

## FACTS &amp; FIGURES

## Dollars and sense

A nonprofit think tank called the Milken Institute recently released a report called *Unhealthy America*, capturing the economic impact of seven chronic diseases—cancer, diabetes, heart disease, hypertension (high blood pressure), stroke, mental disorders, and pulmonary conditions such as asthma. These diseases exact a human toll, of course, but also the very measurable financial toll highlighted below.



**\$1.3 trillion**

**Annual economic losses in the U.S. due to these seven diseases (including both treatment costs and lost productivity)**

**162 million**

**Number of cases of these seven chronic diseases in the U.S.**

**42%**

**Estimated increase in the number of cases by 2023**

**40 million**

**Number of those cases that could be avoided by making modest improvements in prevention and treatment**

**\$1.1 trillion**

**Estimated annual savings by 2023 if those improvements are made**

**1 & 2**

**Rank of obesity and smoking among the preventable causes of these seven diseases**

**2,500**

**Number of Vermont and New Hampshire families participating in a Dartmouth study to assess influences on adolescent obesity**

**July 4, 2008**

**Date on which the DHMC campus will become totally tobacco-free**

SOURCES: MILKEN INSTITUTE, DARTMOUTH-HITCHCOCK MEDICAL CENTER

## Vascular surgeons pool their data to improve outcomes

Surgeons recognize the importance of outcomes,” says Dr. Jack Cronenwett, a vascular surgeon at DHMC. But, he adds, “it’s hard to track and calibrate your outcomes against others” without a really huge database. Even if all the surgeons in a hospital capture their outcomes, once the data is broken down into meaningful categories, small swings in absolute numbers can create misleadingly big swings in percentage rates.

**Voluntary:** So in 2002, Cronenwett recruited 48 vascular surgeons from nine hospitals across New Hampshire, Vermont, and Maine to form the Vascular Study Group (VSG) of Northern New England. The VSG is a voluntary, cooperative organization dedicated to collecting and sharing data from key vascular procedures at all the participating hospitals and then discussing and refining best practices based on that data.

Between 2003 and 2006, the group recorded information from 6,143 procedures, plus follow-up facts on 83% of patients a year after their procedure.

**Usage:** The data points range from preoperative medication usage to postoperative complications to mortality rates for five types of surgery—such as opening a blockage in one of the main arteries of the neck (a procedure called carotid endarterectomy) and repairing a weak spot in the wall of the body’s central artery

(a condition called an abdominal aortic aneurysm). The first analysis of the data was published a few months ago in the *Journal of Vascular Surgery*.

The VSG is the only active, comprehensive vascular registry in the U.S. Since its formation, the group has expanded to 11 hospitals, including the University of Massachusetts Medical Center. Its twice-a-year meetings are attended not only by surgeons but also by nurses, data analysts, and database managers. It was modeled after the Northern New England Cardiovascular Disease Study Group, founded in 1987 by Drs. Gerald O’Connor and Stephen Plume of Dartmouth; between 1987 and 2000, that group achieved a more than 60% drop in mortality following heart surgery.

**Patterns:** The VSG’s goal is to similarly improve outcomes for patients who undergo vascular surgery. It will be a while before meaningful patterns emerge from the data so that meaningful changes can be identified. But already, between 2003 and 2006, the preoperative use of beta-blockers, which help prevent heart complications, increased from 72% to 91% and of statins, which help lower cholesterol, from 54% to 72%.

Aggregate results from the VSG are shared at each biannual meeting. In addition, all 11 hospitals receive a report with their own data separated out, so each facility can benchmark itself in relation to the others. “There’s been enough trust developed in the group, and people are so focused on quality, that we