Quality and Productivity Commission

33rd Annual Productivity and Quality Awards Program

"Empowering Innovative Solutions"

2019 APPLICATION

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

NAME OF PROJECT: EMPANELED LIFE MANAGEMENT

DATE OF IMPLEMENTATION/ADOPTION: SEPTEMBER 6, 2017
(Must have been **fully** implemented **for a minimum of** at least one year - on or before July 1, 2018)

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 Empaneled Life Management (ELM) is a population health management solution, based
2 on the cloud-based HealtheIntent platform, implemented by LA County DHS to
3 proactively manage lives and improve health outcomes through algorithm-driven
4 empanelment, registry-based performance metrics, enhanced reporting and analytics
5 capabilities. ELM Care Management (CM), a solution that leverages ELM functionality,
6 proactively coordinates and facilitates the health services provided to its high risk
7 patients across the care continuum. ELM and ELM CM have enabled DHS to know our
8 patients, engage patients, families, and their care team, and manage outcomes to
9 improve the health of our population. ELM and ELM Care Management were deployed
10 in September 2017 and November 2017 respectively, through the collaborative effort of
11 DHS facilities, Population Health Management, and Information Technology.
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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		**TELEPHONE NUMBER**
DHS		
PROGRAM MANAGER'S NAME Nina Park, MD Director, Population Health Management		**TELEPHONE NUMBER** 213-288-8693 **EMAIL** npark@dhs.lacounty.gov
PRODUCTIVITY MANAGER'S NAME AND SIGNATURE (PLEASE CALL (213) 893-0322 IF YOU DO NOT KNOW YOUR PRODUCTIVITY MANAGER'S NAME) Connie Salgado-Sanchez C. Salgado-Sanchez	**DATE** 6/28/19	**TELEPHONE NUMBER** 213-288-8483 **EMAIL** COSANCHEZ@DHS.LACOUNTY. GOV
DEPARTMENT HEAD'S NAME AND SIGNATURE Christina R. Ghaly, M.D.	**DATE** 6/28/2019	**TELEPHONE NUMBER** 213-288-8050

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.

Challenges: The Los Angeles County Department of Health Services (DHS) is the second largest public health system in the United States. Through our network of four hospitals and 24 ambulatory care clinics, DHS is responsible for managing the lives of over 412,000 empaneled patients. These patients are cared for by one of 826 primary care providers (PCP), working in one or more of 210 patient centered medical homes (PCMH). Prior to the implementation of Empaneled Life Management (ELM) and ELM Care Management (CM), challenges to managing the health of our empaneled patients included the following:

- Optimal proactive and preventive care of a patient is realized only when clear linkage between a patient and her/his primary care team is established and maintained. While DHS had a process to empanel managed care assigned patients and uninsured patients into the PCMHs, the process was convoluted and prone to unreliable results. It also was not nimble enough to handle fluctuations of patients and providers that went in and out of our system
- The existing system for managing population health was not linked to the enterprise electronic health record (EHR), and lacked advanced registry functions, easy-to-use dashboards, outreach lists, advanced data analytics and reporting. These confines limited our ability to identify and address potential gaps in care for patients.
- Care management requires identification of high risk patients. The care of these patients requires proactive outreach and management by registered nurse (RN) care managers. The existing process to identify high risk patients was labor- intensive, manual, and inefficient. RNs had to search for high risk patients or receive patients by provider referral. DHS lacked a systematic method to engage high-risk patients.
- DHS depends on State of California Public Hospital Redesign and Incentives in Medi-Cal (PRIME) Program for over $1 billion of our base funding over 5 demonstration years (2015 – 2020). PRIME is a pay-for-performance program in which DHS must achieve targets in population health management. Challenges with accurate empanelment, identification of care gaps, and managing high risk patients put DHS' ability to meet PRIME targets at risk.

Solution: DHS implemented ELM, a population health management solution, which is used for two important functions: 1) population health management for all empaneled patients and, 2) achieving our targets for PRIME. ELM combines data from disparate data sources such as our health plans, MAPLE, Etreby (DHS' outpatient pharmacy system), CACTUS (provider credentialing system), and ORCHID (DHS' EHR). ELM then transforms that data into standardized concepts that can then be used by the other ELM components. The ELM vision was to enable DHS to proactively manage lives and improve health outcomes through algorithm-driven empanelment, registry-based performance metrics and enhanced reporting and analytics capabilities.

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ELM CM is a person-centric solution for proactive identification of high risk patients in need of complex care management. The solution provides a space for care managers to document and manage their caseload of high risk patients and facilitates care through the exchange of pertinent information and care planning across the entire team. The ELM CM vision was to enable DHS to proactively coordinate and facilitate the health services provided to its high risk patients across the care continuum to maximize the quality and effectiveness of care.

One of ELM's primary functions is to empanel patients to a PCP at a specific PCMH. ELM accomplishes this through the use of complex logic of an empanelment algorithm designed by the Population Health Management team that is applied to data from enrollment files and CACTUS.

Using health information from various ingested data sources, ELM assigns our patients to one or more wellness or chronic condition registries. Within each registry there are individual evidenced-based measures of care. In real-time, the ELM Scorecard shows PCMH team members how they are performing in any given area measured by ELM. For example, ELM identifies when a patient is due for a colorectal cancer screening, notifies the PCMH team and then the PCMH staff can reach out to the patient and arrange for the screening to be performed. Having addressed that care gap, the PCMH team score increases thereby notifying both the team and DHS in real time that care gaps are being addressed and DHS is that much closer towards achieving its goals for the patient and the population we serve. Currently, we are able to monitor our empaneled patients and measure our performance for 199 individual measures of care.

ELM CM leverages powerful algorithms to identify, stratify, and prioritize patients needing individualized care management by an RN Care Manager. ELM CM sends a list of these patients to the Care Manager aligned to the patient's PCP. This enables timely outreach to then engage the patient in care management. Also, ELM CM notifies the Care Manager whenever patients on her/his caseload are admitted to the emergency department or hospital. The solution is designed to facilitate transitions of care through the exchange of pertinent information and care planning. ELM CM provides Care Manager Supervisors and Care Managers views of cases by status, case management, case communication, and assistance in managing patient information for a case. In managing a case, the Care Manager Supervisor and Care Manager can view their case load, assign cases, and manage referrals. After a case is assigned, the Care Manager can work with the patient to achieve their goals, conduct assessments, develop plans and recommendations, coordinate services, work with the healthcare providers and insurers, assist the care team, and monitor the patient to ensure their goals are met.

Finally, ELM Analytics is powered by the ELM platform and provides end users a comprehensive, integrated access point into their data. Using ELM Analytics, DHS is able to define a goal, measure current performance, analyze variables, initiate

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appropriate improvement strategies, and re-evaluate the impact of the strategies. With ELM Analytics' state of the art visualization tools, DHS can easily identify and monitor performance improvements and gaps.

Benefits: Since ELM went live, we have leveraged its registry and analytic abilities to drive patient care. ELM enables clinicians to make more informed decisions by providing a comprehensive profile of an individual and the entire population. This comprehensive profile can be used to proactively identify gaps in care and analyze population and enterprise data. The results described here are for the time period of November 2017 to July 2018. The composite registry score takes provider scores on all registries and applies a weighting system to each registry measure to create a composite score aligned with operational priorities. We saw an 11% increase in the median composite score across facilities. Using registries and other tools of ELM, we saw an increase in the rate of cervical cancer screening for eligible patients from 60.6% to 64.4% over 9 months, a modest increase for that short time period. For our adolescent patients, we saw an increase from 54.1% to 59.8% in the Adolescent Wellness registry, which is comprised of 13 individual measures embodying preventative adolescent care.

We have used tools from ELM to create real-time dashboards granular to the PCMH team to assist quality improvement efforts for PRIME. Using registry dashboards and scorecards, we have achieved a 69% improvement in documentation of sexual orientation/gender identity, a 46% improvement in outpatient medication reconciliation, a 29.8% improvement in screening for alcohol and drug misuse, a 29.4% increase in screening for clinical depression and planning for follow-up when necessary, and a 25.2% increase in screening for tobacco use and providing cessation intervention. While these improvements may not be solely attributable to ELM, data from ELM dashboards informs our decisions of where to apply resources for training, EHR changes, and othe performance improvement activities. ELM Analytics has streamlined our PRIME reporting process, allowing us to trend, monitor, and improve our progress in real time.

ELM CM has improved DHS' ability to proactively manage our highest risk patients. In a post implementation survey, 90.2% of managers stated that ELM CM helps them keep track of their patients' progress in achieving their care plan goals. Based on analysis of data from Dec 2017 to Oct 2018 follow up of patients experiencing transitions of care improved from 14% to 46. Care management intervention was associated with decreased inpatient utilization (30 inpatient visits pei 1,000 cases), decreased observation utilization (5 observation visits per 1,000 cases), decreased emergency utilization (30 emergency visits per 1,000 cases), and increased outpatient utilization (220 visits per 1,000 cases) when compared to patients who did not receive care management intervention. ELM CM has enabled more efficient methods to find patients and engage them in care plan activities. Social issues are now more quickly addressed by engaging other members of the interdisciplinary team thus leading to improved outcomes. As an added benefit, the RN Care Managers express satisfaction with the ELM Care Management solution and often share case studies of patients that benefit from this new program. The health of Los Angeles county residents has been improved through this new standardized system of care delivery.

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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.

ELM and ELM Care Management addresses goals I (Make Investments that Transform Lives) and III (Realize Tomorrow's Government Today) as described below.

Goal I: Make Investments that Transform Lives. ELM has four wellness registries, one each for children, adolescents, adults, and pregnant women, and 20 chronic condition registries. Regardless of where our patients receive health and medical care, ELM continuously monitors their healthcare data, compares it to evidence based best practices, and alerts the health care team when standard or preventative care is due, such as an immunization or screening for diabetes. ELM CM addresses our most complicated social and health challenges. ELM CM continuously monitors our empaneled patients and identifies patients with high risk conditions. For example, ELM CM identifies children, adults, and pregnant women who experience homelessness and domestic violence or sexual abuse, or who have conditions such as alcohol abuse, depression, diabetes, and hypertension. 41,509 patients across DHS are currently identified by the high-risk algorithms. Total open cases at this time on care managers' case lists is 18,217 and almost 4,000 patients are actively engaged and working on goals and interventions. ELM and ELM CM have increased DHS' focus on preventative care and enhanced our delivery of comprehensive interventions.

Goal II: Realize Tomorrow's Government Today. ELM and ELM Care Management use cutting edge technology and support this goal's strategy of "Embrace Digital Government for the Benefit of Our Internal Customers and Communities". With easy to access dashboards and scorecards, service delivery and efficiency are increased because PCMH teams can prioritize outreach efforts to close care gaps. Prior to ELM CM, Care Managers did not have a method to risk stratify or prioritize their high-risk patients, and opportunities to reach out and engage patients were missed. ELM CM eliminates that limitation. Visibility of available programs and services is also improved. For example, PCMH teams have a real-time method to identify patients needing to preventative services and can perform outreach on a more real-time basis. Additionally, the because Care Managers have a worklist of high risk patients, including those recently discharged from the hospital within, our patients can take advantage of Care Management services much earlier than before. ELM and ELM CM support operational effectiveness because these programs enable us to know our population, engage our patients, and manage outcomes.

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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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