



Apollo: Youth in Medicine — Launching Careers

► Sean Holly; Arjan Kahlon; John Kepley; Randeep S. Kahlon, MD

What does it take to be a physician? What is a day in the life of a physician like? What do different types of physicians do? These are just a few of the questions that high school students like Sean Holly, a senior at Saint Elizabeth High School in Wilmington, ask themselves. A new student-run partnership between the Delaware Youth Leadership Network (DYLN) and the Medical Society of Delaware (MSD), named *Apollo: Youth in Medicine*, was piloted to help high school students answer these and other similar questions.

THE BIG IDEA

Like many high school students interested in the physician career path, Sean sought numerous opportunities to explore his interest. He volunteered in various medical settings. In each of these environments,



despite being surrounded by medical professionals, there was very little student/physician interaction. Without specific personal connections and limited by restrictive hospital policies, he found few readily accessible shadowing options.

Realizing that there was an unmet need in the community, he outlined the problem to DYLN Founder Margaret O'Dwyer, and Shannan Beck, Director of School Counseling at Saint Elizabeth. Ms. O'Dwyer was instrumental in connecting him with Dr. Randeep Kahlon and his son, Arjan

Kahlon, who had been talking about the same issue. Arjan had shadowed Dr. Kahlon and wondered aloud how other students without a physician in their family might get this kind of experience. Further, Dr. Kahlon had hosted various high school and college students in the past but noted that they were most often underprepared to maximize the opportunity. The idea of producing a program to secure shadowing opportunities with physicians for well-prepared and trained high school students was born.

In the summer of 2018, Dr. Kahlon arranged an initial exploratory meeting that was hosted at MSD by Executive Director Mark Thompson, MHSA. Mr. Thompson and Dr. Kahlon helped provide guidance on how to shape the general outline for the program, which would include additional student education to enhance the shadowing opportunity. At that first meeting, a rough plan was sketched to

launch the program in pilot form for the fall of 2018.

The first team working session was in August 2018 at MSD. The team — which now included Arjan Kahlon, a freshman at the Charter School of Wilmington; John Kepley, a junior at Saint Elizabeth High School; and Mary Fenimore, Manager of Community Relations & Communications at MSD — came together and named the program *Apollo: Youth in Medicine*, after the Greek god of healing. As the program began to take shape, Apollo successfully applied for grant funding from the Delaware Medical Education Foundation (DMEF), which validated that the Apollo leadership team was heading in the right direction.

Within a few weeks, the Apollo team fully developed a comprehensive project plan. Establishing a realistic plan in accordance with the tight timeline was crucial to the pilot's success. In the meantime, Sean, Arjan, and John juggled back-to-school requirements, sports, extracurricular activities, and college applications while actively leading the way for the Apollo pilot launch. Regular after-school conference calls became a must.

The team designed and collaborated on a logo. Formal documents for the program, including a Student Training Manual, were developed based on similar documents from local facilities and medical practices. Ms. O'Dwyer and Ms. Beck connected with the selected high schools and their counselors to identify the student participants. The team designed an inclusive communication strategy for counselors, students, parents, and physicians. This specific element of the pilot was intensive — and successful.

THE PILOT

The pilot session of Apollo consisted of 20 students from four area high schools: Conrad Schools of Science,

Newark Charter School, Saint Elizabeth High School, and Charter School of Wilmington. Through coordination with the counselors, the Apollo program was granted “in school” field trip status, which allowed the students to take some time off from school to attend the shadowing sessions.

The team formatted documents that each participating student (with their parents) was required to complete — a parental consent/emergency contact form, a student expectations agreement, and a Health Insurance Portability and Accountability Act (HIPAA) form. An Apollo Google Drive account and email address were set up for all communications and documentation. Sean led the team activities and project planning, Arjan assisted the team by spearheading student communications and the online sign-up system, and John facilitated the communications with the volunteer physicians. Dr. Kahlon

identified a network of potential physician shadow volunteers, who were targeted based on their previous volunteer work on various committees within MSD. Nearly 20 physicians from a range of specialties, including pediatrics, family medicine, obstetrics and gynecology, and orthopaedics, enthusiastically volunteered to be shadowed.

As Apollo recognized that the shadowing was an opportunity for additional education, an Educational Information Session was planned on a few other important topics, such as types of medicine, pathways to becoming a physician, Delaware's Institute of Medical Educational Research (DIMER) program, and in-person HIPAA certification training. This additional education would help the students immerse themselves in medical education and also provide valuable and necessary HIPAA training. Additional specialty-specific education was also planned for the students in the form of “primers” or pre-reading.



Left to right: Nancy Fan, MD; Randeep S. Kahlon, MD; Prayus T. Tailor, MD

As the leaves were starting to change in mid-October, the Apollo team conducted its first Educational Information Session at MSD, with a trio of Past Presidents carrying the education mantle. MSD Past President Prayus Tailor, MD discussed the various types of medicine, MSD Past President Nancy Fan, MD informed the students about the DIMER program, and MSD Past President Dr. Kahlon moderated the session and led the training on HIPAA.

Using an online sign-up system that tracked the list of available physicians and available time slots, the participating high school students were able to individually choose their shadow doctor

(and specialty). In preparation for the shadow day, students were given a primer that contained basic information about each physician's specialty. This included information such as what the specialty covers, common conditions, and common treatments, giving students a chance to prepare before their shadow day. For the physicians, all student documentation was provided before the shadowing day so that the physicians only hosted students who had appropriate documentation, specialty-specific education, and formal HIPAA training. The pilot session of the Apollo physician shadowing experiences took place in November — just three months after the first planning meeting!

THE REVIEWS & OUTCOMES

To better gauge student feedback of the pilot, surveys were sent after the initial Educational Information Session and again after the shadow date. The responses were overwhelmingly positive, with 93% of the participants stating they would recommend the program. The top suggestion from students was to increase the number of shadowing experiences offered from more than just one per student. One of the main goals of the program was to increase the students' knowledge about the physician career path in medical education, and 100% of the students who responded to the survey agreed that the program had accomplished this goal.

Apollo Program: Student Reflection

► *By John Kepley*



John Kepley shadowing Michael J. Axe, MD at First State Orthopaedics.

I was interested in the medical field from a young age and having an opportunity to shadow a physician and to explore the true life of a medical professional was very exciting. I have had a few injuries in my life, so when the opportunity to shadow a physician arose, I thought it would be interesting to follow an orthopaedic specialist. I was able to pick Dr. Jeremie Axe from First State Orthopaedics in Newark, which worked well because some of my family members and friends had seen him for care.

On the day of my shadowing, I left school early to get ready. I wasn't sure what to wear, but I figured it was better to be overdressed than underdressed. I put on my blazer and grabbed my notepad and was ready to go. My mind was wandering as I drove to the Sabre Building, thinking about the unique situation I was in. I was finally able to get a sneak peek of my dream. Once I arrived, it took me a second to gather all my thoughts and find the office. One kind woman had to help me find it. I walked into the

waiting room and the atmosphere immediately changed. It went from a quiet office building, to a full running clinic, filled with patients who needed help. That's what I find incredible about being a physician. A patient can walk in with a serious problem, and you get a chance to help them feel better.

I told the office manager I was there to shadow Dr. Axe for the Apollo program, and she brought me through the locked doors. The atmosphere changed again. I was on the other side of the glass — going from the patient I'd sometimes been, to the doctor I've always wanted to be. We're all patients. We were born patients and spend our first days in a hospital. Many of us will die spending our last days there. But only a select few get to put on the white lab coats. For the first time, I got to see what that was like.

Dr. Axe introduced me to the rest of the office, from his PA, Christian, to his many nurses. I spent my first 10 minutes analyzing and absorbing

Chase Dunlap, a student at Saint Elizabeth High School, shared his feedback about the Apollo Experience:

“Throughout my time as a high school student, I have always been extremely interested in the medical field. Although I could always attend a seminar or look up some information online to become more knowledgeable about the daily life of a medical professional, there weren’t any opportunities for me to actually connect with someone in the medical field. That all changed with the Apollo: Youth in Medicine program though, as it gave several students throughout the state of Delaware, including myself, the opportunity to shadow a medical doctor

for a day. My shadow experience was extremely informative, and the connection I was able to make with the doctor I shadowed was a great one!”

The involvement of school counselors in the Apollo program has been instrumental in gathering feedback to further improve the program. Ryan Mitchell, Director of College Guidance at Newark Charter School (NCS), shared his thoughts about Apollo:

“Genuine medical shadowing opportunities are often hard to come by without personal/familial or otherwise network-related connections, and Apollo is smartly designed to remove barriers and help students

begin to envision their futures; the effects are lasting. There are countless potential future medical professionals in Delaware who would become further committed to a health career if given the opportunity, and NCS students have reported to us that their experiences were eye-opening, enriching, surprising, and educational in unique ways. Students have made further connections beyond those organized by Apollo (as a result of the initial connection), were graciously invited to additional medical conferences, and are now thinking about futures in medicine with more confidence and specificity. Apollo has the chance to legitimately change the lives of youth participants, who in turn can help others live more healthy lives once they become medical professionals; you can’t argue with the mission, nor the results thus far!”

every detail of the office, from the charts on the walls to the x-rays on the computer. I had a few minutes to ask Dr. Axe questions about his education and practice, and made sure to take notes in my trusty notepad. Now it was time to shadow my first patient!

The day went much faster than I expected. I was amazed at how much care and attention Dr. Axe gave each and every patient in the short amount of time he had with them. He introduced me to every patient, and I stood to the side, observing intently. It was fascinating to see the whole process, from chart to post-appointment notes. Every person in the office contributed, from the nurses checking on patients and preparing shots, to the PA seeing patients or informing them about upcoming surgeries.

I was also able to observe the social environment of the office. This team has worked together for years and it was interesting to see how they interacted. I really felt involved. They would ask me questions about my school and different programs I was in, and they shared about their lives and paths to medicine.

By the end of the day, I felt like I had

developed and learned a routine with each appointment. We would go over the chart, Dr. Axe would examine the patient and provide them with any care they needed, then Dr. Axe did his notes and we would talk until the next patient was ready. I was learning more and more with each patient visit. We saw a variety of conditions, from arthritis, to joint replacements, to surgical repairs. By the end of the day, I could even recognize arthritis from an x-ray!

After seeing many patients, my shadowing came to a close. I took a photo with Dr. Axe and said goodbye to the office staff. I wished I had had more time, but I knew that this was just the beginning. This day gave me more inspiration to pursue the career that fascinates me. I left there with one thought: “That was it, that’s what I want to do!” I am extremely grateful that I had this experience through Apollo: Youth in Medicine, and cannot wait to shadow again.

John Kepley is a junior at Saint Elizabeth High School. John is a member of the Delaware Youth Leadership Network, the Student Leadership Group, and the National Honor Society.

Apollo’s success depends on the physicians volunteering their time and support. One volunteer physician, Jeremie Axe, MD of First State Orthopaedics, reflected on Apollo:

“The Apollo program is a wonderful access tool. When I was a high-schooler, I was fortunate to be able to shadow my father, an orthopaedic surgeon. This experience helped me to get where I am today. Unfortunately, not everyone had the access to a family member in the medical field. The Apollo program provides a structured avenue to allow interested students the opportunity to be exposed to real-time medical care.”

THE NEXT STEPS

In January 2019, for its second session, Apollo expanded to 20 new students from four additional high schools, using the same format as the pilot, with some modifications based on the feedback. In addition, all students from the initial pilot session were given an opportunity to “give back” to the program by creating new educational resources for the next session



Bottom left: Gabrielle Ryu. Bottom right: Ryan Stephens shadowing Elliott H. Leitman, MD at First State Orthopaedics.

APOLLO PARTICIPATING PHYSICIANS

- Jeremie M. Axe, MD - Orthopaedics
- Drew A. Brady, MD - Orthopaedics
- Hal C. Byck, MD - Pediatrics
- Nancy Fan, MD - Obstetrics and Gynecology
- James M. Gill, MD - Family Medicine
- Eric T. Johnson, MD - Orthopaedics
- Randeep S. Kahlon, MD - Orthopaedics
- Karen M. Kelly, MD - Pediatrics
- Eun A. Kim, MD - Family Medicine
- Stephen J. Kushner, DO - Family Practice
- Kathleen A. Leach, MD - Pediatrics
- Harry A. Lebowitz, MD - Ophthalmology
- Elliott H. Leitman, MD - Orthopaedics
- Victoria A. Levin, MD - Pediatrics
- Gregory A. Masters, MD - Oncology
- Gaetano N. Pastore, MD - Cardiology
- Jayshree P. Tailor, MD - Family Practice
- Prayus T. Tailor, MD - Nephrology

and, if completed, those students could choose to participate in the second session.

The team hopes to continue to expand the program to multiple sessions per school year with growth throughout the state, as well as recruit more student leaders. The Apollo leaders aim to increase the physician volunteer cohort to include a larger selection of both employed and private-practice

physicians statewide, as well as to offer shadow session opportunities that cover multiple days per student. In addition, the program founders have aspirational goals of expanding the program to other health care sectors (nursing, physician assistants, physical therapy, etc.) or to other career paths, like law or engineering.

The Apollo program is an example

of a home-grown idea that was implemented successfully in Delaware due to diligent youth student leadership, active physician engagement, and organizational support from MSD and DYLN.

If you would like to support the program as a physician volunteer, please email the Apollo team at ApollonYIMde@gmail.com.

ABOUT THE AUTHORS

■ **SEAN HOLLY** is a senior at Saint Elizabeth High School. Sean is a member of the Delaware Youth Leadership Network and the President of the Saint Elizabeth Chapter of the National Honors Society. He plays soccer and lacrosse.

■ **ARJAN KAHLON** is a freshman at the Charter School of Wilmington. Arjan is a member of Youth in Government and Math League, runs cross country, and plays tennis.

■ **JOHN KEPLEY** is a junior at Saint Elizabeth High School. John is a member of the Delaware Youth Leadership Network, the Student Leadership Group, and the National Honor Society.

■ **RANDEEP S. KAHLON, MD** is an Orthopaedic Surgeon with First State Orthopaedics in Newark, serves on the boards of the national Arthritis Foundation, Highmark Blue Cross Delaware, the Delaware Health Information Network (DHIN), and the Medical Society of Delaware (MSD), and serves as an Affiliate Assistant Professor at the University of Delaware.