

University of Massachusetts University Health Services Financial/Operational Analysis

Doreen Hodgkins
Hodgkins Beckley Consulting, LLC





- Outstanding systems and use of systems for utilization, billing, and financial analysis
 - Service and support areas
 - Populations
 - Cost allocation methods
 - Financial/reimbursement categories
 - **❖** BAR, SCHED
- Outstanding understanding of medical operations, costs, and processes
 - Massachusetts ability to be always secondary
 - Insurance reimbursement





- Financial data based on FYE 2010
- Cost model visit data from FYE 2010
- Enrollment = Fall 2010
- Scheduling visit data from FTE 2011
 - Provider productivity
 - Provider FTE requirements
- Excludes allocated revenues and expenses for Amherst & Hampshire Colleges





Factors Affecting Cost

- . Utilization
- 2. Operating hours
 - 1. 6:00PM to Midnight, Monday through Friday
 - 2. Weekend and Holidays, 8:00AM to Midnight
- 3. Staffing levels
- 4. Productivity
- 5. Salary/compensation levels
- 6. Scope of services
 - I. Pharmacy
 - 2. Counseling Center
 - I. Short- or Long-Term Care Model
 - 3. Specialty services
 - 4. Clinical laboratory
 - 5. Amherst and Hampshire Colleges
- 7. Local Resources
- Accounting practices
 - 7.5% overhead charge





Student Primary Care Utilization

	Visits	Individuals	Visits/Pt	Enrolled (excluding CPE)	% Users	Enrolled (including CPE)	% Users
Visits including immur	nizations and n	urse-only appo	intments:				
Graduate	9,208	2,642	3.5	4,214	62.7%	6,196	42.6%
Undergraduate	28,366	11,131	2.5	19,930	55.9%	21,373	52.1%
Total Students	37,574	13,773	2.7	24,144	57.0%	27,569	50.0%
Visits with physicians a	and mid-level p	providers only:					
Graduate	7,295	2,409	3.0	4,214	57.2%		
Undergraduate	23,197	10,365	2.2	19,930	52.0%		
Total Students	30,492	12,774	2.4	24,144	52.9%		
	Visits	per student pop	oulation	1.3			

- Penetration rate consistent with college health norms. Sunbelt median
 = 50%. Generally, higher penetration in rural environment.
- Student population provider visit rate norm ~ 1.2, excluding immunizations. UHS consistent.
 - CPE usually not eligible + have other PC providers
- Student average provider visits per year per patient ~ 2.0, excluding immunizations. UHS higher end of normal at 2.4.
 - ❖ SHIP requirement for referral (See Tables A. I A.5)





Visits include immunizations and nurse-only appointments								
Visits Individuals Visits/Pt								
Employee & Family	5,178	1,553	3.3					
Student Family	2,567	653	3.9					
Other	2,206	1,038	2.1					
Total Non-Students	9,951	3,244	3.1					
Based on 1.5 visits/patient population	6,634							

- Based on 1.5 visits/patient (including immunizations), estimated population base:
 - Student families and employees & families = 5,160
 - Other = 1,470
 - Total non-student = 6,630
- Total estimated patient population base = 30,800 excluding CPE
- Estimated population base: students, employees, & families = 29,300 excluding CPE
- Total estimated patient population base = 34,200 including CPE



Total PC Utilization

VISITS			Per Scheduling Reports					
	Per Co	st Model	All Clin	ical Staff	Providers Only			
Student	42,553	78.3%	38,037	79.3%	30,847	77.9%		
Other	11,769	21.7%	9,951	20.7%	8,775	22.1%		
	54,322	100.0%	47,988	100.0%	39,622	100.0%		

Visits including immunizations per Scheduling Reports									
	Visits Individuals Visits Individua								
Employee & Family	5,178	1,553	10.8%	9.0%					
Student Family	2,567	653	5.3%	3.8%					
Other	2,206	1,038	4.6%	6.0%					
Student	38,037	13,958	79.3%	81.1%					
Grand Total	47,988	17,202	100.0%	100.0%					

- Non-students represent ~ 22% of provider visits. Percent varies significantly by month due to undergraduate utilization.
- Non-student utilization fairly constant throughout the year.
- 72% of undergraduate visits are in 6 months of academic year.





	Provider Visits by Patient Type & Month											
	Employee	e & Family	UnderG	irad	Grad	ds	Student	Family	Ot	her	Tot	:al
Jan	287	7%	1526	7%	595	8%	168	7%	181	7%	2757	7%
Feb	239	6%	2899	12%	581	8%	153	7%	163	7%	4035	10%
Mar	352	9%	2863	12%	728	10%	233	10%	214	9%	4390	11%
Apr	367	9%	2986	13%	759	10%	243	11%	223	9%	4578	12%
May	373	9%	1770	8%	681	9%	198	9%	234	10%	3256	8%
Jun	395	10%	502	2%	638	9%	222	10%	257	10%	2014	5%
Jul	334	8%	520	2%	548	7%	168	7%	238	10%	1808	5%
Aug	401	10%	519	2%	524	7%	180	8%	209	9%	1833	5%
Sep	298	7%	2634	11%	644	9%	170	8%	219	9%	3965	10%
Oct	333	8%	2758	12%	600	8%	152	7%	178	7%	4021	10%
Nov	333	8%	2755	12%	599	8%	152	7%	177	7%	4016	10%
Dec	355	9%	1617	7%	601	8%	218	10%	158	6%	2949	7%
Total	4067	100%	23349	100%	7498	100%	2257	100%	2451	100%	39622	100%
Notes:	Notes: October and April distribution is estimated.											
	"Other" inc	ludes Amhe	rst & Hamp	shire Co	olleges, Con	ference n	nembers, I	Post Docs	, Visitors,	Visiting So	:holars &	family

	Provider Visits by Patient Type & Month											
	Employee	& Family	UnderG	irad	Grad	ds	Student	: Family	Ot	her	Tot	al
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Aug	401	22%	519	28%	524	29%	180	10%	209	11%	1833	100%
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Oct	333	8%	2758	69%	600	15%	152	4%	178	4%	4021	100%
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Expected Provider FTEs Based on Population

Visits include immunizations and nurse-only appointments								
Student Non-Student Total CPE Total + CPE								
Population 24,144 6,634 30,778 3,425 34,203								
Providers based on 2,500 patient panel	9.7	2.7	12.3	1.4	13.7			

- Primary Care practice ~ 2,500 patients
 - Students Only:

$$24,150/2,500 = 9.7$$
 FTE Physicians

Students + Non-Students:

$$30,800/2,500 = 12.3$$
 FTE Physicians

Students + Non-Students + CPE:

$$34,200/2,500 = 13.7$$
 FTE Physicians

- Net 0 FTEs for use of mid-level providers/young adult population
- MGMA Family Practice with 11 25 FTE providers:
 - ❖ Median patients seen = 1,267; UHS = 13.4 FTE (17,202/1,267)
 - Median FTE per 10,000 patients = 7.9; UHS = 13.6 (1.72 \times 79)



Expected Provider FTEs Based on Provider Visits

	Visits	FTE @ ACHA Median*	FTE @ MGMA Median*
UHS Student	30,847	11.5	10.0
Other	8,775	3.3	2.8
Total	39,641	14.8	12.8

Other	FTE @ ACHA Median		
Student Family	0.8		
Employee & Family	1.5		
Other	0.9		
Total	3.3		

- Based on ACHA median:
 - ❖ 11.5 FTE Students + 3 FTE Other = 14.5 FTE Total
- Based on MGMA median:
 - ❖ 10.0 FTE Students + 2.8 FTE Other = 12.8 FTE Total
- UHS provider FTEs = 16.6

	ACHA Median	MGMA Median**	ACHA 75 th Percentile
Physicians	2,767	3,168	3,767
Mid-Level Providers	2,551	2,992 (NP)	3,321
Weighted Avg. for UHS Provider Mix	2,676	3,094	3,578

^{*} Based on weighted average for UHS provider mix



^{**}Primary Care providers with compensation at 100% salary



	UHS	AC	HA	MGMA		
	Visits/FTE	Median	75th %tile	100% Salary	FP Phys	
Physicians	2,602	2,767	3,767	3,168	4,185	
Mid-Level	2,099	2,551	3,321	2,992	3,297	

- See Table B. I, Provider Productivity
- UHS physicians 6% < ACHA median
- UHS mid-levels 18% < ACHA median
- What accounts for the difference?





	Prov	ider Visits		
	M-F, Day	M-F, Night	Weekends	Total
Jan	2326	131	301	
Feb	3361	280	395	
Mar	3782	294	317	
Apr	3731	391	456	
May	2704	231	324	
Jun	1878	65	72	
Jul	1663	62	88	
Aug	1699	51	85	
Sep	3283	276	406	
Oct	3294	288	439	
Nov	3375	300	342	
Dec	2526	158	267	
	33622	2527	3492	39641
FTE	12.5	2.1	2.0	16.6
Visits per FTE	2690	1203	17 4 6	2388

- 2.1 FTE providers scheduled to cover weekdays after 6:00PM.
- 2.0 FTE providers scheduled to cover weekends.
- This leaves 12.5 FTE providers to see patients during regular hours, Monday – Friday.
- Weekday visits per FTE = 2,690.
- UHS consistent with ACHA median during weekdays (ACHA weighted median = 2,676)





Provider FTEs and Productivity (cont.)

Average Visits per Day, Academic Year									
				Weekends					
	Mon	Tue	Wed	Thu	Fri	Total	Sat	Sun	Total
8:00AM-9:45AM	29	32	23	22	27	27	3	4	4
10:00AM-11:45AM	33	41	29	45	28	35	7	7	7
12:00PM-1:45PM	21	23	21	18	20	21	8	8	8
2:00PM-3:45PM	42	49	47	42	39	44	8	9	9
4:00PM-5:45PM	17	20	22	17	16	18	5	6	6
6:00PM-7:45PM	6	6	7	5	4	6	3	4	4
8:00PM-9:45PM	5	4	4	3	3	4	2	3	3
10:00PM-12:00AM	2	3	2	2	Ī	2	Ī	Ī	I
Total	156	179	155	155	137	156	39	43	41

Average Visits, Summer (June, July, August)									
				Weekends					
	Mon	Tue	Wed	Thu	Fri	Total	Sat	Sun	Total
8:00AM-9:45AM	18	18	13	18	15	16	1	1	1
10:00AM-11:45AM	20	22	15	22	16	19	2	1	2
12:00PM-1:45PM	13	13	10	12	9	11	2	1	2
2:00PM-3:45PM	26	24	24	25	23	24	2	2	2
4:00PM-5:45PM	9	9	9	8	7	8	2	1	1
6:00PM-7:45PM	2	2	2	2	1	2	1	1	1
8:00PM-9:45PM	1	0	1	1	0	0	1	1	1
10:00PM-12:00AM	0	0	0	0	0	0	0	0	0
Average per Day	88	87	74	87	71	82	10	9	9

Academic Year

- Mon-Fri: Average 12 patients per day after 6:00PM
- Sat-Sun: Average 8 patients per day after 6:00PM
 - Most would be seen on Mondays in other health services/practices
 - Others would have to use local ER or urgent care centers

Summer

- Mon-Fri: Average 2 patients per day after 6:00PM; 10 per day after 4:00PM
- Sat-Sun: Average 2 patients per day after 600PM; 3 per day after 4:00PM
- Weekends: Average 9 patients per day total
- See Tables B.7 and B.8





		Days Worked	Avg./Day
ACHA Median	2676	207	13
ACHA 75%	3578	207	17
MGMA Median	3094	207	15
MGMA FP 11-25FTE	3943	207	19

		FTE needed @ Avg. pts/day						
	Visits	13/day	14/day	15/day	17/day			
Jan	2757	9.6	9.0	8.4	7.4			
Feb	4035	13.5	12.5	11.7	10.3			
Mar	4390	15.3	14.3	13.3	11.7			
Apr	4578	16.8	15.6	14.5	12.8			
May	3256	11.4	10.6	9.9	8.7			
Jun	2014	6.7	6.3	5.8	5.2			
Jul	1808	6.6	6.1	5.7	5.1			
Aug	1833	7.1	6.5	6. l	5.4			
Sep	3965	13.3	12.3	11.5	10.1			
Oct	4021	14.7	13.7	12.8	11.3			
Nov	4016	14.0	13.0	12.2	10.7			
Dec	2949	10.3	9.6	8.9	7.9			
Total	39622	11.6	10.8	10.1	8.9			
Adjusted	for paid time off	14.6	13.6	12.6	11.2			

8:00AM-9:45AM	45	25%	45	
10:00AM-11:45AM	40	22%	40	
12:00PM-1:45PM	22	12%	22	
2:00PM-3:45PM	56	31%	56	
4:00PM-5:45PM	18	10%	56	
Grand Total	181	100%	219	16.8

- Significant difference in staffing needed during fall & spring terms vs. other months.
- In current facility, should be able to average 17 patients per day per provider.
- 6 high utilization months need average of 11.2 FTE at 17 pts/day; 12.8 FTE to meet peak demand.
- Must be able to reduce paid staffing (provider and support staff) during summers and term breaks with significant use of 9and 10-month positions.





- Expanded service hours accounts for the gap between UHS and ACHA median.
- ACHA median not a standard that universities should aspire to. ACHA lower than community productivity:
 - Culture
 - Includes small schools with excess capacity
 - Poor facilities compared to community practices
 - Large swing in population size over the calendar year that are not balanced with staffing
 - Compensation method lacks incentives and promotes longevity





Provider FTEs and Productivity (cont.)

- High number of paid FTEs for patient demand
 - Staffing extended hours and weekends
 - Few 9-month or 10-month appointments
- Operational factors
 - Scheduling design (see Tables B.2 B.6)
 - High no-show rate with appointments going unfilled
 - Unscheduled appointment slots
 - Frequency of 30-minute appointments
 - Back and forth from Medicine and Walk-In daily
 - Particularly inefficient facility, # of exam rooms, access to rooms
 & privacy
 - Administrative time off
 - Need to have minimum providers/support staff for patient safety during after hours coverage regardless of low usage
 - Seeing patients who've arrived earlier but are still in queue to be seen?



- Adjustments to prior changes, organizational memory
 - Closing of the infirmary
 - Insurance billing/reimbursement
- Almost impossible to make significant changes regarding productivity expectations, hours, and patient schedules without changing compensation system.
- Requires huge commitment from university administration to support the changes, support the executive director, and to handle almost certain repercussions
 - Unwanted changes in scheduling, practice patterns, hours, and operations are spun to students and the public as bad or dangerous medical practice.
 - Union grievances and hostile work environment, sexual harassment, and/or discrimination suits are common.
 - The university has to be willing to make staff reductions/layoffs and reduction in hours.
 - Persons laid off may be in different positions than positions eliminated, resulting in multiple bumps and requiring significant retraining. Providers laid off may be the most productive.
 - Medical Director has to be willing to fully embrace and support the changes.
- Often the only way to make these significant changes is to outsource.





- Because of huge fluctuation in population, university health services require more facility space per annual provider FTEs than general practices.
 - Example: At the 17 patient/provider level, annual FTEs needed would be 11.2 if flex schedules were maximized, but UHS would still need to accommodate 13 provider FTEs and proportional clinical support staff at one time to meet peak demand.
 - May be more than 13 individuals to meet demand (e.g., 14 providers with 2 half-time providers working afternoons only)
 - This has an important impact on facility planning.
 - It should also be noted that if expanded weekend hours are eliminated, Mondays would be expected to have utilization greater than Tuesdays.
- All patient types other than undergraduates have consistent utilization throughout the year (see slide #9).



Implications of Population Swing

FTE Needed @ 15 visits/day								
	Student Emp &							
	Family	Family	Other	Total				
Jan	0.5	0.9	0.5	1.9				
Feb	0.4	0.7	0.5	1.6				
Mar	0.7	1.1	0.6	2.4				
Apr	0.8	1.2	0.7	2.6				
May	0.6	1.1	0.7	2.4				
Jun	0.6	1.1	0.7	2.5				
Jul	0.5	1.1	0.8	2.3				
Aug	0.6	1.3	0.7	2.6				
Sep	0.5	0.9	0.6	2.0				
Oct	0.5	1.1	0.6	2.1				
Nov	0.5	1.0	0.5	2.0				
Dec	0.7	1.1	0.5	2.2				
Total	0.6	1.0	0.6	2.2				
Adjusted for paid time off	0.7	1.3	0.8	2.8				

- All patient types other than undergraduates have consistent utilization throughout the year(also see slide #9).
- UMass is unlikely to discontinue services to visitors, summer program participants, and other patients in the "Other" category. Summer program participants utilize excess capacity and create no additional demand for FTEs.
- Student families and employees and families create need for 2.0 provider FTEs consistently throughout the year.





		Academic	Year	per Day		Sum	mer	per Day	
		After Hours		Weekends	1	After Hours		Weekends	
Physicians	\$	853	\$	1,788	\$	-	\$	550	
NP	\$	415	\$	1,148	\$	446	\$	1,148	
RN	\$	604	\$	1,837	\$	290	\$	1,257	
MA	\$	180	\$	386	\$	140	\$	350	
Clerk	\$	112	\$	250	\$	112	\$	200	
Student	\$	-	\$	162	\$	-	\$	-	
Cost per Day	\$	2,164	\$	5,569	\$	989	\$	3,505	
Annual Cost	\$	421,917	\$	439,988	\$	64,290	\$	91,138	
			\$	861,905			\$	155,428	_
							\$	1,017,333	
Lab Tech			\$	431			\$	287	
X-ray Tech			\$	396			\$	-	
Pharmacist			\$	327			\$	327	
Pharm Tech			\$	162			\$	162	
			\$	1,315			\$	775	
Annual Cost	\$	=	\$	103,849	\$	-	\$	20,160	
Total	\$	422,000	\$	544,000	\$	64,000	\$	111,000	
Keep: Sa	aturday	s 6 Hours, Ac	aden	nic Year					
Net									
Net Including Overl	head								





		Academic Year			Summer			
	A	After Hours		Weekends		After Hours		Weekends
Annual	\$	421,917	\$	439,988	\$	64,290	\$	91,138
Total After Hours & Weeken	ds		\$	861,905			\$	155,428
Total							\$	1,017,333
Average Visits/Day		12		41		2		9
Average Cost per Visit	\$	180.31	\$	135.84	\$	494.54	\$	389.48
Avg. including Overhead	\$	193.83	\$	146.03	\$	531.63	\$	418.69

Staffing Expenses per Cost Model:

	Cost	Visits	(Cost/Visit
Regular Hours Staffing	\$ 3,893,700	33,622	\$	115.81
After Hours Staffing	\$ 1,017,300	6,019	\$	169.01
Total Staffing per Cost Model	\$ 4,911,000	39,641	\$	123.89
No change in visits w/reduction	\$ 3,971,200	39,641	\$	100.18





Clinical Staffing

- Based on MGMA staffing per provider for Family Practices with 11 to 25 providers:
 - UHS primary care greater than MGMA median by ~ 22 FTEs based on 16.6 FTE providers (see slide 26).
 - 7.7 FTEs related to after hours staffing
 - Medical records and transcription., 10.8 FTE (transcription to be eliminated with EHR)
 - Clinical laboratory, 4.9 FTE
 - UHS primary care greater than MGMA median by ~ 32 FTEs based on 13.5 FTE providers (see slide 27).
 - After hours, 7.7
 - Medical records/transcription, 11.5
 - Clinical laboratory, 5.8
 - Registered nurses (triage), 2.0
 - Stores, I.5 FTE (orders directly by clinical staff)
 - Other proportional changes
 - Same issue related to support staffing with regard to variation in demand. May not be realistic to balance staffing to utilization – result is higher support staff compared to MGMA.
 - Need to evaluate if there are other support services are related to services/programs not part of a community group medical practice.
 - Universities generally have higher use of technology
 - MGMA support staffing levels per provider FTE do not vary significantly based on practice size. Support staff increases as practice size increases as does complexity of services (as measured by RVUs). See Table C.3.
 - Economies of size not evident with regard to clinical support needed

Comparison to MGMA Staffing Median Family Practice with 11 – 25 FTE Providers Based on Staffing from Cost Model

	MGMA	Number @			Related to
	Median per	16.6 Clinical	Actual	Difference	After Hours
	FTE Provider	FTE			, acci i louis
General Administrative	0.17	2.8	3.3	0.5	
Patient Accounting	0.51	8.5	8.5	0.0	
General Accounting	0.07	1.2	2.0	0.8	
Information Technology	0.07	1.2	3.5	2.3	
Housekeeping, Maint, Security	0.06	1.0	0.5	(0.5)	
Total Business Operations Staff	0.91	15.1	17.8	2.7	
Medical Receptionists	0.64	10.6	9.0	(1.6)	1.6
Medical Secretaries	0.13	2.2	-	(2.2)	
Medical Records	0.22	3.7	14.5	10.8	
Other Administrative Support	0.11	1.8	6.3	4.4	
Total Front Office Support Staff	1.20	19.9	29.8	9.8	
Registered Nurses	0.29	4.8	12.2	7.4	3.8
Medical Assistants	0.24	4.0	11.9	7.9	1.7
Licensed Practical Nurses	0.76	12.6	2.0	(10.6)	
Sterile Supply	-	-	2.0	2.0	
Total Clinical Support Staff	1.38	22.9	28. I	5.2	
Clinical Laboratory	0.31	5.1	10.0	4.9	0.3
Radiology and Imaging	0.18	3.0	2.4	(0.6)	0.3
Other Medical Support Staff	0.18	3.0	-	(3.0)	
Total MGMA Support Staff	3.96	65.7	88.I	22.4	7.7
Immunization Compliance			2.0		
Immunization Clinic			2.0		
IT Administration Functions			2.0		
Custodial			7.0		
Physical Therapy			4.0		
			105.1		
			VANADAL LIB	C SI BA cor	n



Comparison to MGMA Staffing Median Family Practice with 11 – 25 FTE Providers Based on Staffing from Cost Model

	MGMA Median	Number @		
	per FTE	13.5 Clinical	Actual	Difference
	Provider	FTE		
General Administrative	0.17	2.3	3.3	1.0
Patient Accounting	0.51	6.9	8.5	1.6
General Accounting	0.07	0.9	2.0	1.1
Information Technology	0.07	0.9	3.5	2.6
Housekeeping, Maint, Security	0.06	0.8	0.5	(0.3)
Total Business Operations Staff	0.91	12.29	17.8	5.6
Medical Receptionists	0.64	8.6	9.0	0.4
Medical Secretaries	0.13	1.8	-	(1.8)
Medical Records	0.22	3.0	14.5	11.5
Other Administrative Support	0.11	1.5	6.3	4.8
Total Front Office Support Staff	1.20	16.20	29.8	13.6
Registered Nurses	0.29	3.9	12.2	8.3
Medical Assistants	0.24	3.2	11.9	8.7
Licensed Practical Nurses	0.76	10.3	2.0	(8.3)
Sterile Supply	-	-	2.0	2.0
Total Clinical Support Staff	1.38	18.63	28. I	9.5
Clinical Laboratory	0.31	4.2	10.0	5.8
Radiology and Imaging	0.18	2.4	2.4	(0.0)
Other Medical Support Staff	0.18	2.4	-	(2.4)
Total MGMA Support Staff	3.96	53.46	88.I	34.6



Staffing needed for student families, employees and families Based on MGMA median for 2.0 FTE Providers

	MGMA Median	_
	per FTE	2.0 Clinical
	Provider	FTE
General Administrative	0.17	0.3
Patient Accounting	0.51	1.0
General Accounting	0.07	0.1
Information Technology	0.07	0.1
Housekeeping, Maint, Security	0.06	0.1
Total Business Operations Staff	0.91	1.82
Medical Receptionists	0.64	1.3
Medical Secretaries	0.13	0.3
Medical Records	0.22	0.4
Other Administrative Support	0.11	0.2
Total Front Office Support Staff	1.20	2.40
Registered Nurses	0.29	0.6
Medical Assistants	0.24	0.5
Licensed Practical Nurses	0.76	1.5
Sterile Supply	-	-
Total Clinical Support Staff	1.38	2.76
Clinical Laboratory	0.31	0.6
Radiology and Imaging	0.18	0.4
Other Medical Support Staff	0.18	0.4
Total MGMA Support Staff	3.96	7.92





Compensation

- Physicians
 - 125% of MGMA median
 - I 24% of Sunbelt median
 - 119% of Michigan State average
- Mid-level providers
 - About same as sunbelt and MSU when adjusted for 37.5 hour workweek
- Registered Nurses
 - I I 2% of Sunbelt median
- Overall budget impact ~ \$500,000
- See Table D.3

Peer Cost Comparison

		U Michigan	l	J Colorado	Mich. State
UHS Medical & Health Education	\$	13,401,603	\$	13,401,603	\$ 13,401,603
UHS Eye Clinic		620,390			
UHS Pharmacy		1,442,826			
UHS Eye & Pharmacy Indirects		611,773			
Less: Laboratory					(1,653,177)
		16,076,592		13,401,603	11,748,426
UHS Cost per Population* per Year	\$	548.61	\$	457.33	\$ 400.92
Less: Cost of After-Hours Care	\$	(47.23)	\$	(47.23)	\$ (47.23)
	\$	501.38	\$	410.10	\$ 353.68
U Michigan Cost per Student per Year	\$	419.66			
U Colorado Cost per Student per Year			\$	378.79	
MSU Cost per Student per Year					\$ 212.31
Difference per student/population member	\$	81.72	\$	31.31	\$ 141.37
Provider salary differential	\$	(15.28)	\$	(15.28)	\$ (15.28)
Flex positions	\$	(72.16)	\$	(72.16)	\$ (72.16)
Net	\$	(5.72)	\$	(56.13)	\$ 53.93
* Students, student families, employees & far	nilie	s = 29,304. Excludes	CPE		



Peer Comparison (cont.)

Comparison to MSU:	
MSU Total	\$ 10,000,000
Less: Population difference	\$ (3,800,000)
MSU Adj. for population	\$ 6,200,000
UHS Medical	\$ 14,470,000
Less: Overhead assessment	\$ (1,070,000)
After hours services	\$ (1,100,000)
Flex positions	\$ (2,200,000)
Provider salaries	\$ (500,000)
Laboratory	\$ (1,700,000)
	\$ 7,900,000
Other factors:	
On-call providers	\$ 75,000
Dictation	\$ 160,000
Stores	\$ 45,000
Sterile Supply	\$ 95,000
Triage nurses	\$ 150,000
	\$ 525,000





- Does not take into consideration type of services/staffing or non-student population base
- Service mix may vary (e.g., resources for health promotion, scope of lab testing)
- Peers have at least 2 exam rooms per provider
- Peers have had major renovations to facilities to achieve improved productivity
- Universities need to assess its own goals and circumstances to judge relevance of peer comparison









Per Scheduling Reports:

			Avg.
	Visits	Individuals	Visits
Employee & Family	415	86	4.8
Student Family	138	30	4.6
Other	177	51	3.5
Student	9,853	2,116	4.7
Total	10,583	2,283	4.6

	Visits	Individuals	Avg. Visits
GEO Student	2,021	346	5.8
Graduate Student	562	112	5.0
Post Docs	3	2	1.5
Undergraduate	7,267	1,656	4.4
Total	9,853	2,116	4.7

	Student		
	Population	Users	
Graduate	4,214	460	10.9%
Undergraduate	19,930	1,656	8.3%
Total	24,144	2,116	8.8%

	Population		Users	
Graduate	4,214	17%	460	22%
Undergraduate	19,930	83%	1,656	78%
Total	24,144		2,116	

Association for University and College Counseling Center Directors (AUCCCD) 2009/2010 Survey: 4-year, public universities, 20,001 - 25,000 students:

Percent of student body counseled = 6.4% / Average sessions per client = 5.2

American College Counseling Association(ACCA) 2010 Survey published by International Association of Counseling Services (IACS): > 15,000 students:

Percent of student body counseled = 6% / Average session per client = 5.2

UHS student body counseled ~ 40% greater than AUCCCD and ACCA average **UHS** average visits per student ~ 9.6% lower than AUCCCD and ACCA average Good access for students / No indication of overutilization





Professional Counseling FTEs					
	C&A	ССРН	Total		
Counselors	3.00	10.30	13.30		
Assessment & Testing	-	1.50	1.50		
Physicians	-	2.00	2.00		
NP- Medication Management	-	2.00	2.00		
Suicide Prevention Grant*	-	1.03	1.03		
Interns	-	4.75	4.75		
Fellows	2.00	1.00	3.00		
Support Staff	-	9.00	9.00		
Total	5.00	31.58	36.58		
Counselor Paid Staff	3.00	10.30	13.30		
Interns & Fellows	2.00	5.75	7.75		
Paid Counselors + Interns	5.00	16.05	21.05		
Medical Management Staff	-	4.00	4.00		
Assessment, Testing, & Grant	-	2.53	2.53		
Total UHS Paid Staff & Interns	5.00	22.58	27.58		

^{*}outreach only/temporary positions

International Association of Counseling Services (IACS) recommends ratio a of 1,000 to 1,500 per 1.0 FTE mental health professionals, "depending on services offered and other campus mental health agencies." It states, "This ratio is aspirational by nature, encouraging counseling centers to approximate the range in order to ensure that there are adequate number of professional staff members to meet the clinical needs of the students, as well as the other service needs of the campus community."

IACS defined scope of services:

- Provide individual and group counseling, assessment, and crisis intervention services.
- 2. Design and conduct developmental and outreach program activities.
- 3. Provide consultation services, as requested, to students, faculty, and staff within the university.
- 4. Participate in research and service evaluation activities.
- 5. Provide appropriate training and supervision to paraprofessionals, graduate trainees and post doctoral fellows/residents.
- 6. Perform other assigned functions that contribute to the service offerings of the center and the academic mission of the institution, such as: teaching, committee work, liaison with academic or administrative units, and participation in university program development.





Staffing (cont.)

Ratio of	Po	pulation to	UHS Staff
----------	----	-------------	------------------

Total UHS Paid Staff (19.8FTE)	1,219
Excluding RN Med Mgt (17.8FTE)	1,356
Excluding RN & MD (15.8FTE)	1,528
Excluding Temp Outreach (14.8)	1,631
A ((D-:-) C ((* (1.4.0)	1.427
Assumption for Paid Staff* (16.8)	1, 4 37
Paid Assumption + Interns (22.5)	1,073

Comparison to Paid Staff

196%
184%
173%
174%
164%
153%
104%
98%

92%

% UHS Excluding RN, MD, Temp (14.8)

AUCCCD

4-year,	public	universities,	20,001	- 25,000:
---------	--------	---------------	--------	-----------

Paid Staff to Student Ratio	2,973
FTF for 24 144 population	8 1

All Campus Paid Staff to Student Ratio	2,814
FTE for 24,144 population	8.6

Paid + Interns to Student Ratio	2,113
FTE for 24,144 population	11.4

ACCA, > 15,000 students:

Paid Professional Staff to Student Ratio	2,500
FTF for 24 144 population	9 7

ACCA Overall Mean (all institutions, all sizes):

Paid Professional Staff to Student Ratio	1,600
FTE for 24,144 population	15.1

IACS Recommended:

Paid Professional Staff to Student Ratio	1,500
FTE for 24,144 population	16.1

^{*}Assumption based on scope of services provided by mental health professionals to achieve IACS recommended 1:1,500 ratio.



AUCCCD, 20,001 - 25,000:	
Full-time Counselor (whose primary responsibility is counseling) Mean Direct Service Percent	56.9%
Full-time Director Mean Direct Service Percent	25.6%
Average Counselor Direct Service Hours per Week	25.0
ACCA Overall (did not vary by institution size):	
Average Counselor Direct Service Hours per Week	25.6

20
1,473
520
2,013
27.3%

Per IACS, cases assigned to trainees should not be greater than 40%.

UHS visits within these recommendations.





• AUCCCD 4-year, public universities 20,001 – 25,000 students:

- Mean psychiatry hours per week = 38.4
- 90.5% report more psychiatry hours needed
- Mean number of weeks there was a wait list = 17.6
- Maximum number of clients on wait list = 40
- Overall, 34% report having a wait list

ACCA > 15,000 students:

- Mean psychiatry hours per week = 36.6
- Average psychiatry hours per week per I,000 students = 1.5

UHS

- Psychiatry hours per week = 80
- Average psychiatry hours per week per1,000 students = 3.3





Visits Per Billing Reports:							
	Including	Without					
	Phone Calls	Phone Calls					
Psychiatrist	3,222	2,832					
Counselors	8,877	8,359					
Total	12,099	11,191					

Psychiatrists:	Visits
Ascher	1,182
Levy	1,723
Average	1,453
MGMA Median Encounters	1,678
% MGMA to UHS avg. w/phone	116%

AUCCCD Overall for 16+ FTEs		Meds
Sessions without medication management	12,261	
Sessions with medication management	15,055	2,794
AUCCCD Overall for 12-15 FTEs		
Sessions without medication management	6,670	
Sessions with medication management	7,190	520

- UHS psychiatrists consistent with AUCCCD norms for staff of 16+ FTEs
- UHS counselors:
 - 28% 32% < AUCCCD with 16+ FTEs
 - 25% 33% > AUCCCD with 12 -15 staff FTEs



VISITS - Paid Professional Counseling Staff

BLOISE,LYNETTE,LICSW	BYNUM,EDWARD B,PHD	DEZENZO,FRANK,LICSW	LEXINGTON,JENNIFER, PHD	MOSS,JULIA, PHD	RACKENBERG,LYDIA,LICSW	ROCKLAND-MILLER,HARRY,PHD	ROTKIEWICZ,MELISSA, PSY.D.	SCOTT,LINDA,PHD	SHANKY, CHRISTOPHER, LICSW	TEIXEIRA,NATERCIA,LICSW (.8FTE)	WINTERS,AMY, LICSW	Grand Total
387	507	565	609	510	362	220	465	459	693	293	286	5,356
	Average/IFTE Counselor =						452					
	<u> </u>					7JZ						
	Avg. Sessions/week (41 weeks) = Avg. Sessions/week (30 weeks) =						11					
	F	Avg. S	essior	ıs/we	ek (30) wee	ks) =	15				

AUCCCD mean average sessions/week for a full-time counselor based on a 35 hour week and 56.9% mean direct service = 19.9 sessions/week.





	Mon	Tue	Wed	Thu	Fri	Total		Mon	Tue	Wed	Thu	Fri	Total
10/1/2010					70	70	4/1/2011					65	65
10/4/2010	65					65	4/4/2011	82					82
10/5/2010		55				55	4/5/2011		70				70
10/6/2010			62			62	4/6/2011			64			64
10/7/2010				51		51	4/7/2011				52		52
10/8/2010					55	55	4/8/2011					55	55
10/12/2010		48				48	4/11/2011	92					92
10/13/2010			47			47	4/12/2011		69				69
10/14/2010				64		64	4/13/2011			53			53
10/15/2010					58	58	4/14/2011				72		72
10/18/2010	76					76	4/15/2011					77	77
10/19/2010		68				68	4/19/2011		47				47
10/20/2010			54			54	4/20/2011			77			77
10/21/2010				65		65	4/21/2011				66		66
10/22/2010					69	69	4/22/2011					67	67
10/25/2010	90					90	4/25/2011	70					70
10/26/2010		59				59	4/26/2011		75				75
10/27/2010			44			44	4/27/2011			68			68
10/28/2010				63		63	4/28/2011				61		61
10/29/2010					71	71	4/29/2011					61	61
											_		
Total	231	230	207	243	323	1,234	Total	244	261	262	251	325	1,343
Avg.	77	58	52	61	65	62	Avg.	81	65	66	63	65	67





- October = 11.7% of annual visits (1,234)
- April = 12.7% of annual visits (1,343)
 - Both = 24.4% of annual visits
- July = 3.8% of annual visits (407)
- Same issue of variable demand and few 9- or 10-month as seen in medical clinics





Estimated cost of staffing above AUCCCD mean:								
		FTE	Cost					
	UHS	AUCCCD	Difference	e Avg. Comp Total Comp. Includ			ncluding C&A	
Counselors	14.83	10.78	4.05	\$ 96,800	\$ 392,040	3	\$ 290,400	
Psychiatrists	2.00	2.00						
Interns	5.75	2.68	3.07	\$ 18,000	\$ 55,260	2	\$ 36,000	
Total Staffing	22.58	15.46	7.12		\$ 447,300	5	\$ 326,400	

- Cost difference \$450,000 \$770,000 before overhead charges and support staff costs
- Little use of 9- or 10-month positions
- Evaluation of staffing & costs
 - Scope of services compared to AUCCCD
 - Outreach
 - Programs
 - Satisfied with psychiatry services?
 - Mission training program, clinical/counseling services









	Payments/ Pmts + CA*	Payments/ Charges
Blue Cross Blue Shield	58%	41%
Commercial Insurance	59%	36%
Workman's Comp	61%	
Commonwealth Indemnification	52%	
Health New England	58%	
Chickering (SHIP)	100%	94%
Harvard Pilgrim	55%	32%
Tufts	56%	
Cigna	57%	46%
United HealthCare	51%	45%
Aetna	73%	55%
Great West	65%	55%
Connecticare	70%	
Fallon Community Health	76%	
United HealthCare/Student Resources	64%	
Total	67%	
*CA = Contractual Adjustments		

- Insurance reimbursement rates vary significantly by service department
- Payments + CA
 doesn't equal total
 claims/charges
 because of patient
 cost sharing (e.g.,
 deductibles,
 copayments,
 coinsurance)
- Charge data from reports are not same time frame as payment data





Reimbursement Rates (cont.)

- Laboratory
 - Medicare = 34% of UHS charges
 - Capitated arrangements may be less than Medicare rates
 - National Median = 52% of UHS charges
- Primary Care
 - Sample UHS office visit charges were between 130% and 140% of Medicare – in range of U&C approved rates
- Reimbursement rate for SHIP
 - Reimbursement to UHS should be based on fair market value (applicable insurance reimbursement rates), including patient copay/coinsurance
 - Rates charged to SHIP impact participant premiums
 - Avoid conflict of interest
 - Policies for SHIP should be in the best interests of SHIP participants

Reimbursement Rates (cont.)

Illustration:

	Co	orrent	lr	ncorrect
UHS Charge	\$	200	\$	200
Approved Amount	\$	120	\$	200
Patient Copay @ 15%	\$	18	\$	15
Payment to UHS @85%	\$	102	\$	170
Payment Percent of UHS Charge		51%		85%









- Third-party income based on reimbursement at 52% of charges (see Table E.3, Laboratory Reimbursement Rates)
- Revenues ~ \$1.03 million before reimbursement from SHIP
- Estimate of \$250,000 \$500,000 SHIP reimbursement at fair market value
- Estimated Total ~ \$1,277,000 \$1,527,000 revenues.

	Charges	# Procedures	Avg./Proc	Reimbursement
Third Party Total	\$1,706,564.45	44,340	\$38.49	\$887,414
AMHERST COMPANY ACCT	\$61,287.00	814	\$75.29	
COMPANY ACCOUNT	\$6,534.80	1,020	\$6.41	
HAMPSHIRE COMPANY ACCT	\$4,328.00	131	\$33.04	
SELF PAY	\$67,425.75	1,710	\$39.43	
Self-Pay & Other	\$139,575.55	3,675	\$37.98	\$139,576
Total Before Health Fee	\$1,846,140.00	48,015	\$38.45	\$1,026,989
STUDENT HEALTH FEE	\$1,011,344.85	24,003	\$42.13	
Total	\$2,857,484.85	72,018	\$39.68	



Laboratory (cont.)

Charges	\$ 2,857,000
Non-collectible	<u>(1,457,000)</u>
Estimated Receipts	1,400,000
Direct Expenses	1,653,177
Contribution	(253,177)
Indirect Expenses excluding Overhead	474,100
Profit/(Loss) before Overhead	(727,277)
Overhead @ 7.5%	159,546
Profit/(Loss) with Overhead	(886,823)

Estimated Receipts	\$ 1,400,000
Direct Expenses + Overhead	<u>1,777,165</u>
Contribution	\$ (377,165)
Indirect Expenses + Overhead	509,657
	\$ (886,823)





Radiology

- Based on sample procedures, UHS charges are ~ 1.7x
 Medicare. Usual reimbursements ~ 2.0 2.5 x Medicare.
- UHS Charges = \$440,000
 - Evaluate current approved charge rates and increase charges accordingly
 - Illustration assumes charges increased by 32% and noncollectible rate of 10%

Charges	\$ 580,000
Non-collectible	 (58,000)
Estimated Receipts	522,000
Direct Expenses	 548,800
Contribution	(26,800)
Indirect Expenses excluding Overhead	 278,000
Profit/(Loss) before Overhead	(304,800)
Overhead @ 7.5%	 62,000
Profit/(Loss) with Overhead	 (366,800)



- No specific comment on UHS revenues or expenses
 - Accept third-party & cash payments
- AWP pricing (e.g., awp-15% + \$2.00)
- Margin on insurance Rx ~ 13%, on self-pay
 ~ 25%+
 - Low cost of drugs for most student Rx
 - Profits on brand drugs & maintenance (3 mo.),
 more likely from faculty and staff





Pharmacy (cont.)

- Pharmacies in college health setting no longer making profits
- Quality of care benefits
 - Compliance
 - Drug/allergy interactions
 - Improved medical outcomes
- Benefits for SHIP (especially self-insured)
 - Formulary and utilization control
 - Compliance control
- Options for performance improvement
 - Increase maintenance Rx and dispensing 3-month supplies (generally employees)
 - Reduced operating hours



						Medicare							
			#							٨	Medicare +	M	edicare +
CPT Desc	<u> </u>	Charges	Procedures	Avg.	Charge		Rate	E	xtension		40%		30%
OFFICE/OUTPATIENT VISIT, NE	\$	42,960	200	\$	214.80	\$	164.20	\$	32,840	\$	45,976	\$	42,692
OFFICE/OUTPATIENT VISIT, ES	\$	50,736	268	\$	189.31	\$	143.37	\$	38,423	\$	53,792	\$	49,950
PREVENTIVE VISIT, NEW 18-39	\$	47,025	250	\$	188.10	\$	115.31	\$	28,828	\$	40,359	\$	37,476
PREVENTIVE VISIT, EST, 40-6	\$	92,206	544	\$	169.50	\$	109.71	\$	59,682	\$	83,555	\$	77,587
OFFICE/OUTPATIENT VISIT, NE	\$	77,794	505	\$	154.05	\$	107.36	\$	54,217	\$	75,904	\$	70,482
OFFICE/OUTPATIENT VISIT, ES	\$	829,777	5,987	\$	138.60	\$	106.81	\$	639,471	\$	895,260	\$	831,313
PREVENTIVE VISIT, EST, 18-3	\$	315,978	2,046	\$	154.44	\$	100.73	\$	206,094	\$	288,531	\$	267,922
PREVENTIVE VISIT, EST, INFAN	\$	28,817	227	\$	126.95	\$	83.19	\$	18,884	\$	26,438	\$	24,549
OFFICE/OUTPATIENT VIST, NEW	\$	35,924	342	\$	105.04	\$	74.50	\$	25,479	\$	35,671	\$	33,123
OFFICE/OUTPATIENT VISIT, ES	\$	1,036,381	11,074	\$	93.59	\$	72.13	\$	798,768	\$	1,118,275	\$1	,038,398
PREVENTIVE COUNSELING, INDI	\$	45,946	406	\$	113.17	\$	64.63	\$	26,240	\$	36,736	\$	34,112
OFFICE/OUTPATIENT VISIT, ES	\$	180,950	2,793	\$	64.79	\$	43.69	\$	122,026	\$	170,837	\$	158,634
PREVENTIVE COUNSELING, INDI	\$	73,826	1,066	\$	69.25	\$	37.82	\$	40,316	\$	56,443	\$	52,411
IMMUNIZATION													
ADMINISTRATION	\$	138,324	5,004	\$	27.64	\$	24.78	\$	123,999	\$	173,599	\$	161,199
H1N1 IMMUN ADMIN	\$	265,623	7,382	\$	35.98	\$	21.70	\$	160,189	\$	224,265	\$	208,246
OFFICE/OUTPATIENT VISIT, ES	\$	24,483	649	\$	37.72	\$	21.02	\$	13,642	\$	19,099	\$	17,735
ALLERGY INJ.(2 OR MORE)	\$	42,160	1,223	\$	34.47	\$	13.72	\$	16,780	\$	23,491	\$	21,813
IMM ADMIN EA ADDITIONAL	\$	25,541	1,964	\$	13.00	\$	12.14	\$	23,843	\$	33,380	\$	46,732
	\$	3,354,451	41,930					\$	2,429,721	\$	3,401,609	\$3	,174,373



101.4% 94.6% Avg. 98.0%



- Assumptions:
 - Allowable charges for office visits = 98% of UHS charges
 - Allowable charges for other services = 80% of UHS charges
 - Receipts = 85% of allowable charges
 - Collection rate lower dependent on what charges will be covered by the health fee (e.g., copayments, coinsurance, deductibles)



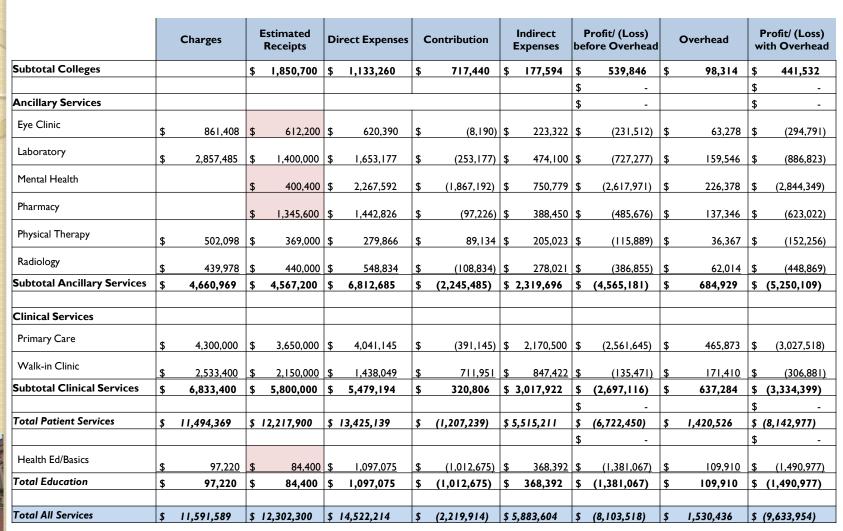
Physical Therapy

							Med				
			# Procedures Av		Avg. Charge		Rate	Extension		M	edicare + 30%
THERAPEUTIC EXERCISES 15 MI	\$	144,788	3,046	\$	47.53	\$	31.03	\$	94,517	\$	122,873
MANUAL THERAPY TECHNIQUES	\$	139,596	3,017	\$	46.27	\$	29.22	\$	88,157	\$	114,604
PHYSICAL THERAPY EVALUATION	\$	62,456	510	\$	122.46	\$	75.39	\$	38,449	\$	49,984
PHYSICAL THERAPY RE-EVALUAT	\$	45,628	708	\$	64.45	\$	41.94	\$	29,694	\$	38,602
ultrasound, each 15min	\$	45,586	1,844	\$	24.72	\$	12.33	\$	22,737	\$	29,557
IONTOPHORESIS, EA 15 MIN	\$	19,288	521	\$	37.02	\$	30.12	\$	15,693	\$	20,400
KINETIC ACTIVITIES TO INCR	\$	8,628	170	\$	50.75	\$	34.05	\$	5,789	\$	7,525
TENS	\$	9,682	352	\$	27.51	\$	15.41	\$	5,424	\$	7,052
TRACTION, MECHANICAL THERAP	\$	8,169	279	\$	29.28	\$	15.94	\$	4,447	\$	5,781
	\$	483,821	10,447					\$	304,906	\$	396,377
		96%	71%								82%

Assumptions

- Allowable charges = 82% of UHS charges
- 97% Collection rate on allowable charges









- Charge community rates for all services
 - No lower than highest 3rd party approved amount
- More restrictive criteria on plans qualifying for waiver
 - Health savings/deposit account to cover patient responsibility
- Accept insurance reimbursement rates for 3rd party responsibility, including SHIP
 - Copays & Coinsurance
 - Health fee pays I 00%
 - Student pays first \$10 \$20, health fee pays difference
 - Deductibles
 - Patient responsible
 - Health fee covers (total or partial)
- Process for individual inability to pay





Sunbelt Survey

	Sq Feet	Students
Florida State	40,255	40,838
GIT	40,000	20,720
Mississippi State	21,480	19,630
NC State	47,600	33,819
Northwestern	54,000	14,047
Southern Illinois	125,000	20,037
Arizona	47,000	39,808
Central Florida	54,000	53,644
Colorado	65,000	29,952
Florida State	51,000	50,691
Georgia	111,124	34,677
Kansas	80,000	26,826
Maryland	50,000	37,641
Kentucky	21,509	27,171
U North Carolina	61,250	29,390
Western Michigan	55,343	25,045
Average	57,785	31,496
Sq Ft/Student		1.83

Counseling:

Population

24,144

29,300

30,800

AUCCCD mean sq. ft. 25,110 – 30,000 = 11,621

1.76

42,500

51,600

54,200

1.83

44,200

53,600

56,400

2007 survey by Dr. Lawrence Neinstein, Professor of

Pediatrics, UCS: 1.76 sq ft/student

