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Design supports latest technologies

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Young patients hit the dance floor

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SUMMER 2010

Stanford Medicine News

UPDATES
FOR THE
LOCAL
COMMUNITY

STANFORD HOSPITAL & CLINICS | LUCILE PACKARD CHILDREN'S HOSPITAL | STANFORD UNIVERSITY SCHOOL OF MEDICINE

Genome analyzed for disease risk

For the first time, researchers have used a healthy person's complete genome sequence to predict his risk for dozens of diseases and how he will respond to common medications. Combined with traditional medical information, the cumulative risk report may catapult the use of such data into physician exam rooms within the next decade, say the scientists.

"We're at the dawn of a new age in genomics," said Stephen Quake, PhD, the Lee Otterson Professor of Bioengineering. "Information like this will enable doctors to deliver personalized health care like never before. Patients at risk for certain diseases will receive closer monitoring, while others will be spared unnecessary tests. This will have important economic benefits as well, because it improves the efficiency of medicine."

Quake made national headlines last August when he used a technology he helped invent to sequence his own genome, which was analyzed in this study.

"Patients, doctors and geneticists are about to be hit by a tsunami of genome sequence data. We need to start thinking—hard and soon—about how to deal with that information," said Hank Greely, JD, director of Stanford's Center for Law and the Biosciences.

Did you know?

The human brain is 80 percent water.

Online Outreach

John Morton, MD, created a Facebook group to help his bariatric surgery patients share insights and discuss concerns.



Medical center connects with tweets, blogs and posts

From the Library of Congress' recent acquisition of all public tweets to the election of President Obama, social media—sites such as Facebook, YouTube and Twitter—have transformed elections, media consumption and even how doctors and hospitals communicate with patients.

While the use of social media has advanced at a less frenetic pace in medicine, an increasing number of medical centers, including Stanford, are leveraging these tools to educate patients or connect them to support groups.

"If you look at the numbers over the last year, there was a big increase in the adoption of social media," said Bryan Vartabedian, MD, an assistant professor at Baylor College of Medicine and author of the 33 Charts medical blog (www.33charts.com). "Social media use is going to continue to climb, and we're probably going to see more real dialog as opposed to one-way communication."

More than 83 percent of all adults in the United States now look for medical information on the Internet, according to the Pew Internet & American Life Project. Most are researching a specific disease, a treatment or even a new

exercise regimen. One-third of American adults have used social media in regard to health, and those adults are more likely to use social media in general, the Pew researchers found.

The interest in health-related social media has not been lost on hospitals and health-care providers. About 600 hospitals produce some 280 YouTube channels, 382 Facebook pages, 470 Twitter accounts and 82 blogs, according to Found in Cache, a blog by Edward Bennett, the director of Web strategy at the University of Maryland Medical System.

Lucile Packard Children's Hospital was one of the first children's hospitals in the country to launch a Facebook fan page and to create a dedicated YouTube channel, which now carries 95 videos ranging from online lectures on eating disorders to patient testimonials.

"Having a video component to help tell the story of your work certainly adds a dynamic that goes way beyond a traditional Web page," said Sarah Staley, Packard Children's director of news and communications.

SEE SOCIAL MEDIA ON PAGE 5



"I strongly doubt that chocolate either induces depression or interferes with recovery from depression. This would long ago have become obvious given the ubiquitous use of the substance over the last 500 years."

—LORRIN KORAN, MD, professor emeritus of psychiatry and behavioral sciences, on new research showing that people battling depression tend to eat more chocolate than nondepressed people. *April 26*



"It's the lowest rate ever observed in a children's hospital. It begs the question: How many lives could be rescued on a national level?"

—CHRISTOPHER LONGHURST, MD, medical director of clinical informatics at Lucile Packard Children's Hospital, on research showing that a significant decrease in hospital-wide mortality rates can be associated with use of a computerized physician order-entry system. *May 3*



"In some ways, it's good we don't remember our dreams very well. You'd constantly be saying, 'Did that happen, or was it a dream?'"

—WILLIAM DEMENT, MD, PhD, the Lowell W. and Josephine Q. Berry Professor of Psychiatry and Behavioral Sciences, on how the continuity of real-life experiences helps you to distinguish between waking life and the dream world. *May 5*



"Lots of people are frustrated because they went on the same diet that their friend went on, and their friend lost more weight than they did. Hopefully this study will explain part of that."

—CHRISTOPHER GARDNER, PhD, associate professor of medicine at the Stanford Prevention Research Center, on a Stanford study suggesting that a genetic test can tell which diet is best suited for individual weight loss. *May 6*

Back to the bedside

A renewed focus on the practice of physical exams

"What do you notice about this patient?" Abraham Verghese, MD, asked the four students as he nudged them closer to the bed. The patient, a 44-year-old woman, smoothed her blondish hair and adjusted her hospital gown to cover herself.

Well, her sclera (the whites of her eyes) look a bit yellow, one volunteered. Verghese, a professor of medicine, nodded. He gently picked up the patient's hand and pointed to a curious pattern on her palm—*islands of intense redness on a background of pale white skin.* "That's palmar erythema," he said.

He helped a student locate a distinct raised and thickened tendon in the palm, a condition called Dupuytren's contracture, which occurs in patients with liver disease. Next he noted that the patient's pulse could be felt by holding the wrist as if trying to pull her up; the forceful beat is known as a "bounding" pulse, a sign of a wide pulse pressure that can occur with liver dysfunction.

These are common observations, Verghese said later, and though students may know about them in theory, they may not have observed them in practice.

The professor, with the patient's permission, exposed the skin just under the collarbones, revealing red, star-shaped markings—*spider angiomas fanning out like the threads of a spider web.* The students leaned in to glimpse the unusual blood vessel patterns, which they had never seen before.

These and a host of other findings are classic signs of liver disease, said Verghese, the senior associate chair for the theory and practice of medicine.

"It would be unfortunate to use technology to tell us something that's clear on the first blush," he told the trainees. "That's why this bedside practice is so useful. It helps us ask better questions of the tests we order."

Bedside interactions

These weekly bedside teaching sessions are part of an effort by the Department of Medicine to resuscitate the vanishing art of the bedside exam. As doctors increasingly rely on imaging and other new technologies, they have strayed away from the practice of diagnosing disease on the basis of a physical exam.

What has been lost in the process, Verghese said, is not only the time-honored, meaningful ritual of the doctor-patient encounter, which can be therapeutic in itself, but critical information about the patient's condition, which may be apparent days before a test (if ordered) reveals the same result.

Verghese, who considers the skilled exam a form of basic medical literacy, has made it his mission to revive the use of the physical exam nationwide. He credits Ralph Horwitz, MD, professor and chair of the Department of Medicine, who recruited him to Stanford three years ago, for giving momentum to the effort to help reshape the way medicine is practiced.

"We order tests so easily because, as my colleague [health economist] Alan Garber, MD, PhD, has said, our health care system feels like a 'menu without prices'—we can order filet mignon every night. No one really stops to consider what a test costs or who is paying," Verghese said. Reversing the trend is a daunting challenge, but he believes no effort is more important for medicine's future.

"We make huge errors of oversight because certain conditions are staring us in the face—and we miss them," he said.

Tools of the trade

After Verghese's arrival at Stanford in 2007, he and Horwitz introduced the Stanford 25, an immensely popular "grand experiment" in which trainees in internal medicine receive focused instruction on 25 essential exam skills.

Each monthly session, part of the required curriculum, focuses on a single bedside diag-

nostic technique and what it can reveal. Sessions include examination of the thyroid, liver, spleen, neck veins, pupils, lungs and other organs.

Verghese uses real patients and standardized patients (actors) for some sessions, and occasionally students practice on each other. All trainees have been taught these techniques or know them in theory, he said, but the sessions emphasize hands-on practice.

Verghese also organized a national conference, the first Symposium on the Bedside Exam, at Stanford last fall, bringing together approximately 40 master clinicians from around the country who are interested in rejuvenating bedside skills.

Speaking nationally on the issue, he has struck a chord. More than 1,000 physician educators attended a talk on the bedside exam at the annual meeting of the Association of American Medical Colleges last November.

"I was mobbed by people wanting more details," Verghese said. "The irony is that these skills have been around for at least a hundred years. The problem is that they have fallen into disuse." ■



Abraham Verghese, MD

"It would be unfortunate to use technology to tell us something that's clear on the first blush."

The transformation of the traditional operating room

As minimally invasive surgical procedures increasingly involve smaller incisions, shorter recovery times and less blood loss, hospitals are being dramatically redesigned to support new techniques and technologies.

“I don’t think we’re going to hear the words ‘operating room’ anymore,” said Ronald Dalman, MD, chief of vascular surgery at Stanford Hospital & Clinics. “A different terminology will be required, and ‘interventional platform’ is probably the best we’ve got to date.”

In plans for the rebuilt Stanford Hospital, which is projected to open by the end of the decade, the entire second floor will be configured as an interventional platform. At

Lucile Packard Children’s Hospital, new surgical and imaging suites will be known collectively as the “diagnostic and treatment center.”

“It’s the inevitable consequence of continuous miniaturization and remote monitoring,” Dalman said. “Basically, all procedures, regardless of who’s performing them and where they’re being performed, are headed in a similar direction.”

Combined expertise

Physicians from four medical specialties that have developed independently—interventional imaging, angiography, cardiac catheterization and surgery—all will work together side by side in these new facilities.

Dalman recalled a recent complex procedure that required collaboration among teams of vascular surgeons and cardiac surgeons, with help from imaging specialists. The case involved a patient with a thoracic aortic aneurysm, a weakness in the aorta, the main blood vessel supplying blood to the body.

Physicians opened the patient’s chest, repaired the vessels at the base of the heart, and then inserted an image-guided endograft, a fabric-covered metallic stent. Having specialized imaging technology and diverse experts on hand was critical to the operation, he said.

“It’s kind of a metaphor for the new interventional platform, where the operating suite has imaging equipment and the imaging facility works at operating-room standards,” Dalman said.

Design process

Dalman is in a group led by George Tingwald, MD,



Stanford Hospital’s new hybrid room brings powerful imaging technologies into the operating room as a way to streamline combined specialties in minimally invasive procedures.

director of medical planning for the hospital renewal project, that is designing the new platform.

“We all came to this idea with our own expectations,” Dalman said. “The cardiologists wanted X, and the interventional radiologists wanted Y. All of us have bought into this vision of a single-management paradigm. We now share a single expectation of how procedures are conducted and how patients are checked in and monitored.”

He credits Tingwald with recognizing the potential of an interventional platform. “He has a lot of experience with what other hospitals are doing, and when we talk about what we want, he leavens the discussion by saying, ‘That was tried and didn’t work.’”

Tingwald says hospitals nationwide are facing a new reality: Operating rooms and catheterization labs typically are rebuilt every 20 years, but the procedures performed in them change every two to three years.

“So do you build operating rooms that you know are going to become obsolete? Or do you build additional ‘cath’ labs because you know those procedures are going to increase? Or do you put them together in a space that allows for flexibility—where future technology can happen?” Tingwald said. “It sounds so simple, but it’s a profound change in how we build and operate facilities.”

Adaptability and safety

The Packard Children’s diagnostic and treatment center will include four new surgical and imaging suites. One will be designed specifically for neurologic cases, and two will house nuclear

medicine technologies. There also will be four new rooms that can accommodate interventional radiology technology and catheterization procedures. All of the suites will be at least 600 square feet and will be equipped with voice-activated machines, 52-inch high-definition monitors and videoconferencing capabilities. Imaging systems, including a new MRI, PET scan and image-guided CT, will augment the technologies, which will be continuously updated.

Plans for the adult hospital call for 28 “flexible rooms” of about 1,000 square feet each, in contrast with the 700-square-foot operating rooms in the current configuration. These rooms will be big enough to accommodate endoscopic and imaging equipment, lighting booms and the huge consoles of the da Vinci robotic surgery system.

“The way the platform is designed, every room is identical in terms of size and layout,” Dalman said. “That facilitates safety because if there’s an emergency, whether you’re in room 2 or room 22, everything will be in the same place.”

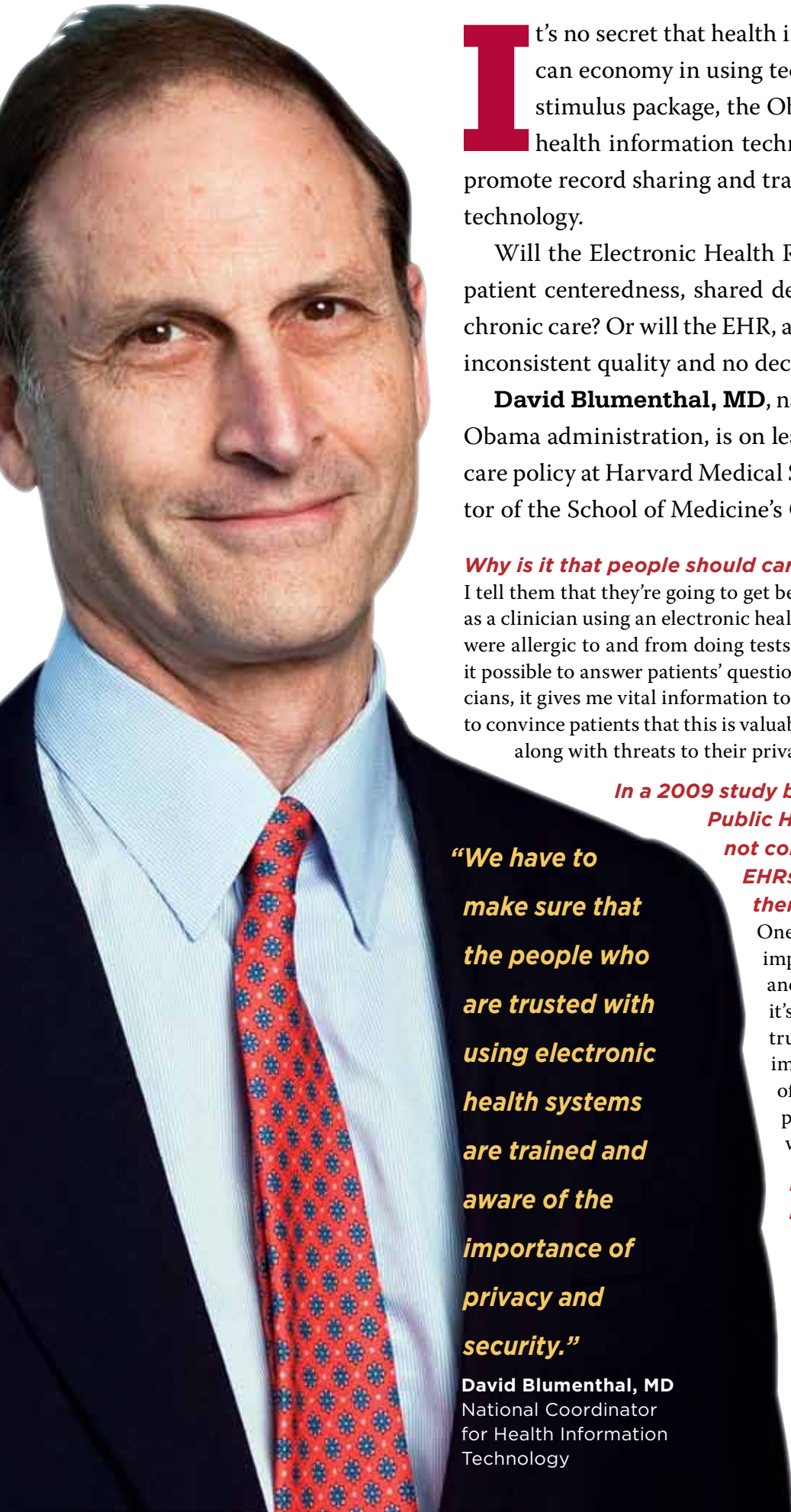
A hybrid room—an operating suite with imaging capability—opened in the hospital this spring. Surgeons and interventional radiologists say it will give them a head start in developing the collaboration that will be required in the future rooms.

“By the time we actually move into the new facility, everyone will be on the same team, working with the same guidelines,” Dalman said. [▶](#)

For more information about the plans for the medical center, see the project’s Web site at stanfordpackard.org.

Plugging in to the Electronic Health Record

Information technology designed to enhance patient care and safety



It's no secret that health institutions seriously lag behind other sectors of the American economy in using technology for everyday transactions. Through the economic stimulus package, the Obama administration has allocated \$19.2 billion to improve health information technology. The funds will be used to upgrade patient records, promote record sharing and train people for careers in health care and health information technology.

Will the Electronic Health Record do what its supporters contend: create a new era of patient centeredness, shared decision making, better disease management and improved chronic care? Or will the EHR, as it is commonly known, lead to less efficiency, greater costs, inconsistent quality and no decline in medical malpractice suits?

David Blumenthal, MD, national coordinator for health information technology in the Obama administration, is on leave from his position as a professor of medicine and health care policy at Harvard Medical School. He was interviewed recently by Paul Costello, director of the School of Medicine's Office of Communication & Public Affairs.

Why is it that people should care that their physician uses Electronic Health Records?

I tell them that they're going to get better care. And I can illustrate it with stories from my own experience as a clinician using an electronic health system. It's prevented me from giving medications that my patients were allergic to and from doing tests that were duplicative; it's given me access to information that makes it possible to answer patients' questions when they want the information. When I'm on call for other physicians, it gives me vital information to make better decisions in emergency situations. I don't think you have to convince patients that this is valuable. There are some who are worried about whether the value will come along with threats to their privacy. But the value, I think, is readily apparent to most patients.

In a 2009 study by the Kaiser Family Foundation and Harvard School of Public Health, 59 percent of the respondents said that they were not confident about privacy issues. Do you believe that once EHRs are commonplace and people become comfortable with them, that number will dramatically change?

One of our major goals at the Office of the National Coordinator is to improve people's confidence in electronic health records and the privacy and security of their information. To do that, we have to make sure that it's easy to keep information confidential and that the people who are trusted with using electronic health systems are trained and aware of the importance of privacy and security, and also aware of the consequences of failing to protect it. So, yes, I think, when these systems become more prevalent, the emphasis on privacy and security will grow and people will become more aware of it.

I'm curious why, in your mind, health care has been such a laggard—light years behind corporate America and business in using technology in the workplace?

There are a lot of reasons for that. One is that the incentives are not lined up correctly to reward performance. People get paid just as well for delivering care that is inefficient or unsafe as they do for care that is efficient and safe. There isn't an enormous amount of benefit to improving performance in our current health system. The money

"We have to make sure that the people who are trusted with using electronic health systems are trained and aware of the importance of privacy and security."

David Blumenthal, MD
National Coordinator
for Health Information
Technology

Educating the public

Although Vartabedian said using social media to discuss specific patient cases isn't appropriate, he points out that social media have many properties that give them considerable educational potential. "Sharing links, discussing research developments and information gathering are all great ways to use social media in medicine in a general way," he said.

That is just how John Morton, MD, an associate professor of surgery, is using a Facebook group to help his bariatric surgery patients. "We started the group to raise awareness about the clinic and give our patients a forum for discussion," Morton said. "The patients act as educators for each other. We're taking advantage of their collective wisdom."

Over the past two years, Stanford's School of Medicine has been actively developing a variety of social media to educate the public about the school's faculty and innovations, underscore the importance of biomedical research, and provide access to high-quality medical and scientific information. Its core projects include the following:

- **Scope medical blog (scopeblog.stanford.edu)**—Scope was created to provide the public with accurate, engaging coverage of scientific and medical developments at Stanford and around the world. Scope was recently named "Best New Medical Blog" in a national medical blog competition, and its entries have been featured in *The New York Times*, in the popular Boing Boing blog, and in other scientific and medical forums.
- **The @sumedicine Twitter feed (twitter.com/SUMedicine)**—The medical school's Twitter feed provides more than 1,200 users with timely news and conversation about the school and its community.



- **A Facebook fan page (facebook.com/stanfordmedicine)**—The medical school's Facebook fan page, which has more than 2,300 fans, attracts an audience primarily interested in pursuing or developing a career in medicine. The page posts regular updates on scientific and medical discoveries, as well as relevant health-related news items.
- **A Flickr photo stream (flickr.com/photos/stanfordmedicine)**—The Stanford Medicine Flickr photo stream displays the medical school's imaging research programs and image collections. The Flickr collection has been viewed more than 329,000 times, and images have been featured in *The New York Times*, on the Discovery Channel and on scores of blogs.

Reaching out to families

When Packard Children's jumped into the world of Facebook (facebook.com/packardchildrens) in late summer 2008, there were skeptics. "Some people wondered if Facebook was an appropriate tool for hospital marketing and awareness," said Staley, the hospital's news and communications director. "However, we were quickly able to affirm that Facebook was a complement to our more traditional methods of providing information to families."

At the time, there were fewer than 10 children's hospitals in the country using the tool. Now, there are 60. "It's really become an important and expected way of creating regular engagement with our families," Staley said.

The hospital recently posted a Facebook item on the first anniversary of its cardiac intensive care unit. The news received 12,000 Facebook impressions around the country within three days, Staley said. Through Facebook, the hospital not only has shared important information about its clinics, research and staff, but also has helped families with appointments and even hospital parking issues.

"If there is important news that we need to spread right away, within



seconds we can update our Facebook page and send an update to all our fans," Staley said.

Packard Children's was one of the first children's hospitals to create a dedicated YouTube channel (youtube.com/PackardChildrensHosp) and has more than 800 followers on Twitter (twitter.com/packardhospital).

"Social media are an increasingly important component of our overall hospital's engagement with patient families," Staley said. "You never know what might resonate."

For example, a video of a visit by officials from the American Academy of Pediatrics to Packard Children's Advanced Pediatric and Perinatal Education Center garnered almost 5,500 views, she said.

Making connections

Stanford Hospital's debut in social media came in the fall of 2009 with a Facebook fan page (facebook.com/stanfordhospital), recently named one of the best hospital pages in the country by AlertPresence.com, an Internet marketing blog. Since then, its fan base has grown to more than 2,200 members, making it one of the most popular Facebook pages among adult hospitals nationwide.

"Social media allow us to connect with people in an innovative way that immediately bridges distances," said Gary Migdol, the hospital's director of communications. "Through sites like Facebook, we can now have a dialogue with our fans and provide valuable health information that can be shared with online friends with the click of a mouse. It's very powerful."

Through the hospital's Facebook page, patients are able to share experiences and offer advice to other patients. "We've had heartfelt comments from former patients and physicians answering health-related questions. It's opened the door to a very positive and productive conversation," said Migdol.

The hospital also launched a Twitter page (twitter.com/stanfordhosp) that currently has more than 1,300 followers and a YouTube channel (youtube.com/stanfordhospital) that has logged more than 30,000 views of its online videos.

While hundreds of people received a free skin cancer screening at the Stanford Medicine Outpatient Center recently, thousands more who couldn't visit the clinic were able to connect to Stanford physicians through the hospital's social media networks. A video was posted to the hospital's Facebook, Twitter and YouTube pages that featured questions from the public and answers by Stanford's team of skin cancer specialists.

In addition to providing a communications tool that extends beyond the reach of traditional media, Stanford Hospital's social media sites have been used to provide timely information during the recent H1N1 flu crisis and a citywide power outage that affected hospital operations.

"More and more people are getting their news and information from social media sites," said Migdol. "It's a part of our mainstream culture and is an invaluable asset when information needs to be disseminated quickly."

He noted that social media sites also can be entertaining. For instance, one of the most popular pieces was a video of the canine helpers from PAWS (Pet Assisted Wellness Program at Stanford), the dogs who visit patients in the hospital. "The PAWS dogs bring a smile to everyone. They were a viral hit," he said. [SMU](http://www.stanford.edu)

LEARN MORE ABOUT YOUR HEALTH

EVENTS ARE FREE UNLESS OTHERWISE NOTED. SPACE MAY BE LIMITED, SO PLEASE CALL TO REGISTER IN ADVANCE.

Basic Health Screening

Stanford Hospital & Clinics Primary Health Group will conduct screenings for blood pressure, BMI and blood sugar. Informational handouts will be available, and Stanford faculty physicians will be on hand to answer general questions. It is recommended to come without having eaten. First come, first served—there is no registration for this event.

DATE: Saturday, June 26, 9 am–noon

LOCATION: Stanford Health Library, Oshman Family Jewish Community Center, 3921 Fabian Way, Palo Alto

For more information, call 650-498-7826.

Stem Cells and the Future of Regenerative Medicine

Sponsored by the Office of Science Outreach and Stanford Continuing Studies

A brief overview of the discoveries and controversies of stem cells

SPEAKER: Jill Helms, PhD, DDS

Associate Professor, Division of Plastic Surgery

DATE: Thursday, July 1, at 7 pm

LOCATION: Lawn adjacent to Stanford's Cantor Arts Center

Part of the Summer Science Lecture Series. For more information, contact 650-724-4332.

Keeping the Pressure Low

Presented by Stanford Health Library

Controlling high blood pressure with treatments and lifestyle changes

SPEAKER: Nawal Atwan, MD

Clinical Instructor of Medicine

DATE: Thursday, July 8, at 7 pm

LOCATION: Stanford Health Library, Oshman Family Jewish Community Center, 3921 Fabian Way, Palo Alto

To register, call 650-498-7826.

How Are Drugs Developed and Why Is It So Expensive?

Sponsored by the Office of Science Outreach and Stanford Continuing Studies

An explanation of the process of drug discovery and development

SPEAKER: Daria Mochly-Rosen, PhD

Professor, Chemical and Systems Biology

DATE: Thursday, July 15, at 7 pm

LOCATION: Lawn adjacent to Stanford's Cantor Arts Center

Part of the Summer Science Lecture Series. For more information, contact 650-724-4332.



Comfort Techniques for Labor Class

Presented by Lucile Packard Children's Hospital

For first- and second-time expectant parents to learn and practice relaxation and breathing techniques used in labor

DATE: Saturday, July 10, 1:30–3 pm

LOCATION: Perinatal Education Classroom, P140, 1520 Page Mill Road, Palo Alto

Attendance fee. To register, call 650-723-4600 or visit birthclasses.lpch.org.

No Sweets for the Sweet

Presented by Stanford Health Library

The positive effects that lifestyle changes can have on diabetes

SPEAKER: Julieta Gabiola, MD

Clinical Associate Professor of Medicine

DATE: Thursday, July 15, at 7 pm

LOCATION: Stanford Health Library, Oshman Family Jewish Community Center, 3921 Fabian Way, Palo Alto

To register, call 650-498-7826.

Multiples Seminars

Presented by Lucile Packard Children's Hospital

Classes designed for parents expecting twins or more

Multiples Breastfeeding

DATE: Thursday, July 15, 7–9 pm

Preparing for Multiples

DATE: Sunday, July 18, 12:30–5 pm

LOCATION: Perinatal Education Classroom, P140, 1520 Page Mill Road, Palo Alto

Attendance fee. To register, call 650-723-4600 or visit birthclasses.lpch.org.

Sibling Preparation Class

Presented by Packard Children's Hospital

A class for children 2 years and older that includes an art project, a safety game and role-playing with infant dolls. Each child receives a T-shirt.

DATE: Saturday, July 17, 10:30 am–noon

LOCATION: Packard Children's Hospital Board Room, 725 Welch Road, Palo Alto

Attendance fee. To register, call 650-723-4600 or visit birthclasses.lpch.org.

Stopping Colds Cold

Presented by Stanford Health Library

Respiratory infectious diseases and the effect of vaccinations, supplements, hygiene and antibiotics

SPEAKER: Bryant Lin, MD

Clinical Assistant Professor of Medicine

DATE: Thursday, July 22, at 7 pm

LOCATION: Stanford Health Library, Oshman Family Jewish Community Center, 3921 Fabian Way, PA

To register, call 650-498-7826.

Grandparents Seminar

Presented by Lucile Packard Children's Hospital

An update for new and expectant grandparents on changes in obstetrical and newborn and infant care

DATE: Saturday, July 24, 1:30–4 pm

LOCATION: Perinatal Education Classroom, P140, 1520 Page Mill Road, Palo Alto

Attendance fee. To register, call 650-723-4600 or visit birthclasses.lpch.org.

Health Library opens two new branches

The Stanford Hospital Health Library has expanded with two new branches: one at the Oshman Family Jewish Community Center in south Palo Alto and the other at the Ravenswood Family Health Center in East Palo Alto.

The Jewish Community Center Health Library includes information geared to the senior residents on the site; the Ravenswood Family Health Center features a bilingual librarian and materials in Spanish and Tongan. Patrons also will have free access to the library's extensive collection of consumer health information, which includes 8,000 catalogued books, 700 videos, a database of 400 medical journals and e-books.

Each new branch will also host classes, programs and lectures relevant to its communities.

For more information and online resources, visit healthlibrary.stanford.edu.

Mini Med School goes online



The School of Medicine's Stanford Mini Med School, launched in September 2009, was one of the most popular courses ever offered through Stanford Continuing Studies. The ongoing series, which recently wrapped up its last quarter, featured more than 30 medical school faculty members. It provided a dynamic introduction to the world of human health and the groundbreaking changes taking place in medical research and health care. The lectures are now available online at med.stanford.edu/minimed.

Cystic fibrosis program grows up

Center established for adults with childhood disease

In her sophomore year at Stanford, Molly Pam had a once-in-a-lifetime chance to board a research vessel for a monthlong trip in the Sea of Cortez.

Taking Holistic Biology, an interdisciplinary course on the history, biology and literature of Monterey, Calif., and Baja, Mexico, would be cool, she thought. It also would be her longest adventure away from home or school. "I had no phone or Internet access," Pam recalled. "I was very much on my own in terms of my health."

Such a trip would have been unthinkable a few decades ago for someone like Pam, who has cystic fibrosis (CF). At that time, most people with the disease did not live past childhood. But Pam, who is now 21, is emblematic of the change in management of CF patients, who are living well into adulthood.

Before leaving for the Sea of Cortez, Pam consulted with her doctors at Stanford Hospital & Clinics about her treatment plan and how to deal with any issues that might arise. Although her lung function is less than half of normal capacity, she experienced no health complications during the trip.

Cystic fibrosis is a genetic disease of the lungs and digestive system that affects approximately 30,000 people in the United States. "In the 1970s, CF was a fatal pediatric disease," said David Weill, MD, director of the Adult Cystic Fibrosis Center at SHC. Today, he said, average life expectancy is about 38 years.

As associate professor in the Division of Pulmonary and Critical Care Medicine, Weill heads the adult cystic fibrosis program, which opened new clinic space in Stanford Hospital in November.

Stanford's CF center for adults is the largest in California, with almost 200 patients, most of them graduates of the program at Lucile Packard Children's Hospital. By age 18, patients like Pam know the daily drill. She takes Colistin, an

inhaled antibiotic, and Pulmozyme, an inhaled mucus thinner, by nebulizer twice a day. That adds up to 20 minutes in the morning and 20 minutes in the evening. Pam also puts on a mechanical vest twice a day, for 20 minutes at a time, which vibrates her chest and breaks up the sputum in her lungs.

The daily skirmishes with CF are aimed at getting rid of the sticky secretions that clog the lungs. Thick mucus can lead to a build-up of bacteria, with resulting pulmonary infections.

David Cornfield, MD, who directs Packard Children's Center of Excellence in Pulmonary Biology, said that having a transitional program, with patients moving smoothly from pediatric doctors to adult CF physicians, "has been the hope and dream of pediatricians since the early 1990s."

Working together, he and Weill determined that the best caregivers for pediatric patients transitioning to the adult hospital would be physicians who had expertise in both CF and lung



Molly Pam takes daily steps to control her cystic fibrosis, a disease of the lungs and digestive system.

transplantation. A transplant is not a cure for CF, but it can extend a patient's life for a decade or more, Cornfield said. [SM](#)

For more information about Stanford's cystic fibrosis center, visit medicine.stanford.edu/patient_care/cysticfibrosiscenter.html.

RECORDS FROM PAGE 4

doesn't drop to the bottom line the way it does in a business setting.

Another important reason is that electronic health records are complicated. Health care is complicated. It's a team sport, where information is the critical aspect. The information is often fragmented and diverse, and needs to be brought together from many sources at the same time to develop a good treatment plan.

There have been numerous projections about cost savings. The RAND study of a few years ago said it would save \$77 billion. The Congressional Budget Office said \$33 billion over 10 years. Where do you think the savings can be achieved, and what do you now

think is a realistic estimate?

I think it's probably somewhere between those estimates. That's a personal impression, not a scientific estimate. The savings are from reducing duplicate testing, from avoiding safety problems, from improved compliance with cost-effective care, from avoiding hospitalizations as a result of compliance with cost-effective care and from the availability of information about the use of resources. It's very hard to manage resources if you don't know how many resources are being used.

When you travel around the United States, what are physicians telling you? What's on their minds?

Physicians want to take the best care they

can of their patients, and they feel that there are a number of obstacles they have to overcome to do that. They have a perverse payment system, with the wrong incentives. They have an enormous number of conflicting requirements, from private insurance companies, from employers, from the government. I think what they want is simplification—a reduction in hassles, a reduction in administrative burdens, a reduction in the complexity of the payment system—and they want support in caring for patients in meaningful ways. We think that the Electronic Health Record can give them many of those benefits. [SM](#)

To hear a podcast of the entire interview, go to med.stanford.edu/121/2010/blumenthal.html.

Did you know?

Only humans sleep on their backs. Z



'An Evening in Wonderland' for hospital schoolchildren

Prom lets teens and youngsters forget they're patients

The girls wore high heels and cocktail dresses. The boys wore dress shirts that came untucked as the night wore on. When Justin Bieber's "Eenie Meenie" began to play over the sound system, a girl put her hand over her mouth, squealed and started dancing with friends.

This was prom night at Lucile Packard Children's Hospital. To the casual observer, it could have been prom night in Anytown, USA, except that many of the attendees accessorized their outfits with wheelchairs, intravenous drips, walkers and surgical masks to protect their immune-compromised bodies from infection.

The annual semiformal dance is held for current and former students of the hospital school, which enrolls patients whose medical care at Packard Children's may last months or even years. The hospital school, which serves grades K-12 and is part of the Palo Alto Unified School District, has held a prom since 2005.

"A lot of students who are going to school at the hospital don't get a chance to attend the events that a regular school might have, so getting to go to a prom is something really special for them," said Kathy Ho, the prom coordinator and a teacher at the school. "The prom is really a chance for them to be normal kids—to forget where they are. Having big dances like this is a big part of growing up."

The May 14 prom kicked off at 6 p.m. As the partygoers streamed in—the younger ones trailing parents, the older ones checking their parents at the door—they wandered down a hallway decorated with dangling red hearts and garlands of playing cards. A short corridor festooned with tissue-paper flowers opened onto the Packard Children's cafeteria, which was decked out for the prom's theme, "An Evening in Wonderland," a nod to Lewis Carroll's "Alice in Wonderland."

Teacups and saucers lined tables. Signs by the beverages and food read "Drink Me" and "Eat Me." Partiers could play blackjack, roulette, poker and craps for prizes, as well as carnival-style games like Pin the Grin on the Cheshire Cat and Find the Dormouse.

Maia Evrigenis, 15, of Sacramento sat at a patio table with her guest, Madeline Arnett, 14,



Packard Children's Hospital hosted "An Evening in Wonderland" prom for students at the hospital school. Patients Chandler Rosemont (left) and Sierra Bybee (right) hit the dance floor while Teresa Dedore (second from right) and friends look on.

munching on hors d'oeuvres. Evrigenis attended the hospital school for about six months in 2007-08, when she was battling leukemia. "It's really cool to come back and see the hospital and all the teachers again," she said. "A lot of times there would be days when I wasn't feeling that good and the teachers would make me feel really comfortable, and we'd find things to laugh about."

Many younger patients also attended the prom, getting a jump on a social event generally reserved for teen-agers. Mateo Kohler, 7, of San Jose went to the event with his father, Tim Kohler. "Usually when he comes to the hospital, it's because he's going to get a blood test or there's a problem," Kohler said. "The prom is something fun. It's a happy reason to be here."

Chandler Rosemont, 17, a current student at the school, wore an eggshell-white cocktail dress and had glitter around her eyes. "I'm a dancer. I can't contain myself when I hear music," she said.

"I do modern, jazz, hip-hop, ballet, contemporary—everything but ballroom and Irish."

In December, she was diagnosed with complex regional pain syndrome in her right hand and wrist. The little-understood condition causes an intense burning or aching sensation, and any stimulation can be nearly intolerable, she said. "If I felt the wind, I'd start screaming in pain," she said.

Rosemont said she has made a lot of good friends at Packard Children's, including Sierra Bybee, 17, who was also at the prom. "Sierra and I met at the hospital, and we were, like, 'We need to be roommates.' The next day the nurses planned for us to be roommates together, and so ever since we've been best friends," she said.

She turned toward the dance floor, holding her right hand slightly away from her body, and swayed to the music. 