

PUBLIC HEALTH SCIENCES: SPECIALIZATION IN HEALTH MANAGEMENT AND POLICY (PHD)

Doctor of Philosophy in Public Health Sciences, specialization in Health Management and Policy

Unit: School of Public Health and Information Sciences (<https://publichealth.louisville.edu/>) (GH)

Department: Health Management and Systems Sciences (<http://louisville.edu/sphis/departments/health-management-systems-sciences>) (HMSS)

Program Website (<http://louisville.edu/sphis/departments/hmss/academics-1>)

Academic Plan Code(s): PHSCPHDHMP

Program Information

The specialization in health management and policy is designed to prepare graduates for careers as researchers and academicians involved in efforts to protect and promote the health and well-being of communities and populations. Successful completion of this program provides graduates with the knowledge and skills necessary to attain academic positions involving scholarly research and instruction in the disciplines of public health management and policy. Graduates are also prepared for management and technical positions in governmental, private, and non-profit organizations with a focus on public health-related policies. In addition to an in-depth understanding of the infrastructure and context of public health management and policy-making, graduates of this specialization are expected to be able to identify issues and questions of importance with regard to the management of the resources of public health and to design and carry out a program of research to address or evaluate these issues and questions. Graduates should be able to demonstrate abilities as independent investigators as well as team collaborators.

Competencies

To graduate, a student in the PhD specialization in Public Health Management and Policy must demonstrate the following competencies:

1. In-depth knowledge of the history of public health, health management, and health services research.
2. Mastery of experimental and non-experimental research study designs, including qualitative as well as quantitative, and the ability to identify optimal designs for specific hypotheses.
3. Ability to critically evaluate published research related to health management and health services research.
4. Expertise in one or more health services research specialties such as health policy analysis, health economics, healthcare systems sciences, and organization theory.
5. Practical knowledge of issues in research management including:
 - a. formation and leadership of multidisciplinary teams;
 - b. staffing, budgeting, and managing research progress;
 - c. data quality control and data safety management;
 - d. knowledge of research funding mechanisms and grantsmanship; and
 - e. knowledge of research ethics and regulations.

6. Author professional-quality peer-reviewed, oral and poster presentations, reports, grants, and manuscripts.

Demonstration of these competencies is achieved by passing the doctoral qualifying examination and by successful development, conduct, completion, and defense of the dissertation.

Program of Study

The program of study incorporates a foundation of courses related to health services research and healthcare management and policy and reflects its multidisciplinary nature.

At the PhD level, this requires that students take healthcare management and policy and theoretical foundation, healthcare policy research methods, and HMSS PhD seminar courses, and courses in an emphasis area related to providing in-depth knowledge related to effectively managing the resources necessary to carry out the mission of improving access, cost, and quality within the healthcare system.

Students will work with their faculty advisor to develop a specific program of study and coursework based on the program requirements and emphasis area (see *Coursework*, below). A doctoral student's individualized program of study must be approved by the student, faculty advisor, and the HMSS PhD Committee.

Faculty Advisor

After admission to the PhD program, the PhD Program Director will serve as a doctoral student's faculty advisor until they pass the qualification exam. The PhD Program Director will set regular advising meetings with them, monitor their progress, and help them take elective courses and determine an emphasis area.

After passing the qualification exam, they will select a thesis advisor and form a thesis committee based on their research interests. The thesis advisor will serve as their faculty advisor. They will meet with their faculty advisor throughout the semester as needed. More details on advisor-advisee responsibilities are provided in the Student Handbook.

HMSS PhD Committee

The purpose of the HMSS PhD Committee is to oversee the overall quality of doctoral education within HMSS. The committee will:

1. annually review the progress of PhD students within the curriculum,
2. manage the qualifying exam process;
3. approve the dissertation committee composition;
4. approve preliminary dissertation proposals to move to the proposal defense stage;
5. approve Emphasis Area course selection; and
6. make curriculum quality improvement recommendations to the HMSS faculty for their approval.

Admission Requirements

An applicant who has satisfactorily completed a Master of Public Health degree, or another relevant master's degree or a health professional degree is considered for admission to the Public Health Management and Policy specialization. Applicants already holding an advanced degree are evaluated on the basis of appropriateness of previous coursework, training and experience. The graduate work by such applicants is reviewed on a case-by-case basis, and the applicant, if admitted, may be required to take additional course work prior to completing the minimum 51 credit hours required for post-master's doctoral work.

Application materials must be submitted to the Graduate School.

The minimum required documentation for full admission must include:

- Graduate application (<https://graduate.louisville.edu/admission/apply>)
- Resume or curriculum vitae
- A personal statement that is a clear, substantive one-page description of your professional and research experience as it relates to your goals in public health and the PhD program.
- A research-related writing sample separate from the personal statement (for example, a master's thesis, publication, capstone project, class project, etc.).
- Official transcript for previously earned degrees
- Official GRE score
- Three letters of recommendation written within the last three years from individuals who have direct knowledge and experience with the applicant's academic or professional work experience.
- If applicant's native language is not English, one of the following:
 - TOEFL minimum score of 79 iBT, 213 cBT, 550 pBT, 9.0 (Essentials)
 - IELTS minimum score of 6.5 (no sub-score lower than 5)
 - Duolingo minimum score of 105
 - PTE Academic minimum score of 55 (no sub-score lower than 53)
 - Hold a bachelor's or advanced degree from an accredited institution in the United States
- Foreign credential evaluation for each degree not from an accredited U.S. institution
- Admission interview(s) by the Admissions Committee (an interview provides the Admissions Committee with additional information and perspective about your potential fit for the University of Louisville).

The following are recommended criteria for admission:

- Undergraduate and graduate GPA each ≥ 3.0 on 4.0 scale.
- Students who have shown success in this program have had GRE performance in the 50th percentile or above for quantitative and verbal scores and 3.0 or above for analytical writing skills (comparable scores on the MCAT or DAT are considered).
 - The recommended GRE requirement for PhD admission may be waived based on the candidate's educational background. Considerations for the waiver may include a Master's degree in a quantitative discipline such as math, physics, engineering, statistics, and/or economics. Applicants must request a waiver as part of their initial application. The request for the waiver is assessed during initial application review and by the PhD Program Director and during the admissions interview if the application proceeds to this step.

Application Deadline

Fall semester – March 1.

Applications received by January 1 will receive first consideration for available scholarships/fellowships.

Applications received after the March 1 admission deadline will be considered on a space-available basis.

Spring semester – Applications are not accepted.

Summer semester – Applications are not accepted.

Curriculum

Each doctoral student, in consultation with their faculty advisor and the HMSS PhD Committee, plans a course of study that uniquely fits the student's career goals. The design of a doctoral program of study that reflects each student's professional skills and research interests is the primary organizing principle of the proposed program.

Program Requirements

The PhD specialization in health management and policy is designed as a 51 credit hour program (minimum beyond a master's degree) in addition to a dissertation. Additional hours may be needed to complete the specialization program.

The emphasis in doctoral training goes beyond accumulating course credit. Completion of the coursework is the prelude to sitting for the qualifying examination. Successful passage of the qualifying examination allows the student to enter doctoral candidacy. A doctoral candidate must then successfully develop and present to the HMSS PhD Committee a preliminary dissertation proposal (PDP) that describes the dissertation committee, what the student wishes to accomplish with the dissertation, and an original and independent research project in the prescribed format.

Once the PDP is approved by the HMSS PhD Committee, the student may schedule the proposal defense. Upon successful defense of the proposal, they may then proceed to dissertation research. Upon successful completion of the research, defense of the dissertation, and demonstration of the required competencies listed below, a student is awarded the PhD degree.

Academic Standing

To maintain good academic standing in the program, students must achieve a semester GPA of 3.3 or higher every semester.

Any student in the program who does not meet the criteria for good academic standing will be placed in probationary status, which may result in loss of funding and/or a Graduate Research or Teaching Assistantship. Any student who remains in probationary status for two consecutive terms may be considered for dismissal from the program. Any student on probationary status may not sit for qualifying exams or proceed to candidacy. The decisions on discontinuing funding, graduate assistantship, permission for the qualifying exams, and dismissal from the program will be made in the PhD Committee and require the HMSS department chair's approval.

A student who fails a core course (i.e., the student's grade in the course is C- or lower) that is offered every other year may be considered for retaking the course as regularly scheduled or through an independent study upon the approval of the PhD Committee and the course instructor.

Coursework

51 total credit hours:

- 33 credit hours of required coursework,
- Three (3) credit hours of public health management seminars, and
- 15 credit hours within an emphasis area.

Some required or emphasis area courses may require additional credit hours in prerequisite courses not already taken by the student. The specific coursework for a student is established with the student's individualized program of study.

Coursework

Code	Title	Hours
CEPH Accreditation Course		
PHPH 523	Public Health in the United States ¹	3
Minimum Total Hours		3

¹ PHPH 523 fulfills the accreditation requirement that all graduates from the School of Public Health and Information Science receive foundational instruction in public health. The three (3) credit hours for PHPH 523 do not accrue toward the 51 credit hours required for PhD degree completion. Students with a prior degree and/or coursework from a CEPH accredited school or program of public health may be relieved of this requirement, per approval of the Associate Dean for Academic Affairs.

Code	Title	Hours
Required Coursework		
<i>Core Areas (36 credit hours minimum)</i>		
Health Management Foundations		9
PHMS 700	Introduction to Health Services Research	
PHMS 715	Health Policy Research	
PHPH 640	Social Determinants of Health & Health Disparities	
Theoretical Foundations		6
PHMS 720	Organizational Theory in Health Services Research	
PHMS 740	Microeconomic Theory	
Health Management Research Methods		18
PHMS 705	Mixed & Qualitative Research Methods for Health Services Research	
PHMS 670	Statistical Data Management	
PHMS 671	Statistical Analysis for Population Health	
PHMS 645	Health Services Research Methods I	
PHMS 646	Health Services Research Methods II	
PHMS 725	Economic Evaluation in Health Care	
Seminars		3
PHMS 751	Seminar I in Public Health Management	
PHMS 752	Seminar II in Public Health Management	
PHMS 753	Seminar III in Public Health Management	
Minimum Total Hours		36

HMSS PhD Seminars

A student in the PhD specialization in Health Management and Policy is required to complete at least three (3) credit hours in the HMSS PhD Seminar series (PHMS 751, PHMS 752, PHMS 753). These group courses are designed to help students design and develop an innovative and impactful research agenda, write a successful PhD dissertation, and prepare for teaching responsibilities. The students will also be provided with a collegial experience to integrate learning from other courses, discuss hot topics, brainstorm research ideas, and acquire professional skills in scientific manuscript and grant writing, oral and poster presentations, grantsmanship, and peer review.

Emphasis Area

As a part of the approved program of study, a student selects fifteen credit hours of elective coursework that will support research in

one of the offered emphasis areas by the HMSS: (1) General Health Management and Policy Research and (2) Quantitative Health Management and Policy Research. These emphasis areas are not mutually exclusive. That is, they are required to take three courses in their selected and approved emphasis area and two courses from the other emphasis area. For example, if they select General Health Management and Policy Research as the emphasis area, they still need to take two courses that can align with Quantitative Health Management and Policy Research.

Within each emphasis area, they can choose to focus on specific public health domains such as long-term care policy, healthcare delivery, maternal and child health, chronic diseases, and infectious diseases. Courses may be selected from those offered within the SPHIS, other schools or colleges within the university, or from sources outside the university with permission and acceptance of credit by the PhD Program, SPHIS, and the university.

Students starting the PhD Program in an Even Year need to select an emphasis area by the end of the second semester in the Program. Because some courses are only offered every other year, those starting the PhD Program in an Odd Year need to select an emphasis area by the end of the first semester in the Program. The students and the faculty advisor must plan the emphasis area sequence as soon as reasonably possible.

All emphasis areas need to be first approved by their faculty advisor and then presented to the HMSS PhD Committee for approval. The HMSS PhD Committee will review the chosen courses and confirm that they contribute to an overall expertise within the emphasis area. The student must provide a written rationale for the choices of elective coursework in their emphasis area. These can be updated while the student is in the program given the changes are approved by the HMSS PhD Committee.

Recommended Emphasis Area Electives

Code	Title	Hours
General Courses		
PHMS 644	Biomedical Foundations for Health Analytics	3
PHMS 662	Health Economics	3
PHMS 682	Population Health Information Management	3
PHMS 710	Advanced Health Policy and Analysis	3
ENTR 747	Corporate Entrepreneurship and Innovation	3
NURS 743	Epidemiology	3
NURS 749	The Business of Healthcare	2
URBS 653	Urban Policy Analysis	3
URBS 651	Foundations of Public Administration	3
PHIL 638	Critical Social Theory	3
PHIL 682	Health and Social Justice	3
PHPB 635	Health Promotion Policy Development	3
PHPB 650	Advanced Topics in Health Promotion and Behavioral Sciences	1-3
PHPB 705	Policy to Advance Health Equity	3
SOC 738	Contemporary Theory	3
SOC 685	Race and Ethnicity	3
SOC 691	Topical Seminar in Sociology	3
SOC 740	Social Policy	3
SOC 675	Social Inequality & Stratification	3
MSSW 602	Social Welfare Policy I	3

Quantitative Courses

ECPY 745	Systematic Reviewing and Meta-Analysis	3
PHMS 638	Data Security & Electronic Health Records	3
PHMS 641	Data Mining I	3
PHMS 642	Data Mining II	3
PHST 683	Survival Analysis	3
PHST 781	Advanced Linear Models	3
PHST 704	Mixed Effect Models and Longitudinal Data Analysis	3
CSE 532	Python and Data Analytics	3
BE 530	Machine Learning in Python	3
GEOG 522	GIS and Public Health	3
GEOG 656	Spatial Statistics	3
GEOG 558	Introduction to Geographic Information Systems	3
GEOG 531	GIS & Urban Demographic Analysis	3
URBS 626	Analytical Urban Geography	3
NURS 712	Nursing Measurement	3
PHEP 602	Introduction to Epidemiologic Methods	3
PHEP 618	Epidemiologic Methods I	4

Coursework Sequencing

Starting in an Even Year:

Year 1		Hours
Fall		
PHPH 523	Public Health in the United States	[3]
PHMS 670	Statistical Data Management	3
PHMS 671	Statistical Analysis for Population Health	3
PHMS 700	Introduction to Health Services Research	3
PHMS 751	Seminar I in Public Health Management	1
Hours		10
Spring		
PHMS 645	Health Services Research Methods I ¹	3
PHMS 715	Health Policy Research	3
PHMS 725	Economic Evaluation in Health Care ²	3
PHMS 740	Microeconomic Theory	3
PHMS 752	Seminar II in Public Health Management	1
Hours		13
Year 2		
Fall		
PHMS 646	Health Services Research Methods II ³	3
PHMS 705	Mixed & Qualitative Research Methods for Health Services Research ⁴	3
PHMS 720	Organizational Theory in Health Services Research	3
Emphasis Area Elective		3
Emphasis Area Elective		3
Hours		15
Spring		
PHPH 640	Social Determinants of Health & Health Disparities	3.0
PHMS 753	Seminar III in Public Health Management	1
Emphasis Area Elective		3
Emphasis Area Elective		3
Emphasis Area Elective		3
Hours		13
Minimum Total Hours		51

¹ PHMS 670 and PHMS 671 are the prerequisites for PHMS 645

² PHMS 670 and PHMS 671 are the prerequisites for PHMS 725.

³ PHMS 645 is the prerequisite for PHMS 646.

⁴ PHMS 670 and PHMS 671 are the prerequisites for PHMS 705.

Starting in an Odd Year:

Year 1		Hours
Fall		
PHMS 670	Statistical Data Management	3
PHMS 671	Statistical Analysis for Population Health	3
PHMS 705	Mixed & Qualitative Research Methods for Health Services Research ²	3
PHMS 720	Organizational Theory in Health Services Research	3
PHMS 751	Seminar I in Public Health Management	1
Hours		13
Spring		
PHMS 645	Health Services Research Methods I ¹	3
PHPH 640	Social Determinants of Health & Health Disparities	3.0
PHMS 752	Seminar II in Public Health Management	1
Emphasis Area Elective 1		3
Emphasis Area Elective 2		3
Hours		13
Year 2		
Fall		
PHPH 523	Public Health in the United States	[3]
PHMS 646	Health Services Research Methods II ³	3
PHMS 700	Introduction to Health Services Research	3
Emphasis Area Elective 3		3
Optional: Emphasis Area Elective 4		3-0
Hours		12-9
Spring		
PHMS 715	Health Policy Research	3
PHMS 725	Economic Evaluation in Health Care ⁴	3
PHMS 740	Microeconomic Theory	3
PHMS 753	Seminar III in Public Health Management	1
Optional: Emphasis Area Elective 4		0-3
Emphasis Area Elective 5		3
Hours		13-16
Minimum Total Hours		51

¹ PHMS 670 and PHMS 671 are the prerequisites for PHMS 645 and PHMS 646. PHMS 670 and PHMS 671 are the prerequisites for PHMS 705. PHMS 645 is the prerequisite for PHMS 646. PHMS 670 and PHMS 671 are the prerequisites for PHMS 725.

² PHMS 670 and PHMS 671 are the prerequisites for PHMS 705. PHMS 645 is the prerequisite for PHMS 646. PHMS 670 and PHMS 671 are the prerequisites for PHMS 725.

³ PHMS 645 is the prerequisite for PHMS 646. PHMS 670 and PHMS 671 are the prerequisites for PHMS 705.

⁴ PHMS 670 and PHMS 671 are the prerequisites for PHMS 705.

the prerequisites for <courseinline id="11">PHMS 705%7C</courseinline>.</p>

Qualifying Examination

Upon completion of the required coursework (a minimum of 33 credit hours, not including 15 credit hours of emphasis area coursework) and public health management seminars (three (3) credit hours total) for the PhD, the student is eligible to sit for the qualifying examination.

The qualifying exam is held in person. Its components focus on the subject matter drawn from foundational courses and health management research methods. The timing of the qualifying exams is determined by the HMSS PhD Committee.

A student who does not pass the exam may be required to take additional or remedial coursework and is allowed one opportunity to retake the exam. A student who does not pass the qualifying exam after retaking it will be dismissed from the program.

Students are considered PhD candidates after successfully passing the qualification exams. After admission into candidacy, they will be responsible for completing the additional 15 hours of required emphasis area coursework if it has not been completed before the dissertation defense.

Dissertation

A dissertation is required of a candidate for the degree of Doctor of Philosophy in Public Health Sciences with a specialization in Health Management and Policy. It is to be a scholarly achievement in research and should demonstrate a thorough understanding of research techniques and the ability to conduct independent research. All dissertations use a three-paper format.

Dissertation Committee

The dissertation committee is responsible for reading and advising on the student's dissertation. The committee is appointed by the dean of the School upon the advice of the HMSS PhD Committee. The dissertation committee, chaired by the student's faculty advisor, shall consist of at least four members and must include one representative of an external department. The dissertation must be approved by the dissertation committee and the director of the HMSS PhD Program.

Preliminary Dissertation Proposal

The Preliminary Dissertation Proposal (PDP) process involves a student (1) forming the dissertation committee; (2) writing a preliminary dissertation proposal using the PDP format; (3) the dissertation chair presenting the PDP to the HMSS PhD Committee; and (4) the HMSS PhD Committee providing feedback and approving the PDP to move to the proposal defense stage.

Students may not move to the proposal defense stage without HMSS PhD Committee's approval of the PDP.

The PDP uses the National Institute of Health's (NIH) Agency for Health Research and Quality's (AHRQ) research proposal format. See the Student Handbook for more details.

Dissertation Proposal

Once approved by the HMSS PhD Committee, the candidate will submit a written dissertation proposal to all members of the dissertation committee. The candidate is then orally examined on the dissertation

proposal at a time scheduled by the candidate in consultation with the committee chair and full dissertation committee.

Dissertation Preparation

The dissertation is to be prepared in format according to the guidelines of the Graduate School (<http://louisville.edu/graduate/current-students/thesis-dissertation-information/thesis-dissertation-guidelines-1>). All HMSS PhD students do a three-paper dissertation.

Three-Paper Dissertation Guidelines

Students will write a three-paper dissertation. The dissertation will include a brief introduction to the three papers and how they are related to one another (roughly ten pages). The research questions submitted and approved within the dissertation proposal will define the subject matter for each of the papers in the dissertation.

Prior to the dissertation defense, at least one of the three papers in the dissertation must be submitted for review to a reputable peer-reviewed journal that is agreed upon by the doctoral candidate's dissertation committee. The remaining two papers must be of high enough quality that the dissertation committee feels that they can be submitted to a reputable journal, although they do not need to be submitted prior to the dissertation defense.

Each paper must report on original scholarship and address the research questions in the dissertation proposal. One of the papers may consist of a literature synthesis (meta-analysis, systematic review, or scoping review) which leads to the specification of a conceptual framework for addressing a research question or questions.

Prior to the dissertation defense, the student must specify a target peer-reviewed journal for each paper and format each paper according to the chosen journal's formatting rules. Each paper is expected to conform to the length requirements for the chosen peer-reviewed journal (typically 25-30 pages in length). Co-authors for each paper should be acknowledged in a "Statement of Contributors" but not included as authors in the dissertation itself. They can be listed as authors when the papers are submitted for publication, but not as authors in the dissertation itself.

The following information is in the current guidelines, please review and advise if you have additional questions or concerns. The information is as follows:

Published Work

With the approval of the student's adviser and the student's dissertation committee, the student may include parts (e.g., short direct quotes, tables, and figures) of manuscripts published in or accepted for publication by scholarly journals and proceedings as chapters in the student's or dissertation. This is intended to support the interpretation of original research results in the dissertation, not as research findings of the dissertation. If the student chooses this option, then they must:

1. Be a primary author—i.e., lead author—of the articles (i.e., a person principally involved in the data selection or collection, the data analysis or interpretation, and the writing of the papers).
2. Obtain the needed copyright clearance from the publisher—i.e., a letter granting permission to include the journal article in your thesis or dissertation.
3. Include a proper citation to the work, either a footnote or a citation in the reference section of the thesis or dissertation.
4. Format the work so that it conforms to the requirements as specified in "Guidelines for the Preparation and Processing of Theses

and Dissertations" (The Guidelines). In other words, the journal publication cannot simply be pasted into the thesis or dissertation in its published format.

The content and format of each paper included may be similar to or the same as what you submit to the journal/proceedings, except the content must comply with the formatting requirements as outlined in The Guidelines. The bibliography or reference section of each article must become part of the final Reference Section in the thesis and dissertation, as stipulated in The Guidelines. There should be only one abstract and one list of acknowledgments for the thesis or dissertation.

If the publisher grants permission for the publication to be used, the publisher will give instructions on how the approval should be documented in the dissertation. The publisher's official notice of approval must be formatted accordingly and added as an Appendix. Permission to use previously published material in a thesis or dissertation doesn't necessarily give the student permission to sell that material. The student may need to put a restriction on the sale and availability of their work according to the publisher's guidelines.

Dissertation Approval

The dissertation is to be submitted in completed form to the director of the PhD Program at least thirty days before the end of the term in which the candidate expects to be graduated. The candidate is not eligible for final defense until the dissertation has been accepted by the committee and the PhD program director.

The doctoral candidate will prepare a dissertation document that will include:

1. An introduction of at least ten pages that summarizes the relationship between the three papers.
2. The papers themselves (refer to Published Work above).
3. A synthesis section after the three papers that addresses the implications of the research for practice, policy, and research, to the extent not addressed in the separate papers.
4. Any additional material, as appendices, that would not usually be part of a journal article (e.g. a survey instrument) but which the dissertation committee deems relevant.
5. Statement of contributions: a statement specifying his/her role and those of others in selecting study questions, designing analyses, identifying appropriate methods, analyzing the data, and writing and reviewing the papers. This statement will be signed by each contributor named.
6. Dissemination plan: this will specify the target peer-reviewed journal for each of the three papers. For each paper that has not been submitted for publication, the student is required to obtain a signature from a faculty member with experience publishing or reviewing for the target journal (or similar ones). The faculty member will sign a statement to the effect that, in their opinion, the paper is potentially publishable in the journal selected (these signatures will be required by the conclusion of the dissertation defense).

The oral defense is scheduled by the dissertation committee and doctoral candidate. The time and place for the defense is published to the general academic community, members of which are free to attend the defense. The dissertation is approved by a majority vote of the committee and the concurrence of the department chair.

Evaluation by Dissertation Committee

Dissertations will be evaluated by the dissertation committee using the following criteria:

Extent of the student's contribution: The committee should be persuaded that the student played the primary role in the formulation and write-up of the research for all three papers. For example, if a faculty member provided the data, selected the methodology, and directed the analyses, the student's role may not meet the required standard of independence.

Eventual publication of the three papers: The committee should only approve the dissertation if it feels that the three papers are potentially publishable, that is, ready for submission to peer-reviewed journals. Faculty endorsement of the Dissemination Plan will be relevant for this criteria.

Papers published before the final defense are acceptable as described below: In some cases, one or more of the papers may have already been accepted or published by a peer-reviewed journal at the time of the defense. While this satisfies the publication criterion, the committee will still need to evaluate the paper(s) in light of the other criteria, and the paper(s) will need to be reformatted to meet the Graduate School requirements.

The HMSS PhD Committee will allow one paper to be included in the three paper dissertation that was developed while the student was in the PhD program, prior to dissertation proposal defense. The paper published prior to the dissertation proposal defense can only be considered if approved by the chair of the student's PhD committee and the HMSS PhD Committee.

Dissertation Submission

The following steps must be taken to submit the final copy of the dissertation electronically after oral defense and approval of the committee:

1. Final document must be converted to a PDF (following the guidelines as noted above) and sent to the Graduate School and the department's administrative assistant.
2. Instructions will be provided from the Graduate School regarding submission of the final dissertation through the University of Louisville Institutional Repository, ThinkIR.
3. The signature page within the electronic version must have the names of your committee members typed under the signature line; the signatures cannot be scanned into the document.
4. Submit a signed signature page, digital/electronic signature page (<http://louisville.edu/graduate/current-students/thesis-dissertation-information>) can be found on the the Graduate School web-site and the department administrative assistant.

For questions regarding preparation and submission of dissertations to the Graduate School, contact the Associate Director of Academic Support.