

Main Line Health Offers Unique Educational Model for Outreach to Community Youth: The Annenberg High School Science Symposium

Major changes in healthcare affect everything from economics to ethics, and therefore it is more important than ever to expose the next generation to science and medicine. The Annenberg High School Science Symposium is Main Line Health's (MLH) effort to offer high school students an early opportunity to learn about these issues. Started in 2004, when the Annenberg Center for Medical Education at Lankenau Medical Center defined "outreach to the community" as part of its mission, the Annenberg High School Science Symposium was established to inspire the interest of high school students in science, medicine, and healthcare.

In the past seven years, the number of participating schools has grown from four to 15.* The students, representing public and private schools from Philadelphia and the western suburbs, participate in four spring symposia at each of the MLH System's acute care hospitals: Bryn Mawr, Paoli, and Riddle Hospitals and Lankenau Medical Center.

Each year, in late fall, the high school science groups convene to choose their topic of interest. This year's 15 research or discovery topics include bipolar disorder, stem cell research, biotechnological applications in the treatment of diabetes, women in crisis in Sudan and Haiti, endostatin, Alzheimer's disease, robotic surgery, and gastric bypass.

The Annenberg Center staff arranges for a qualified mentor to meet with the student groups to discuss their topics, and to advise them on how to direct the research.

In December, the school groups gather at the Annenberg Conference Center for telecast of a live

surgery. This element is added to whet the students' appetite for science and medicine; it is usually a laparoscopic cholecystectomy performed by Lankenau surgeon Jonathan Gefen, MD. Suzanne Comer, MLH Manager of Academic Affairs and principal organizer of the symposia, explains, "The surgical telecast and the science lecture which precedes it emphasize three educational values fundamentally important for high school students contemplating a career in healthcare. Review of the anatomy and physiology of the bile ducts prior to the telecast demonstrates to the students **(1) the importance of learning basic science in high school**; emphasis on laparoscopic surgery as a recent development in medicine demonstrates **(2) the importance of being 'life long learners'**; and when students recognize the beauty and privilege of looking into another person's body, they gain **(3) an appreciation of the privilege implicit in being a healthcare worker.**"

The culmination of the program occurs in March, when the students go to one of Main Line Health's four acute care hospitals where they present their project to three other high school groups, parents and families. Each presentation must include an element of the creative arts to help explain scientific principles. At the conclusion, the students are questioned by "honorary judges" (Main Line Health- and community-experts in medicine or science), whose questions challenge the students to discuss extemporaneously the social and ethical implications of their projects.

According to its originator and director, Dr. Barry Mann, Chief Academic Officer of MLH, by including a creative component, the Annenberg High School Science Symposium provides a science discovery model that is different from other high school

science competitions. "Whereas other programs pit school against school and reward the knowledge-based performance of individual students," he says, "the Annenberg High School Science Symposium emphasizes *teamwork, collaboration, and creativity* – the true underpinnings of scientific discovery."

Some previous participants, who are now medical students and have returned as honorary judges, provide anecdotal testimony to the program's success. More formal surveys are underway to assess educational and motivational impact.

"This program embodies our commitment at Main Line Health to our community," says Jack Lynch, CEO of Main Line Health. "This investment provides students with an opportunity to have a special learning experience at our institutions in which both the scientific and ethical aspects of healthcare are explored."

* The 15 high schools participating in the Annenberg High School Science Symposium are: Barrack Hebrew Academy, Conestoga, Episcopal Academy, Friends' Central, Garnet Valley, Great Valley, Abraham Lincoln, Lower Merion, Malvern Preparatory, Marple Newtown, Merion Mercy, Penncrest, Radnor, Upper Darby, and George Washington.

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