Clinical Forums on Community Health and Disease Prevention
Richard P. Di Carlo, MD
Louisiana State University Health Sciences Center at New Orleans School of Medicine
www.medschool.lsuhsc.edu/medical_education/undergraduate/spm/SPM_200/Clinical_Forums.asp

ABSTRACT:
Louisiana State University Health Sciences Center at New Orleans (LSUHSC-NO) School of Medicine developed an educational program in population health and disease prevention as part of a major curriculum revision between 2001 and 2003. The new program addressed several deficiencies in the curriculum. Among other things, changes in the sophomore year accomplished the following: provided a clinical context to instruction in epidemiology and biostatistics; enhanced the teaching of disease prevention and population medicine using Healthy People 2010 (now 2020) as a starting point; and emphasized the skills necessary to critically evaluate the medical literature. An interdisciplinary program called the Clinical Forums on Community Health and Disease Prevention accomplishes these goals, utilizes active learning, and integrates education in public health with students’ basic science courses. The program has been sustained for 9 years because it was developed and administered centrally by the Office of Medical Education, under the direction of the Dean. The Clinical Forums have evolved in response to faculty and student input. However, the underlying objectives have not changed, and Healthy People 2020 continues to be starting point for student education in community health.

EDUCATIONAL METHODS OR APPROACHES USED:
This course uses a mixture of didactic lectures, small group learning, independent study, and peer teaching. Evaluation and grading is done via multiple choice exams, direct observation, faculty evaluation of student presentations, and peer evaluation.

PROJECT DESCRIPTION:
Between 2001 and 2003, the LSUHSC-NO School of Medicine underwent a major curriculum revision. The overall goal was to begin competency-based clinical instruction in the first year of medical school and continue this longitudinally over four years. In the first two years, this involved a reduction of basic science lecture hours in exchange for clinical instruction that emphasized the acquisition of clinical skills and professional behaviors. Two new courses were created to achieve this goal: the Science and Practice of Medicine (SPM) 100 in year 1, and SPM 200 in year 2. These courses were designed to be interdisciplinary and are administered centrally from the Office of Medical Education. The basic science curriculum consists of departmentally based courses. Where possible (e.g. weekly clinical case discussions) the SPM courses integrate clinical material directly with the basic science that students are learning in their departmental courses.

In the SPM 100 course, emphasis is given to clinical problem solving, history taking, physical examination, basic medical procedures, doctor-patient communication, and medical ethics. In the SPM 200 course, emphasis is still given to clinical problem solving, history taking, physical examination, and basic medical procedures. However, less emphasis is given to doctor-patient communication and the concepts of population medicine, disease prevention, evidence-based medicine, and critical evaluation of the medical literature are introduced. These topics are taught via a year-long series of lectures and small group modules called Clinical Forums (see the schedule of clinical forums lectures and small group modules.)

The Clinical Forums begin with several lectures introducing the students to Healthy People 2020 and prevention theory. These are followed by introductory lectures on evidence-based medicine and
epidemiology (study design, rates and measures of risk), library informatics and how to give an effective presentation. These lectures are designed to give students the 'tools' to complete their assignments in the small group modules. The first module is 'Immunization'. It begins with a small group session in which students discuss cases and review key web resources. Each group is assigned a topic for presentation. After discussing the cases, students begin to prepare for their presentation. The presentations include a summary of some background information along with discussion of some primary research. Librarians meet with each small group to assist in searching the literature for an appropriate primary study to address their assigned question. Several weeks after the initial small group meeting, students meet for a 'symposium' of student presentations. Four groups meet on each of 4 afternoons. Two students from each group give their presentation (15 - 20 minutes). Each is followed by 10 minutes of questions and 5 minutes of comments from the faculty moderator. By the end of the year, each student is required to have given 1 presentation.

There are 7 modules over the course of the year: immunization, screening, physical activity, diet and nutrition, substance abuse, health system reform part 1, and health system reform part 2. A copy of the immunization module is attached as an example. These modules are interspersed with lectures that are designed to give students better understanding of clinical epidemiology and biostatistics, as well as the skills necessary to complete the assignments in subsequent modules. Over the course of the year, we expect them to provide more sophisticated critiques of primary research studies. Current epidemiologic statistics, Healthy People 2020 objectives, and the role of practicing physicians in achieving these goals are emphasized in each module.

**HEALTHY PEOPLE OBJECTIVE Addressed:**

The Clinical Forums on Community Health and Disease Prevention are part of the required core curriculum for LSUHSC-NO medical students. It has increased the core clinical prevention content in their educational program, thereby contributing to Healthy People 2020 objective ECBP-12-16. Furthermore, the small group modules address many of the determinants of health as outlined in Healthy People 2020. When we began this project in 2002, they specifically addressed most the 'leading health indicators' as outlined by Healthy People 2010.

**Program or Course Goals:**

Number of students enrolled/participating in 2010-2011 school year: 196

The Clinical Forums on Community Health and Disease Prevention are one segment of a larger course, the Science and Practice of Medicine (SPM) 200. SPM 200 is an interdisciplinary course that is required for all sophomore medical students at LSUHSC-NO.

The following is a taken from the 'Overview of SPM 200 Clinical Forums' on the course website: "Clinical Forums will focus on community health and disease prevention. This involves looking at disease and health from a population perspective. In the past, concerns of population medicine were quite different from the patient oriented discipline of the clinician. Population medicine was left to the health department, while clinicians assumed responsibility for individual patients. Today's clinicians must view medicine from a population perspective: they must assess disease in their community and implement interventions to improve health. There are several reasons for the growing importance of population medicine. First, many of the diseases you will encounter result from behavioral habits and societal practices. These diseases can be prevented with appropriate health promotion and public health policy measures. Second, managed health care delivery systems require doctors to practice medicine according to standards that have proven benefit. Physicians are now accountable to populations as well as their individual patients. To be adequately prepared for the practice of population medicine, today's
physician should have a working knowledge of the principles of disease prevention, epidemiology, biostatistics, evidence-based medicine, information management, health care policy, and health law. In addition, physicians should have some understanding of the major public health concerns in society. The SPM 200 Clinical Forums are designed to provide these concepts and understanding.”

Did you conduct a needs assessment as part of your planning process?  ☑ Yes  ☐ No

Prior to the development of this course we found the following: 1) biostatistics and epidemiology were not taught in a clinical context; 2) our curriculum gave little attention to population medicine and disease prevention; 3) our curriculum provided little instruction in the principles of evidence based medicine and critical evaluation of the medical literature; 4) our curriculum was heavily weighted toward passive learning through lectures with limited opportunities for active learning; 5) our curriculum provided little instruction about the health care system; 6) our students had no instruction in how to give a lecture or PowerPoint presentation. The SPM 200 course was developed in 2002 and the Clinical Forums portion of the course addressed all of these deficiencies.

PROFESSIONS INVOLVED:
This is an interdisciplinary initiative developed by faculty in the LSUHSC-NO School of Medicine and the LSUHSC-NO School of Public Health. It is administered centrally by the Dean's Office of Medical Education. Faculty from many schools and departments participate in teaching: LSUHSC-NO School of Medicine (Departments of Medicine, Family Medicine, and Surgery), the LSUHSC-NO Library; the LSUHSC-NO School of Public Health; the LSU Pennington Biomedical Research Center; and the Health Care Effectiveness Office of the LSU Health Care Services Division.

LESSONS LEARNED/EVALUATION RESULTS:
The Clinical Forums on Community Health and Disease Prevention have been able to actively engage medical students in the areas of population medicine, disease prevention, epidemiology, biostatistics, and evidence-based medicine. These topics are addressed in a clinical context that focuses on current health problems of major importance; modules are organized around some of the key determinants of health identified in Healthy People 2020. Students develop familiarity with important web resources that are used by clinicians and public health practitioners (e.g. CDC, US Preventive Services Task Force, AHRQ, American Cancer Society, Healthy People 2020, and the Institute of Medicine.) In recent years, students have requested that we spend more time discussing health systems and health care reform. This has resulted in the addition of a second module on health systems in which students are introduced to outcomes measures and quality improvement. They analyze outcomes data from the hospitals in which they will complete their clerkships. This reinforces many of the lessons learned earlier in the course. Students see that such things as immunization rates, screening rates, and offering treatment for smoking cessation are important measures of quality in clinical practice.

SPM 200 was a pass/fail course when first created. This resulted in students giving it less attention than it deserved. As a result, the school's curriculum committee decided to make it a major course that is given for a grade. This has created some challenges in the clinical forums portion of the course. While content knowledge can be tested using multiple choice exams, many of the skills emphasized in the course are more difficult to evaluate for a grade. Objective criteria were developed to evaluate student PowerPoint presentations. Students needed instruction in how to provide meaningful peer evaluation. Finally, we have been working collaboratively with our librarians to develop an objective assessment instrument that evaluates students' informatics skills and ability to critically evaluate the medical literature.
CONCLUSION:
In conclusion, we have found that the teaching of population health and disease prevention can best be accomplished using a combination of didactic instruction and active learning. Active learning has been facilitated by providing students with the critical evaluation tools necessary to analyze real data and current health care controversies. Finally, we hope that introducing students to web resources that are used by practicing physicians will establish the foundation for lifelong learning.

COMPANION MATERIALS: (Course syllabi, resource lists, tests, website, etc.)
- Clinical Forums Schedule. 2011-12 (PDF)
- Module1. Immunization. 2011-12 (PDF)
- SPM 200 Clinical Forums Website: http://www.medschool.lsuhsc.edu/medical_education/undergraduate/spm/SPM_200/Clinical_Forums.asp

PUBLICATIONS:
None

SECONDARY AUTHOR(S):
Charles Brown, MD
Louisiana State University Health Sciences Center at New Orleans School of Public Health

CONTACT:
Richard P. DiCarlo, MD
Assistant Dean, Medical Education
2020 Gravier Street, Suite 602
New Orleans, LA 70112
504 568-4006 rdicar@lsuhsc.edu