST 675-707) • Measurement and Assessment (18 EDST 721-707) 	
<p>University of Illinois at Chicago College of Medicine Chicago, Illinois</p>	<p>Master of Health Professions Education 22 credits on-line or on-campus</p>	<ul style="list-style-type: none"> • To provide health professions education leaders with a broad and rigorous foundation in the theory and practice of education. • To provide healthcare organizations with effective and innovative leaders who will serve the needs of their communities. • To provide the 	<p>Core Courses:</p> <ul style="list-style-type: none"> • MHPE 501 Scholarship in Health Professions Education • MHPE 502 Instruction and Assessment in Health Professions Education • MHPE 503 Curriculum and Program Evaluation in Health Professions Education • MHPE 504 Leadership in Health Professions Education • MHPE 505 Introduction to Health Professions Education: Leadership, Scholarship, and Current Issues <p>Elective Courses:</p> <ul style="list-style-type: none"> • MHPE 441 Elective Clinical Decision Making • MHPE 494 Elective Medical Simulations • MHPE 494 Elective Grant Writing for Development Projects • MHPE 494 Elective Ambulatory Care Education • MHPE 494 Elective Introduction to Quantitative 	<p>\$675 per credit</p>

		<p>field of health professions education with scholars who will advance our understanding and practice of education in the health professions.</p>	<p>Data Analysis</p> <ul style="list-style-type: none"> • MHPE 494 Elective Assessment Methods • MHPE 494 Elective Test Development • MHPE 494 Elective Program Evaluation • MHPE 494 Elective Using SPs for Assessment • MHPE 494 Elective Ethics and Professional Standards • MHPE 494 Elective Leading as a Change Agent • MHPE 494 Elective History of Health Professions Education • MHPE 494 Elective Instructional Methods • MHPE 494 Elective Faculty Development • MHPE 512 Elective Ethics in Clinical Research • MHPE 514 Elective Credentialing Professionals: Accreditation, Certification and Licensure • MHPE 532 Elective Qualitative Methods • MHPE 533 Elective Survey Research Methods • MHPE 534 Elective Research Design and Grant Writing • MHPE 535 Elective Translating Research into Practice • MHPE 537 Elective Writing for Scientific Publication 	
<p>University of Michigan Ann Arbor, Michigan</p>	<p>Master's Concentration in Medical and Professional Education</p> <p>minimum of 30 credits</p> <p>entirely on-campus</p>	<ul style="list-style-type: none"> • To provide students with a solid foundation in higher education theory and practice, and also with practical approaches to teaching, assessment and evaluation. 	<p>Core curriculum:</p> <ul style="list-style-type: none"> • ED 561 Introduction to Higher Education • ED 662 Learning and Development in Higher Education • ED 777 Administrative Practicum • ED 882 Introduction to Medical and Professional Education • ED 883 Instructional Methods in Professional Education <p>Concentration courses :</p> <ul style="list-style-type: none"> • ED 563 The Community College • ED 665 Management of Student Affairs and Support 	<p>\$1,100 per credit in-state</p> <p>\$2,200 out of state</p>

			<p><u>Services</u></p> <ul style="list-style-type: none"> • <u>ED 670 Financial Management in Non-Profit Organizations</u> • <u>ED 690 Academic Affairs and Student Development in Postsecondary Education</u> • <u>ED 761 Postsecondary Institutions as Complex Organizations</u> • <u>ED 762 Curriculum in Postsecondary Education</u> • <u>ED 763 Financial Management in Postsecondary Education</u> • <u>ED 764 Public Policy in Postsecondary Education</u> • <u>ED 860 Technology in Higher Education</u> • <u>ED 861 Human Resource Development in Postsecondary Education</u> • <u>ED 862 Community College Governance and Administration</u> • <u>ED 863 Planning, Analysis, and Institutional Research</u> • <u>ED 864 The American College Student</u> • <u>ED 866 The College and University Professor</u> • <u>ED 868 Philosophy of Academic Leadership</u> • <u>ED 870 International and Comparative Higher and Continuing Education</u> • <u>ED 871 National Economic and Financial Issues in Postsecondary Education</u> • <u>ED 872 State Government and Higher Education</u> • <u>ED 873 Race, Ethnicity and Gender in Higher Education</u> • <u>ED 874 Law and Higher Education</u> • <u>ED 875 Managing Change and Quality in Higher Education Institutions</u> • <u>ED 878 Professional Education in Colleges and Universities</u> • <u>ED 879 Capital Financing, Asset Management, and Fund Raising in Higher Education</u> 	
--	--	--	---	--

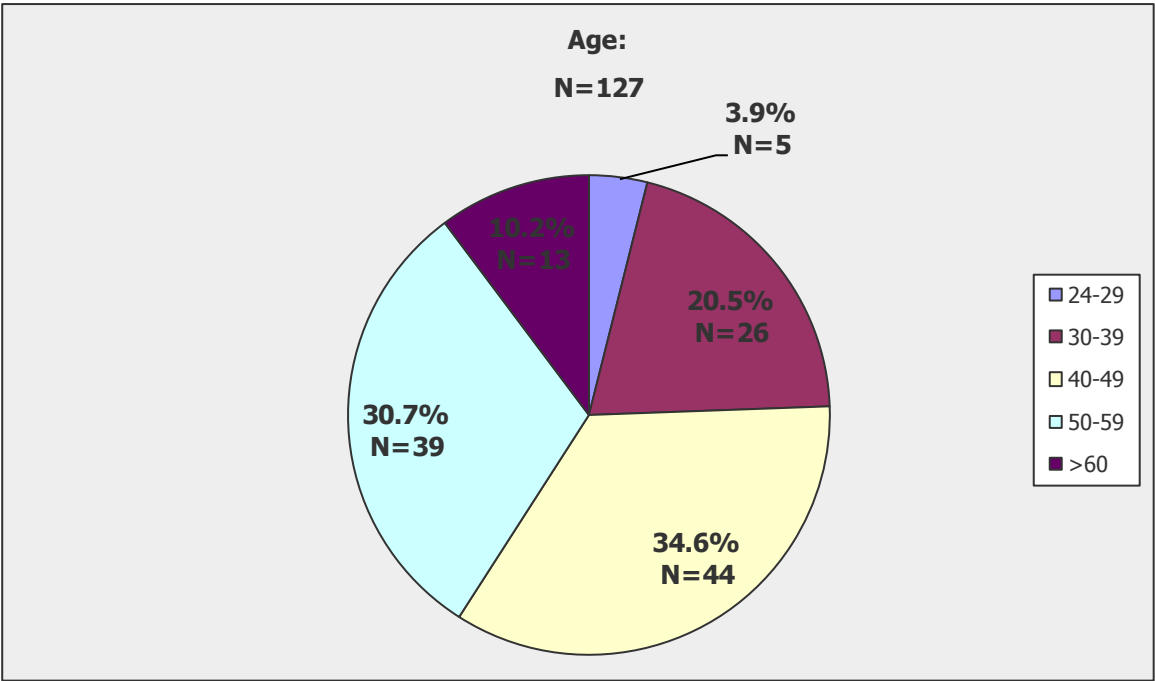
			<ul style="list-style-type: none"> • ED 880 Case Studies in Higher Education Management • ED 881 Public Policy Research and Analysis in Postsecondary Education <p>Cognates:</p> <ul style="list-style-type: none"> • ED 865 Assessment and Measurement in Educational Settings • ED 884 Expertise • ED 886 Program Evaluation in the Professions • ED 695 Research and Educational Practice 	
<p>University of New England College of Osteopathic Medicine, Division of Clinical Affairs</p> <p>Portland, Maine</p> <p>Has agreement with Harvard Macy Institutes to accept their programs as elective credits.</p>	<p>Master of Science in Medical Education Leadership</p> <p>33 credits</p> <p>entirely on-line</p> <p>Certificate in Program Development, Certificate in Leadership Development</p> <p>9 credits</p> <p>entirely on-line</p>	<ul style="list-style-type: none"> • To prepare individuals to assume or enhance educational leadership roles in a variety of medical and health care training programs. • Program designed to provide advanced education in the areas of curriculum and instruction, leadership and administration, and educational research and evaluation with opportunities for application to each 	<p>Curricular Requirements:</p> <ul style="list-style-type: none"> • MEL 604 Curriculum Program Development • MEL 605 Improving Instructional Effectiveness • MEL 606 Learner Assessment & Program Evaluation • MEL 610 Leadership Skills in Academic Medicine • MEL 611 Prof Dev: Developing a Culture Life-long Learning • MEL 612 Organizational Development: Foster Learn Envir • MEL 620 Research and Evaluation in Med Education • MEL 561-562 Applied Project in Curriculum or Leadership • MEL 630-699 Electives or Independent Study <p>Certificate: Program Development:</p> <ul style="list-style-type: none"> • MEL 604 Curriculum Program Development • MEL 605 Improving Instructional Effectiveness • MEL 606 Learner Assessment & Program Evaluation 	<p>Masters: video Instruction \$310/hour; online instruction \$400/hour</p> <p>Educational Leadership: \$600/hour</p>

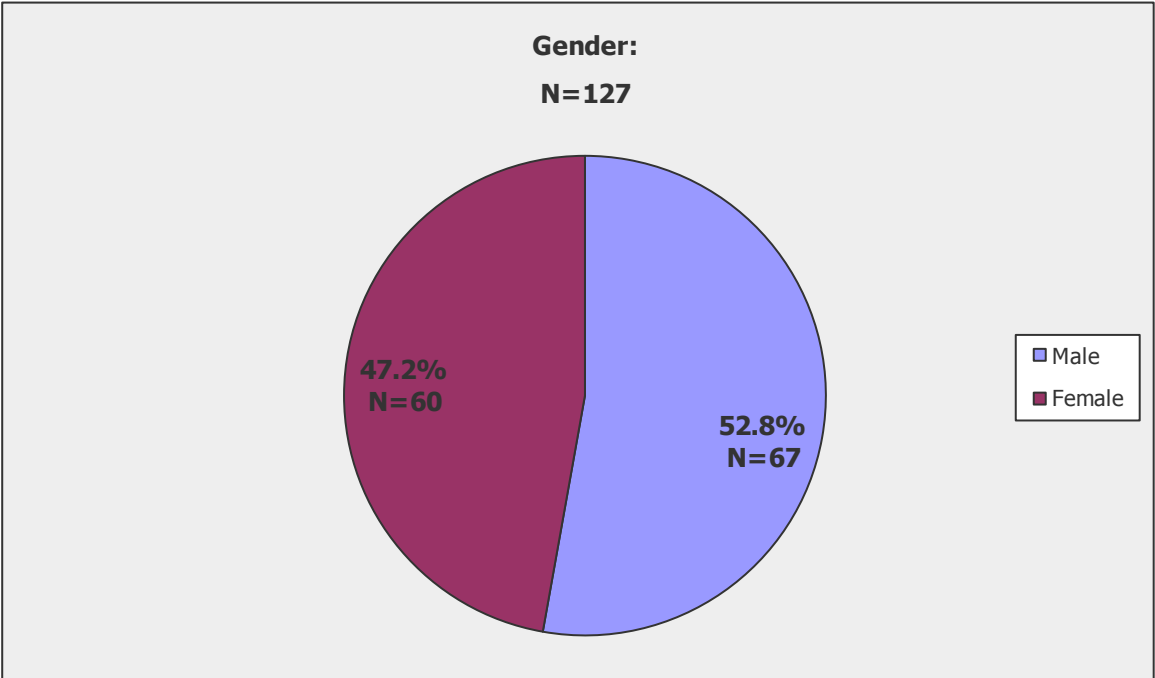
		individual's unique professional environment.	<p>Certificate: Leadership Development:</p> <ul style="list-style-type: none"> • MEL 610 Leadership Skills in Academic Medicine • MEL 611 Professional Development: Culture Lifelong Learn • MEL 612 Organizational Development: Foster Learn Envir <p>Electives: program allows for two electives that may be self-designed as Independent Study, peer-designed by the cohort, or selected from the <u>Master's in Public Health</u> Curriculum, or transferred from external fellowship programs.</p> <p>Electronic Professional Portfolio</p>	
<p>University of Southern California Keck School of Medicine</p> <p>Los Angeles, CA</p>	<p>Master of Academic Medicine</p> <p>minimum of 32 credits</p> <p>combination online and on-campus</p>	<p>Graduates will be able to demonstrate skills within academic medicine and health including:</p> <ul style="list-style-type: none"> • Developing, leading and evaluating programs • Leading of self and others • Designing curricula and assessing learners • Addressing policy and accreditation issues and challenges 	<p>Fall – Year 1 (all activities on-line):</p> <ul style="list-style-type: none"> • ACMD 501 Introduction to Academic Medicine Worldwide • ACMD 511 Competencies in Academic Medicine and Health I <p>Spring – Year 1 (on-line combined with one week at USC):</p> <ul style="list-style-type: none"> • ACMD 512 Competencies in Academic Medicine and Health II • ACMD 591 Designing Research on Innovations in Academic Medicine <p>Summer – Year 1 (all activities on-line or at home site):</p> <ul style="list-style-type: none"> • ACMD 513 Professionalism in Academic Medicine and Health • ACMD 598 Field Work in Designing Innovations for the Health Professions 	\$1263 per credit

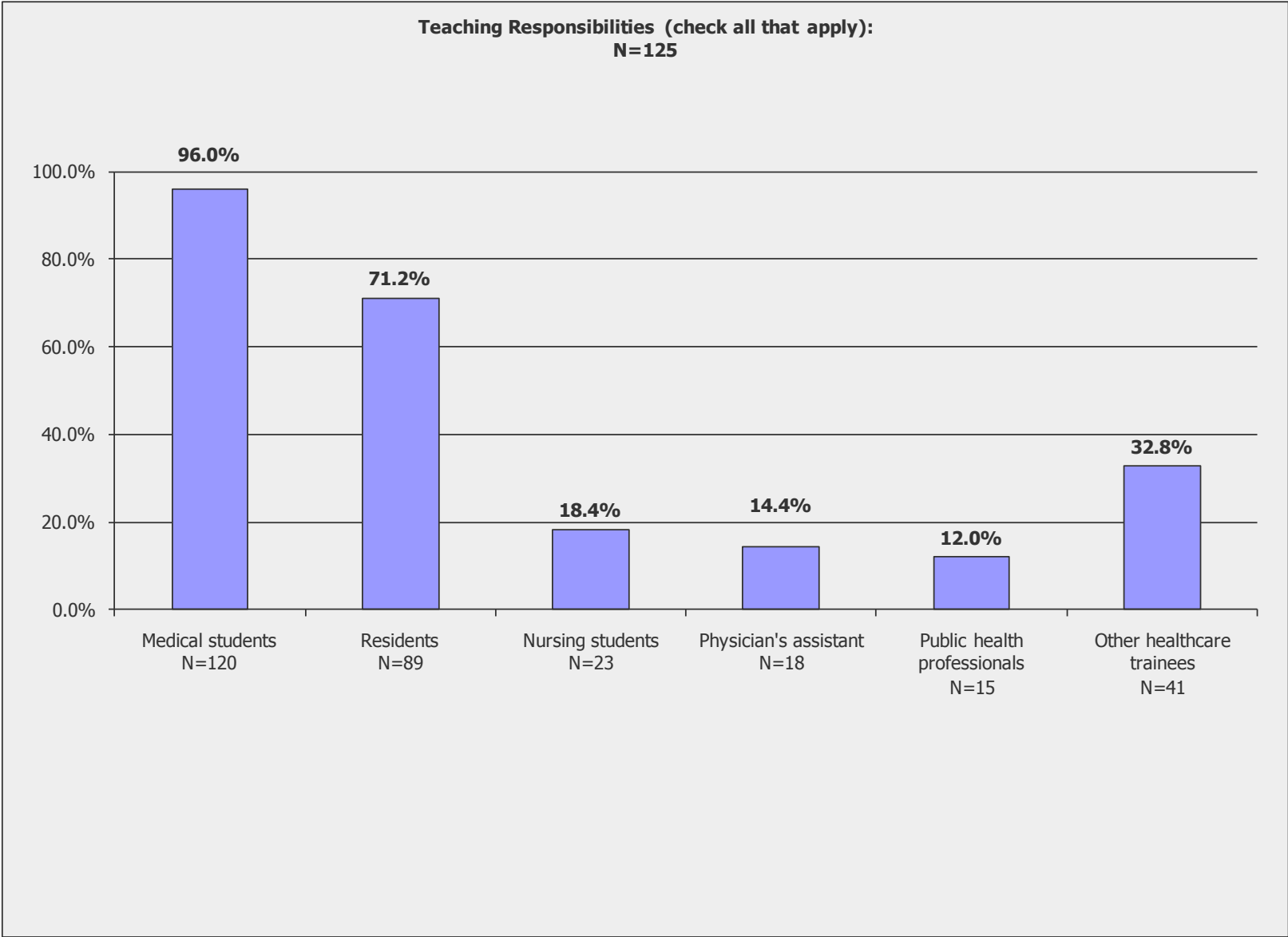
		<ul style="list-style-type: none"> • Designing, implementing and studying innovations 	<p>Fall – Year 2 (all activities on-line or at home site):</p> <ul style="list-style-type: none"> • ACMD 502 Becoming a Leader in Academic Medicine Worldwide • ACMD 592 Implementing Research on Innovations in Academic Medicine <p>Spring – Year 2 (on-line combined with one week at USC):</p> <ul style="list-style-type: none"> • ACMD 503 Leading Change in Academic Medical Centers • ACMD 514 Accreditation and Program Evaluation in Academic Medicine <p>Summer – Year 2 (all activities on-line):</p> <ul style="list-style-type: none"> • ACMD 604 Supporting the Educational Enterprise in Academic Medicine • ACMD 605 Faculty Development for Health Professions Faculty <p>Required Courses:</p> <ul style="list-style-type: none"> • ACMD 501 Introduction to Academic Medicine Worldwide • ACMD 502 Becoming a Leader in Academic Medicine Worldwide • ACMD 503 Leading Change in Academic Medical Centers • ACMD 511 Competencies in Academic Medicine and Health I • ACMD 512 Competencies in Academic Medicine and Health II • ACMD 513 Professionalism in Academic Medicine and Health • ACMD 514 Accreditation and Program Evaluation in Academic Medicine • ACMD 591 Designing Research on Innovations in 	
--	--	--	--	--

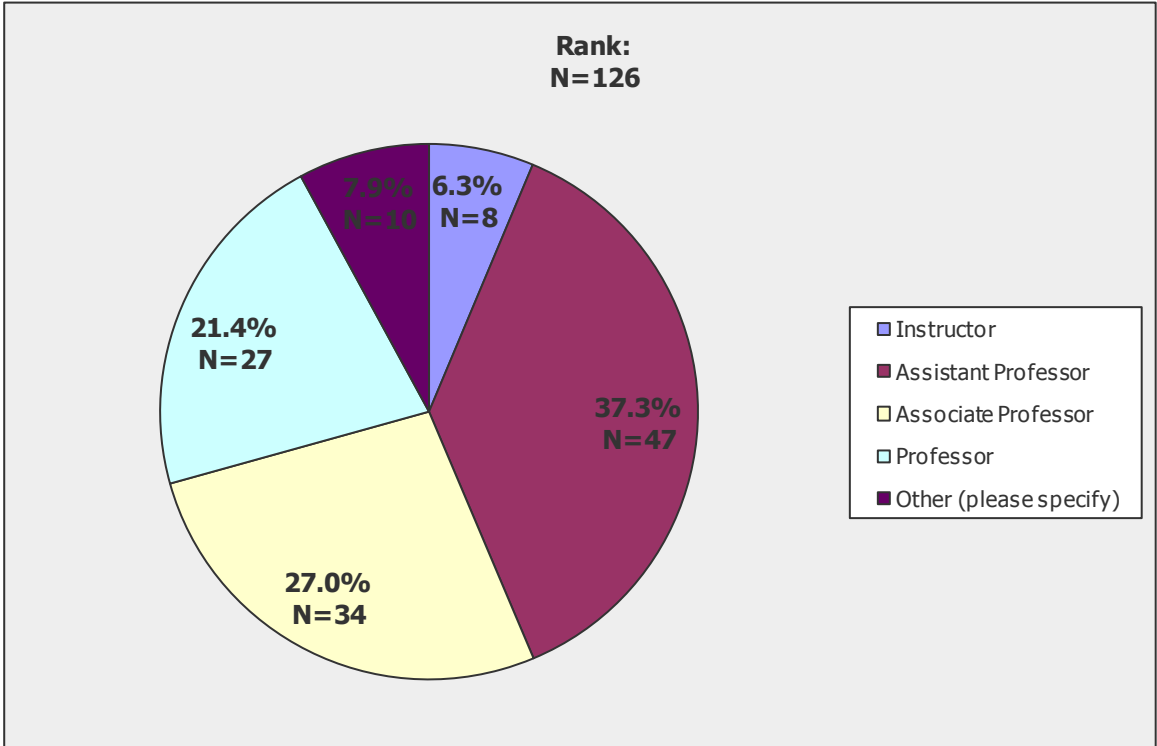
			<p>Academic Medicine</p> <ul style="list-style-type: none">• ACMD 592 Implementing Research on Innovations in Academic Medicine• ACMD 598 Field Work in Designing Innovations for the Health Professions• Electives:• ACMD 593 Foundations of Scholarly Writing in Academic Medicine• ACMD 604 Supporting the Educational Enterprise in Academic Medicine• ACMD 605 Faculty Development for Health Professions Faculty• ACMD 615 Maintenance of Competence in the Health Professions	
--	--	--	--	--

Appendix B
Internal School of Medicine Survey Results

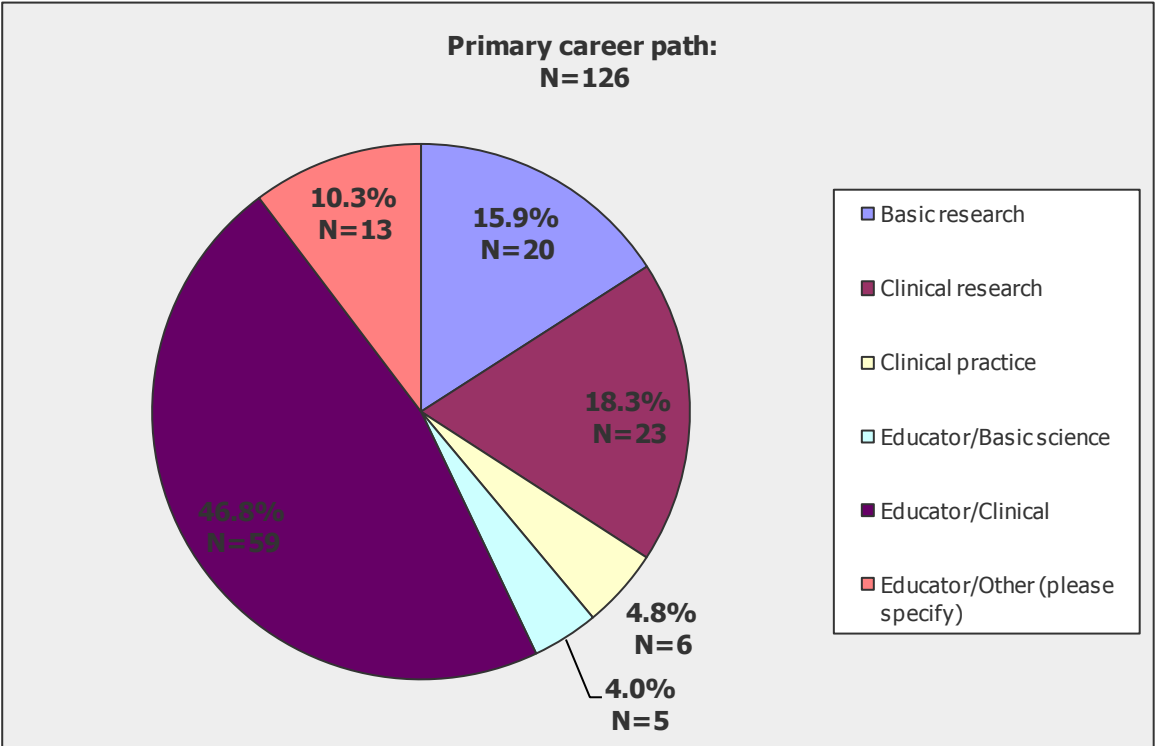


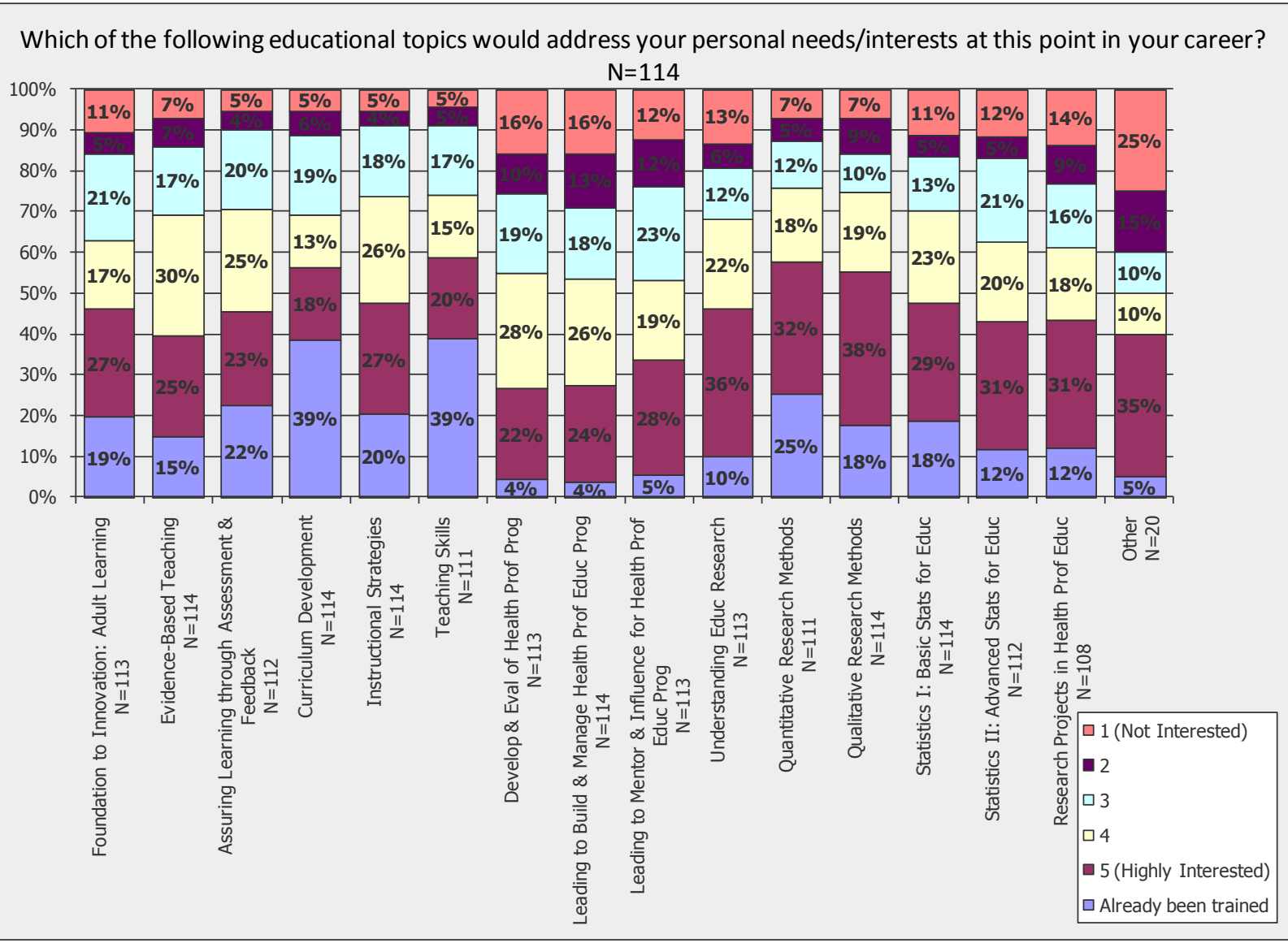


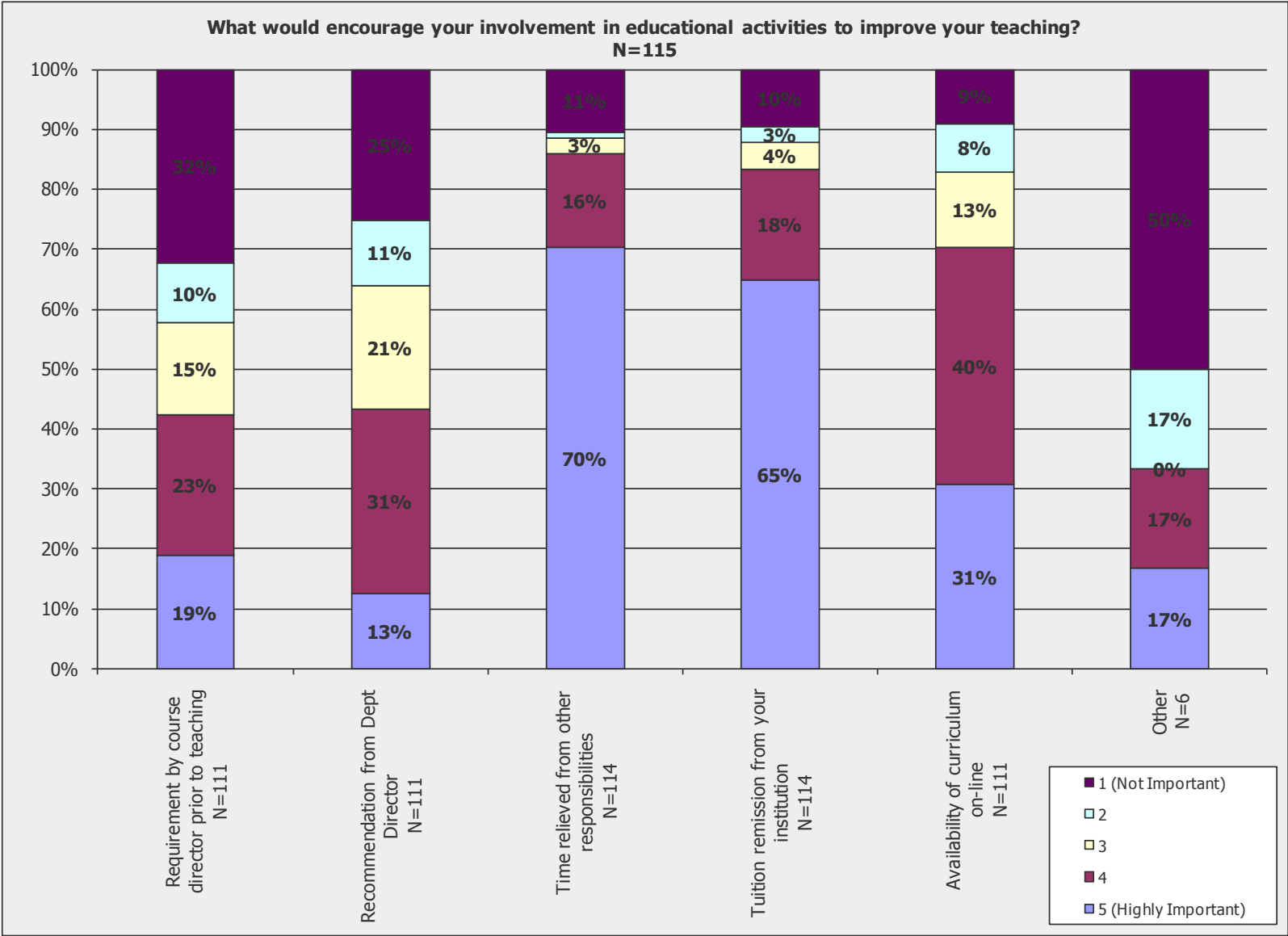


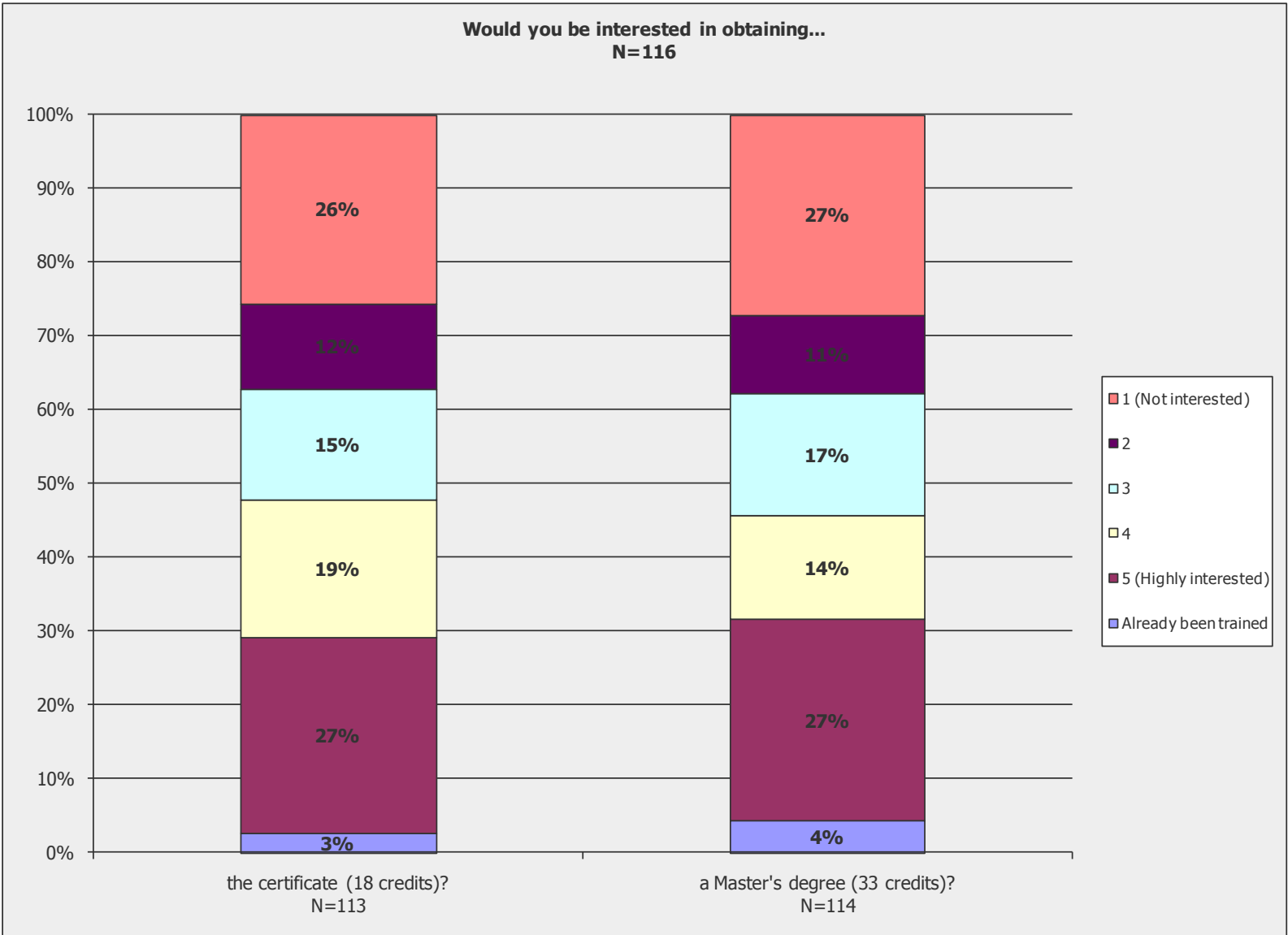


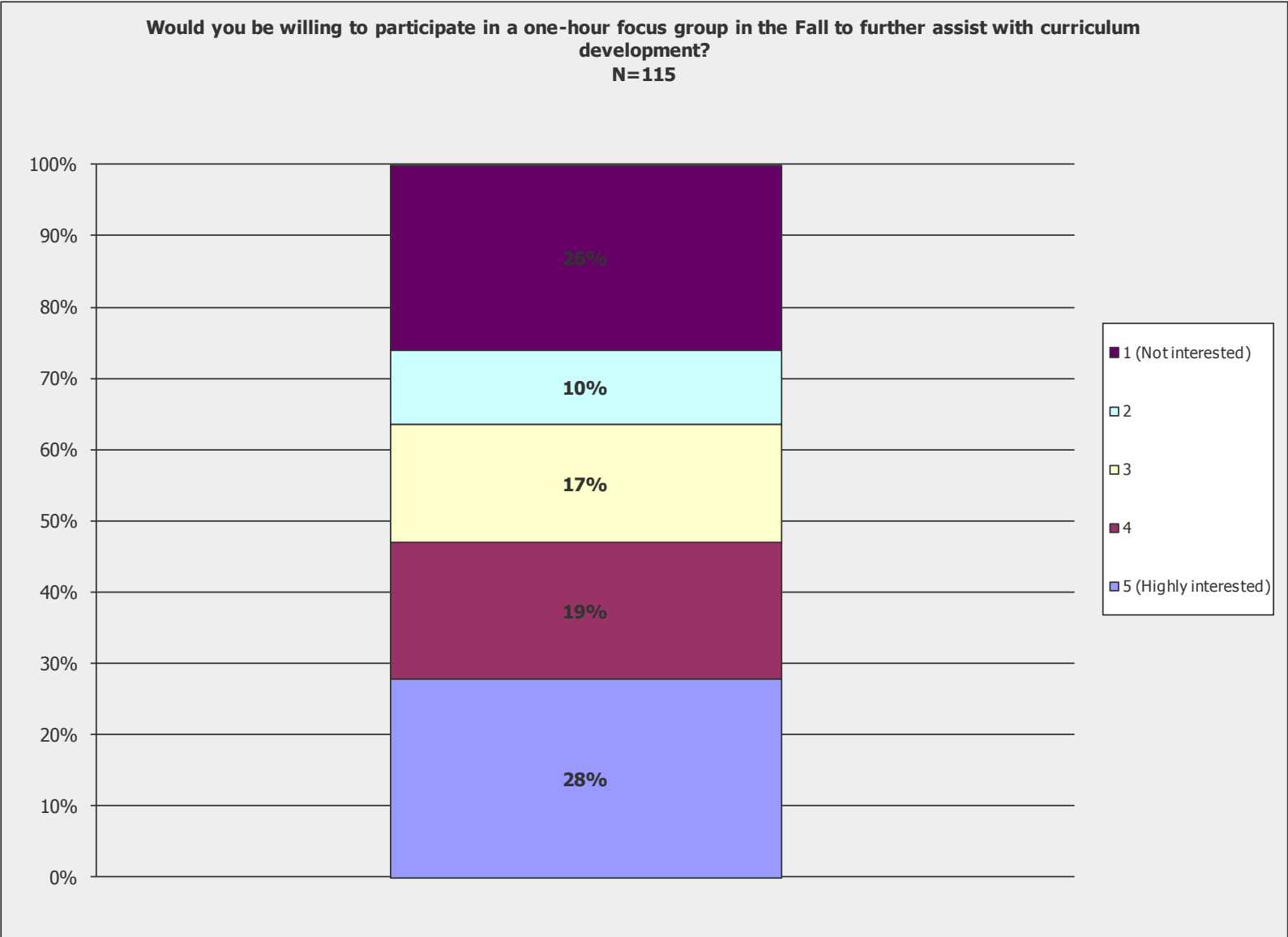
Major Department/Specialty Affiliation (N=106)	Percentage
Clinical Science (N=92)	86.49%
Basic Science (N=14)	13.51%











Appendix C

Growth Projections

Master of Education in the Health Professions Growth Projections

Model 7	Year 1			Year 2			Year 3			Year 4			Year 5			Year 6			Year 7		
	F	Sp	S	F	Sp	S	F	Sp	S	F	Sp	S	F	Sp	S	F	Sp	S	F	Sp	S
Cohort 1 } Face to Face																					
Cohort 2 }																					
Cohort 3 } online																					
Cohort 4 }																					
Cohort 5																					
Cohort 6																					
Cohort 7																					
Cohort 8																					
Cohort 9																					
Cohort 10																					
Cohort 11																					
Cohort 12																					
Cohort 13																					
Cohort 14																					
Cohort 15																					
Cohort 16																					
Cohort 17																					
Total Face to Face	6			6			6			4											
Total Online				8			16			22			22			22			22		
TOTAL	6			14			22			26			22			22			22		