

**Quality and Productivity Commission  
31<sup>st</sup> Annual Productivity and Quality Awards Program  
"Celebrating Quality Service"**

**2017 APPLICATION**

Title of Project (Limited to 50 characters, including spaces, using Arial 12 point font):

**NAME OF PROJECT: TECHNO-TRACKING: SURGICAL INSTRUMENT MANAGEMENT**

**DATE OF IMPLEMENTATION/ADOPTION:** APRIL 2015  
(Must have been implemented at least one year - on or before July 1, 2016)

**PROJECT STATUS:**  X  Ongoing       One-time only

**HAS YOUR DEPARTMENT PREVIOUSLY SUBMITTED THIS PROJECT?**       Yes  X  No



**EXECUTIVE SUMMARY:** Describe the project in 15 lines or less using Arial 12 point font. State clearly and concisely what difference the project has made.

- 1 The Surgical Instrument Management System implementation at Harbor-UCLA Medical  
2 Center has provided huge salary savings, has expanded communication between the  
3 Operating Room (OR) staff and Central Sterile Processing (CSP) staff, and enhanced  
4 efficiency by:  
5 • Allowing real time/electronic quality feedback. Surgeons and OR staff can comment  
6 on the instrument tray contents and assembly, thus providing valuable input by the end-  
7 user.  
8 • Tracking physical location of the tray, which prevents staff from wasting critical  
9 productive time looking for instruments/trays.  
10 • Providing staff with reference tools, when and if in doubt: instrument and tray photos,  
11 and manufacturer's requirements for appropriate sterile processing parameters.  
12 • Ensuring trays are accurately processed through all sterilization steps in order to  
13 prevent a surgical site infection (SSI). With infections causing injury to patients and  
14 adding to hospital costs, it is critical that proper steps are followed and that staff are  
15 competent in performance of their tasks.

**BENEFITS TO THE COUNTY**

(1) ACTUAL/ESTIMATED ANNUAL COST AVOIDANCE	(2) ACTUAL/ESTIMATED ANNUAL COST SAVINGS	(3) ACTUAL/ESTIMATED ANNUAL REVENUE	(1) + (2) + (3) = TOTAL ANNUAL ACTUAL/ESTIMATED BENEFIT	SERVICE ENHANCEMENT PROJECT
\$	<b>\$ 1,017,900</b>	\$	\$	<input checked="" type="checkbox"/>

**ANNUAL = 12 MONTHS ONLY**

<b>SUBMITTING DEPARTMENT NAME AND COMPLETE ADDRESS</b> DHS-Harbor UCLA Medical Center 1000 Carson Street Torrance, CA 90509		<b>TELEPHONE NUMBER</b> 310-222-2155
<b>PROGRAM MANAGER'S NAME</b> Aileen Cabatan-Almazan, RN, MSN Frances Hikido, RN, BA, CNOR Dawna Willsey, RN, MSN, SNOR		<b>TELEPHONE NUMBER</b> 310-222-6979  <b>EMAIL</b> aalmazan@dhs.lacounty.gov
<b>PRODUCTIVITY MANAGER'S NAME AND SIGNATURE</b> (PLEASE CALL (213) 893-0322 IF YOU DO NOT KNOW YOUR PRODUCTIVITY MANAGER'S NAME) Gerardo Pinedo	<b>DATE</b>  7.3.17	<b>TELEPHONE NUMBER</b> 213-240-7948  <b>EMAIL</b> gpinedo@dhs.lacounty.gov
<b>DEPARTMENT HEAD'S NAME AND SIGNATURE</b> Dr. Mitchell Katz	<b>DATE</b> 	<b>TELEPHONE NUMBER</b>

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**1<sup>st</sup> FACT SHEET – LIMITED UP TO 3 PAGES ONLY:** Describe the **challenge(s), solution(s), and benefit(s)** of the project. What quality and/or productivity-related outcome(s) has the project achieved? Provide measures of success. Use Arial 12 point font.

**Challenge:**

Achieving maximum performance in the Operating Room (OR) by having the right instruments at the right time and place is critical for delivering safe, efficient patient care. An operational problem was identified where OR staff were wasting valuable time searching for instruments and trays. This sometimes resulted in a delay starting cases, causing frustration for the staff. Additionally, there was inconsistency in the sterilization of these instruments, creating the potential for the development of surgical site infections (SSIs). With Harbor-UCLA Medical Center’s implementation of LEAN principles, the challenge to the OR and Central Sterile Processing (CSP) staff was to look at a better way to manage surgical instruments, to standardize workflows, to improve overall organization, to decrease the amount of wasted staff time and energy, and to enhance staff performance and accuracy using existing resources.

**Solution:**

LEAN is a systematic approach to identifying and fixing broken systems. Its goal is to increase value in every aspect of care and service, and do it in a way that engages and empowers individuals to become problem solvers. Within this framework, the OR and CSP staff and managers got to work, researching commercial systems for surgical instrument management. The system Harbor-UCLA selected was CensiTrac, the first surgical instrument tracking system capable of tracking to the instrument level. CensiTrac offered the Central Sterile Processing staff five operational tools (decontamination, tray assembly, sterilization room, case cart assembly, and operating room) to streamline workflow and improve staff competency, while offering the Operating Room staff full visibility and empowering them to manage the active surgical inventory tied to each individual patient case. With this implementation, two groups who had primarily worked independently of each other now had a mechanism to allow them to work collaboratively.

Managers and line staff in the OR and CSP received training on the use of the system. One component of the system is a Quality Feedback and Competency tool, which contains verification logic that confirms team members are properly trained to handle and prepare all equipment. Daily auditing of the new LEAN standardized workflows in OR and CSP helped to ensure staff competency and compliance, allowing the opportunity for additional training as needed.

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**Benefits:**

The Surgical Instrument Management System allows for a real-time view on the location of instrument trays. CSP and OR staff no longer waste valuable time searching for instrument trays, which increases productivity of staff to perform value-added critical tasks. The “Competency” feature provides a means of checking each employee’s performance on central processing tasks. Staff have increased confidence by having resource tools readily available to assist them in identifying the thousands of various instruments, and their respective manufacturer’s requirements for appropriate sterile processing. The system also tracks each step in the sterile process, therefore verifying accuracy is maintained and staff are accountable. By capturing reprocessing data and procedure case history for every instrument tray and endoscope, OR efficiency and infection control are in alignment. This decreases the potential for surgical site infections, saving patients from harm and the hospital for added costs. The “Quality Feedback” feature provides an opportunity for the OR staff (located on the 2<sup>nd</sup> floor) to communicate constructive feedback to the CSP staff (located in the basement). This communication is done electronically so that the issues are current, data is recorded, and reviewed by staff and supervisors, facilitating a higher level of accountability and job satisfaction overall.

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**Linkage to the County Strategic Plan – 1 page only.** Which County Strategic Plan goal(s) does this project address? Explain how. Use Arial 12 point font.

**Goal I: Make Investments That Transform Lives by increasing our focus on prevention initiatives:**

Preventing surgical site infections (SSI's). The Surgical Instrument Management System provides a framework to monitor surgical instrumentation and reprocessing documentation. This impacts patient safety by tracking the surgical instrument through each step: decontamination; assembly; sterilization. This ensures that all steps for reprocessing have been completed and instruments are available for use. As a result, this significantly decreases the risk of patients developing surgical site infections (SSI), giving them the best chance to fully recover from surgeries and return to rich, rewarding lives.

**Goal II: Foster Vibrant and Resilient Communities by driving economic and workforce development in the County and supporting the wellness of our communities:**

Invest in our people to provide greater opportunity: Increasing the workforce confidence and competence, by providing resources and improved efficiencies in daily work, open lines of communication between teams, and decreasing frustration in searching for surgical instruments.

**Goal III: Realize Tomorrow's Government Today by pursuing development or our workforce; embracing digital government for the benefit of our customers and communities and pursuing operational effectiveness, fiscal responsibility and accountability:**

The Surgical Instrument Management System creates transparency in the location of surgical instruments, so that staff are able to locate them efficiently. This maximizes operational effectiveness by decreasing the time used to look for instruments/trays and increasing time available to perform other tasks. Additionally, having a means for OR and CSP staff to communicate through the “Quality Feedback” feature optimizes the delivery of surgical instruments by making sure that the right instruments are at the right place at the right time, and allowing for any needed changes in real time. All of this translates into maximization of human and practical resources. Furthermore, this shared input generates team synergy behind the shared goal of delivering safe, quality patient care.

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**COST AVOIDANCE, COST SAVINGS, AND REVENUE GENERATED (ESTIMATED BENEFITS TO THE COUNTY):** If you are claiming cost benefits, include a calculation on this page. Please indicate whether these benefits apply in total or on a per unit basis, e.g., per capita, per transaction, per case, etc. You must include an explanation of the County cost savings, cost avoidance or new revenue that matches the numbers in the box. Remember to keep your supporting documentation. Use Arial 12 point font

**Cost Avoidance:** Costs that are eliminated or not incurred as a result of program outcomes. Please indicate whether these are costs to the County or to other entities.

**Cost Savings:** A reduction or lessening of expenditures as a result of program outcomes. Please indicate whether these were expenditures by the County or by other entities.

**Revenue:** Increases in existing revenue streams or new revenue sources to the County as a result of program outcomes.

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Estimated Annual Cost Savings:

Time spent for a Registered Nurse to search for a surgical instrument tray prior to implementation of Surgical Instrument Management System = 30 minutes.

Average number of trays used per week = 900.

Average Registered Nurse salary - \$43.49/hour.

900 tray/week X 30 minutes/tray X (\$43.49/hour / 2) X 52 weeks/year = \$1,017,900/year.