

OUT OF OFFICE

Mini Medical School for High School

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My Out of Office activity is providing medical education for high school students.

My involvement with medical education began when I was an assistant professor at the University of Minnesota. I enjoyed and treasured the opportunity to be a part of their medical school curriculum. I missed the education experience when I left academic medicine and entered into the private practice medical community. I spent the next 19 years focused on my clinical practice, but I continued to have a yearning to return to education.

Teaching became a passion of mine and is directly related to the influence of my high school biology professor, Mr. Neil Sirignano. He engaged and motivated us with his enthusiasm for medical science. Now, I wanted to bring my clinical experience and passion for medicine back to the high school environment. Medical students are already on a path to pursue medicine, but it is the high school student who is looking for career direction. I decided to chase the dream—bring medical school to the high school student.

But I wanted to develop a different type of high school program: one where I come to the students

and become a part of their educational curriculum. I was given the unlimited support of the CEO of our healthcare system, Dr. Mary Pat Leahy, to develop the program.

The goals of the Mini Medical School are to challenge the students, increase their vocabulary, teach new hand skills and motivate them for life. Today's high school student is able to obtain information much faster than prior generations, thanks to the ubiquitous nature of technology. The students are able to complement my lectures with convenient access to the internet and further explore the content of my lessons.

The Mini Medical School curriculum includes the following:

1. Pathways from high school to medicine: more than one option
2. Medical and surgical specialty career options
3. How to obtain a medical history and how to perform a physical examination
4. HIPAA; Medical Law and Ethics
5. How to interpret chest x-rays and KUB x-rays
6. How to interpret CT scans
7. Kidney stone presentation, management, treatment, and prevention
8. Bloodless Medicine and Surgery
9. COVID-19: Microbiology of the virus; presentation; end organ changes
10. Dermatology: the pathophysiol-

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Seniors in our Intro to Health Occupations class learned how to perform proper sutures and surgeon knots with the assistance of Dr. Richard Evans, Vice President of Surgical Services of the Bon Secours Charity Health System a member of Westchester Medical Center Health Network. Our students are the first high school students in New York to practice these procedures, which medical students learn in their 3rd year of school. Special thanks to CA Health Teacher Ms. Jen Burreto for sharing the photos and the good news! Go HAMBOs!

(Posted on 12/19/18 by Mr. Edward Spence, K-12 Director of Instruction & Tech / District Data Administrator)

[#gohambleton](#)



Figure 2. The Chester Union Free School District tweets about Dr. Evans and his program of teaching high school students procedures usually not taught until the 3rd year of medical school.

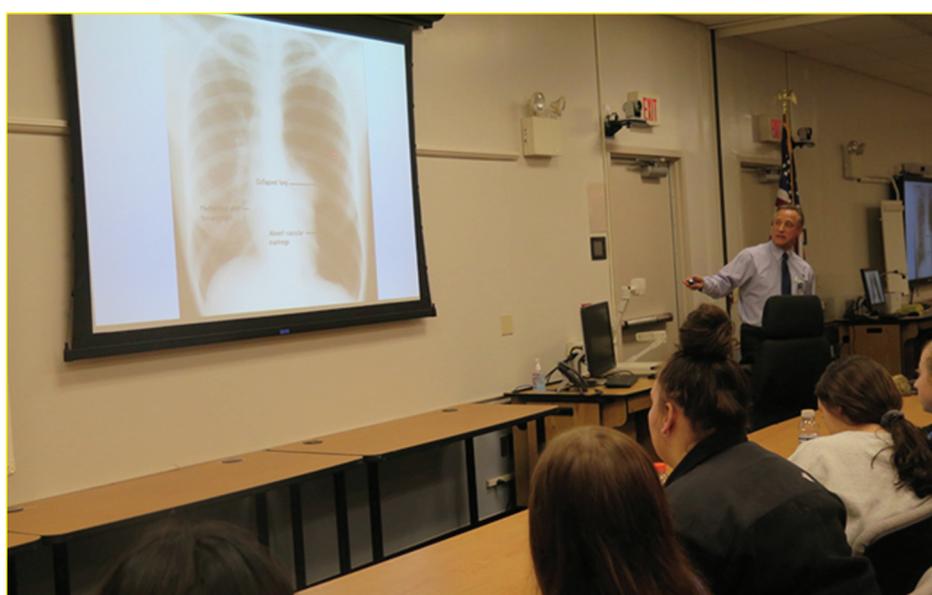


Figure 1. Didactic lectures include how to interpret imaging studies.

- ogy and appearances of rashes
11. How to interpret laboratory results
12. How to develop a medical app: from concept to market
13. Robotic Surgery: joints to kidneys
14. How to suture and perform knot tying

I encourage schools to offer the program to all students and not only the Advanced Placement (AP) or gifted students; I want to reach all students, and not just the advanced student.

Most students do not appreciate how the medical field can provide many options for them. It is my hope that their exposure to the Mini Medical School program allows them to either start or continue on a path in the medical field. If they ultimately choose another field, they will at least know how to suture and how to read a computerized tomography scan!

Several students have touched

me personally. They often confide in me and tell of stories being told that they can never be a nurse, physician assistant, or a physician. They seem surprised and jubilant when I speak of how hard work and motivation will take them to their dreams. This is how I get paid: “emotional income.”

I like to motivate the students to think, and find solutions to everyday issues. I interject examples of how I encounter problems, and the importance of using all available resources to find solutions. Many solutions require teamwork and leadership skills which can be learned.

My ideas and concepts led to the development of a tipless kidney stone basket, currently used in every hospital. I speak of the challenges I faced while performing percutaneous and ureteroscopic surgery. These challenges led me to develop a surgical instrument that can improve outcomes for our patients.

Another example of problem solving discussed is my co-development of the Familyfirst Messenger app. There has always been a lack of communication between medical providers and patients' families. I was determined to improve communication and reduce anxiety for families awaiting news about their loved ones. This application is used in hospitals and skilled nursing facilities throughout the medical community.

Digital medicine has become an integral part of everyday patient care. The students are extremely interested in how to build an app from concept, and how to bring it to market. I am able to share my

experiences of entrepreneurship in the digital world. There is enormous crossover between medical and digital technology. This intertwining of fields will continue to influence how medicine is practiced for years to come. The concepts of originality, team work and leadership are accentuated in this presentation.

I do not advertise the program. The high schools will often post pictures and content of the program on social media, which has inspired other schools to reach out for information about the Mini Medical School. I was scheduled to start the course for additional high schools

last year, but COVID-19 has temporarily paused our growth plans.

I have been providing the classes via Zoom during COVID-19. Unfortunately, I am unable to teach the suturing and knot tying sessions at this time. I much prefer in-class lectures, as I can relate to the students more effectively.

Currently, the Mini Medical School program is provided for select high schools in 3 New York counties: Rockland, Orange and Nassau. I do not accept payment for the program, and all adjunct medical equipment is supplied at no cost.

After each lecture, an anonymous Survey Monkey is sent to the

students to encourage honest feedback for improvement purposes.

This is the only program of its kind. I hope to stimulate as many high school students as possible by inviting inquiries for assistance.

I am planning to reduce my administrative and clinical duties to expand the Mini Medical School program.

The Mini Medical School program closes with a tournament played on the electronic board game "Operation"—just a reminder that medicine can be equally fun to learn as it is to practice. ■