

Dow Jones Reprints: This copy is for your personal, non-commercial use only. To order presentation-ready copies for distribution to your colleagues, clients or customers, use the Order Reprints tool at the bottom of any article or visit www.djreprints.com

[See a sample reprint in PDF format.](#)

[Order a reprint of this article now](#)

THE WALL STREET JOURNAL.

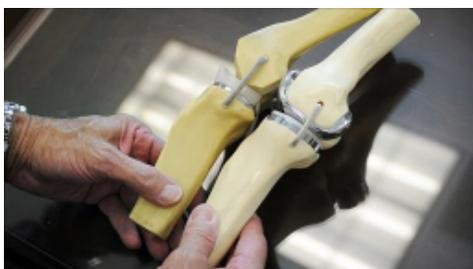
WSJ.com

LIFE & CULTURE | Updated September 26, 2012, 9:41 a.m. ET

Rise in Knee Replacements Boosts Federal Health Costs

By SHIRLEY S. WANG

The number of knee replacements paid for by Medicare has more than doubled over the past two decades, according to a study published Tuesday that suggests the popular procedure is emerging as an important driver of costs for the nation's health-care system.



The number of knee replacements paid for by Medicare has more than doubled over the past two decades, according to a study that suggests the procedure is emerging as an important driver of costs for the nation's health-care system. Shirley Wang has details on The News Hub. Photo: AP.

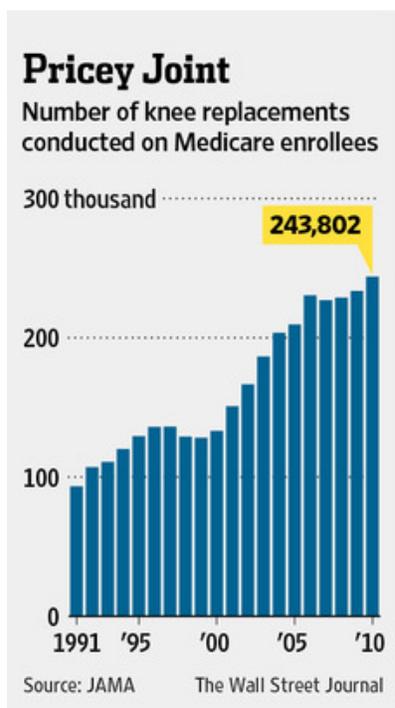
Researchers examining Medicare insurance claims found that in 2010, people aged 65 and older—eligible for the federal insurance program for older Americans—underwent 243,802 operations to replace damaged knees or to "revise" previous replacements, up from 93,230 in 1991. Over the 20-year period, 3.6 million knee replacements were performed on Medicare enrollees, according to the study.

Medicare patients account for less than half of the estimated 600,000 knee replacements now performed each year.

At about \$15,000 each, the total annual tab for the operations performed on patients of any age is now about \$9 billion, the researchers said. By comparison, Medicare spending for 2011 was estimated at \$550 billion, according to the Kaiser Family Foundation. For patients too young for Medicare, many insurers offer some degree of coverage if the procedure is ordered by a doctor, but plans can differ widely.

Demand for the operations could reach 3.5 million annually by 2030, according to an editorial accompanying the study, published in the *Journal of the American Medical Association*.

The study is among the first to take a big-picture look at the operation, one of the most common surgical procedures done in the U.S. More knee replacements were done in 2009—676,000—than coronary-artery bypass surgeries or hysterectomies, according to data from the Centers for Disease



Control and Prevention. But relatively little is known about who gets it done and how well they fare because the operations aren't regularly tracked.

"There's no doubt this is a successful operation," said Joseph Zuckerman, professor and chairman of the department of orthopedic surgery at the New York University Hospital for Joint Diseases. However, "we don't do a very good job of tracking it. Our tendency in this country is to improve technology but not evaluate it." Dr. Zuckerman wasn't involved in the study but was co-author of the editorial accompanying it.

Knee replacements are done on patients who suffer knee pain, primarily due to arthritis or injury. The procedure involves removing the damaged cartilage and some bone in the area and recreating the joint with a metal implant, according to the American Academy of Orthopaedic Surgeons.

The increase in volume is likely due to many factors, including the growing population of older people and an increase in

obesity and other lifestyle factors that increase wear on the knee. In addition, more older people want the procedure so they can remain active or improve their quality of life, Dr. Zuckerman said, and the introduction of better, longer-lasting implantable devices has allowed the procedure to be offered to more people at younger ages—in their 40s and 50s. Most replacements last about 20 years, according to the Cleveland Clinic.

In the study, researchers led by Peter Cram, a health-policy researcher and internist at the University of Iowa Carver College of Medicine, looked at 3.6 million Medicare claims for patients who had the operations between 1991 and 2010. Calculated based on replacements per 10,000 Medicare beneficiaries, the per

-beneficiary basis, the rate doubled to 62.1 in 2010 from 31.2 in 1991, they found.

"Ultimately there's going to be [only] some number of these we can afford," Dr. Cram said. But how to limit the procedure or who should get it will be a "really contentious debate," he said.

Dr. Cram and his colleagues found that the length of hospital stays after knee replacement decreased significantly, to 3.5 days in 2007-2010 from 7.9 days in 1991-1994, but the rate of readmission to the hospital in the 30 days after surgery increased statistically significantly, to 5% from 4.2%. In patients who had received a revision surgery, infection rates also increased. Revisions accounted for 10.3% of the surgeries in 1991 and for 8% in 2010.

It isn't possible to discern from the data whether all the procedures were necessary or why there were increases in readmission rates or infection rates, however.

"I think there is definitely the hint in there that we are now discharging people so quickly that more of them are requiring readmission," Dr. Cram said.

Related Video



Hard charging baby boomers and Generation X-ers are wearing out their joints at younger ages and turning to joint replacement surgery. But is it a quick fix? WSJ's health columnist Melinda Beck discusses with Kelsey Hubbard.

Write to Shirley S. Wang at shirley.wang@wsj.com

A version of this article appeared September 26, 2012, on page A2 in the U.S. edition of The Wall Street Journal, with the headline: Rise in Knee Replacements Boosts Federal Health Costs.

Copyright 2012 Dow Jones & Company, Inc. All Rights Reserved

This copy is for your personal, non-commercial use only. Distribution and use of this material are governed by our [Subscriber Agreement](#) and by copyright law. For non-personal use or to order multiple copies, please contact Dow Jones Reprints at 1-800-843-0008 or visit www.djreprints.com