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www.community.harvard.edu



Staff Photo Rose Lincoln/Harvard University News Office

Former Harvard student Theo Shybut measures the weight, height, flexibility and endurance of kids like Anthony Vargas as a part of Fitnut, a nutrition and fitness program run by Harvard students that is part of Project Health.

Harvard Medical School students help local kids grow up healthy

Discovery. Curiosity. Exploration. Young girls and boys in Boston are learning about science and medicine by working with Harvard Medical School (HMS) student volunteers who are giving their time and expertise at a neighborhood youth center.

Prevention NOW!, based in Jamaica Plain, provides educational, social, and recreational programming for neighborhood children after school and during the summer. HMS students have founded three programs with the organization, designed to help kids realize that a career in science is something they can achieve.

At Girl Power, where medical and dental students have volunteered since 1999, girls ages 10 through 12 who attend the Hennigan Elementary School in Jamaica Plain are learning basic science concepts and gaining valuable insights. Girls

(continued on page 2)



Staff Photo Rose Lincoln/Harvard University News Office

Brigham and Women's Hospital-based Harvard Professor I-Min Lee's study has shown that exercising, quitting smoking and eating right can add years to your life. This is one of hundreds of Harvard studies helping us understand human health.

Making medical history here

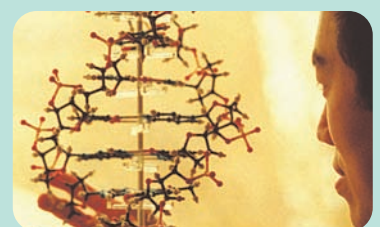
Harvard discoveries help your health — and that of millions of others — every day

The only place you're likely to hear about smallpox today is in a scary movie about bioterrorism. But the scourge was all too real for thousands of years; the most common form of smallpox killed 30 percent of its victims. The cure – vaccination – was discovered by Englishman Edward Jenner in 1798. Less than two years later, Harvard Medical School Professor Benjamin Waterhouse introduced smallpox vaccinations to the United States, using his own son as a test subject to prove the new medicine's reliability to a doubting public. Waterhouse and the other doctors who started Harvard Medical School in 1782 pioneered what is now a two-century-old quest to alleviate human suffering caused by disease.

Researchers at the Medical School, the Harvard School of Public Health and the Harvard School of Dental Medicine have directly impacted the lives of millions of people. Certainly you, or someone you know, has been affected by breakthroughs originated by Harvard researchers, such as the basic blood test, the introduction of insulin to treat diabetes, the first successful kidney transplant, the development of artificial skin, the external cardiac pacemaker and the first defibrillator, and the first successful use of chemotherapy to put leukemia into remission. Today thousands of Harvard researchers are making discoveries such as:

- A new protein that could lead to effective new drugs against obesity.
- Identified seven genetic risk factors that predict risk for prostate cancer.
- The replacement of dead and dying cells in the brains of adult mice with embryonic stem cells.
- The development of an experimental cancer vaccine that destroyed 80 percent of tumors in test patients with a deadly skin cancer.

Learn more about how Harvard research is improving health around the globe and in your community by visiting www.researchmatters.harvard.edu.



• www.community.harvard.edu •

Helping kids *(cont.)*

Achieving in Life and Science (GALS), was formed to meet the needs of younger girls, ages 9 and 10. On Friday afternoons the HMS students and the girls meet to work on fun, challenging science experiments and projects, like using Jell-O to recreate blood cells. The medical students not only answer lots of questions, but are role models, offering real-life examples of women pursuing exciting careers in science and medicine.

Science Savvy, a one-week camp, is taught by first-year students and led by medical students. Science Savvy made its debut last year with nearly four dozen boys and girls from the Prevention NOW! program.

These young campers get broad exposure to the sciences, focusing on chemistry, earth and planetary sciences, and biology and health. In conversations with families and friends the Science Savvy campers discuss their projects involving fossils and rockets and share what they have learned about science.

<http://hms.harvard.edu/hms/>



Staff Photo Rose Lincoln/Harvard University News Office

Dimock Early Head Start teacher Norma Suarez massages the toes of her young charge, while Harvard Medical School students measure the child's height. The child was being weighed and measured as part of FUNC, a program that introduces Harvard Medical School students to community service.

Free dental care program helps youth and families in need

Imagine you're a teenager living on the streets, or close to it: homeless, runaway, at-risk. Dental care isn't likely to be high on your priority list – if you could afford it, and if you knew where to get it. But healthy teeth and gums are crucial to overall health.

Harvard Dental School students and faculty have been stepping into the gap, providing free dental care to more than 400 low-income patients every year through Project Bridge, a collaboration between Harvard and Bridge Over Troubled Waters Inc., a local organization that provides assistance to youth in need.

Dental students and faculty provide comprehensive dental care, everything from preventive treatments to surgery. They also teach their patients about general health, oral health, nutrition, and careers in health and dentistry.

"They are receptive," said Dr. Jarshen Lin, the

program's faculty adviser. "They want to take care of themselves but just don't have the knowledge."

"Many of the young mothers are appreciative to learn more about how to maintain their children's oral health," said Anne Mullin-Kuczma, student co-director of Project Bridge. "They are often surprised to hear that their oral health can affect the oral health of their children by transmitting the bacteria that causes dental decay."

Lin said the student and faculty volunteers devote many hours every week to helping their young patients not for school credit or to polish resumes, but because they care about their patients as people. "We want the best for our community," Lin said.

The American Dental Association recognized Project Bridge with its 2005 Community Preventive Dentistry Award.

<http://focus.hms.harvard.edu/>

Did You Know?

Each year, more than 500 graduate students at Harvard's Medical School, Dental School and School of Public Health volunteer over 144,000 hours to help people in Greater Boston. This is equivalent to 72 people working full time, five days a week!

World-class learning opportunities for local teens



Dr. Joan Reede is Dean for Diversity and Community Partnership at Harvard Medical School. "We want local teens to think outside of the box," said Reede. "To believe in themselves, and know that becoming a doctor or scientist is more than just a dream, it can be their future."

Every year, about 800 Boston and Cambridge teens get the chance to do what no other teens in the world can do: learn about health and science at Harvard Medical School. The opportunities range from daylong science excursions, to after-school mentoring programs, to paid summer internships in Harvard labs.

"What we're trying to do is identify, recruit and nurture talented Boston and Cambridge students interested in science," said Dr. Joan Reede, Dean for Diversity and Community Partnership at Harvard Medical School.

This nurturing starts with hands-on programs that introduce science to middle schoolers and continues by offering more in-depth opportunities through the high school years.

The ultimate goal, Dr. Reede said, is to build better communities by educating and mentoring local teens so that they can then use their knowledge to help their families, their peers, and eventually their own children.

"We want local teens to think outside of the box, to believe in themselves, and know that becoming a doctor or scientist is more than just a dream, it can be their future," said Reede.

<http://www.hms.harvard.edu/dcp>

Photo by Jeff Thiebaut

Harvard helps children and their families eat right and keep fit:

HSPH takes on the child obesity epidemic

In a bid to stop the epidemic of childhood obesity, Harvard School of Public Health researchers aim to change how American kids eat, play and live, especially in low-income, urban areas. At YMCAs in over two dozen cities, they're testing an after-school exercise and nutrition program with help from several thousand children in grades K-6. The program is based on Planet Health, a health curriculum developed by the researchers that's been proven to decrease obesity and eating disorders among girls.

Already adopted by more than 100 Massachusetts schools, Planet Health stresses five simple messages: reduce television viewing, eat more fruits and vegetables, eat less unhealthy fat, drink fewer sugary beverages, and exercise more. The key, says lead researcher Jean Weicha, is to get kids and their families involved so that they keep practicing healthy behaviors. She hopes programs like the Y's will spread across the country, becoming part of everyday life for future generations.

www.hsph.harvard.edu/review

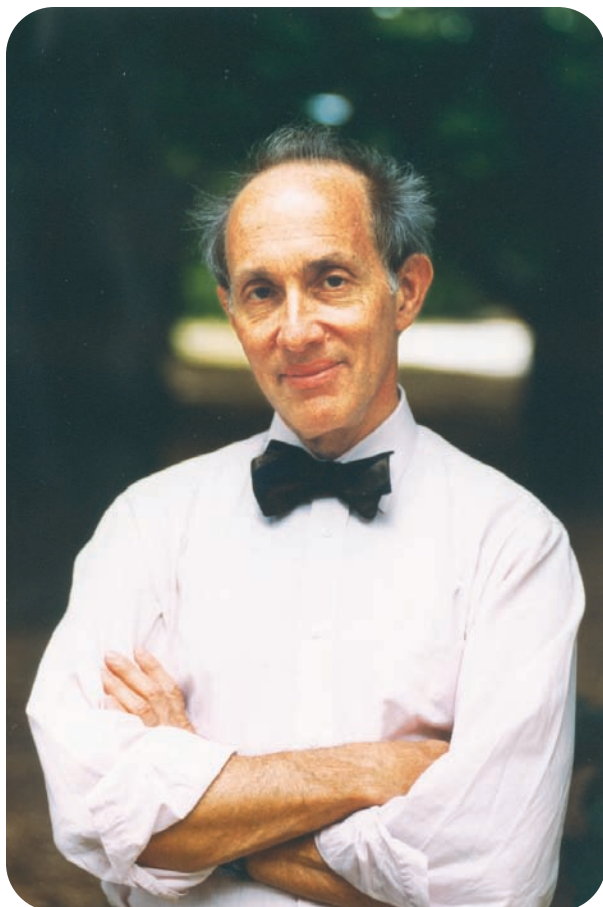


Tips for getting exercise into your life:

- 1 Get off a stop or two earlier during your bus or subway commute; walk the rest of the way.
- 2 Purposefully park your car further away. It may not seem like much, but over weeks and months, these minutes of exercise add up.
- 3 Use the stairs instead of elevators and escalators whenever possible.
- 4 Make it social. Walk with a friend, your spouse, or your family in the morning or evening.
- 5 Take a walk for 20 minutes of your lunch hour.
- 6 Some studies show that walking briskly for even one to two hours a week (15 to 20 minutes a day) starts to decrease the chances of having a heart attack or stroke, developing diabetes, or dying prematurely.
- 7 Make it fun! Try a new sport. The more that you enjoy exercise the more likely you are to stick to it.
- 8 Keep an exercise log. It will help to make you more accountable.

For more Harvard health resources, see back page! www.hsph.harvard.edu

The environment: *Impact it before it impacts you*



Nobel Prize winner Dr. Eric Chivian is among the researchers helping to advance the understanding of the health impacts of global change.

Dr. Eric Chivian believes that doctors should do more than treat individuals — he says they have a responsibility to address catastrophes that could impact people everywhere. That's why he founded the Center for Health and the Global Environment at Harvard Medical School.

"We felt it was critically important for there to be a center in an academic medical setting that looked at the potential human health impacts of changes to the global environment," Chivian says. "Although we do research, our main mission is to translate the science of the potential impacts into language that the public and policy-makers can understand."

And that message is troubling. Global warming will lead to more heat waves in urban areas causing sickness in infants and the elderly. It will also devastate agricultural crops and livestock. The poor will suffer the most because they do not have the money or infrastructure to adapt to droughts or famine. Tropical storms in the Atlantic Ocean and the Gulf will increase in frequency and intensity due to global warming.

But there are things we can do about it. "The

United States makes up about 4 percent of the world's population and we create approximately 25 percent of the greenhouse gases that cause global warming," Chivian says.

"We are wasting energy, materials, and resources by driving cars and living in houses that are much bigger than we need. Efficiency is something that we can do — and should do — to drastically reduce the amount of greenhouse gases."

Besides forgoing SUVs and big houses, people can reduce energy use by buying locally grown food. "In the fall, why do we have apples being imported from Washington state and even more faraway places when New England has a huge apple industry and grows some of the best apples in the world?" Chivian says.

Though catastrophes arising from global warming are alarming, Chivian points out that we control the future, as much through our individual actions as do industries and governments. If each of us takes a stand to be more environmentally responsible, the whole world will benefit.

<http://chge.med.harvard.edu>

Healthy Oceans, Healthy Humans:

Watch a web-based video narrated by Meryl Streep about protecting the oceans.

<http://chge.med.harvard.edu/education/public/healthyoceans/index.html>



Harvard Health Resources



medical & science research



Learn how Harvard research matters to you by accessing the resources listed below:

Research Matters is the public entry to the latest news about medical treatments, societal research, basic science, technological advances, and earth and space exploration for the non-specialist.
www.researchmatters.harvard.edu

Labworks offers multimedia presentations of current Harvard Medical School research on topics such as diabetes, hearing and controlling infection.
<http://labworks.hms.harvard.edu/index.html>

Research Roundup contains links to recent articles from the Harvard Medical School web site home page.
<http://hms.harvard.edu/public/roundup/Roundup.html>

Science in the News is a free seminar series conducted by Harvard Medical School students.
www.hms.harvard.edu/sitn/

SITNFlash is a monthly source for research updates and information on recent high profile science issues that arise throughout the year.
www.hms.harvard.edu/sitn/

The Longwood Seminars at Harvard Medical School offer a series of four free "Mini-Med School" classes for the general public in the heart of Boston's Longwood Medical Area.
www.hms.harvard.edu/longwood_seminars/



global health

Harvard has a variety of online resources on the environment and public health that can inform the general public and provide important current data for students and teachers:

The Center for Health and the Global Environment works to expand environmental education at medical schools and to further promote awareness of the human health consequences of global environmental change.
<http://chge.med.harvard.edu/publications/>

Teachers can learn more about how to incorporate emerging environmental concepts in their teaching by tapping a resource based on the **Harvard Medical School course Human Health and Global Environmental Change**.
<http://chge.med.harvard.edu/about/index.html>

Calendar of Upcoming Events

Earth Day: It's about Ocean Life, Too!
Sunday, April 22, 2PM
Harvard Museum of Natural History program designed for middle-school age children and their families.
Free with Museum Admission.
617-495-3045

Sex, Drugs, and Natural Selection: The Evolution of Antibiotic Resistance
Thursday, May 3, 6PM
Lecture by Marc Lipsitch at the Harvard Museum of Natural History.
Free and open to the public.
617-495-3045

Climate Change: Our Global Experiment
Ongoing Exhibit
An insider's look at the scientific study of climate, presenting the latest research from renowned experts at Harvard and around the world at the Harvard Museum of Natural History.
617-495-3045



Staff Photo Kris Stribbe/Harvard University News Office

Tell us what you think!
email us:
community@harvard.edu

health & nutrition



Harvard has many resources designed to help people learn about nutrition and how to stay healthy:

The Nutrition Source contains the latest science about health and nutrition, tips for healthy eating and dispels some nutrition myths.
www.hsph.harvard.edu/nutritionsource/

Consumer Information at the Harvard Medical School provides health and research information from Harvard medical faculty.
<http://hms.harvard.edu/public/consumer/consumer.html>

Focus Online contains news from the Harvard Medical School, Dental School, and School of Public Health.
www.focus.hms.harvard.edu/

Your Disease Risk from the Harvard Center for Cancer Prevention at Harvard School of Public Health collects the latest scientific evidence on disease risk factors into one easy-to-use tool.
<http://hsph.harvard.edu/cancer/>

HealthBeat contains health information and tips for healthy living from the editors of Harvard Medical School's health newsletters.
www.health.harvard.edu/healthbeat/Subscribe.htm