Quality and Productivity Commission

34th Annual Productivity and Quality Awards Program

"Leading with Excellence"

2021 APPLICATION

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

NAME OF PROJECT: Advanced Provider Response Unit (APRU)

DATE OF IMPLEMENTATION/ADOPTION: NOVEMBER 18, 2019

(Must have been **fully** implemented **for a minimum of** at least one year - on or before July 1, 2020)

☐ **CHECK HERE IF THIS PROJECT IS BEING SUBMITTED FOR THE *COVID-19 IMPACT AWARD* ONLY.** (Projects must be implemented on or before December 31, 2020. **Note**: Projects implemented less than one year ago will not be eligible for any other PQA awards. In addition, once a project is submitted, you cannot submit the same project for awards consideration in subsequent years).

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.

Over the past 20 years, the Los Angeles County Fire Department's (Fire Department's) call volume has risen at a rate of 5 percent per year, with the majority of calls resulting in a transport to an Emergency Department (ED). While the call volume has risen, most of the increase is due to increasing use of 9-1-1 for low acuity calls because the primary and urgent care system has failed to keep up with the needs of the communities, disproportionately among the underserved. The inappropriate use of 9-1-1 results in saturation of the ED system, which reduces surge capacity and the ability of the EDs to manage the high acuity patients they were designed to serve. This became painfully apparent during the peak of the COVID-19 surge when ambulances spent countless hours waiting to offload critically ill patients. The Fire Department's APRU program was designed to address low acuity patients, triage them, perform simple interventions, and refer them to appropriate levels of follow-up without the need for an ambulance transport or ED visit. During the pandemic, the APRU was expanded to include a telemedicine option in order to expand the benefit of the program across Los Angeles County (County), and it was extremely successful.

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
$	$	$	$	☒

ANNUAL = 12 MONTHS ONLY

SUBMITTING DEPARTMENT NAME AND COMPLETE ADDRESS Los Angeles County Fire Department 1320 North Eastern Avenue, Los Angeles, CA 90063			**TELEPHONE NUMBER** (323) 881-6180
PROGRAM MANAGER'S NAME Dr. Clayton Kazan	**EMAIL** Clayton.Kazan@fire.lacounty.gov		**TELEPHONE NUMBER** (323) 267-7153
PRODUCTIVITY MANAGER'S NAME AND SIGNATURE (PLEASE CALL (213) 893-0322 YOU DO NOT KNOW YOUR PRODUCTIVITY MANAGER'S NAME) Heidi Oliva Executive Support Division Chief		**DATE** 06/21/21	**TELEPHONE NUMBER** (323) 881-6109 **EMAIL**
DEPARTMENT HEAD'S NAME AND SIGNATURE Fire Chief Daryl L. Osby		**DATE** 06/21/21	**TELEPHONE NUMBER** (323) 881-6180

****ELECTRONIC, WET, OR SCANNED SIGNATURES ARE ACCEPTABLE****

We Support Plain Language

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

Challenge: The medical safety net system we have all come to rely upon, from 9-1-1 calls to EMS response to ambulance transport to ER visit, is unsustainable. On any given day, hospitals across our system divert ambulances due to ED saturation, and this problem has been getting steadily worse for decades. The biggest problem to a system at saturation is the lack of surge capacity, and that became painfully apparent during the COVID surges of 2020 and early 2021. The biggest proportion of the rise in call volume has been related to a rising tide of low-acuity calls that could receive care in less acute settings, yet, for a variety of reasons, the system of primary and urgent care has proven to be fractured and unable to meet the demand. Not only do these responses saturate EMS services, but they also come at an extremely high cost to the healthcare system and don't, necessarily, yield better outcomes for the patients. The County ambulance ordinance allows for 9-1-1 ambulance billing to have a floor of more than $1,800, and the ED charges a minimum of $1,500/visit. Current State regulations prevent EMTs and paramedics from transporting patients to any destination other than a hospital ED, but those regulations do not apply to advanced practitioners (nurse practitioners, physician assistants, and physicians). So, the Fire Department adopted a program that was first piloted in Mesa, Arizona, and partnered an advanced provider with a firefighter/paramedic to create the APRU program. The Fire Department began experimenting with the APRU concept in 2017 and officially launched the APRU program in November 2019 in the Antelope Valley. This area was chosen because Lancaster and Palmdale house some of the County's busiest fire stations and have a high proportion of low acuity calls. When the pandemic hit in March 2020, the Fire Department recognized a need to expand the APRU and transitioned the APRU program into a virtual telemedicine program. After the first surge subsided in May 2020, the APRU was re-launched as a hybrid physical response and telemedicine unit. Lastly, under California law, paramedics and EMTs can only transport patients to a hospital ED. Unfortunately, more than 5 percent of the Department's EMS call volume is for mental health patients, and many of them are not well served by the chaos of an ED that may lack any psychiatric services. Over the past 10 years, a system of psychiatric urgent care centers (PUCCs) has been developed that are able to receive patients from law enforcement, but, by State law, cannot receive patients directly from EMS.

Solution: The Fire Department believes that the best way to reduce unnecessary EMS transports and ED visits is to intercept the patient in the field, upstream of being transported to the hospital. It has taken a while for the community to embrace the concept because it went against people's expectations when they called 9-1-1, but now, 17 months into the program, we have had multiple patients specifically request

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an APRU response. At its core, the APRU is a mobile urgent care center, capable of simple interventions like refilling a prescription, stitching a minor wound, or providing the patient reassurance and a more appropriate course for follow-up care. The APRU specifically targets patients that are falling through the cracks of the healthcare system, like patients who are high utilizers of the 9-1-1 system and attempts to get them reconnected to their medical homes. Unlike traditional EMS units, the APRU can call a patient back later in the day to check on them or schedule a revisit for the following morning; all in the name of keeping minor patients from needing to access the ED. Because the APRU goes into people's homes, they are more easily able to identify contributing factors to patient's health problems than an ED can. Despite seeing some of the most disconnected patients, only 5 percent of the APRU patients end up recontacting 9-1-1 within 72 hours. We call it a quadruple win: the patient gets better service, the system saves money, the ED is decompressed, and the need to continually add new paramedic units is diminished. After 17 months of operation, the APRU has successfully diverted more than 1,300 patients from the ED system. During COVID-19, the APRU was valuable at reassuring patients that they were safe to stay home, calling in prescriptions for them, and checking on them in subsequent days. Many of these visits were handled virtually using a telemedicine application paid for by a Productivity Investment Fund grant. Once vaccines became available and the Fire Department desperately needed mass vaccination days, the APRU was shifted to support that mission. Lastly, as an extension of the telemedicine mission, the Fire Department launched a linked pilot project known as Telemedicine for Alternate Destinations (TAD) in which the APRU screens mental health patients via telemedicine and authorizes transport to PUCCs instead of EDs. To date, the TAD pilot project has safely triaged more than 130 patients to PUCCs.

Workflow: The APRU operates in a marked Fire Department SUV and responds, in addition to EMS units, on low acuity calls. Once a patient is identified as appropriate for the APRU, the EMS units are cancelled and the APRU handles the patient. In between calls in the Antelope Valley, the APRU is also the first available unit for telemedicine requests from across the Fire Department, from 8:00 a.m. - 6:00 p.m., 7 days/week. When the APRU is on a call and unavailable for a telemedicine call, the Fire Department's medical director on call is the back-up to cover telemedicine. APRU calls tend to take longer than standard 9-1-1 calls because the APRU dives deeper into the social determinants of health than a standard paramedic unit does.

Project Benefits

Future Vision: Historically, EMS has been viewed as a transport entity and is still regulated, at the federal level, by the National Highway Transportation Safety

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Administration. The future of EMS is to leverage the strategic strengths of EMS providers, who are experts at treating patients in their homes. The Fire Department is working toward a broader vision of a Mobile Health mission with the goal of improving overall community health, with the EMS mission existing as a service line under that larger umbrella. When we think about our ability to impact the health of our communities, then we can develop solutions upstream of the standard EMS transport and ED visit and yield better satisfaction, better outcomes, and lower cost.

Customers: The consumers were the patient population in the Antelope Valley and the telemedicine patients from across the County. In particular, the most underserved populations benefited the most. In wealthier populations, good medical insurance offers options for care, even in times of scarcity like the pandemic. There are plentiful urgent care centers that have remained open and will gladly bill commercial insurance, but uninsured patients and Medical patients, in particular, have far more limited access outside of the hospital system. Sadly, the weak access to primary care leads patients to chronically cycle in and out of the hospital. The APRU created a stopgap to that cycle and was designed to help reconnect patients back into their medical homes. Apart from EMS, no other medical providers really meet underserved patients where they are, and the APRU was a new tool in that toolbox. In addition, health insurance companies also have a lot to benefit from the APRU program. The cost of an APRU visit, currently, is free, and the alternative, EMS transport and ED visit, are the most expensive way to access the healthcare system. We have been working with many of the large health insurers in the area toward a future funding stream to maintain the APRU program that has the rare combination of improved patient satisfaction and lower cost. Lastly, the customers are the other residents of the County that are counting on the Fire Department and hospital maintaining sufficient surge capacity to care for them in their time of need. The rise in call volume has far outpaced the Fire Department's ability to add paramedic units to the field. The APRU program represents a reimbursable opportunity to add units to the field and decompress our busiest paramedic units.

Gap Services: The APRU is able to provide a house call urgent care visit without necessitating an EMS transport or ED visit. While many of our patients have not had good access to alternative sources of care, many of them have access that they have been unaware of. The APRU is able to meet the patient where they are, literally, perform an assessment and/or simple intervention, and refer the patient to an appropriate level of follow-up based upon their need.

Current Structure of the APRU: The APRU and telemedicine program are in operation 7 days/week, from 8:00 a.m.- 6:00 p.m. These times are intentionally mirroring the availability of primary care offices and urgent care centers in their area.

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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.

There is no better way to see why a patient has failed to comply with their healthcare needs than to go into their home and see it for yourself. That is just not something that an ED is capable of doing, and the ED has become a de facto primary care office in underserved communities. If we truly want to understand why our patients struggle, we have to meet them where they are; literally.

Making Investments that Transform Lives – The APRU program goes into people's homes, homeless encampments, and jails, physically or virtually, and provides compassionate service to the residents of the County. The goal of the program is to address the immediate need and intervene to improve their health outcome. As the County grows its supportive services for at-risk populations like the homeless, and, as the County develops the Alternative Crisis Response model for mental health and substance use, the APRU has the opportunity to provide the medical support needed to bring these patients directly to the care that they need without needing to stop in EDs for medical clearance.

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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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The true cost to the healthcare system of an EMS transport and ED visit is hard to quantify because the negotiated payments by the health insurers are proprietary and highly variable. Conservatively, the average cost to the system is between $1,000 and $2,000 per patient per encounter. With more than 1,300 successful encounters, the APRU program would be expected to have reduced healthcare cost by $1.3 to $2.6 million dollars. In addition, if the APRU visit prevented a future 9-1-1 call or a hospitalization, those numbers would be unquantifiable. To date, the APRU program has not realized the nexus to become financially sustainable by billing for these patient encounters. Fire has been in discussion with the health insurers, who have expressed interest in paying for these encounters, but the billing infrastructure for this model is still being developed and is, likely, still a few years away.