

Virginia Commonwealth University
VCU Medical Center
School of Medicine

Department of Epidemiology & Community Health
Master of Public Health Program (MPH)
Guide to the MPH Research Project

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A. The Required MPH Research Project

To fulfill the requirements of the Master of Public Health (MPH) degree, all students must

satisfactorily complete an independent research project. The project serves as a culminating experience to demonstrate application of the knowledge and academic competencies acquired in the MPH Program. The MPH Research Project should be completed during the student's final semester in the MPH Program, after all core and the majority of all other required coursework has been completed.

The major product of this culminating experience is a scholarly written report on a topic of public health significance. The project could be designed as observational, analytic, or evaluative. Observational or analytic studies may be conducted on such topics as urban violence, low birth weight, childhood lead poisoning, teen pregnancy, incomplete immunization of children, health services accessibility, or HIV transmission and AIDS. Evaluative studies may consider the efficacy and effectiveness of ongoing preventive interventions, or the evaluation of various existing programs (e.g., alcohol, drugs, asthma, diabetes or tuberculosis treatment programs). These examples are illustrative, not limiting.

All research projects must be human-based and involve data analysis. The data used typically comes from an existing, publicly available data set. The completed project will be presented in a poster session, the Public Health Forum, and summarized in a scholarly report, to demonstrate understanding of the topic and ability to defend the study design and interpretation of results.

B. Academic credit and demand on your time

While the MPH Research Project typically offers only the equivalent of three hours of lecture credit, the course is viewed as a laboratory experience and is expected to consume an average of no less than 6-9 hours per week during the semester registered. Of course, the demands of high professional standards may call for even more time. Students should keep this in mind when planning the semester in which they sign up for the project.

C. Research project topic

The most challenging part of doing a research project is selecting a topic. It is suggested that students develop a research idea based on their own personal interests, work, school, or internship experiences, and a preliminary review of the literature. Once a student develops an idea, it is important to start discussions with her/his advisor and other faculty members and public health professionals with similar interests. These individuals can connect students to others who may have expertise in the area of interest. They can also help students who are having difficulty developing a research idea.

The research project topic should be selected only after a thoughtful and systematic exploration of the following:

- current research projects underway in which a student could be involved
- the availability of an appropriate preceptor
- the logistics, costs and time required for the proposed project
- a review of the principal sources of literature on the topic
- how the project serves professional and academic interests.

Students must begin thinking about their topic early on in the program. In general, students should have decided on a topic by the beginning of their second year in the program (i.e., after completing about 24 credits). For example, full-time students who plan to graduate in the spring semester of their second year should have decided on a topic by the beginning of their second fall semester of study.

D. Preceptor selection

After deciding on a research topic, the student should select a preceptor who has expertise related to the topic of interest. Making connections with professionals with experience in the chosen topic area may take a lot of legwork, but it is important to have input from individuals who are subject-matter experts. Students may wish to review a partial listing of past MPH Research Projects, advisors, and preceptors ([see Appendix A](#)) or consult with faculty advisors. Please note that faculty advisors may also serve as preceptors if they have expertise in the topic area.

E. MPH Research Project Agreement Form (*Appendix B*)

The MPH Research Project Agreement Form should be completed in consultation with the faculty advisor and preceptor. It should not exceed two pages (plus signatures). It should include the following:

1. student name and contact information
2. a provisional title for the project
3. the purpose and specific objectives of the proposed research project
4. a brief description of the methods intended
5. a statement or two about the anticipated findings
6. a sentence or two about how the project might contribute to the field of public health
7. an indication of need for Institutional Review Board review (see sections G and I)
8. a brief time-line for project completion
9. name, title, contact information and field of expertise of preceptor(s); (if your advisor serves also as preceptor, please indicate this on the Form)
10. name of faculty advisor
11. signatures/dates of all parties as indicated on the form

The Research Project Agreement Form should be regarded as a formal agreement among the student, the faculty advisor, and the preceptor. Approval of the agreement indicates that the topic is appropriate, that design is sound, and that the proposed project is feasible within the projected time frame. Students must complete the MPH Research Project Agreement Form and obtain approval from the faculty advisor, preceptor (if one is involved), and the MPH Program Director before registering for the research project course. If one or more of the parties disapproves of the project as proposed, a meeting of the student, advisor, preceptor, and MPH Program Director should be arranged to discuss the reasons for disapproval and to suggest modifications to the topic, the study design and/or the methodology. If agreement cannot be reached by all parties, the Department Chair will make a final decision after reviewing the issues. Please note that all revisions to the project must be approved by the MPH Program Director to avoid any last minute difficulties.

F. Degree Candidacy Form

At the time that an MPH student registers for the MPH Research Project course, the student must also complete the required degree candidacy form which provides students with admission to master's degree candidacy. Students are required to complete this form in preparation for graduation. This form is available to all graduate students through GradTrak <https://www.apps.som.vcu.edu/gradtrak/login/login.aspx>

G. Course enrollment and credits

Students should register for the MPH Research Project in their final semester of study, after completing all core and most other major required coursework in the MPH curriculum (typically 33-36 credits). Register for the course under EPID 691 (MPH Program Research Project), selecting the section corresponding to your faculty advisor's name. Students must have filed an approved MPH Research Project Agreement Form at least 2 weeks before the start of the semester in which they intend to complete the Research Project.

Typically, the MPH Research Project is completed as a 3-credit hour course. Occasionally, a student proposes research involving data collection as well as analysis of the data, although this is neither required nor necessarily encouraged. Students who choose to conduct their own data collection sign up for a workload that is substantially greater than that expected for the typical project. Students should note that this sort of undertaking is very demanding and may require special review by program faculty. Typically, collection of primary data requires review of the research project by the Institutional Review Board (IRB) to assure protection of human subjects. The preparation of an IRB application and time for IRB review and approval can add 3-4 months

to the timeline of a project, typically resulting in the need for two semesters to complete the research project.

- 3-credit project: analyze or evaluate and report on a secondary data set, programmed intervention, etc. (i.e., data already collected)
- 6-credit project: design data collection instrument, collect and analyze the primary data; note that the 6 hours should be spread over two semesters to allow time for IRB approval and data collection and data clean up. The additional 3 credits may be taken in lieu of one of the MPH Program electives.

H. Communications with preceptor and faculty advisor

Upon formal approval of the MPH Research Project Agreement Form (*Appendix B*), students are expected to be in frequent consultation with their advisor and preceptor. Students must update their faculty advisors at least monthly on progress.

I. Review of proposed project for protection of human subjects (IRB)

All student research projects must comply with federal regulations for the protection of human subjects. If: 1) the project *does not* involve collecting data through interaction with human subjects; *and* 2) the investigators have *no access* to identifiable private information, IRB review is *not* required. Identifiable information includes variables such as a research participant's name, address, phone number, or Social Security Number; in addition, for students who plan to map data using GIS, the level at which data will be reported may lead to potential identification of research participants and may require review.

In all other situations, including circumstances which make need for IRB review unclear, the student must work with her/his faculty advisor to consult with IRB representatives and ensure that review is conducted if needed. Guidelines to help determine the need for IRB review are available at: <http://www.research.vcu.edu/irb/guidance.htm>

When IRB review is required, the faculty advisor is considered to be the Principal Investigator (PI). Before students begin to conduct any research involving information from human subjects, the faculty PI must submit a research application to the IRB in the VCU Office of Research Subjects Protection (ORSP). Research may not begin until the PI has received a letter of approval from the IRB. Once the IRB approves the project, the faculty PI is responsible for oversight of student research activities to ensure compliance with IRB guidelines.

J. Content of the MPH Research Project report

The MPH Research Project report is a scholarly accounting of the conduct, analysis, and results of

the project. It should be similar in format and nature to an article in a peer-reviewed journal.

The following sections are required:

- **Abstract:** The abstract is a brief summary of the key components of the study. It should not exceed one page, single-spaced, and should include the purpose, methods, results, and conclusions (with implications or recommendations).
- **Introduction:** This section should describe the background of the study, including the literature review. It explains the “reason” for the topic and the overall purpose of the project.
- **Objectives:** Specific objectives of the study must be clearly stated.
- **Methods:** The methods section should describe how the study was conducted. This section should generally include the number and composition of subjects in the target population, when and where the project was conducted, and how the data were collected and analyzed. A detailed description of resources, strategies, and experiences used to accomplish the objectives should be included.
- **Results:** This section should describe the study results and include tables and figures to present pertinent findings.
- **Discussion:** This section should summarize results and discuss implications of the findings. The discussion should be supported by pertinent literature.
- **Conclusion:** The final section consists of a conclusion and any pertinent recommendations for further study. Include statements verifying that the research objectives were met. Consider the results in terms of health policy and clinical or public health implications.

K. Format of the MPH Research Project report

The format of the MPH Research Project report should adhere to general report-writing standards. The report should include the following elements:

1. Title page (*Appendix C*).
2. Submission statement (*Appendix D*)
3. MPH Research Project Agreement Form (*Appendix B*)
4. MPH Research Project Final Approval Form (*Appendix E*)
5. Dedication (optional)
6. Epigraph (optional)
7. Table of Contents listing all the key sections of the MPH Research Project report
8. Acknowledgements (optional) may be used to thank individuals who have assisted in the completion of the MPH Research Project.
9. Abstract--a brief summary of the key components of the MPH Research Project. It should not exceed one page, single-spaced.
10. The text includes the following major sections: introduction, objectives, methods, results, discussion, conclusion, tables, and figures.

11. Appendices (as needed) should include other relevant material that is important to the study but is not included in the text of the MPH Research Project report. This information should be included if it helps with the understanding of the desired implementation, results, or conclusions. For example, a questionnaire used for data collection may be included as an appendix.
12. References section should include all of the literature cited in the report.
13. Formatting
 - a. The margins should be 1 inch on top, bottom, right and left.
 - b. Number each page. The preliminary pages (ie, the Table of Contents and Abstract) should be numbered with lower case Roman numerals. The remainder of the report, generally beginning with the introduction, should be numbered with Arabic numerals.
 - c. The font size of the text should be no less than 12 points.
 - d. Use double spacing throughout the report except for the title page, submission statement, acknowledgements, abstract, any run-over lines in the table of contents or illustrations.
 - e. Review the report carefully for grammatical and spelling mistakes and proper use of grammar and language.

L. Completion requirements

All requirements for the MPH Research Project are expected to be completed during the semester in which a student is enrolled for project credit. Under some unusual circumstances, the time frame for the course may be extended with a grade of PR (in progress). In these instances, however, the student must submit to the MPH Coordinator a written request for extension that must be jointly approved by the preceptor, faculty advisor, and the MPH Program Director. (Please note that taking an extension may mean additional tuition expense.)

M. Approval of preliminary and final drafts of MPH Research Project Report

A preliminary draft of the MPH Research Project report and poster presentation must be submitted to your preceptor and faculty advisor at least **4 weeks prior to the Research Day presentation**. Advisor and preceptor feedback is essential to preparation of the final draft. **The final draft of the report is due 2 weeks prior to Research Day**. Both the preceptor and faculty advisor must indicate their approval of the report by signing and dating the last page of the report.

N. Presentation of MPH Research Project

All students are required to present their findings in a public health forum poster presentation, known informally as Research Day, at the end of each semester. Scientific posters are visual tools designed to present the body of a research project in a graphic format. Workshops will be held at the beginning of each semester to assist students in the poster creation process.

The faculty advisor, in consultation with the preceptor, will give final approval (or disapproval) of the MPH Research Project **no later than one week prior to Research Day**. If the project is not approved, the student will not be permitted to present on Research Day or to complete the Research Project in that semester.

O. Final approval of the MPH Research Project

Each student's faculty advisor, with input from the preceptor, will evaluate the completeness of the MPH Research Project based on an assessment rubric (Appendix F). This rubric provides guidelines for assessing the work performed, using a five-level scale of outstanding, excellent, acceptable, unacceptable to review the four major components of the project as well as appropriate use of grammar and language. In addition, the advisor considers presentation of the project at Research Day.

- Background/literature review
- Methodology
- Results
- Discussion/conclusion
- Grammar, vocabulary, and style
- Attendance at Research Day and clear and appropriate presentation of findings in poster format

The MPH Research Project Approval Form (*Appendix E*) must be signed and dated by the faculty advisor, preceptor, and MPH Program Director. The faculty advisor then submits the form to the MPH Program Coordinator within 3 days after Research Day.

P. Electronic submission

Students are required to submit two copies of their research project, one to the program, and one to the Graduate School. To submit to the MPH Program, students must provide an electronic version of the Project Report to the MPH Program Coordinator one week after Research Day (on CD). This version, which includes the file used for the poster presentation, will be placed on the website of the Department of Epidemiology and Community Health. Students must also submit an electronic version of the Project Report only to VCU's Electronic Thesis and Dissertation Project. Information on how to make this submission is available at:

<http://www.library.vcu.edu/preservation/theses.html>

A copy of the ETD submission summary confirmation should be submitted to MPH Program Coordinator to confirm actual submission to the library.

Q. Responsibility for reporting changes

Any changes in the research project proposal, preceptor, faculty advisor, or student academic status must be reported promptly in writing to the MPH Program Coordinator. A student who fails to file the Research Project forms in a timely manner or to report changes to the MPH Program Coordinator could face a delay in the expected graduation date.

R. Planning for the MPH Research Project

The following recommendations will help to ensure that students will be able to meet the critical deadlines and graduate on time:

- Think about selection of a research topic during your first year in the MPH Program
- Choose a topic by the beginning of your second year in the program (i.e., after completing approximately 24 credit hours)
- Discuss ideas with faculty advisors and public health professionals
- Conduct a preliminary review of the literature on the topic of interest; when possible, focus course assignments on the topic of interest to supplement knowledge
- Inquire about persons with expertise in the topic of interest who might be willing to serve as a preceptor
- Complete the MPH Research Project Agreement Form (*Appendix B*)
- If the faculty advisor decides that IRB approval is required for the project, file the proper paperwork with the IRB as soon as possible

S. Critical Deadlines for the MPH Research Project*
2009-2010

	Spring 2009 Semester	Summer 2009 Semester	Fall 2009 Semester	Spring 2010 Semester
Draft Proposal: Submit preliminary draft of Agreement Form (App B) to faculty advisor, preceptor, and MPH program director for review and approval.	11/28/08	3/20/09	7/03/09	11/27/09
Final Proposal: Submit signed version of App B to the MPH program coordinator (and to IRB if review is required).	12/12/08	04/03/09	7/17/09	12/11/09
Preliminary Draft Report: Submit preliminary draft of Project Report to preceptor and faculty advisor. Please note that ALL analyses and the draft manuscript must be completed before submission.	03/27/09	07/03/09	10/28/09	4/02/09
Final Draft Report and Poster: Submit final draft report and poster file to preceptor and faculty advisor.	04/17/09	07/17/09	11/12/09	4/16/09
Abstract and Posters: Submit copies of abstract to the MPH program coordinator. Submit poster file to Kate Young for printing.	04/24/09	07/24/09	11/23/09	4/26/09
RESEARCH DAY: Present poster for Research Project	05/01/09	08/10/09	12/4/09	05/7/10
Final Approval : Obtain Final Approval Form (App E) from faculty advisor and submit to MPH Program Coordinator.	05/01/09	08/10/09	12/09/09	5/7/10
Submission to ETD system and submit copy of receipt to MPH Program Coordinator:	05/06/09	08/12/09	12/11/09	05/7/10

*Deadlines must be met or graduation will be delayed.