

University of Massachusetts  
University Health Services  
Financial/Operational Analysis

Executive Summary

October 17, 2011



**HBC | SLBA** | HODGKINS BECKLEY CONSULTING LLC  
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*Healthcare Management and Benefit Consultants Specializing in Higher Education*

## Table of Contents

Section	Pages/Slides
I. Introduction .....	1
II. Executive Summary.....	2 - 6
III. <b>Presentation Slides</b>	<b>Slide #</b>
General Comments .....	1 - 4
Medical Services .....	5 - 30
Primary Care Utilization .....	6 - 9
Provider FTEs and Productivity .....	10 - 20
Costs and Staffing.....	21 - 30
Counseling Center.....	31 - 41
Revenues.....	42 - 45
Ancillary Services .....	46 - 51
Third Party Reimbursement.....	52 - 56
Facility Survey .....	57
IV. <b>Data Tables</b>	
A, Visit Data .....	N/A
B.1, Provider Productivity .....	N/A
B.2, Appointment Capacity .....	N/A
B.3 – B.6, No-shows .....	N/A
B.7 – B.8, Visits.....	N/A
C, Staffing .....	N/A
D, Cost .....	N/A
E, Reimbursement Rates.....	N/A
F, Radiology and Physical Therapy Charges.....	N/A

Hodgkins Beckley Consulting (HBC) ([www.HBC-SLBA.com](http://www.HBC-SLBA.com)) was retained by the University of Massachusetts Amherst (UMass) to provide a financial and operational analysis of University Health Services (UHS) based on the following deliverables.

- UHS cost analysis by service area (e.g., ancillary departments, clinics, regular hours, expanded hours), provider and service productivity, operational efficient, and support services/overhead.
- Assess cost effectiveness of serving non-student populations.
- Recommendations for improving UHS operations.
- Review of third party billing, health fees, and other funding sources.

HBC reviewed billing, scheduling, utilization, cost model, and financial data, and previous program analysis and survey reports. In addition, HBC observed and reviewed UHS operational processes and facilities during an on-campus site visit. HBC wishes to thank Donna Yeziarski, Maria Coach, Jo-Ann Osborne, and Bernie Daly for their time and assistance in obtaining and providing requested data and in answering questions in a timely, professional, and thorough manner. The UHS systems and use of systems for billing, financial analysis, and determining utilization, including sophisticated cost allocation methods are outstanding and are at a level not often seen the college health field.

A detailed discussion of findings was conducted during an on-campus presentation on August 25, 2011. A draft PowerPoint file and supporting analyses and data tables were emailed to UMass on September 7, 2011 and an updated PowerPoint was submitted with this final report. The Counseling Center portion of the PowerPoint was expanded and updated subsequent to a telephone meeting on October 5, 2011, with HBC and Harry Rockland, UHS Counseling Center Director.

### Consultation Limitations

- HBC does not provide legal advice to its clients. Legal issues must be reviewed by the legal counsel for the University of Massachusetts Amherst.
- HBC does not provide services which cannot be compensated on a fee basis payable by the university or college.
- HBC's ability to fulfill all facets of the proposed services is contingent upon the availability of adequate data from the University of Massachusetts Amherst.
- HBC's final report may not be used to make program marketing claims about the quality of services delivered by health care providers relative to the technical delivery of medical or mental health care services. The scope of such evaluations may generally be found within the parameters of accreditation services performed by organizations such as the Joint Commission on Accreditation of Healthcare Organizations (JCAHO), the Accreditation Association for Ambulatory Health Care (AAAHC), or the International Association of Counseling Services (IACS).

### Report Corrections, Additions, and Following Services

HBC will issue report corrections or additions as needed following delivery of this final report. HBC will also be available for telephone consultations, without additional charge, for one year following the delivery of this report.

Each of the factors affecting cost (scope of service, operating hours, productivity, staffing levels, compensation, and accounting practices) were examined. The following are the major findings and recommendations discussed during the on-campus presentation of August 25.

### Medical Services

1. UHS student primary care penetration rate (50 percent) is consistent with college health norms. The average provider visits per year is at the high end of the norm, and may be related to the requirement that individuals in the UMass student health insurance plan (SHIP) are required to receive UHS referrals for benefits to be covered. There is potential for decreasing unnecessary visits if this referral requirement is eliminated.
2. Staffing extended weekday hours, weekends, and holidays; having few 9-month or 10-month staff appointments; and high compensation levels and policies (including on-call staffing) are the major contributors to excess costs and to costs that are higher than peer institutions. This includes both providers and clinical and other support staff members.
3. Seventy-two percent of undergraduate visits occur during only six months of the year. Since the vast majority of student visits (76 percent) are by undergraduates, the result is that a significant difference in staffing is needed fall and spring terms vs. the rest of the year. While non-students represent 22 percent of total provider visits, this percent varies significantly by month (see slide 9). Non-student utilization is fairly constant throughout the year. Many of the non-student visits, especially by summer program participants, serve to utilize existing excess resources during summer and term breaks.

Because of huge fluctuations in population, university health services require more facility space per annual provider FTE than general practices. This has an important impact on facility planning in that facilities need to accommodate peak demand, not an annualized average.

4. Provider productivity, measured both in terms of visits per provider and FTEs needed for the population base, is below both the American College Health Association (ACHA) and the Medical Group Management Association (MGMA) medians. With regard to ACHA medians, the UHS expanded hours of service accounts for the difference between UHS provider productivity and ACHA medians. A significant number of UHS providers (and accompanying costs) are allocated to service hours for which there is little patient demand/utilization (see slides 21 and 22 for after hours costs). Most student health centers are open until only 5:00 to 7:00 weekdays, four to six hours on Saturdays, and are closed on Sundays and holidays.

UHS service hours after 7:00PM should be eliminated, and staffing should be appropriately allocated so that visits for patients arriving earlier in the day are not delayed until after 6:00. Visits after 6:00 generally occur because of insufficient staff or scheduling to accommodate students when they arrived (usually before 5:00). Weekend hours should be restricted to four to six hours on Saturday (limited hours on Sunday should be

- considered only if utilization warrants). UHS should be closed on holidays and should consider reduced hours during the summer, based on utilization experience. Students currently seeking services after hours and Sundays would be more appropriately served in emergency rooms or they can/will wait to receive services at UHS when it opens.
5. The high number of paid provider FTEs relative to patient demand also results from UHS utilizing very few nine- or ten-month appointments. To the extent that the university and collective bargaining agreements preclude significantly reducing 12-month appointments, there will continue to be significant excess capacity and associated costs. Even if meaningful changes could be implemented, it is difficult to perfectly balance staffing with demand. In these cases, it is generally financially beneficial for health centers to provide services to non-students since their demand is consistent throughout the year, they use excess resources, and they pay fees for services rendered.
  6. While employees and families and student families create a need for 2.0 FTE providers consistently throughout the year at UHS, the revenues generated should cover direct costs and make a contribution to indirect costs (assuming appropriate actions are taken to maximize overall productivity and efficiency). Excess overhead costs are associated with huge fluctuations in student population and in other policy decisions, not in the consistent use of services by the non-student population. Using the accounting standard of equally allocating indirect expenses based on visits is not applicable to this situation, and it overstates the real costs of providing services to this population. HBC does not believe that student dollars are subsidizing non-student care, providing that excess on-call provider time is eliminated (i.e., there is a single, cost effective on-call system implemented). From a non-economic viewpoint, HBC believes it is a valuable service to students, especially out-of-state graduate students, to be able to have dependents seen at UHS. Many universities wish they were in a position to do this as it is a common request from graduate students.

Concern was raised that a consistent need for 2.0 FTE providers would impact the amount of space needed for a new facility and there would be associated costs, so discontinuing treating non-students would enable a smaller new facility footprint and lower cost. In HBC's view, a new facility should be planned to accommodate some level of growth and expansion, either expected or not expected. The university includes student expansion in its long-term strategic goals. A new facility, alone, may create additional demand based on perceived quality. Demand may also be affected by changes created by the PPACA (Affordable Care Act) as students can receive preventive care with no out-of-pocket expense, and as more students switch from parental coverage to the SHIP because of employer cost shifting. Finally, with a growing national trend for on-site employee health services, UMass has an opportunity to be in forefront. HBC feels it is short sighted to build a new facility with no capacity for growth. The new facility should be of sufficient size to meet current student and non-student demand and continue to see non-students until and unless capacity to meet student demand has been exhausted.

7. There are a significant number of current facility and operational inefficiencies that were identified. Because of the overriding excess capacity issues discussed above, these difficult issues have not had to be addressed (e.g., if you have excess capacity due to no 9-month appointments, you don't have to expect providers to average 18-20 patients per day). The issues include unpopular productivity expectations, working hours, patient scheduling, and practice patterns. It is also difficult to implement staff reductions and layoffs. Some of these issues can be addressed in the current facility; a new facility may be the catalyst for some; and implementation of an electronic health record (EHR) may be the catalyst for others. See Slide 17 and Tables B.2 to B.6 for a list of issues.

Use of transcriptionists is high. Transcription services should be mostly eliminated with implementation of the EHR, and providers should understand prior to implementation that this change will occur. Providers should participate in the EHR implementation process.

8. If UHS discontinues evening hours and reduces weekend hours, it is likely that the same number of students will continue access care at UHS. They will simply come during regular hours. The current facility has the capacity to handle these additional visits during regular hours.
9. UHS should evaluate processes and services in terms of cost and value added. For example, HBC believes that the triage nurse positions provide little value added and can be eliminated. If providers increase their scheduling capacity, there is no need for triage. The vast majority of students seen by triage nurses are subsequently scheduled with a provider (MD, NP, PA). UHS stores can be eliminated (both personnel and space) and internal departments can order supplies directly from university stores.
10. Most of differential in UHS costs compared to peers was due to UHS service hours, scope of services, little use of 9- and 10-month appointments, and accounting practices. UHS is assessed an administrative overhead fee based on a percent of expenses. In institutions where such a fee is assessed, it is usually not assessed on resale items (cost of goods sold). UMass should recognize that this fee significantly reduces (if not eliminates) any gross margin on the sale of supplies or drugs. For example, it is common for there to be a 13 percent gross margin on insurance reimbursement for prescription drugs. This margin must cover all direct and indirect pharmacy costs. A seven percent surcharge on the cost of goods reduces the margin in half and makes it impossible for prescription revenues to cover costs.

### Mental Health Services

1. UHS Mental Health Services (MHS) counseled 8.8 percent of the student population. Users averaged 4.7 visits per student. The percent of the student body counseled is 40 percent greater than the averages reported by the Association for University and College Counseling Center Directors (AUCCCD) and the American College Counseling Association (ACCA), and the average visits per student is 9.6 percent lower. These data

- indicate that UMass students are willing to access MHS and that there is no indication of service overutilization.
2. Based on MHS staffing data and on the counseling center scope of services published by the International Association of Counseling Services (IACS), MHS meets the recommended student to staff ratio of 1,500 students per 1.0 FTE mental health professional. Participating universities in both ACCA and AUCCCD surveys report average ratios of 2,500 to 2,800 students per FTE mental health professional for public universities of similar size.
  3. Visits with trainees account for 27.3 percent of total visits, well below the recommended maximum of 40% recommended by the IACS.
  4. MHS provides 80 psychiatry hours per week compared to the 37 to 38 average hours reported in AUCCCD and ACCA surveys for public universities of similar size. Since 90.5 percent of universities indicate that psychiatry hours are inadequate, MHS psychiatry coverage is commendable. Psychiatrist productivity is consistent with AUCCCD and MGMA norms.
  5. MHS counselors average sessions per full time counselor is significantly lower than the AUCCCD mean. The average per year is 452 visits, which averages 11 per week (for 41 work weeks) or 15 per week (if only 30 academic term weeks are considered). The average sessions should be examined in the context of department mission, goals, objectives, and priorities to assess whether this is consistent with these goals. For example, if outreach is a higher priority than individual counseling compared to AUCCCD institutions, then average visits per counselor can be expected to be lower than AUCCCD results. Since student utilization is not lower, this does not appear to represent a compromise in access.
  6. With regard to MHS services expenses compared to peer institutions, the major contributing factors are that MHS has more staff (meeting IACS recommendations while on the average the others do not); and like medical services, there is little use of 9- or 10-month appointments.

### Impact of Insurance Reimbursement

1. For primary care services, current UHS office visit charges are between 130 percent and 140 percent of Medicare, which is in the range of usual and customary insurance approved rates. For laboratory services, Medicare rates are 34 percent of UHS charges and the national median is 52 percent of UHS charges. Capitated arrangements for laboratory services are at rates less than Medicare. In general, UHS charges are currently at or below usual and customary reimbursement rates. Slides 48 through 54 show the impact for each service area. Slide 55 summarizes estimated receipts based on an insurance reimbursement model. It is assumed that student fees will continue to fund mental health services, and any changes in the funding model will not impact the eye clinic, pharmacy, or health education services.

2. Because health fees can be secondary to students' private insurance coverage (i.e., health fees can cover what insurance does not pay), there are no financial disincentives to student access as a result implementing an insurance funding model.
3. With reduced service hours and more efficient staffing, the eye clinic and radiology departments should be able to cover direct expenses. It is possible that the eye clinic can make a contribution to indirect/overhead costs with changes in services provided in-house. It should be noted that optometrists also provide medical care (and have prescription prescribing privileges) for eye-related conditions (e.g., conjunctivitis, foreign objects, corneal abrasions), usually at a lower cost than physician providers. To the extent that health fees subsidize other medical care, subsidy of medical care provided by optometrists is not inconsistent. Radiology services are usually provided by student health centers of UHS size. While optometry and optical services are less common in college health centers, they are services generally highly valued by students.
4. Insurance reimbursement for laboratory services is extremely low, and university health centers that provide comprehensive in-house lab tests experience heavy losses if fair, insurance-level charges are rendered. The UHS laboratory is projected to lose over \$250,000 counting direct expenses alone. HBC recommends UHS discontinue its in-house clinical lab and perform office-based, waived testing only. All other tests would be done by UHS reference laboratories. Please note the discussion regarding reimbursement rates to UHS from the SHIP since this often relates particularly to health services' in-house laboratories.

### Reimbursement Rates for SHIP

1. Reimbursement to UHS from the SHIP should be based on fair market value (applicable insurance reimbursement rates), including patient copay and coinsurance. Rates charged to the SHIP impact participant premiums.
2. All policies and agreement affecting the SHIP should be in the best interests of SHIP participants. UHS should avoid any conflict of interest with regard to SHIP policies, benefits, and procedures.