



LCME Self Study
Educational Program
for the MD Degree
Subcommittee Report

Report of the Educational Objectives Sub-Committee

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II. EDUCATIONAL PROGRAM FOR THE MD DEGREE

A. Educational Objectives:

1. Describe the level of understanding of the school-wide objectives for the educational program among administrators, faculty members, students, and others in the medical education community. Do these objectives serve as effective guides for educational program planning, and for student and program evaluation? (ED-1, ED-3)

The school-wide goals for the educational program are spelled out in published admissions documents. Six objectives are listed, including 1) to provide a safe, welcoming and respectful learning environment for all persons regardless of race, gender, creed, national origin, age, disability, or sexual orientation; 2) to educate students intensively and broadly in the cultural, clinical and scientific aspects of medicine; 3) to prepare students to engage in a lifetime of learning in order that they may successfully adapt to a changing world; 4) to achieve a high level of professional competence and social awareness; 5) to provide opportunities for students at every level of training to pursue areas of special interest for intellectual stimulation and/or career advancement; and 6) to encourage the development of highly competent primary care physicians, clinical specialists and scholars in basic and clinical research, teaching and academic administration.

Objectives for individual elements of the medical education program have been developed using the Medical School Objective Project (MSOP) format in order to enhance the clarity and uniformity of general objectives across learning experiences, and to ensure that all important educational subjects are addressed. The Curriculum Coordinating Committee (CCC) mandated the use of the MSOP format and has reviewed and approved the objectives for all required courses and clerkships. Currently, the Year 1/Year 2 Committee that has responsibility for the pre-clinical courses and the Clinical Years Committee that oversees all clinical clerkships, sub-internships, and electives review each course's and clerkship's objectives yearly. These are then presented to the CCC for approval. During the 2006-07 academic year, each course and clerkship received an additional level of peer review within the Year 1/Year 2 and Clinical Years Subcommittees. This was in addition to the ongoing interdisciplinary review by course directors.

The interdisciplinary nature of the Year 1/Year 2 curriculum assures that multiple faculty members are aware of the course objectives in each of the basic science blocks. Specifically, course directors from different departments review the course objectives and design. Lectures, small group exercises, laboratories and independent study are selected by these course directors to address particular educational objectives.

The structure, content and objectives of the clinical clerkships are discussed and approved by the Clinical Years Committee meetings as described above. In this way gaps or redundancies in the clinical curriculum can be identified and addressed.

Students receive the goals and objectives for each course, clerkship, sub-internship, and AHEC rotation in writing at the beginning of each experience, and they are available at all times online on Medscope, the medical school's electronic curriculum. Additionally, the clerkship directors review and discuss their clerkship's objectives with students during orientation sessions.

Student achievement of the stated objectives is documented in several ways. In years 1 and 2 faculty members construct exams that are directly based on the course objectives outlined for the students, including lecture, small group, and laboratory exercises. In the clinical years, each clerkship director evaluates students based on its stated objectives. All but two clerkships use the USMLE "shelf" exam to evaluate student knowledge, the other two using departmentally generated written exams (Family Medicine and Neurology). Clerkships use a variety of other evaluation methods to assess student attainment of the non-knowledge objectives. Examples include patient simulation in the surgery clerkship, observed histories and physicals in the pediatrics clerkship, and standardized patients in the OB/Gyn clerkship.

The clinical evaluation form used by all clinical clerkships, sub-internships, and clinical electives include the general objectives that transcend discipline. These include professionalism, clinical skills, interpersonal and communication skills, and self-directed learning skills.

The educational objectives of each course and clerkship are extremely useful in accomplishing program evaluation. Because they are clearly stated and widely distributed, all constituents can use them to evaluate those courses. Course directors use their objectives to construct exams, and then use the exam results to determine whether or not they have met stated objectives. All clerkship directors review student/patient experiences to ensure that objectives related to the types of patients and clinical diagnoses that are required of each student are achieved. Each clerkship director also uses other assessment tools to ensure that other stated goals are met. For example, the surgery clerkship provides simulation training to address some clinical skills objectives, while the pediatrics clerkship uses observed histories and physical exams as one element of formative assessment of students. Similarly, the obstetrics/gynecology clerkship uses standardized patients to review physical exam skills specific to their discipline.

In summary, school-wide goals are general and are elaborated upon in each course/clerkship using the MSOP format. There is a robust system for ensuring that all educational experiences have objectives that are clear and encompass discipline-specific as well as general areas. They are reviewed regularly and disseminated to all students and educational leaders. Student and program assessment is tightly tied to stated objectives.

2. Comment on the extent to which school-wide educational objectives are linked to physician competencies expected by the medical profession and the public. Summarize results from any associated outcome measures that demonstrate how well students are being prepared for the next stage of their training. (ED-1A)

Stated school wide educational goals are very general in nature and enhanced by the courses and clerkships as stated above. These overarching goals broadly encompass physician competencies that are expected by the medical profession and the public.

There are many aspects of the medical school curriculum, however, that are directly linked to competencies expected by the medical profession and the public. For example, standardized patients are used to directly observe students' competence in interviewing. Learning objectives for all courses and clerkships, as described above, are written in the MSOP format to ensure that all of the objectives expected by the profession (as articulated by the AAMC) are included in the curriculum. The assessment of students in all clinical experiences is done via a standard evaluation form which is competency-based, asking the rater to assess the student in five general areas of competence (patient care skills, medical knowledge, professionalism, interpersonal and communication skills, and practice based learning and improvement). Additionally, a national collaborative project in developing competency-based curricular objectives for medical students has been spearheaded by University of Maryland faculty members who have a grant proposal pending with HRSA to continue their innovative work.

Sub-internships have their own set of learning objectives related to students' increased responsibility for patient care. The objectives are general so that they can be achieved in any clinical sub-internship setting and include the student developing a comprehensive approach to the care of acutely ill patients and learning to function at the level of an intern. As these objectives revolve around the application of clinical skills and knowledge and the demonstration of effective patient care skills and professional attitudes, they are directly competency-driven.

University of Maryland medical students are well prepared by our curriculum for the next step in their training by all available measures. Internally, students complete a variety of standardized patient experiences throughout the four year curriculum, including a 7-station fourth year Objective Structured Clinical Examination that students must pass to graduate. More than 95% of students successfully complete the exam on the first try. The OSCE stations were developed by The Baltimore-Washington Standardized Patient Consortium, a group of local medical educators, and they are conducted in the same manner as the USMLE Step 2 CS exam. External measures show that scores on the USMLE Step 1 exam are very close to the national average, as are Step 2 scores. In 2005 96% of UMD students passed the Step 2 CS exam on the first try, and 89% did so in 2006. Match results are excellent, with less than 4% of students in 2006 not matching at all, and greater than 95% of students getting one of their first three choices of residency positions.

In summary, competency-based assessment is used throughout the medical school curriculum, and the expectations of the profession and public are being addressed. A current challenge is to better develop school-wide goals that are more clearly integrated with the more specific MSOP-style objectives, thereby providing course and clerkship directors a clearer focus on institutional priorities.

3. Comment on the effectiveness of the mechanisms in place for assuring that all students encounter the specified types of patients/clinical conditions needed for the clinical objectives to be met. ED-2

Over the past 2-3 years, the Curriculum Coordinating Committee and the Clinical Years Sub-Committee have overseen the process of establishing the numbers and types of patients needed for students to meet the objectives for our clinical education. Each clerkship director has determined the major disease states and how many patients of each type that all students are expected to encounter through patient logs. Achievement of those goals is actively monitored by the clerkship Directors. Patients, standardized patients and computerized cases have all been used to achieve these goals.

Question 4: Delineate the mechanisms ensuring that the educational program provides a general professional education that prepares students for all career options in medicine. Cite relevant outcomes indicating success in that preparation. ED-4 and ED-5

The University of Maryland Medical School curriculum is designed to ensure that all students are prepared for further training in any medical discipline. The strong basic science courses in the first two years, along with the Introduction to Clinical Medicine course, prepare students for their major clinical clerkships. Each student then spends 42 weeks in the third year experiencing all of the major disciplines in clinical medicine (12 weeks Internal Medicine; 12 weeks Surgery including trauma, general, and sub-specialties; 6 weeks Pediatrics, 6 weeks Obstetrics and Gynecology, 4 weeks Family Medicine, 4 weeks Neurology, and 4 weeks Psychiatry). In the fourth year all students are required to spend two 4 week blocks as sub-interns, and have four 4-week blocks for electives. They also have a requirement to spend a minimum of 4 weeks at Area Health Education Center (AHEC) where they care for patients in mostly rural sites in the state of Maryland. Please see Table 1 for a breakdown of the numbers of weeks of instruction in each year of medical school.

We know that our students are prepared for training in any area of medicine because we have a very strong record of students matching in one of their first three choices of residency training programs (>95% in 2006) and because our students train in every major area of medicine (see table 2 for residency placement). This summer we will undertake a survey of the residency program directors of our recent graduates' residency programs to determine how well prepared they were to begin internship.

B. Structure of the Educational Program:

5. Discuss the types and sufficiency of educational activities to promote self-directed learning and development of the skills and habits of lifelong learning. ED-5

One of the pillars of the curriculum at the University Of Maryland School Of Medicine is an assumption that students will become independent and life long learners. To this end the school decided to limit lecture hours in the first and second years to 2 hours per morning. Students have an additional 2 hours in small group discussion, clinical correlation, or laboratory exercises each morning. These small groups are intended to be interactive problem solving times with expectations of students for independent review and study. Lecture time is devoted to delivering basic concepts and information with small group and lab focusing on application of these concepts. Afternoons are generally left free for student study and mastery of material. In addition, the year 1 Introduction to Clinical Medicine Course includes exercises in problem-based learning that focus on the process of information discovery and presentation.

All students are assessed at the beginning of first year for study skills problems. Any student with a self identified need for help in study skills and approach to information is referred to the Office of Academic Development for review and potential remediation. Students are prepared to identify and manage information after finishing a short course on Informatics at the beginning of the first year which includes the use of electronic resources throughout the curriculum.

Throughout the third year clerkships, students participate in a series of discussion based seminars requiring active participation. Five out of the seven third year clerkships use NBME shelf examinations with students guided to wide-ranging independent study in preparation for these. Life-long learning is also promoted throughout the curriculum by having students read primary literature as well as textbooks.

Question 6: Evaluate the adequacy of the system for ensuring consistency of educational quality and of student evaluation when students learn at alternative sites within a course or clerkship. ED-8

Broad oversight for all clerkship sites is provided by the clerkship directors and overseen centrally by the Clinical Years Committee and the Office of Medical Education. Each clerkship director establishes the goals and objectives of the rotation and is responsible for distributing them to the leaders of each clinical site and for making personal contact with each site director at least yearly to review objectives and provide necessary updates. Clerkship curricula are generally based on national recommendations from educators in the field. The Clinical Years Committee reviews each clerkship's objectives yearly and is apprised of any changes which they must approve.

Each clerkship director provides a general orientation to students to outline the essential components and requirements before they go to their individual sites. Didactic

components of clerkships are centrally developed and are constant across sites. From the student perspective, clerkship goals and objectives, as well as orientation materials and lecture handouts, are available online on MedScope. Having web-based access to the curriculum and objectives helps to ensure consistency across sites. Students are exposed to a broad mix of patients and illnesses in a variety of clinical sites from tertiary referral centers to community hospitals, from inner-city University or VA based clinics to outpatient practices in rural Maryland.

A comprehensive competency-based evaluation form is used for all clerkships, ensuring uniform assessment of expected outcomes. Assessment of student competency is done using a variety of instruments, ensuring a consistent evaluation process for all students. First, global assessment of student competencies by faculty is accomplished using a standardized summative evaluation form. Elements include assessment of patient care, medical knowledge, professionalism, and interpersonal and communication skills. Implementation of a new software package in 2007 has enhanced the current electronic evaluation system and should permit a more rapid distribution and collection of student evaluations. Some clerkships, most notably OB/Gyn and Surgery, use patient simulations to accomplish formative evaluation of student skills. Students keep records of their patient exposure via log forms or books so that clerkship directors are sure that their clinical exposure is appropriate to the clerkship's stated goals. All students also take the same examinations at the end of the clerkships, regardless of their site, and comparison of scores between sites can identify any learning deficiencies that might be attributable to that particular venue.

Challenges in the area of uniformity of learning and evaluation across sites include ensuring that ALL faculty and residents who work with students at all sites receive the goals and objectives of the clerkship as well as pursue needed faculty development regarding our expectations of our students. Although the materials are easily available, it is a challenge to be certain that every teacher has reviewed them and is using effectively.

Question 7: Comment on how well all content areas for accreditation are addressed in the curriculum. ED 6,7,10,11,12,13,14,15,17,18,19,20,21,22,23

Students are exposed to the fundamental principles of medicine and its underlying concepts through the basic science and clinical curricula. Courses are updated when new information is available. Students acquire the ability to learn independently in all courses and clerkships. In each basic science course small group and/or laboratory sessions require students to prepare materials in advance, and some (Cell and Molecular Biology (CMB), Neuroscience) require students to prepare topics and/or cases to present. In the clinical clerkships, students are expected to read about their patients' problems; in Neurology and Surgery students prepare case presentations, in Pediatrics students must prepare for small group sessions on their own, and in Psychiatry students must list at least one source that they used to read about the illness/disease of each of their patients. Skills of critical judgment based on evidence are specifically addressed in the basic science curriculum in Host Defenses and Infectious Diseases (HDID) and Pathophysiology and Therapeutics (P&T) where students discuss all or part of research papers in a journal club

format. In the clinical clerkships all disciplines expect students to look at primary literature on their patients and bring the information that they find to their teams, in Internal Medicine students participate in journal clubs and in Surgery Evidence Based Medicine is addressed in small group discussions.

The skills of medical problem solving are addressed throughout the curriculum, beginning with Introduction to Clinical Medicine (ICM) where students learn the fundamentals of taking a thorough history and conducting a careful physical exam. In all of the basic science courses cases are presented in small groups and students apply the knowledge they have to solve clinical problems. In the clinical clerkships student learn more advanced problem solving by caring for patients on teams with residents and/or faculty; in Internal Medicine students participate in morning report, Professor's conferences, and CPC conferences that revolve around clinical problem solving, and Neurology, OB/Gyn, and Pediatrics include small group discussions of a set number of cases during their clerkships.

Students' understanding of societal needs and demands on health care begin with lectures on public health in Baltimore City and the business of medicine in the ICM course; CMB, Neuroscience, and HDID include discussions of the impact of the diseases covered in their small groups on society, and P&T1 presents a discussion of health care disparities. In the clinical clerkships, the Family Medicine Clerkship includes lectures on "The Structure and Financing of the US Health Care System," "Special Populations," and a workshop on "The Business of Medicine" focusing on access to health care. As part of the year 1 ICM course structures, students have the opportunity to spend up to 30 hours in community settings. In Psychiatry students work closely with social workers to determine the disposition of their hospitalized patients, and see firsthand the challenges of assuring appropriate care for this group of patients. All of the other clerkships occur in sites with significant populations of underserved patients and issues of insurance, access to care, and health care disparities are addressed as they come up for individual patients.

The numbers of formal teaching sessions addressing the many specific topics that are considered to be important learning objectives are shown in Table 3. The areas that are not as well represented include research methods, rehabilitation/care of the disabled, medical jurisprudence, health care quality, health care financing, and health care systems.

Areas of concern are brought to the attention of the Office of Medical Education via students, course directors, or curricular reviews such as this one. The Curriculum Coordinating Committee is then charged with identifying the course(s)/clerkship(s) that can best address those areas and asks them to do so. An example of this is the area of nutrition that was felt to be poorly addressed in the pre-clinical years by students and faculty members. An additional course director was added to the Cell and Molecular Biology course in order to increase the content in the area of nutrition to the course.

The curriculum of the University Of Maryland School Of Medicine includes all of the content of the disciplines traditionally titled anatomy, biochemistry, genetics, physiology, microbiology, immunology, pathology, pharmacology and therapeutics, and preventive

medicine. For the past three years, our students have performed within one standard deviation of the mean in all disciplines and organ systems on the USMLE Step 1 exam. In 2005 the strongest areas were Biostatistics and Epidemiology, Renal/Urinary System, and Cardiovascular System. Weakest were Hematopoietic and Lymphoreticular Systems, Gross Anatomy and Embryology, and Nutrition. Students also performed within one standard deviation of the mean on USMLE Step 2 CK in the past three years. On this exam, the strongest areas were Normal Growth and Development; Principles of Care, Diseases of the Nervous System and Special Senses, Cardiovascular disorders, and Preventive Medicine and Health Maintenance. Weakest were Diseases of Blood and Blood Forming Organs, and Gynecological Disorders. Please see Key Quantitative Indicators for specific data on the above.

The basic science curriculum includes many opportunities to participate in educational sessions that involve direct application of the scientific method, accurate observation of biomedical phenomena, and the collection of scientific data. The Structure and Development course includes 96 hours of laboratory time and 4 hours of histology laboratory review. Cell and Molecular Biology includes 35 hours of small groups with case-based learning, and there are laboratory sessions in Functional Systems (8 hrs), Neuroscience (14 hours), Host Defenses and Infectious Diseases (12 hours), Pathophysiology and Therapeutics 1 (3 hours) and Pathophysiology and Therapeutics 2 (2 hours).

The clinical curriculum covers all appropriate organ systems as defined by the required patient encounters. On each clerkship, students are required to complete a clinical encounter log specifying their patients by category, and to see a specific number of various types of patients. In the course of caring for patients in all clerkships, students are exposed to all of these areas and see, in real time, how physicians handle patients' preventive, acute, chronic, continuing, rehabilitative, and end-of-life needs.

The areas of preventive, acute, chronic, continuing, rehabilitative, and end-of life care are also all addressed in the clinical curriculum (see Table 3). Preventive care is covered explicitly in an hour of lecture time in the Family Medicine clerkship and two hours of lectures in the Internal Medicine clerkship. It is also the topic of an hour and a half small group session in the Pediatrics clerkship. It is an integral part of the patient care students undertake in their ICM course as well as the clinical clerkships in Family Medicine, Internal Medicine, Obstetrics/Gynecology, and Pediatrics, and also a major part of patient care in the required fourth year AHEC rotation. Acute care is addressed in all clerkships as the basis of students' clinical works in both inpatient and outpatient settings. Chronic and continuing care is specifically addressed through selected readings during the ambulatory block of the Internal Medicine clerkship. On the Psychiatry clerkship chronically ill patients are commonly seen in the hospital, and their continuing care needs are an important part of all case discussions.

Rehabilitation medicine is directly addressed in a didactic session during the neurology clerkship that is run by members of the hospital's physical therapy, occupational therapy, and speech therapy departments. End-of-life care is addressed in the Internal Medicine

clerkship through lectures on hospice, pain management, and palliative care. All students attend 4 half day hospice sessions during the ambulatory component of the rotation, where they have direct patient contact and present patients orally and in writing to the hospice director. In the neurology clerkship brain death is addressed.

Primary care is well-represented in the clinical curriculum; all students complete 4 weeks of Family Medicine, as well as 3 weeks of ambulatory pediatrics in which at least half of the student's time is spent in a primary care setting. The Internal Medicine clerkship includes 4 ambulatory weeks during which students spend at least half of their time in primary care as well. Additionally, all students spend 2 weeks in an ambulatory OB/Gyn setting, where many women seek primary care. In the fourth year, all students spend at least 4 weeks, and often 8 weeks, in an AHEC site where all patient care is primary care.

Geriatrics is addressed in the Family Medicine clerkship in the form of a small group session, a clinical correlation session, and in patient contact for a total of 25 hours. In the Internal Medicine clerkship, 2 hours of lecture on geriatrics are included in the didactic curriculum and students often care for geriatric patients. In the neurology clerkship students come into contact with geriatrics as they learn about evaluating patients with stroke, weakness, sensory abnormalities, and pain. In the Psychiatry clerkship there are three hours of lecture devoted to geriatric topics including two hours on dementias and one hour on dementia vs. delirium. Three electives are available to students in geriatrics.

Emergency medicine is included in the internal medicine clerkship where students spend an average of one full day (8 hours) in the emergency care unit. In the Neurology clerkship students attend a one hour lecture on neurological emergencies. On Pediatrics, student take night call in either a pediatric emergency department or a pediatric urgent care setting approximately every 4-5 nights (total of 15-20 hours). Psychiatric emergencies are discussed in a one hour lecture on the Psychiatry clerkship; students spend two whole weeks during their Surgery clerkship on the "Shock Trauma" service which is an emergency surgical service. Emergency Medicine electives are available at three clinical sites.

Diagnostic Imaging is included in the Internal Medicine clerkship where students attend one hour of lecture per week with radiologists who cover basic imaging study interpretation. It is an integral part of the neurology clerkship, where students review patients' imaging studies with their teams via a web-based radiology system, and review films with the neuroradiologists as needed. In the Pediatrics clerkship a pediatric radiologist gives a one hour lecture to the students and there is also a one hour lecture on diagnostic imaging in the Psychiatry clerkship. There are three hours of lectures on diagnostic imaging during the Surgery clerkship as well as radiology conferences that students attend as part of their patient care teams. Three diagnostic radiology electives are available including diagnostic imaging at two clinical sites and thoracic radiology at the University Of Maryland Medical Center.

Clinical Pathology is included in 2 hours of lecture during the Internal Medicine clerkship (on urinalysis and body fluid analysis) and students are expected to review all

pathology specimens on their patients. Five electives including forensic pathology, surgical pathology, laboratory medicine, autopsy pathology, and community hospital pathology are available.

Elective time in the UMSOM curriculum is available in the first, second, and fourth years. In the first two years students do not have a required number of electives, but they can take electives at their own discretion. Some of these may be counted toward their required senior electives. There is currently no elective time in the third year. In the fourth year students are required to complete four 4-week electives, two of which can be done off campus. Additional off-campus electives may be requested by petition and are often granted. In order to encourage students to explore areas of medicine outside of the area in which they plan to practice, no more than two electives are allowed in a single medical discipline. Students spend 8 weeks, on average, pursuing electives at other institutions.

Teaching about communication skills happens throughout the curriculum. The most robust teaching on communicating with patients and families occurs in the Introduction to Clinical Medicine course in the first and second years where students receive up to 24 hours of instruction on interviewing and have between 40 and 80 hours of practice with supervision. Students also interact with the families of donors to the anatomy program at a memorial service, and interact with patients who are present in clinical correlation sessions in both the Host Defenses Infectious Diseases and Neuroscience courses in the first two years. In the clinical years students have explicit teaching in Family Medicine (2 hours of lecture), OB/Gyn (interactions with standardized patients), and Pediatrics (observed H&P with feedback).

Communication with physicians and other health care professionals is also addressed in the ICM course where students learn how to present patients orally and in writing. In the HDID course students are specifically instructed on how to communicate with hospital laboratory staff. Additionally, each student gets formal feedback on three full patient write-ups during his/her Pediatrics clerkship. All students are evaluated on their interpersonal and communication skills during each clinical clerkship as they care for patients.

The medical consequences of common societal problems such as the diagnosis, prevention, appropriate reporting, and treatment of violence and abuse are covered throughout the curriculum (see Table 4). Diagnosis, prevention and treatment of drug abuse are covered widely in the curriculum from ICM in the first year through the clinical clerkships. Family violence and abuse are also covered by Pediatrics and OB/Gyn. Homelessness is part of the ICM curriculum, and the small group sessions on interviewing in the first year concentrate heavily on the social issues of patients. Reporting of societal issues is not well covered, although there is a lecture on the laws regarding adolescent patient confidentiality including when that confidentiality can be breached. The nature of the clinical sites in which UMMS medical students learn makes confrontation of societal problems an integral part of their education. The school as a whole could make the explicit curriculum in this area more robust.

The curriculum addresses cultural competence in a variety of courses. In the ICM course, there are 2 one-hour lectures on Population Medicine and Access to Health care, as well as facilitated discussions in small groups of individual patient's histories with culture as an important component. Clinical correlation sessions in Cell and Molecular Biology and Neuroscience bring real patients from varied backgrounds to the class to discuss their illnesses and their reactions to them. In HDID culture is addressed during lectures and small groups on HIV and STDs, and there are two sessions on cultural competence and health disparities during the cardiovascular and pulmonary units of Pathophysiology and Therapeutics (P&T). All students complete a survey of cultural competency issues in P&T as well.

In the clinical years, the Family Medicine clerkship provides 1 hour of lecture time and 20 hours of clinical correlation sessions where cultural competence is addressed. All other clinical clerkships include cultural competence in the context of patient care. All students are evaluated at the end of each clinical rotation with a form that has, as one of its 22 items, "Demonstrates sensitivity and responsiveness to a diverse patient population, including, but not limited to diversity in gender, age, culture, race, religion, disabilities, intelligence, socioeconomic status, and sexual orientation." A stated objective of the fourth year AHEC rotation is that the student must "Demonstrate cultural competence in a rural or urban underserved setting." Students learn to recognize and appropriately address gender and cultural biases in themselves and others, and in the process of health care delivery, as an implicit part of their work with patients and teams of health care providers.

In the area of ethics, students learn about ethical principals in lectures during ICM and as they complete a course on HIPAA prior to interviewing patients. All of the basic science courses include objectives relating to the student demonstrating honesty and integrity in all professional interactions with patients, families, and colleagues. Some, such as Structure and Development, address specific ethical dilemmas such as stem cell research, cloning, assisted reproduction, genetic screening, abortion, and others.

Assessment of ethical behavior occurs one-on-one as any problems arise. Formally, there is an anonymous reporting capability linked to MedScope, the electronic curriculum, and the Office of Student Affairs deals with breaches of ethical behavior in medical students that are brought to their attention. The Advancement Committee is responsible for decisions regarding student advancement through the curriculum, and ethical issues are brought to this group by course and clerkship directors as well as representatives of the Office of Student Affairs for consideration.

In summary, all content areas for accreditation are addressed in the curriculum. The well-established basic science and clinical disciplines form the backbone of the program of study. All courses and clerkships promote self-directed learning by requiring independent study. The aspects of medicine that relate to its place in society and its response to societal issues are woven into the curriculum, and are most explicitly presented in the Introduction to Clinical Medicine course. Other courses and clerkships

present various topics in this area through lectures, small group discussions, and clinical correlation conferences. The bulk of students' experiences, however, are in the course of caring for patients from diverse backgrounds in a variety of clinical sites and settings during their four years of medical school. The curriculum could benefit from adding more explicit teaching sessions on health care delivery and financing, occupational medicine and rehabilitation, and medical-legal issues.

Question 8: Assess the balance between inpatient and ambulatory teaching and the appropriateness of the teaching sites used for the required clinical experiences. ED-16

The medical students have a balanced exposure to inpatient and ambulatory experiences during their clinical training. Most clinical rotations are inpatient-dominant, providing students with ample experiences in caring for patients with a broad spectrum of diseases, from common diseases to those referred to a tertiary care center, from patients admitted to floor services, seen in the operating rooms or in the intensive care units.

Medical students are also exposed to ambulatory medicine throughout the third year clerkships. The amount of time spent in outpatient sites during each clerkship and during the required AHEC rotation (in a rural, underserved or Indian Health Service area) is listed in Table 5. At the time of the last LCME visit, students participated in a longitudinal continuity clinic in one of the primary care specialties. This experience was eliminated in 2004 for 2 reasons: 1) its redundancy with the fourth year AHEC rotation and 2) student feedback and clerkship director concerns that longitudinal objectives were not being met.

In summary, there is an excellent balance between inpatient and ambulatory rotations. Students care for patients in a variety of venues from inner city academic sites to community centers and underserved rural areas. We have strong affiliations with these sites, ensuring attainment of clerkship objectives. We have identified several challenges in this area, including increasing difficulty in securing ambulatory practice sites and preceptors for students on outpatient rotations. The curriculum could also benefit from some exposure to continuity of care.

C. Teaching and Evaluation

Question 9: Comment on the adequacy of the supervision of medical student during required clinical experiences. Discuss the effectiveness of efforts to ensure that all individuals who participate in teaching, including resident physicians, graduate students, and volunteer faculty members, are prepared for their teaching responsibilities. ED-24, ED-25

Students are appropriately supervised during all required clinical experiences. Early on, in the Introduction to Clinical Medicine course, students are accompanied by faculty members as they conduct their first patient interviews and physical examinations. In the third year, on required clerkships, students are assigned either to patient care teams

consisting where the interns, senior residents, and attending faculty supervise their work, or to individual faculty preceptors with whom they work one-on-one. As sub-interns students are closely supervised by the inpatient teams on which they work.

A variety of people serve as teachers for our medical students. On an institutional level, the Office of Faculty Affairs offers workshops and lectures designed to improve teaching skill for any interested faculty or house staff member. Most preparation, however, occurs at the departmental level. The course directors and clerkship directors are ultimately responsible for ensuring that everyone who teaches students in their courses/clerkships is prepared to do so. Directors of the clinical clerkships use their departmental structure to disseminate information about their clerkship to faculty and house staff. All departments ensure that their house staff knows what is expected of students on their clerkships. Some have particularly well-developed programs to help their residents develop their teaching skills. In pediatrics, for example, the student program is reviewed yearly with all house staff members, and sessions on effective teaching are presented during a day-long retreat during which rising second year residents learn about their role as a team supervisor. Each pediatric resident has a month-long “academic block” during each residency year, and among the learning experiences are the opportunity to precept medical students in the outpatient clinic with the supervision of a faculty member, and the chance to lead a small group discussion session for medical students, again with faculty supervision and feedback.

Students give feedback at the end of each course and clerkship on the teaching of the specific faculty members, graduate students, and house staff members with whom they have worked. This information is available to the course directors and clerkship directors to help them to target interventions as needed.

In summary, medical student supervision is excellent. In terms of preparation of all of those who teach medical students, there is some variability. All clinical departments are aware of the need for their faculty and residents to be trained as educators and all have some mechanisms in place to do so. The institution has a well-established curriculum available to all through the Office of Faculty Affairs. To date, however, these resources are not widely used and there is little assessment of these skills outside of feedback from students.

Question 10: Evaluate the adequacy of methods used to evaluate student attainment of the objectives of the educational program. How appropriate is the mix of testing and evaluation methods? Do students receive sufficient formative assessment in addition to summative evaluations? Discuss the timeliness of performance feedback to students in the preclinical and clinical years. ED-26, ED-28, ED-30, ED-31, ED-32

The methods used to evaluate student attainment of the objectives of the educational program are varied and reflect the diversity of the educational experiences themselves. In the pre-clinical years, student evaluation consists of fact-based exams, used to ensure that the content necessary to the successful practice of medicine is mastered, as well as

assessment of students' work in small group discussion groups, laboratories, and clinical correlation sessions. Exams include factual content as well as questions that require students to demonstrate their ability to integrate content across disciplines and to use information to solve problems.

The pre-clinical curriculum fosters self-directed learning by relying heavily on small group sessions, clinical correlation groups, and laboratory sessions in covering material. The evaluation system acknowledges the importance of this self-directed learning by including each student's preparedness and participation in such sessions in its grading schema. In the clinical years, self-directed learning is expected as students care for patients and prepare for formal teaching sessions. Students' ability to demonstrate that they are studying and learning on their own is part of the clinical evaluation following each clerkship/sub-internship.

The evaluation form used by all clinical clerkships and sub-internships includes sections on medical knowledge, clinical problem solving, professionalism, interpersonal and communication skills, and practice-based learning and improvement. These are integral parts of the successful practice of medicine and are evaluated repeatedly in order to identify any deficiencies.

All courses and clerkships provide feedback to students in multiple ways and at multiple times. Interim exams during the preclinical years give students immediate feedback on their mastery of the material, with time to remediate if necessary. Help with study skills, organization, time management, and prioritization is available at all times from the Office of Medical Education.

Clinical clerkships provide mid-clerkship feedback to students in order to allow them time to improve if necessary. Final grades are generally available within 6 weeks of the end of a clerkship. This has been variable in the past, in part due to the lag in reporting by the USMLE shelf exam results. However, with the implementation of the electronic E-Value system we anticipate that supervisors will submit more timely evaluations.

Resources to help course directors and clerkship directors with the evaluation process are available through the Office of Medical Education. Educational specialists with expertise in the science of evaluation oversee the office and provide a resource to all course and clerkship directors involved in the evaluation of students.

In summary, student evaluation is accomplished using multiple methods. Students are provided formative and summative feedback and are given ample opportunities to improve. The E-Value system has been put in place to help with the timeliness of clinical evaluations. Expertise in medical education is available in the school of medicine; one challenge is to connect that expertise to faculty members who are designing, implementing, and evaluating individual educational activities.

Question 11: Describe the system for ensuring that students have acquired the core clinical skills specified in the school's educational objectives. Evaluate its adequacy. Are there any limitations in the school's ability to ensure that the clinical skills of all students are appropriately assessed? ED-27, ED-29

The core clinical clerkships provide the student with specific goals and objectives at the beginning of each rotation during orientation. Included in the orientation are discussions with the students about the clinical experiences they should receive while on the specific clinical rotation. In this way students clearly know what is expected of them in terms of clinical skills as well as knowledge and attitudes.

To be sure that the clinical experiences that are required are in fact encountered, students complete logs of their patient encounters. The course directors review these encounters during and at the conclusion of the core clerkship. This review allows for the clerkship director to make adjustments in the students experience to make up for any deficiencies in specific core clinical content areas.

Each clinical clerkship employs its own structure for assessing students' mastery of clinical skills. For example, on the OB/Gyn clerkship students interact with standardized patients who can give them feedback on their skills, and on the Pediatrics clerkship every student is observed doing a full history and physical exam on a real patient, receiving immediate feedback. Students on Pediatrics also have three complete patient admission notes reviewed by an attending physician. All students' clinical skills are assessed in the course of caring for patients, generally by faculty preceptors and/or senior residents. All student performance is reviewed centrally by the Advancement Committee which is made up of the course and clerkship directors. Meetings serve as a forum for reviewing performance of individual students and for following the progress of those who have been identified as having deficiencies in knowledge, skills, or attitudes.

Furthermore, near the conclusion of the fourth year of medical training the students are required to complete an Objective Structured Clinical Exam covering basic clinical skills. This exam is video-taped and critically evaluated by the teaching faculty. The students receive feedback on their performance. Satisfactory completion of this standardized patient care experience is required for graduation.

The current system for ensuring that all students have the basic clinical skills needed to graduate is basically sound, but it is still possible for students to "fall between the cracks" if their lack of skills goes unnoticed in a busy clinical setting. The system could be strengthened by providing more opportunities for students to be directly observed in clinical situations and creating a centralized system for recording the outcomes of those observed experiences. However, as mentioned previously, external measures show that scores on the USMLE Step 1 exam are very close to the national average, as are Step 2 scores. In 2005 96% of UMD students passed the Step 2 CS exam on the first try, and 89% did so in 2006.

D. Curriculum Management

Question 12: Assess the adequacy of mechanisms for managing the curriculum and ensuring a coherent and coordinated curriculum. Do the curriculum as a whole and its component parts undergo regular, systematic review? Provide evidence that the school monitors the content covered in the curriculum to ensure that gaps of unwanted redundancies to not occur. Does the chief academic officer have sufficient resources and authority to assure that the educational program can achieve institutional goals and learning objectives? ED-33, ED-35, ED-36. ED-37

The curriculum coordinating committee (CCC) is charged by the Dean to oversee the design, management, and evaluation of the curriculum. This committee is comprised of faculty, students, and administrators including course and clerkship directors as well as representatives from the Dean's Office, the Office of Medical Education, and the Office of Student Affairs. The CCC regularly reviews the overall curriculum and its component parts to ensure a logical sequencing of courses, integration across courses, and consistency of educational methodology. One example of this is the structure of courses in Years 1 and 2 where material presented in the first year is reinforced in the second, while clerkships reinforce the same material again in the third year. Another example is the way that the major courses in the first two years present material in lectures in the first two hours of the day, and then reinforce and solidify that material via small groups, lab sessions, or clinical correlations in the following two hour block.

The CCC evaluates the effectiveness of the educational program by analyzing student performance on internal exams, shelf exams, and national licensing exams as well as by tracking the placement of graduating students in residency program and other career tracks. Two standing sub-committees of the CCC, the Clinical Years Committee (CYC) and the Year1/Year2 Committee assist with oversight of the curriculum. Each sub-committee is comprised of that portion of the CCC membership that is engaged in teaching or administering that portion of the curriculum. These two committees review the goals and objectives of each of their courses or clerkships yearly and report on any problems or changes to the CCC. They also have begun conducting peer-review of each course and clerkship on a regular basis.

The Dean of the School of Medicine has sufficient authority to fulfill the responsibility for the management and evaluation of the curriculum. To date, he has also had sufficient resources in the availability to highly qualified and skilled basic science and clinical faculty to support educational experiences. The Appointment, Promotion and Tenure Committee emphasizes that an engaged and effective teaching effort is an important criterion for faculty promotion or tenure. However, the heavy research and clinical demands on faculty contributes to periodic difficulties in recruiting faculty participant in educational activities that required extended commitments such as preceptors for the Introduction to Clinical Medicine course.

Space and infrastructure are more than adequate to support the teaching mission. Of particular note is the recent renovation of the Taylor Lecture Hall, which is used for

lectures and other activities throughout the four years. Renovation of the adjacent lecture hall was recently initiated. The Office of Medical Education provides a number of support services for students and faculty, including room scheduling, exam management and grading, student evaluations, distribution of course materials and resources (primarily through MedScope, including lecture notes, Power Point presentations, and streaming videos of lectures), and facilitation of student-faculty communication through MedScope forums. The Office of Faculty Affairs and Professional Development offers a regular series of seminars and other activities geared toward the development of effective teaching and leadership skills.

In summary, the curriculum is well-managed and the infrastructure for overseeing and evaluating its component parts are sound. Challenges include continued vigilance in addressing redundancy in the curriculum at all levels, integration of material across courses and clerkships, and recruiting skilled teachers in the midst of the current hectic health care and research environment.

Question 13: Judge the effectiveness of curriculum planning at your institution. Describe efforts to ensure that there is appropriate participation in planning and that resources needed to carry out the plans will be available. How effective are the procedures to rectify any problems identified in the curriculum, and in individual courses and clerkships? Describe and evaluate, and provide illustrative examples.
ED-34

Curriculum planning is generally effective, primarily due to the committee structure, described above. Each course and clerkship is reviewed yearly and changes approved by the oversight committee responsible for that portion of the curriculum. Reviews of curricular themes or content that spans multiple courses/clerkships are undertaken by the CCC and/or the CYC and Years 1/2 Committee. Students have input into these processes as members of all oversight committees, as well as through the feedback that they provide following each course and clerkship. Furthermore, student representatives meet with course directors in the first two years to discuss any class concerns.

Problems that are identified through student feedback or results of exams are rectified in several ways. Individual course and clerkship directors use feedback and exam results to adjust their courses/clerkship. Examples include the creation of an online forum to provide more rapid response by faculty to student questions. This was successfully implemented, and was so well received that the majority of year 1 and 2 courses now have such forums, where students can ask questions, anonymously if they wish, that are answered by other students and/or faculty members, allowing the entire class to see and participate in the developing solution “threads.” Another example is the response of the OB/Gyn clerkship to student concerns about work hours and procedure training. The clerkship director changed student schedules to ensure that no student has overnight call on weekdays and that they all have a minimum of 10 hours off between shifts, and that clinical skills workshops were added to orientation for students.

In addition to student feedback, reviews of exam scores and perceived areas of weakness are undertaken by the CYC, Year 1/Year 2 Committee, and the CCC. Reviews of the most recent Graduate Questionnaires are also conducted by these groups. Recommendations for changes in the curriculum are made as necessary.

In summary, curriculum planning is effective, and changes are made as the need arises and in response to regular feedback and review. Robust feedback and curricular adjustments are made on the departmental and course level. However, the central review of the overall curriculum could be stronger if a more thorough discussion of overall curriculum goals and objectives was connected to the individual courses and clerkships.

Question 14: How does the curriculum committee assure that students have sufficient time for learning? Evaluate the workload and balance between education and service in the clinical years, as well as the effectiveness of the mechanisms used to monitor student duty hours. Do students receive sufficient formal teaching during their clinical clerkships? ED-38

The CCC regularly reviews the student feedback provided to the Office of Medical Education (OME) through online surveys conducted at the conclusion of courses or clerkships. Although not queried specifically about time allotment, students rated all the preclinical courses as ‘good to very good’ in general and also in organization, a finding at least consistent with the notion that students were not unduly burdened with lack of study time. In the preclinical years students have 2 hours of lectures per morning and two hours of other learning activities, most often laboratory sessions, small groups, interactive multimedia presentations, or clinical case conferences. Approximately once a week students participate for 1-3 hours in the Introduction to Clinical Medicine (ICM) course to learn various aspects of the doctor patient relationship, including history taking and physical exam. This leaves at least 3 full afternoons for independent study, which for many students allows for the initial adjustment to the volume of material covered in the curriculum, and for elective clinical or research activities if desired.

For the clinical years, all clerkships have required didactic components ranging from 6-15 hours per week including lecture, small group, Grand Rounds, and journal clubs. The students are expected to work a total 40-60 hours per week. Elimination of required overnight call and the emphasis on quality patient interaction versus paperwork or ‘scutwork,’ has led to greater student satisfaction and educational efficiency.

The percentage of students performing elective or volunteer work compares favorably to the national averages. For years 2004-2006, 40-60% of students performed a research project, 17-23% had international health experiences, and 50-60% provided health education in the community (aamc.org). Additionally, with this academic year, all first year students participated in community service projects for a range of 6 – 30 hours as part of the ICM I course. Clearly the students have time for this kind of activity, and are not over-burdened by their coursework.

Institutional policies on student duty hours were developed in early 2006 by the CCC. They state that students cannot work more than 80 hours. Violations of this policy should be brought to the attention of the department chairs and the Office of Student Affairs. Because the clinical clerkships generally do not include overnight call, students are not in jeopardy of exceeding the work hour rules.

Question 16: Describe the evidence indicating that institutional objectives are being achieved by your students. ED-46

The School of Medicine uses several metrics to gauge whether the educational program goals are being met. These include performance on national licensure exams, performance on courses/clerkships, and acceptance into residency programs.

Students and graduates from the UMSOM have performed well on the USMLE Step 1 and Step 2 exams, with pass rates generally above that of U.S./Canada medical schools as a whole, and mean scores close to the U.S./Canada mean (see Table 6). Furthermore, student performance in preclinical courses correlates positively with performance on the Step 1 exam, indicating that these courses are effectively teaching material that the national licensing organization mandates that all medical doctors master.

The clinical clerkships prepare students for the Step 2 exam, as evidenced by their high pass rate and mean scores (Table 6). The AAMC Graduate Questionnaire results show that graduating students judge the clinical clerkships to be “good” or “excellent.” Together, the preclinical and clinical curricula prepare our students well, as reflected in the wide variety of residency programs that they enter (Table 2), and the success with which they get their top choices (>95% get one of their first three choices).

To date, performance of our graduates in their residency programs has been anecdotal. This spring, however, a survey will be sent to program directors to determine the strengths and weaknesses of UMD graduates.

In summary, all objective measures currently being used show that students are achieving the stated objectives of individual courses and clinical experiences. There remains the challenge of ensuring that our overall institutional goals are clearly stated and that we can objectively ensure that they are being met by our graduates.

Question 17: Discuss how information about your students and graduates is used to evaluate and improve the educational program. ED-47

Student evaluations of courses and clerkships are managed by the Office of Medical Education, and are collated for review by the course and clerkship directors and by the Dean. Electronic evaluations for all courses and clinical clerkships continue to make the evaluation process and review of student feedback easier. Evaluation questions are standardized across curricular units when feasible (basic science courses, clinical clerkships) to facilitate an overall assessment of educational effectiveness. The feedback is reviewed by individual course directors and clerkship directors as well as by the Year

1/Year 2 Committee and Clinical Years Committee. Action plans for addressing areas of concern are presented to the CCC which approves the plan and reviews its implementation and effectiveness through reports from the course directors and peer-review.

The Office of Medical Education (OME) has developed a relational database of student performance for the use of OME, Student Affairs, and the Advancement Committee to track the progress of individual students throughout the four years of medical school. This database currently includes all test scores and grades, but is poised to be more fully developed as a student portfolio over the coming several years. These data are also used to identify trends within and across courses and clerkships over multiple years. This facilitates the rapid identification of problem areas as in the curriculum and to intervene early with those students who may be having academic or other difficulties.

TABLES

Table 1: Weeks of Instruction in Each Year of Medical School

Year One	36
Year Two	35
Year Three	48
Year Four	32
Total	151

Table 2: Medical Student Match Results 2004-2007

Discipline	2007 (rounded)	2006 (rounded)	2005 (rounded)	2004 (rounded)
Internal Medicine	22%	28%	23%	27%
Pediatrics	14%	14%	12%	7%
Emergency Med.	8%	11%	8%	9%
General Surgery	7%	8%	12%	8%
Surgical Sub.	7%	8%	4%	9%
Family Medicine	3%	8%	8%	9%
Neurology	2%	5%	9%	3%
OB/Gyn	3%	5%	3%	2%
Diag. Radiology	5%	3%	3%	1%
Anesthesiology	6%	3%	4%	6%
Psychiatry	5%	3%	4%	5%
Med-Peds	2%	1%	4%	2%
Ophtho	0	0	3%	2%
Derm	3%	1%	2%	2%
Rad Onc	3%	1%	1%	1%
Peds/EM	0	1%	0	1%
Pathology	1%	1%	2%	2%
IM/EM	1%	0	1%	2%
Transitional	2%	0	2%	0
PM&R	0	0	0	1%

Table 3: Behavioral and socioeconomic subjects covered in the clinical and preclinical years

Content Area	# of Structured Sessions Where Content is Covered (hours)	Check if Content is Covered in a Clinical Experience
Biostatistics	11	X
Communication skills	57	X
Community health	3	X
End-of-life care	7	X
Epidemiology	34	X
Evidence-based medicine	45	X
Family violence/abuse	1	X
Medical genetics	47	X
Health care financing	2	X
Health care systems	3	X
Health care quality review		X
Home health care	2	X
Human development/life cycle	29	X
Human sexuality	22	X
Medical ethics	5	X
Medical humanities	3	X
Medical informatics	5	X
Medical jurisprudence	2	X
Multicultural medicine	4	X
Nutrition	18	X
Occupational health/medicine	4	X
Pain management	13	X
Palliative care	6	X
Patient health education		X
Population-based medicine	10	X
Practice management	3	X
Preventive medicine	3	X
Rehabilitation/care of the disabled	3	X
Research methods	30	X
Substance abuse	22	X
Women's health	35	X

Table 4: Medical consequences of Societal Problems

Content Area	Required course(s) where topic is addressed	Required clerkship(s) where topic is addressed
Diagnosis	<p>ICM 1: 1 hr lectures on Population Medicine, Cultural Diversity, Access to Medical Care; discussions in small groups (up to 20 sessions for 2-4 hours each) about individual patients; histories with focus on societal problems that impact their lives</p> <p>ICM 2: 2 hour session with film on homelessness and large group discussion</p> <p>P&T 1: 2 hours on CNS drug intoxication and treatment</p>	<p>Family Medicine: content is an integral part of clinical experiences</p> <p>Internal Medicine: 1 hour lecture on substance abuse and during clinical experiences</p> <p>OB/Gyn: Family violence and abuse lecture for 1 hour and during clinical experiences</p> <p>Pediatrics: 1 hour lecture on child abuse, ½ hour - substance abuse, ½ hour lecture - confidentiality in adolescent medicine and during clinical experiences</p> <p>Surgery: during clinical experiences in surgery and shock/trauma</p>
Prevention	<p>ICM 1: discussions in small groups (up to 20 sessions for 2-4 hours each) about individual patients; histories with focus on societal problems that impact their lives</p> <p>P&T 1: 2 hours on CNS drug intoxication and treatment</p>	<p>Family Medicine: content is an integral part of the clinical experiences</p> <p>Internal Medicine: 1 hour lecture on substance abuse & during clinical experiences</p> <p>OB/Gyn: Family violence and abuse lecture for 1 hour and during clinical experiences</p> <p>Pediatrics: 1 hour lecture on child abuse, ½ hour on substance abuse, ½ hour lecture on confidentiality in adolescent medicine and during clinical experiences</p> <p>Surgery: during clinical experiences in surgery and shock/trauma</p>
Reporting		<p>Family Medicine: this content is an integral part of the clinical experiences</p> <p>Internal Medicine: 1 hour lecture on substance abuse and during clinical experiences</p> <p>OB/Gyn: Family violence and abuse lecture for 1 hour and during clinical experiences</p> <p>Pediatrics: 1 hour lecture on child abuse, ½ hour on substance abuse, ½ hour lecture on confidentiality in adolescent medicine, small group session on STD counseling, and during clinical experiences</p>
Treatment	<p>ICM 1: discussions in small groups (up to 20 sessions for 2-4 hours each) about individual patients; histories with focus on societal problems that impact their lives</p> <p>P&T 1: 1 hour lecture on smoking and cessation; 2 hours on CNS drug intoxication and treatment; 1 hour on medication in management of substance abuse disorders; 1 clinical correlation case on substance abuse</p>	<p>Family Medicine: this content is an integral part of the clinical experiences</p> <p>Internal Medicine: 1 hour lecture on substance abuse and during clinical experiences</p> <p>OB/Gyn: Family violence and abuse lecture for 1 hour and during clinical experiences</p> <p>Pediatrics: 1 hour lecture on child abuse, ½ hour on substance abuse, ½ hour lecture on confidentiality in adolescent medicine, small group session on STD counseling, and during clinical experiences</p> <p>Surgery: during clinical experiences in surgery and shock/trauma</p>

Table 5: Time in Inpatient and Ambulatory Settings in the Required Third Year and AHEC Rotations

Clerkship	Duration (weeks)	% Outpt	# Outpt Weeks	Types of Experiences
Family Medicine	4	100	4	Faculty practice clinic, community private practice, Health Care for the Homeless, Home visit program
Internal Medicine	12	33	4	University and VA general medicine clinics, weekly meeting with primary care chief resident; attend 2 weekly conferences (core curriculum during Morning Report and Seminars in Ambulatory Care)
Pediatrics	6	50	3	75% of outpatient exposure is in primary care
Ob-Gyn	6	33	2	
Surgery	12	10	1.2	
Neurology	4	10	0.4	N/A
Psychiatry	4	0	0	N/A
AHEC	8	100	8	Sites include Baltimore City, Eastern Maryland (a few to Southern Maryland sites), and Western Maryland. 4 weeks may be Second Summer Education Program instructor, epidemiology program or Indian Health service in lieu of time at AHEC.
Total	56		22.6	Overall 22.6/ = 40.4% ambulatory experience