A Method for Calculating the Cost of Medical Education & Opportunities for Value Analysis

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Innovation

The skyrocketing cost of healthcare is a global problem. Likewise, debt for medical school graduates has been rising faster than inflation over the last 20 years (Youngclaus 2012). Despite increasing student tuition, the total cost of medical student education is rising even faster. Changing economics, fiscal pressures and a new focus on higher quality and lower cost require a new operating model for academic medicine. There is increasing recognition that the whole issue of cost and value in health professions education is important (Walsh 2014). Yet, to date the field has not figured out how best to determine the cost of medical education.

The University of Utah School of Medicine has adapted a tool utilized at the University of Utah Health Sciences Center that successfully lowers costs of healthcare while improving patient outcomes (Lee 2016) for use by the educational program.

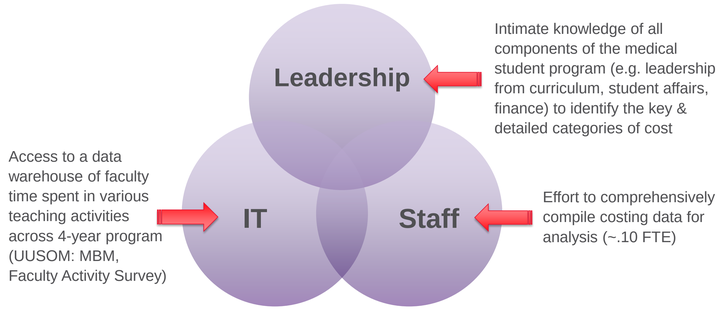
$$V\ (\text{VALUE}) = \frac{Q\ (\text{QUALITY}) + E\ (\text{EXPERIENCE})}{\$\ (\text{COST})}$$

Healthcare value framework applied to medical education

Adaptation of the framework has allowed us to calculate the cost of the medical student program and is providing an opportunity for data-driven analysis of resource utilization in medical education by the UUSOM.

Resources Needed and Potential Barriers

Resources to accurately capture the cost of the medical student program:



Barriers: Without accurate tracking of faculty involvement in the education mission (e.g. # of hours faculty spend in lecture, small group, lab teaching) calculation of the 'Professional Costs' will be difficult.

Need / Gap Addressed

The overall cost for the UUSOM medical student program was calculated at **$32.7 million per year** which amounts to **$79,000 per student per year (N=415).** Cost of tuition for the UUSOM is $36,094.

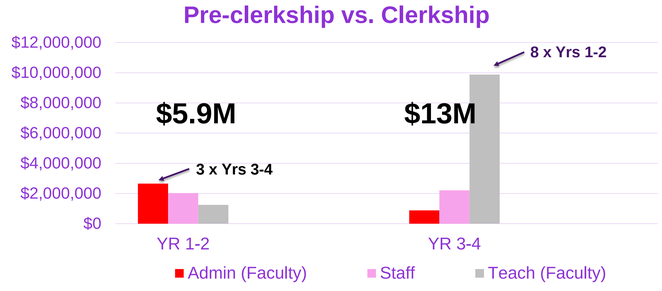
$ (COST)

$32.7M / Year

$79,000 / Student / Year

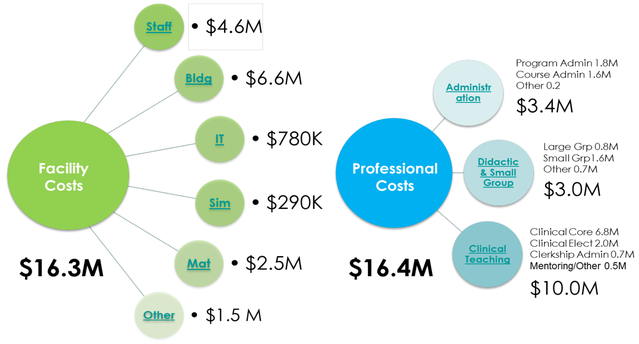
Variability WITHIN Programs

Significant areas of variability have been identified in faculty administration of the first two years of the curriculum as well as for the cost of faculty teaching in the final years of the curriculum. The identification of this variability is driving considerations for how to more cost- effectively administer the early years of the curriculum and promote discussion around best uses of faculty time in the latter years.



Variability ACROSS Programs

The cost of medical education likely varies among medical school programs. However, few can say they know the real cost of medical education. The UUSOM has identified the categories of cost and actual dollar amounts for undergraduate medical education.



We believe this method can be replicated by other medical schools to allow them to calculate the actual costs of education for their programs. Future utilization of this framework can inform decisions about new programming, program change and quality improvement in education.

Timeline Proposed

The UUSOM was able to identify the key categories of cost, identify the cost of various components of the education program and compile the data into a spreadsheet for analysis within 1 year. Our next steps are to:

Adaptation of the cost framework would require contact with a key staff member at collaborating institutions and a projected staff effort of ~.10 FTE to complete the cost project. Key innovations in the areas of leadership development, high value care, big data/population health, etc. would help schools without these innovative programs have an understanding of the financial commitment to adopt similar programming.

Stakeholder Input

Data have been shared at the regional AAMC conference for the Western Group on Education Affairs in Salt Lake City, Utah (February 2017). We will be sharing this data with our SOM Leadership, faculty and students. The Medical Education Leadership at the UUSOM has used this data to inform decisions for future budgeting related to programmatic improvement.

- ❑ **OPPORTUNITY.** The opportunity to collaborate with other schools to calculate the cost of portions, if not their entire medical student programs, and share cost data could help institutions identify areas for more cost- effective programming. This would also promote cost conscious considerations for the impact of implementing program innovations.
- ❑ **CONSORTIUM APPLICABILITY.** The ability to identify key innovations within the ACE consortium, calculate the cost of their implementation/delivery, will help institutions make informed decisions for program change within the boundaries of their financial constraints.

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