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# 2025 Annual Report

# Table of contents

Message from the Leadership Team ..... 3

Value-Based Device Assessment & Continuous Improvement Process ..... 4

By the Numbers: Enhancing Surgical Excellence ..... 5

Awards and Recognition ..... 6

Influencing Value Based Medicine ..... 7

Innovations for Safety & Device Monitoring ..... 9

Creating Tools for Complete Care Decision Making ..... 10

Enhancing Patient Safety by Managing Device Recalls ..... 11

Patients with Enhanced Device Surveillance ..... 12

Patient-Centered Research Highlights 2025 ..... 13

Collaboration Opportunities ..... 22

Medical Device Surveillance Committee Members ..... 23

Scientific Subcommittee & MDSA Team Members ..... 24

# Message from the leadership team

Dear colleagues,

We are proud to present the **2025 Medical Device Surveillance and Assessment (MDSA) Annual Report**. This year's report highlights our collective achievements in advancing value-based medicine through rigorous device surveillance, integration of clinical registries, interregional collaboration, and continuous quality improvement across multiple specialties.

**Enhanced Surveillance & Patient Safety:** In 2025, MDSA monitored > 6.5 million devices enhancing patient care program-wide and rapidly identified over 9,000 members affected by device recalls, ensuring optimal treatment and safety.

**Clinical Changes in Practice:** In identifying best practices and collaborating with clinical leaders and chiefs, meaningful changes in care delivery resulted in enhanced outcomes and cost-effectiveness.

**Innovation:** The launch of a real-time surveillance system enabled detection of safety signals for inguinal hernia mesh. This methodology now extends to additional devices strengthening national KP implant surveillance and safety.

**Patient-Centered Research:** MDSA published **30** studies and presented at **29** national and international conferences representing **8** specialties, supporting evidence-based medicine and surgical excellence.

**National EVAR patient safety net:** In collaboration with the U.S. Food and Drug Administration, Vascular Quality Initiative, and industry partners, we launched Long-Term EVAR Assessment & Follow-up (LEAF) to enhance national long-term monitoring of endovascular aneurysm repair devices and improve patient outcomes using real-world data.

**Recognition:** Recent honors--including the AOSSM O'Donoghue Sports Injury Award, AAOS Best Paper in Sports Medicine, and others--underscore our national leadership in clinical research.

These accomplishments are a direct result of your dedication and expertise. Thank you for your unwavering commitment to advancing clinical outcomes and patient safety.



**Liz Paxton, PhD, MA**

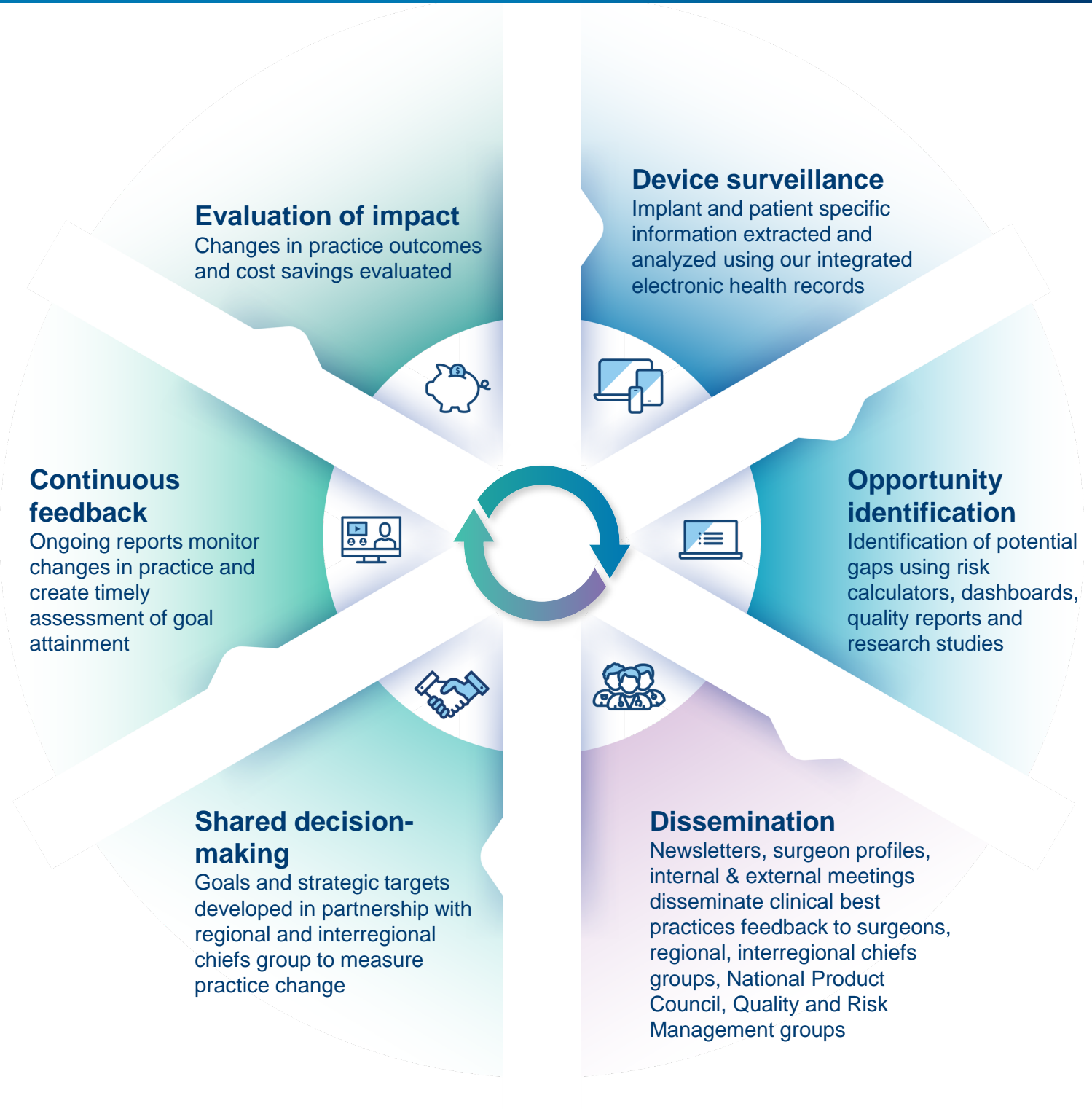
Senior Director, Medical Device Surveillance and Assessment Unit of Clinical Analysis



**Nolan Chang, MD**

Chair, Medical Device Surveillance Committee; Regional Medical Director of Business Management, Southern California Permanente Medical Group

# Overview of MDSA's value-based device assessment & continuous improvement process





# By the Numbers: Enhancing Surgical Excellence

**6.5 million** implanted devices

Supporting identification of best performing and outlier detection

**177,600** patients

Development of unique patient safety network to support clinical team's members impacted by recalls

**2,700** internal consumers

Circulation of clinical best practices to enhance patient care

**700** unique surgeon profiles

Unique feedback mechanism for Kaiser Permanente partners to influence performance with standardized benchmarking

**335** publications overall

Distribution of findings to extensive medical community

**120** physician coauthors

Establishing partnerships with Kaiser Permanente physicians

**29** conference acceptances in 2025

Supporting continual learning and dissemination of findings

**10** clinical specialties

Collaboration with key leadership to enhance implant performance evidence-based decision making

# Awards and Recognition

## Best Paper in Sports Medicine



Patient and Operative Risk factors for Subsequent Total Knee Arthroplasty Following Primary Anterior Cruciate Ligament Reconstruction: A Cohort Study of 52,222 Patients

Authors: David Y. Ding, MD, Heather A. Prentice, PhD, Chelsea Reyes, Elizabeth W. Paxton, PhD, Foster Chen, MD, and Gregory B. Maletis, MD

## O'Donoghue Sports Injury Award



Risk of Revision and Reoperation after ACL Reconstruction. Comparison of Quadriceps Tendon, Patellar Tendon, and Hamstring Autografts Stratified by Patient Gender and Age: A Cohort Study of 27,715 Patients.

Authors: Gregory B Maletis, MD, Heather A Prentice, PhD, Chelsea Reyes, Christopher Lehman, MD, Colin Mansfield, MD, Justin Yang, MD

## Top 10 Abstracts of 2025 Russell Surgical Trainee Research Competition



Lightweight Mesh is Associated with Lower Risk for Long-Term Complications: An Analysis of Mesh Weight on Adverse Outcomes for Inguinal Hernia Repairs

Authors: Brandon Cowan, MD, Priscilla H. Chan, MS, Sahil S. Patel, MD, Heather A. Prentice, PhD, Kenneth Sucher, MS, Elizabeth W. Paxton, PhD, Elliott R. Brill, MD, Lavina Malhotra, MD, Francisca M. Maertens, MD, Gregory M. Heitmann, MD, Rouzbeh Mostaedi, MD

Absorbable Mesh Predisposed to Recurrence and Reoperation: A Comparative Study of Mesh Performance in Clean and Contaminated Ventral Hernia Repairs

Authors: Sahil Patel, MD, Priscilla H. Chan, MS, Brandon Cowan, MD, Heather A. Prentice, PhD, Kenneth Sucher, MS, Elizabeth W. Paxton, PhD, Elliott Brill, MD, Robert Bell, MD, Rouzbeh Mostaedi, MD



## Junior Investigator Award

Anterior Cruciate Ligament Autograft Outcomes: A Cohort Study of 27,715 Patients

Authors: Gregory B Maletis, MD, Heather A Prentice, PhD, Chelsea Reyes, Christopher Lehman, MD, Colin Mansfield, MD, Justin Yang, MD



## New Member Prize

Post-Market Surveillance of Mesh Performance Following Inguinal Hernia Repair in a US Cohort

Authors: Elliott R. Brill, MD, Priscilla H. Chan, MS, Richard N. Chang, MPH, Heather A. Prentice, PhD, Kenneth Sucher, MS, Rouzbeh Mostaedi, MD, Elizabeth W. Paxton, PhD

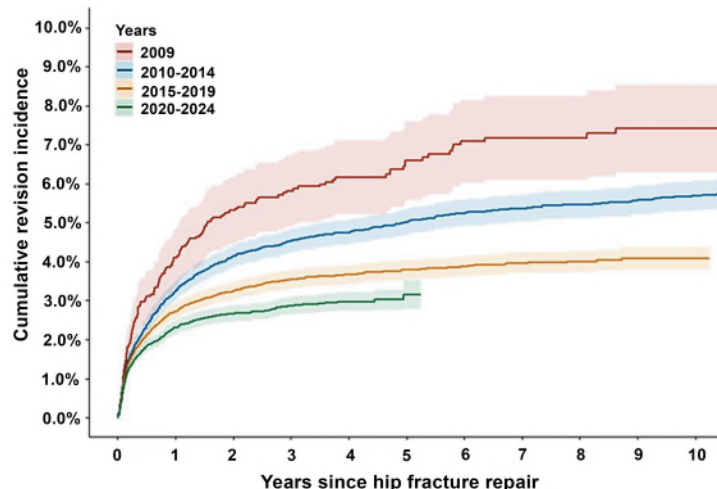
# Influencing Value Based Medicine

## Increased Cemented Hemiarthroplasty for Hip Fractures

In collaboration with the interregional orthopedic chief groups, use of **cement in hemiarthroplasty** was identified as a clinical improvement opportunity

- Cement fixation increased by > 30%
- Rates of revision decreased by > 5%

Patient care and long-term outcomes improved with statistically significant lower risk of aseptic revision and better resistance to periprosthetic fracture in patients with advanced age, osteoporosis, and/or history of falls.



## >\$3 million cost savings with increased cemented hemiarthroplasty and reduced ALBC use in TKA.



Due to the data from the total joint registry, we have seen practice changes that reduce the rate of using unnecessary antibiotic cement for knee replacement. This change creates value by saving money for our non-profit organization and ultimately our patients with no decrease in quality.

**Christopher Grimsrud, MD**

Department of Orthopedic Surgery, Oakland, CA  
The Permanente Medical Group

## Reduction in higher cost antibiotic cement use in TKAs

Recent study findings found no differences in total knee arthroplasty (TKA) all cause revision or revision for infection with use of antibiotic laden bone cement (ALBC) compared to plain bone cement.

By providing quarterly data to orthopedic leadership and standards and source teams this value-based practice change has reduced ALBC use; **saving over \$380,000**, while maintaining high quality patient care and consistent surgical outcomes.



# Influencing Value Based Medicine

## Evidence of sex-specific risks for inguinal hernia repairs drive improvements of outcomes

In a large multi-center cohort of mesh-based inguinal hernia repair patients, we found **double the risk for reoperation in females** after an open repair approach compared to males. Lower risk was observed for females through a minimally invasive approach (laparoscopic or robotic). Findings have influenced – a nearly **18% decrease in open procedures** of inguinal procedures in females in our organization.



Our study showed that minimally invasive surgery has unique benefits for our female inguinal hernia patients beyond smaller incisions and shorter recoveries, it decreases the risk of needing a reoperation in the future when compared to an open surgery. The shift toward minimally invasive techniques isn't just a trend, it's a targeted response to improve outcomes and reduce avoidable harm.

**Francisca Maertens, MD**  
General Surgery, Oakland  
The Permanente Medical Group



This invaluable research is already fueling our passion for continuous improvement and guiding our efforts to further enhance patient safety and ensure our members continue to receive the absolute best outcomes from this life-changing therapy.

**Mark Sedrak, MD,**  
Neurosurgery, Redwood City  
The Permanente Medical Group

## Deep Brain Stimulators (DBS) Prioritizing rechargeable over non-rechargeable batteries

Researchers have gained evidence that rechargeable batteries (RB) for DBS last longer and require less battery replacements. The life of RBs are 5 times longer than non-rechargeable. Over the last 4 years, there has been a re-prioritization of implanting rechargeable batteries among neurosurgeons. With this change in practice, our data supported a **significant reduction in battery replacements, reduced repeat surgeries, and shorter wait time for new primary DBS implantations.** This demonstrates a clear link between device surveillance, enhancement of quality of life for our members, cost reduction and value-based improvement in care.



Implanting rechargeable batteries has a projected savings of  
**\$7 million** over a 5-year period.



# Innovations for Safety & Device Monitoring

## Long-Term EVAR Assessment & Follow-up

LEAF is a post-market, observational surveillance protocol created by the Vascular Quality Initiative in collaboration with medical device manufacturers and MDSA. The goal is to enhance the **long-term monitoring of endovascular aneurysm repair** devices and improve patient outcomes by collecting real-world data on device performance and safety over a 10-year period. Our enhanced registry data, claims-based linkage, and clinical imaging follow-up creates an actionable platform for **detecting national safety signals in real-world data**.

## Surveillance of Mesh Performance Triggers Safety Alerts

Using the DELTA (Data Extraction and Longitudinal Trend Analysis) methodology allowed for real-time surveillance to proactively identify **inguinal hernia mesh safety signals** before industry notifications. 26 unique mesh were assessed and 6 (2 open and 4 minimally invasive) triggered safety alerts that required further investigation with clinician stakeholders.

With the DELTA findings, we initiated hypothesis-driven research for ongoing **monitoring** of mesh-based hernia by **detecting safety risks early** and **informing future decisions**.

[Link to Full Publication](#)

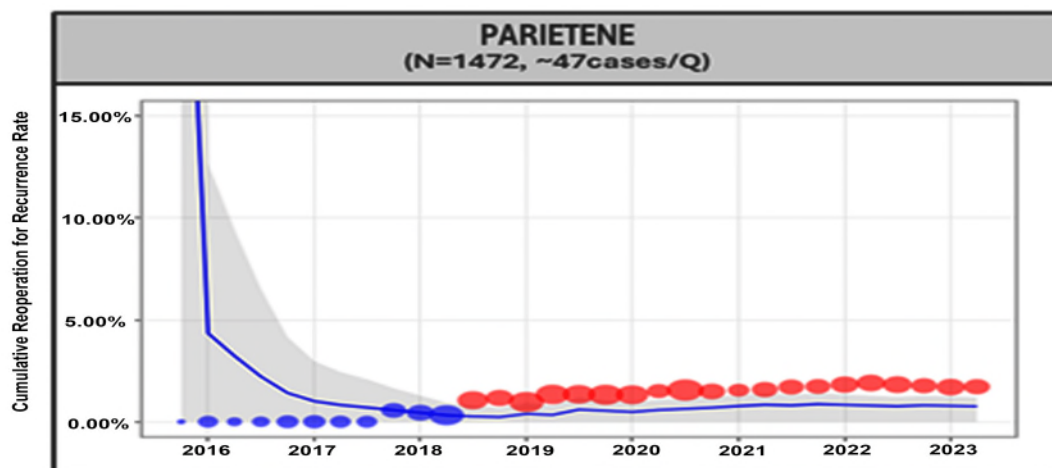
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DELTA surveillance identifies risks before they become trends, ensuring that our surgical decisions are guided by the data. By leveraging longitudinal data to detect early safety signals, we can stratify device performance more effectively and support evidence-based mesh selection. This approach contributes to improved patient outcomes and enhances the overall quality of hernia repair.

**Elliott Brill, MD**

General Surgery, Santa Clara  
The Permanente Medical Group

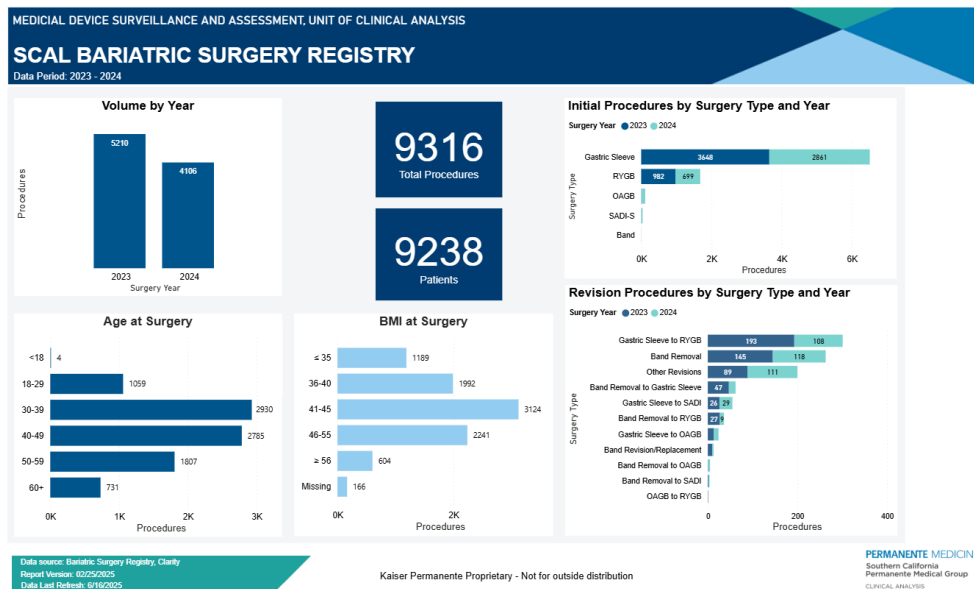
Post-market surveillance of mesh performance following minimally invasive inguinal repair



# Creating Tools for Complete Care Decision Making

Interactive dashboards play a key role in monitoring surgical outcomes, improving clinical care, and facilitating patient outreach opportunities.

## Bariatric Surgery Registry (BSR) Annual Report Dashboard



The BSR Dashboard provides surgeons with bariatric patient demographics, surgery type procedure volumes, re-operations, mortality, and return to care data. Surgeons use this tool to learn more about patients who unexpectedly return to the operating room.

## Obesity Medicine Dashboard

**1.6 million patients are supported by a dynamic scorecard to monitor GLP-1 medication utilization.**

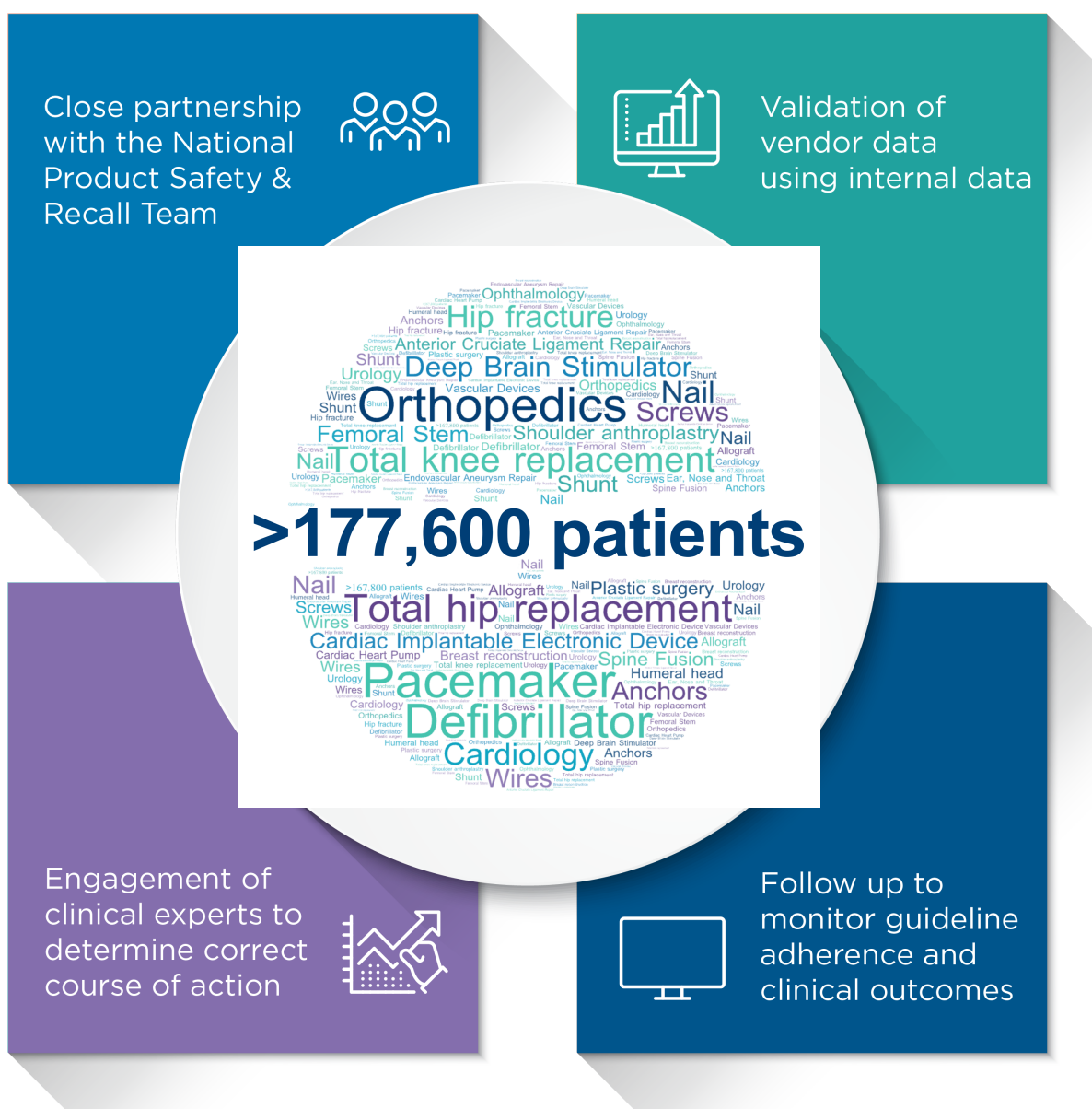
Dashboard insights provide regional Obesity Medicine and Center For Healthy Living teams access to GLP-1 utilization by BMI, comorbidities, types of obesity care, and patients who have met the 5% weight loss goal. Data is refreshed monthly to maximize patient care and outreach opportunities.



# Enhancing Patient Safety by Managing Device Recalls

During 2025, we have screened **>200** FDA notifications and supported **12** patient-specific device lists, impacting **>9,600** patients in these specialty areas: Cardiac Device, Knee, Intraocular Lens, Shoulder, and Spine. Overall, our department has supported **>177,600** patients.

# Kaiser Permanente Unique Patient Safety Network



# Patients with Enhanced Device Surveillance



## Cardiology

- Cardiac implantable electronic devices **188,953**



## General surgery

- Hernia repair **147,171**
- Bariatric surgery **9,316**



## Head and neck surgery

- Cochlear implants **2,347**



## Urogynecology

- Mid-urethral slings **35,216**



## Plastic surgery

- Breast reconstruction **49,169**



## Maxillofacial surgery

- 3D printed implants **13,000**



## Orthopedics, sports medicine

- ACL reconstruction **73,234**
- Bovine shoulder patch **1,167**



## Orthopedics, joints and trauma

- Hip fracture repair **84,405**
- Shoulder arthroplasty **31,205**
- Radial head **2,416**
- Total hip arthroplasty **161,750**
- Total knee arthroplasty **265,869**
- Elbow IJS **194**



## Neurosurgery

- Deep brain stimulator **4,146**
- Spine surgery **100,472**



## Vascular interventions

- Abdominal aortic aneurysm repair **8,271**
- Thoracic aortic aneurysm repair **774**
- Transcatheter artery revascularization **799**



# Patient-Centered Research Highlights 2025



## ACLR

### **Is there a hamstring autograft diameter threshold for anterior cruciate ligament reconstruction?**

Researchers observed a 32% higher risk of revision in smaller graft diameter groups ( $<8$  or  $\leq 8$  mm) compared with larger graft sizes ( $\geq 8$  or  $>8$  mm) in patients  $\leq 25$  years of age who underwent primary isolated ACLR at Kaiser Permanente, regardless of specific diameter cutoff. In a cohort of almost 6,000 HA (Hamstring Autograft)-ACLR, the authors were unable to determine a definitive minimum graft diameter threshold that should be used.

► [Link to Publication](#)

### **What are the risk factors for knee arthroplasty after a primary ACL Reconstruction?**

In a study of over 52,000 primary ACLR, researchers found that increasing age was the strongest risk factor for subsequent knee arthroplasty in patients who have undergone prior ACLR. Additionally, patients should be advised that undergoing ACLR with allograft had a two times higher risk of future knee arthroplasty.

► [Link to Publication](#)



## Breast reconstruction

### BREAST RECONSTRUCTION

#### **Comparing 90-Day Reoperations in 23,301 Breast Reconstructions Immediate Versus Delayed Direct-to-Implant or Autologous Reconstructions**

The study compared short-term unplanned reoperations in women undergoing immediate versus delayed breast reconstruction after mastectomy for cancer. Immediate breast reconstruction (IBR) was associated with significantly higher odds of reoperation compared to delayed reconstruction, particularly for expander-based and direct-to-implant procedures. Direct-to-implant reconstructions showed the highest reoperation risk. However, there were no significant differences in reoperation rates between immediate and delayed approaches when autologous reconstruction was used, whether performed in one or two stages.

► [Link to Publication](#)

#### **Assessing First and Multiple Reoperations in 23,301 Breast Reconstructions: Immediate Versus Delayed Reconstructions in Women with Breast Cancer**

Results showed that immediate breast reconstruction (IBR) carried a higher incidence and risk of first reoperation compared to delayed reconstruction, though differences in multiple reoperations were only seen in specific subgroups. The findings highlight the importance of managing preoperative expectations, as they strongly affect patient satisfaction and quality of life. Understanding how timing influences reoperation risk can help patients make more informed reconstruction decisions.

► [Link to Publication](#)

# Patient-Centered Research Highlights 2025



## Deep brain stimulator

### **Deep Brain Stimulation: A sum of surgical practices over a decade**

In a cohort of over 1,100 patients who received a deep brain stimulator, researchers highlight varied implantation techniques, changes in

rechargeable battery implantation over time, as well as return to care outcomes like 90-day ED visit, readmission, and infection.

► [\*\*Link to Publication\*\*](#)

## Total hip arthroplasty

### **No advantages or disadvantages were associated with use of one to two acetabular screws with an ultraporous cup and cross-linked polyethylene liners in uncomplicated primary THA for osteoarthritis**

No difference was observed in 10-year revision risk for acetabular loosening and there was no

difference in risk of overall acetabular or femoral revision, loosening, periprosthetic fracture, or in acetabular-sided loosening between routine screw users and nonusers.

► [\*\*Link to Publication\*\*](#)



# Patient-Centered Research Highlights 2025



## Hip fracture

### **Patients using direct oral anticoagulation (DOAC) medications had higher mortality rates following hip fracture repair**

DOAC patients had a decreased thrombosis rate, potentially due to anticoagulant effects; however, in the DOAC group, mortality, pneumonia, and MI were also more prevalent, due to cardiovascular disease, delay in surgical repair and mobilization; increased likelihood of general anesthesia, and perioperative bleeding. Regardless of preoperative DOAC status, ASA classification, gender, CHF, chronic pulmonary disease, lower BMI, and higher age are associated with increased risk of mortality. Some of these comorbidities can be utilized for risk stratification prior to surgery.

► [Link to Publication](#)

### **Similar revision rates were observed with Femoral Neck System (FNS) compared to multiple cannulated screws for the fixation of femoral neck fractures in elderly patients**

Findings failed to support the use of the FNS over cannulated-screw fixation in patients >60 years of age with a femoral neck fracture, given the similar revision rates observed with these 2 constructs. In an adjusted analysis, no difference in all-cause revision risk was observed when comparing FNS to cannulated screws, and subgroup analysis of procedures performed by surgeons who used both devices also did not demonstrate a difference in revision rates.

► [Link to Publication](#)



## Hip fracture (cont)

### **Cemented hemiarthroplasty has become a mainstay of treatment for displaced fractures and use of cementless fixation is generally discouraged**

For the vast majority of displaced femoral neck fractures in older patients, cemented femoral fixation is indicated because it is associated with a lower risk of periprosthetic fracture than cementless. Nevertheless, cementless fixation continues to be utilized with high frequency for hip fractures in the United States. It is therefore helpful to understand the performance of individual cementless brands and models.

Versys LD/FX, Summit Basic, and M/L Taper stems had higher aseptic revision risks when compared with Summit. No differences in revision risk were observed for Corail, Tri-Lock, or Trabecular Metal compared with the Summit.

► [Link to Publication](#)

### **Majority of intertrochanteric femoral fractures in the United States are now treated with cephalomedullary nailing**

The 3 most commonly utilized cephalomedullary nails include Gamma, INTERTAN, and TFN/TFNA. In a multivariable analysis comparing nails of all lengths, the INTERTAN was found to have a significantly higher risk of aseptic revision compared with TFN/TFNA. There were no observed differences in aseptic revision between Gamma and TFN/TFNA groups.

► [Link to Publication](#)



This paper highlights the unique strength of our organization in defining a goal for improved outcomes for our patients, identifying best practices from individual medical centers and disseminating these practices, ultimately standardizing the highest quality of care for all of our patients nationwide.

#### **Adrian Hinman, MD**

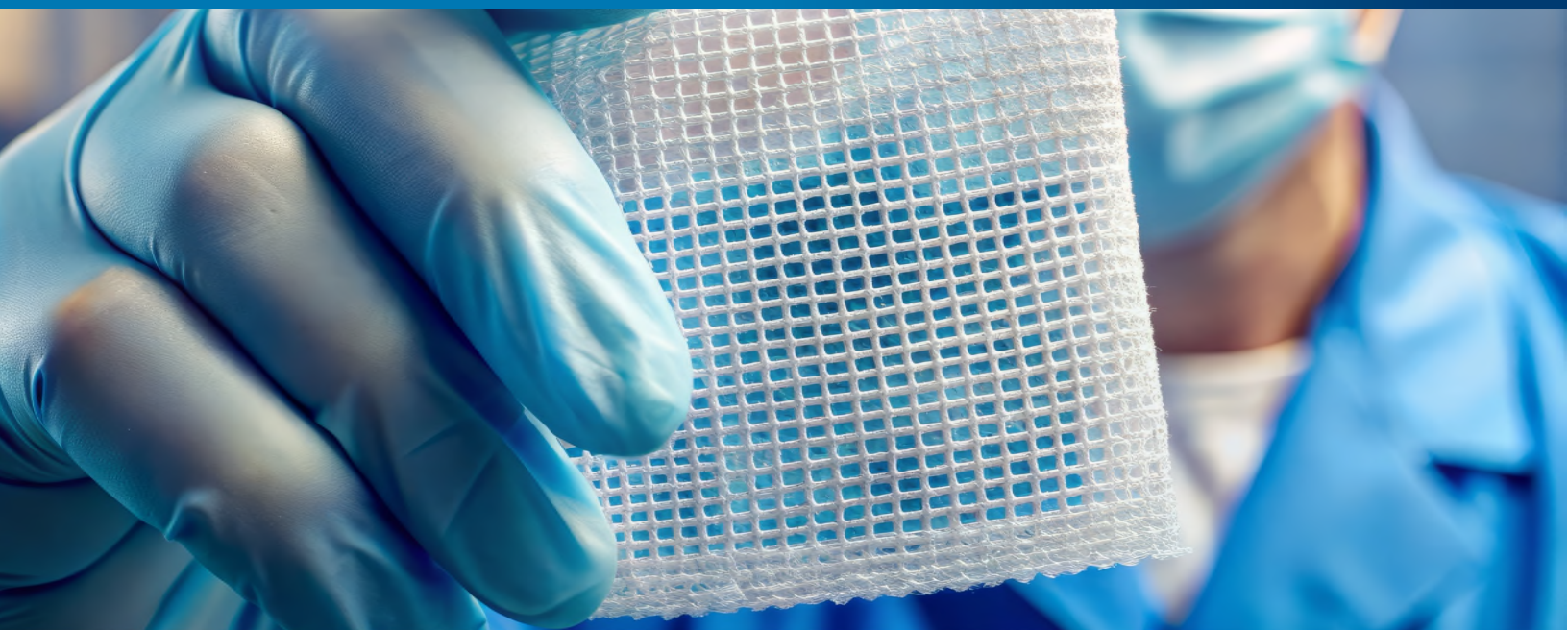
Orthopaedic Surgery, San Leandro  
Southern California Permanente Group

### **In geriatric hip fracture hemiarthroplasty treatment, low-demand stems were associated with a higher risk of aseptic revision and periprosthetic fracture when compared with their standard counterparts**

Low-demand stems (Summit Basic and Versys LD/Fx) were found to have a higher risk of aseptic revision as compared with their standard counterparts (Summit and Versys Advocate). This same pattern was observed within each pair of stems separately (ie, comparing Summit Basic to Summit and Versys LD/Fx to Versys Advocate) and when restricting to procedures performed by experienced THA surgeons.

► [Link to Publication](#)

# Patient-Centered Research Highlights 2025



## Hernia

### **Plug mesh associated with a higher risk of reoperation for infection**

Researchers' findings reinforce the trend away from plug mesh use in open inguinal hernia repair and support guideline recommendations that caution against its routine use. The findings also highlight the importance of long-term surveillance and real-world data in evaluating surgical techniques.

#### ► **Link to Publication**



By analyzing outcomes from more than 90,000 open inguinal hernia repairs, our study provides surgeons with robust, real-world evidence that helps support mesh selection based on patient-specific factors and long-term safety.

#### **Elliott Brill, MD**

General Surgery, Santa Clara  
The Permanente Medical Group

### **Mesh weight associated with varying risk of postoperative complications**

Researchers' findings support the use of lightweight mesh to lower the risk of recurrence, reoperation, and chronic pain in minimally invasive inguinal hernia repairs. In addition, the use of heavyweight mesh was associated with a higher chronic pain risk but lower risk of recurrent and reoperation in open repairs. These findings support using lightweight mesh for most minimally invasive procedures and highlight the importance of mesh selection for long-term outcomes.

#### ► **Link to Publication**

# Patient-Centered Research Highlights 2025



## Total knee arthroplasty

### **No cementless TKA construct was associated with better implant survivorship compared with their cemented counterpart options**

Fixation with cementless spikes-and-keel performed better than twin-pegs. Cemented TKA with reliable results that have been observed over longer periods remain the prudent choice at present.

► [Link to Publication](#)

### **Surgeon Learning Curve With Selection of New Total Knee Arthroplasty Implants and Risk of Revision: A Registry-Based Cohort Study**

Although a trend toward a learning curve with higher revision rates was observed for the first 50 TKA with a new system, no significant differences were observed in adjusted analyses. Surgeons should be cautious for the first several TKA when transitioning to a new implant given the relationship between surgeon and implant on revision risk.

► [Link to Publication](#)

### **Addition of metaphyseal sleeves or porous cones did not change the risk of aseptic re-revision (rTKA) overall or due to loosening specifically**

In the largest study to date comparing rTKA with addition of modular stems alone versus modular stems and metaphyseal sleeves or cones, at 8-years follow-up from the index revision, no difference was observed in aseptic repeat revision risk for stems with cone/sleeves compared to stems alone. Similarly, in the adjusted model, no difference was observed in the risk of loosening for stems only vs stems with cones/sleeves.

► [Link to Publication](#)

### **No statistically significant evidence that Antibiotic-Loaded Bone Cement in cemented TKAs is associated with a reduced risk of revision for PJI**

The 1-year cumulative percent revision and risk of revision for PJI were similar for both ALBC and PBC in all high-risk subgroups. No statistical significance was found that ALBC cemented TKAs are associated with reduced risk of revision for PJI. Also, excessive antibiotic use may potentially lead to antimicrobial resistance that may complicate management of infected implants.

► [Link to Publication](#)



# Patient-Centered Research Highlights 2025

## Radial head

### **No observed difference in risk of revision or reoperation following RHA based upon stem design**

Authors did not observe a difference in risk of revision or reoperation following RHA based upon stem design. The choice between using an implant with a loose or press fit stem may be based more on surgeon familiarity, implant availability, cost, and ease of use.

► [Link to Publication](#)



## International collaboration

### **Arthroplasty registries at a glance: an initiative of the International Society of Arthroplasty Registries (ISAR) to facilitate access, understanding, and reporting of registry data from an international perspective**

The International Society of Arthroplasty Registries developed, tested, and adopted a publicly available short, standardized registry description to facilitate access, transparency, harmonization, and reporting of orthopedic registry data worldwide. This information can be relevant for a diverse group of stakeholders including researchers, industry, public health and regulatory agencies.

► [Link to Publication](#)







## Association Between Race/Ethnicity and Spinal Fusion Outcomes in a Managed Health-Care Model

This study found that even within a managed care system offering equal access to spine surgery, racial and ethnic disparities persisted among Black and Hispanic patients. While managed care may lessen such gaps compared to other systems, more work is needed to achieve fully equitable outcomes. These findings underscore the urgent need to address these disparities with further research.

► [Link to Publication](#)

## Spine

### Differences in reoperations for adjacent segment disease (operative ASD) and nonunion (operative nonunion) in lumbar fusions that stop at T10/T11/T12 versus L1

Current lumbar spine surgery is based on the belief that ASD occurs if fusions are stopped at L1, although there is varying evidence to support this assumption. Our study consisted of 227 lumbar fusions that stop at L1 and 228 stop at T10/T11/12 with a mean follow up of 6 years. The findings provide evidence against crossing the thoracolumbar junction for individual constructs terminating at S1 and for long-segment fusions, based on comparisons of operative ASD and operative nonunion. However, further research is needed to determine whether this finding holds true for individual constructs with caudal levels at L2, L3, L4, and S1+ilium.

► [Link to Publication](#)

“

There has long been debate over whether to end long constructs at L1 or extend across the thoracolumbar junction to T11/T12. Our findings indicate that stopping at L1 is safe when the construct extends caudally to S1, as rates of adjacent segment disease and nonunion were like those observed when stopping at T11/T12.

**Kern Guppy, MD, PhD**

Neurosurgery, Los Angeles  
Southern California Permanente Medical Group

# Collaboration Opportunities

To explore research question focused on implantable devices within Kaiser Permanente, [click here](#) to learn more and start a new research project.



## Submission deadlines

- Every March 31<sup>st</sup> and September 30<sup>th</sup>
- Email: [KPdeviceassessment@kp.org](mailto:KPdeviceassessment@kp.org)
- [Letter of Intent form](#) on our website.

Projects selected for first half of 2026 include:

### Hernia repair

- Risk factors for reoperation following parastomal hernia repair

### Hip fracture repair

- Intermediate vs short cephalomedullary nails in the management of geriatric hip fractures

### Spine repair

- ACDF interbody composition
- Comparing outcomes and effectiveness of indirect vs direct neural element decompression in patients undergoing instrumented lumbar and lumbosacral

### Total joint arthroplasty

- Uncemented patella in total knee arthroplasty compared to cemented and un-resurfaced patella

# Medical Device Surveillance Committee Members

The mission of the MDSC is to advance knowledge about implantable medical products outcomes and to apply that knowledge to enhance patient safety and quality of care, as well as provide leadership and expertise to lead the understanding of implant performance, internal and externally. The MDSC is a national quality program, governed by the Kaiser Permanente National Quality Committee.



**Nolan Chang, MD**

Chair, Medical Device Surveillance Committee; Regional Medical Director SCPMG; EVP, The Permanente Federation



**Liz Paxton, PhD, MA**

Senior Director, Medical Device Surveillance and Assessment Unit of Clinical Analysis, SCPMG



**Tania Tang, PhD, MPH**

Executive Leader, Clinical Analysis, SCPMG; VP, Analytics, The Permanente Federation



**Barbara Crawford, MS, RN, NEA-BC**

Senior Vice President, National Health Plan and Hospital Quality



**Sande Irwin, MD**

Otolaryngology/Head and Neck Surgery; Chair, National Product Council; Co-Chair, Northwest Technology Coordinating Group; Co-Chair, Northwest Regional Product Council



**Christopher Grimsrud, MD, PhD**

APIC Surgical Specialties, Kaiser East Bay; Regional Co-Chair of Orthopedics, TPMG



**Tracey McLean, MD**

Obstetrics/Gynecology; NCAL Regional Kaiser Permanente Health Connect Leader



**Tametha Stroh, MSN, RN, CPPS, CPHRM, CPHFH, LSS GB**

Senior Director, Quality and Safety Improvement, Patient Safety  
National Risk Management, and Patient Safety (NRMPS)  
National Health Plan and Hospital Quality (H2Q)



**Scott Young, MD**

Senior Medical Director, Clinical Quality and Safety; Executive Director, The Care Management Institute



**Ashish M. Mehta, MD**

Pediatric Ophthalmology & Adult Strabismus  
Regional Asst. Medical Director, Capital Equipment  
Co-Chair, Equipment Strategy Planning Group



**Elizabeth Loughren, MPH**

Managerial Senior Consultant, Interregional New Technologies Committee



**Emily Perdoncin, MD, FACC, FSCAI**

Structural Heart Program, Kaiser Permanente San Francisco

# Medical Device Surveillance and Assessment

## Interregional scientific subcommittee

The mission of the Interregional Scientific Subcommittee is to provide recommendations for prioritization and selection of research study proposals to identify the most impactful studies regarding medical device performance that will influence patient safety and quality of care across multiple specialties.

### MDSC chair

Nolan Chang, MD

### Cardiology

Nigel Gupta, MD

### Orthopedics

Christopher Grimsrud, MD, PhD  
Kanu Okike, MD, MPH

### MDSA senior director

Liz Paxton, PhD, MA

### General surgery

Francisca Maertens, MD, FACS

### Plastic surgery

Winnie Tong, MD

### MDSA research scientists

Heather Prentice, PhD, MPH  
Kathryn Royse, PhD, MPH, MSPH

### Neurosurgery

Omid Hariri, DO, MSc, FACS

### Vascular surgery

Robert Chang, MD

## Department team members

### Leadership

Liz Paxton, PhD, MA  
Jessica Harris, MS, RD  
Kenneth Sucher, MS

### Data analysts

Blanca Miskulin  
Donna Leck  
Nicole Caballero, BS  
Tia Mullane, BA

### Data reporting and analytics consultants

Cindy Yuexin Chen, BS  
Kim Phan, BA  
Maggie Hong Sun, MS  
Michael Reyes, BS  
Tom Huon, BS  
Jialuo Liu, MS  
Juan Ruiz

### Research scientists

Heather Prentice, PhD, MPH  
Kathryn Royse, PhD, MPH, MSPH

### Project managers

Brian Fasig, PhD  
Chelsea Reyes  
Janine Cruz, BA

### Biostatisticians

Priscilla Chan, MS  
Richard Chang, MPH

### Staff specialist

Raffaella Cowell