

**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: TEAM TRIAGE IN THE ER...WHY WAIT?**

**DATE OF IMPLEMENTATION/ADOPTION:** JULY 1, 2016  
 (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 Emergency Room overcrowding has become a growing problem across the United  
 2 States. At Harbor UCLA, the long wait times for Adult ER patients to see a triage nurse  
 3 or a provider resulted in 1 out of every 7 patients choosing to leave before they were  
 4 ever seen by a provider. By using the LEAN methodology to examine the root causes of  
 5 long ER wait times and developing a patient-centered, Team Triage approach, our team  
 6 was able to decrease the wait time to see a triage nurse from 90 minutes to 25 minutes,  
 7 and the wait time to see a provider from 109 minutes down to 25 minutes. This  
 8 improved process also decreased the number of patients that left the ER without being  
 9 seen by a provider from 14% down to 2%. Team Triage has also allowed 20 more  
 10 patients to be seen on a daily basis in the Adult Emergency Room, increasing daily  
 11 visits from 120 to 140 patients seen daily. This has allowed us to not only provide more  
 12 care to our community, but has also resulted in an estimated increase of \$4.5 million in  
 13 annual revenue.  
 14  
 15

**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>\$ 338,966.04</b>		<b>\$ 4,347,963.52</b>	<b>\$ 4,686,929.56</b>	<input checked="" type="checkbox"/>

ANNUAL = 12 MONTHS ONLY

<b>SUBMITTING DEPARTMENT NAME AND COMPLETE ADDRESS</b> DHS-Harbor UCLA Medical Center, Department of Nursing 1000 Carson Street Torrance, CA 90509		<b>TELEPHONE NUMBER</b> 310-222-2135
<b>PROGRAM MANAGER'S NAME</b> Brad Chappell, M.D., Jeremy Ramon, RN, BSN, Martee King, RN, MSN, and Joy LaGrone, RN, MSN		<b>TELEPHONE NUMBER</b> 310-222-3431  <b>EMAIL</b> jramon@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>	<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.

**Challenges**

Healthcare reform has created a surge of patients that have previously not had insurance coming to the Emergency Room to seek care for the first time. A survey released by the American College of Emergency Physicians in 2015 demonstrated that 75% of ER doctors state that ER visits have increased since the Affordable Care Act took effect. ER overcrowding has been a growing problem for all Emergency Rooms across the country. The ER is the gateway for healthcare for many uninsured and newly insured patients. Because of overcrowding, adult patients at Harbor UCLA were waiting an average of 90 minutes from ER arrival to be seen by a nurse for triage and 109 minutes from ER arrival to see an ER provider for a Medical Screening Exam. Having patients wait an average of 1.45 hours before seeing a doctor not only places patient safety in jeopardy, but also results in many patients leaving the ER without ever seeing a doctor.

At Harbor UCLA, the Adult Emergency Room left without being seen rate was 14% in 2015, which roughly translates to 1 out of every 7 adult patients that checked into the Emergency Room for treatment went home without ever seeing a doctor. This impacted patients in a huge way, where some patients went home after waiting a few hours, only to return the next day sicker than they were the day before. Countless Emergency Room resources were wasted in a system that was segmented and not meeting the needs of every patient that came in for medical treatment. A change was required to not only improve the care that we provided to the patient, but also to make better use of resources. Nurses would often be asked to work overtime to cover a backlog in the number of patients waiting to be seen. Additionally, patients that left the ER without seeing a doctor could not be billed for their ER visit, resulting in lost revenue despite higher staffing costs.

**Solution**

Beginning in April 2016, a team was assembled of Patient Flow, Emergency Room Nursing and Emergency Medicine staff to examine the problem and come up with a creative solution to decrease the rate of patients leaving without being seen, and decrease a patient’s wait time from ER arrival to seeing a doctor. Using LEAN methodology to examine the entire process from patient arrival to seeing a doctor, the team was able to identify several areas of waste and change triage processes so that they were centered on the patient instead of being centered on the nurses and doctors.

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Various instances where patients had to wait extended periods for different people to call them, variability in triage questions and procedures, and the duplication of tasks by registered nurses, nursing attendants and doctors were eliminated. Through studying the processes and determining which steps could be avoided or done at a later time, the team was able to create a new standardized Team Triage approach to seeing patients in the Emergency Room. The Team Triage process took effect on July 1, 2016. By centering the triage process on the patient and combining the nurse triage process with the doctor’s medical screening exam, the team was able to decrease the patient’s ER arrival time to triage time from 90 minutes to 25 minutes and the ER arrival time to see a doctor from 109 minutes down to 25 minutes. This also resulted in a drastic decrease in the rate of patients leaving without being seen from 14% down to 2%, which is roughly 1 out of 7 patients leaving without seeing a provider down to 1 out of 50 patients leaving without seeing a provider. Shorter wait times coupled with seeing more patients has vastly improved the care that we are able to provide to our patients and our community.

**Benefits**

The decrease in the arrival time to Team Triage and the decrease in the number of patients leaving without being seen by a doctor have also increased the daily total number of patients seen and treated in the Emergency Room. Because the patients that would have previously left are now staying and receiving the medical care that they need, the Adult ER is seeing an additional 20 patients a day, resulting in an increase from 120 patients to 140 patients treated on a daily basis. Based on the 2015-2016 average collection per ER visit of \$644 and the additional 20 patients seen daily, the Team Triage process has resulted in an estimated annual increase in ER revenue of over \$4.5 million. The adoption of the Team Triage process in the Emergency Room at Harbor UCLA has allowed us to provide timely, patient-centered care to the members of the community that we serve in a manner that is financially sustainable and makes appropriate use of resources.

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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.

This project addresses Goal I of the LA County strategic plan, Make Investments that Transform Lives, under strategy I.2.2, Streamline Access to Integrated Health Services, as well as Goal III, Realize Tomorrow’s Government Today, under strategy III.3, Pursue Operational Effectiveness, Fiscal Responsibility, and Accountability, and Strategy III.3.1, Maximize Revenue.

The Emergency Room has long served as the gateway to healthcare for patients that are uninsured or newly insured, but unsure how or even where to get care. Patients have depended on the fact that they can come to the Emergency Room at any time of the day to get compassionate care and receive guidance on how to navigate the often confusing world of healthcare and gain access to LA County’s offered health services. This project has increased the number of patients that are able to be seen in the Emergency Room without having to wait so long that they choose to leave and seek care somewhere else. Additionally, because of this project we are able to provide care to the patients that would otherwise have left before seeing a doctor, allowing us to be able to maximize revenue through appropriate billing and promote the long-term financial sustainability in our ER operations through decreasing overtime costs.

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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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**ANNUAL= 12 MONTHS ONLY**

Replaced contract physicians at cost of \$950.00 annually with hire of 16 post-physician graduate physicians (Level 4) at annual cost of \$81,452.28.

\$81,452.28 x 16 PPG's - \$1,303,236.48

\$1,303,236.48 - \$950.000 = 353.236.48

**Estimated Annual Cost Avoidance:**

Eliminated need for one Registered Nurse to work during peak triage hours of 11 am to 11 pm. Overtime pay based on Nursing Fiscal management roster for Registered Nurse 1, step 20.

\$71.22 (hourly rate) x 12 hours = \$854.64 (daily overtime expenditure)

\$854.64 x 365 days = \$311,943 (annual overtime expenditure)

Reassigned a full-time Nursing Attendant I at \$27,023.04 (annual salary)

\$311,943 + \$27,023.04 = **\$338,966.04** estimated annual cost avoidance

**Estimated Annual Revenue:**

Increased the number of patients seen daily in the Adult ER by 20

\$644 (average collection per ER visit) x 20 (additional daily ER patients) =

\$12,880 (daily additional ER revenue)

\$12,880 x 365 days = \$4,701,200 (annual additional ER project revenue)

\$4,701,200 - \$353,236.48 (increase for cost of 16 PPG's) = **\$4,347,963.52**

**Total Annual Estimated Benefit:**

\$338,966.04 (estimated cost avoidance) + \$4,347,963.52 (estimated annual revenue)

= **\$4,686,929.56**

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**FOR COLLABORATING DEPARTMENTS ONLY**

*(For single department submissions, do not include this page)*

<b>DEPARTMENT NO. 2 NAME AND COMPLETE ADDRESS</b>	
<b>PRODUCTIVITY MANAGER’S NAME AND SIGNATURE</b>	<b>DEPARTMENT HEAD’S NAME AND SIGNATURE</b>
EMAIL: _____	EMAIL: _____
<b>DEPARTMENT NO. 3 NAME AND COMPLETE ADDRESS</b>	
<b>PRODUCTIVITY MANAGER’S NAME AND SIGNATURE</b>	<b>DEPARTMENT HEAD’S NAME AND SIGNATURE</b>
EMAIL: _____	EMAIL: _____
<b>DEPARTMENT NO. 4 NAME AND COMPLETE ADDRESS</b>	
<b>PRODUCTIVITY MANAGER’S NAME AND SIGNATURE</b>	<b>DEPARTMENT HEAD’S NAME AND SIGNATURE</b>
EMAIL: _____	EMAIL: _____
<b>DEPARTMENT NO. 5 NAME AND COMPLETE ADDRESS</b>	
<b>PRODUCTIVITY MANAGER’S NAME AND SIGNATURE</b>	<b>DEPARTMENT HEAD’S NAME AND SIGNATURE</b>
EMAIL: _____	EMAIL: _____
<b>DEPARTMENT NO. 6 NAME AND COMPLETE ADDRESS</b>	
<b>PRODUCTIVITY MANAGER’S NAME AND SIGNATURE</b>	<b>DEPARTMENT HEAD’S NAME AND SIGNATURE</b>
EMAIL: _____	EMAIL: _____
<b>DEPARTMENT NO. 7 NAME AND COMPLETE ADDRESS</b>	
<b>PRODUCTIVITY MANAGER’S NAME AND SIGNATURE</b>	<b>DEPARTMENT HEAD’S NAME AND SIGNATURE</b>
EMAIL: _____	EMAIL: _____