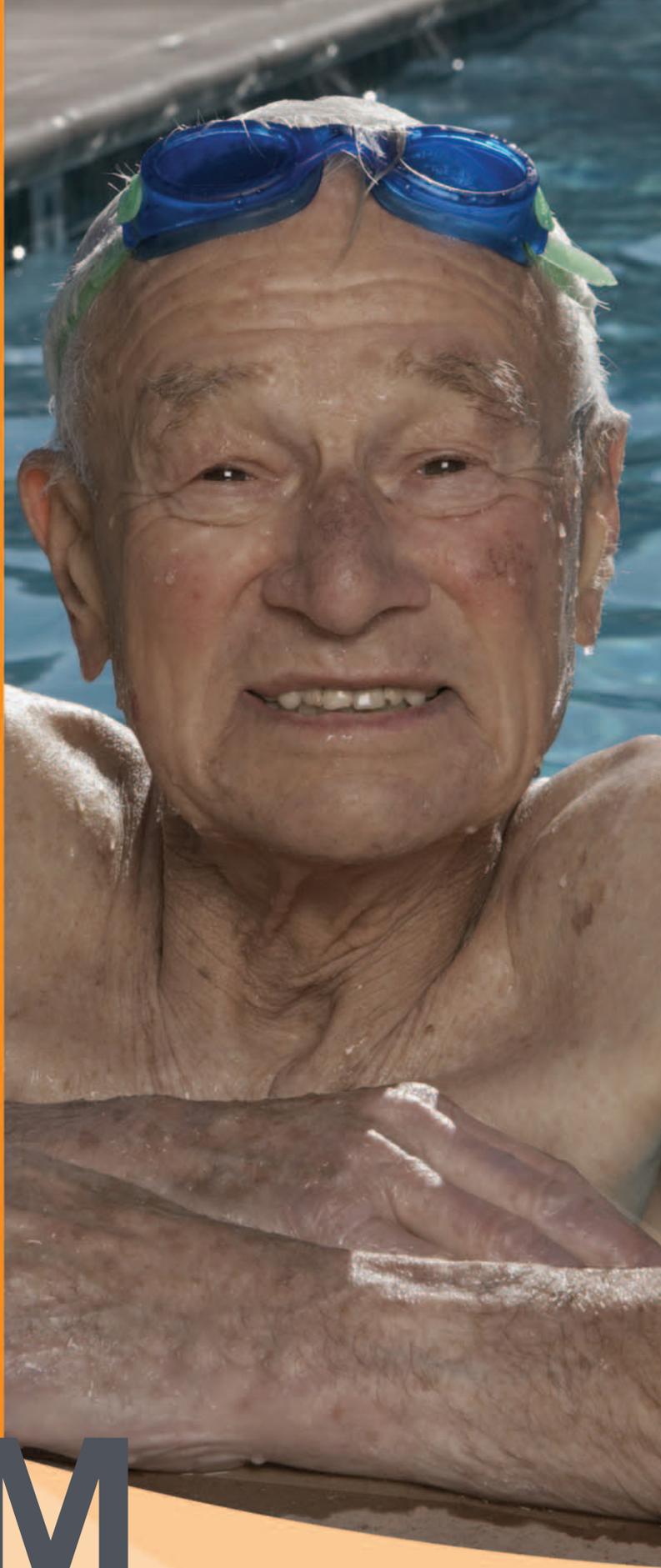


A Case Study:

**Dartmouth-Hitchcock
Spine Center**

**Changing Clinical
Practice with the
SF-36 Health Survey**



The Background

The staff of the Dartmouth-Hitchcock Spine Center in Lebanon, New Hampshire, prides itself on changing the way medicine is practiced. More than a decade ago, doctors at the Spine Center concluded that the patient's viewpoint was often overlooked in determining a course of treatment. As a result, all physicians in the Spine Center use the SF-36® Health Survey, developed by QualityMetric™ Incorporated, as the centerpiece of a larger questionnaire that measures patient-reported outcomes (PROs).

"Patient-reported outcome surveys provide us with a lot of information that we would otherwise never be able to learn," says William A. Abdu, MD, MS, Medical Director of the Spine Center. "Without the survey, we can't compare the patient over time in terms of functional status. We can't compare the patient to other patients, and we can't understand the outcomes of our interventions. Without understanding things from a patient's point of view, we're lacking a whole set of data. Thus, we interpret the patient's end result through our own eyes, which makes it biased."

Meeting the Challenge

The SF-36 captures reliable and scientifically valid PRO data. Abdu says that the need for PROs is especially acute when attending to back problems. "Patients with back problems are often burdened by comorbidities. So the question arises: Is their back pain a symptom of something else, or is the back pain the major problem? In many patients, chronic back pain may be a symptom of other, psycho-social comorbidities: depression, smoking, obesity, or other issues. The SF-36 allows us to understand this so much more. Those variables, which were previously part of the **art** of understanding the spine patient, are now part of the **science** of understanding the spine patient."

Prior to a patient's first visit to the Spine Center, he or she is asked to take the survey at home via the Internet on the clinic's patient-portal service. Patients also have the option to take the survey at the clinic via the Internet. The survey requires about 28 minutes to complete. The results are sent immediately to a central data collection center, where they are analyzed. A report is generated in less than a minute and is waiting outside the examination room—along with the rest of the patient's file—when the doctor arrives. The patient repeats the survey at any return visits that are more than six weeks apart.

The Results

The SF-36 is used by 18 physicians at the Spine Center on a daily basis. "The survey is really useful when it becomes an everyday experience and you're actually able to use it to take care of a patient the day you see him or her, as well as a population of patients over time," says James N. Weinstein, DO, MS, Chair, Department of Orthopaedics at Dartmouth-Hitchcock Medical Center. "I find it extremely useful in making clinical decisions."

Abdu agrees. "What I like best about the SF-36 is that it provides information about a patient that I don't otherwise have the ability to know or understand." He says that after examining a patient, which includes getting his or her history and reviewing the imaging study, a diagnosis comes to mind. "The next step in determining what treatment options are available to this patient is to look at the SF-36 and the rest of the health survey. That combination of history, physical examination, imaging, and health survey gives me a high degree of confidence in determining reasonable options to present to the patient."



Why It Works

The SF-36, long regarded as the world standard for PRO assessment, is a 36-item short-form survey that measures general health status. A practical and reliable way to obtain important health outcomes data in a variety of settings, the SF-36 measures eight domains of health:

- Physical functioning
- Role limitations due to physical health (role-physical)
- Bodily pain
- General health perceptions
- Vitality
- Social functioning
- Role limitations due to emotional problems (role-emotional)
- Mental health

The Spine Center has also used SF-36 profiles as predictors of surgical outcomes. "In our experience, there are certain profiles that are predictive of chronic pain patients," says Weinstein. These patients would not be good candidates for surgery. That knowledge can spare the patient the time, discomfort, and expense of a surgical procedure. "As a health system, if we can use tools like this that are very inexpensive and very helpful, maybe we can do more of the right things and save some money for things that really need it."

Moving Forward

Dartmouth-Hitchcock Medical Center has made a commitment to utilize the SF-36 throughout the institution. Several departments in addition to the Spine Center currently use it, including the Breast Cancer Center, the Pain Center, the Hip/Knee section of Orthopaedics, Urology/Gynecology, and General Internal Medicine. "We are rolling out the SF-36 section by section," says Abdu. "We have a list of departments banging down the doors to get on board." The Dartmouth-Hitchcock questionnaire has two components: a core survey given to every patient that includes the SF-36, and a department-specific section. "We've integrated our survey system so that if patients go from one department to another, they don't have to repeat the core survey.

"The benefit of the SF-36 is that it helps us look at the patient in aggregate with all kinds of information," Abdu continues. "The SF-36 provides us with additional data, and enables us to determine reasonable options to share with the patient in determining treatment. With the patient's report, we can evaluate the implications of our interventions."

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Chair, Department of Orthopaedics
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About QualityMetric Incorporated

QualityMetric Incorporated works with the world's largest healthcare and life sciences companies to measure health outcomes. Our products help market new drugs and biologics, track health improvement or decline, screen populations for disease, and identify future health risks. QualityMetric's patient-reported outcome (PRO) surveys provide scientifically valid assessments of both physical and mental health. Our PROs include the SF-36v2®, SF-12v2®, and SF-8™ Health Surveys, SF-10™ Health Survey for Children, Asthma Control Test (ACT™), Pain Impact Questionnaire (PIQ-6™), and DYNHA® Dynamic Health Assessments. Our Outcomes Insight Consulting™ Group can develop customized PROs and provide in-depth analysis of the results. QualityMetric's founder and CEO, John E. Ware, Jr., PhD is a thought-leader in the field of psychometrics and health outcome measurement. Visit us at www.qualitymetric.com.