



Alert:

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What did one Alumnus do with her YES experience?

She put it into action!

Kelly Moltzen, a graduate of the University of Delaware and current MPH student at New York University, spent her second semester as the Nutrition Intern for the Bronx Health REACH Program. Bronx Health REACH, "Racial and Ethnic Approaches to Community Health," is a CDC initiative that works to distribute critical health information to churches, schools and organizations throughout the community.

Kelly took special interest in a nutritional marketing campaign launched by the Bronx Health REACH Coalition. The Coalition included members of the Department of Health and researchers from the New York Academy of Medicine. Kelly used formative research methods as she ventured into the Bronx community to assess children's behaviors and attitudes towards fruits and vegetables.

The children took pictures of items in their neighborhood that influenced their

feelings about fruits and vegetables, and then had a group discussion to talk about the pictures. This strategy uses peer groups to set examples for the target audience, a strategy that has proven effective in changing the public's perception of certain health risks such as smoking and lack of physical activity. Kelly learned that one of the key elements to a successful public health initiative is to involve community members in every aspect of the research, rather than simply viewing them as subjects receiving the intervention. Using culturally sensitive messages and language to which the target audience relates, greatly assists in communicating important health messages. She also observed the benefit of reaching population groups at a young age, so they can learn about early prevention and develop healthy habits to last a lifetime.

Kelly first realized the importance of these early prevention tactics when she competed at the YES Competition in April 2004. She recalls a story told by Dr. Al Sommer, Johns Hopkins University, about a broken guardrail on a winding mountain road. People were trying to save those whose cars had driven off the road and no one was fixing the guardrail to prevent people from falling off in the first place. This influenced her to focus on prevention. She changed her major from Biochemistry to Nutritional Sciences and Dietetics with the



goal of helping people prevent disease through diet. She credits Bronx Health REACH with exposing her to some of the socioeconomic circumstances that make people choose a particular diet and lifestyle.

Kelly is working towards her Masters of Public Health, with a concentration in International Community Health, and plans to become a Registered Dietitian. She is interning at the James J. Peters Veterans Affairs Medical Center where she is working in the clinical and community rotations with an experienced dietitian. In the future, perhaps we will see her working on hunger or obesity issues, either domestically or internationally, or as a Public Health Service Commissioned Corps Dietitian. She urges other YES Scholars to "Network, network, network! The more you do, the more you'll find someone working on a topic or an area of public health that truly sparks your interest." Check out Kelly's blog at <http://food4thoughtandaction.blogspot.com/>.

"The YES Competition taught me how important prevention is in the course of disease progression, morbidity and mortality."

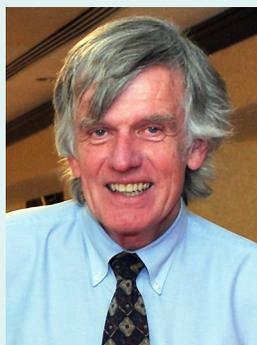
Kelly Moltzen
2003-04 YES
Regional Finalist



Young
Epidemiology
Scholars

Visit www.collegeboard.com/yes

Meet Dr. David Fraser, Leading Epidemiologist and YES National Judge



“Curiosity, systematic thinking, imagination and humility...”

Dr. David Fraser, freelance epidemiologist and physician, thinks these are a few of the qualities needed to become an epi-

demologist. At the Centers for Disease Control and Prevention (CDC), he served as an Epidemic Intelligence Service (EIS) officer and Branch Chief where he studied Lassa Fever in West Africa, led the investigation of the original outbreak of Legionnaires’ Disease in 1976, and oversaw the team that discovered the role of tampons in toxic shock syndrome.

As President of Swarthmore College from 1982-91, he taught epidemiology to undergraduates and published an article in the *New England Journal of Medicine* on epidemiology as a liberal art <http://www.collegeboard.com/yes/ae/we1.html>. He went on to head health and education activities for the Aga Khan’s Secretariat, returning to the United States in 1996 to serve as the Executive Director of the International Clinical Epidemiology Network (INCLIN), an independent non-profit organization that helps clinicians and other scientists use epidemiological tools to improve the health of people in the developing world.

Dr. Fraser has been involved in shaping various aspects of the YES program since its inception, and the program could not have grown into what it is without his guidance and support. He led a group of teachers and epidemiologists to create 25 free and downloadable teaching units that are available on the YES website. He has been

a YES Regional and National Judge since the first student competition, which he says proves to be more exciting with each passing year. When asked about his favorite part of the YES Competition, he replied, “I’m impressed by the smoothness of the presentations, and I most enjoy the Q&A exchange in which I can observe students grappling successfully with a new idea.” Dr. Fraser believes the YES Competition taps into a great reservoir of curiosity about how the world works and challenges students early in their education to think systematically about relevant health issues.

He encourages students to find a mentor or role model who can provide constructive advice about selecting a hypothesis to test and a study design to test it, and to be imaginative when selecting a research topic. Epidemiology is about encouraging critical thinking – taking a healthy skepticism about the easy conclusions and thinking outside the box to find the solutions and causes.

“Aligning the health care and public health systems so that effective prevention and treatment is made available to the whole population at a tolerable cost” is the key health issue this country will face in the next 5 – 10 years, says Dr. Fraser. “The immensity of public health issues is easily overlooked without systematic surveillance and study, because the problems affect so many but causal linkages are not obvious. That said, public health advocates sometimes overstate the case of interventions, failing to adequately weigh countervailing arguments, for example, individual liberty. There is a dire need for more public health leaders well trained in science and philosophy, and YES, we hope, will identify and encourage some of the best and brightest to enter this field.”

2009-10
YES Competition

Online submission
deadline

February 1, 2010
by 9:00 a.m. ET

YES National Event
April 23–26, 2010



Four YES Scholars Tour CDC

In August, Amrita Sehgal, Alexander Chernyakhovsky, Hannah Bands and Avtalya Feldman had a private tour of the CDC. Sponsored by the CDC's Office of Workforce and Career Development and the YES Competition, the students attended the Epidemic Intelligence Service (EIS) seminar, visited the CDC Global Health Odyssey and Museum, and were guided through one of the public health labs. They were granted access to the Emergency Operations Center where CDC staff respond to public health incidents and monitor global health issues. The center is often now seen on the news as experts monitor the H1N1 influenza virus.

Alexander and Amrita had the opportunity to present their YES research to an audience of CDC professionals and to meet with a subject matter expert who was familiar with their areas of research. The students enjoyed one-on-one meetings with Dr. Denise Koo and Dr. Steve Thacker.

And what did the students have to say about the day?

"It was an amazing trip that I'll never forget. I appreciated that the subject matter expert took the time to locate informational articles related to our YES projects and she really inspired me to continue working in my area of research." *Amrita Sehgal*

"The meeting with Dr. Thacker was extremely interesting." *Alexander Chernyakhovsky*

"The EIS officers' presentations were similar in design to YES presentations. It was helpful to see how practicing epidemiologists presented their work and then compare it with YES Scholars' presentations." *Hannah Bands*

"We were able to see state-of-the-art technology at the Emergency Ops Center and learn more about the overall organization of the CDC. It was a truly wonderful experience to both see what it's like to work there as well as meet great contacts." *Avtalya Feldman*



Disease Detectives Introduced to Chicago Urban Initiatives

For the past 26 years, Science Olympiad (SO) has led a revolution in science education. What began as a grassroots assembly of science teachers is now one of the premiere science competitions in the nation, providing rigorous standards-based challenges to more than 5,700 teams in 48 states.

In 2007, SO piloted the Urban Schools Initiative in the Chicago Public School system, hoping to encourage inner-city students and teachers to explore extracurricular science

activities. Now in its third year, nearly 720 students and teachers from 24 city schools are participating. In 2009-10, the SO event Disease Detectives will be introduced to the Urban Schools Initiative, giving many Chicago students their first experience with epidemiology.

Developed in 1999, with the help of public health experts from the Centers for Disease Control and Prevention (CDC), Disease Detectives has been extremely popular, requiring students in teams of two to tackle problems relating to

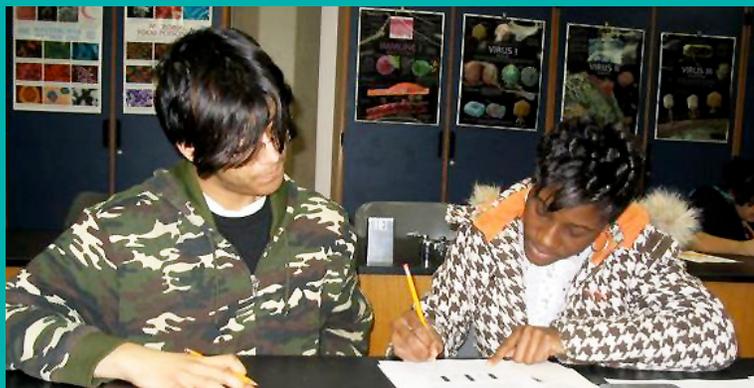
the topic of how population growth affects the spread of global disease, outbreaks and pandemics. Now the YES Competition and SO have partnered to increase student and teacher interest in epidemiology by cross-promoting the

YES Competition with Disease Detectives, one of SO's signature events.

YES and SO plan to build a network of former SO competitors, graduate student mentors and working epidemiologists to assist the Chicago Public Schools students with their preparation for the Disease Detectives event and also an eventual YES Competition entry.

"This partnership has positives for our students in Science Olympiad on many levels. Not only do they get a chance to interact with practicing scientists around a topic area that is often overlooked or underdeveloped in our regular science program, but they also have an opportunity to qualify for scholarships. This is clearly a win for all involved," said Dr. John F. Loehr, Science Outreach Manager in the Chicago Public School Office of Science Education.

For more information about SO and YES, please visit the web sites at www.soinc.org and www.collegeboard.com/yes.



2008-09

Sydney Beache, Anchorage, KY, is a high school senior at Louisville Collegiate School. This summer she worked at the Norton Cancer Institute in the mobile mammography unit.

William Broderick, West Chester, PA, attends Oberlin College and plans to major in neuroscience. This summer, he worked at the University of Pennsylvania conducting research on the effects of HIV and the nervous system.

Tiffany Chen, Fresno, CA, is a freshman at the University of Southern California and plans to major in health promotion and disease prevention studies in anticipation of a public health career. She continues to work on her YES research investigating kidney and renal pelvis cancer.

Grant Day, Virginia Beach, VA, is a freshman at Virginia Commonwealth University where he intends to study pre-clinical lab sciences and further his YES research on Methicillin-resistant Staphylococcus Aureus (MRSA) and infectious disease.

Valentine Rae Esposito, St. James, NY, is a high school senior at Smithtown High School East. This summer she conducted research at Stonybrook University and has advanced her YES research on the role of fear on teenage drug abuse.

Hanqing Feng, Decatur, GA, attends The University of North Carolina at Chapel Hill and plans to major in biology. Due in large part to her YES project she was offered a summer job as a data manager for a research project on sleep and Alzheimer's patients.

Aleah Goldin, Allentown, PA, is one of 20 students selected as a full-tuition Boatwright Scholar at the University of Richmond. She plans to continue her YES research into strategies to educate teenagers about the risks of influenza. Her career interests include epidemiology and public health.

Allan Joseph, Dublin, OH, attends the University of Notre Dame and will major in science-preprofessional studies. This summer he conducted research in the Center for Cardiovascular and Pulmonary Research at the Nationwide Children's Hospital in Columbus.

Joanna Kao, Iowa City, IA, is a freshman at Massachusetts Institute of Technology. She is continuing her YES research and is interested in a medical career in neonatology or developing medical-related technology and continuing research in the areas of epidemiology and public health.

Shreesh Naik, Greenwood Village, CO, is a freshman at Massachusetts Institute of Technology where he plans to study medicine and continue his YES research involving diabetes patients.

Marilyn Piccirillo, Chesterfield, MO, attends Washington University in St. Louis and plans to study public health, biochemistry and international relations. This summer she worked in an infectious disease lab assisting researchers.

Jasmen Rice, Baltimore, MD, is a freshman at Butler University. This summer she worked at a non-profit HIV/STD clinic and plans to continue her YES research comparing behaviors of HIV positive and negative African-American women.

Stephen Trusheim, Chaska, MN, attends Stanford University and plans to major in bioinformatics and computer science. He spent the summer expanding his YES research in developing software for predicting and surveilling Methicillin-resistant Staphylococcus Aureus (MRSA).

2007-08

Emily Barker, Marshfield, WI, attends the University of Wisconsin. This fall she will travel to Kenya for a public health internship where she will educate residents of rural villages on HIV/AIDS.

Katie Everett, Ann Arbor, MI, attends Massachusetts Institute of Technology. She won a summer fellowship to continue her YES research using computer models to evaluate the impact of HPV on infection prevalence in adolescents. Katie submitted her research for publication and plans a career in epidemiology.

Qiushuang Jin, Iowa City, IA, is a freshman at Stanford University and plans a career in medicine. She hopes to expand her YES research into academic workload and sleep deprivation among adolescents by including clinical trials.

Maya Mathur, Woodside, CA, is a freshman at Stanford University. She published her YES research in the *Journal of Pediatric Healthcare* and presented it at the 2008 California HPV Summit, the 2009 CDC and Prevention National Immunization conference, and the 2009 Society for Adolescent Medicine meeting.

Jessica Palmer, Ossining, NY, attends Cornell University and intends to major in biology and society and minor in global health to pursue her interest in epidemiology. This year she will likely conduct health research in Africa.

Hunter Smith, Fort Meyers, FL, is a freshman at Tulane University where he will major in Spanish and pre-med and minor in public health. Hunter's career plans include epidemiology.

2006-07

Sarah Coleman, Waynesboro, VA, attends James Madison University and double majors in nursing and Spanish. This fall she will travel to Argentina to work in health clinics in Buenos Aires. Sarah anticipates a career in public health.

Julie Rechel, Worthington, OH, attends the University of Richmond and was approved to be the first science scholar to complete an interdisciplinary major in cultural epidemiology. She is working on a project to study sports injuries in high school athletes statistically and culturally at the Research Institute at Nationwide Children's Hospital.

Jennifer Schindler, Rockville Center, NY, attends Columbia College where she double majors in public health and psychology. This summer she conducted cross-cultural health research on obesity. Jennifer plans a career in public health.

2005-06

Katrina Diaz, Portage, MI, attends the University of Michigan where she double majors in English and biology. Katrina is working in the school's epidemiology microbiology lab on a project studying hospital catheter nosocomial biofilm growth inhibition and treatment. Katrina's career plans include public health.

Miju Han, Chesterfield, VA, attends Williams College and majors in political economy and international economic development. This summer she interned in the Africa Program at the Center for Strategic and International Studies in Washington, D.C.

Aman Prasad, Pocatello, ID, attends Cornell University and majors in chemistry and chemical biology. He is one of 300 college students nationwide to receive the 2009 Barry M. Goldwater Scholarship.

Michelle Stokes, Marietta, GA, attends Agnes Scott College and majors in biochemistry and molecular biology. Michelle is one of 300 college students nationwide to receive the 2009 Barry M. Goldwater Scholarship.

2004-05

Andrew Iliff, Stilwell, KS, is enrolled in the six-year medical school program at the University of Missouri-Kansas City. This year he will have a month-long medical rotation in a rural community clinic to gain exposure to medical practices in an underserved area.

Chris Redmond, Sykesville, MD, received his B.S. in public health and cell biology from Rutgers University. He is studying for his M.Sc. in integrated immunology at the University of Oxford. This summer, Chris worked in the National Cancer Institute Laboratory of Molecular Immunoregulation.

Aisha Saad, Cary, NC, a Rhodes Scholar, received her B.S. in environmental health science and Spanish from The University of North Carolina at Chapel Hill. Aisha attends the University of Oxford where she studies nature, society and environmental policy.

Andreea Seicean, Bay Village, OH, completed her MPH at Case Western Reserve University and is working toward an M.D. and Ph.D. in health service research.

2003-04

Bevin Cohen, Rockville Center, NY, received an MPH in epidemiology in May 2009. She is working on several research projects related to infection control and antimicrobial resistance.

Kathryn Dillon, Downingtown, PA, is in her second year of medical school at the University of Pennsylvania School of Medicine. Because of the YES Competition Katie plans to incorporate epidemiology into her medical school career. This summer she worked with an epidemiologist in Thailand evaluating the safety of a vaccine developed for dust mite allergens in rural areas.

Robert Levine, Lincolnshire, IL, is studying for his Ph.D. in chemical engineering at the University of Michigan. Robert conducts research in renewable energy technologies and credits YES with teaching him about the importance of assessing the health impact of energy use.

To read about other YES-Alumni go to:

http://www.collegeboard.com/yes/news/where_are_they.html

