

A HEFTY LOG: Dr. Ira Byock, director of palliative medicine at DHMC, was asked to host a blog on Yahoo! with “advice, tips, and reassurance” for seriously ill patients and their families. Byock’s blog is at <http://health.yahoo.com/two-weeks/byock/>.



Researchers document the ills of marketing illness

It’s harder and harder to be well,” says Dr. Steven Woloshin. For years, he and his collaborator, Dr. Lisa Schwartz, have studied the effects of, as he puts it, shrinking “the boundaries of health.”

In 1999, the physician-researchers published one of the earliest papers on this topic. In it, they calculated the number of Americans who would be labeled “diseased” or “sick” under several proposed changes in the definitions for diabetes, high blood pressure, high cholesterol, and overweight. They found that by relaxing the thresholds for these conditions, 85.7 million more Americans would have at least one chronic condition, and 75% of adult Americans would be considered diseased.

Harms: Such expansions of disease definitions are worrisome, they say, because “the extent to which new ‘patients’ would ultimately benefit from early detection and treatment” is often unknown. And diagnosis and treatment are not without harms, physical and psychological.

Their latest paper on the subject was published in the April issue of *PLoS Medicine*, the journal of the U.S. Public Library of Science. The issue included seven articles on “disease mongering”—the expansion of disease definitions to increase the market for a treatment or drug. Schwartz and Woloshin’s article focused on restless legs syndrome (RLS). RLS is defined by four criteria: 1) the urge to move the legs due to an unpleasant feeling

in them; 2) onset or worsening of symptoms when at rest; 3) relief from movement; and 4) symptoms that occur primarily at night and interfere with sleep.

Between 2003 and 2005, the drug company GlaxoSmithKline (GSK) ran an RLS awareness campaign and funded several studies on RLS and its treatment with the drug ropinirole. GSK also supported the RLS Foundation, a nonprofit advocacy group.

In 2005, the Food and Drug Administration approved ropinirole for treatment of RLS. Sold by GSK as Requip, ropinirole had already been approved to treat Parkinson’s disease. After gaining approval for RLS, too, GSK spent \$27 million advertising the new use, according to the *Washington Post*, and sales of Requip rose 34%, to \$156 million (about \$270 million).

Saga: To examine the media’s role in the RLS saga, Schwartz and Woloshin studied all the articles on RLS in major newspapers from late 2003 to late 2005; there were 33. Almost two-thirds used RLS prevalence figures from GSK and the RLS Foundation—that it affects 12 million Americans, about 10% of the adult population. But these estimates “overstate the prevalence of clinically meaningful disease,” say the researchers. Those figures are from a study that used only one of the four criteria to define RLS and that included people with leg symptoms from other causes, such as diabetic neuropathy. Schwartz and Woloshin estimate the actual prevalence

of RLS to be well below 3%.

While almost half the articles (15) mentioned ropinirole, only five noted its side effects. It has several, including nausea (40% with ropinirole versus 8% with placebo), dizziness (11% versus 5%), and, ironically, sleepiness (12% versus 6%). One-fifth of the articles mentioned the RLS Foundation but “none reported that the foundation is heavily subsidized” by GSK. From 2001 to 2006, the firm donated at least \$850,000 to the foundation.

Huge: “It is easy to understand why the media would be attracted to disease-promotion stories,” say Schwartz and Woloshin. “The stories are full of drama: a huge but unrecognized public health crisis, compelling personal anecdotes, uncaring or ignorant doctors, and miracle cures.”

“The problem lies in presenting just one side of the story. There may be no public health crisis, the compelling stories may not represent the typical experience of people with the condition, the doctors may be wise not to invoke a new diagnosis for vague symptoms that may have a more plausible explanation, the cures are far from miraculous, and healthy people may be getting hurt” through unnecessary treatment.

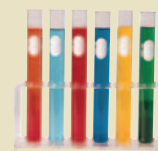
The bottom line for Schwartz and Woloshin, who are based at the VA in White River Junction, Vt., is giving the public balanced information, which they do in a regular column they write for the *Washington Post*. “Otherwise,” says Woloshin, “we may be harming people.”

JENNIFER DURGIN

THEN & NOW

A reminder of the pace of change, and of timeless truths, from the 1976 MHMH annual report:

“Ground was broken last fall for a two-story addition to the Norris Cotton Cancer Center. Total project cost is \$5.3 million, of which \$1.3 million is allocated for the support of cancer-related research activity. . . . When completed in early 1977, the Norris Cotton Cancer Center will bring together multidisciplinary resources related to patient care, teaching, and research in . . . cancer.”



\$40 million

Cost of the Cancer Center’s most recent addition, completed in 2003

200,000

Current square footage of the Cancer Center

\$58 million

External funding in FY06 for Cancer Center research

THEN & NOW

A reminder of the pace of change, and of timeless truths, from a 1973 case statement for a three-year, \$20-million DMS capital campaign:

“During the past two decades, cracks and strains in the health-care system became increasingly apparent to the American public. Although superb medical care—perhaps the best in the world—was available for the acutely ill in major medical centers, vast areas of the country had few or no primary medical services at all, particularly rural communities and inner cities. . . . Dartmouth’s location . . . presents it with a unique opportunity to explore effective systems for providing up-to-date, comprehensive medical care to a rural area.”



\$250 million

Goal of the current seven-year (2002-2009) DMS-DHMC Transforming Medicine Campaign

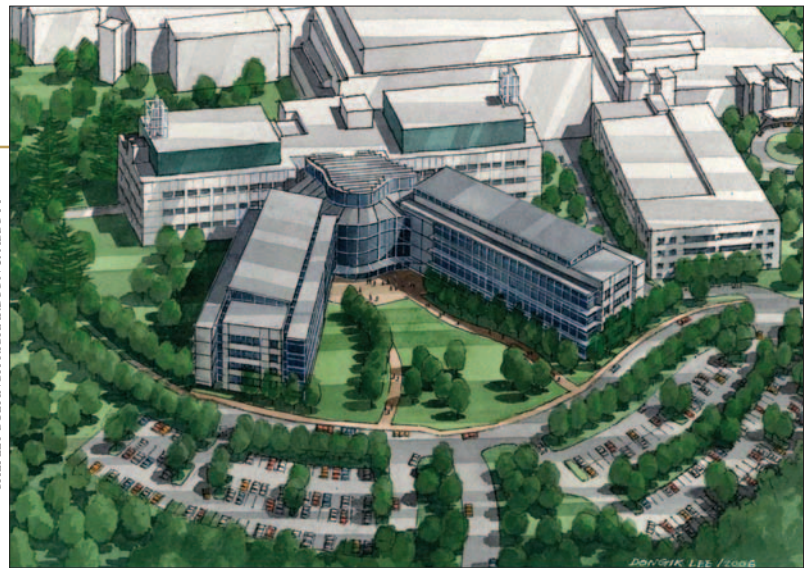
Renovation project and new buildings are on the drawing board

It used to be that laboratories were fixed, enclosed, often dingy spaces occupied by the same chief scientist for years or even decades. But that traditional model is fading away at Dartmouth Medical School. In 2003, the flexible, open-concept labs of the Norris Cotton Cancer Center were completed, and now DMS is renovating its older labs and plans to construct two new research buildings.

The School has committed a minimum of \$25 million to renovate labs in the Vail and Remsen buildings on the Hanover, N.H., campus, and plans are rapidly evolving for a new \$140-million complex on DHMC’s Lebanon, N.H., campus.

The Lebanon complex will consist of two rectangular buildings arranged in a V and linked to each other and to the existing Borwell Research Building by a large open meeting area called the LeBaron Commons. One of the new buildings will house lab space for research in areas such as neuroscience and cardiology. The other will provide a much-needed home for DMS’s Center for the Evaluative Clinical Sciences (CECS).

The new labs can be “reconfigured to meet the needs of the researchers and the problems to be studied” as they change over time, says Charles Mannix, chief operating officer of DMS. Lab spaces will not be permanently assigned to individual principal



SHEILEY BULFINCH RICHARDSON & ABBOTT

This is an architect’s rendering of the buildings planned for the Lebanon campus.

investigators, he adds, but rather allocated to groups of basic science and clinical researchers who will come together in teams to solve specific problems.

Creating strategic adjacencies is also a guiding principle of the CECS building, which will bring DMS’s health-policy researchers and students together under one roof and in closer contact with their clinical and basic science colleagues.

“The idea,” says Mannix, “is they’ll meet in the LeBaron Commons and talk to each other,” thereby facilitating collaboration and a more rapid transfer of new knowledge from researchers to the patient bedside. “Just by their very design,” says Mannix, the new buildings “are going to make a statement that we can transform medicine.”

Move: To make room for the complex, the road that encircles DHMC will need to move. Construction crews will break ground next spring and begin expanding the Loop Road south. The roadwork is scheduled to be finished next fall.

The new buildings are tentatively set to open in 2009. But a

lot needs to happen between now and then. This fall, DMS will seek approval from the Dartmouth College Trustees for the final building plans and a funding strategy. The Trustees gave preliminary approval for the project this past spring.

Life: The Trustees also have other plans that affect DMS. Next spring, the College will demolish several DMS buildings in Hanover—Strasenburgh, Butler, and the modular brick building installed on the Medical School lawn in 1989—to make way for a new life sciences building. This has caused some concern about the future of the DMS lawn, according to Mannix. But not to worry, he says: the lawn area will actually be bigger when construction is done. Though DMS does not expect to have lab space in the College’s new building, it does anticipate sharing classrooms and meeting rooms.

Collaboration has always been a hallmark of DMS, Mannix points out. And now, with the renovations and the new complex, “our buildings will actually symbolize that.”

JENNIFER DURGIN

BEST OF BREED: The online edition of **DARTMOUTH MEDICINE** was chosen by the National Science Foundation (NSF) as an example of best practices of web usage. The NSF's Public Information Officer Resource Center site now has a link to DM's website.



Price check in radiology room three

How much is it? That's a question consumers ask whenever they make a major purchase. But when it comes to health care, the answer is often hard to find. And even though individuals are being asked to take on more responsibility for their health-care choices—through health savings accounts and high-deductible insurance plans—an essential problem remains: how can consumers shop wisely for care without having clear information from providers about its cost?

DHMC is working to fix this problem. In June, it launched a new feature on its website called the out-of-pocket estimator. The

estimator, which is available at <http://www.dhmc.org/goto/charges>, tells patients approximately how much they will owe for office visits or various diagnostic, surgical, and medical services—after factoring in their own insurance coverage (or lack thereof). Patients can also call DHMC at 800-368-4783 to get more information or a more precise estimate, a service that was available before. So far, the estimator has drawn about 500 users a month from outside of the DHMC computer network.

Charges: While many hospital associations and medical practices now post pricing information online, often they post only

“charges.” Charges represent neither the actual cost of services nor what insurers pay providers for those services, because both government and private insurers negotiate large discounts with health-care providers. And at some places, such as DHMC, uninsured patients receive discounts, too. Also, charges may

or may not include professional fees—money that pays for clinicians' services—as well as hospital fees. DHMC's out-of-pocket estimator accounts for both kinds of fees, as well as discounts and the details of various insurance plans. So patients can get a sense of what they personally will owe.

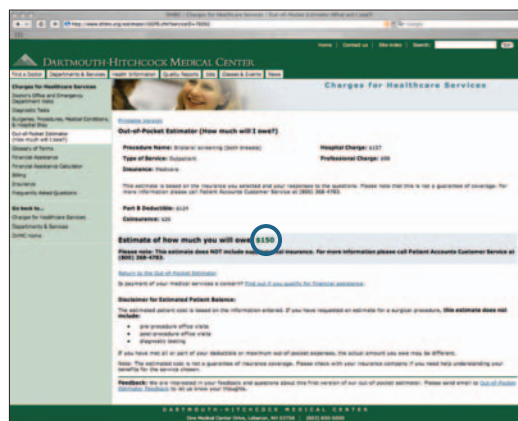
“This is what the patient wants to know,” says Mary Kay Boudewyns, vice president for revenue management at DHMC, who helped develop the estimator. “The patient wants to know how much [a service] is going to cost them.”

Boudewyns and her colleague Melanie Mastanduno, director of quality measurement at DHMC, are proud of the estimator, developed by in-house software engineers. But, they caution, the estimator still has room for improvement. For example, right now in order to get an accurate estimate, patients with private insurance need to put in details of their plans, such as the co-pay and deductible amounts. “The average person just doesn't know” that information, says Boudewyns. So she and her colleagues are working with insurers to better incorporate those details into the estimator. They also plan to add more services to the list.

Creed: The estimator will continue to evolve, they say, guided by their unofficial creed: “Good information leads to good decisions.”

“That's the most basic [reason] why we are doing this,” emphasizes Mastanduno.

JENNIFER DURGIN



These screens show the out-of-pocket estimator's results for a screening mammogram—\$150 for a patient on Medicare (top), and \$179 for someone without insurance (bottom).

THEN & NOW

A reminder of the pace of change, and of timeless truths, from *The Science We Have Loved and Taught*, a 200-year history of DMS:

Becoming a doctor is an arduous process today. It was very different in the 1780s for young Nathan Smith, who went on to found DMS in 1797: “An itinerant surgeon, Josiah Goodhue, arrived in town to perform an amputation. . . . Goodhue [later recollected] how Smith stepped forward when the surgeon called for a volunteer to assist him [and then], apparently overcome with fascination, . . . asked on the spot whether Goodhue would let him sign on as an apprentice.”



4,620

Applicants for the 82 places in DMS's M.D. Class of '10

3.7

Average undergraduate GPA of the matriculants

INNER CIRCLE: Three Dartmouth professors—including DMS plastic surgeon Dr. Joseph Rosen—participated in the Microsoft Research Faculty Summit in July. The invitation-only event focuses on issues and trends in computing.



THEN & NOW

A reminder of the pace of change, and of timeless truths, from the Fall 1986 issue of this magazine:

“More than 200 bicyclists braved an all-day rain [in] July to raise over \$40,000 for the Norris Cotton Cancer Center in the fifth annual Audrey Prouty Memorial Century Ride. . . . The first ride was held in 1982, when four DHMC nurses fulfilled a promise to a former cancer patient . . . and raised \$2,000 for the Cancer Center.”



On July 8, 2006, the 25th Prouty Ride and Walk—held on a perfect, sunny summer day—smashed the previous 24 years’ records.

2,790

Prouty participants in 2006

123,459

Number of miles they rode or walked

\$1.24 million

Total raised in 2006

Data drives improvement in cardiac surgery

Some people’s eyes glaze over when they look at graphs. Donald Likosky’s light up. Likosky, a Ph.D. who’s a statistician and epidemiologist in Dartmouth’s surgery department, points to a graph with a zigzag blue line that peaks at a red dot. A red dot “indicates to the viewer something is different,” explains Likosky. “Different can be good. Different can be bad.”

A good dot is cause for celebration, while a bad one means “you ought to tweak something,” he says. The dot he’s pointing at shows a rise in the percentage of patients given aspirin within seven days of a coronary artery bypass graft (CABG). That’s good, so no tweaking is needed in this case.

The graph is on a large poster featuring 21 similar graphs, each displaying data on DHMC CABG patients from 2002 through 2006. The graphs chart details such as patients’ median age, rates of post-operative bleeding, and average hospital stays. And this poster is just one of five, each of them focused on a different type of cardiothoracic procedure. Likosky’s team produces them all.

OR: The data provides information both to DHMC’s cardiothoracic surgery section and to the public. The system draws daily from two patient databases: a clinical registry (with information about patients and procedures) and the hospital’s administrative records (with information like the OR schedule). The clinical registry is in a data-

base that’s compatible with independent graphing software, so Likosky and the department’s database manager, John H. Higgins, can design the graphs quickly. That enables them to present current data at monthly meetings of the section’s clinical staff. The latest graphs are then posted prominently on a wall that staff walk by regularly.

News: “We need to provide information that is relevant and contemporaneous,” says Likosky, “We can’t tell them how they did six months ago, because that’s old news.”

“The nice thing about this kind of data wall,” agrees section chief William Nugent, M.D., is that “when you decide there is a problem . . . you are in a great place to change that.”

In many of the graphs, DHMC’s rates are plotted against regional rates from the Northern New England Cardiovascular Disease Study Group (NNE). The NNE is a voluntary consortium based at DHMC of eight institutions throughout New Hampshire, Maine, and Vermont. Likosky’s team recently published a paper based on NNE data in the journal *Annals of Thoracic Surgery* and expects to soon publish details of the DHMC data project.

The team at DHMC focuses on factors they have the most control over—factors “we can change tomorrow,” says Likosky—and those that have a direct effect on patient care. These include use of aspirin after surgery, intra- and post-operative transfusions, or whether the graft vessel for a CABG is taken from the

JON GILBERT FOX



Donald Likosky, right, gets a gleam in his eye when he talks about the graphs that his team produces. At left is surgeon Bill Nugent, and in the center is database manager John Higgins. Some of the graphs Likosky produces are on the wall behind them.