

**Department of Maternal and Child Health
Gillings School of Global Public Health
The University of North Carolina at Chapel Hill**

**MHCH ###
Implementation Science in MCH
Spring, 2014**

When:	Spring semester, 2014
Where:	Lectures: In class and online via Sakai Recitations: As needed by group Office Hours: By request
Faculty:	TBD Phone Email
TA:	TBD Email

Credits: 3 credit hours

Prerequisites: This course is available for doctoral students and 2nd year masters students.

Format: Lectures, class activities, group work

Maternal and Child Health (MCH) is the professional and academic field that focuses on the determinants, mechanisms and systems that promote and maintain the health, safety, well-being, and appropriate development of children and their families in communities and societies, in order to enhance the future health and welfare of society and subsequent generations.¹

The purpose of this course is to provide an overview of Implementation Science. This course will be unique in that it will focus on applied Implementation Science, in addition to Implementation Research. The course will cover the rationale for studying Implementation Science, the evolution of Implementation Science, major Implementation Science and Implementation Research models and frameworks, and implementation-informed evaluation methodologies and measures. Case studies relevant to global public health and MCH will be interspersed throughout the course to provide real-world examples of Implementation Science applications and research.

This course will be partially “[flipped](#)” meaning students will read the foundational publications and/or view instructional modules online before class. Class discussion will focus on integrating and applying the foundational concepts. Class time may also be used for integrative lectures from the professor or guest speaker followed by discussion. The course includes four group projects throughout the semester and some class time will also be dedicated to structured work time for the groups with the professor and TA present.

¹ Alexander GR. Maternal and Child Health (MCH). *Encyclopedia of Health Care Management*. Thousand Oaks, CA: Sage Publications; 2004.

ATMCH Competencies:² This course addresses key skills for MCH public health practitioners. Specifically, at the conclusion of this course, students should:

1. Understand the theories and principles of community organization, change, and development.
2. Have knowledge of the principles and key features of community assessment, program design, implementation, and evaluation.
3. Have knowledge of organizational and management theories and practices, and their administration in both public and private agencies.
4. Apply knowledge of management and organizational theories and practices to the development, planning, staffing, administration, and evaluation of public health programs, including the implementation of strategies promoting integrated service systems for MCH populations.
5. Practice effective written and oral communication skills, including accurate and effective preparation and presentation of reports to agency boards, administrative organizations, legislative bodies, consumers, and/or the media using demographic, statistical, programmatic, and scientific information.
6. Understand the theories and mechanisms of MCH policy development and implementation within the scope of health and other public policy programs in the United States.
7. Develop a plan to implement a policy, including goals, outcome and process objectives, implementation steps and evaluation plan.

Implementation Science Competencies: Implementation Science knowledge and skills will help students translate research into practice faster and with greater fidelity. Specifically, at the conclusion of this course, students should:

1. Understand the theories and principles of Implementation Science.
2. Understand how Implementation Science theory and practice are administered in both public and private agencies.
3. Apply knowledge of Implementation Science theories and practices to the development, planning, staffing, administration, and evaluation of public health programs, including the implementation of strategies promoting integrated service systems for MCH populations.

Requirements: Teaching and learning are interrelated. Both instructors and students are expected to be active participants in this course. The faculty responsibility is to develop a course that addresses significant topics and concepts in the field and to prepare individual sessions, exercises and assignments that will facilitate student learning. The student's responsibility as a learner is to engage with the course ideas, listen to the lectures and do the readings on time, be prepared to participate in class discussions and exercises, and learn to think critically as you listen, write and discuss.

Attendance. The Graduate School and the Department of Maternal and Child Health expect students to attend class and contribute to class discussions and group work. To the extent possible, please inform the instructor or recitation facilitator if you know ahead of time that you will not be able to participate in a particular activity.

Required readings/presentations. These will be made available through Sakai. Students are encouraged to share other helpful resources with the class.

² Based on ATMCH competencies. See <http://www.atmch.org/documents/mchcomps.PDF>

Written assignments. Students will work in small groups to complete four written and oral assignments corresponding to the four sections of the course. For each assignment, students will be asked to apply their Implementation Science knowledge to a case study relevant to MCH. Specifically, the four assignments will be:

1. Select an MCH evidence-based intervention from the list below. These interventions are strong but are not demonstrating their expected impact. Your task in this assignment is to convince an agency board, administrative organization, legislative body, consumers, and/or the media—whichever group you decide is most relevant for the intervention—of the importance of effective implementation for achieving program impact. The tools you will have include a memo of 500 words or less to the group of your choice as well as a 5-minute presentation to the class.

Evidence-based intervention options:

- Clinical practice guidelines for maternal care in Sub Saharan Africa³
 - Polio eradication in India⁴
 - Shallow tube wells in Bangladesh⁵
2. Select one of the Applied Implementation Science Frameworks we've covered in class and use it as a model for how you would implement a maternal and child health intervention (of your selection) to address one of the global health case studies from a list of [case studies in global health](#). Your group needs to communicate your implementation plan in a memo of 1,000 words or less to the group of your choice as well as a 10-minute presentation to the class.
 3. Select one of the Implementation Research Frameworks and use it as a model for how you would study the implementation of the intervention of your choice to address one of the MCH case studies listed in the Association of State and Territorial Health Officials brief on [disparities in MCH](#). The brief outlines both domestic MCH disparities and some interventions aimed to address them. You can pick one of these interventions or a different one. Your group needs to share your application of an implementation research framework in a paper of 1,000 words or less to the group of your choice as well as a 10-minute presentation to the class.
 4. Select an implementation-aligned evaluation approach covered in class as it applies to an intervention from any of the previous assignments or a new one of the group's choosing. Create an evaluation plan using the selected approach. Your group needs to share your plan in a paper of 1,000 words or less to the group of your choice as well as a 10-minute presentation to the class.

Formats and citation styles are based on the National Library of Medicine's *Citation Quick Guide*, which is available at <http://www.wsulibs.wsu.edu/electric/quickguides/docs/nlm.html>. Each

³ Baker U, Tomson G, Somé M, et al. "How to know what you need to do": a cross-country comparison of maternal health guidelines in Burkina Faso, Ghana and Tanzania. *Implementation Science*. 2012;7(1):31.

⁴ Obregon R, Chitnis K, Morry C et al. Achieving polio eradication: A review of health communication evidence and lessons learned in India and Pakistan. *World Health Organization Bulletin*. 2009;87:624-30.

⁵ Flanagan SV, Johnston RB, Zheng Y. Arsenic in tube well water in Bangladesh: Health and economic impacts and implications for arsenic mitigation. *World Health Organization Bulletin*. 2012;90:839-46.

reference should be cited using the same number (superscript or in parentheses) in the text no matter how many times it is cited.

Grading

The semester grade will be a composite of grades on your group written assignments and class participation:

- 15 points: Class participation. Coming to class prepared (e.g., reading/watching required materials prior to class) and engaging in activities and discussion.
- 20 points: Assignment #1
- 20 points: Assignment #2
- 20 points: Assignment #3
- 20 points: Assignment #4
- 5 points: Group Assessment. Each group member will be assessed by their group partners at the end of the semester. Please take note of group member performance throughout the semester to improve the accuracy of your assessment. Each member’s score will be an average of the scores given to them by their group members.
 - 5 points: Outstanding. Group member proactively participated in and often led group meetings, was respectful of and helpful to other group members, and did more than their fair share of the work.
 - 4 points: Competent. Group member proactively participated in group meetings, was respectful of other group members, and did more than their fair share of the work.
 - 3 points: Sufficient. Group member participated in group meetings when asked, was respectful of other group members, and did the work they were asked to do but no more.
 - 2 points: Insufficient. Group member rarely participated in group meetings, was not always respectful of other group members, and did less than the work they were asked to do.
 - 1 point: Unsatisfactory. Group member rarely participated in and even missed group meetings, was often disrespectful of other group members, and did less than the work they were asked to do.
 - 0 points: Absent. Group member repeatedly missed group meetings, was often disrespectful of other group members and did very little work for the project.

Each assignment will be graded based on the rubric provided below.

Criteria	Possible Points	Points Received	Comments
Answers the Question (e.g., paper and presentation meet all aspects of the assignment question in a logical and organized manner)	6		
Engagement with Material (e.g., paper and presentation include material covered in readings, lectures, and class activities)	6		
Critical Thinking (e.g., paper and presentation demonstrate critical thinking by providing	4		

new ideas and analysis)			
Quality of Presentation (e.g., clear writing/speaking, good formatting, correct references and grammar, etc.)	4		
Total	20		

Student Honor Code:

The UNC honor code (<http://honor.unc.edu/>) will be in effect in this class. In the case of specifically identified group assignments, students are encouraged to study together. If you have questions about appropriate behavior regarding the honor code, check with the instructors.

Course Evaluation:

We encourage students to think critically about the class and provide real time feedback. Students are encouraged to share constructive feedback about the course with the TA throughout the semester. The TA will compile this information and share with the Professor as needed throughout the semester and again at the end. At the conclusion of the semester, students will also have an opportunity to provide formal and anonymous feedback on the course through an evaluation form that is distributed electronically by the University.

Course Calendar

Week 1: Introduction to Implementation Science

- Overview of the course and the flipped design
- Overview of Implementation Science- What is it? How is it Defined?
- Introduce Applied Implementation Science
- Introduce Implementation Research

Reading:

- Flipped classroom [infographic](#)
- Durlak, JA, Dupre EP. [Implementation matters: A review of research on the influence of implementation on program outcomes and the factors affecting the implementation.](#) *American Journal of Community Psychology*.2008; 41:327-350.
- Baker U, Tomson G, Somé M, et al. [“How to know what you need to do”: a cross-country comparison of maternal health guidelines in Burkina Faso, Ghana and Tanzania.](#) *Implementation Science*. 2012;7(1):31.

Week 2: Implementation Science- Why is it Important?

- Cover domestic and global MCH implementation examples

Reading:

- Whitworth J, Sewankambo NK, Snewin VA. [Improving implementation: Building research capacity in maternal, neonatal, and child health in Africa.](#) *PLoS medicine*. 2010;7(7):e1000299.
- Proctor E. [Implementation science and child maltreatment: Methodological advances.](#) *Child Maltreatment*. 2012;17(1):107–12.
- Greenberg M, Domitrovich C, Graczyk P, Zins J. [The study of implementation in school-based preventive interventions: Theory, Research, and Practice.](#) In: *Promotion of Mental Health and Prevention of Mental Health and Behavioral Disorders*.Vol 3. 3rd ed. Rockville, MD:

Center for Mental Health Services, Substance Abuse and Mental Health Services Administration; 2005.

Week 3: Class Presentations of Assignment #1

- Objective: Practice convincing others of the importance of implementation

Reading:

- Rabin BA, Brownson RC, Haire-Joshu D, Kreuter MW, Weaver NL. [A glossary for dissemination and implementation research in health](#). *Journal of Public Health Management and Practice*. 2008;14(2):117–23.

Week 4: Evolution of Implementation Science

- Everett Rogers (1962), Diffusion of Innovation
- Havelock & Zlotolow (1973), Change Agents
- Pressman & Wilkdavsky (1973), Implementation and politics
- 1980s to today: Evidence for implementation

Reading:

- Please review websites on each of the models listed above
- Fixsen DL, Naoom SF, Blase KA, Friedman RM, Wallace F. [Implementation Research: A Synthesis of the Literature](#). Tampa, Florida; 2005

Week 5: Key Frameworks in Applied Implementation Science, Part 1

- Meyers DC, Durlak J a, Wandersman A. [The quality implementation framework: A synthesis of critical steps in the implementation process](#). *American Journal of Community Psychology*. 2012;50(3-4):462–80. Available at: <http://www.ncbi.nlm.nih.gov/pubmed/22644083>. Accessed March 1, 2013.
- Metz A, Bartley L. [Active Implementation Frameworks for Program Success](#). Zero to Three. Chapel Hill, NC; 2012.

Reading:

- Please read the texts listed and linked above.

Week 6: Key Frameworks in Applied Implementation Science, Part 2

- Wandersman A, Duffy J, Flaspohler P, et al. [Bridging the gap between prevention research and practice: the interactive systems framework for dissemination and implementation](#). *American Journal of Community Psychology*. 2008;41(3-4):171–81.
- Meyers DC, Katz J, Chien V, Wandersman A, Scaccia JP, Wright A. [Practical implementation science: Developing and piloting the quality implementation tool](#). *American Journal of Community Psychology*. 2012;50:481–96.
- Kilbourne AM, Neumann MS, Pincus H a, Bauer MS, Stall R. [Implementing evidence-based interventions in health care: Application of the replicating effective programs framework](#). *Implementation Science*. 2007;2(42). Reading:

Reading:

- Please read the texts listed and linked above.

Week 7: Class Presentations on Assignment #2

- Objective: Apply an Applied Implementation Science framework

Week 8: Key Frameworks in Implementation Research, Part 1

- Glasgow RE, Vogt TM, Boles SM. [Evaluating the public health impact of health promotion interventions: The RE-AIM framework](#). *American Journal of Public Health*. 1999;89(9):1322–7.
- McQueen L, Mittman B, Demakis J. [Overview of the Veterans Health Administration \(VHA\) Quality Enhancement Research Initiative \(QUERI\)](#). *Journal of the American Medical Informatics Association*. 2004;11(5):339–344.
- [Quality Enhancement Research Initiative \(QUERI\) Implementation Guide](#), Section 1, Part 1

Reading:

- Please read the texts listed and linked above.

Week 9: Key Frameworks in Implementation Research, Part 2

- Chaudoir SR, Dugan AG, Barr CH. [Measuring factors affecting implementation of health innovations: A systematic review of structural, organizational, provider, patient, and innovation level measures](#). *Implementation Science*. 2013;8(22).
- Feldstein AC, Glasgow RE. [A Practical, Robust Implementation for Integrating Research Findings into Practice](#). *The Joint Commission Journal on Quality and Patient Safety*. 2008;34(4).
- Sanders D, Haines A. [Implementation research is needed to achieve international health goals](#). *PLoS medicine*. 2006;3(6):e186.

Reading:

- Please read the texts or sites listed and linked above

Week 10: Class Presentations of Assignment #3

- Objective: Apply an Implementation Research framework

Week 11: Implementation-Informed Evaluation, Part 1

- Quality Assurance and Quality Improvement
- Implementation Aligned Evaluation Approaches
 - Program Development: Developmental Evaluation
 - Implementation-Focused Evaluation: Utilization-focused evaluation

Reading:

- Module: [Quality Improvement vs. Quality Assurance](#), Duke University
- Patton M. [Developmental Evaluation](#). *American Evaluation Association*. July 26, 2010.
- Gamble, Jamie. [A developmental evaluation primer](#) [Section 1]. 2008. Montréal: The J.W. McConnell Family Foundation.
- Patton M. [Utilization-Focused Evaluation Checklist](#). 2002. Evaluations Checklist Project.

Resources:

- Western Michigan University. [Evaluation Checklists](#). 2013.
- M. Segone (Ed.) (2010.) [From policies to results Developing capacities for country monitoring and evaluation systems](#)

Week 12: Implementation Informed Evaluation, Part 2

- Implementation Aligned Evaluation Approaches

- Stage-matched evaluation: The Management-Oriented Evaluation approach (CIPP)
- Systems Initiative Evaluation: Complex System Change Evaluation, The ABLe Change Framework

Reading:

- Module: Angelova I, Weas L. [Management-Oriented Evaluation Approaches](#). Northern Illinois University.
- Foster-Fishman PG, Watson ER. [The ABLe change framework: A conceptual and methodological tool for promoting systems change](#). *American Journal of Community Psychology*. 2012;49(3-4):503–16.

Week 13: Class Presentations of Assignment #4

- Objective: Work with an implementation-informed evaluation approach

Reading:

- Gamble, Jamie. [A developmental evaluation primer](#) [Section 2]. 2008. Montréal: The J.W. McConnell Family Foundation.

Week 14: Flex Class

- By class vote, we will dedicate a week to a topic everyone wants to dive into more