

Kaiser Permanente
Research

Studying the impact on weight and total health

Bariatric surgery registry and research



Impact»»

Research at Kaiser Permanente Southern California is shedding new light on the impact of bariatric surgery on weight and total health. Clinicians and researchers first collaborated to build a registry that tracked the progress of patients who had received surgery. This partnership evolved into a full-fledged research program that has advanced our understanding of bariatric surgery's influence on health beyond weight loss. These findings are changing the way clinicians and patients think about bariatric surgery and how it can help people who are severely obese change the future of their health.

Bariatric surgery is an option for treating a major health problem in America—severe obesity. But there are a lot of questions about whom it helps most, what kinds of procedures work best, and how surgery might affect health conditions like diabetes. Researchers and clinicians at Kaiser Permanente Southern California are partnering to answer these questions, using a registry designed to support better care and innovative science.

As recently as 10 years ago, most bariatric surgery procedures for KPSC members were performed by surgeons at contracted facilities. This meant we often could not tell who had surgery until 2 to 3 months after the fact, and we were not able to know how patients were doing with respect to weight loss and any complications that happened during surgery or immediately afterward.

“The lack of data made it very difficult, if not impossible, to measure and monitor the quality of the surgeries, the outcomes, and progress of our bariatric surgery patients,” said Karen J. Coleman, PhD, MS, KPSC research scientist.

Registry and research as a quality tool

To address this important problem, Dr. Coleman partnered with John Brookey, MD, regional assistant medical director of Quality and Risk Management for the Southern California Permanente Medical Group, to create a registry that would track surgeries in real time and provide a better sense of how patients were doing.

“We wanted the registry—and research using registry data—to be a key part of our bariatric surgery program,” Dr. Coleman said. “We wanted it to be a quality improvement tool.”

“The lack of data made it very difficult, if not impossible, to measure and monitor the quality of the surgeries, the outcomes, and progress of our bariatric surgery patients.”

—Karen J. Coleman, PhD, MS

In June 2008, the registry was formed with financial support from SCPMG. It had both a comprehensive database to be used for quality reporting and research, as well as a web-based interface that could be used for population care management. Data for the registry come from a variety of sources, including reports sent by contract surgical groups, Kaiser Permanente HealthConnect®, our electronic health record and outside claims processing databases.

Registry data yields valuable insight

Most bariatric surgeries are now performed in Kaiser Permanente hospitals, but the need for data is still key. Today, the Department of Research & Evaluation uses the registry to monitor quality for the region's bariatric surgery program. Dr. Coleman worked with the bariatric surgeons to develop a dashboard that reports key indicators such as surgical details, weight loss outcomes, readmissions, and reoperations. “We're an integral part of the quality monitoring for these patients,” Dr. Coleman said.



Dr. Karen Coleman and Dr. John Brookey

“We’ve been able to use these registry data for performance and quality improvement in order to standardize the program.”

—John Brookey, MD

“The registry has made us more efficient and more productive in how we tailor our follow-up program for patients after surgery,” said Jack Der-Sarkissian, MD, regional lead for Adult Weight Management and Bariatric Surgery Care Management. “It has helped us tremendously in determining best practices.” For example, the registry was used to provide feedback to our internal surgical programs about how long patients are in the hospital. This information helped substantially reduce that time through innovative care practices that are now standard of care for these patients.

“We’re using the registry primarily to examine results, identify trends, and improve outcomes,” said Robert Zane, MD, a bariatric surgeon at our South Bay Medical Center. “Plus, some patients are comforted by the fact that we have a registry that shows how our results compare to those of surgeries performed elsewhere.”

“Patients always ask how much weight they will lose, and these data help us give them a realistic evidence-based idea of what they can expect,” said bariatric surgeon Benjamin Kim, MD, of our West Los Angeles Medical Center.

Improved patient management

Part of the functionality of the registry is an interactive online patient management tool to provide bariatric surgery case managers and clinicians with real-time identification and tracking of their patients.

“This tool allows us to track our individual patients so we can make sure we’re doing everything we can to help them stay healthy and maintain their weight loss,” said Robert Peterson, RN, CBN, care manager, Bariatric Surgery for our Los Angeles Medical Center. “We now have a wealth of information about what happens to patients after surgery.”

Results reveal important learnings

KPSC researchers have used bariatric surgery registry data to discover some important effects on weight loss and health:

- Non-Hispanic black and Hispanic patients who had gastric bypass surgery lost less weight than non-Hispanic white patients over a 3-year period. Non-white patients who had the sleeve gastrectomy (the newest restrictive procedure) lost the same amount of weight as their white counterparts who had the same procedure.
- Non-Hispanic black and Hispanic patients were less likely than non-Hispanic white patients to experience remission of metabolic syndrome, a group of conditions that increase a person's risk of coronary artery disease, stroke, and type 2 diabetes.
- Those with many serious health problems at the time of surgery were less likely to resolve their diabetes than patients with fewer and less severe health problems.

Peter Fedorka, MD, a bariatric surgeon at our Fontana Medical Center, said the research is valuable in helping patients understand how bariatric surgery can influence weight loss and other improvements to their health. "Knowing our outcomes helps us to counsel our patients when they start asking, 'what are the chances my blood pressure gets better, what are the chances my diabetes gets better, what are the chances I'll lose weight?' Knowing that the results are based on research that's from our own experience and has been published in the peer-reviewed literature has been helpful in counseling patients."

"Some believe that the vertical sleeve is just as good as the Roux-en-Y, and our research has repeatedly shown that's not true," said Dr. Coleman. "We have also shown that surgery may not solely result in weight loss, but also may serve as an intervention for diabetes."

"Registry data truly have an impact on clinical care," said Heather Watson, MBA, senior consultant in SCPMG Clinical Operations. "In addition, our research helps inform clinical decisions and clinical practice guidelines. The bariatric registry has had a positive impact on many aspects of the delivery of bariatric surgery across the region and the entire Kaiser Permanente program."



Dr. Cecelia Crawford

"Kaiser Permanente gave me the tool to save my life. My lab results have improved significantly and I no longer need cholesterol and blood pressure medications."

— Cecelia Crawford, DNP, RN, Kaiser Permanente member

Research results in action

Cecelia Crawford, DNP, RN, a Kaiser Permanente member and nursing researcher, had gastric bypass surgery at UCLA in 2005 and lost 133 pounds. Today, she is at a healthy weight and very active, and has run half-marathons and marathons, and has hiked Mt. Whitney 4 times.

"Kaiser Permanente gave me the tool to save my life. My lab results have improved significantly and I no longer need cholesterol and blood pressure medications," she said. "I'm in the bariatric surgery registry and am proud that my information is contributing to research to help other bariatric surgery patients."

Produced by the Department of Research & Evaluation, October 2015.

For more information, contact research-communications@kp.org or visit kp.org/research.