

Quality and Productivity Commission
32nd Annual Productivity and Quality Awards Program
"Innovating for Impact"

2018 APPLICATION

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

NAME OF PROJECT: ADD TO IMPROVE PRE-HOSPITAL PATIENT CARE

DATE OF IMPLEMENTATION/ADOPTION: JUNE 7, 2017

(Must have been fully implemented for a minimum of at least one year - on or before July 1, 2017)

PROJECT STATUS: Ongoing One-time only

HAS YOUR DEPARTMENT PREVIOUSLY SUBMITTED THIS PROJECT? Yes 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 On June 7, 2017, the Los Angeles County Fire Department (Department) implemented
 2 automatic drug delivery (ADD). Using biometric fingerprint technology, the ADD system
 3 allows paramedics to resupply controlled drugs from the closest geographical machine,
 4 ensuring the availability of these critical drugs for patient care. Twenty-four separate
 5 ADD machines are in operation, communicating to the Department's centralized
 6 pharmacy. This is the nation's largest fire department-based ADD system.
 7 Previously, controlled drugs were resupplied through the four County hospitals involving
 8 a laborious, paper based process. This process involved a minimum of five separate
 9 County employees over a period of multiple days to complete the replacement of a
 10 single vial of a controlled drug.

11
 12 The ADD system has improved the efficiency, accountability and security of the
 13 controlled drug resupply process. This innovative approach ensures that the Fire
 14 Department has the critical medications needed to positively impact patient care.
 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
\$	\$	\$	\$	<input checked="" type="checkbox"/>

ANNUAL = 12 MONTHS ONLY

SUBMITTING DEPARTMENT NAME AND COMPLETE ADDRESS Fire Department 1320 N. Eastern Avenue Los Angeles, CA 90063		TELEPHONE NUMBER 323.881.2401
PROGRAM MANAGER'S NAME Dr Clayton Kazan, Medical Director Battalion Chief Nick Berkuta		TELEPHONE NUMBER 323.267.7153 / 323.267.7175 EMAIL Clayton.Kazan@fire.lacounty.gov Nicholas.berkuta@fire.lacounty.gov
PRODUCTIVITY MANAGER'S NAME AND SIGNATURE (PLEASE CALL (213) 893-0322 IF YOU DO NOT KNOW YOUR PRODUCTIVITY MANAGER'S NAME) Roxanne Benavides-Ortega 	DATE 6/25/18	TELEPHONE NUMBER 323.881.2327 EMAIL Roxanne.benavides@fire.lacounty.gov
DEPARTMENT HEAD'S NAME AND SIGNATURE Daryl L. Osby 	DATE 07/01/18	TELEPHONE NUMBER 323.881.2401

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

Challenges

Department paramedics administer two controlled drugs, Morphine Sulfate and Midazolam, to treat various medical conditions of our patients. Prior to the implementation of the ADD system, once a paramedic administered a controlled drug, the resupply process required a paper based procedure that involved a minimum of five County employees. The following details the resupply process:

- 1) The administering paramedic would require his/her supervisor’s approval to submit a request to the jurisdictional Drug Supply Coordinator (DSC) for replacement of the controlled drug.
- 2) The DSC would fill out a controlled drug request form for their assigned County hospital.
- 3) A Department utility driver would transport the completed paperwork from the DSC to the County hospital pharmacist.
- 4) The pharmacist would fill the order.
- 5) The utility driver would transport the filled order back to the DSC.
- 6) The DSC would verify the order and then have the utility driver deliver the controlled drug to the ordering paramedic unit.

This process was a challenge to our Department because it was paper based, inefficient and time consuming. Replacement of a controlled drug could take multiple days to complete. In addition, the multi-step/multi-person resupply process challenged our ability to maintain adequate accountability and security of these highly state and federally regulated substances.

Finally, the State of California did not allow for the use of the fire-based ADD system.

Solutions

Our Department’s goal was to take an innovative approach using existing healthcare technology to improve the controlled drug resupply process. Automatic drug dispensing machines have been used in the hospital setting for years. We took this proven technology and modified it to meet our needs. The “hub and spoke” model that we utilize places 24 strategically located ADD machines throughout our service area.

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These machines are accessible to all our paramedics 24 hours a day, seven days a week. Paramedics can now resupply administered controlled drugs quickly and efficiently without the use of paper and multiple intermediaries.

Controlled drugs are removed from the machines by two paramedics (primary and witness) through the use of biometric fingerprint technology. In addition, the 24 ADD machines communicate directly with the hub, our Pharmaceutical Services Unit, which is managed by both our Medical Director and the nation's first full time Fire Department pharmacist. Accountability and security of our controlled drugs are diligently monitored.

To address our project's legislative challenge, Dr. Kazan worked with the California Board of Pharmacy and the EMS Medical Directors' Association of California (EMDAC) to draft and successfully lobby for the passage of SB 443: "Pharmacy: Emergency Medical Services Automated Drug Delivery System."

Benefits

The ADD system has delivered an innovative approach to the Department's controlled drug resupply process, directly impacting the standard of patient care. Paramedics are now able to resupply controlled drugs utilizing the closest geographical ADD machine any time, day or night. The interconnected electronic ADD network has replaced a laborious, paper based process that required the handling of the controlled drugs by multiple people; thus, the accountability and security of our controlled drug process has exponentially improved.

The implementation of the ADD system has also improved pre-hospital pain management as evidenced by an 18 percent increase in use since going live. Since we attribute this increase to the elimination of the previously laborious resupply process in favor of the highly accessible ADD machine.

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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 III: Realize Tomorrow’s Government Today
III.2.3: Prioritize and Implement Technology Initiatives That Enhance Service Delivery and Increase Efficiency

The ADD project is “realizing tomorrow’s government today” by utilizing technology to accomplish the following:

- 1) Eliminate a legacy paper based process in favor of ADD machines that are interconnected via an electronic network. This network increases the efficiency of the controlled drug resupply process by providing a system available to our paramedics at geographically advantageous locations 24 hours a day, seven days a week. Real time data is received at the hub from all field machines allowing staff to anticipate stocking needs and quickly solve technical issues.
- 2) Enhance service delivery to our patients through the observed 18 percent increase in pain management over the past year.
- 3) Restore productive work hours of County employees that are no longer needed to complete the controlled drug resupply process.

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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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FOR COLLABORATING DEPARTMENTS ONLY

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

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