

MEMORANDUM

TO: Liaison Committee on Medical Education

FROM: The Secretary of the *ad hoc* Survey Team That Visited University of Louisville School of Medicine on April 14-17, 2013

RE: Report of the Survey Team

On behalf of the *ad hoc* LCME survey team that visited the University of Louisville School of Medicine on April 14-17, 2013 the following report of the team's findings is provided.

Respectfully,



Carol A. Terregino, M.D., Secretary

INTRODUCTION

A survey of the University of Louisville School of Medicine was conducted on April 14-17, 2013 by the following *ad hoc* team representing the Liaison Committee on Medical Education (LCME):

Chair:

Paul B. Roth, M.D., M.S., FACEP Emergency Medicine
Chancellor for Health Sciences and
Dean
University of New Mexico School of Medicine
Albuquerque, NM

Secretary:

Carol A. Terregino, M.D. Internal Medicine
Senior Associate Dean for Education (interim) Emergency Medicine
Associate Dean for Admissions
Robert Wood Johnson Medical School
Piscataway, NJ

Member:

Barbara A. Schindler, M.D. Psychiatry
Vice Dean Educational and Academic Affairs
Professor of Psychiatry
Drexel University College of Medicine
Philadelphia, PA

Member:

T. Andrew Albritton, M.D. Internal Medicine
Associate Dean for Curriculum
Professor of Medicine
GRU Medical College of Georgia
Augusta, GA

LCME Faculty Fellow:

Michael Ainsworth, M.D. Internal Medicine
Senior Associate Dean for Educational Assessment
University of Texas Medical Branch University of
Galveston
Galveston, TX

The team expresses its sincere appreciation to Dean Ganzel and the staff, faculty, and students of University of Louisville School of Medicine for their courtesies and accommodations during the survey visit. Drs. Wiegmen and Greenberg and Ms. Ke-McCue merit recognition and commendation for their thoughtful visit preparations support during the conduct of the survey.

A copy of the survey visit schedule is included in the Appendix.

SUMMARY OF SURVEY TEAM FINDINGS

DISCLAIMER: This report summarizes the findings of the *ad hoc* survey team that visited the University of Louisville School of Medicine from April 14-17, 2013 based on the information provided by the school and its representatives before and during the accreditation survey, and by the LCME. The LCME may come to differing conclusions when it reviews the team's report and any related information.

I. Institutional Setting

Institutional Strengths

NONE

Areas In Compliance, with Monitoring

The survey team also noted the following items where it believes the school is in compliance with the specific accreditation standards but that ongoing monitoring is needed:

IS-11: "The administration of an institution that offers a medical education program should include such associate or assistant deans, department chairs, leaders of other organizational units, and staff as are necessary to accomplish its mission(s)."

Finding: At the time of the survey visit, the search process for the permanent dean is beginning its final stages. There are several associate, assistant and vice deans and two chairs who are serving in interim roles. Negotiations have begun with one chair finalist.

IS-14-A: "An institution that offers a medical education program should make available sufficient opportunities for medical students to participate in service-learning activities and should encourage and support medical student participation"

Finding: There are many opportunities for students to participate in service learning activities. The reflection component of service learning activities was only recently instituted in the student run clinics.

IS-16: "An institution that offers a medical education program must have policies and practices to achieve appropriate diversity among its students, faculty, staff, and other members of its academic community, and must engage in ongoing, systematic, and focused efforts to attract and retain students, faculty, staff, and others from demographically diverse backgrounds."

Finding: Policies and expected outcomes for faculty diversity were instituted in AY 2011-2012. Procedures for recruitment, retention and promotion are nascent. There are focused and sustained programs to recruit a diverse student body, however, students noted the paucity of diverse faculty role models and a some of students reported dissatisfaction regarding faculty diversity and student diversity in the independent student analysis. The percentages of women and African American matriculants have a declining trend.

Areas of Noncompliance

NONE

II. Educational Program Leading to the MD Degree

Areas of Strength

NONE

Areas In Compliance, with Monitoring

The survey team also noted the following items where it believes the school is in compliance with the specific accreditation standards but that ongoing monitoring is needed:

ED-10: "The curriculum of a medical education program must include behavioral and socioeconomic subjects in addition to basic science and clinical disciplines."

Finding: In the 2012 AAMC GQ report, more respondents rated coverage in managed care, health care systems, health policy, complementary and alternative medicine, and human sexuality as inadequate than national respondents. A new course, Topics in Clinical Medicine, designed to address these and other topics, has been piloted and will be a required two-day course in AY 2013-2014.

ED-31: "Each medical student in a medical education program should be assessed and provided with formal feedback early enough during each required course or clerkship (or, in Canada, clerkship rotation) to allow sufficient time for remediation."

Finding: Recent changes have been made to address the student dissatisfaction regarding formative feedback, as noted in the independent student survey. Formative assessment strategies have been implemented in the M-1 and M-2 curricula. It is too early to determine the effects of these changes. Faculty consistently deliver this feedback in obstetrics and gynecology, family medicine and surgery, however, this responsibility has been delegated to residents in other disciplines.

Areas of Noncompliance

The survey team also noted the following items where it believes the school is not in compliance with specific accreditation standards at the time of the survey visit:

ED-5-A. "A medical education program must include instructional opportunities for active learning and independent study to foster the skills necessary for lifelong learning."

Finding: While there has been progress in limiting the number of lecture hours and incorporating opportunities for engaged learning, at the present time there are limited opportunities for students to participate in active learning and independent studies.

ED-8. "The curriculum of a medical education program must include comparable educational experiences and equivalent methods of assessment across all instructional sites within a given discipline."

Finding: Clinical clerkships at the central campus have multiple participating sites. While informal review of variations of student experiences at the clinical sites may be available,

there is not a robust, comprehensive evaluation system in place to ensure comparability across all clinical sites.

ED-32. "A narrative description of medical student performance in a medical education program, including non-cognitive achievement, should be included as a component of the assessment in each required course and clerkship (or, in Canada, clerkship rotation) whenever teacher-student interaction permits this form of assessment."

Finding: There is a paucity of preclinical courses that provide narrative assessments to students, including ones with longitudinal medical student – faculty interactions.

ED-33. "There must be integrated institutional responsibility in a medical education program for the overall design, management, and evaluation of a coherent and coordinated curriculum."

Finding: An organizational structure exists to manage the curriculum, however, the second year subcommittee of the parent committee functions less cohesively in ensuring horizontal integration. There are several examples of vertical integration of the curriculum and collaboration between the preclerkship and clerkship faculty, however, full vertical integration and content analysis will not be possible until the new curriculum database is fully implemented. The AAMC GQ and independent student analysis reveals dissatisfaction with the lack of integration in some of the basic science courses. This standard was noted to be in non-compliance at the last survey visit,

ED-35. The objectives, content, and pedagogy of each segment of a medical education program's curriculum, as well as of the curriculum as a whole, must be designed by and subject to periodic review and revision by the program's faculty.

Finding: A robust system to analyze curricular content is not yet fully implemented. There is not an effective system in place to review the entire curriculum. The absence of an electronic curriculum mapping system has created a significant barrier to conducting a formal review of the curriculum at the "objective" level.

ED-41. "The faculty in each discipline at all instructional sites of a medical education program must be functionally integrated by appropriate administrative mechanisms."

Finding: While the associate dean at the Trover campus is the focal point for integration and communication between the regional campus and the central campus through the vice dean for academic affairs, communication between the clerkship directors and the teaching chiefs is limited in several of the disciplines.

III. Medical Students

Institutional Strengths

NONE

Areas In Compliance, with Monitoring

The survey team also noted the following items where it believes the school is in compliance with the specific accreditation standards but that ongoing monitoring is needed:

MS-24. "A medical education program should have mechanisms in place to minimize the impact of direct educational expenses on medical student indebtedness."

Finding: Tuition and fees and the percentage of students with greater than \$200,000 debt continue to rise. The school noted challenges in raising funds for scholarships and there are currently no need-based scholarships. The trends in tuition increases, and new grant and scholarship awards will determine if current mechanisms will limit the impact of direct educational expenses on indebtedness.

MS-37. "A medical education program should ensure that its medical students have adequate study space, lounge areas, and personal lockers or other secure storage facilities at each instructional site."

Finding: In the independent student survey, there were concerns with the student lounge and the library study environment. Upgrades to the student lounge were in progress at the time of the survey visit. There are plans to increase study space in the library.

Areas of Noncompliance

NONE

IV. Faculty

Institutional Strengths

The survey team identified the following area of institutional strength:

FA-10. "A faculty member of a medical education program should receive regularly scheduled feedback on his or her academic performance and progress toward promotion and, when applicable, tenure."

Finding: There is strong support for junior faculty in terms of mentorship, promotion guidance, and broad and flexible interpretation of scholarship in the appointments, promotions and tenure process.

Areas In Compliance, with Monitoring

NONE

Areas of Noncompliance

NONE

V. Educational Resources

Institutional Strengths

NONE

Areas In Compliance, with Monitoring

The survey team also noted the following items where it believes the school is in compliance with the specific accreditation standards but that ongoing monitoring is needed:

ER-12. "The library services at an institution that provides a medical education program must be supervised by a professional staff that is responsive to the needs of the students, faculty, and others associated with the institution."

Finding: The independent student survey reports that 22% of all students are dissatisfied with the library hours. The recent hiring of a part-time employee has enabled the library to extend weekend and evening hours. It is too early to determine the effect of these changes.

ER-13. "An institution that provides a medical education program must provide access to well-maintained information technology resources sufficient in scope and expertise to support its educational and other missions."

Finding: Students express concern that it is difficult to navigate and find important information on the University of Louisville SOM website. Inadequate computer laboratory facilities are described with regards to computer testing. A recent pilot was implemented to conduct computer-based testing on laptops in unit laboratories. The recent hiring of new personnel, including a Webmaster, has been made to address upgrades. It is too early to determine the effect of these changes.

ER-14. "The information technology staff serving an institution that provides a medical education program must be responsive to the needs of the medical students, faculty, and others associated with the institution."

Finding: A large percentage of students who responded to the independent student survey are neutral or dissatisfied with IT response times and technical support during instructional sessions. Staff have recently been added to fulfill the expectations of the students.

Areas of Noncompliance

The survey team also noted the following items where it believes the school is not in compliance with specific accreditation standards at the time of the survey visit:

ER-4. "A medical education program must have, or be assured the use of, buildings and equipment appropriate to achieve its educational and other goals."

Finding: Both faculty and students note problems with the educational facilities. In the independent student analysis, a significant proportion of the student body is dissatisfied with the lecture hall facilities due to the number of seats, an insufficient number of electrical outlets to support laptops, intermittent technology failures during educational sessions, and environmental room control. Current auditoria seat 160 for an M-1 class of 164. There have been some modifications including additional outlets in the periphery and improvement to the unit labs. Faculty expressed concern about the adequacy of small group rooms. A new instructional facility has been a university priority for two years. Additional capital funding sources are being explored at the university level. This standard was cited in the previous full survey report.

ER-7. "Each hospital or other clinical facility of a medical education program that serves as a major instructional site for medical student education must have appropriate instructional facilities and information resources."

Findings: The availability of lockers or secure places to store personal belongings is inconsistent among the different clinical training sites and over 25% of third and fourth year medical students express dissatisfaction with storage space, with only 44% satisfied.

ER-9. A medical education program must have written and signed affiliation agreements in place with its clinical affiliates that define, at a minimum, the responsibilities of each party related to the educational program for medical students.

Finding: A new master affiliation agreement between KentuckyOne and University Medical Center came into effect in March 2013, superseding all prior agreements. This agreement does not include the required elements on the learning environment and specification of the responsibility for treatment and follow-up after exposure to infectious or occupational hazards.

PRIOR ACCREDITATION SURVEY

The last full survey of the University of Louisville School of Medicine occurred on March 28-31, 2005.

At its meeting on June 7-9, 2005, the LCME voted to continue accreditation for an eight-year term. The next full survey visit would take place in AY 2012-2013. The following areas of noncompliance were found: 1) linkage of educational program objectives to course and clerkships and use of objectives to guide the curriculum (finding noted in 1995 accreditation survey); 2) time for independent learning; 3) mid-rotation feedback; 4) integrated institutional authority for the curriculum and sufficient resources and authority of the chief academic officer; 5) periodic review of segments of the curriculum; 6) provision of psychological services by individuals with no evaluative function; 7) adequate facilities for the class size; and 8) affiliation agreements. The LCME also noted the following areas that were in transition: 1) quantification of required clinical encounters; 2) student health services administration and functioning; 3) student health insurance; 4) preparation of surgery residents for their teaching roles; 5) security systems in place.

The LCME concurred with the survey team and identified the following institutional strengths: 1) the leadership of Interim Dean Laura Schweitzer, who advanced the core missions and implemented curricular change; 2) an effective dean's staff; 3) investment in the research mission; 4) the empowerment and engagement of the student body; 5) integration of the standardized patient program and the simulation center into the entire curriculum; 6) support from the clinical affiliates; 7) the accessibility and services provided by the Office of Student Affairs; 8) an enthusiastic student body; 9) the Trover campus rural training; and 10) faculty appointment/promotion/tenure and post-tenure review processes.

A status report was due by January 1, 2007 to address the following areas of noncompliance identified by the LCME: 1) linkage of educational program objectives to course and clerkships and use of objectives to guide the curriculum (finding noted in 1995 accreditation survey); 2) time for independent learning; 3) mid-rotation feedback; 4) integrated institutional authority for the curriculum and sufficient resources and authority of the chief academic officer; 5) periodic review of segments of the curriculum; 6) provision of psychological services by individuals with no evaluative function; 7) adequate facilities for the class size; and 8) affiliation agreements.

The LCME also noted the following areas that were in transition: 1) quantification of required clinical encounters; 2) student health services administration and functioning; 3) student health insurance; 4) preparation of surgery residents for their teaching roles; 5) security systems in place.

PREVIOUS LIMITED (FOCUSED) VISITS

None

STATUS REPORTS

The school requested that the LCME rescind the citation of noncompliance with ER-4 (sufficient buildings and equipment). At its October 10-11, 2005 meeting the LCME reviewed the request, took no action on the request and informed the school that information provided in the request could be included in the status report requested for January 1, 2007.

At its meeting on February 6-8, 2007, the LCME accepted the report on the following areas: 1) linkage of institutional educational objectives with instructional efforts at the course and clerkship level (ED-1); 2) expansion of active learning experiences in the first and second years as a way of promoting self-directed learning (ED-5); 3) formative feedback in required clerkships (ED-30); 4) coordination of curriculum management and review both centrally and at the level of individual instructional units (ED-33, ED-36); 5) curriculum review across all four years of the educational program (ED-35); 6) separation of mental health counseling services and student academic evaluation by mental health counselors (MS-27-A); 7) additional permanent seating in lecture halls and improved environment in the gross anatomy laboratory (ER-4); 8) adequacy of the affiliation agreement with the Trover Clinic Foundation, Inc.(ER-9); 9) tracking of student clinical experiences and central monitoring of the data by the Educational Policy Committee; 10) improvements in student health services (area in transition); 11) measures taken to address student concerns about health insurance (area in transition); 12) preparation of surgery residents for their roles in medical student teaching and evaluation (area in transition); and 13) improvements in security systems. The LCME requested a status report due by September 1, 2008, to address the following area of partial or substantial noncompliance: 1) Self-directed, independent learning (ED-5) and the following areas in transition: 1) Student Health Services (area in transition) and 2) Preparation of surgery residents for medical student teaching and evaluation (area in transition).

At its meeting on October 6-8, 2008, the LCME reviewed the report that addressed the area of noncompliance with accreditation standard ED-5 (opportunities for self-directed, independent learning) and the status of two areas in transition: 1) student satisfaction with Student Health Services and 2) the preparation of surgery residents for their roles in teaching and evaluating medical students. A status report was due by August 15, 2010 to address the remaining area in transition (student satisfaction with Student Health Services).

At its meeting on October 5-7, 2010, the LCME reviewed the status report that addressed the following area in transition: student satisfaction with health insurance and health services. The LCME concluded that this transition area has been appropriately resolved. No additional reports were required.

The school submitted a proposal for an accelerated curriculum track on March 23, 2011. At its meeting on June 7-9, 2011, the LCME reviewed materials regarding the plan to establish and implement an accelerated curriculum track that would permit a small group of medical students to complete the M.D. degree in three years. This track was designed for students interested in service to rural or urban underserved populations. A pilot program focused on rural medicine was planned, beginning with rural electives during the summer of 2011, at the Trover Campus in Madisonville, KY. Based on the school of medicine's experience with the Trover Campus-based track, a subsequent accelerated medical education program focused on urban medicine would be planned for Louisville campus. The LCME approved the implementation of the pilot program for the accelerated curriculum track on the Trover Campus. The review of the accelerated curriculum track and the medical education program provided at the Trover Campus would take place during the full survey visit in April 14-17, 2013.

THE MEDICAL EDUCATION DATABASE AND INSTITUTIONAL SELF-STUDY

(See Appendix for a summary of the self-study findings and composition of self-study committees.)

The medical education database and appendices were for the most part complete; however in the opinion of the survey team the organization of the information made it difficult to locate some materials. There were some inconsistencies and inaccuracies in the presentation of material. Some materials included in the database were not familiar to faculty and staff who were interviewed on site. Additionally, updates on quantitative data for AY 2011-2012, and where possible AY 2012-2013, were not made available to the survey team until two days before the visit. Important documentation, which could have been provided to the team, e.g. a new master affiliation agreement, were not made available to the team until the end of the survey visit, challenging the performance of a comprehensive analysis of materials prior to the end of the survey visit.

The interim dean chaired the institutional self-study task force. Membership included representation from the administration, student body, GME programs, hospital systems, and non-administrative faculty. Committees were constituted on governance and administration, academic environment, educational program, admissions, student services and learning environment, faculty, finances, general and clinical facilities, and information and library services. Total membership was 109, including 69 faculty and 17 students. The school opened an office for accreditation preparation in September 2012. The database was completed between September 2011 and February 2012; committee reports were completed by May 2012; the task force revised the self-study and finalized the work in January 2013. In the opinion of the survey team the self-study met basic expectations in terms of depth of analysis, organization and comprehensiveness. Based upon interviews with members of the academic community, it was not entirely clear that all were familiar with the self-study findings, the results of the independent student analysis or the 2012 AAMC Graduation questionnaire.

The program's self-study noted seven strengths (presented verbatim):

- 1) Strong and effective relationship and leadership alignment between the SOM Dean and the Executive Vice President for Health Affairs. There is also a shared vision and strategic alignment with the CEO of University of Louisville Hospital and Chair of University of Louisville Physicians. This institution-wide collaboration is optimally positioning the SOM to further advance its educational, clinical and research missions.
- 2) Recently announced partnership between KentuckyOne Health, University of Louisville and University Medical Center, which will bring \$1.4 billion in academic program and hospital improvements over the next 20 years and immediate access to a statewide healthcare network.
- 3) Committed, effective leadership at all levels that supports the educational program, an empowered and more effective Educational Policy Committee and Office of Medical Education and a highly engaged and supportive Educational Administrative Committee, which together have moved the curriculum, learning environment, and student learning experience and performance forward.
- 4) Excellent student clinical experience with a large and diverse patient population at the Louisville Campus, including University Hospital and clinics, Jewish Hospital (part of KentuckyOne Health), Norton Hospital, Kosair Children's Hospital and clinics (part of Norton Health Care) and the Veteran's Administration Hospital and clinics, as well as a highly rated clinical experience at the Trover Campus, resulting in graduates who are confident in their preparation for residency training. On the 2012 AAMC GQ, 92% of graduating students indicated they agreed or strongly agreed that they have the clinical skills required to begin their residency (national average 90%).
- 5) Highly effective preclinical curriculum and support programs that facilitate progressive improvement in student performance and position for success as future physician: ~20th percentile on the MCAT, 45th-50th percentile on USMLE Step 1, 50th-60th percentile on USMLE Step 2CK and success in the NRMP.
- 6) Strongly engaged students with representation at all levels of the educational structure and a high level of satisfaction with their educational structure and a high level of

satisfaction with their educational experience, their connection with administration, and the strong support they receive from the Office of Medical Student Affairs. On the 2012 GQ, 91% of graduating students indicated that they were satisfied/very satisfied with the responsiveness to student affairs to student problems (national average, 73%).

- 7) Strong effective pipeline programs for underrepresented in medicine students in support of School of Medicine diversity goals.

The program's self-study noted five challenges (present verbatim):

- 1) National and state economic challenges that could slow down efforts to meet capital needs and maintain/upgrade existing facilities.
- 2) A preclinical instructional building that is adequate, but not state-of-the-art, particularly the lecture halls, which have been updated as much as possible within the constraints of the physical structure and building codes and would limit our ability to increase class size, if desired and does limit our ability to make some additional desired curricular changes.
- 3) A loss of URM student in each of the last two academic years to schools providing more scholarship funding; rising tuition costs and flat scholarship funding are challenging our ability to fulfill our commitment to increase the number of URM students in each class.
- 4) No increase in the state funding for our regional campus in Madisonville, Kentucky for 14 years, which has forced us to delay our plans to increase the number of student at that campus and build a new instructional building there, which in turn challenges our ability to row the workforce pipeline needed to meet the needs of Kentucky's citizens in geographically underserved areas.
- 5) The existing departmental structure could potentially create challenges as we continue to build a highly integrated, systems-based hybrid curriculum that increases collaborations among clinicians and basic scientists; fully utilizes the opportunities available in our new curriculum mapping system, branded RedMed; and draws upon best practices in preparing future physicians.

The survey team's major recommendations were not concordant with the SOM's conclusions. The body of the survey report speaks to alignment of the academic health center, good clinical resources, and student satisfaction with the access and responsiveness to their concerns; however, they were not identified as specific strengths. While identified as a challenge by the school, the survey team did not agree that the preclinical instructional building lecture halls, cited in the 2005 survey visit, to be "adequate." The SOM did not identify weaknesses in the more granular aspects of the curriculum and curriculum management system and educational resources, as identified by the survey team.

The independent student analysis was developed by a group of students representing the M-1 to M-4 classes. Survey questions were developed to address all LCME standards related to medical students and school wide student concerns "targeted to improve the institution." The survey included 228 items and was distributed by the university licensed "Survey Monkey." The survey was administered on March 22, 2012 and was available until April 13, 2013. The Office of Medical Education offered incentives such as gift cards and Kindle Fire tablet raffles, and a luncheon with tabletop laptops. Eighty-nine percent of all students responded to the survey: 96% M-1, 96% M-2, 98% M-3, and 63% M-4. Student analysis results will be referenced throughout the survey report. The results from the 2012 AAMC Graduation Questionnaire (AAMC GQ) will also be used throughout the report.

HISTORY AND SETTING OF THE SCHOOL

(See Appendix for campus map)

The University of Louisville (U of L) School of Medicine (SOM) history began in 1833 when the Louisville Common Council set up an exploratory committee for a medical college in the city. The Louisville Medical Institute began to offer classes in 1837 to 80 students. The seven faculty members then moved operations to a more permanent facility and offered clinical training at Louisville City Hospital. In 1846 Louisville Medical Institute became the Medical Department of the newly formed U of L. Several early events important to the history of the school include the fire of 1856, and the growth of an institution to rival the Louisville Medical Institute, Louisville Medical College. The U of L absorbed Louisville Medical College in 1908 and now the structure is known as "Old Medical School."

The city, proud that Abraham Flexner hailed from Louisville, began annual contributions to the medical school and opened a City Hospital in 1914. The first trauma center began in Louisville in 1911 and during World War II, the school negotiated with the Federal Government to train the armed forces medical corps. In 1963 the medical-dental research facility with laboratories and a library opened and became known as the Health Sciences Center. In 1970, the Commonwealth of Kentucky named the U of L a state-supported university and soon appropriated funds for a new teaching hospital and ambulatory care center. University Medical Center Inc. is a non-profit facility. The school also uses the Jewish Hospital, Kosair Children's Hospital, Norton's Hospital, the Veterans Administration Medical Center and the James Graham Brown Cancer Center as teaching facilities.

A partnership was formed between the U of L Health Sciences Center (HSC) and the Louisville Medical Center, which is comprised of the U of L HSC, U of L Hospital, Jewish Hospital, Norton Hospital, Kosair Children's Hospital, the James Graham Brown Cancer Center and other partners. The Louisville Medical Center serves 500,000 patients a year.

Highlights of the growth of the research mission include the dedication of the Donald E. Baxter, M.D. Biomedical Research Building in 2003, the medical school ranking of "fastest growth in National Institutes of Health research funding" between 1999 and 2006, and the addition of 200,000 square feet of research space. A HSC campus master plan was completed in 2007. The construction of a new instructional building has not yet commenced as funding possibilities are still being explored.

U of L SOM is a public institution. The dean has a dual reporting role to the executive vice president for health affairs of the Health Sciences Center (HSC) and to the provost. The dean is a member of the University Council of Academic Officers and has direct access to the president of the university. The downtown medical center consists of University of Louisville Hospital, Jewish Hospital, Norton Hospital and Kosair Children's Hospital. Two miles to the east of the downtown campus is the Veterans Administration Medical Center. The Trover campus, which has been in existence since 1998, is a regional campus 150 miles to the southwest in Madisonville, Kentucky. This rural program has graduated small numbers of students from a low of one in 2000 to 12 in 2012.

The following table compares selected data from the time of the last survey visit to information provided for the current accreditation survey. *[NB: This table will be completed by the school in the Institutional Setting section of the medical education database for full survey visits.]*

	2004-2005	2011-2012	2012-2013
Entering class size	149	160	155
Total enrollment	590	630	661
Residents and fellows	551	610	616
Full-time basic science faculty	89	109	105
Full-time clinical faculty	515	702	716
(\$ in Millions)			
Total tuition and fees	13.6	23.4	25.9
Government and parent university support	41.1	57.6	56.4

Grants and contracts, direct	62.5	72.7	69.2
Facilities and administration (indirect)	13.7	17.4	16.3
Practice plans/other medical services	121.5	168.5	174.5
Hospital revenues	62.3	107.0	117.6
Other revenues	3.9	7.8	7.3
Total gifts and endowment income	19.4	26.5	27.8
Total revenues	337.9	480.9	495.0

I. INSTITUTIONAL SETTING

See Appendix for the following documents:

- Summary of the medical school strategic plan
- Current entry in *AAMC Directory of American Medical Education*, and any changes
- Organizational chart(s) showing relationship of medical school to university and clinical affiliates
- Dean's position description and brief résumé
- Organizational chart for dean's office and information on dean's staff
- Table showing enrollment in graduate programs in basic sciences
- Table showing number of residents by specialty
- Table on institutional diversity

Medical School Mission and Planning

In 2008, the U of L developed its 2020 Strategic Plan. The SOM has specific areas of responsibility for achieving the University's goals in five areas: "Educational Excellence; Research, Scholarship and Creative Activity; Community Engagement; Diversity, Opportunity and Social Justice; and Creative and Responsible Stewardship." In November 2012 the provost began a major reassessment of these metrics to determine if they remain the best ones for the U of L. A proposal for possible modification will be available by June 2013 for review and presentation to the Board of Trustees in July 2013.

The SOM has a current strategic plan, adopted in 2010 and recently revised in 2012, and is coordinated with the overall U of L's strategic planning process. The current mission statement for the SOM is:

"To be a vital component in the University of Louisville's quest to become a premier, nationally recognized metropolitan research university,
 To excel in the education of physicians and scientists for careers in teaching, research, patient care and community service, and
 To bring the fundamental discoveries of our basic and clinical scientists to the bedside."

There is a draft of a new mission statement that was developed in January of 2013 intended to embellish on the current statement and includes concepts of diversity and community engagement. It was not clear to the team when this draft will be finalized. The SOM strategic plan has specific metrics and a scorecard that is reviewed annually. The scorecard is concordant with the U of L metrics for educational excellence, research, scholarship and creative activity, diversity goals, and clinical excellence. In May and June of 2012 the SOM engaged an external consultant to conduct a review of the SOM to assess and evaluate its overall effectiveness and quality. As a result, four teams were created: educational enterprise, research enterprise, clinical enterprise, and community engagement. These teams will make recommendations for growing and sustaining a culture of excellence. As noted above, in November 2012, the provost launched a mid-course review of the strategic plan, the '21st Century University Initiative,' which will explore whether the 2020 Strategic Plan metrics are still the best ones to use in the face of major economic changes and new opportunities and concerns, or to produce a new plan, if needed. This process has only recently begun for the SOM.

A. Governance and Administration

The U of L is a not-for-profit public institution and was fully accredited by the Southern Association of Schools and Colleges in 2007. U of L is scheduled for their next accreditation in 2017. The university is governed by a 20-member Board of Trustees (BOT), 17 of whom are directly appointed

by the Governor of Kentucky with one of those trustees appointed from a list of alumni identified by the president, and the remaining trustees being representatives of the faculty, staff and students. Each trustee serves for a six-year term with a maximum of two terms. There are currently two open positions on the BOT. The BOT Bylaws, most recently revised in February 2007, contain a Conflict of Interest (COI) policy. The two examples of COI policy being followed that were provided in the database as minutes of meetings were: 1) a student abstaining from the vote as a member of the group being presented for conferring degrees and 2) a member abstaining from voting on a consent agenda with no reason specified. The president of U of L has been in his position since 2002. The BOT Personnel Committee reviews all faculty hires, promotions and the awarding of tenure and subsequently makes recommendations to the BOT as a whole for approval, after being recommended to the president by the dean.

The SOM has a set of bylaws last approved on June 27, 2011, which are made available to the faculty on the web and given to all faculty members during new faculty orientation. These bylaws have been approved by the Executive Faculty (all full-time, part-time and gratis faculty and those emeritus faculty who choose to remain active), the president and then the U of L BOT.

The dean of the SOM has a dual report to the provost and the executive vice president for health affairs (EVPHA). The dean also has direct access the president, as necessary. In November 2006, the former dean was recruited to the dean position but left the SOM in 2012 to become CEO and chancellor at another institution. Toni M. Ganzel, M.D., M.B.A. was named interim dean in March 2012 and currently serves in that role. She has been on the faculty of U of L SOM since 1983 and is currently a professor of otolaryngology. She has served as the SOM associate dean of student affairs, and has been in the role of senior associate dean for students and academic affairs since 2001. See Appendix for her curriculum vitae. U of L SOM has recently undergone changes in the relationship between the school, university hospital and the major clinical affiliates in the city (discussed fully in ER section). The dean serves as a member on the board of the newly formed University of Louisville Physicians (ULP), the faculty practice plan, and the University Medical Center (UMC), which governs University of Louisville Hospital. However, in November 2012, a joint operating agreement was signed by U of L, KentuckyOne Health and UMC to turn over the management of most of U of L hospital services from UMC to KentuckyOne Health on or before March 1, 2013. The EVPHA sits on the board of KentuckyOne and the dean serves on an advisory board. The dean still sits on the board of ULP and UMC. The new relationship with KentuckyOne is progressing very well from the perspective of the interim dean and the head of ULP. The arrangement will provide additional support for the faculty. The clinical reorganization alluded to above has resulted in the establishment of a single consolidated faculty practice plan, ULP, which will merge more than 40 decentralized faculty practices into a single centralized professional service corporation. This new entity has been incorporated and is beginning to function. Two services remain to be incorporated: cardiothoracic surgery and pediatric cardiology. In the opinion of the survey team, the new leadership structure (dean and EVPHA with two distinct roles) and the relationships with ULP and the hospital system are strong with common long-term academic medical center goals and are moving the school in a most positive trajectory since the last survey visit.

It was reported during the survey visit that the search for a permanent dean is in its final stages (with finalists identified). The dean has an administrative staff of 8.55 FTEs spread out over 17 individuals holding decanal titles (see Appendix). This group meets weekly with the interim dean and appears to be adequate in number to meet the needs of the SOM. There are four deans serving in interim roles (associate dean for student affairs, associate dean for research, vice dean for research, assistant dean for student affairs). There are 21 chairs of academic departments, with two chairs serving in interim roles. There is one active search currently in negotiations with the finalist for microbiology and immunology. The search for the chair of neurology is an internal search and the finalist has been identified. Chairs are appointed for a term of five years with no limit on the number of terms served. Chairs are reviewed annually through a "scorecard" system

that evaluates the department's performance in patient care, education and research. These annual evaluations are used for the five-year chair review process. Chairs have significant budgetary authority and discretion to manage their departments. An example of this discretionary authority used to support the education mission is the creation of an education laboratory within the physiology department.

The staffing and scope of responsibilities of each of the members of the interim dean's team is adequate and reasonable. Based on the 2012 AAMC GQ and the report in the independent student analysis, students are very satisfied with the access and quality of interaction with administration. In the 2012 AAMC GQ the percentage of U of L SOM respondents who agreed or strongly agreed that the student and affairs and education deans were accessible, aware and responsive to students' needs ranged from 91% to 95% vs. 70% to 81% of national respondents. Faculty and faculty administrators interviewed during the site survey similarly perceived the dean's staff to be accessible and responsive. In the opinion of the survey team both the faculty and students interviewed had a clear understanding of the staffing and responsibilities of the dean's office.

B. Academic Environment

Graduate Programs

The graduate programs in the biomedical sciences that are taught by the medical school faculty include masters and doctoral programs in the anatomical sciences and neurobiology, biochemistry and molecular biology, microbiology and immunology, pharmacology and toxicology, physiology and biophysics, speech pathology, and audiology. There are 43 students enrolled in master's programs in the biomedical sciences and 55 in the master's of speech pathology. There are 137 PhD students in the biomedical sciences and 55 in the audiology program.

The school offers the MD/PhD, MD/MBA, MD/MPH, and MD/MA dual degree programs. There are 23 students enrolled in dual degree programs. There are 19 students enrolled in the MD/PhD program, 1 student in the MD/MBA, one student in the MD/MPH, and two students in the MD/MA programs.

The provost's office, through the Office of Academic Planning and Accountability, reviews all graduate programs on a regular schedule every 10 years, with follow-up progress reports at year five. Departments receive a schedule that details which programs are to be reviewed. A quantitative overview of the program that includes faculty and fiscal resources, teaching and credit hour production, and degrees awarded is provided by the Office of Institutional Research and Planning. Departments prepare a narrative that includes a synthesis of the quantitative overview and the program's strengths, weaknesses, and opportunities with a plan for improvement. The narrative is submitted to the dean for review. The dean then writes a letter about the report and submits it along with the report to the provost's office. The university's Academic Program Review Committee reviews the report and dean's letter and submits its recommendations to the provost. The provost meets to discuss the findings with the dean and department chair responsible for the graduate program.

Department chairs have significant budgetary authority at the school. The organizational structure is decentralized and places much fiscal responsibility on the department chairs with regard to revenue generation and spending for the education and research missions. Departmental funding sources for the basic science departments include university general funds (from tuition and state appropriation), grants and contracts, practice plan and other medical services revenues, gifts and endowment income, support from affiliated hospitals, and other miscellaneous sources. More central control is placed on general funds than the other sources of funding. NIH funding has not grown over the past five years, and the school has dropped from 72nd in NIH funding to 75th in the past five years. However, the school recognizes the importance of funding the research

infrastructure. The new partnerships with the health systems will help maintain the necessary funding for the research infrastructure. The FTE of basic science faculty is 105 full-time faculty. The graduate programs play an important and valued role in research and education, including medical education. In the opinion of the survey team, the size of the faculty and the funding is adequate to support the biomedical sciences and education programs.

Graduate Medical Education and Continuing Medical Education

There are a total of 490 residents and 126 fellows in a wide range of disciplines that include primary care, medicine specialties, anesthesiology, emergency medicine, neurology, obstetrics and gynecology, ophthalmology, pathology, pediatrics, physical medicine, psychiatry, radiation oncology, radiology, surgery, and the surgical specialties. For details on the school's training programs, see Appendix.

Graduate Medical Education (GME) is under the direction of the associate dean for graduate medical education, who reports directly to the dean of the school. The associate dean is responsible for institutional administration of all programs and also serves as the Accreditation Council for Graduate Medical Education (ACGME) Designated Institutional Official (DIO). The associate dean is supported by an assistant dean for GME; a GME Office, which includes a director of GME, a director of GME research and seven support staff. The Graduate Medical Education Committee (GMEC) is comprised of physician program directors, hospital administrators, and chaired by the associate dean for GME.

The school meets the institutional requirements of the ACGME. Currently, there are no programs on probation. However, since the last LCME site visit in 2005, forensic psychiatry was granted voluntary withdrawal of accreditation effective 06/30/06 due to inability to recruit fellows. Pediatric endocrinology was granted voluntary withdrawal of accreditation effective 06/30/07 due to insufficient number of faculty. Accreditation was withdrawn from thoracic and cardiovascular surgery in 7/2008, primarily due to insufficient volume of cases and has since been reaccredited. Urology, which had accreditation withdrawn in 2000, was reaccredited effective 07/03/2008. Pediatric gastroenterology was granted voluntary withdrawal of accreditation effective 07/30/09, primarily due to inability to maintain a sufficient number of teaching faculty. Neurological surgery was placed on probation 01/22/10 due to faculty numbers and qualifications and insufficient case volume, however, the program obtained continued accreditation effective 06/17/11. No programs are currently experiencing difficulty in filling positions. Student participation in continuing medical education is primarily limited to grand rounds during the required clerkships, and the occasional attendance at other continuing medical education programs.

Research

In the opinion of the survey team, the school's commitment to biomedical research is a priority as evidenced through the increase in research space over the years. In 2009, the university opened the Clinical and Translational Science Institute (CTSI), which supports the region's oncology research in association with the James Graham Brown Cancer Center. The facility is 287,000 gross square feet with five floors of biomedical research labs including four BL3 labs and certification as a LEEDS facility. The strategy of the CTSI is to expand and fully integrate the academic home for clinical and translational research; to create a multidisciplinary program in research education and career development, using advanced degrees that train the next generation of clinical and translational investigators; to provide the necessary clinical research resources and translational technologies, including support in areas such as bioinformatics, biostatistics and ethics; and to create novel clinical and translational research.

The Distinction in Research (DIR) program was started in 2010 to link interested and qualified medical students to research-active clinical science mentors. These students are interviewed and selected by a steering committee of research-active clinical faculty in the spring of their first year

and they pursue research in the summer in the Summer Research Scholar Program (SRSP), discussed below. The students select physician scientists as mentors, meet at least monthly with them and attend special seminars, etc. This interaction continues in the third and fourth years.

The Summer Research Scholar Program (SRSP) supports 40-60 medical students who participate in a 10-week mentored research experience in the summer between the first and second years of medical school. Most of the support for this program comes from endowment funds or training grants. There are three training grants that provide six stipends (NIEHS T35), seven stipends (NIDDK T35), and 12 stipends (NIH R25) for SRSP scholars. The school anticipates having support for an average of 45-50 Summer Scholars using the training grant funds plus endowment funds. For the past two years, the school has been able to fund all of the qualified students who applied to the Summer Research Scholar Program. The school does not require students to participate in research except for those in the MD/PhD program. It was apparent to the survey team that all students who desire to perform research in the summer program can be accommodated.

The MD/PhD Program recruits highly qualified students interested in research when they apply to medical school. Two full scholarships per year are available for the medical training years. The school plans to increase the number of MD/PhD students to four per year for the entering class of 2013.

Individual faculty research grants support some of the trainees during the research phase of their training; in addition, some of the students have been successful in obtaining Ruth L. Kirschstein National Research Service Awards from NIH or cancer research training fellowships from the Department of Defense.

Information about the SRSP, the MD/PhD Program and the DIR track is provided to all applicants. Early in the spring semester of the first year, an orientation is held and the faculty who are the principal investigators on the training grants inform the class about the SRSP program and specifically the T35 and R25 training grants. The Research Office advertises the program on its website with project descriptions. Students apply for the SRSP summer research opportunities online; once accepted to SRSP, students submit their research project preferences. The research office matches the faculty and students for the 10-week summer research session.

Service Learning

Students participate in community service and service learning opportunities as volunteers and through electives. According to the 2012 AAMC GQ, graduates have participated in free clinics serving underserved populations (78%), community outreach and health education programs (53%), patient education and advocacy programs (50%), elementary, high school and college education on health professions (43%), and global health experiences (27%). Since the school does not have a service-learning requirement, such activities are categorized as electives or volunteer activities. There are informal preparatory activities for the service learning experiences, particularly for the global health experiences. Reflection has only recently been introduced into the experiences in free clinics serving underserved populations. The faculty clinical directors began meeting with participating students as a group in early 2013 to facilitate a debriefing and reflection experience, which has previously occurred without a formal structure.

There are four free clinics in which students participate and receive elective credit during their second year of medical school. The clinics provide care to indigent patients in an underserved area of the city, including single mothers and their children, and address the medical needs of women and men in recovery from substance use disorders. Clinics are weekly and students coordinate the scheduling and operation. Both full-time and volunteer faculty mentors serve in supervisory roles. Fourth-year students serve as student directors and provide training for the students.

The students also participate in community outreach and advocacy programs with local elementary

schools that focus on educating students on health-related topics, mentoring, or tutoring.

In addition to arranging individual global health experiences, the school offers five structured global health experiences, in which students can participate. These include medical mission/service learning trips to Ecuador, Honduras, Belize, Kenya, and India. Students are able to receive elective credit for these activities. They work with local physicians to care for patients with limited access to health resources. As part of this experience, they gain an understanding of the obstacles facing patients with limited resources in remote areas. Students are oriented and prepared for these trips prior to leaving.

Students are informed during the first year orientation about the importance of engaging in local, regional, or international community service for the opportunity to learn and serve others. Each class has two volunteer coordinators who work with the school's Gold Humanism Honor Society Service Committee to identify and coordinate community outreach opportunities. An online centralized calendar on the office of student affairs website informs students about available opportunities, and the site serves as a clearinghouse for information and sign up. Beginning spring 2012, a Great Day of Service was launched as part of the advisory college system. Each college chooses a community service project and carries out the project on the Great Day of Service. In spring 2013, a reflection component will be added to the Great Day of Service experience.

Students are encouraged to make a difference in their chosen communities as a central component of being a good physician. The administration provides funding for each of the free clinics through the Student Government Association and offers elective credit for participation in these clinics and the global health experiences. The school provides medical liability coverage for volunteer faculty mentors who supervise students in the clinics. Strategic partnerships with the local county medical society, the local health department, and the local school system have been developed, which facilitate student participation and engagement.

Diversity

The mission statement of the U of L specifically states a commitment to diversity in its "pursuit of excellence in five interrelated strategic areas: (1) Educational Experience, (2) Research, Creative and Scholarly Activity, (3) Accessibility, Diversity, Equity and Communication, (4) Partnerships and Collaborations, and (5) Institutional Effectiveness of Programs and Services." The database includes an operational definition of diversity: "Diversity embraces all human differences while building on the commonalities that bind us together. It serves to eliminate discrimination, marginalization and exclusion based on race, ethnicity, gender, gender identity, sexual orientation, age, socioeconomic status, disability, religion, national origin or military status." Additionally there is a specific U of L Diversity Vision Statement, which includes tenets of respect for the spectrum of diversity including race, ethnicity, gender identity, sexual orientation, age, socioeconomic status, disability, religion, national origin or military status.

The database presents the following SOM mission statement diversity goals related to: education (increase the production of underrepresented minority physicians and placement and retention of physicians in rural and underserved areas); research (develop, recruit and retain top quality scientist and challenge for excellence chairs); and patient care (care delivery for medically underserved and collaborative clinical ventures). The SOM Vision statement states commitment of respecting differences and eliminating health inequities and defines diversity as "relating to race, gender, socioeconomic class, nationality, religion, sexual orientation, and disabilities."

The university has policy statements on persons with disabilities, minorities and women, and EEO/affirmative action. The U of L diversity plan is based on Administrative Regulation KRS 164,020 (19) of Senate Bill 398. It states the metrics for chosen groups based upon the "area of geographic responsibility." The goals include increasing the percentage of given groups. The U of L

workforce diversity statement provided in the database appendix is as follows: "For Workforce Diversity, it is important to note that in addition to African American and Hispanic/Latino we have included Asian and American Indian/Alaskan Native to our target population. At U of L, these underrepresented groups are, in some categories, represented below market availability, and our goal is to increase the number of employees in racial or ethnic categories to reflect labor market availability." For executive/administrative and managerial positions, the goal is to "recruit racial or ethnic minorities for educational and administrative officers at a rate equivalent to 20% of job placements, reflecting labor market availability," and "although the number of administrators is fixed, with little or no turnover, when there are openings special efforts will be made to recruit qualified Hispanic/Latino applicants." Faculty underrepresentation is defined as African American/Black, Hispanic/Latino, Asian and American Indian/Alaskan Native.

The database states that the school has traditionally targeted African American/Black, female and students from rural backgrounds. Beginning in AY 2012-2013, the school will provide metrics for Hispanic/Latino students. The stated desired student outcomes are a class of ethnic, gender, and geographic diversity with graduation rates of underrepresented groups and underserved groups greater than 90% (within six years). Specifically articulated is that the percentage of African American/Black students be greater than or equal to the state percentage (7.8%) and that the percentage from medically underserved counties be at least 35%. Outcomes for faculty include increasing the number of fulltime African American/Black, women, women faculty at associate professor level, and African American/Black faculty at the associate professor level. Of note, the team found some faculty unaware of the academic rank goal. A "plus one" metric is used to define success. It states in the database that beginning in AY 2012-2013 the goal for professional and administrative staff is to increase the African American/Black staff by "plus one." The school clarified that "plus one" is a recommendation by the state to ensure progress, but that the school has more aggressive recruitment goals than the "plus one" guide.

There are a number of diversity initiatives in place, which support underrepresented in medicine student recruitment:

1. Since 1992, the NW Area Health Education Center (AHEC), with SOM support, has run a four-week summer enrichment program for 80 sixth through twelfth grade students.
2. Since 1982 the Professional Education Preparation Program (PEPP) has supported graduating high school students, who come from disadvantaged backgrounds, in math and science skills. U of L supports these students on campus and introduces them to the health professions. This is a longstanding program. PEPP matriculants to medical school are tracked by the SOM.
3. The SOM has been a site for the Robert Wood Johnson-supported Summer Medical and Dental Education program since 2006.
4. The SOM runs an MCAT/DAT review course.

The Admissions Committee is charged to select students "from racial and ethnic groups underrepresented in medicine, students likely to become generalist physicians, and students likely to practice in a rural area." Consideration is given to the gender, race and rural vs. urban origin. The selection process is described as holistic and the survey team concurs with this description. The specifics of the process are addressed in the Medical Students section.

To help effect student retention, the SOM fully supports a pre-matriculation program for entering medical students from groups underrepresented in medicine, from rural backgrounds, or who previously participated in a pipeline program. The Medical Education Development (MED) program is a special option for students who were unsuccessful in attaining admission to medical school. The program targets disadvantaged students and affords them the opportunity to take some of the medical school first year curriculum. Successful completion of the course allows the students to matriculate as first year students the following year. After matriculation, all students are assigned to an advisory dean to facilitate transition to medical school and to monitor academic

process. The Office for Minority and Rural Affairs/Diversity Initiatives offers group and individual counseling and there is a tutoring program for students who are struggling. There is an active Student National Medical Association chapter, which was reported by both students and faculty to be supportive to students.

The database states that the SOM has consistently offered full or partial tuition scholarships to all minority students. In the LCME Financial Aid Questionnaire, these scholarships fall under non-needs based. The database also discusses the challenges in recruiting students to the institution due to competing offers from other medical schools, an opinion echoed by admissions and diversity personnel on site.

There are several educational program objectives, which speak to treating the disadvantaged, performing assessments that are appropriate for different groups, and understanding population health and public health issues. Each first year student participates in an interprofessional cultural competency day. The 2012 AAMC GQ 99% of respondents agreed or strongly agreed that they are adequately prepared to care for patients from different backgrounds, vs. 96% of national respondents, and 90% rated instruction in culturally appropriate care for diverse population as appropriate vs. 83% of national respondents. However, in the independent student analysis, the percentages of respondents from each of the classes who were satisfied or very satisfied with student diversity were (in ascending class year order) 63%, 79%, 68%, and 76%. There were 47 free text comments on this issue. Thirty-four comments spoke of no diversity in the student body and six comments specifically found the concept of diversity "wrong." There were comments that spoke to issues with racism, sexism and religious intolerance. The team interviewed students and faculty on this independent student analysis item. Students noted that for some, the diversity at U of L SOM is much greater than the diversity to which they have been previously exposed. URIM students who were interviewed on site felt respected by peers but acknowledged that they wish there were more faculty diversity. The leadership at the SOM is planning to purchase and conduct an institution wide survey on climate assessment to address opinions about diversity among the entire community.

The database states that the search committees are developed with a focus on diversity. The interim dean or a designee charges committees to focus on a diversified applicant pool. At the present time there is no specific training for search committees. The U of L vice provost for diversity requires that search committees for administrators or chairs to have gender, race and ethnicity, and academic rank diversity with at least one minority faculty member. Since the last full survey visit, the number of African American faculty has increased from 21 to 30. It is stated in the database that this number exceeds the diversity goal, however the school is developing additional programs. According to the database, there is new funding for minority recruitments. The new associate dean for diversity initiatives, who will handle diversity issues with faculty and staff in addition to students, has been very recently hired. The survey team was unable to discern on site how this new faculty administrator's role would be different from the current associate dean.

The faculty development activities surrounding diversity presented in the database seem to be general activities related to orientation, the process of appointments, promotion and tenure, one on one meetings with the associate dean for faculty affairs, and the mentorship program. Activities with the specific goal of developing minority faculty, such as the AAMC professional development activities, are made available to select faculty. Each year the SOM sends a faculty member to attend the professional development seminars for junior and senior women faculty and for underrepresented in medicine faculty. Women are supported in the Hedwig van Amerigen Executive Leadership in Academic Medicine Program for Women. There are faculty support organizations within the university community which focus on diversity, including the U of L Black Faculty/Staff Association, the Faculty and Staff for Human Rights, the Commission on the Status of Women, the Committee on Diversity and Racial Equality, and many liaison activities with community organizations. When asked how diversity initiatives are reinforced at the school of

medicine, junior faculty spoke to research and faculty initiatives for those interested in health disparities. The SOM has a representative on the Signature Partnership, a university initiative to partner with the West Louisville community to improve educational, economic and health opportunities. The SOM also provides in kind help to the AHEC of Kentucky. As noted in the SOM Bylaws on standing committees, at a minimum one female and one underrepresented in medicine faculty member will serve on the Rules, Policies, and Credentials Committee, the Promotion, Appointment and Tenure Committee, and the Committee on Performance Criteria and Economic Welfare Committee.

A measure of the schools success in recruiting and retaining a diverse student body, faculty and staff can be seen in the following table:

Category	1 st Year Students (164)		All Students (654)		Faculty (813)		PNA Staff* (826)	
	N	% of Class	N	% All Class	N	%	N	%
Black/African American	8	4.8	43	6.5	30	3.7	39	4.72
Women	62	37.8	294	44.9	283	34.8	**	
Hispanic/Latino	4	2.4	16	2.4	26	3.2	**	
Rural: PEPP	29	17.6	91	13.9	N/A		**	
Rural: NonPEPP	11	6.7	41	6.2	N/A		**	

AY 2012-2013

*Medical school employees excluding housestaff and postdoctoral fellows, whom the university categorizes as PNA or Professional and Administrative staff

**These groups are not at this time included in our operational definition of the groups the medical school targets that would enhance the learning environment

There are focused and sustained programs to recruit a diverse student body. The five-year trend (Appendix) reveals declines in both women and Black and African American matriculants and no remarkable changes for faculty in the aforementioned groups. Procedures for recruitment, retention and promotion of diverse faculty are nascent. Students noted the paucity of diverse faculty role models and a some students reported dissatisfaction regarding faculty diversity and student diversity in the independent student analysis, 8% and 10% dissatisfied or very dissatisfied, respectively.

II. EDUCATIONAL PROGRAM FOR THE MD DEGREE

See Appendix for the following documents:

- A schematic showing the placement of courses and clerkships within each academic period
- The educational program objectives linked to competencies expected of a physician
- The required clinical experiences expected of students
- The table indicating the presence in the curriculum and the number of required sessions addressing the subjects required for accreditation
- The organizational chart for management of the curriculum
- The outcomes used to determine educational program effectiveness
- USMLE Step 1 and Step 2 performance data (number of students examined, percent passing, mean total score, mean national total score) for first-time takers for the three most recently available years

A. Educational Program Objectives

Established initially in 2004 and revised in 2010, the educational program objectives are related to

the ACGME competencies. They are organized around eight competency themes, each containing five to nine specific objectives that address the knowledge, skills, and attitudes expected of medical students and general physicians. See Appendix. Educational objectives are stated in outcome-based terms and many are linked to both specific and general outcome measures. The objectives are used as a guide for educational program planning, assessment and program evaluation. Currently, course objectives have been loaded into RedMed, the school's new curriculum management system, which is currently being implemented across the four years of the curriculum. Clerkship objectives have not yet been included in RedMed. All course and clerkship syllabi are required to explain how the course/clerkship objectives specifically link to and support the school's educational program objectives. A number of standard assessment tools are used to measure achievement of these objectives. Data on the achievement of objectives is reported at the departmental level as well as to the appropriate educational committees through individual course and clerkship reviews. In 2005, the LCME noted that linkage of institutional educational objectives with course objectives and individual learning experiences was progressing in many, but not all, required courses that "that failure to use institutional educational objectives to guide the curriculum was identified as a concern during the school's previous accreditation survey in 1998." In the opinion of the survey team, these concerns are not currently an issue.

The clerkship directors have defined the required patient encounters and alternative learning experiences, using discipline-specific national guidelines where available. See Appendix. The Clinical Curriculum Committee has reviewed the composite list for each clerkship. There are defined levels of student responsibility, and the specific learning sites, both inpatient and ambulatory, are delineated. Clerkship directors currently monitor student encounters and required procedures and in one of the only applications for RedMed currently implemented in the M-3 year, there is central monitoring by the Office of Medical Education for completion of required clinical encounters. All clerkships have alternative educational experiences, primarily online cases, to assist students who have difficulty completing specific required encounters. According to faculty, this remediation is rarely needed.

The educational program objectives are distributed to prospective and incoming students, faculty members and residents, and are posted on the Office of Medical Education website. The Office of Admissions is responsible for providing prospective students with the curriculum objectives and the associate dean for medical education explains the school's objectives and the role they play in the curriculum during new student orientation. All course and clerkship syllabi are expected to explain how the course/clerkship objectives link to and support the school's objectives. Students also respond to questions about this linkage on the required course and clerkship evaluations. All full-time and volunteer faculty, graduate students, and resident physicians with responsibility for teaching, assessing, and supervising students receive a copy of the course/ clerkship syllabus. This includes distribution to grants (voluntary) faculty, who are oriented to the objectives by their departmental education leadership. In AY 2012-2013, the associate dean for faculty affairs began distributing the school's educational objectives at the New Faculty Orientation, and the Office of Graduate Medical Education began distributing them at annual Residents as Teachers (RATS) workshop for incoming PGY-1 trainees. In the opinion of the survey team, educational program objectives have been disseminated and are understood by students, faculty, residents and graduate students.

B. Structure of the Educational Program

1. General Design

The curriculum spans 150 weeks over four years. See the Appendix for a schematic diagram of the four-year curriculum. The first year consists of 36 weeks of formal instruction. Six basic science courses, which include gross anatomy, genetics and molecular medicine, microanatomy, neuroscience, embryology, and physiology, run in parallel with the yearlong introduction to clinical medicine course. The introduction to clinical medicine course, which includes an interdisciplinary clinical case component, focuses on introducing professionalism and humanism, culture and diversity, the scientific method as it relates to studies conducted in humans, epidemiology, biostatistics, health behaviors/nutrition, and basic clinical skills (history and physical exam). The purpose of the yearlong interdisciplinary clinical case component is to help students integrate the basic and clinical sciences. Students also participate in community-based preceptorships. A longitudinal standardized patient project introduces students to patient continuity and documentation, and engages the students in increasingly challenging aspects of patient interaction and clinical reasoning. There are 821 scheduled hours of instruction in year one with 44.2 percent of those hours taking place in lecture format.

The second year, which is 34 weeks in duration, is designed to ensure that students have the basic concepts and knowledge in clinical neuroscience, microbiology and immunology, pathology, and pharmacology. The continuation of the introduction to clinical medicine with the interdisciplinary clinical case component focuses on clinical skills, complex communication skills, clinical/diagnostic reasoning, ethics, health care financing, medical informatics, evidence-based medicine, nutrition, and health promotion. Students again participate in community preceptorships. In the religion and medicine course, students learn about how a patient's religious and spiritual beliefs impact

one's views on clinical care and the physician-patient relationship. There are 788.5 hours of instruction in the second year with approximately 48% of those hours spent in lecture.

In the third year, students complete seven core clinical clerkships over a 46-week period. The clerkships include family medicine (six weeks); internal medicine (eight weeks); neurology (four weeks); obstetrics and gynecology (six weeks); pediatrics (six weeks); psychiatry (six weeks); and surgery (eight weeks). In addition, students may take up to four weeks of electives during the year. There has been a change in the final year of study, which moved the four-week neurology clerkship to third year for this year's clerks and will decrease the required M-4 experiences for AY 2013-2014. The final year of study for AY 2012-2013 currently consists of 34 weeks, with a combination of required four-week sub-internships and electives. Students must take a sub-internship in family medicine, medicine, or pediatrics; a surgical/perioperative medicine selective; an ambulatory rotation; and AHEC rotation. Either the ambulatory or AHEC rotation must be in a primary care area. Each of these required rotations is four weeks in length. Students are also required to take at least 14 weeks of electives and the ACLS course.

Activities in which the students are engaged include team-based learning activities in physiology during the first year and in the pharmacology, clinical neurosciences, microbiology, and pathology during the second year. There are case-based activities in the physiology, genetics and molecular medicine, introduction to clinical medicine, and clinical neuroscience. In years one and two, students participate in interdisciplinary clinical cases, and the neurosciences course has small group case-based sessions. Independent learning assignments include a self-instructional module in neuroscience that students must complete on their own; a web-based pharmacology exercise involving drug interactions; gross anatomy clinical exercises that are completed independently; a report on a the pathologic basis of disease; and a genetics exercise focused on a particular mutation and its effect on an individual. Gross anatomy, microanatomy, and neuroscience provide opportunities for laboratory-based learning. In addition to the introduction to clinical medicine course, six of the seven clerkships use standardized patients. Simulation is used in pathology, introduction to clinical medicine, pharmacology, physiology, obstetrics/gynecology, and pediatrics. Students have the opportunity for computer-based learning in the introduction to clinical medicine and genetics and molecular medicine course. In addition, the family medicine, medicine, and pediatrics clerkships provide opportunities for computer-based learning. The school has made progress in limiting the number of lecture hours and incorporating opportunities for engaged learning, however, there are limited opportunities for students to participate in active learning and independent studies. When the team asked for specific examples of active learning, the examples provided were the interactive learning activities of the anatomy lab, neurosciences lab, small group case presentations, team-based learning and the longitudinal standardized patient program, all activities with school-prescribed learning objectives.

Students have opportunities to learn and practice skills of critical judgment based on evidence in the integrated clinical case component of the introduction to clinical medicine course. Students evaluate resources in preparation for the session and, during the session, the faculty mentor models critical judgment based on the evidence. Students also learn and practice evaluating evidence critically in the pathology team-based learning sessions. During these sessions, a clinician and a pathologist model this skill as they work through each case and feedback is provided to students as they respond to questions. In the introduction to clinical medicine course, students are taught critical evaluation of the evidence in biostatistics/epidemiology, evidence-based medicine, and informatics sessions. Students must read the literature and be prepared to discuss it for small group sessions, conferences, and at the bedside during the core clerkships. They must also attend grand round presentations. These activities provide students with opportunities to develop skills of critical judgment based on evidence, to receive feedback from faculty and residents and to learn from their peers. Students receive feedback on the development of independent learning skills as part of the individual readiness assessment during the team-based learning activities. In the interdisciplinary clinical case component of the introduction to clinical

medicine course, students are responsible for coming to each session with prepared answers to case-based questions that they will be discussing.

Students are taught about societal needs and demands on health care in the introduction to clinical medicine course, which includes ethics, health care for older adults, health care financing, and managed care. In addition, students learn about this topic experientially during the required community preceptorship, which exposes students to community resources that deal with the care of the indigent and HIV/AIDS patients. One of the second year electives gives students an opportunity to work at one of four free clinics, which provides them with an understanding of societal needs and demands on health care. The genetics and molecular medicine course presents six patient interviews that provide students with the opportunity to learn about the kinds of issues patients face as they deal with very complex medical needs. During the clinical years, all students have opportunities to learn about societal needs and demands on health care in their required clerkships, all of which expose students to the care for underserved and underrepresented groups of patients. Students must also complete a community project related to health care as part of the requirements for the third year family medicine clerkship.

Students have opportunities to participate in educational sessions that involve the application of the scientific method, accurate observation of biomedical phenomena, and the collection, analysis, and interpretation of scientific data throughout the preclinical and clinical curriculum. Discussions occur regularly in all of the preclinical courses about discoveries in the basic sciences that have applications to clinical medicine. In addition, the introduction to clinical medicine course includes content on this topic in its evidence-based medicine unit. The laboratory experiences in the gross anatomy and neurosciences courses provide students with opportunities to observe abnormalities in the human anatomy and to compare them with normal anatomy. The dry lab in the second year microbiology course also provides a hands-on experience in interpreting lab results. The pathology course provides examples of normal vs. abnormal, which help students observe biomedical phenomena. During all of the required clinical clerkships, students have opportunities to observe how the body is impacted by disease.

In most of the preclinical courses, students have small group sessions that focus on clinical cases and the analysis and interpretation of test results. The introduction to clinical medicine course includes a unit on evidence-based medicine that teaches students some of these skills. All of the clinical clerkships require students to make recommendations about the collection of patient data and to present the results with their interpretation.

The first two years of the educational program are delivered only at the Louisville campus. Years three and four are delivered at two campuses. The Trover campus, located in Madisonville, Kentucky, is a rural track designed to accommodate six to eight third-year and six to eight fourth-year students in their clinical rotations. Students apply for dedicated admission to the Trover Rural Track program by indicating their interest on the University of Louisville Secondary Application. Of note, approximately 40 students apply for admission to the Trover campus. Since 1998, 77 students have completed their clinical years at the Trover campus. In June 2011, the LCME approved a pilot project for an accelerated curriculum track at the Trover campus, the Rural Medicine Accelerated Track or RMAT, which will provide a pathway to the M.D. degree in three years. The track uses the summers so that students complete the required 130 weeks in three years. It is designed to facilitate entry into the care of the underserved for a small number of graduates each year. While the mission is different, all educational objectives, required clinical encounters, modes of assessment and grading rubrics are identical. There is one clerkship director who is responsible for the objectives, clinical encounters and grades. The first students to access this track will matriculate in AY 2013-2014.

Additionally, clerkships for the students who complete the M-3 and M-4 years in Louisville take place at multiple sites. Clerkship directors communicate with faculty at various sites via email and

departmental or clerkship meetings. Since the last site visit, the school has initiated more regular visits by the clerkship directors to the site in Madisonville, Kentucky. On average, each clerkship director visits the Trover campus once every 12-18 months, however, the team learned of a director who has not visited in the past two years. The associate dean at the Trover campus (or his designee) attends the monthly clinical curriculum committee meeting by video conferencing and interacts directly with clerkship directors at those meetings. In addition, the associate dean at the Trover campus travels to Louisville every month and meets with clerkship directors as needed. In several of the clerkships the communication between the clerkship director and teaching chiefs (U of L SOM terminology for site director) at Trover can be described as more indirect and without a consistent pattern. There is no policy documenting the frequency of communication between clerkship directors and those directly responsible for education at a given site.

In the clinical clerkship rotations, student evaluations of required clerkships are reviewed by the clerkship directors and the educational policy committee (EPC); inconsistencies among clinical sites can be reported by students in the free text comment boxes at the end of the questionnaire and any pattern in these responses would be reported to the EPC as part of the EPC's annual clerkship review process. On site the team asked to see annual quantitative data for each of the clinical sites in each of the clerkships. That information was not able to be extracted from the database and is not reviewed in that fashion by the clerkship directors or the EPC. Except for rotations at the Veteran's Hospital, qualitative comments on individual sites are not clustered for easy analysis.

The school has a system of track captains, third year students who serve as liaisons to the clerkship directors and the associate deans, designated to report inconsistencies among sites directly to a clerkship director, the interim associate dean for student affairs, or the associate dean for medical education. If any instances occur, the clerkship director would discuss the concern with the faculty who teach at the site in question, provide guidance about the needed changes, and ensure the appropriate changes are made. As a final option, the clerkship director may determine that a systems-issue (for example, inadequate faculty or patients) may be the cause of the inconsistency, in which case a decision may be made not to send students to this site. In the opinion of the survey team that the track captain system is not comprehensive and robust enough to ensure comparability across the clinical sites.

The same objectives, assessment methods, and policies for determination of grades are used in all courses and in all clerkships across all educational sites. There is only one student promotion committee to assess the progress of all students. There has been a recent addition to the promotions committee from the Trover faculty. The same assessment forms are used in all disciplines across the instructional sites. The clerkship director is directly responsible for overseeing the clerkship across all sites.

Regarding the comparability in performance between the two campuses, the Office of Medical Education reviewed the results for USMLE Step 2 CK performance at the Louisville and Madisonville campuses, and this analysis showed no significant differences in results between the two campuses.

Since the 2005 LCME site visit, the school has been making incremental changes to the curriculum. The curriculum at the medical school is currently undergoing change and will continue to do so, as a result of an extensive and intensive curriculum review that began early in AY 2009-2010 and ended early in AY 2011-2012. Planning and implementation of the recommendations that came out of the curriculum review process began in AY 2010-2011. Initial changes consisted of 1) piloting a new required third-year course, topics in clinical medicine (TCM), and 2) the new EPC policies allowing students to a) use work completed at AHEC sites to fulfill third-year clerkship requirements to count toward fourth year requirements and b) use third year vacation time to take a career exploration elective. The TCM course was implemented to create learning experiences that would eliminate gaps in the curriculum that were identified by review of LCME

standards, the results of the AAMC GQ (high percentages of inadequate coverage were used to identify curricular gaps), and review of the school's educational objectives. The new EPC policies created more flexibility in the clinical block schedule permitting students elective time to explore non-core medical disciplines earlier in their medical education.

Other changes that were approved or implemented in AY 2010-2011 as a result of the curriculum review process include: a) a laptop requirement was implemented for the class of 2015; b) the replacement of the second year elective requirement with a preclinical elective requirement, which permits students more flexibility to complete the required two credits of preclinical electives any time before the end of their second year; c) the replacement of the second year genetics course and the first year biochemistry course by a new required first-year course, genetics and molecular medicine; and d) a piloted second year integrated curriculum schedule, including a weekly integrated TBL session. These changes were implemented to facilitate greater integration between the basic sciences and the clinical sciences and to allow students greater flexibility in career planning. The second year schedule can be described as temporal alignment of individual course with integrated team-based learning exercises to integrate content between disciplines.

A hybrid curriculum will be designed and implemented over the next few years. A fully integrated first year curriculum is proposed for rollout in AY 2014-2015. It is in the early planning stages; a schematic of the new curriculum was presented to the survey team.

The school includes all of the subjects required for accreditation in the curriculum (see Appendix) and is beginning to use the RedMed curriculum database management system for curricular mapping. At the time of the site visit, the school was in the early stages of mapping the preclinical curriculum. On site the team asked the school to search content in RedMed on several topics. The output provided the learning sessions in which the searched content had some coverage.

While the Madisonville regional campus program calls its students, Trover "Track" students, in actuality the educational program objectives are the same. The content emphasis is framed in a rural setting. There are no additional core clinical encounters. Methods of instruction and student evaluation are identical. It was reported that the standardized patients travel to the Trover campus to provide the same OSCE experience students.

2. Content

The curriculum includes behavioral and socioeconomic subjects in addition to basic science and clinical disciplines. In the 2012 AAMC GQ report, the percentages of U of L SOM respondents who rated coverage as inadequate were higher than the national percentages in the following subjects: managed care (56% vs. 42%/), health care systems (47% vs. 35%), health policy (46% vs. 40%/), complementary and alternative medicine (41%/32%), and human sexuality (32% vs. 22%). A new course, Topics in Clinical Medicine, designed to address these and other topics, has been piloted by most students and will be a required two-day course in AY 2013-2014.

The students learn all of the organ systems in the preclinical courses and required clinical clerkships. In AY 2011-2012, the second year course directors piloted a new schedule in which all of the courses follow the course design of the pathology course. This design involves an introductory block followed by five blocks of study that focus on the body's organ systems; this new schedule was received positively and continues in the current academic year. In addition, the following third-year required clerkships cover all organ systems: family medicine, medicine, pediatrics, and surgery. The neurology clerkship covers the central and peripheral nervous system; the obstetrics and gynecology clerkship covers the breast and female reproductive system; and psychiatry focuses on the central nervous system.

Preventive care is a component of the medicine and family medicine clerkships, and students have lectures, reading assignments, and computer-based cases on preventive care. In addition, students experience aspects of preventive care on rounds as part of patient care activities. Examples of required assignments or experiences in required courses or clerkships in preventive care include the community preceptorship (Introduction to Clinical Medicine), conducting a preventive exam and writing a completed note (family medicine clerkship), smoking cessation standardized patient skills lab (Introduction to Clinical Medicine), lectures on contraceptive practices and screening practices (obstetrics and gynecology clerkship), and web-based lectures on preventive care (medicine clerkship).

Students learn about acute care through direct patient care experiences during the clinical clerkships. In surgery, students spend time in the emergency department and the operating room. The students are exposed to acute care on obstetrics and gynecology while spending time in the labor and delivery and operating rooms. The medicine and pediatrics clerkships also contain lectures and computer-based cases focused on acute care. A required critical care experience will be added to the fourth year in AY 2013-2014.

Chronic care is a large component of the medicine, psychiatry, and family medicine clerkships. Students spend time in the inpatient and outpatient setting caring for patients requiring chronic care. Examples of course or clerkship required assignments or experiences include one half day of small groups and lecture on chronic wound care (Topics in Clinical Medicine), web-based lecture on diabetes (medicine clerkship), chronic pain management computer module (Introduction to Clinical Medicine), CLIPP cases on eating disorders and sleep problems (pediatrics clerkship), and seminar on psychotherapy techniques (psychiatry clerkship).

Students learn about continuing care in the outpatient setting. Students rotate in the outpatient setting in family medicine, surgery, obstetrics and gynecology, psychiatry, and neurology. In AY 2009-2010, the ICM course introduced a longitudinal standardized patient experience so that first and second year students would have experiences treating the same cohort of patients over time. The standardized patients' presentations evolve over time in ways that are developmentally appropriate for the medical students.

Students learn about rehabilitative care in the geriatrics preceptorship during the ICM course and the family medicine clerkship nursing home visits. The new Topics in Clinical Medicine course focuses on rehabilitative care in one of its half-day sessions.

Students are exposed to end-of-life care during the core clerkships and other clinical activities. Specific examples of course and clerkship activities focused on end-of-life care include the one-week palliative care rotation in the medicine clerkship, and the geriatrics preceptorship and the hospice visit in the Introduction to Clinical Medicine (ICM) course.

In ICM 1 and 2, students have exposure to primary care during the clinical skills unit as part of their history and physical exam sessions, standardized patient experiences, and the preceptorship with a community physician. There are approximately 30 hours of standardized patient experiences with 20 hours focused on primary care. Sixteen of the interdisciplinary clinical cases in year one focus on primary care issues with 32 hours in the second year devoted to primary care content. Students complete six weeks of family medicine, eight weeks of medicine, and six weeks of pediatrics during the third year. All students are required to do a four-week ambulatory care experience in primary care during the fourth year. In addition, students are required to do a sub-internship in family medicine, medicine, or pediatrics.

During the preclinical years, students complete an eight-hour emergency medicine preceptorship in the first-year ICM course, and standardized patients are also used to teach clinical emergencies. Students also participate in a clinical emergency session that takes place

in the simulation center as part of the same course. The students have computer-based cases and standardized patients sessions dealing with emergency medicine issues in the clinical curriculum. The psychiatry clerkship has an emergency psychiatry requirement. During the preclinical years, students complete half-day preceptorships in geriatrics and hospice in the ICM course. Standardized patients are used to teach elicitation of a geriatrics history, performance of a mental status exam, and counseling for and obtaining an advance directive. There are lectures on health care for older adults, and students complete a web-based, self-study module on geriatric nutrition. Students must complete a geriatric syndrome training exercise on the family medicine clerkship. The family medicine clerkship also has web-based lectures on physiology of aging and polypharmacy.

Students learn about diagnostic imaging/radiology in the gross anatomy course through images related to the body region under dissection and by completing a self-study module on diagnostic imaging. Gross anatomy includes four one-hour clinical correlation lectures by radiologists. In the ICM 2 course, students also learn about diagnostic imaging/radiology during the interdisciplinary case conferences. During the clinical years, diagnostic imaging/radiology is covered in most of the clerkships at the bedside where students often observe physicians who are reading and discussing x-rays. Clinical pathology is taught primarily in the second year pathology course and during the core clerkships.

The ICM course contains learning objectives that address basic principles of clinical and translational research, and these objectives are assessed through quizzes (epidemiology), computer-based assignments (clinical ethics; evidence-based medicine), and small group participation (humanism, ethics, and professionalism). On site the school was able to provide a list of sessions where clinical and translational research content is covered in the curriculum. Students who participate in the Summer Research Scholars Program (SRSP) are not formally assessed on mastery of the basic principles of clinical and translational research, although those SRSP students seeking to be part of the Distinction in Research Track are required to submit an evaluation form completed and signed by their mentor. All students are regularly exposed to the basic principles of clinical and translational research in the interdisciplinary clinical case sessions, which integrate content from the basic sciences, clinical cases, and the medical literature. This topic is also reinforced at "Research! Louisville," an annual event that students attend so that they can meet faculty, classmates, graduate student and resident researchers. Students also have the opportunity to attend presentations given by nationally recognized researchers during this event.

The curriculum includes specific instruction in communication skills as they relate to physician responsibilities, including communication with patients and their families, colleagues, and other health professionals. In the Introduction to Clinical Medicine 1 and 2 courses, standardized patients and small group activities are used to teach students how to communicate with patients and their families. The students have the opportunity to further develop these communication skills and gain experience during the clerkships. The clerkships also provide students with the opportunity to gain experience with communicating with physicians as part of the medical team. The students gain experience in communicating with non-physician and other members of the health care team during the palliative care rotation and clerkships.

Students learn about the medical consequences of societal problems throughout the four years of the curriculum. This learning begins in the Introduction to Clinical Medicine course where students learn about problems such as substance abuse and addiction, obesity, homelessness, and the adverse effects of smoking. Interdisciplinary clinical cases also teach students about the medical consequences of societal problems. During the clinical years, students learn about the medical consequences of common societal problems in all of the required clinical clerkships. Students learn about domestic violence diagnosis and treatment in psychiatry clerkship seminars and during the obstetrics/gynecology core conferences and case-based sessions. Substance

abuse, impulse control, gambling addiction, management of violent and disruptive behaviors, and eating disorders are also covered during the psychiatry seminars, and students learn about child abuse during the pediatrics clerkship.

Issues related to cultural competence in health care are covered through formal instruction in a variety of learning experiences. In the ICM 1 course, a unit is focused on culturally appropriate care. First year students are required to attend a half-day symposium that includes sessions with local and regional speakers and breakout sessions on topics that engage students in issues related to cultural competence. Examples of the breakout sessions include caring for LGBT patients and patients from rural backgrounds. The purpose of the symposium is to educate and provide awareness to future healthcare professionals regarding cultural competence and cross-cultural competence. In the religion and medicine course, clergy, faculty, and medical ethicists discuss a case and students participate in the session. Students train in clinical settings with patients of diverse cultures and backgrounds; Louisville is a large metropolitan area with a diverse patient population. There are no formal clerkship didactics devoted entirely to cultural competence. Students have the opportunity to participate in a patient interview that relies on the assistance of an interpreter. Some of the computer-based cases that students must complete in surgery, family medicine, medicine, and pediatrics include cultural competence topics. Cultural competency educational objectives are assessed in both the preclinical and clinical years. In the preclinical years, student knowledge about cultural competence is assessed using high stakes examinations and web-based quizzes. The skills, behaviors and attitudes related to cultural competence are assessed in the second year clinical skills examination. Student knowledge about cultural competency is assessed during the clinical years in USMLE Step 2 CS, fourth year clinical skills examination, as well as the standard student clinical performance evaluation form used in all of the required clerkships. As noted in the IS section, in the 2012 AAMC GQ 99% of respondents agreed or strongly agreed that they are adequately prepared to care for patients from different backgrounds, vs. 96% of national respondents, and 90% rated instruction in culturally appropriate care for diverse population as appropriate vs. 83% of national respondents.

Formal instruction on the demographic influences on health care quality and effectiveness (including disparities in health care delivery) takes place during the preclinical years primarily in the Introduction to Clinical Medicine course. Students are taught how to assess the whole patient, including cultural, social, demographic, behavioral, nutritional, and other dimensions. Students first learn this skill in standardized patient encounters and during preceptorships. Interdisciplinary clinical case sessions also include discussions about this topic, but student mastery of objectives is not formally evaluated during these sessions, as it is in Introduction to Clinical Medicine. During the clinical years, demographic influences on health care quality and effectiveness are taught informally, when students are at clinical sites discussing patients with faculty and residents. Students receive training on the disparities of health care delivery, especially for African Americans, teenagers, and LGBT populations on the obstetrics/gynecology clerkship. This topic is also addressed during the community psychiatry, psychiatric epidemiology, and in-patient components of the psychiatry clerkship.

The Cultural Competency Symposium referenced above, a required first-year student experience, has as one of its objectives to increase student awareness about cultural differences. It is hoped that as a result of this increased awareness, students are better able to understand their own cultural differences and biases. Some of the interdisciplinary case conference sessions emphasize student self-reflection and awareness of their own cultural biases. In the religion and medicine course students discuss scenarios in terms of how their own religious beliefs could impact patient care.

In the preclinical years, course objectives on gender and cultural biases in health care are taught primarily in Introduction to Clinical Medicine. Culturally appropriate care, health care for older

adults, and the advanced history taking and complex communication skills lab units all include learning experiences related to this topic. Student mastery of objectives related to gender and cultural biases in health care is assessed using computer-based modules that students must complete for the culture in patient care unit. Students also receive formative feedback on gender and cultural biases during standardized patient encounters in ICM during the sexual history standardized patient session. In the clinical years, clerkship specific objectives on gender and cultural biases in health care are taught indirectly at the bedside, during case-based discussions, and in the computer-based cases that student complete independently. Mastery of clerkship objectives on this topic is assessed using the student clinical performance evaluation form. The required fourth year clinical skills examination assesses student mastery of the school's educational objectives related to gender and cultural biases. As noted in the IS section on institutional diversity, there were candid comments suggesting that awareness of biases is not universal among the student body.

The ICM course includes course objectives on ethical issues and human values. In the first year, the course objectives on ethical issues and human values are covered primarily in one six-week block in the spring semester, and the year two objectives on this topic are taught primarily in a unit on ethics at the end of the fall semester. All of the required clerkship syllabi or clerkship documents include the goals or objectives that link to the school's ethical decision making objective. During the preclinical years, formal formative peer evaluations of professionalism are completed electronically and anonymously by students at the end of the gross anatomy course and twice in the ICM course. The interim associate dean for student affairs reviews these evaluations before the evaluations are sent to the students by their respective advisory deans. In addition, unethical behavior on the part of a student may be reported directly to a course director, the associate dean for medical education, or the interim associate dean for student affairs. There have been discussions regarding the development of a honor and professional council that would be run by students and serve as an early warning system to provide guidance to students whose behavior may reflect unethical conduct. This council was not in place at the time of the survey visit. During the clinical years, residents and attending physicians completing the student clinical clerkship evaluation form, which lists honor and integrity as one of the behaviors in the professionalism section, evaluate students on ethical behavior. In addition, students in all required clinical clerkship rotations must participate in a mid-clerkship formative feedback session, and any concerns about unethical behavior are to be addressed during this session. Student involvement in clerkship leadership is facilitated through the use of a track captain system in which one student in each of the nine clerkship tracks serves as the point person for all students in one track. This track captain represents students at regular meetings with the interim associate dean for student affairs and the associate dean for medical education. During these meetings, track captains have the opportunity to report to or consult with the associate deans about any student perceived as displaying unethical behaviors. Breaches of ethics in patient care would be identified by an attending physician or resident and reported immediately to the clerkship director for action.

YEAR ONE/ACADEMIC PERIOD ONE

Formal instructional hours

Course	Lecture	Lab	Small groups*	Patient contact	Other†	Total
Gross Anatomy	41	97	0	0	25.5	163.5
Introduction to Clinical Medicine I	58.5	0	32	39	29	158.5

Microscopic Anatomy	39	32.5	0	0	8.5	80
Neuroscience	38	20	4	0	36	98
Embryology	17	0	4	0	27.5	48.5
Genetics & Molecular Medicine	85.5	0	12	8	14	119.5
Physiology	84	1	20	4	44	153
TOTAL	363	150.5	72	51	184.5	821

* Includes case-based or problem-solving sessions

† Describe – mainly independent learning and review sessions and exams

Course	Objectives (Y/N) ¹	Formative Assessment ² (Y/N)	Narrative Assessment ³ (Y/N)	Students' Rating(s) of Course (national comparison) ⁴ <i>Course evaluation mean*</i>	Residents/graduate students used as teachers/supervisors ⁵ (Y/N)
Gross Anatomy	Yes	Yes	No	84% (87%) 3.9	Yes
Introduction to Clinical Medicine I	Yes	Yes	No	88% (89%) 4	Yes
Microscopic Anatomy	Yes	Yes	No	67% (73%) 4.0	Yes
Neuroscience	Yes	Yes	No	70% (82%) 3.7	Yes
Embryology	Yes	Yes	Yes	3.9	Yes
Genetics & Molecular Medicine	Yes	Yes	No	Genetics 64% (66%) Biochemistry 74% (57%) 4.3	Yes
Physiology	Yes	Yes	No	93% (88%) 4.0	Yes

1. Are there objectives for the course that are provided to students?

2. Do students have opportunities for formative assessment to test their knowledge/skills?

3. Do students receive a narrative assessment for either formative or summative purposes?

4. Indicate the source of the student rating and provide normative data if available (for example, if the AAMC GQ is used). Describe what is being rated (course quality, preparation for clerkship). More than one rating can be provided (expand the table) **Course evaluations-Overall quality of course*

5=excellent,

4=very good, 3=good, 2=fair, 1=poor

5. Are residents and/or graduate students used as teachers/supervisors?

YEAR TWO/ACADEMIC PERIOD TWO

Formal instructional hours

Course	Lecture	Lab	Small groups*	Patient contact†	Other‡	Total
Introduction to Clinical Medicine II	90.5	0	29.5	42	27	189
Pathology	73	5	38	1	94	211
Pharmacology	80	0	18	1	60	159

Microbiology	92.5	0	18	0	60	170.5
Medicine and Religion	1	0	2	0	5	8
Clinical Neuroscience	40	0	3	0	8	51
TOTAL	377	5	108.5	44	254	788.5

* Includes case-based or problem-solving sessions

† Describe - mainly independent learning and exams - see individual courses for details

** Analysis reflects new definition of independent learning by MedBiquitous Curriculum Inventory Working Group Standardized Vocabulary Subcommittee. *Curriculum Inventory standardized instructional and assessment methods and resource types* (September 2012 version). Washington, DC: Association of American Medical Colleges.

YEAR TWO

Course	Objectives (Y/N) ¹	Formative Assessment ² (Y/N)	Narrative Assessment ³ (Y/N)	Students' Rating(s) of Course (national comparison) ⁴ Course Evaluation mean*	Residents/graduate students used as teachers/supervisors ⁵ (Y/N)
Introduction to Clinical Medicine II	Yes	Yes	No	88% (89%) 3.6	No
Pathology	Yes	Yes	No	64% (85%) 3.4	Yes
Pharmacology	Yes	Yes	No	95% (72%) 3.8	Yes
Microbiology	Yes	Yes	No	91% (81%) 3.3	Yes
Medicine and Religion	Yes	No (2 day course)	No	Not provided	No
Clinical Neuroscience	Yes	Yes	No	70% (82%) 3.7	Yes

1. Are there objectives for the course that are provided to students?
2. Do students have opportunities for formative assessment to test their knowledge/skills?
3. Do students receive a narrative assessment for either formative or summative purposes?
4. Indicate the source of the student rating and provide normative data if available (for example, if the AAMC GQ is used). Describe what is being rated (course quality, preparation for clerkship). More than one rating can be provided (expand the table)
* Course evaluations-Overall quality of course 5=excellent, 4=very good, 3=good, 2=fair, 1=poor
5. Are residents and/or graduate students used as teachers/supervisors?

Summary of Years One and Two

Basic Science Disciplines	% Rating Preparation for Clinical Clerkship Rotations as Excellent or Good	National % Rating Preparation for Clinical Rotations as Excellent or Good
Biochemistry	74%	57%
Genetics	64%	66%
Gross Anatomy	84%	87%
Immunology	83%	79%

Microbiology	91%	81%
Pathology	64%	85%
Pharmacology	95%	72%
Physiology	93%	88%
Behavioral Science	82%	82%

The M-1 and M-2 curricula are in a slow transition phase. A temporal alignment with team-based learning sessions to accomplish interdisciplinary connections has occurred in the second year. The first year is still discipline-based. Some courses are still basically all lecture format, such as clinical neuroscience. All of the courses have learning objectives. Residents and graduate student preparation for teaching was documented in all but one course. At the minimum, all non-faculty teachers received the objectives for the session and a briefing. In the embryology course, preparation was described as access to RedMed and email reminders to review the information. There was a dearth of narrative assessment, in spite of learning sessions or faculty contact time that would be conducive to such assessment, e.g. the longitudinal preceptorship and in-class activities in the Introduction to Clinical Medicine course, written assignment and laboratory in anatomy, team-based learning and simulation in physiology, wiki postings for a grade in Medicine and Religion, and paper and oral presentation in genetics and molecular medicine. Narrative assessment began in AY 2012-2013 for the anatomy and embryology courses. It is planned for AY 2013-2014 in the Introduction to Clinical Medicine course. Formative assessment is now in place in all courses, addressing concerns noted in the independent student analysis. The general feeling among the faculty who were interviewed was that the educational resources are inadequate. Faculty expressed the need to have more IT support. The overflow room for the lecture halls was frequently cited. While a creative solution to the anatomy laboratory space problem has been identified, six to a cadaver with three dissecting while the other three students study and then are taught by their peer group, the environs are still noted to be problematic. Of note, the school has had a professional evaluation of the ventilation system, based on student comments, and the system meets environmental standards. The ICM series has an array of instructional activities on site and in preceptors' offices, which is appropriate to the objectives of the course. Supervision of students is by members of the faculty. Standardized patients play an important role in providing feedback to medical students. There is space for clinical skills teaching, however the need for additional space was noted in the database. As noted in the 2012 AAMC GQ, there is room for improvement for the pathology course with regard to its preparation for clinical clerkship rotations.

YEAR THREE

Clerkship	Total wks	% Amb.	# Sites used*	Typical hrs/wk formal instruct**	Clinical encounter criteria† (Y/N)	Patient log (Y/N)
Family Medicine	6	100	0/159	40	Y	Y
Pediatrics	6	50	3/7	25	Y	Y
Surgery	8	15	6/2	10-14	Y	Y
Medicine	8	5	4/4	25-30	Y	Y
OB/GYN	6	58	2/8	10	Y	Y
Psychiatry	6	33	6/3	6.5	Y	Y

Neurology	4	40	4/1	5	Y	Y
-----------	---	----	-----	---	---	---

*Include the number of sites used for inpatient teaching and the number of sites used for outpatient teaching in the clerkship in the following format: # inpatient / # outpatient

**Sum of lectures, conferences, and teaching rounds; show the range of hours if there is significant variation across sites

† Have criteria for the kinds of patients, clinical conditions, or procedural skills been defined? Yes

YEAR FOUR

Clerkship	Total wks	% Amb.	# Sites used*	Typical hrs/wk formal instruct**	Clinical encounter criteria† (Y/N)	Patient log (Y/N)
No required clerkships, only selectives and elective						
Neurology has been moved from The 4 th year to the 3 rd year						

*Include the number of sites used for inpatient teaching and the number of sites used for outpatient teaching in the clerkship in the following format: # inpatient / # outpatient

**Sum of lectures, conferences, and teaching rounds; show the range of hours if there is significant variation across sites

† Have criteria for student clinical encounters been defined?

YEARS THREE AND FOUR

Clerkship	Objectives ¹ (Y/N)	% Observed/ History ² (National %)	% Observed/ Physical ² (National %)	Mid- clerkship Feedback ³ (Y/N)	Average Timing of Grades ⁴	Student Satisfaction (National Norm) ⁵ <i>Clerkship evaluation means*</i>
Family Medicine	Yes	76% (77%)	80% (80%)	Yes	5 weeks 90% in 6 weeks	81% (82%) 3.6
Pediatrics	Yes	93% (78%)	93% (81%)	Yes	4 weeks 90% in 6 weeks	95% (87%) 3.6
Surgery	Yes	52% (52%)	54% (57%)	Yes	Immediate numeric grade and 100% of comments in 6 weeks	78% (83%) 3.4
Medicine	Yes	86% (77%)	88% (80%)	Yes	6 weeks 75% in 6 weeks	93% (91%) 3.7
OB/GYN	Yes	69% (59%)	73% (70%)	Yes	2 weeks 100% in 6 weeks	80% (76%) 4.0
Psychiatry	Yes	89% (83%)	90% (81%)	Yes	3 weeks 100% in 6 weeks	84% (85%) 3.9
Neurology	Yes			Yes	3 weeks 100% in 6 weeks	69% (71%) 3.3

1. Are there objectives for the clerkship?
2. Provide data from the AAMC GQ on the percent of students who report being observed performing a history and a physical examination (provide national normative data) (ED-27)
3. Do students receive mid-clerkship feedback?
4. Provide the average time for students to receive their grades
5. Provide data on student satisfaction with the quality of the clerkship (normative data); *Clerkship evaluations- Overall quality of course 5=excellent, 4=very good, 3=good, 2=fair, 1=poor

Summary of Years Three and Four

Topic	Percent of respondents indicating that instruction was:		
	Inadequate	Appropriate	Excessive
Diagnosis of disease	7%	92%	1%
Management of disease	7%	92%	1%
Health maintenance	8%	90%	2%
Disease prevention	6%	94%	0%
Health determinants	18%	82%	0%

The core clinical clerkships in the third year have been joined by a required neurology clerkship, which has moved from the fourth year. In the opinion of the survey team, all of the clerkships were more than adequate in terms of patients and faculty, however, there was some concern about the challenges in identifying family medicine preceptors and in the event of an increasing class size, there would be challenges on the obstetrics and gynecology clerkship. All interns complete a Residents as Teacher module during orientation. Residents can attend supplemental faculty development sessions, but there is no record of attendance in family medicine. The quality of resident teaching was noted to be outstanding in medicine and obstetrics and gynecology. Medicine has a progressive RATs program in that spans the residency program. The independent student analysis did comment on variable quality of teaching of some family medicine and surgery residents; however this finding, noted for surgery in at the last full survey, was not corroborated through on-site interviews. All clerkships provide formal mid-clerkship feedback, however several clerkships noted that due to time constraints, it is a common practice for the feedback to be delivered by a resident rather than a faculty member. The midclerkship feedback is done formally by residents. The timing of release of grades to students is currently not an issue, though it had previously been an issue for several clerkships as noted above, corroborated by source documentation requested on site for the current academic year.

Elective Courses

The number of weeks available for electives across the four-year curriculum are zero, two, zero to four and 14, respectively in ascending academic year order. The duration of the preclinical electives varies as some electives are clinical and can be completed at any time in the M-1 and M-2 curriculum. Beginning in AY 2012-2013 students may take up to four weeks of electives in the third year. There are no policies that govern the number of weeks that can be taken out of the U of L SOM or within the same specialty area. The average number of weeks that the most recent graduating class spent at an outside institution is four weeks. The rising fourth year class will have an enhanced fourth year experience in AY 2013-2014, which will specify the types of electives that are required depending on a student's chosen career path.

3. Separate Educational Tracks (if applicable)

The Trover campus is a regional campus in Madisonville, Kentucky. Trover track students spend the third and fourth year of their curriculum at this site. The rural track differs from the traditional track in its setting and in the faculty-student learning setting. Students will interact with family medicine residents on one-third of the clerkships, however, the rest of the clerkships have direct student-faculty interaction. All learning objectives, required clinical encounters, assessment modalities, and grading rubrics are the same, thus the rural track is only different in the faculty-student learning setting. The school was approved for an accelerated rural track curriculum. At the present time no students are in this track but students in the entering class of 2013 will have the option to accelerate their education by completing 130 weeks of instruction in three years.

5. Summary of Curriculum Structure

In summary, the curriculum is designed to meet the objectives of the educational program, which are based on the competencies of professionalism, the scientific foundations of clinical practice, information management and critical thinking, problem solving and decision making, clinical skills, communication, economics of medicine and health care delivery systems, and social, cultural and community contexts of health. The percentage of U of L SOM respondents on the 2012 AAMC GQ who were satisfied or very satisfied with their overall medical education exceeded the national percentage (95% vs. 89%). Students identify the strong clinical education at various institutions, which serve diverse populations, to be the strength of the school. Self-assessment of readiness for the next phase of training is indicated in the following table:

I am confident that I have the following:	% Responding Agree/Strongly Agree
Clinical skills to begin a residency program	92%
Fundamental understanding of common conditions and their management	99%
Communication skills to interact with patients and health professionals	99%
Basic skills in clinical decision-making and the application of evidence	97%
Fundamental understanding of the issues in the social sciences of medicine	95%
Understanding of the ethical and professional values expected of a physician	100%
Adequately prepared to care for patients from different backgrounds	99%

In the opinion of the survey team there is an appropriate balance between inpatient and outpatient clinical experiences as well as opportunities to experience primary care and subspecialty care. As the curriculum evolves, there is less reliance on lecture and new types of learning modalities are being implemented to support the overarching educational objectives.

C. Teaching and Assessment

Supervision of Students

All physicians involved in the educational program of U of L SOM hold faculty appointments, full-time or gratis (see Faculty section). Graduate students serve as preceptors for laboratory sessions and as tutors. Residents and fellows are active participants in the M-3 and M-4 program. They facilitate small groups and precept physical examination skills sessions in the preclerkship curriculum. The team identified several assessment roles of non-faculty including pediatric residents co-grading an oral examination (in partnership with a faculty member) and the common occurrence of residents providing formal mid-clerkship feedback in several of the disciplines, as noted previously.

Preparation of Residents and Others as Teachers

All residents participate in a daylong residents as teachers (RATs) workshop during their intern year, which helps to provide guidance on effective teaching methodology, leadership of small groups, and provision of feedback (see below). Residents involved in the student history and physical examination preceptorships are given written guidance on how to conduct an observed inpatient history and physical examination. The exercise is designed to have great flexibility depending on patient presentation or illness, student needs, and faculty or resident teaching

preferences. Residents are involved in the pathology simulated case sessions for small groups of 10 students. A worksheet is provided to the students to complete prior to the session and residents are provided with a completed worksheet and additional reference materials to ensure comparable learning experiences in all of the small groups. In addition, the residents are instructed to read and review the relevant sections in the required textbook that pertain to the diseases and conditions scheduled for discussion. Gross specimens are selected to support the discussion and are available for residents to review prior to the session. Faculty and residents meet at the simulation center 30 minutes in advance to finalize preparations. One resident and one fellow from a clinical department serve as small group facilitators for a pharmacology problem-solving session. They are provided with a copy of the case with learning objectives and suggested answers. Another resident and another fellow from a clinical department serve as small group facilitators for a patient simulation sessions. In these sessions, each small group includes two facilitators – one a faculty member from the Department of Pharmacology and Toxicology and the other a faculty member, resident, or fellow from a clinical department. The course director provides a copy of the case and a mentor's guide to all facilitators.

In order to improve medical student education, particularly in the clerkship years, an assistant dean for graduate medical education position was created and filled in 2006. The assistant dean was charged with improving resident teaching and evaluation skills. In February 2007, the GME office initiated the annual RATs workshop noted above. Between 20 and 25 first year interns are assigned to one of the five RATs workshops; residents from different specialties are dispersed equally among the workshops to ensure a diverse group. GME staff track attendance and report back to departments and to the associate dean for medical education to ensure that all interns complete this learning experience.

The RATs curriculum is grounded on the a model from UC Irvine School of Medicine but has been modified and improved each year since 2007 to respond to student and faculty evaluations and changes in relevant content. The following topics are covered: micro-skills of teaching, orientation to rotation/clerkships, providing feedback, teaching procedures, bedside teaching, and delivering lectures. In 2012, a brief module on how residents can help mentor students toward more responsible behavior when using online social networking sites was added (see table below).

In addition, one clinical department conducts its own development programs for residents and fellows. The department of medicine requires all of the interns to participate in a two-day retreat at the end of their intern year. One of the retreat topics is effective teaching in a clinical setting, which emphasizes the importance of their role as teachers and reviews some specific teaching techniques in the clinical setting (e.g., extending the case, priming the next task, role-modeling). At the end of the medicine PGY-2 year, a similar but smaller half-day retreat is held and an abbreviated version of the teaching session is included. Resident teaching is evaluated for all the clerkships. The standard clerkship evaluation contains the following overall assessment on: knowledge and accessibility, attempting to teach when appropriate, role modeling, treating students fairly, providing timely and constructive feedback and effectively teaching procedures. The rating is done on a 1 to 5 Likert scale (1=poor, 2=fair, 3=good, 4=very good, and 5=excellent). All items for all clerkships had mean values above 4.0 except for surgery with mean scores of 3.4 to 3.9 in attempting to teach when appropriate, role modeling, and providing feedback. In the summary of findings in the independent student analysis, teaching in the surgery and family medicine clerkships were noted to be problematic. During interviews with medical students, the team was unable to corroborate that teaching in surgery and family medicine was an ongoing consistent problem. Of note, the clerkship director in surgery was aware of the comments in the independent student analysis and has recently enhanced teaching skills sessions and emphasized fair treatment of medical students. The team learned at the site visit that neither the clerkship director nor the chair in family medicine had been aware of the comments in the independent student analysis prior to the interview at the site survey. Both were intent on meeting with students and rectifying any outstanding issue in medical student teaching. In the 2012 AAMC GQ the percentages of U of L SOM students who agreed or strongly agreed that resident teaching in the various clerkship discipline was effective, in comparison to national percentages were: family

medicine (73% vs. 79%), internal medicine (95% vs. 90%), obstetrics and gynecology (72% vs. 71%), pediatrics (92% vs. 84%), psychiatry 89% vs. 82%), and surgery (79% vs. 79%).

Clerkship	Objectives provided to residents (yes or no) and describe	Departmental programs for teaching and assessment skills (yes or no and summarize)	Resident participation centrally monitored (yes or no) and describe
Family Medicine	Yes-Distributed at orientation; posted to clerkship Website		Yes-Mandatory intern resident as teacher workshop. Attendance tracked in GME Office
Medicine	Yes-Distributed at orientation; posted to clerkship Website	Yes-End of year intern retreat with session on "Effective Teaching in the Clinical Setting"	Yes-Mandatory intern resident as teacher workshop. Attendance tracked in GME Office
Neurology	Yes-Distributed at orientation; in syllabus; posted to clerkship website		Yes-Mandatory intern resident as teacher workshop. Attendance tracked in GME Office
Obstetrics/Gynecology	Yes-Distributed at orientation; in syllabus, which is distributed in paper form and posted to clerkship website		Yes-Mandatory intern resident as teacher workshop. Attendance tracked in GME Office
Pediatrics	Yes-Discussed at orientation for residents delivered by clerkship director; emailed to residents		Yes-Mandatory intern resident as teacher workshop. Attendance tracked in GME Office
Psychiatry	Yes-Emailed to residents; discussed at outpatient clinical orientation		Yes-Mandatory intern resident as teacher workshop. Attendance tracked in GME Office
Surgery	Yes-Emailed; posted to clerkship website	Yes-enhances skills teaching (new AY 2012-2013))	Yes-Mandatory intern resident as teacher workshop. Attendance tracked in GME Office

Assessment Methods and Processes

YEARS ONE AND TWO

Contribute to Grade (Check all that apply)

Course	# of exams	Internal exams	Lab or practical exams	NBME subject exams	Faculty / resident rating*	OSCE/SP exam	Paper or oral pres.	Other †
Gross Anatomy	4	X	X		X		X	X
Introduction to Clinical Medicine I	6	X				X	X	X
Microscopic Anatomy	4	X	X					
Neuroscience	6	X	X		X		X	
Embryology	7				X		X	
Genetics & Molecular Medicine	3	X					X	X
Physiology	3	X			X		X	
Introduction to Clinical Medicine II	7	X				X	X	X
Pathology	6	X	X	X			X	X
Pharmacology	4	X						X
Microbiology	6	X						
Medicine and Religion	2	X						X
Clinical Neuroscience	2	X						

* Include evaluations by faculty members or residents in clinical experiences and in small group sessions (for example, a facilitator evaluation in small group or case-based teaching)

† Describe the specifics in the report narrative

YEARS THREE AND FOUR

Course or Clerkship	Contribute to Grade (Check all that apply)					
	NBME subject exams	Internal written exams	Oral exam or pres.	Faculty / resident rating	OSCE/SP exams	Other*
Family Medicine	X	X		X	X	X
Pediatrics	X	X		X	X	X
Surgery	X	X	X	X		X
Medicine	X			X	X	
OB/GYN	X	X	X	X		
Psychiatry	X			X	X	X
Neurology	X			X	X	

* Describe the specifics in the report narrative

Rotation	% agreeing they were observed		National % agreeing they were observed	
	History	Physical Examination	History	Physical Examination
Family Medicine	76%	80%	77%	80%
Internal Medicine	86%	88%	76%	80%
Obstetrics-Gynecology	69%	73%	59%	70%
Pediatrics	93%	93%	78%	81%
Psychiatry	89%	91%	83%	81%
Surgery	52%	54%	52%	57%

The departments establish the grading policies for individual courses and clerkships; however, the Education Policy Committee (EPC) curriculum oversight responsibilities require course and clerkship directors to collaborate and discuss policies and standards for student achievement. Problems that arise related to grading policies are also handled by the EPC. As an example of the EPC oversight, this committee approved the uniform clerkship remediation policy to eliminate differences among clerkship remediation policies in the summer of 2007. More recently, the EPC set goals and guidelines for the preclerkship years block examinations (first year, spring semester; second year, fall and spring semesters) to assess student mastery of learning objectives in all required courses. Three block exams are administered each semester. The course directors decide any changes in the sequence of when each course administers its mid-semester exam with oversight by the EPC.

In the opinion of the survey team there is an appropriate variety of methods to assess student performance in the areas of knowledge, skills, behaviors, and attitudes. The school uses written examinations, clinical skills assessments by faculty, residents, and standardized patients, an OSCE in years one, two, and four, clerkship OSCE, end-of-clerkship NBME subject examinations, the USMLE Step 1 and 2 examinations, small group and peer evaluations.

Methods are in place to assess problem solving, clinical reasoning and communication. The preclinical courses include quizzes, examinations, and block examinations with clinical vignettes. In addition, the first, second, and fourth year clinical skills examinations assess students' skills in problem solving, clinical reasoning, and communication. All of the required clinical clerkships assess students' skills in problem solving, clinical reasoning, and communication using the uniform clinical performance instrument. Each clerkship has specific assignments or experiences that assess these skills: family medicine (computer-based clinical cases and nutrition module); pediatrics (CLIPP computer-based cases); psychiatry (patient assessment paper); obstetrics and gynecology (case-based small groups); medicine (palliative care clinical vignette, mini clinical skills examination); neurology (standardized patient encounter); and surgery (oral exam questions).

All attending physicians (full-time, part-time, or volunteer) who teach medical students have faculty appointments, including the AHEC faculty. All new community faculty must be approved at the department level for volunteer faculty status. Clerkship directors orient all faculty and residents on the expectation that medical students be supervised directly at all times when they are involved in patient care. This communication occurs in multiple venues: a) faculty or departmental meetings; b) resident orientation programs; c) telephone conversations; d) email correspondence; and e) one-to-one meetings. Clerkship directors report that they experience no problems ensuring that students are properly supervised at all times. The hospital or clinic staff and attending physicians are also directed to report to the clerkship director about any unsupervised students.

There are direct observation activities to ensure that clinical skills, behaviors, and attitudes that have been specified in the program's educational objectives are achieved. In some exercises, the observer is a standardized patient. In year one, the clinical skills assessment evaluates the students' ability to take a complete history and physical examination. The second year clinical skills examination assesses the students' ability to take a focused physical examination. The purpose of the summative fourth year clinical skills examination is to assess student mastery of core clinical skills and to prepare students for USMLE Step 2 CS. In February 2009, the EPC approved a new requirement that all students who fail this examination must complete the standardized patient program remediation in order to graduate. The examination currently consists of four validated cases, however, the goal is to add two validated stations by AY 2013-2014. All of the cases assess students' competency for a group of core educational objectives, and each case also assesses case-specific educational objectives. All of these educational objectives are from the school's educational objectives in the communication, professionalism, clinical problem solving, and social and cultural contexts of health themes.

In independent student analysis, students reported limited opportunities for formative assessment in the embryology course and lack of timely feedback in several of the clinical clerkships. There was lower satisfaction with feedback among the first year respondents in the independent student survey (63%) and many comments alluded to the fact that students were not allowed to see their tests after an examination to review incorrect responses or challenge correct answers. The team noted that changes have been made in the 2012-2013 academic year to address these noted deficiencies. Formative assessment strategies have been enhanced in the M-1 and M-2 curricula. The preclinical course directors provide students with formative feedback opportunities such as practice test questions from old exams, review sessions before exams, post-examination reviews, anatomical digital images, and web-based supplemental modules for practice and formative assessment. The ICM course schedules review sessions in the standardized patient clinic prior to the first and second year clinical skills assessments so that students receive additional formative feedback on their clinical skills. The second-year block interval examinations also provide formative assessment for students. Students can now view their tests after an examination. Anecdotal satisfaction with the change was noted in interviews with students. The EPC is responsible for ensuring that students have opportunities to receive formative feedback and, as stated in the database, uses the annual course evaluation system to monitor student satisfaction with formative feedback. (Of note the required course evaluation includes a question focused on the timeliness of feedback, not satisfaction with the type of or amount of formative feedback provided). The EPC requires that all students receive formal feedback at the mid-point of a clerkship rotation. At the department level, each clerkship director is responsible for monitoring this process; at the curriculum management level, the EPC is responsible for monitoring this process. Faculty consistently deliver this feedback in obstetrics and gynecology, family medicine and surgery, however, this responsibility may be delegated to residents in other disciplines as noted earlier in the report. In the 2012 AAMC GQ the percentage of U of L SOM respondents who agreed or strongly agreed that they received sufficient feedback in clerkships, in comparison to national respondents was: family medicine (82% vs. 81%), internal medicine (91% vs. 85%), obstetrics and gynecology (82% vs. 68%), pediatrics (94% vs. 89%), psychiatry (94% vs. 81%) and surgery (66% vs. 66%).

The Office of Medical Education administers the NBME Comprehensive Basic Science Examination, midway through the second semester of second year as a tool for identifying those topics students should focus on as they prepare for USMLE Step 1.

In the preclinical years, students receive feedback from quizzes, examinations, and block examinations in a timely fashion. All preclinical courses make grades available within one week after completion of the course. In the database, it was noted that the family medicine, medicine, and pediatrics clerkships did not universally submit student grades within six weeks. Source documentation on grade submissions time in AY 2012-2013 requested at the time of the survey

visit revealed that all clerkships now submit grades within six weeks. Data from the previous academic year did not all meet the six-week deadline but the team gathered evidence that the issue has been resolved. Procedurally, the senior academic registrar monitors the timing of grade releases and will report any delinquent release of clerkship grades to the interim associate dean for student affairs, who addresses it with the clerkship director.

Beginning in the 2012-2013 academic year, students received narrative description on their performance in anatomy and embryology. All core clerkships include narrative descriptions as part of the students' final assessment. Few of the preclinical courses provided narrative assessments to students, including ones with longitudinal medical student – faculty interactions and learning settings and experiences conducive to narrative feedback. See summary on the first two years above for learning experiences identified by the team as potential opportunities for narrative assessment.

D. Curriculum Management

1. Roles and Responsibilities

The Education Policy Committee (EPC) is one of the standing committees of the Executive Faculty designated as a policy committee. Other policy committees include the Rules, Policies and Credentials Committee, the Committee on Performance Criteria and Economic Welfare, and the Graduate Council. (Of note action committees among the standing committees of the Executive Faculty include Promotions, Appointment and Tenure, Research Committee, Student Admissions Committee, Student Promotions Committee and Academic Grievance Committee). The EPC is listed in an appendix of the Bylaws of the SOM: Committees of the School of Medicine. As noted in the database, the charge and responsibilities of the committee were revised in June 2011. The language of the policy mirrors language in the LCME accreditation standard ED-33. The EPC has five subcommittees, one of which is the Curriculum Management Committee, which made the aforementioned language recommendation to the EPC. The changes were presented to the Faculty Forum, representative members of the Executive Faculty, to the Rules, Policies and Credential Committee and then were voted upon by the Executive Faculty. Additional changes were recommended in November 2012 so that the charge of the committee states: "The Committee is responsible for the overall design, management, and evaluation of a coherent and coordinated curriculum that achieves the educational objectives of the medical school. The Committee will have the authority to lead, direct, coordinate, control, plan, evaluate and report on matters related to the curriculum to Faculty Forum and the Dean." The previous language included: "as approved by Faculty Forum and Executive Faculty." The Faculty Forum and the Executive Faculty approved the striking of that language and language that "any changes in the Bylaws and Rules and major policy changes that involve curricular matters require approval of the Executive Faculty," before the survey visit. In the opinion of the survey team, the promulgation of the faculty responsibility for the curriculum has been effective. The membership of the EPC is elected Executive Faculty representing directors of M-1 and M-2 courses, the Trover Campus, and two at large members from clinical departments. The dean appoints two basic science and two clinical science faculty, a specialist and a generalist. No one department can have more than one member. Appointed members must have curriculum development or implementation experience, or training in curricular design and be willing to work in areas outside of their areas of expertise. Students serve three-year terms.

The other subcommittees of the EPC are: Academic Technology, First Year Curriculum, with all M-1 course directors, Second Year Curriculum, with all M-2 course directors, Clinical Curriculum, with all clerkship directors and Curriculum Management, as noted above. The Curriculum Management Committee (CMC) is responsible for analyzing the entire curriculum in terms of content gaps and redundancies, maximizing horizontal and vertical integration and proposing the hybrid curriculum. There is an Educational Administrative Committee responsible for the

interdepartmental course directors and faculty. The SOM refers to this committee as a triumvirate of education and student affairs deans, which coordinates student affairs and curricular functions. See Appendix for the education governance structure.

In the opinion of the team, the effectiveness of the school's curriculum management processes is adequate in some areas and has room for improvement in others. The EPC has the ultimate responsibility for the curriculum, reporting to the dean, who has ultimate responsibility for the educational program. The organizational and functional structure delineates the individual subcommittees reporting to the EPC on their designated responsibilities. The EPC and the CMC have integrated functions. The survey team noted less effective interactions between the Second Year Curriculum subcommittee, with variable participation in the meetings, interactions between course directors, and clarity in the subcommittee role to the parent committee.

Educational program objectives are developed by the EPC with input from the subcommittees. The individual course and clerkship faculty are responsible for reviewing and revising the objectives of individual learning sessions. The EPC subcommittees review the overall course and clerkship objectives and report to the EPC. At the present time mapping and reporting of course objectives is limited until the SOM implements fully an electronic system, however a standard syllabus, which must be posted on Blackboard, has been serving in the objectives reviews.

The EPC developed schedule guidelines for the preclerkship curriculum to include a decrease in lecture hours and a movement to more interactive learning modalities. The EPC has instituted a laptop requirement for all students and the Office of Medical Education has partnered with departments sponsoring clinical clerkships to purchase computer-based clinical cases. Standardized patient encounters have been implemented in all clerkships except surgery. The standardized patient program travels to Trover for clerkship OSCEs. The responsibility for monitoring the quality of teaching among individual faculty is shared among department chairs and the EPC. Student evaluations are shared with course and clerkship directors and department chairs and are incorporated in annual performance reviews. There is also a mandatory peer assessment system for all teachers.

There are a few examples in the database, which speak to horizontal and vertical integration. The SOM has worked to align topics in the second year curriculum. The second year schedule temporally aligns different courses. This coordination was effected through the work of the second year course directors. During the survey visit, it was ascertained that some course directors rarely communicate about course content and that there are opportunities to integrate content from the Introduction to Clinical Medicine and Medical Humanities courses, which have not been realized. It appears that the iTBL cases, led by the director of preclinical curriculum and assessment, are the integration focal point of the M-2 curriculum. In the M-1 curriculum the first year biochemistry merged with the second year genetics courses to become the genetics and molecular medicine course. Horizontal integration across the first year courses is just beginning. The survey team reviewed a schematic for full M-1 integration, which will roll out in AY 2014-2015. The course director for embryology is a clinician, who facilitates integration of this content. The school described a pilot of educational consultants, full time faculty members who competed for a \$2,500 award to strengthen basic science in the clinical years, clinical medicine in the basic science years and to innovate the M-1 microbiology/immunology and anatomy/embryology and the M-2 pharmacology courses.

The Office of Medical Education has been directed by the EPC to evaluate the impact of the schedules of each of the academic years. The director of preclinical curriculum and assessment reviews weekly evaluations and assists the CMC in the design of the hybrid curriculum. The percentage of respondents in the 2012 AAMC GQ who agreed or strongly agreed that basic science content is sufficiently integrated across basic science courses is 73% vs. 80% of national respondents and that basic science is integrated in required clinical experience is 70% vs. 76%.

Directors of courses and clerkships are responsible for identifying faculty, reviewing and updating content and developing course and clerkship specific objectives, which are ultimately approved by the EPC. Actions, which occur at the level of the course or clerkship, were provided in the database: migrating lecture content to TBL exercises, identifying new clinical sites for a clerkship experience, replacing clerkship lectures with web-based experiences, and modifying formative assessments. The modification of a course or clerkship objective, the addition of hours, the development of a new course, a modification of an end of course or clerkship evaluation all require the approval of the EPC. It was confirmed on site that only the day-to-day management of courses do not need to go to the EPC for approval.

There is a systematic review of all courses and clerkships, which occurs on an annual basis. Each EPC member is assigned to two reviews annually. The Office of Medical Education provides support for this endeavor through the director of curriculum research and evaluation. A review consists of 1) review of course materials, including the objectives and syllabi, on Blackboard, 2) Course/Clerkship Director Portfolio Questionnaire, 3) student performance results, 4) student evaluation results, and 5) Office of Medical Education analysis of free text comments. The EPC review team presents the results to the full committee in written and oral format. Of note there is a mid-report for clerkship directors based upon student evaluations, block by block monitoring of the mistreatment evaluation questions on the clerkship evaluations and for any student concerns brought to the attention of the EPC by the first or second year subcommittees that mandate a more immediate responses. Scores on teaching receive close attention and have effected actions such as changes in course faculty and faculty development programs. The annual review goes to the course director, the dean and the department chair. The chairs were described to be responsive if resources are needed, however, the team noted a disconnect between course directors' and chairs' impressions on the adequacy of administrative resources. To highlight the changes made in response to course and clerkship evaluations, the Office of Medical Education posts "Your Opinion Matters."

While the three subcommittees of the EPC meet regularly to review their respective curricular components, and presents proposals or recommendations to the EPC, it was not clear to the survey team that there is are formal, regular, scheduled reviews of individual years or academic periods. As noted in the database: "To date this task has been extremely challenging without access to a powerful curriculum mapping system; the EPC looks forward to using RedMed to conduct curricular reviews once it is fully operational." Two task forces, Clinical Block Task Force (2009) and Preclinical Block Task Force (2010) developed a list of recommendations, which were approved by the dean. The SOM stated that both task force reviews comprised the most recent review of the entire curriculum. Recommendations from the Curriculum Implementation Committee (now the CMC) related to the curriculum included: elimination of the Transition to Residency course, creation of a Topics in Clinical Medicine course, creation of the genetics and molecular biology course from biochemistry and genetics, creation of iTBL, creation of Medical Students as Teachers elective, creation of the Educational Consultants group, clinical orientation of the Embryology course, implementation of virtual microscopy, elective time in M-3 year, increased imaging in preclinical curriculum, implementation of lecture capture in clerkship curriculum, implementation of clinical tracks to guide M4 elective planning, creation of a longitudinal preclinical ambulatory experience (currently with standardized patients), and implementation of a standard clinical electives form. The majority of these items have been implemented, with a few in progress at the time of the survey visit.

Despite the implementation of the task force recommendations, in the opinion of the survey team, there is not an effective system in place to review the entire curriculum. As noted in the database, the "lack of an electronic curriculum mapping system created a significant barrier to conducting a formal review of the curriculum at the "objective" level." The school uses the AAMC GQ results to review the entire curriculum. Examples of use of the AAMC GQ to assess adequacy of coverage

include adding patient safety and biostatistics and epidemiology content to the curriculum. The database mentions a new pilot course in the third year. The team learned that most students (several students were excused) piloted Topics in Clinical Medicine, the purpose of which is to "create opportunities for students to learn about topics or skills that should have been in the curriculum but weren't," in AY 2011-2012.

The database described an excel spreadsheet to search for content on clinical nutrition and patient safety. Blackboard was used to generate this spreadsheet. At the survey visit, the SOM was asked to demonstrate a search of content on alternative and complementary medicine, cultural diversity, and human sexuality from the M-1 and M-2 curricula, which had recently been inputted into RedMed. The word searches led to lists of specific sessions devoted to the topic as well as when the content fell into other learning sessions. In the opinion of the survey team, at the time of the survey visit there does not appear to be a fully implemented formal curriculum inventory where gaps and redundancies are easily identified, however progress is being made in this area.

The EPC is responsible for setting policy and monitoring the academic workload of students in courses and clerkships. The director for preclinical curriculum and assessment coordinates the schedules in the M-1 and M-2 years. The current workload for the preclerkship years is as follows:

	Lecture	Other Learning Experiences
M-1 First Semester	9.3 hours/week	20 hours/week
M-1 Second Semester	17 hours/week	16.3 hours /week
M-2 First Semester	17.3 hours/week	13 hours/week
M-2 Second Semester	14.5 hours/week	11.3 hours/week

Lunch hour is protected in the M-1 and M-2 years, as is the week of block examinations. In the clerkship year, the school has followed the 80-hour work rule since April 2011. Students take call in surgery (every fourth night), emergency medicine (three shifts), and medicine (every fourth day and no more than six calls over a four-week period). The monitoring of workload and duty hours is addressed by the student members on the Clinical Curriculum Committee. Track captains attend regular meetings with the interim senior associate dean for student affairs and the associate dean for medical affairs to address workload issues. It was reported in the database that violations are infrequent but handled expeditiously when reported. It was reported at the survey visit that work hours are not self-reported in Trover. The call schedule is unlike that at the main campus. The student takes call from home and is called in by the medicine and surgery attending physicians for specific cases. The teaching directors reporting being respectful and cognizant of duty hours and necessary study time for the Trover clerks.

The dean is the chief academic officer. The Office of Medical Education serves as "the central coordinating unit for the development, implementation, and evaluation of the undergraduate medical education program." There are five sub-units in the Office of Medical Education: the associate dean and the support team (8.5 FTE), the Office of Academic Technology (4.0 FTE), Standardized Patient Program (3.0 FTE), Patient Simulation Program (3.0 FTE), and the Medical Education Research and Evaluation Unit (2.0 FTE). In the opinion of the survey team, the chief academic office has sufficient and appropriate personnel resources to support the design, implementation and evaluation of the curriculum, especially given the recent hire in information technology (see ER section).

2. Geographically Separate Programs

The Trover Campus is located in Madisonville, Kentucky, approximately 150 miles away from the Louisville campus. The purpose of this campus is to encourage students to eventually practice in a rural setting. All students complete the first two years of the curriculum in Louisville. In AY 2010-2011 there were seven students in the M-3 year and 11 students in the M-4 year. Approximately

140 students are in the campus in Louisville. At its meeting on June 7-9, 2011, the LCME reviewed materials regarding a plan to establish and implement an accelerated curriculum track that would permit a small group of medical students to complete the M.D. degree in three years. This track has been designed for students interested in service to rural populations. Based on the school of medicine's experience with the Trover Campus-based track, a subsequent accelerated medical education program focused on urban medicine would be planned for Louisville campus.

Clerkship experiences take place in a one-student to one faculty setting. Students do interact with residents on the family medicine clerkship. Some lectures are teleconferenced and all didactic topics are identical, ensuring the consistency of learning sessions between campuses. The clerkship rotations are identical in learning objectives, length, required clinical encounters, assessment and evaluation.

The principal academic officer on the Trover Campus is the associate dean for the Trover Campus. This associate dean directly reports to the vice dean for academic affairs. There is no relationship between the departmental chairs of the U of L SOM and departmental leadership on the Trover campus. The associate dean is the liaison between the clerkship directors and the teaching faculty. There is close communication between the associate dean and the vice dean via daily phone or email communications and in person visits 8-10 times per year. While the associate dean at the Trover campus is the focal point for integration and communication between the regional campus and the central campus through the vice dean for academic affairs, it was ascertained on site that there may be infrequent communication between the clerkship director and the teaching chiefs (analogous to site director designation) in several of the disciplines. There is a schedule where each clerkship director will travel to the Trover campus approximately every eighteen months. A clerkship director reported the last site visit to the regional campus two years ago. These visits also serve to connect the Trover students with the clerkship director. There is not a codified schedule for teaching chief-clerkship director communication. All communication goes through the associate dean. An enhanced teleconferencing system is in place to facilitate the integration of the faculty on medical school committees. The associate dean is a member of the EPC and the associate dean or the director for student affairs attends all the Clinical Curriculum Committee meetings by teleconference. Prior to the survey visit, a Trover faculty member was appointed to the Student Promotions Committee. There is no Trover representation on the Promotions Appointments and Tenure Committee. The clerkship syllabi for the clerkships are identical and the students use the same evaluation forms. Of note, regarding the form for mid-clerkship feedback, one of the teaching chiefs was unaware that the form that she used was the same as that used on the central campus. The Trover students participate in the same standardized patient program as the patients travel to the campus to deliver the standardized patient encounters. Faculty participate in faculty development programs and a monthly grand rounds by teleconference.

As noted above the associate dean and the vice dean are the backbone of the administrative organizational chart. See Appendix. A director of student affairs who is supported by an administrative assistant provides student services. This director reports directly to the Trover associate dean. There is not a dotted line report to the interim associate dean for student affairs. Trover students receive assistance with career counseling, selection of electives, residency selection and match issues locally. The MSPE has been written by the Trover associate dean, however, it was reported at the site visit that the interim associate dean for student affairs will travel to the Trover campus for preparation of the MSPEs of Trover students for the graduating class of 2014. It is noted in the database that learning issues that need evaluation and intervention are arranged in consultation with the Louisville staff. If students need to travel from Madisonville to Louisville for any service that cannot be handled locally, they are reimbursed for mileage and lodging.

Since 2005, there is a process by which applicants can note if they want to be considered for Louisville only, Trover only, or either campus. All students who apply for the Trover campus alone or either campus are interviewed in Louisville and then spend a day in Madisonville. Applicants are

offered acceptance to U of L SOM with assignment to the Madisonville campus. Upon acceptance they become Trover Rural Track students. The process is a competitive one with approximately 40 applicants to the U of L SOM Trover Rural Track.

Written special requests to switch campus assignment are received by the interim senior associate dean for student affairs. The interim senior associate dean and the associate dean for the Trover campus consider this request. If the request to switch campus is granted, it is preferable that the student switch with another student. The interim senior associate dean can either deny the request, if another student to switch is not identified, or can waive the need for a matched student to switch to the other campus.

It is stated in the database that the "policy of the Trover Campus is to provide comparable services in Madisonville to those that the students receive in Louisville." The Trover campus budget supports these services. It also states in the database that the Office of Student Affairs at Trover is supported by the Louisville staff. Onsite support is offered when this back-up support is inadequate to meet the needs of the student. As noted earlier students, needing to travel to the Louisville campus for academic support or psychological counseling are compensated for the travel.

The director of student affairs is the liaison with the Office of Financial Aid. The director of financial aid reported that she has not traveled to the Trover campus in the past four years. The exit interview is conducted by teleconference. The director reported that phone and email communication are adequate as all services can be accessed on line. There are debt-counseling workshops in the first two years in Louisville and the AAMC web resources are recommended. Student health services are the same on both campuses. Deliberate care is taken by the SOM director of health services and the insurance ombudsman to provide Trover students comparable health care services and coverage. The U of L insurance provider considers Trover physicians as in-network providers. Trover campus students will receive a bill for services rendered. The Trover Health System writes off services that would be provided to Louisville students through U of L Student Health at no charge or at a reduced rate, for up to \$500. The Trover campus students pay Louisville comparable charges exceeding \$500. Prescription coverage is identical on both campuses. Mental health services can be handled in Madisonville through primary care providers and licensed psychologists, who have no role in student evaluation. There is the opportunity to refer students to Louisville. As noted above, travel and lodging costs are covered. There is also access to Louisville counselors via teleconference and interactive TV resources, however it was unclear to the survey team if this resource has ever been accessed. The Trover campus provides yearly YMCA memberships for students to match the U of L recreational facilities in Louisville. The standards for promotion and graduation are identical across sites. In the opinion of the survey team, there is appropriate infrastructure to support the Trover rural track students. The ITV teleconference system was adequate, however the survey team noted that there is a delay in the audio. Services, which in the rare case cannot be provided on site, are made available to students on the central campus, at no cost. There is a library, a librarian, and all U of L resources, including "ask a librarian" conferencing available. There are adequate faculty available and students report excellent clinical experiences in the Trover hospital system, and outpatient offices. Additional faculty may need to be identified if the rural track expands.

E. Evaluation of Program Effectiveness

A variety of outcome measures are used to evaluate educational program effectiveness, primarily at the course and clerkship level. See Appendix. These include USMLE examination results, scores on internally developed examinations, clinical skills assessments, AAMC GQ responses, student evaluations of courses and clerkships, advancement and graduation rates, residency match data, specialty choice of graduates, residency performance of graduates (every three years), practice locations of graduates, the University of Louisville Institutional Effectiveness Survey, and the University-wide Assessment of Student Learning Outcomes (described below). The data from

these outcome measures are shared with course and clerkship directors, department chairs and the academic administration. Standardized web-based student evaluations of courses and clerkships occur at the end of each course or clerkship with response rates ranging from 81% to 87% across all years. The assessment website remains open for 2-3 weeks after the course/clerkship ends. The standard survey instrument contains specific questions about course or clerkship components including the availability of the course or clerkship director and the relationship between course or clerkship activities and the goals as outlined in the syllabus. There are also questions items on "overall teaching" and the "overall quality" of the course or clerkship. Data is collected on both faculty and resident teaching. The curriculum research and evaluation staff in the OME, who compile individual course and clerkship reports, collect data centrally on a standardized form via a web-based system. These reports are then reviewed by course and clerkship directors, teaching faculty, department chairs, and the EPC. Rare student focus groups are held at the request of the EPC to expand information raised in the written feedback. Track captains in the clerkship year provide additional verbal input, meeting monthly with faculty. An annual report of all course and clerkships, compiled by the OME, is printed and distributed to course and clerkship directors, chairs and academic administration. Since 1999, the university has collected data from current students, graduates, alumni, faculty, and residency training directors through the University of Louisville Institutional Effectiveness Survey with a "modest" response rate. In addition, the University wide Assessment of Student Learning Outcomes (the Affinity Diagram) was established in 1998 with the goal to identify and quantify important student outcomes, and then to identify assessment indicators for measuring each of these outcomes. Indicators with numeric goals have been set and when they have not been met, corrective action is considered and appropriate steps are taken to attempt to move toward achieving the goal. The Affinity Diagram template was included in the database appendix. Mastery of clinical skills, research participation, match results, rating of overall education, and feeling prepared for practice are the "identified student outcomes." Each of the above outcomes has assessment strategies, actual realized outcomes, schedule for reporting outcomes, and how results will drive program. The preclinical and clinical curricula were last comprehensively evaluated in 2009. The curriculum as a whole is not routinely evaluated and RedMed is not yet populated with data from the clerkships.

In addition, all departments have a formal peer evaluation system as part of the department's annual performance review. All faculty are observed teaching by colleagues and receive feedback. The results of these peer evaluations are used by the department for the annual performance review and for advancement processes. They are not part of the EPC's annual review of courses and clerkships.

There is an adequate process to evaluate each course and clerkship individually, as noted earlier in the report. There are several important outcomes to be noted. Mean Step 1 pass rates have improved and the mean score is now above the national mean. Step 2 pass scores and pass rates remain the national means. See Appendix.

III. MEDICAL STUDENTS

See Appendix for the following documents:

- Student enrollment by class year
- Mean MCAT scores and premedical GPAs for past three entering classes
- Table of the number of students who left school, exhibited academic difficulty, or took a leave of absence
- Sample Medical Student Performance Evaluation ("dean's letter")
- Copy of the most recent LCME Part I-B Financial Aid Questionnaire
- Narrative section of the independent student analysis and data from the student-administered survey

A. Admissions

1. Premedical Requirements

The requirements for admission to U of L SOM include the following coursework: cellular and molecular biology with laboratory, organismic biology with laboratory, two semesters of general chemistry with laboratory, two semesters of organic chemistry with laboratory, two semesters of physics with laboratory, one semester of calculus or two semesters of other college mathematics, and two semesters of English. Recommended but not required is coursework in histology, physiology, genetics, biochemistry and additional mathematics such as statistics. The requirements are set by the Office of Admissions with input from course directors.

2. Selection

U of L SOM participates in the American Medical College Application Service (AMCAS). Applications are prescreened by the director for submission of a secondary application. Screening specifications for invitation to submit a secondary application include:

- 1) Kentucky applicants with science and overall undergraduate grade point averages above 3.0 and a minimum mean MCAT score of 8
- 2) Those with the minimum grade point average but a mean MCAT score less than eight will receive additional evaluation of grade progression and the specific institution's grading pattern
- 3) Additional consideration is given to exemplary academic qualifications, or to disadvantaged students with mean MCAT scores of 7.
- 4) Out of state residents with qualifications that meet or exceed the entering class average (~3.5 GPA and mean MCAT
- 5) Out of state residents with Kentucky ties are screened at the level of Kentucky residents. Ties include U of L SOM legacy, Kentucky birthplace, and Kentucky undergraduate institution.
- 6) Applicants matching mission goals: rural, underrepresented in medicine and combined degree seekers are screened at the level of Kentucky residents

In addition to the academic criteria, completed applications are screened with consideration of the SOM mission: "from racial and ethnic groups underrepresented in medicine, students likely to become generalist physicians, and students likely to practice in a rural area." The SOM interviews approximately 350 applicants. Interviews are scheduled based upon academic competitiveness, e.g. October candidates are rated "excellent" and November candidates are "above average." Members of the Admissions Committee conduct the interviews. Each applicant receives two interviews. The interview form asks the interviewer to comment upon the applicant's knowledge of and interest in the field, personal characteristics, and extracurricular activities and community service. Each interviewer rates the applicant on "judgment points" (humanitarianism, personality, motivation, dedication, work ethic and initiative, and overall impression) on a Likert scale with percentile rankings, which are behaviorally anchored. Finally the interviewer is asked to rate the likelihood for generalist or rural Kentucky practice with a percentage.

After the interview, the applicant is considered at the Admissions Committee. Prior to full review, the Office of Admissions must have received all letters of recommendation. A pre-med score is assigned by the director of admissions (10-all letters support enthusiastically, 9-all/majority of letters supportive, ≤ 8 -letters contain important information for deliberation). An admissions pre-meeting attended by the vice dean for academic affairs, associate dean for admissions, associate dean for academic affairs/diversity initiatives, director of the Office of Minority and Rural Affairs/Diversity Initiatives and the director of medical school admissions sets the agenda for the full committee meeting. All committee members, dual degree program coordinators and Trover track faculty are welcome to attend this meeting. The agenda categorizes applicants as 1) automatic admission to be approved by the committee members, 2) discussion for academic credentials, and 3) discussion for denial. Applicants not accepted or rejected are put in the "hold" category. This designation refers to failure to have enough votes to support admission or rejection, for

consideration at a later time in the applicant cycle. After a full committee discussion on the interview and GPA and MCAT, an applicant may be placed in the alternate list category. Selection of an applicant for admission from the alternate category is a discretionary decision made by the associate dean.

The school has a mission to increase the number of primary care practitioners, rural Kentucky practitioners and groups underrepresented in medicine. The selection criteria are appropriate for these stated goals. The selection criteria and the policies and procedures manual are available in print and pdf format. The manual is posted on the U of L SOM admissions website, distributed to groups who tour the campus, mailed to pre-health advisors in Kentucky and the surrounding region and mailed to applicants on request. Off site recruitment occurs approximately 10 times per year to Kentucky and the surrounding state undergraduate institutions.

Fifteen percent of applicants are interviewed. The yield of matriculating applicants to accepted applicants is 55%. Entering mean MCAT and overall premedical GPAs are slightly below the national average, however, outcome measures such as the performance on USMLE Step 1 and 2CK and 2CS suggest that the pool is adequate and qualified.

The Admissions Committee is a standing "action" committee of the SOM. There are 25 basic science or clinical science faculty members, three community physician representatives, and five medical student representatives. Members are either elected or appointed; three of the five students are elected by peers and seven of the 25 faculty are elected. The term is three years and there are no term limits, the associate dean for admissions serves as chair. The director of admissions orients new members annually. The orientation reviews the mission of the school, the interview form, recommended questions and prohibited interview questions. The dean and vice dean for academic affairs charge the entire committee at the beginning of the academic year and provide updates on changes to the education program and if there are any changes in process. The database describes forensic review meetings, in which the admissions materials for students having academic difficulty are reviewed with the committee, for feedback and training.

The previous iteration of the bylaws of the medical school reflected the Admissions Committee as an advisory committee with the final decision making authority resting with the dean. Historically the dean made all final admissions decisions. More recently the former dean has made the final decision for transfer applicants, readmission applicants and applicants with academic criteria below the published standards. Under the leadership of the interim dean, the Admissions Committee has acted with final decision-making authority. Language approved by the Faculty Forum in November 2012 and then recently approved by the Executive Faculty omitted the language "recommends to the dean." The associate dean reported no political or other external influence on committee decisions. Documentation reviewed on site confirms the final decision-making authority of the Admissions Committee.

There are several dual degree programs at the SOM: MD/PhD, MD/MA in Bioethics and Medical Humanities, MD/MPH, MD/MSc in Clinical Investigation Sciences and MD/MBA. For each program, the dual degree applicants are interviewed separately for the admissions committees of both programs. No dual degree decision can override an Admissions Committee decision.

The SOM supports programs to enhance the diversity of the student body through a well-staffed office. The associate dean for academic affairs and diversity initiatives leads the Office of Minority and Rural Affairs/Diversity. Eleven full-time staff support the office as directors of AHEC, special pipeline programs, the post-baccalaureate program and the physician placement program. Support for the office and its initiatives come from the dean's office, state and federal grants, and private foundation grants. The following summarizes the programs:

- 1) Area Health Education Centers, the model founded at the U of L, provide mentorship in math and science to children enrolled in K-12 education. Additionally, since 1992 there has

been a four-week intensive program, "Health Careers Adventure Program," for children in grades six through 12. Enrollment is eighty per year and funding comes from the Department of Health and Human Services and from the state of Kentucky.

- 2) The Professional Education Preparation Program (PEPP) is offered to high school graduates who are underrepresented in medicine or from underserved rural geographical areas, as a way to ease the transition to college. The program has been in existence since 1981 and is funded by the state of Kentucky.
- 3) The Multicultural Association of Premedical Students is an academic support group for pre-college students. The faculty sponsor from the Office of Minority and Rural Affairs/Diversity Initiatives is funded by the state.
- 4) The Summer Medical and Dental Education Program (SMDEP), funded at U of L SOM by the Robert Wood Johnson Foundation since 2006 with a dollar-per-dollar match for the U of L, is a six-week residential program preparing rising sophomore or junior college students for medical education.
- 5) The MCAT preparation program provides academic review for students from groups underrepresented in medicine. It has been in existence since 1982 and two thirds of its funding comes from the state of Kentucky with the remaining support coming from the dean's office.
- 6) The Post-baccalaureate Pre-med Certificate program was started in 2009 for career changes. The database states that this program adds diversity in terms of career, education and workforce maturity.
- 7) The Medical Education Development (MED) program began in 1987. It is for the three to five students from "minority, rural, or disadvantaged" backgrounds who were unsuccessful in gaining admission to medical school. If the student successfully completes three first year medical school courses and selected graduate level courses, they matriculate as first year medical students in the following academic year. Seventy percent of students have progressed to the M-1 year, and 90% of matriculants have graduated. The dean's office supports this program.
- 8) The Prematriculation Program participants are underrepresented in medicine, from medically underserved counties, from non-traditional backgrounds and from disadvantaged backgrounds. Students in the MED program also participate. Students participate in the course work they will experience in the first year curriculum. The program has been in existence since 1989 and is funded by the dean's office.

The enrollment data for the aforementioned programs is as follows:

PROGRAM	2011	2010	2009
AHEC	1,272* 70,000	65,592	99,147
PEPP	24	23	25
SMDEP	80	80	80
MCAT	35	37	33
POST BAC.	22	18	9
M.E.D.	3	4	3
PREMATRICULATION	24	19	22

*HRSA redefined the way students are counted. Instead of on an individual basis, the count is now based on group activities. The 70,000 is the SOM best estimate of what the number would be using the previous approach.

The following describes the systems used to track the outcomes of the programs and the outcomes

Pipeline Program Tracking Process

PROGRAM	PROCESS
PEPP	These students are tracked via regular e-mail, Facebook, and phone follow-up.

SMDEP	The National Program Office is developing a Tracking System that will include all program participants. Data from this system is available to the local sites. However, many alumni self-report their status on a regular basis via phone, e-mail, or Facebook. Data in the table below represent self-reports, most during ongoing advising interactions via e-mail, phone, or Facebook.
MCAT	These students are tracked via regular e-mail, Facebook, and phone follow-up.
M.E.D.	These students remain at U of L and are tracked by the Office of Minority and Rural Affairs/Diversity Initiative (OMRDI) staff.
PREMATRICULATION	These students remain at U of L and are tracked by OMRDI staff.
POST-BAC	These students remain at U of L and are tracked by OMRDI staff.

Outcomes Data 2008-2011

PROGRAM	U of L Medical School	Other Medical School	Other Health Profession	Health-Related Grad School
PEPP***	N/A	N/A	N/A	N/A
SMDEP	36	49	47	11
MCAT	9	8	13	6
M.E.D.	7	0	0	0
PREMATRICULATION	61	0	0	0
POST-BAC**	6	1	2*	0

* Dental School

** 11 students are in the review process for entrance to medical school

*** PEPP: Because we engage this group early in their career decision process, tracking is very challenging. However, tracking data are not available at this time.

The SOM has a technical standards document, which is posted on the web site. The applicants who are invited to complete the secondary application receive the technical standards via a link and are asked to indicate if they can meet the technical standards either with or without accommodation

The Office of Admissions Policies and Procedures Brochure is an accurate depiction of the school's educational program. It is noted that the cut-off scores for GPA and MCAT are not included in the admissions requirements and that while the 2011-2012 mean MCAT and GPA were 9.7 and 3.53, respectively, the bulletin reported that mean MCAT is 10 and the mean GPA 3.7. The associate dean was unaware of this finding and reported that the numbers were indeed incorrect. This publication is available in hard copy and electronically on the U of L web site.

After matriculating 160 students into the entering classes of 2009-2011, the school decreased the entering class size to 155 in 2012. This decision was based upon feedback from the course and clerkship directors who expressed concerns about increased class size. Prior to class size reduction, the breakdown of in state to out of state was 120 in state and 40 out of state. In 2012, the out of state class size was reduced to 35. There are no special agreements with external entities by which some entering students are selected.

3. Visiting and Transfer Students

Applications for transfer are accepted from March through May for the next academic year. Applicants must be in good standing at an LCME-accredited medical school and be eligible to continue at that school. Applicants must complete an application, which is available in the admissions office upon request. A completed residency status form and \$25 processing fee are required. Applicants must provide a letter of support indicating the student is in

good standing from the dean or dean of students at the medical school of current enrollment and transcripts from all undergraduate and graduate programs. Transfers are generally considered for compassionate reasons, including proximity to a spouse or a change in family status. Personal dissatisfaction with the training, administration, or faculty of the original school is not an acceptable reason for transfer. Transfers may be accepted into the beginning of the second or third years, but not into the fourth year or into the midterm of any year. Second year applicants must have completed a curriculum equivalent to the school's first full year before they are eligible for transfer. Third year applicants must have completed two full years of preclinical study and must have passed USMLE Step 1. If space is available, acceptable transfer applicants are interviewed in June by two admissions committee members and presented to the full Admissions Committee for vote. A two-thirds vote of the committee is necessary for admission to be offered.

Transcripts from prior undergraduate, graduate and medical school courses are reviewed by admissions staff, including the associate dean for admissions. The completed curriculum is compared with the school's requirements and courses. Course descriptions are usually requested from the medical school of current enrollment and reviewed with the appropriate course director. The object is to confirm that the prior curriculum is consistent with the school's curriculum.

The school offers a combined MD/Oral Surgery program. Each year two students are admitted and begin the third year of medical school after taking USMLE Step 1. The program is six years long and includes the last two years of medical school, one year of surgery residency, and three years of oral surgery residency.

There are adequate resources to accommodate transfer and visiting students in the clinical curriculum and these additional students have academic credentials comparable to the matriculated students.

B. Student Services

1. Academic and Career Counseling

There is an academic advising system in place that is designed to effectively identify and remediate students at risk for academic difficulty. This includes a summer five-week pre-matriculation program for potentially at-risk students each summer. The program consists of an introduction to first year course activities and sessions on test-taking skills, stress management, time and financial management and research opportunities. The Office for Minority and Rural Affairs/Diversity Initiatives and Office of Medical Student Affairs collaborate to support students who participate in these programs. Working with the Office of Medical Student Affairs, students are closely monitored and counseled to ensure early intervention following matriculation.

There is a full time director of academic support whose responsibilities include the early identification and tracking of students in academic difficulty, including students in the summer pre-matriculation program, students returning from a leave of absence, students repeating an academic year or who have failed a course in the prior year. The director of academic support has access to and reviews all course and clerkship grades through the online course Blackboard site and reports interim results on each major exam to the advisory deans, faculty who are responsible for cohorts of eight students in each academic year. This system generates regular communication between the director and the advisory deans, allowing for earlier and more specific appropriate academic support intervention (more detail provided below). Meetings with students may be convened with the director of academic support, the counseling coordinator, the advisory dean, student tutors, course/clerkship director, and sometimes all of these. The course or clerkship director is not the first line of contact for a student in academic difficulty.

The director of academic support also oversees and coordinates the academic support program for all students, including sessions on time management, test taking strategies, specific study techniques, supplemental course specific study materials, tutor assignments, and USMLE Step 1 and 2 CK preparation. Course-specific tutors are provided to students experiencing difficulty at no charge. There were comments in the independent student analysis that services should be available to students prior to failing a course. The survey team did not detect any dissatisfaction among student interviewed with the academic support services. Advanced level students participate in a number of academic support programs, including tutoring first and second year students in specific courses or in preparation for USMLE Step 1. In 2010-2011, 61 of the 62 students who received tutoring continued successfully with their class or were on track to graduate with the next class. The four-year graduation rate of a typical entering class is 88%, with an overall graduation rate for a typical class of 94%. In 2011-12, five first year students repeated one or more required courses, one student took a leave of absence due to academic problems, and three students repeated the entire year. Two second-year students were required to repeat the entire year. There were eight third year students who took a leave of absence because of a USMLE Step 1 failure.

Number of Medical Students Who:	Academic Year 2011-2012				Total
	First	Second	Third	Fourth	
Withdrew or were dismissed	0	3	1	0	4
Transferred to another medical school	0	0	1	0	1
Repeated the entire academic year	3	2	0	0	5
Repeated one or more required courses or clerkship rotations	5	0	1	0	6
Moved to a decelerated curriculum	0	0	0	0	0
Took a leave of absence due to academic problems	1	0	8*	1	9
Took a leave of absence for academic enrichment (including research or a joint degree program)	0	0	2	0	2
Took a leave of absence for personal reasons	0	0	4	1	5

* Failure of USMLE Step I

The advisory dean program, initiated in 2007 provides academic and career support to students by selected faculty who are matched with up to eight first year medical students as part of an advisory college. The advisory deans, who receive some salary support for their roles, follow their eight students throughout the four years of medical school and are assigned up to eight additional first year students each year. The advisory dean meets with his/her assigned students, both as a group and individually, to assess and aid in their academic and personal growth. The advisory deans participate in the MSPE preparation process by providing narrative feedback about the rising fourth year students whom they had followed throughout medical school, thus allowing for a more comprehensive and personal review of student merits and characteristics. According to the 2012 GQ, 86% of U of SOM respondents were satisfied or very satisfied with faculty mentoring vs. 74% of national respondents. Results of the AY 2010-2011 internal survey on the Advisory Dean Program showed that students rated their level of satisfaction with their advisory dean as follows on a 1 to 5 scale:

Availability to meet	4.4
Maintaining Confidentiality	4.6
Offering Support	4.1
Providing Academic Advice	4.3
Providing Career Advice	4.2
Discussing Personal Stress	4.0

Students are also referred to the interim assistant dean for student affairs (.15 FTE), who meets with the students to ensure that students are aware of the options and resources available to them or to help them prepare for a meeting with the Student Promotions Committee (when students might be dismissed or made to repeat courses, clerkships or an entire year). The assistant dean does not have a role in writing the MSPE and is the non-voting chair of the Student Promotions Committee. The advisory dean contributes to the MSPE. Both the interim associate dean and the advisory dean sign the MSPE. Students interviewed during the survey visit spoke highly of the advisory dean system and did not feel that there was any conflict of interest in the advisory dean being involved in writing their MSPE. Students are able to change advisory deans if they feel there is a conflict.

The career-residency counseling team includes the interim associate dean for student affairs, the residency match coordinator, the careers in medicine liaison, and the senior academic advisor. Advisory deans, specialty-specific advisors selected by students in the clinical years, and program directors are also integral to the team. As previously noted the advisory deans are selected by the dean's staff and undergo training for their role. There are group and individual meetings with the advisory dean each semester beginning in the first year. The specialty advisors and program directors have experience in advising students who pursue careers in their discipline.

A four-year comprehensive career planning and preparation program exists, with the level of activities increasing from the preclinical to the clinical years. Students receive various written materials to support their activities and are oriented to the AAMC Careers in Medicine website, the ANA's FREIDA website, and the ERAS website. The AAMC Careers in Medicine (CIM) Program serves as the foundation for the program. In year one, students participate in the first phase of CIM and attend required sessions with the interim associate dean for student affairs on curriculum vitae building. In addition, students are introduced to various opportunities in the areas of extracurricular activities, leadership, research, and service. The second year of the program includes required sessions with the interim dean for student affairs on career opportunities and the interim associate dean for student affairs on the MSPE. The students are required to attend a mastering career planning session in the third year with the interim associate dean to outline key elements of choosing a specialty, followed by specialty-specific breakout sessions with program directors and residents from each specialty. Students are required to meet individually with the interim dean for student affairs and their specialty-specific faculty advisor to discuss their curriculum vitae and career choice. There is a peer-selected program that identifies a fourth year student with similar career interest to help advise and mentor third year students. After the Match, there is a required seminar with a fourth year student panel with specialty-specific breakout sessions. The fourth year includes a required mastering the Match seminar on basic steps, logistics of the Match, writing personal statements, obtaining letters of recommendation, and refining the curriculum vitae. Other required activities include individual application advising sessions with the residency/match coordinator and the mastering the interview process seminar with a student panel discussion. Students meet with their specialty-specific peer and faculty advisors and the advisory deans, interim associate dean for student affairs, and the associate dean for accreditation to develop their personal statement. Students have the opportunity to participate in a mock interview practice session. In the most recent NRMP, 93% of the students matched successfully. The 2012 AAMC CQ indicates that 83% of graduating students were satisfied or very satisfied with the career planning services provided (vs. 62% nationally).

In preparation of the MSPE students are required to meet one-on-one with the interim associate dean for student affairs during their third year. The interview consists of a review of the student's academic history, curriculum vitae, and personal statement. The administrative associate in the office of student affairs prepares the academic history and progress. The interim associate dean and advisory deans prepare the unique characteristics section. The administrative associate combines the unique characteristics section with the body of the letter, and the interim associate dean signs the final letter. Students have an opportunity to review their letter before it is sent.

The principal components of the medical school's system of assessment that are employed in the composition of the formal Medical Student Performance Evaluation include identifying information, unique characteristics, academic history, academic progress, and the summary.

Students receive advice about intramural and extramural elective choices from their advisory deans and from the program director and specialty-specific advisor for the specialty they plan to pursue. The senior academic coordinator in the office of student affairs also helps students with elective course selection and away rotations. At the end of third year, each student completes and submits a schedule form/registrar's form with the selections to the office of student affairs, and the senior academic coordinator signs off and registers the students.

For off-campus electives, students must secure formal approval from the department's director of education. The student then submits a fourth-year schedule form to the office of student affairs and the senior academic coordinator reviews, signs off, and registers the students. Students seeking to take international electives must also seek formal approval from the vice dean of academic affairs,

who gives final approval.

Prior to departing for off-campus electives, the student must take an off-campus request form along with a copy of the course/rotation description, to the appropriate clinical department for approval. The approved form is returned to the office of student affairs; one week prior to the start of the off-campus rotation, a letter and evaluation form is mailed to the host institution. Upon receipt of the completed evaluation, a copy is sent to the clinical department, which reviews the assessment and submits a grade to office of student affairs.

The Educational Policy Committee works to prevent scheduling conflicts between required academic activities and residency interviews. The Days Off Policy: Required Clinical Clerkships was approved in a revised form in June 2009. The policy provides for an average of four days off for a four-week rotation or an average of one day off per week. The policy must be discussed at any clerkship orientation and is posted to the student website and referenced to in syllabi. The clerkship, selective, or elective director has the authority to approve additional days off on a case-by-case basis.

Beginning July 1, 2013, a revised documentation process will be implemented by the interim associate dean for student affairs. Students will complete a revised schedule form for fourth year that will require sign-off/approval by the individual who approved each elective (advisory dean, associate dean for student affairs, specialty specific advisor, etc.). Once the student has received all of the approvals needed, he or she will submit the completed form to the office of student affairs. While the elective approval/registration process seems cumbersome to the survey team, with the onus on students, and there were free text comments in the independent student analysis on the lack of standardization of the approval process, according to the 2012 GQ, 81% of graduating students were satisfied or very satisfied (vs. 66% nationally) with the guidance in the choice of electives and information about specialties, and students did not indicate dissatisfaction during interviews with the survey team.

2. Financial Aid Counseling and Resources

The SOM Financial Aid Office is staffed by a full-time director and a 0.8 FTE financial aid advisor. The director reports directly to the associate dean for students. The office is conveniently located next to the Instructional Building for first and second year students. The hours of operation are 9 am to 5 pm Monday – Friday. Scheduled appointments or walk in hours are encouraged. Students on clinical rotations use phone, email and fax to obtain information and address issues expeditiously. Transactions of verification, accepting aid, and signing master promissory notes can be done on line. The director and advisor serve only medical students, medical graduates and alumni. The technical support for the office comes from the main campus financial aid office. The director attends a weekly U of L financial aid staff meeting and reported to the team that she has input into the award-granting philosophy. In the opinion of the team, the office has sufficient personnel and space to carry out its responsibilities.

The office conducts a series of large group and optional individual sessions and compiles financial aid and debt management information for dissemination in recruitment materials, pre-orientation sessions for accepted applicants and families, federally-required entrance counseling at orientation and in a demonstration of on line support where a current student demonstrates use of the AAMC web site materials such as Medloans organizer and calculator, Financial Literacy 101 and FIRST. There is an annual end of year mailing to notify all borrowers of their current loans. Annually there are workshops on budgeting, buying a house, leasing a car and identity theft. All workshops are not covered each year except for prematriculation budgeting. The director seeks the input of the student body for such sessions. Attendance is not mandatory; approximately 40% of students attend. The federally mandated financial aid exit counseling is handled in small groups on the

central campus and by teleconference for the Trover track students. Of the respondents on the 2012 AAMC GQ, the percentages U of L SOM graduates who were satisfied or very satisfied with administrative services, overall educational debt managing, and the senior loan exit interview were at or exceeded the national percentages (77%, 71%, 79% vs. 78%, 60% and 74%, respectively). The independent student analysis reflected satisfaction with the office but one quarter of the class was dissatisfied with disbursement dates, which are based on federal guidelines. A bursar PowerPoint presentation was included in the Appendix. During the site visit it was not completely clear how the information in that presentation was made available to students, as staff were unaware as to where it was posted.

Tuition and fees have increased over the past four years, from 5% to 7%, with a 6% increase for the 2012-2013 academic year (\$34,342 in-state, \$50,282 out-of-state). The cost of attendance for an in-state first year student in AY 2012-2013 is \$52,698, for an out-of-state students, \$68,683.

There is a university policy for tuition and fee refunds, which the school follows for students who withdraw or are dismissed: "The full amount of tuition charges for the semester will be due unless the withdrawal occurs during the Tuition Reduction period. Course fees, special fees and laboratory fees are reduced only with 100% tuition reduction."

The 2011-2012 LCME Part I-B Financial Aid Questionnaire reports \$26,975,707 in grants, scholarships, and loans. There are no scholarships for disadvantaged students and no school-funded need based scholarships. School-funded non-need based support went to 11 MD/PhD students (\$606,711), and tuition remission to three employees or staff (\$43,590) and to 282 students (\$3,010,594) for "other non need-based school-funded." It was clarified at the survey visit that all rural and underrepresented students receive scholarship funding, classified as school-funded non-need based. Other non-need based outside funded scholarships totaled \$80,600 for a grand total \$3,741,495. Of note there is no federal work-study program at the SOM as the medical students are told that they should not work. Twenty students receive grants with service commitments for a total of \$1,086,129.

Of the \$22,148,083 in loans there are 534 direct subsidized and federal direct unsubsidized loans. The premedical debt total is \$1,094,157. Total medical student indebtedness is \$49,154,389 among 564 students. The average debt for 2012 graduates was \$129,657. The estimated average educational indebtedness for 2013 graduates will be \$149,382 (83% of graduates). The school was unable to explain the unexpected the drop in indebtedness for the 2012 graduating class after steadily increasing average debts through 2010-2011 (\$158,439). Fifty-seven students have total educational debt of \$150,000 or greater and the percentage of 2012 graduates with greater than \$200,000 indebtedness was 14.1% and is projected to be 28.9% for 2013. The school noted that of the 39 students with this debt, 16 are out-of-state students, who continue to pay out of state tuition for the entirety of their matriculation.

The current fund raising activities at the U of L SOM can be described as modest. In the database, there is mention of the challenges of raising money for major scholarships in the current economic climate as well as the slow growth rate of the scholarship endowment. Recent activity includes both the Greater Louisville Medical Society and the Kentucky Medical Association Foundation supporting academic merit awards. (Golf scramble raising \$20,000 and three \$1,000 awards). According to the 2011-2012 LCME Part I B Financial Aid Questionnaire, the school is not considering new initiatives such as guaranteed tuition, partnerships with outside organizations or changes in grant or scholarship requirements, however, during the visit the interim dean emphasized that she and the president will make fund-raising for scholarships a priority. While the average indebtedness does not exceed the national average for public institutions, institutional initiatives to limit educational debt will need to increase in the future, particularly in light of the trend of extreme indebtedness.

3. Health Services and Personal Counseling

Confidential personal counseling services are provided by a 0.8 FTE counseling coordinator, who is housed in the Office of Student Affairs and is readily available. The office has a private entrance to assist with student privacy and confidentiality. Two psychiatrists also provide personal counseling and treatment and see students at the University of Louisville Healthcare Outpatient Center (HCOC), which is located a short walk from the medical school building. There is a private entrance and private waiting areas for students at this site. These three providers do not participate in any academic evaluation of the students receiving these services. There are no trainees who rotate through this clinical site. Appointments for services are available Monday-Friday during regular daytime business hours. Emergency access is available at all times. Students are informed about counseling services during orientation and can access this information via the Student Affairs website. Students can contact these psychiatrists directly without referral from any other professional. All records are confidential. Information is not shared with faculty, staff or other professionals without written consent authorized by the student's signature. Students are apprised of HIPAA conditions orally and in writing at the outset of the therapeutic relationship. The 2012 AAMC GQ results indicate that the percentage of U of L respondents who were satisfied or very satisfied with personal counseling and mental health services exceeded those of national respondents (87% and 85% vs. 76% and 74%, respectively). Students praised the accessibility and confidentiality of counseling services. The medical school's policy is that "Any faculty member who provides psychiatric, psychological counseling or physical health services of a 'sensitive nature' must have no role in the evaluation and grading of students receiving those services." In addition, there is peer training provided on a regular basis to help identify and refer students who may be experiencing emotion difficulties and track captains in the clerkship years provide triage to students in their tracks. A 24-hour hotline exists and is noted on laminated cards, which students carry at all times. Testing for attention deficit hyperactivity disorder and learning difficulties is available at the Belknap Campus (U of L main campus) Counseling Center of the University of Louisville at discounted prices. Students frequently utilize their health insurance for private psychologists because of the waiting time at the Belknap Campus Center. Students can submit documentation for such disabilities and appropriate accommodations through the Disability Resources Center on the Belknap Campus. In 2005 the school was cited for placing the burden for separation of roles of those providing mental health or sensitive health care from those who evaluate students on the medical student recipients of such care. There is currently a clear delineation of the roles.

A number of effective programs exist to promote student adjustment to medical school and student wellness. Housing Day prior to matriculation and the assignment of student mentors, the first year orientation program, and the Advisory College and Advisory Dean programs all help facilitate adjustment to medical school. Peer advocates are assigned to lower classman, depending on their academic year, creating a forum for peer-to-peer advising with the focus of providing mentoring to less experienced students. The percentage of U of L SOM respondents to the 2012 AAMC GQ who were satisfied or very satisfied with wellness programs was 84% vs. 72% nationally. There are adequate numbers of wellness programs, many sponsored through the advisory deans' program. There are a number of student interest groups as well. Student leadership is emphasized at the school. The interim associate dean for students holds a leadership retreat with senate and class officers, student organization presidents, and process improvement leaders. Basic elements of leadership are discussed, and the student leaders set goals for the year and strategies to achieve them. Quarterly follow-up retreats are held to discuss progress. Monthly leadership meetings are also held with student leaders, key administrators, and staff to exchange information, share ideas, and communicate concerns. Track captains are also provided an orientation to their roles.

The Health Services Office maintains two locations: (1) Health Sciences Center (HSC) and (2)

Cardinal Station on the Belknap Campus. The HSC office is designed to meet the needs of busy professional students. Appointments are encouraged, but walk-ins are accommodated as needed. The HSC office hours are 8:30 AM to 4:30 PM, Monday through Friday. The office remains open over the lunch hour from 12:00 PM until 1:00 PM for immunizations, allergy injections and urgent appointments. Saturday hours are available from 9:00 AM to 1:00 PM at Cardinal Station during the fall and spring semesters. An on-call provider is available 24/7 through an answering service for urgent medical needs, including blood borne pathogen exposures. The HSC health office does not provide any teaching rotations for medical students or residents. Students on the Trover campus have ready access to healthcare providers who do not evaluate them. In 2005, student health services administration and functioning were cited as areas in transition. In the opinion of the survey team, accessibility and functioning of student health services and student knowledge of how to access services are adequate. All medical students are required to carry major medical insurance including coverage for hospitalization and pay a mandatory Health Professionals Health Fee (HPHF) at \$87.50/semester while enrolled in the School of Medicine (see below). Students are automatically enrolled in the University sponsored plan unless they submit an electronic health insurance waiver. Students are free to select any health insurance plan to waive the university-sponsored plan. Waivers are electronically authenticated to confirm that coverage is in force. Audits are conducted twice yearly to ensure no lapses in coverage occur. The student dissatisfaction noted in the independent student analysis with the waiver process (25% dissatisfied) appears to have been resolved and students now understand the process, as noted in interviews with medical students. The HPHF is a supplement to the students' insurance and covers any copays or deductibles for office visits, allergy injections, and physical exams. Annual flu shots, tuberculosis skin testing, as well as evaluations, diagnostic testing and prophylaxis for blood borne pathogen exposures are covered at no charge to the student's insurance plan or the student. Other post exposure prophylaxis such as antibiotics for meningococcal exposures are also provided free of charge. In the event a student takes a leave of absence, he or she is eligible to continue on the student insurance plan for up to one year can be seen at the health center while on medical leave. The plan includes coverage for preexisting conditions, pregnancy, substance abuse, psychiatric disorders and pregnancy. Psychiatric disorders are covered as any other illness. The 2012-13 annual premium for a student was \$2,200/year. Spouse and dependent coverage is also available for purchase. Spouse coverage was reported to be approximately \$7,000/year and for each dependent at \$1800/year. Students have the option of purchasing disability insurance from the carrier of their choice from one of three carriers provided by the school. Purchasing this insurance is not a requirement, and the school provides no funding toward its purchase. Students rarely buy disability insurance. Fifty-eight percent of students responded N/A to the independent student survey item "access to disability insurance" and free text comments indicated lack of awareness of disability insurance availability. In the opinion of the survey team more education about the value and availability of disability insurance is needed.

Students are adequately screened and have access to appropriate vaccinations through their primary care physicians or the HSC Health Service Center. All medical students are required to meet the Health Sciences Center immunization requirements, which were developed from the recommendations of the American Council on Immunization Practices and Centers for Disease Control, in collaboration with affiliated hospitals. These recommendations are reviewed and updated periodically when new or revised recommendations are released. Students are expected to initiate their immunization requirements by the start of their studies at the SOM. Students must obtain these immunizations and testing at their own expense. The Health Services Offices offers low-cost immunizations, and special immunization sessions are held immediately prior to the start of the first year for the students' convenience.

The Campus Health Services provides monitoring and oversight of the medical student immunization program. A dedicated immunization coordinator tracks all students' immunizations and tuberculosis testing using a custom-built immunization tracking program that is stored on University servers behind a secure login. This database allows for students to submit their

immunization records and print their own immunization certificates and for the coordinator to track individual students. The immunization coordinator monitors the database and notifies students of upcoming immunizations and/or late immunizations via e-mail approximately 30 days prior to the projected due date. Students who are more than two weeks past due for any immunization or tuberculosis testing are reported to the Office of Medical Student Affairs. The director of medical student affairs then follows up with the student to ensure compliance. Students are prohibited from participating in clinical services if immunizations are not complete.

The director of HSC Health Services at the first year Student Orientation program informs students of the university's policies on infectious exposures and environmental hazards. They are taught to use N95 respirators and alcohol hand gel and to access the blood borne pathogen exposure program. Risk, pre- and post-exposure prophylaxis and complications from treatment are reviewed. Students are issued cards containing exposure information, worn attached to ID badges, which include the telephone number for U of L Health Services providing 24-hour consultation and treatment for occupational injuries. The information is reinforced at the beginning of clerkships during clinical orientation. Students showed team members the laminated card and were familiar with accessing services. Procedures for treatment following exposure are based on the updated U.S. Public Health Service Guidelines for the Management of Occupational Exposures to HIV and Recommendations for Post-exposure Prophylaxis. Financial responsibility is described in the School of Medicine Bulletin: "When a student is exposed in the course of assigned health sciences education activities, the cost of testing, HIV post exposure prophylactic (PEP) medication, and/or immune globulin when given as recommended by the Student Health physician, will be borne by the University of Louisville. Long term treatment, if needed, will be the responsibility of the student and/or insurer." Policy on the effects of infectious and/or environmental disease or disability on medical student educational activities is also included in the School of Medicine Bulletin. Addenda to individual clinical affiliation agreements include exposure policies, however, the new affiliation agreement with KentuckyOne needs to be updated to include these exposure policies.

C. The Learning Environment

The medical school makes deliberate efforts to provide an appropriate learning environment for medical students. There is an antidiscrimination policy in place for the medical school, university and affiliate hospitals. The school's educational objectives provide the framework for the core professional attributes that medical students are expected to master over the course of their medical education, based on the American Board of Internal Medicine Project Professionalism and consistent with the ACGME competencies. The professionalism objectives are introduced at first year orientation by the associate dean for medical education. They are posted at the EPC website, the Office of Medical Education website, the student Blackboard website and in the appropriate sections of all required course and clerkship syllabi. Residents and faculty learn about the school's professionalism objectives at departmental meetings, orientations, and through email communications, specifically in relation to the clinical performance evaluation that they must complete for each student, which lists the professional behaviors as they are articulated in the school's educational objectives document. All new faculty and starting in AY 2012-2013 first year interns received a copy of the school's educational objectives at their orientation and at the RATs Workshop. The school also has developed a new Honor Code in the second half of the 2011-2012 academic year, which outlines the professional attributes students are expected to demonstrate: integrity and honesty, concern and respect for others and acting in a responsible and professional manner. Students are informed that matriculation constitutes acceptance of the Honor Code. Students also learn about the expected professional attributes in their ICM course through lectures, case-based small group discussions and standardized patient encounters, and in the Intersection of Medicine and Religion course. Professional attributes and behaviors are emphasized in all of the required clinical clerkships, both informally in student/faculty daily interactions, and formally, in

small group sessions. Faculty, residents, standardized patients, and peers assess student mastery of professional attributes including behaviors such as honor and integrity, responsibility, accountability, and respect. In most cases, the professionalism evaluations are weighted at 20% of the clinical performance grade. If students receive concerning reports on their peer evaluations of professionalism, their advisory deans are notified. Students are counseled and tracked for improvement. In some cases, students meet directly with the interim associate dean for student affairs. Remediation of any professional behaviors or attitudes is coordinated primarily through the Standardized Patient Program. During the preclinical years, the advisory deans also play a role in remediating students who display unprofessional behaviors.

The interim associate dean for student affairs is responsible for the evaluation of the learning environment. Each major hospital affiliate has a mechanism in place for ensuring an appropriate learning environment in the clinical setting. The U of L SOM has a Professionalism Committee that ensures the appropriate canons of professional behaviors are maintained. Norton Hospital, Kosair Children's Hospital and the VA Hospital each address these issues through their respective Medical Staff Executive Committees. The monthly partnership meetings hosted by the dean with Jewish Hospital and the VA Hospital, as well as the dean's weekly staff meetings, are mechanisms for discussing concerns that arise related to fostering an appropriate learning environment. During the past two years, the agenda for the dean's staff meeting has contained items related to student and faculty reports of unprofessional behavior, and the discussion at those meetings ended with action items to resolve or further explore the report. In a review of the academic affiliation agreements, it was noted that the academic reporting structure was defined through the department chairs which are the University of Louisville academic chairs, not thru the dean's office. There are recently signed addendum agreements for the clinical sites that define responsibility for the learning environment. The new KentuckyOne agreement with University Medical Center, superseding all prior affiliation agreements, does not yet address the learning environment.

There are a multiple modalities and, in the opinion of the survey team, effective processes for medical students to report incidents of unprofessional behavior, particularly in the clinical environment. They can report an incident to peer student leaders (track captains), their advisory dean, or a member of the Office of Medical Student Affairs. They can also report the incident directly to the clinical clerkship director. These reports come to the attention of the interim associate dean for student affairs, who then speaks with the involved individual, the clerkship director, the department chair or the associate dean for faculty affairs, as appropriate. In addition, the EPC course and clerkship evaluation instrument contains a question about mistreatment of students, which provides students with an opportunity to describe and report incidences of unprofessional behaviors. An aggregate report is prepared by Office of Medical Education staff at the end of December and the end of June so that the associate dean for medical education can review student feedback and work with individual clerkship directors in a timely manner. Residents report incidents of unprofessional behavior either to their program directors, department chairs or the associate dean for graduate medical education, as appropriate. Faculty report such incidents through clerkship directors, program directors, department chairs or the associate dean for faculty affairs, as appropriate.

The School of Medicine has a formal Student Mistreatment Policy that is widely publicized in the School of Medicine Bulletin, and posted at the Office of Medical Student Affairs website. Course and clerkship syllabi also include information about the mistreatment policy and a web link. The policy is also disseminated during new resident orientation and new faculty orientation. The EPC uses the AAMC Graduation Questionnaire results to obtain evidence of student awareness and the effectiveness of the school's mistreatment policy. For 2012, 97% and 83%, respectively, of graduating students responded, "yes" to these questions: "Are you aware that your school has policies regarding the mistreatment of medical students?" and "Do you know the procedures," compared to the national responses of 88% and 67%. Also a lower percentage of respondents reported personally experiencing or witnessing any behaviors directed at other students than the

percentage of national respondents (42 % vs. 47% and 27% vs. 30%, respectively).

The dean's scorecard initiative is produced annually for each department chair using indicators for a variety of performance areas, including undergraduate medical education. One of the indicators for undergraduate medical education focuses on the "learning environment." The tool for measuring this indicator is a question on the required course and clerkship evaluation that students complete: "I experienced or witnessed mistreatment in this course/clerkship based on gender, race, ethnicity, or sexual orientation." For AY 2010-2011, three of seven clinical departments and three of five basic science departments had no incidents reported on the evaluations. These questions are also monitored by the associate dean for medical education, who reviews student responses regularly and works with individual course and clerkship directors as needed.

The SOM has clearly established standards and policies for student advancement, graduation, disciplinary action, appeal, dismissal, and confidentiality of records, all of which are detailed in the School of Medicine Bulletin and provided to individual students as needed, when meeting with the promotions committee. These standards and procedures are reviewed at student and faculty orientations. In the opinion of the survey team, these standards and procedures are understood by faculty, students and members of administration. The Student Promotions Committee, which meets two times per year, reviews all aspects of the academic and professional progress of students with unsatisfactory performance and makes recommendations to the dean for corrective action or dismissal. The dean makes the final decision based upon the recommendation of the Student Promotions Committee. Students whose performance or actions make dismissal a possibility must appear before the Student Promotions Committee for a hearing. The interim assistant dean for student affairs prepares a notification letter, which is mailed to the student with the issue to be addressed by the Committee and the date that the student is to appear. The letter is sent approximately 10 to 14 days prior to the meeting by registered mail and via e-mail. The letter states that the student may bring an individual to the meeting and informs the student that he or she has until two days prior to the hearing to provide supporting documentation concerning his or her situation. If the student wishes to be accompanied by an attorney, University Counsel will also be present.

Prior to appearing before the Student Promotions Committee, the student must meet with the interim assistant dean for student affairs, who discusses the academic status in detail and advises the student of the seriousness of the situation. At that time, the interim assistant dean for student affairs also informs the student of the availability of the coordinator of HSC Student Counseling, if these services might be helpful. If it seems appropriate, the student is offered the services of a university psychiatrist.

The student is brought before the Promotions Committee and offered the opportunity to make a statement or provide an explanation. The committee members may ask the student questions. After all information is heard, the student is excused and a motion is made and seconded by committee members. After discussion, the Committee votes on the motion. The interim assistant dean for student affairs informs the student of the Committee's recommendation privately and reminds the student that it is a recommendation, and that the final decision rests with the dean. The interim assistant dean for student affairs drafts a letter to the dean summarizing the committee's recommendations and provides a personal recommendation. In the case of a dismissal recommendation, the dean meets with the student prior to rendering a decision. The student receives a letter via certified mail from the dean informing the student of the final decision. If the student wishes further information, he or she may meet with a person designated by the dean to discuss the decision.

As per U of L policy, all appeals for adverse actions are made at the university level. Students who believe they have been treated unfairly, discriminated against, or have had their rights abridged may initiate a grievance within one year from the event giving rise to the complaint. The university student grievance officer is responsible for informing students of their rights and obligations under the grievance procedure, particularly the deadlines that have been established. The provost makes final decisions on appeals. The student grievance officer initially seeks to informally resolve as many grievances as possible. If a student is involved in an incident of potential "criminal" nature, the issue may be referred to the Criminal History Review Committee for their consideration. In the opinion of the survey team, there is due process in cases of dismissal or disciplinary action.

Student records are maintained and secured in a locked filing system in the Office of Medical Student Affairs, directed by the interim associate dean for student affairs. The SOM registrar, also housed in the Office of Medical Student Affairs, maintains student grades and evaluations. First and second year student grades are recorded and stored in PeopleSoft and Excel. Hard copies are stored in student files. Clinical evaluations are stored in PeopleSoft. Hard copies are stored in the student

files.

All students have the right to review their records and the right to challenge their record. The initial challenge is brought to the official responsible for the record. If the challenge is not resolved, the student may request a hearing before the Student Record Committee. The decision of the committee is final.

Students may access their confidential records in person with appropriate identification from 8:30 AM to 4:30 PM, Monday through Friday, and may request personal copies. Students may review any items in their record with the exception of letters of recommendation, if they have waived their right to review them. Student Affairs staff, the vice dean for academic affairs, the director of admissions, the director of financial aid, and the director of HSC Counseling are authorized to view student records.

In addition, all courses in the preclerkship curriculum now offer students an opportunity to review non-NBME exams and to challenge questions. These challenges are vetted by the director for preclinical curriculum and assessment. If the challenges are felt to be valid, the challenge is forwarded to the involved course director. Students are instructed during orientation of each course and clerkship to address any concerns with their grade directly with the course or clerkship director. On rare occasions, a student and a course or clerkship director cannot agree. If the issue is not resolved at this informal level, students are informed that they are entitled to appeal through the university's formal grievance process, ultimately to the provost. The grievance process is universal throughout all U of L schools.

Student study space is provided in unit labs, small group rooms, and in the library. Each first and second year student is assigned to one of 12 unit labs with 26 other members of the class. Each student has a locker and desk with locked drawers. Each unit lab is equipped with two flat screen video monitors, chalkboards, etc. Each unit lab has three connected small group rooms, each with a computer, table and six chairs, and a dry erase board. Interconnected labs contain sinks, microwaves and refrigerators. Very recently, these small group rooms became exclusive, for use only by medical students.

The Kornhauser Library also contains study space for all HSC students. Regular semester hours are Monday through Thursday, 7:00 AM to 11:00 PM; Friday, 7:00 AM to 8:00 PM; Saturday, 9:00 AM to 8:00 PM; and Sunday, 11:00 AM to 11:00 PM. Hours are normally extended during exam weeks. Students expressed concern about the adequacy of hours, which were recently increased by 15.5 hours/week. Plans to increase study space in the library are underway by replacing stacks with study carrels. The work for this reallocation of space had not begun at the time of the survey visit. The 1306 square foot Student Lounge, located in the Instructional Building near the medical student unit labs is available to all HSC students with card access. In the student independent analysis, only 57% of students were satisfied with the student lounge. Upgrades to the lounge were in progress at the time of the site survey visit.

Overall, graduates expressed general satisfaction with their study space, 2012 GQ results show that 84% were satisfied or very satisfied with their study space compared to the national average of 78%. However, concerns were expressed in the students' independent student analysis regarding the small group and private study space, the furnishings and the temperature control. Major concerns were raised by students about housekeeping efforts to keep their educational space clean. This has resulted in administrative efforts to identify additional, upgraded study space and to adequately maintain this space. While the facilities appeared dated, in the opinion of the survey team, sanitation was not an issue. There were concerns expressed regarding the clinical environment in the independent student analysis. Students expressed dissatisfaction with adequate study space, storage space and lack of "safe space" at clinical facilities, especially the U of L Hospital. Concerns about student safety while waiting for the shuttle service to the parking lot at night seem to have been resolved, as indicated during interviews with students. Students on clinical rotations raised concerns about the adequacy of secure areas to lock their belongings at all sites. During the survey visit, it was noted that the availability of lockers or secure places to store personal belongings is inconsistent among different clinical training sites and over a quarter of third and fourth year medical students expressed dissatisfaction with storage space with only 44% satisfied. Regarding relaxation space, according to the 2012 GQ, results indicate that 77% of the graduates were satisfied or very satisfied (national average 68%).

D. Student Perspective on the Medical School

The percentage of U of L SOM respondents (62%) to the 2012 AAMC GC who agreed or strongly agreed with the statement "Overall, I am satisfied with the quality of my medical education"

exceeded the national percentage (96% vs. 89%). The independent student analysis presented the following strengths: 1) quality of the clinical experience, 2) administrative responsiveness to academic concerns during the preclinical years, 3) availability of online resources, 4) the care and consideration from the administration student and academic affairs (career counseling and college advisory system), 5) health and mental health services, 6) the new integrated TBL sessions in the M-2 curriculum, and 7) the following courses: biochemistry, physiology, introduction to clinical medicine, neuroscience, and faculty and resident teaching in medicine, psychiatry, and pediatrics. There were a number of areas for concern regarding 1) facilities (space, maintenance and cleanliness), 2) campus safety (lightings, emergency boxes and shuttles), 3) technological services (staffing, responsiveness and skill), 4) library hours, 5) teaching by residents and faculty in surgery and family medicine, 6) time devoted to independent study, 7) financial aid disbursement, 8) academic support for students who are not already failing, 9) feedback, 10) protected study time 11) the health insurance waiver process and 12) diversity. The areas for improvement are fully described in the body of the text.

Administrators in the Office of Student Affairs and in the Office of Education are seen as accessible, aware responsive in both the independent student analysis and in the 2012 AAMC GC (all 91% to 95% satisfied or very satisfied). Similarly 96% of U of L SOM students are satisfied or very satisfied with their participation on decision-making bodies that directly affect their education (vs. 75% national respondents). It was intimated in meetings with students that in the independent student survey, students were strongly encouraged by student leaders to report negatively on facilities and security in order to effect changes in these areas.

IV. FACULTY

See Appendix for the following documents:

- Tables showing the current numbers of full-time, part-time, and volunteer faculty members in basic science and clinical disciplines, by department and total
- The table of teaching responsibilities by department
- The table on faculty scholarly productivity
- The table showing the major medical school faculty committees

A. Number, Qualifications, and Function

There has been a modest increase in FTEs of full-time basic science faculty with a significant increase in full-time clinical faculty. Since the 2005 site visit, there has been an increase of approximately 16 basic science faculty and 201 full-time clinical faculty. There has been a significant increase in both volunteer basic science and clinical faculty. The volunteer basic science faculty has increased by 13 and the volunteer clinical faculty by 406. Based on information in the database, in the opinion of the survey team, the size, composition, and qualifications of the faculty are appropriate for the educational and other missions of the medical school and the educational programs are appropriately staffed.

Residents participate actively in the teaching of medical students, but it is not because of decreased availability of faculty. The family medicine clerkship uses volunteer faculty throughout the state, and they work with students when they are on their four-week AHEC rotation. In addition, the obstetrics/gynecology rotation does, on occasion, permit students to work with a volunteer faculty member to fulfill the ambulatory component of this required rotation. The neurology and pediatrics clinical rotations also may assign students to volunteer faculty members' practices to complete the ambulatory component of those clerkships. A few part-time faculty have teaching assignments. Their participation is not because there is a decreased availability of full-time faculty to teach, but simply because they serve as part-time faculty members.

The protected time for basic science course directors range from 10%-65%. The range of protected time for clerkship directors is 10%-70%, based on information elicited during the survey visit. The amount of protected time seems to be adequate as the course and clerkship directors did not express concerns about the amount of protected time for course or clerkship administration. There are no faculty who spend less than three months on site for the academic year. There is no anticipated decrease in the number of faculty in the next academic year, however a planned early retirement program is in the early stages of development. Details were not available at the time of the survey visit, however the team concluded that this early retirement plan would not likely impact the educational program.

There is a formal evaluation process for faculty as part of the course and clerkship review process. The EPC course and clerkship evaluation system collects student feedback about teaching. All students are required to submit an evaluation using the school's web-based system. This web-based questionnaire contains global questions about the content mastery of the teaching faculty, the quality of the teaching, and the overall effectiveness of the teaching. In addition, the EPC evaluation asks the students to evaluate the individual teaching faculty. Students respond to Likert-scale questions related to teaching for individual faculty and comment about the faculty member's teaching strengths and provide suggestions for improvement. Students must complete an evaluation for at least one faculty member, but most complete more. The results of the individual teaching evaluations are available to the course and clerkship directors, the department chairs, and the associate dean for faculty affairs. The office of medical education sends individual faculty an email with a link to the results of their own evaluations. The EPC is currently discussing changes to the individual faculty evaluations of teaching with the goal of providing faculty with more feedback about their teaching. Course directors may add questions to the EPC required course evaluation focused on teaching.

Remediation of deficits in faculty teaching skills is generally accomplished at the department level; however, the recommendation for the remediation may come from either the department or the EPC. In most cases, where the EPC identifies a need for remediation for a particular faculty member, the chair of the EPC makes this request as part of the written report sent to the course or clerkship director (and copied to the department chair) after the annual evaluation of the course or clerkship is completed. Generally, the EPC would request that the department provide the needed faculty development/assistance either through peer consultation at the department level or through a referral to the Teaching Consultation Services (TCS) or Medical Education Research Unit (MERU). In addition to the TCS, the university-wide Delphi Center for Teaching and Learning has an HSC satellite site where faculty can consult and seek training to improve teaching skills. Also, faculty seeking to remediate deficits in teaching skills may enroll in the college teaching course that is offered tuition free to medical school faculty on the HSC campus as part of the graduate certificate program, Teaching in Healthcare Professions.

Faculty scholarship is fostered with state-of-the art research facilities, increased space, and formal and informal mentoring programs. The school annually reviews research space allocations and measures productivity based upon research funding and the quality of academic programs in the laboratory-based research space at the school. Research space assignments are benchmarked against current productivity standards, unique research requirements, and identified strategic research priorities. Multi-year productivity measures are reviewed (typically three-year averages) to accommodate funding fluctuations.

The school offers a formal mentoring program to all junior faculty when they attend the new faculty orientation in September. In addition to the new faculty, any other interested junior faculty are contacted by email at this time and they may apply for the mentoring program also. During the 2011 calendar year, 17 junior faculty (protégés) were paired with 17 mentors. The protégés and their mentors meet a minimum of four times throughout the year. Both protégés and mentors are

invited to workshops early in the year that address topics such as starting a research career, understanding the promotion and tenure process, balancing professional and personal responsibilities, and balancing clinical and research responsibilities. In addition to the formal mentoring program, there are numerous instances of informal mentoring occurring at the departmental and interdepartmental levels. In the database it was noted that attendance at faculty development activities can be problematic but opportunities are available at the school.

Scholarship focused on teaching and learning continues to increase and is supported by the school's policy on promotion, appointment, and tenure. Faculty interested in pursuing scholarship in teaching can obtain both short-term and long-term assistance in all phases of the research process, including framing research questions, designing research and instructional validation studies, obtaining IRB approval, submitting grants, managing research projects, and analyzing quantitative and qualitative data from the MERU. Tenure-track hires for teachers are becoming less uncommon. Scholarship is defined broadly and in the opinion of the survey team, scholarly productivity appears to be adequate. There is strong support for junior faculty in terms of mentorship, promotion guidance, and broad and flexible interpretation of scholarship in the appointments, promotions and tenure process.

B. Personnel Policies

The University of Louisville's policies and procedures for faculty covering faculty appointment, renewal of appointment, promotion, granting of tenure and dismissal are detailed in The Redbook, and available on the website. The School of Medicine's Policy for Promotion, Appointment and Tenure and for Periodic Career Review adheres to The Redbook policies and are available on the web. There are separate faculty tracks: a tenure or probationary track or a term track. A probationary appointment is the appointment of nontenured, full-time faculty members who are eligible for tenure. Transfers out of a probationary appointment into a non-tenurable (term track) appointment may be requested anytime, but must be complete prior to the time the tenure review would begin. Transfers back to probationary status are not allowed. Term-track faculty are full-time appointments for a stipulated period and up to three-year renewable contract. The appointments of term faculty may be funded through general funds, restricted funds, or clinical revenues. Term faculty participate fully in the governance of the school, meet specific criteria for appointment and promotion and have annual and end of term reviews. Voluntary faculty are termed gratis faculty at U of L SOM. Gratis faculty members are not members of the Executive Faculty. In interviews with junior faculty it was ascertained that the faculty understand the different tracks and how to advance in them. The team heard the detailed process of changing tracks from junior faculty. It was not clear to the survey team that faculty on the Trover campus were as familiar with promotion criteria, however in the opinion of the survey team they are adequately familiar and have the campus dean as a resource.

The faculty are regularly informed of the details of their faculty track outlined in their initial letter of offer, during their initial orientation session upon hire and then provided an individualized report explaining his/her track and the timeline relevant to the position. Track assignment and progress in the track is reviewed annually with the chair. In the standard annual work plan percentages are assigned to effort in research, teaching and/or service (community or clinical). Promotion is earned when the faculty demonstrates excellence in one area of the work plan that exceeds 20% effort and proficiency in all other areas. Proficiency in teaching is required for all full-time faculty regardless of track if it is part of the annual work plan. Promotion is identical for term and probationary faculty except scholarship is not required for term track promotions. There is also a mid-tenure review two years into the faculty appointment to allow for mid-career correction. There are university policies mandating the annual review. Promotion or tenure begins in the department level then moves to the Promotions Appointment and Tenure Committee, the dean, the EVPHA, provost and ultimately to the BOT.

The U of L has policies regarding conflicts of interest (COI) in research, academics and continuing medical education. The COI office collects annual disclosure forms from all faculty. Specific training is mandated every four years.

C. Governance

There is direct faculty involvement in important decision making for the U OF L SOM. This includes admissions, curriculum development and evaluation and student promotions. The dean does make final decisions in adverse promotions decisions, which is consistent with university-wide policy. Faculty provide career counseling through the advisory dean system. There is also faculty participation in mission critical areas. See Appendix for the committee membership and authority.

The following describes the leadership structure of the faculty. The Executive Faculty are all full time faculty with an appointment at the school of medicine, part-time or voluntary faculty that have been elected to the executive faculty by their department, and emeritus faculty, who on an annual basis request to be considered executive faculty. The Faculty Forum is the elected representative body of the SOM Executive Faculty. The Faculty Forum is chaired by the dean and meets monthly. Members of the Faculty Forum include at least one elected representative of each department (larger departments have greater representation), one clinical and one basic science chair, three medical students, two graduate students, and two residents. Issues are discussed in this forum and then acted on or sent forward to the Executive Faculty for action. The average attendance at Faculty Forum is about 75%. The Executive Faculty meets once each semester. The dean discusses items of importance that have occurred since the last Executive Faculty meeting. The percentage of eligible faculty who attend these meetings is typically only 5 to 10%; therefore, an electronic ballot is usually conducted for items that require a quorum vote of 60 members. School-wide issues are raised and voted upon at these meetings such as the list of graduates, changes in school of medicine bylaws, departmental name changes, and the creation of new departments.

The Medical Council is advisory to the dean and consists of the dean and the department chairs. On average 90% of departments are represented at each meeting by the chair or designee. Administrators are also invited to these meetings, but have no vote. One graduate student, one medical student and one resident are voting members as well. The Medical Council is advisory to the dean. Major items on the agenda have included changes to the school of medicine bylaws and the major policies of the school (e.g., promotion, appointment and tenure policy and merit criteria policy), chair reviews, and clinical operation and curriculum development discussions.

In addition to the regular meetings with the Medical Council and the Faculty Forum, the dean meets on a weekly basis with the administrative staff, which includes all assistant/associate/vice deans and other individuals who are essential to the operation of the school. The dean also has a lunch meeting with the department chairs every other month. There are no regularly scheduled one to one meetings with department chairs, however chairs reported that they had access to the interim dean, as needed. In addition, the dean has well attended semi-annual open forums for all faculty, students and residents. Draft policies are made available to the faculty through electronic communications and at the Faculty Forum and Medical Council. The survey team identified a consistent message of accessibility and responsiveness of the interim dean in all governance matters.

V. EDUCATIONAL PROGRAM RESOURCES

See Appendix for the following documents:

- Four-year Revenue and Expenditure Summary and current LCME Part IA Annual Financial Questionnaire

- The table(s) of teaching facilities
- The table of faculty offices and research labs
- Summary data and associated tables for each clinical teaching site
- The tables of library and information technology facilities, library holdings, and library/IT staff

A. Finances

The table below reviews the sources of revenues for the U of L SOM in 2011-2012 and contrasts that to the same data in 2004-2005 when the last survey was conducted.

MEDICAL SCHOOL REVENUE SOURCES (\$ in Millions)

Source	University of Louisville				Public US Medical Schools— Median
	Amount 2004-05	Percent 2004-05	Amount 2011-2012	Percent 2011-2012	Percent* 2010-11
Tuition & Fees	13.56	4%	24.206	5%	3%
State Appropriation & General University Funds	41.055	12%	53.041	11%	11%
Federal Research Grants & Contracts	41.109	12%	47.388	10%	14%
Other Grants & Contracts	21.435	6%	20.776	4%	8%
Facilities & Administrative Recovery	13.702	4%	18.331	4%	6%
Endowment Income & Gifts	19.418	6%	27.278	6%	3%
Support from Affiliated Hospitals	62.270	18%	112.917	23%	17%
Professional Fee Income	121.507	36%	169.431	35%	34%
Other	3.898	1%	7.564	2%	4.6%
Total	337,950	100%	480,911	100%	100%

*Source: LCME Part I-A, Annual Medical School Financial Questionnaire, FY2011.

The Revenues and Expenditures History table in the Appendix reveals that revenues have increased in projected 2012-2013 by approximately 17% since 2008-2009 while expenses have increased over 18%. This has resulted in approximately a \$2.7 million cumulative reduction in balances over these five years. While revenues have fluctuated over the past few years due to stimulus funding, the SOM has adequate resources to support its academic mission and has ample unrestricted reserves. Reserves have been used to cover deficits in several departments as well as to cover some accumulating deficits as chairs are recruited.

The proportion of revenues from various sources have changed little over these years except that grants and contracts have only increased by approximately 6% due to austere budgets from NIH and other granting institutions. At the present time the school's educational programs are stable,

appropriately financed and not affected by undue productivity pressures. There are no plans to increase the class size to enhance revenues through tuition.

In an effort to maintain positive financial results in the future, U of L SOM has developed new academic affiliation agreements with Norton Healthcare for the Departments of Surgery and Pediatrics, which are expected to generate significant new revenues to support medical education and research. The new partnership between U of L SOM, University Medical Center and KentuckyOne Health will also provide an estimated \$135 million of needed capital investments and support for clinical, academic and research programs in the SOM. The KentuckyOne agreement signed in March 2013 calls for \$543.5 million of investment during the first five years and expanding to \$1.4 billion over 20 years. The SOM Practice Plan has also positioned itself to be part of the preferred provider group for all Medicaid Managed care Organizations. The consolidation of the individual practices to ULP promises enhanced efficiency and revenue generation. While state appropriations may be variable, the KentuckyOne affiliation agreement promises resources for capital investments in the future. Long-standing plans for a new instructional building are seen to have a greater possibility of execution with this new agreement.

B. General Facilities

The main instructional building for the school was built in 1970 and last renovated in 2003. The team toured the facilities and concluded that the education facilities may not be adequate. The current facilities provide access to two 160-seat lecture halls; one 145-seat lecture hall; 12 28-seat student labs/small group rooms; five 14-22-seat small group classrooms; eight two-person clinical skills labs; four 12-15-person simulation labs; and one dissection lab. The school has access to an auditorium that can accommodate 462 and five 12-20-seat conference/small group rooms located in the nursing building. The library was built in 1970 and has not been renovated since the initial construction.

According to the self-study, the size of the standardized patient clinic makes it challenging to accommodate students because of scheduling and the limited number of rooms. The space for faculty offices and research are adequate. There are approximately 950 faculty offices and a total of 340,000 square feet of research space located on the Health Sciences Center campus. The consolidated organization of the facilities appears to support the mission of the school.

The main instructional facilities for first and second year medical students are dated and do not provide adequate space to accommodate the entire current class size. According to the independent student analysis, students believe the facilities need to be upgraded to meet the education needs of the students. A significant proportion of the student body is dissatisfied with the lecture hall facilities. The percentages of students in each of the class year who are satisfied or very satisfied with this space are (in ascending class order): 56%, 69%, 64% and 60%, with an overall dissatisfaction rate of 22%. Specific mention is made of crowding during examination situations and failed electronic facilities during class sessions. The ventilation of the anatomy laboratories is described as "substandard." As noted earlier in the report, professional assessment of the ventilatory function of the anatomy lab found it to meet code specifications. It was noted in the student survey that the current audiovisual system frequently malfunctions, and the students suggested the need for larger desks and more electrical outlets in the lecture halls. In response to the student survey there have been some modifications including additional outlets in the periphery of the lecture halls and improvements made to the unit labs. After the last full survey visit when the facilities were noted to be inadequate for a class of 149, seats were added to the lecture hall and gross anatomy tables were added to the lab to accommodate 160 for a class size of 155. For AY 2012-2013 while the new matriculant class size is 155, there are 164 students are in the M-1 class (repeating the year, returns for leave of absence. A portion of the class attends lecture in another room due to a seating capacity of 160. The team observed individuals utilizing the

overflow rooms even with the lecture hall not even close to capacity.

In the independent student analysis the students also expressed the need for improvements in the small group and individual study spaces, with specific suggestions for an increase in the number and size of study spaces with updated furnishings. In addition, the students commented that the environment control (heating, ventilation, and air conditioning) systems in the small group study rooms and labs do not work consistently leading to extreme hot or cold temperatures, which they state are not conducive to a comfortable studying environment. The greatest collective concern, noted in the free text comments, regarding facilities, was the overall lack of cleanliness and maintenance, which includes excessive garbage in study areas and restrooms, and poor maintenance of the hallways, labs, lecture halls, and restrooms. Seventy percent of respondents were satisfied or very satisfied with cleanliness of the Instructional B-Building. As noted in the MS section, the survey team toured dated but clean instructional facilities. Many students also expressed dissatisfaction with facilities at clinical sites; there were numerous comments concerning a lack of safe spaces to store student belongings and adequate space to study. The availability of lockers or secure places to store personal belonging is inconsistent among the different clinical training sites and over a quarter of third and fourth year medical students express dissatisfaction with storage space and study areas, with only 44% and 50% satisfied, respectively. Tours with students corroborated this inconsistency, e.g., locked resident rooms for storage, but inconsistent access to the rooms by medical students. A new instructional facility has been a university priority for two years and additional capital funding sources are being explored at the university level.

Security was cited in the last full survey. Since that time there have been changes such as an increase in patrols, a shuttle bus system, blue light alarms, and key card entrance to buildings. Recently a new parking lot opened, new lighting was installed and a RAVE alert system became active. In the independent student analysis, in spite of these changes then student body identified a number of security issues in the independent student analysis including inadequacy of shuttle services to the parking garage, non-functioning "police emergency poles," lack of patrolling security officers on off hours, access to the building by "community" individuals, and theft. At the time of the site visit, the team learned that an online computer tracking of the shuttle service had been implemented, and that the shuttle schedule was more accurate and reliable. The students who met with the survey team for the most part reported that the parent campus and clinical teaching sites are safe and secure, however several students expressed a desire that security surveillance cameras be placed in the instructional buildings for times of late-night studying.

C. Clinical Teaching Facilities

The following is a summary of all inpatient facilities used by the medical school for all student rotations.

Inpatient Facility Name (list)	Check [✓]						
	Family Medicine	Internal Medicine	Ob/ Gyn	Pediatrics	Psychiatry	Surgery	Neurology
University of Louisville Hospital		X	X	X	X	X	X
Veteran's Affairs Hospital		X			X	X	
Kosair Children's Hospital				X		X	X

Norton Hospital		X	X		X-child psych	X	
Jewish Hospital		X	X private		X-ECT only	X	X
Trover Campus		X	X	X		X	X

The University of Louisville Hospital is a 404-bed facility, with 356 beds designated as medical/surgical beds. The average occupancy rate is 84%. There are 17,280 annual admissions, 42,396 ER visits and 192,682 outpatient visits. Inpatient census and outpatient capacity appear adequate for the number of clerkship students on each rotation.

Kosair Children's Hospital is a 243-bed facility with an average occupancy rate of 74%. There are 10,000 annual admissions, 51,000 ER visits and 102,000 outpatient visits. The average daily censuses for surgery, pediatrics and neurology services are very adequate for rotating clerks: 80-85 children on the pediatric service for 26 clerks, and 25-40 children on surgical service for 4-6 clerks. Jewish Hospital is a 442-bed facility with a 65% occupancy rate. There are 19,556 annual admissions, 35,000 ER visits and 35,000 outpatient visits. The average daily census is approximately 20 for 4-5 medicine and surgery clerks per rotation and 10-15 neurology patients for 2-3 neurology clerks.

Norton Hospital is a 642-bed facility that has an average 73% occupancy rate. There are 27,051 admissions, 27,819 ER visits and 52,019 outpatient visits. Relatively few students in obstetrics and gynecology, psychiatry, surgery and internal medicine rotate at Norton Hospital. The average daily census for the services is more than adequate for the rotating clerks.

The VA Hospital is a 116-bed facility with a 68% occupancy rate. There are 5207 annual admissions, 22,069 ER visits and 522,784 outpatient visits. There appear to be adequate daily censuses in internal medicine, psychiatry and surgery for the clerks.

The Trover/Madisonville inpatient facility accommodates all of the required clerkships. It is a 410-bed facility with a 26% average occupancy rate. There are 8977 annual admissions, 30,885 ER visits and 204,006 outpatient visits. The daily census in the family medicine, internal medicine, obstetrics and gynecology, pediatrics, neurology and surgery services are adequate for the small number of students on the service at any one time.

In addition to adequate sites for inpatient clinical rotations, there are adequate numbers of ambulatory clinical training sites for the medical student class on each of their clerkships. Students rotate at up to 11 ambulatory sites, including The Ambulatory Care building for Obstetrics/Gynecology, Internal Medicine, Neurology and Psychiatry, the East Broadway Clinic and the Ultrasound Clinic for Obstetrics and Gynecology, Clinical Faculty Offices for Obstetrics and Gynecology and Neurology, the Veterans Affairs Hospital for Internal Medicine and Psychiatry, the ULHCOC Neurology Clinic, the University Pediatric Neurologists, the University of Louisville Family Medicine practice, the Center for Primary Care, the Bingham Outpatient clinic for Psychiatry, and the James Brown Cancer Center for Internal Medicine. All surgery rotations are inpatient based with individual clinics at each site averaging three to six hours per week.

Medical students cite the clinical training experience at U of L SOM to be a strength of the educational program. In the opinion of the survey team, there is an adequate network of inpatient (five Louisville and one Trover) and multiple outpatient clinical teaching facilities providing an adequate, appropriate mix of patients. Training sites include a Level 1 trauma center, a cancer center, a VA hospital, a tertiary children's hospital, university hospital, two private adult affiliated hospitals, community based clinics and the Trover medical campus, located in Madisonville, KY. Students consider their direct exposure to an abundant variety of patients a major highlight of the curriculum. Resident physicians are present in most settings where students complete required

third-year clerkships. In summary, annual hospital admissions to these facilities range from 5,351 in a rural setting to 27,051 in an urban environment. Patient volumes have been increasing significantly. The average daily in-patient census is adequate for all core rotations. Concerns about a recent decrease in deliveries at University Hospital should be addressed once the new KentuckyOne operating agreement takes full effect and planned enhancements to the Center for Women and Infants are completed. In the meantime, a one-hour hands-on experience in the Simulation Center and more delivery/operative experiences at another nearby clinical affiliate hospital are supplementing the delivery experiences students have in that component of the Obstetrics/Gynecology clerkship. Students during the site visit confirmed adequate exposure to Obstetrics. Support services are adequate to meet student needs and include nursing, clerical, transporter, EKG, and respiratory therapy services, in addition to phlebotomy and IV cannulation. Support for the medical school's teaching program is strong at all of the clinical affiliates. Changes in the leadership of Jewish Hospital, which recently merged with Catholic Health Initiatives into KentuckyOne Health, have not impacted medical student rotations at the hospital. Competition with Norton Hospital has produced some expected inter-institutional tensions but faculty continue to actively practice and educate medical students at Norton with the support of the hospital. Students on the Trover Campus also have adequate patient exposure and praise the teaching commitment of that site.

Facility Name (list)	Check [✓]						
	Library	Lecture or Conference Room(s)	Study Area(s)	Computers	Call Rooms	Shower or Changing Area	Lockers
University of Louisville Hospital	X	X	X	X	X	X	X
Veteran's Affairs Hospital	X	X	X	X	X	X	X
Kosair Children's Hospital		X		X	X	X	
Norton Hospital	X	X	X	X	X	X	X
Jewish Hospital		X	X	X	X	X	
Trover Campus	X	X	X	X	X	X	X

The following paragraphs summarize the quality of educational resources for student education at the clinical teaching sites. Sites are adequate in all areas except, as noted earlier, at some clinical sites, storage space for personal belongings is not adequate or not conveniently located for students. In the independent student analysis over a quarter of M-3 and M-4 medical students expressed dissatisfaction with storage space, with only 44% satisfied. The assistant dean for clinical education is aware of the problem and is working the hospital partners to identify new storage and study areas for students.

At the University of Louisville Hospital the educational resources, library, and information technology services are adequate. The hospital library is a satellite library of the nearby Kornhauser Health Sciences Library of the University of Louisville. Hospital library holdings are fair and the close proximity of the Kornhauser Library to the hospital eliminates the need to duplicate resources. Online print journals and scientific and clinical databases from the Kornhauser Library are accessible via the Internet. The hospital library is open 8:00 am to 4:30 pm Monday through Friday with after-hours accessibility 24 hours per day, seven days per week through security. Computer terminals with literature search capabilities are available in all clinical units and other areas of the hospital. Lecture and conference room space is adequate if booked properly in advance. Areas for conducting discussion rounds can be crowded during peak rounding times of the day. Study areas are scattered throughout the hospital and include the library, conference rooms, and call rooms. Students on the surgery clerkship take overnight call and call room and shower facilities appear appropriate except students are sometimes reluctant to use student call rooms because they are in a different location than the resident call rooms. Students were choosing to sleep on couches in the resident call room so they would not miss when a trauma case arrived in the emergency department. Recently, a trauma beeper for student use has been put in place and is working, allowing students to utilize their designated call rooms and not miss trauma cases. Students are assigned lockers on the obstetrics and gynecology clerkship. Other clerkships have

designated areas for student belongings. Some students express dissatisfaction regarding lack of individual study space and sufficient storage space for personal belongings.

At the Veterans Administration Medical Center the educational resources, library, and information technology services are adequate. The hospital library is accessible 24 hours per day, seven days per week, providing in-house access to several databases, print and electronic journals and books. Electronic resources are available on all facility computers and remotely from home. Online print journals and scientific and clinical databases from the Kornhauser Library are also accessible. Lecture and conference space is adequate, as are study areas. Call rooms and showers are available. Students on core required clerkships do not take overnight call at the hospital. Lockers are available in most team rooms and students provide their own locks.

Kosair Children's Hospital and Norton Hospital are part of the Norton Healthcare Inc. Hospital System. The hospitals are located directly across Chestnut Street from each other and are linked by a pedestrian walkway. Students have access to the library that is housed in Norton Hospital. Students can also access online print journals and scientific and clinical databases from the Kornhauser Library. Computer terminals with literature search capabilities are available in all clinical units and other areas of the hospital. Study space is available at the library. Lecture and conference room space is adequate if booked in advance. Call rooms and showers are available. There are no lockers available for students. Some students express dissatisfaction regarding lack of individual study space and sufficient secure storage space for personal belongings.

Jewish Hospital no longer maintains a dedicated library facility. Computer terminals with literature search capabilities are available in all clinical units and other areas of the hospital. Students can access online print journals and scientific and clinical databases from the Kornhauser Library. Study space is available. Lecture and conference room space is adequate. Call rooms and showers are available. There are no lockers. Students can access the physician lounge, store their belongings there, and study there.

The educational resources, library, and information technology services at Trover Campus are adequate. A medical library with computer carrels with Internet access and literature search capability and multiple study areas in the form of conference rooms and study carrels are available to students 24/7. Library staff is available to assist students during normal business hours. Additional study space is available in the student lounge, and the U of L Trover Campus (ULTC) office suite. Multiple lecture and conference rooms are available for student use in both the hospital and the Madisonville Baptist Health Family Medicine Residency Associates Building. Desktop computers are available in the library and student lounge. Laptop computers and a desktop computer are available for student use in the ULTC office suite. A call room, with shower facility, is available for student use in the hospital. Student lockers are available in the student lounge. Students at the site visit confirmed the adequacy of facilities at the Trover Campus. Students routinely rotate with residents on their clinical clerkships. All residency programs are accredited. The Trover Campus has only a Family Medicine residency-training program. Those residents rotate on a number of disciplines there. In addition, surgical residents rotate on the Trover Campus. Students work with residents on their clerkship in approximately one-third of the core clerkships.

Affiliation agreements have been fully executed with University of Louisville Hospital, Kosair Children's Hospital, Jewish Hospital, Norton Hospital (part of Norton Healthcare), the VA Hospital and Trover (noted in the last full survey visit to be without a written affiliation agreement). Affiliation agreements are mostly dated from 2008, with one year automatic renews and a six month termination notice time. All signed affiliation agreements incorporate the required elements for locations with inpatient rotations with recently signed addendums that define the required elements of the learning environment. Specifically these agreements guarantee student and faculty access to resources, the primacy of the medical education program, the role of the medical

education program in faculty appointment and teaching assignment, the specification of responsibility for treatment and follow-up of student occupational exposure, and the share responsibility for an appropriate learning environment. However, the new master affiliation agreement of KentuckyOne and the University Medical Center and University Hospital, effective March 2013, supersedes prior agreements. This newly executed affiliation agreement for KentuckyOne and the University of Louisville does not include the required elements on the learning environment and specification of the responsibility for treatment and follow up after exposure. Additionally, the agreement is not specific regarding termination notice and transition plans, however the agreement references a 20-year affiliation, a point that was emphasized by the hospital leadership at the site visit.

Interactions between administrators of the clinical affiliates and the faculty and leadership of the medical school occur through various meetings and regular communication regarding specific clinical or academic issues. The school, the hospital and the faculty practice administrations are linked with a shared academic vision. The CEO of University of Louisville Hospital serves on the Board of University of Louisville Physicians, the integrated practice group for all SOM faculty. In addition, the dean of the SOM, the EVPHA, the chief of the medical staff at ULH, the chair of ULP, and the director of the Brown Cancer Center serve as advisory or regular members of the UMC Board. The ULH Medical Executive Committee is also composed of the clinical department chairs or their designees and meets monthly. Likewise, a shared governance model will exist with the new KentuckyOne Health Board. At non-ULH hospitals the academic chair is not necessarily the chief of service. For the VA, the SOM interviews and recruits; for Kosair the president of the medical staff rotates between a SOM or private physician. Of the 2000 Norton Health physicians, 550 are U of L employees. On site the survey team noted the support of the clinical affiliates, the understanding of the medical education program and the buy-in for maintaining an appropriate learning environment.

D. Information Resources and Library Services

The Kornhauser Health Sciences library is centrally located on the U of L health sciences campus, and serves the schools of medicine, dentistry, nursing, public health, and information services. It includes a satellite facility at University Hospital. The library director reports to the dean of university libraries. Staff librarians are involved in developing curricula, and teaching evidence-based medicine for the neurology, family medicine, and pediatrics clerkships. Librarians serve as *ex officio* members for curriculum subcommittees. The SOM Office of Academic Technology, with direction from the EPC, manages educational technology for the medical education program.

The library had previously been open 88.5 hours per week with hours expanded prior to examinations. The school considered this schedule adequate, but 22% of all students were dissatisfied as noted in the independent student analysis. First year students had a 36% dissatisfaction rate. Hours had been increased in the past in response to student requests, but resulted in little additional student utilization and a return to regular hours. In response to the independent student analysis, hours were increased by 15.5 hours/week with addition of a part-time library staff position in March 2013. The team noted posted signs advertising the new library hours. It is too soon to determine the effect of this change in library hours on student satisfaction.

Desktop workstations are located throughout the library, with laptops available for circulation. The percentage of U of L respondents on the 2012 AAMC GQ satisfied or very satisfied with the computer resource center is 87% vs. 86% of national respondents. The library has wireless access that covers all public areas, and printing is available at a nominal fee. Scanned copies of most articles are provided at no cost. The library participates in a national network of online resources and reciprocal lending agreements, and maintains 6600+ print and online journals. Staff includes 8.5 FTE professional and 13.5 technical and support personnel. The school reports that the number of librarians, staff, and budget ranked in the bottom tertile of an AY 2010-11 comparison of 123

benchmarked health science libraries. Eighty-one percent of respondents to the 2012 AAMC GQ were satisfied or very satisfied with the library, the same satisfaction as national respondents.

Kornhauser Library provides group collaboration areas in seven small-group study rooms, and has over 300 available study seats. It serves all HSC students. The results of the student independent analysis indicate that 71% of the students are satisfied or very satisfied with the study environment. As noted earlier, the assistant vice president for health affairs/facilities, planning, and management is currently working with the director of the library to relocate some of the holdings and work units to create additional student study areas, a need identified by the student body.

The library provides access to 75 database/search sources and access to 29 desktop workstations. Group conference rooms are equipped with audiovisual capabilities. Online access is available for all faculty, residents and students on and off-campus for holdings and databases such as Medline and similar resources. The student independent analysis notes high satisfaction (87%) with library informational resources. The Trover campus maintains a small library with on-site and electronic resource access, and an on-site library staff available to assist students. Trover students and faculty expressed satisfaction with the level of service provided. A remote Skype- like program "Ask a Librarian" is available to all students at all sites during business hours.

The library receives funding from the state through the University of Louisville library system. User feedback forms, an advisory committee, and periodic forums are held to solicit feedback on library operations, and the director has periodic meetings with the dean to keep her informed about issues that arise. The increase in hours and the planned increase in study space in the library are examples of student input into library services.

The SOM utilizes curriculum management systems, including Blackboard course sites and Tegrity lecture capture, with faculty support from the Delphi Center for Teaching and Learning. A new curriculum management system, RedMed, will manage all course and clerkship documents. It is currently in the early implementation phase, with content from the M-1 and M-2 curricula uploaded as well as the required clinical encounters in the M-3 year.

The Media Lab in the Health Science Center K Wing offers tools for graphics development and distribution. The SOM Office of Academic Technology supports faculty in the areas of classroom use of technical products and distance education. The university's Delphi Center for Teaching and Learning also provides pedagogical support as well as support for Blackboard. Students note that courses have incorporated technology unevenly, however some departments such as the Department of Physiology and Biophysics have a "laboratory for education" to encourage innovative use of technology.

The University's IT department, with four professional staff and two technical staff, provides data network services to all sites. Wireless access is available in all classrooms, offices and common areas. VPN services and videoconferencing services to University Hospital, VA Hospital, and the Trover campus are provided. Additional services, such as audience response systems have been installed in all campus classrooms. Students can access curriculum management resources such as Tegrity lectures and RedMed while at off-campus sites or at home. In the independent student analysis, 62% of all students are satisfied or very satisfied with IT support, with a large proportion neutral or dissatisfied. The student free text comments speak to a general lack of responsiveness, failure of some courses to use some of the resources, failure of support when there are technical difficulties during a class, and questions of technologic skill when assisting students with laptops. Of note IT staff support the multiple operating systems of students' devices. IT staff have recently been added to fulfill the expectations of the students. On site students indicated the need for better IT response time and SOM website improvements. Recently, the dean committed resources to refresh the home page, create plans for a major website overhaul, and hire a fulltime Webmaster.