

MED SCHOOL STUDENTS GETTING THE BUSINESS

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In this article ...

Positive response to a major university's project designed to gauge interest in business and management among medical students leads to implementation of a new curriculum for the next wave of physician leaders.

WITH INCREASING PRESSURE TO CURTAIL

health care spending and the ongoing shift of financial risk from payers to providers, the need for physician leaders skilled in both the clinical and business aspects of medicine is greater than ever.¹

Provider decisions contribute significantly to health care costs and are a factor in the financial viability of small medical practices and large health systems alike.¹ Unfortunately, the topics of health care financing, organizational management and process improvement are not routinely included in traditional medical school curricula.

Physicians often do not familiarize themselves with these topics until after they enter practice, and only a small fraction pursue formal training. The lack of management-trained physicians, coupled with the growing complexity of health care organizational management, has led to an increase in the number of nonphysician administrators managing health care delivery.²

Physicians who lack a fundamental understanding of business and managerial principles usually cannot collaborate effectively with nonphysician managers. Those with advanced education, such as an MBA degree or similar training, are among the most effective health care leaders. Their involvement ultimately can improve patient outcomes.³

The lack of exposure in medical school to topics traditionally taught in business, hospital administration or public health schools is an impediment to developing skilled physician administrators.⁴ A primary reason is that medical schools must incorporate an ever-growing body of basic and clinical information into limited space within their curricula; some

educators believe there simply isn't time to include topics outside of basic science and clinical medicine. To circumvent these limitations, many schools offer dual-degree programs.

As of 2012, the latest data available, there were 65 medical schools offering the MD/MBA dual degree.⁵ While they provide an in-depth educational experience, these programs require an additional year of schooling and add to tuition expense.^{5,6} They're not always well-attended; at the University of Iowa's Carver College of Medicine, the typical completion rate of the joint MD/MBA program is no more than two students a year.

Accordingly, medical schools might assume students aren't interested in learning about business and management. While the benefits of a complimentary business education are clear, medical students' interest in this area is largely unknown. And there might be a shortage of medical school faculty members willing or able to teach these topics.

We set out to investigate whether medical students are, in fact, interested in learning about topics in health care delivery and management, and whether educational programs can be incorporated within the constraints of a traditional medical school curriculum.

METHODS

We developed a two-day weekend event titled "Medical Student Seminar in Business and Leadership" to assess the interest of medical students in the business of medicine. Content experts from the university's medical and management schools were recruited to serve as seminar faculty. Eight topics, largely

The lack of management-trained physicians means there are a number of nonphysician administrators managing health care delivery. Exposure to topics traditionally taught in business, hospital administration or public health schools can help develop skilled physician administrators.



DEGREES MEAN DOLLARS

Chief medical officers with post-graduate degrees reap financial rewards.

- CMOs holding a master of medical management degree (\$430,000) earn 19 percent more than those who do not, and 8 percent more than those with an MBA.
- CMOs holding a master of business administration degree (\$400,000) earn 11 percent more than those who don't (\$360,000).
- CMOs holding a master of public health degree (\$389,000) earn 8 percent more than those who do not.
- CMOs holding certified physician executive credentials (\$376,400) earn 5 percent more than those who do not.

Source: 2016 Physician Leadership Compensation Survey, by Cejka Executive Search and the American Association for Physician Leadership®.

in complementary pairs, were selected for the seminar:

- Modern health care structure and financing.
- Challenges of running a hospital in an academic health center.
- Developing and leading highly functional teams.
- Teamwork in the pediatric ICU: open-heart surgery for children.
- Leading change.
- Basic accounting and getting good data from financial statements.
- Creating and implementing your strategy.
- Strategic development in the UI Organ Transplant Center

Sessions were between one and four hours in length and involved a combination of lectures, interactive discussions and small-group breakout activities. Between sessions, students were provided with the opportunity to dine and converse with speakers, deans from both colleges and other faculty attendees. The seminar included a networking reception, a dinner and a keynote speaker on change leadership.

The session was held in February 2015. A brochure with an invitation to register was distributed to all 600 University of Iowa medical students via email in December 2014. Seats were to be filled on a first-come, first-served basis. Because of space limitations and a desire to promote interactive group discussion, the seminar was limited to 45 students. After the seminar, we distributed a survey to evaluate the event and interest in future educational offerings. The students' evaluation of the seminar would determine the viability of a more expansive program.

RESULTS

Some 120 students — or one-fifth of the student body — registered to attend, and all 45 available seats were filled in less than an hour. Students from all classes expressed interest in attending the event. The majority had a degree in one of the sciences; only 11 had earned a business degree.

Seventy-five percent of the attendees had not taken business coursework previously, and nearly 81 percent said they did not plan to complete a dual degree. Fifty-four percent said they would complete a formal program that did not increase duration of medical school, and 40 percent said they would consider it.

Each of the topics received favorable evaluations, with 97 percent of the respondents rating the overall program as "valuable" or "extremely valuable." All said they would recommend the event to other medical students and "agreed" or "strongly agreed" that they were satisfied by their decision to attend.

When asked if the content should be better represented in the medical school curriculum, 19.4 percent of the respondents "agreed" and nearly 81 percent "strongly agreed." Comments were overwhelmingly positive:

"The opportunity was incredible for us to learn about these topics from speakers with such exceptional insight into the topics. The conversations that were sparked among myself and my classmates is beyond the scale of those that we usually have following any given lecture that we have in our normal curriculum."

"It was very time-consuming but completely worth it. I think this weekend should happen three times a year, if possible, and that it should be a requirement for all [first-year students] to attend."

"I thought this was fantastic and it should be required for all medical students. I learned so much about how the hospital/departments are run that I have a much better understanding of academic medical centers."

The weekend seminar provided valuable insight. We demonstrated that medical students are interested in learning about health care business, delivery and management topics. At least 120 of our students were willing to devote their free time to attend a full weekend seminar. Participant feedback demonstrated that a weekend program is effective in teaching the basics about these topics. Students also expressed strong interest in a more expansive program that could be completed during medical school.

DISCUSSION

The level of interest and positive student feedback provided necessary proof of concept to move forward with development of a more expansive curriculum. The Carver College of Medicine currently offers elective educational programs (essentially equivalent to minors, compared to the MD degree) known as Distinction Tracks in the disciplines of humanities, global health, teaching, research and service. These programs provide additional education through didactic content and

experiential learning and are completed during the four years of medical school.

Successful completion of a Distinction Track leads to recognition on the Medical Student Performance Evaluation letter and diploma. Approximately 28 percent of the medical students graduate each year with completion of a Distinction Track. A typical track has no more than 10 students. The success of these programs suggests this structure is appealing to medical students. Using this existing framework, we created the Healthcare Delivery Science and Management Distinction Track.

The curriculum for the new Distinction Track spans three years and consists of 12 content blocks, an elective leadership clerkship and a capstone project. Four blocks are offered each year, usually consisting of pre-session guided independent study; a half-day, in-person didactic session; and post-session application exercises and/or supplemental reading.

Blocks differ slightly depending on content and preference of the instructor. For example, one instructor provides articles and slides to review before the session, while another provides students with recorded lectures. The in-person sessions are held on Saturday mornings to minimize conflicts with mandatory curricular activities and other educational responsibilities. Didactic sessions are designed to foster a small-group atmosphere and encourage discussion among students and faculty. Topics for the content blocks are:

- Negotiations.
- Managerial accounting.
- Human resources.
- E-health.
- Legal issues in medicine.
- Population health.
- Data and decisions.
- Marketing.
- Policy.
- Teamwork.
- Quality and safety.
- Insurance.

Students are required to complete a minimum of nine blocks, but we view all topics as extremely valuable and encourage students to complete all 12. In order to provide students with the highest-quality programming, we developed a formal collaboration between the medical and management schools. This agreement is the first of its kind for the medical school, allowing two blocks a year to be taught by professors from the management school.

The elective rotation, titled "Leadership for Future Healthcare Professionals," involves formal study of leadership and identification of the students' personal style. Students are afforded the opportunity to hear from, and ask questions of, people holding upper-level administrative roles within the

university's health system. Students prepare for challenges leaders face and improve their ability to solve these problems using case-based learning.

WHO PARTICIPATED?	
A closer look at the 120 medical students who registered to attend the Medical Student Seminar in Business and Leadership weekend seminar.	
Degrees earned before medical school*	
Biological sciences	70 (58.3%)
Physical sciences	10 (8.3%)
Business	11 (9.2%)
Other science	32 (26.7%)
Non-science	20 (16.7%)
Medical school year	
First year	34 (28.3%)
Second year	40 (33.3%)
Third year	21 (17.5%)
Fourth year	16 (13.3%)
MSTP	9 (7.5%)
Prior business coursework	
Some coursework	15 (12.5%)
Business degree/minor	15 (12.5%)
None	90 (75%)
Interest in longitudinal education program	
Yes	65 (54.2%)
No	7 (5.8%)
Not sure	48 (40%)
Dual-degree program planned participation	
MD/JD	0
MD/MBA	7 (5.8%)
MD/MPH	7 (5.8%)
MD/PhD	9 (7.5%)
None	97 (80.8%)
<i>*Several students had multiple degrees and were not limited to one selection.</i>	

For the capstone projects, students are paired with a faculty mentor and participate in problem-solving at the health system enterprise level. This provides opportunities to apply knowledge and skills learned during the content blocks in a meaningful capacity. Students present findings from their completed projects to the Distinction Track board of directors, and are encouraged to publish their projects or present them at regional or national meetings.

Upon successful completion of the program, students receive recognition from the medical school on their diploma and MSPE letter as well as a certificate from the management school.

PROGRESS

Registration for the Healthcare Delivery Science and Management Distinction Track opened to first- and second-year medical students in December 2015, with 30 students

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enrolling. We expect the size of the group to increase as current students move through the program and new students enter medical school. Tentatively, the school plans to cap the program at 50 students to maintain an environment conducive to interactive discussion. The first two blocks — negotiations and managerial accounting — received positive reviews. One student commented on the negotiation session:

"This was a fantastic session from start to finish. [The doctor's] knowledge and enthusiasm towards the subject was infectious for all in attendance. The practice negotiation was appropriately difficult and required exiting one's comfort zone. This will be a Saturday morning to remember."

The Distinction Track model does not increase the length or cost of medical school and appeals to a larger number of medical students than dual-degree programs. While not intended to replace extensive master's-level training, we believe it will provide students with high-quality education on a wide variety of topics, improve their fluency in the "business of medicine," and prepare them to assume leadership roles within a health care organization.

Furthermore, the program provides valuable exposure to important topics not traditionally taught in medical school. It also might increase the number of students who eventually choose to enroll in MBA, master of health administration or master of health care delivery programs during medical school or later in their careers.

We don't believe interest in business and managerial topics is unique to our medical school. Students at other institutions likely share this interest and would benefit from early exposure to these topics. The seminar and Distinction Track models can be replicated elsewhere. Both effectively deliver content and appeal to a larger number of students than dual-degree options.

Creation of high-quality, valuable and sustainable programming likely requires collaboration with affiliated sources of content experts. A potential increase in the number of medical students interested in MD/MBA programs could help facilitate mutually beneficial relationships between colleges of

medicine and business. We also believe the delivery models are translatable to graduate medical education, and we are planning a weekend seminar for current house staff. The topics will be tailored more toward challenges faced by young physicians entering practice, such as common problems in practice management, legal issues and hospital capital management.

The future of medical leadership resides with physicians; early education and exposure to these topics is the best way to ensure this legacy.



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Alan Reed, MD, MBA, FACS, is a professor and chief of transplant and hepatobiliary surgery, and director of the Organ Transplant Center at the University of Iowa Hospitals and Clinics. He is the physician creator of the Healthcare Delivery Science and Management Distinction Track and a member of the American Association for Physician Leadership®.

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