Health Services M422: Practices of Evaluation in Health Services

Winter Quarter 2007

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HS M422:
PRACTICES OF EVALUATION IN HEALTH SERVICES
Winter 2007, M/W 10:00-12:00 P.M.
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HS M422 Web Site:
http://www.ph.ucla.edu/hs/hs_422_w07.html

I. LEARNING OBJECTIVES & COMPETENCIES

This course will provide students with an understanding of the critical role of systematic evaluation in assessing the effectiveness of health services. Students will learn a **systematic approach** to conceptualizing, designing, implementing, and evaluating the impact of a new or existing program, service, product, policy, or organizational change intervention. Students will be exposed to the basic theoretical concepts as well as the methodology of program evaluation. The primary focus will be on **practical application** of evaluation principles and methods.

The table below shows the course framework, competencies and course learning objectives. Achievement of learning objectives will provide students with the competency to practice evaluation and/ or interact with professional evaluators at entry-level career. Instructors will assess competencies through performance on individual and team assignments, exam, class participation, and oral and written communications and presentation.

Course Framework	Competency	Learning Objectives
I. Communicate & Collaborate	Communication Skills	1.1 Use oral and written communication skills to fulfill course assignments and to interact effectively with students, teams, and instructors.
II. Conceptualization	Analytical Thinking	2.1 Describe the four major stages of comprehensive evaluation (conceptualization, design, implementation, and impact assessment).
	Information Seeking	2.2 Conduct library and internet research to identify peer-reviewed journal articles, which apply an evaluation design to determine effectiveness of a health program.
	Conceptual Thinking	2.3 Formulate a researchable evaluation issue, determine its scope and underlying causes, and propose potential solutions based on available evidence.
	Conceptual Thinking	2.4 Create a logic model showing key relationships among dependent and independent variables and possible interventions for an evaluation proposal.
	Analytical Thinking	2.5 Apply principles of evidence-based medicine for clinical and health policy decision-making.
	Analytical Thinking	2.6 Explain the strengths and weaknesses of evidence based management.
	Analytical Thinking	2.7 Analyze strengths and weaknesses of published evaluation.
III. Design	Project Management	3.1 State clear and measurable program objectives for an intervention and/or evaluation.
	Analytical Thinking	3.2 Explain research design (pre-experimental, quasi-experimental, and experimental) including strengths, weaknesses and applications.
	Analytical Thinking	3.3 Explain threats to internal and external validity for each research design.
	Analytical Thinking	3.4 Discuss measurement issues, e.g., levels (nominal, ordinal, interval, ratio), and establishing validity and reliability.
	Analytical Thinking	3.5 Specify the target population and the unit of observation/ analysis.
	Analytical Thinking	3.6 Discuss design issues such as sampling and random assignment.
	Information Seeking	3.7 Develop a data collection plan and identify instrument(s) for data collection.
	Information Seeking	3.8 Understand how to pilot test data collection instruments.
III. Implementation Evaluation	Project Management	3.1 Create an implementation plan and process monitoring system to examine the extent to which the intervention is being implemented as planned.
	IT Management	3.2 Recognize the value of the management information system (MIS) and clinical information system (CIS) for monitoring progress and resource expenditures.
IV. Impact Assessment	Team Leadership, Project Management	4.1 Collaborate with a project team to prepare and present a comprehensive evaluation proposal including a plan for impact assessment.
	Information Seeking	4.2 Describe the strengths and limitations of quantitative and qualitative data and data triangulation for analyzing research findings from multiple data sources.
	Analytical Thinking	4.3 Compare and contrast cost-utility, cost-benefit, and cost-effectiveness analysis.
	Performance Measurement	4.4 Analyze how relevant measurable evaluation results can be used for improving health programs, services, delivery

		systems, policies, population health and quality of life outcomes.
V. Professionalism	Accountability	5.1 Role model and adhere to high standards of personal and organizational integrity and responsibility consistent with improving health and healthcare.
	Professionalism	5.2 Adopt codes of professional ethics and behavior valued by leaders in healthcare.
	Self Development	5.3 Recognize the need to continue to improve competencies throughout the career through continuous learning, education, and professional development and advancement.

II. COURSE REQUIREMENT

1. Class Participation and Attendance (10-points).
In general the two-hour class will be divided into part-1: lecture/ discussion and part-2: team meetings. Over the quarter each student will be asked to respond to 1-2 questions about assigned readings. Additionally, attendance will be recorded and attending presentation and reflection sessions at the end of the quarter is required and will be figured in to the final grade.

2. Team Assignments & Individual Literature Review Paper (30-points).
Teams consisting of 6-students each will be assigned on **Wednesday, January 10.** Individuals on each team will select one of the topics below for the individual literature review paper. Each team needs to produce a literature review on all 6 topics, but this assignment will receive an "individual" grade only. The papers are due in class on **Monday, February 5.** Late papers will lose points.

Evaluating Environmental Interventions to Prevent Obesity
The American Academy of Pediatrics, American Heart Association, American College of Sports Medicine, American Medical Association, Centers for Disease Control and Prevention, Guide to Community Preventive Services, Healthy People 2010, National Association of Sports and Physical Education, National Cholesterol Education Program, U.S. Bureau of Maternal and Child Health, U.S. Preventive Services Task Force, U.S. Surgeon General, and the World Health Organization have each identified efforts to increase physical activity as a high priority for promoting the health of populations.

The Robert Wood Johnson Foundation suggests that at least one in four Americans gets no activity during an average day. The current epidemic of obesity may be the product of elevators, drive-thru restaurants and cul-de-sac suburbs. The group project will be to propose evaluations of programs that might reduce obesity by redesigning communities.

For the term project, each student will be assigned to a team. Teams will be formed early in the quarter. Within the team, each student must pick a different topic and become an expert on its contribution to the obesity problem. Each student will write a paper that will be given an individual grade.

Topics for these reviews might include:

1. Geographic Information Systems (GIS)
2. Measurement of Community "Walkability"
3. The relationship between physical activity and obesity
4. SES and obesity as it relatives to community characteristics
5. Land use policy and physical activity
6. Long term effects of weight loss programs
7. Weight gain in college freshmen
8. The effects of obesity on heart disease, cancer, or diabetes

As a team, you must use a common methodology to design an evaluation. The team will be assigned a specific study design. Your team will work together to identify data sources or new data that need to be collected. As a group, you will develop specific aims for the study, and propose the study population, sampling design, experimental design, measures, and data analysis plan. Policy relevance and limitations of the design must also be discussed. The proposal will also include a detailed budget. At the end of the term, each group will give a Powerpoint presentation that summarizes the proposal.

3. Mid-Term Exam (25-points). This in-class, closed book exam will focus on evaluation design. You will be given a brief case on an obesity control program. Using Campbell and Stanley notation and narrative description, you will be asked to: (a) propose 3 different designs that might be used to evaluate the program's effectiveness, (b) discuss strengths and weaknesses of each design in terms of internal and external validity, and (c) select the strongest design that is also feasible and practical to implement. More information will be provided in advance of the exam.

4. Team Proposal – Final Paper (30-points). About half way through the term **(February 5),** you will begin work on the team assignment that brings together into one program the obesity control topics. Each team will be randomly assigned an evaluation design for their proposal: (1) experimental, (2) quasi-experimental, (3) pre-experimental, and/or (4) observational. Each team will develop and present a proposal to the entire class. Your oral presentation can earn up to **10 points.** Your written contribution to the team proposal can earn up to **20 points**. An outline for the written component of the team proposal will be provided about mid-term. Refer to web site for proposal outline.

5. Peer-Evaluation Rating (5-points). Multi-rater peer evaluation is one method for assessing individual performance on a team. Your assessment of peer's participation in preparing the Team Proposal will serve as input to the instructors for determining final course grades.

Maximum course credit is 100 possible points (80% is individual performance and 20% is team performance). The student's letter grade will be determined as follows:

Points	**LETTER GRADES**
98 – 100	A+
93 – 97	A
90 – 92	A-
88 – 89	B+
83 –87	B
80 – 82	B-

Points	LETTER GRADES
78 – 79	C+
73 – 77	C
70 – 72	C-
Below 70	F

Excellent work showing mastery of principles and extra effort on design is required for an A. Good, solid work is required for a B. It is possible to get below a B.

III. READINGS

The text will be available in the **HEALTH SCIENCES BOOK STORE** and the readings are available in PDF format from the course website. **The required text for this course is:**

David Grembowski. The Practice of Health Program Evaluation. Sage Publications, Inc.: Thousand Oaks, CA (2001).

The required supplementary readings are:

Adams, K.F., Schatzkin, A., Harris, T.B., et al. Overweight, obesity, and mortality in a large prospective cohort of persons 50 to 71 years old. New Engl J of Med, 2006, 355:8: 763.

Atkins, D., Best, D., Briss, P. A., Eccles, M., Falck-Ytter, Y., Flottorp, S., et al. (2004). Grading quality of evidence and strength of recommendations. *Bmj, 328*(7454), 1490.

Davidson, P.L., Carreon, D.C., Baumeister, S.E., Nakazono, T.T., Gutierrez, J.J., Afifi, A., and Andersen, R.M. "Influence of Contextual Environment & Community-Based Dental Education on Practice Plans of Dental School Seniors. Manuscript accepted by J. Dent Education, 2007, (in press).

Earney, R. and Bungum, T.J. (2004). Public Posting as a Strategy to Increase Walking: A Worksite Intervention. California Journal of Health Promotion, 2(4): 65-71.

Moher, D., Schulz, K. F., & Altman, D. (2001). The CONSORT statement: revised recommendations for improving the quality of reports of parallel-group randomized trials. *Jama, 285*(15), 1987-1991.

Rousseau, D.M. (2006) "Is there such a thing as "evidence-based management?" Academy of Management Review, 31(2): 256-269.

Roux, A.V. Residential Environments and Cardiovascular Risk. J. of Urban Health, 2003, 80(4): 569.

HS M422: Practices of Evaluation in Health Services
IV. CLASS SCHEDULE/ WINTER 2007
(Last Revised: 1-4-07)

DAY	DATE	TOPIC	LECTURE	TEXT	ADDITIONAL READINGS & ASSIGNMENTS
Monday	Jan 8	1.Introduction: Health Program Evaluation 2. Evaluation Competencies + Evaluation Process	Kaplan Davidson	Chapter 1 Chapter 2	• Course Overview • Introduction to HS422 WEB SITE for obtaining HS422 course materials and readings • Readings from WEB SITE: • Adams, et al., (2006) • Ghere, et al., (2006)
Wednesday	Jan 10	Developing Evaluation Questions	Kaplan	Chapter 3	• Assign Teams & Individual Literature Review Assignments (Teams consist of 6 individuals) • Note: Instructors reserve the right to reform teams
Monday	Jan 15	HOLIDAY – MLK			
Wednesday	Jan 17	Pre-Experimental Designs & Threats to Validity	Ada Cheng	Chapter 4 Pages 70-83	• Readings from WEB SITE: Earney and Bungum, (2004); The Texas Miracle (2004); Haney (2000)
Monday	Jan 22	Experimental Designs	Kaplan	Chapter 4 Pages 83-89	• Readings from WEB SITE: Gibbons, et al., (2005; 2006);
Wednesday	Jan 24	Quasi-experimental & Observational Designs	Davidson	Chapter 4 89-113	• Reading from WEB SITE: Davidson, et al., (2007 in press)
Monday	Jan 29	REVIEW	Davidson		• Team meetings
Wednesday	Jan 31	In-Class Mid-Term Exam	Ada Cheng		• *BRING BLUE BOOKS TO CLASS*

DAY	DATE	TOPIC	LECTURE	TEXT	ADDITIONAL READINGS & ASSIGNMENTS
Monday	Feb 5	Obesity Control Evaluation Design Proposal Assignments	Breslow/ Yancey		• Individual Literature Review Assignments Due • Reading from WEB SITE: Roux (2003) • Assign Evaluation Designs to Teams • Teams self manage and assign weekly deliverables
Wednesday	Feb 7	Evaluating Program Implementation	Davidson	Chapter 6	• Team meetings
Monday	Feb 12	Evidence-Based Medicine	Kaplan		• Reading from WEB SITE : Atkins, et al., (2004) • Team meetings
Wednesday	Feb 14	Evidence-Based Management	Davidson		• Reading from WEB SITE: • Rousseau (2006) • Team meetings
Monday	Feb 19	HOLIDAY – Presidents' Day			
Wednesday	Feb 21	Cost Effectiveness Evaluation	Kaplan	Chapter 5	• Team meetings
Monday	Feb 26	Measurement Data Collection	Kaplan	Chapter 8	• Team meetings
Wednesday	Feb 28	Consort Guidelines for Data Analysis/ Reporting	Kaplan	Chapter 9	• Moher, Schulz and Altman (2001) • Team meetings
Monday	Mar 5	Selecting the Population/ Sampling	Andersen	Chapter 7	• Team meetings
Wednesday	Mar 7	Class Presentations	2 Teams		
Monday	Mar 12	Class Presentations	2 Teams		• Course Evaluations
Wednesday	Mar 14	Evaluation Design: Lessons Learned	Learnings & Reflections		• Multi-Rater Peer Evaluations
Monday	Mar 19				• Final Proposals Due 5:00 P.M.