Quality and Productivity Commission

34th Annual Productivity and Quality Awards Program

"Leading with Excellence"

2021 APPLICATION – PLEASE CONSIDER FOR COVID-19 IMPACT AWARD, TOO

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

NAME OF PROJECT: MHOAC COVID-19 RESPONSE

DATE OF IMPLEMENTATION/ADOPTION: MARCH 16, 2020

(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: _____ Ongoing X One-time only

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

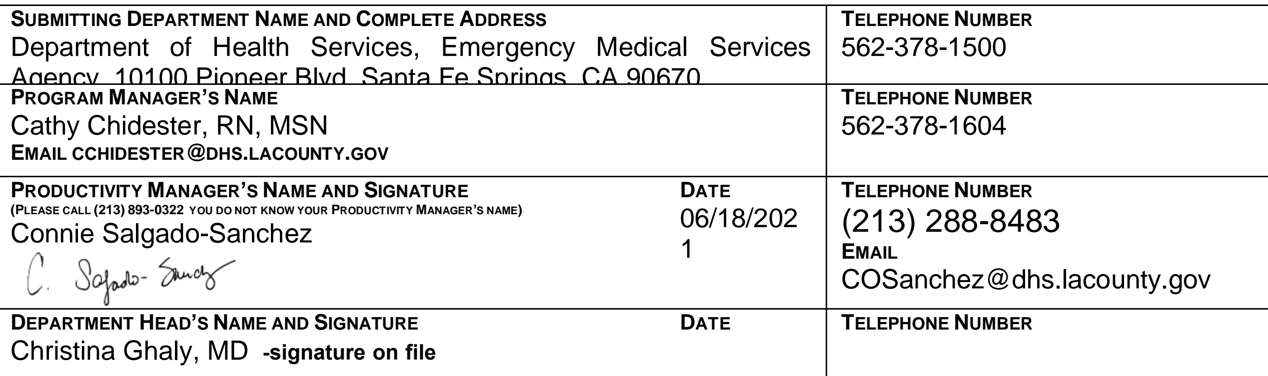
EXECUTIVE SUMMARY: Describe the project in 15 lines or less using Arial 12 point font. State clearly and concisely what difference the project has made.

1 The LA County Medical and Health Operational Area Coordination (MHOAC) program
2 COVID-19 Response involved the coordination of the response strategies to address
3 the impacts of the pandemic to the medical system of the County. The medical system
4 experienced various challenges at different phases of the pandemic. At the onset, a
5 critical shortage of personal protective equipment was the biggest challenge. When
6 community testing was being rolled out, testing operations became a challenge. As
7 antiviral therapies became available, procurement, allocation and distribution of the
8 pharmaceuticals needed to be addressed. During the fall/winter surge of 2020/2021,
9 ensuring that acute care facilities had adequate resources, including space, staff and
10 supplies to manage patients was almost insurmountable. Several hospitals were on the
11 verge of implementing crisis care during the surge. The MHOAC response to these
12 various challenges while facing daunting obstacles, saved the LA County medical
13 system from the brink of a catastrophic disaster and ensured patients received the
14 medical care they needed.
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
$ 345,034,750.34	**$**	**$**	**$ 345,034,750.34**	☐

ANNUAL = 12 MONTHS ONLY



SUBMITTING DEPARTMENT NAME AND COMPLETE ADDRESS		**TELEPHONE NUMBER**
Department of Health Services, Emergency Medical Services Agency 10100 Pioneer Blvd, Santa Fe Springs, CA 90670		562-378-1500
PROGRAM MANAGER'S NAME Cathy Chidester, RN, MSN **EMAIL CCHIDESTER@DHS.LACOUNTY.GOV**		**TELEPHONE NUMBER** 562-378-1604
PRODUCTIVITY MANAGER'S NAME AND SIGNATURE (PLEASE CALL (213) 893-0322 YOU DO NOT KNOW YOUR PRODUCTIVITY MANAGER'S NAME) Connie Salgado-Sanchez C. Salgado-Sanchez	**DATE** 06/18/2021	**TELEPHONE NUMBER** (213) 288-8483 **EMAIL** COSanchez@dhs.lacounty.gov
DEPARTMENT HEAD'S NAME AND SIGNATURE Christina Ghaly, MD **-signature on file**	**DATE**	**TELEPHONE NUMBER**

****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):
NAME OF PROJECT: MHOAC COVID-19 RESPONSE

The MHOAC program is authorized by the California Code, Health and Safety Code - HSC § 1797.153 and is responsible for coordination of the medical and heath response within the county during a medical or health emergency. The MHOAC program coordinator for LA County is the director of the Emergency Medical Services (EMS) Agency. Program participants include the various health departments within the county - Department of Health Services, Department of Mental Health, Department of Public Health, Long Beach Health and Human Services Department, and Pasadena Department of Public Health. As the overall COVID-19 response in LA County encompasses various departments and activities, this project is focused on the medical component of the MHOAC program response that was managed and coordinated by the EMS Agency.

1. **Personal Protective Equipment** (PPE): When the World Health Organization officially declared COVID-19 a global pandemic on March 11, 2020, we had no idea what challenges we would be facing in LA County. Even before cases started showing up in LA County, the MHOAC immediately recognized the critical shortage of PPE for healthcare personnel due to supply chain disruptions and significant increase in demand. The PPE shortage included N95 masks, surgical masks, face shields/goggles, and isolation gowns. This challenge was a logistical nightmare as most of the PPE, particularly N95 masks required to protect frontline healthcare personnel, are manufactured overseas.

The MHOAC embarked on various strategies to address this challenge:

a. Prioritization – identified healthcare sectors that need PPE. LA County limited the allocation of available PPE from our State and federal partners to ensure that high-risk personnel working in acute care facilities, long-term care facilities and EMS providers (fire departments and ambulance companies) had the protection they needed. The MHOAC also accepted PPE donations and distributed them to healthcare facilities.
b. Procurement – LA County utilized the mutual aid system to obtain PPE from our regional, State and federal partners. The MHOAC also compiled a list of vendors that said they have limited inventory of various PPEs and disseminated the list to priority healthcare facilities.
c. Conservation – using guidance from the Centers of Disease Control and Prevention (CDC), the MHOAC issued mask conservation guidance to healthcare facilities. We also worked with the federal government to establish an N-95 mask sterilization facility in LA County to allow N95 mask reuse.

The MHOAC program coordinated the procurement and distribution of personal protective equipment when there was a critical shortage of these items, procurement and distribution of medical devices for patient care, development and implementation of prehospital care directives to address demands to the 911 system, allocation and distribution of antiviral therapies to treat patients, and most importantly, the development and implementation of various surge strategies to increase acute care capacity in the County.

Working with our Disaster Resource Center hospitals, the MHOAC program distributed 55 million pieces of PPE worth approximate $66 million to our priority healthcare partners. This allowed our frontline healthcare personnel to continue taking care of patients with the knowledge that they were protected.

2. **Community Testing Operations**: The Department of Public Health implemented the community testing program at the onset of the pandemic, then LA County Fire Department took over operations on March 28, 2020 when it was determined that the program was inadequate to serve the citizens of LA County. When the County Board of Supervisors re-assigned this program to the Department of Health Services on April 20, 2020, the EMS Agency was tasked to oversee the operations of the more than two dozen mega-testing sites across the County. The enormous challenge of staffing these sites rested on the shoulders of the MHOAC program. To address this issue, the MHOAC tapped into a personnel pool that it's very familiar with - the more than 6,000 emergency medical technicians (EMT) that it certifies in LA County. Working with DHS Contracts and Grants and a temporary staffing agency, the EMS Agency sent an "interest and availability" poll to all certified EMTs in LA County. Once hired via an expedient hiring process, the EMS Agency developed and conducted training classes and deployed the EMTs to staff the testing sites. At the height of the pandemic in the fall/winter surge of 2020-2021, these testing sites performed an average of 750,000 tests per week, compared to about 1,500 tests per week in March 2020. The longest people waited for an appointment to get tested was 48 hours during the peak of the demand. The ability to test individuals in a timely fashion afforded the county the ability to take the necessary steps to prepare the medical system.

3. **Antiviral therapy allocation**: See separate PQA submission

4. **Hospital Surge**:

"*Current projections show CA will run out of current ICU beds before Christmas Eve*."
Governor Gavin Newsom's tweet on November 30, 2020

The most substantial surge of patients needing hospitalization started just before Thanksgiving 2020. The first indication that hospitals were significantly impacted was the request to divert ambulances from area hospitals. Next the MHOAC started receiving resource requests from hospitals for clinical personnel (mostly ICU RNs and respiratory therapists), ventilators, oxygen tanks and trailers, and surge tents. The ominous request to help manage decedents at the hospitals soon followed. This is when we realized that if we don't manage the incident expediently and effectively hospitals would be facing the implementation of Crisis Care, the rationing of medical care. To address the immediate needs, the following steps were taken:

1. Personnel – the MHOAC immediately requested the California Department of Public Health for a blanket waiver of the nurse-to-patient ratio requirement. This provided a lifeline to hospitals that were experiencing critical nursing shortages

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to continue to manage their current patients and allow hospitals to continue to admit more patients. Additionally, the MHOAC identified staffing agencies and provided the information to hospitals and submitted personnel resource requests to the State to obtain additional clinical staff to support the care needs of the patients presenting for care.

2. Medical equipment – the MHOAC utilized the mutual aid process and requested ventilators, oxygen concentrators, and other essential medical equipment from the State. The MHOAC also ordered high flow oxygen devices to provide to hospitals and ambulance companies as these devices are preferred over a ventilator for some patients. The MHOAC leveraged its established relationship with the vendor and was able to procure the equipment in two weeks even though it was back ordered for up to 60 days due to the demand.
3. Medical oxygen supply – due to the increase utilization of oxygen (O2) hospitals with older buildings and O2 supply systems were unable to provide adequate oxygen to their patients on ventilators and high-flow oxygen devices. The MHOAC convened a meeting with major medical gas suppliers to understand the problem and identify solutions to delivery backlogs of liquid O2 and filling of portable tanks, that could reduce the load on the liquid O2 system. The MHOAC also worked with the Army of Corps of Engineers to evaluate the oxygen delivery system of select hospitals most impacted by this.
4. Surge Structures – the MHOAC deployed its cache of over 80 surge tents and the mobile hospital to area hospitals. We also worked with the CA Army National Guard to deploy their surge tents to eight hospitals. The tent structure provided additional patient care space. We also worked with the Coroner to manage decedents.
5. Prehospital Directives – The MHOAC issued seven directives aimed at relieving the impact of the patient surge on EMS providers and the hospitals, distributing ambulance patients across the system and preserving scarce resources for those with the most need. The listing of directives include the following: Directive #1: EMS Transport of Pediatric Patients to Pediatric Medical Centers, Directive #2: 9-1-1 Transportation of Patients with a POLST and Comfort-Focused Care Directive, Directive #3: Suspension of Service Area Boundaries, Directive #4 EMS Offload of ALS and BLS Patients to the Emergency Department Waiting Room, Directive #5: Diversion of ALS Patients Due to ED Saturation, Directive #6: EMS Transport of Patients in Traumatic and Nontraumatic Cardiac Arrest, Directive #7: EMS Use of Oxygen.
6. Hospital Leadership Regional Coordination Group: Developed three protocols to address Crisis Care: Protocol #1: Hospital Notification of Decision to Initiation of Crisis Care Implementation, Protocol #2: Patient Transfer Process for Facility that Notified CDPH of Initiation of Crisis Care, and Protocol #3: Interventions for Heavily Impacted Hospitals.
7. Hospital of Concern: The MHOAC partnered with CDPH, identifying Hospitals of Concern based on a scoring system and intervened by providing staff, transferring patients to other hospitals and diversion of ambulance traffic to reduce the impact.

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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 II.2 Support the Wellness of Our Communities
The response to COVID-19 and the role of the MHOAC supported this goal by ensuring persons needing medical care had access to testing and treatment.

Goal III.3 Pursue Operational Effectiveness, Fiscal Responsibility and Accountability.
The response to COVID-19 and the role of the MHOAC supported this goal by maximizing the use of County assets ensuring resources were deployed in a responsible, efficient, and strategic manner.

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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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Item	**Qty**	**Est. Cost**	**Total Cost**	**Cost when supply scarce**	**Total Cost**
Coveralls	7,498	$5.58	$41,838.84		$41,838.84
Gowns	8,208,773	$1.00	$8,208,773.00	$3.00	$24,626,319.00
Shoe Covers	63,080	$0.40	$25,232.00		$25,232.00
Faceshields/ goggles	477,246	$1.00	$477,246.00		$477,246.00
Gloves	5,853,040	$0.15	$877,956.00	$1.00	$5,853,040.00
Hand Sanitizer	162,997	$2.00	$325,994.00	$3.00	$488,991.00
N95 Masks	29,387,068	$1.80	$52,896,722.40	$6.00	$176,322,408.00
Procedural Masks	12,220,650	$0.25	$3,055,162.50	$0.90	$10,998,585.00
NP Flock Swabs	806,400	$1.07	$862,848.00		$862,848.00
Oral Swabs	73,500	$1.00	$73,500.00		$73,500.00
VTM	831,000	$3.00	$2,493,000.00		$2,493,000.00
BinaxNow Test Kits	561,140	$5.00	$2,805,700.00		$2,805,700.00
VOCSN	354	$21,000.00	$7,434,000.00		$7,434,000.00
LTV	176	$9,930.00	$1,747,680.00		$1,747,680.00
Hydroxychloroquine	200	$0.24	$48.00		$48.00
Remdesivir	141,169	$520.00	$73,407,880.00		$73,407,880.00
Bamlanivimab	24,795	$1,250.00	$30,993,750.00		$30,993,750.00
Regeneron	4,896	$1,250.00	$6,120,000.00		$6,120,000.00
Moderna COVID Vaccine	13,471	$19.50	$262,684.50		$262,684.50
Total			$192,110,015.24		$345,034,750.34

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FOR COLLABORATING DEPARTMENTS ONLY

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

DEPARTMENT NO. 2 NAME AND COMPLETE ADDRESS DEPARTMENT OF PUBLIC HEALTH	
PRODUCTIVITY MANAGER'S NAME AND SIGNATURE **CATHERINE MAK, MBA "Signature on File"** **EMAIL:**___	**DEPARTMENT HEAD'S NAME AND SIGNATURE** **BARBARA FERRER, PHD, MPH, MED - "Signature on file"** **EMAIL:**___
DEPARTMENT NO. 3 NAME AND COMPLETE ADDRESS DEPARTMENT OF MENTAL HEALTH	
PRODUCTIVITY MANAGER'S NAME AND SIGNATURE **ANGEL BAKER "Signature on File"** **EMAIL:**___	**DEPARTMENT HEAD'S NAME AND SIGNATURE** **JONATHAN SHERIN, MD, PHD "Signature on File"** **EMAIL:**___
DEPARTMENT NO. 4 NAME AND COMPLETE ADDRESS OFFICE OF EMERGENCY MANAGEMENT/CHIEF EXECUTIVE OFFICE	
PRODUCTIVITY MANAGER'S NAME AND SIGNATURE **JOSE CHEW "Signature on File"** **EMAIL:**___	**DEPARTMENT HEAD'S NAME AND SIGNATURE** **FESIA DAVENPORT, MPA, JD "Signature on File"** **EMAIL:**___
DEPARTMENT NO. 5 NAME AND COMPLETE ADDRESS DEPARTMENT OF MEDICAL EXAMINER-CORONER	
PRODUCTIVITY MANAGER'S NAME AND SIGNATURE **INNA SARAC - "Signature on File"** **EMAIL:**___	**DEPARTMENT HEAD'S NAME AND SIGNATURE** **JONATHAN LUCAS, MD - "Signature on File"** **EMAIL:**___
DEPARTMENT NO. 6 NAME AND COMPLETE ADDRESS	
PRODUCTIVITY MANAGER'S NAME AND SIGNATURE **EMAIL:**___	**DEPARTMENT HEAD'S NAME AND SIGNATURE** **EMAIL:**___
DEPARTMENT NO. 7 NAME AND COMPLETE ADDRESS	
PRODUCTIVITY MANAGER'S NAME AND SIGNATURE **EMAIL:**___	**DEPARTMENT HEAD'S NAME AND SIGNATURE** **EMAIL:**___