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: CURBING THE OPIOID EPIDEMIC IN PRIMARY CARE

DATE OF IMPLEMENTATION/ADOPTION: **JULY 2016**
(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.

Opioid-related deaths have dramatically increased over the last two decades.[1] Opioids are now the leading cause of death for individuals under the age of 55 and account for a quarter of all deaths between ages 25 and 54.[2] To address this epidemic, we implemented a series of interventions aimed at reducing opioid prescribing at LAC+USC Medical Center Adult East Primary Care Clinic from June 2016 to June 2018. Our interventions included shifting supervisory responsibility of patients receiving opioids to core faculty, empowering pharmacy oversight, integrating social work and psychiatry services, and rolling out universal screening for depression and anxiety. We also provided physician education on a opioid-taper expected practice, the DHS controlled substance agreement, and the electronic prescribing of controlled substances. Over the two-year period, we observed a 74.3% reduction in total quantity of opioids prescribed, as measured by monthly morphine milligram equivalents (MMEs), and a 66.5% reduction in average MMEs prescribed per patient.

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
$	**$**	**$**	**$**	X

ANNUAL = 12 MONTHS ONLY

SUBMITTING DEPARTMENT NAME AND COMPLETE ADDRESS
LAC+USC Primary Care
2010 Zonal Avenue, OPD 4p41
Los Angeles, California 90033

TELEPHONE NUMBER
323 409 7689

PROGRAM MANAGER'S NAME
Jagruti Shukla & Jose Gonzalez

TELEPHONE NUMBER
323 409 7689

EMAIL
jshukla@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
Signature on File

DATE
06/17/2019

TELEPHONE NUMBER
(213) 288-8483

EMAIL
cosanchez@dhs.lacounty.gov

DEPARTMENT HEAD'S NAME AND SIGNATURE
Christina R. Ghaly, M.D.
Signature on File

DATE
6/25/19

TELEPHONE NUMBER
213-288-8050

We Support Plain Language

Title of Project (Limited to 50 characters, including spaces, using Arial 12 point font):
NAME OF PROJECT: CURBING THE OPIOID EPIDEMIC IN PRIMARY CARE

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(s):

Opioid-related deaths accounted for 13.3 deaths per 100,000 individuals in 2016, or put another way, for 2.3% of *all deaths* that year, overtaking the 8th leading cause – pneumonias and influenza.[2] The role of primary care providers in the opioid epidemic is substantial since primary care providers prescribe nearly half of all opioids.[3]

LAC+USC Primary Care Adult Clinics consist of two of the Los Angeles County Department of Health Services largest primary care clinics serving approximately 40,000 unique adult patients. The majority of our patients are Medi-Cal insured and have a high burden of chronic disease and chronic pain. We noted that our Adult East Clinic, a training clinic staffed by 165 residents, prescribed opioids for managing chronic, non-cancer pain to a greater degree than our Adult West Clinic which is a non-training clinic. This was concerning since both clinics serve the same patient population and have access to the same county resources. A closer look revealed that our prescribing was not consistent with the new 2016 guidelines from the Centers for Disease Control and Prevention (CDC) for the safe prescribing of opioids.[4]

Curtailing opioid prescribing in a resident-staffed clinic poses special challenges. Studies indicate that residents, compared to non-resident physicians, are more likely to prescribe opioids for longer, provide more early refills, continue prescribing opioids to patients who are receiving them from multiple providers, and be told by patients that prescriptions were lost or stolen.[5,6] Furthermore, multiple studies show a direct correlation between the quantity of opioids prescribed and opioid-related morbidity and mortality.[7,8] During their training residents have varied schedules, often rotating through other specialties. Thus, patients are not always able to see the same provider. Indeed, residents often cite a lack of familiarity with a patient's care as a reason for continuing to prescribe dangerously high doses of opioids.

Our goal, in initiating this project, was to reduce the inappropriate prescribing of opioids, while managing patient's pain without additional resources or funds. We realized that this would require a multi-disciplinary approach involving nursing, pharmacy, social work and behavioral health. We also hypothesized that it would require changes in both the ethos of managing chronic pain and prescribing opioids.

Solution(s):

We hypothesized that lack of continuity was one reason for higher opioid prescribing in the resident clinic. So we decided to focus on establishing continuity between

Title of Project (Limited to 50 characters, including spaces, using Arial 12 point font):
NAME OF PROJECT: CURBING THE OPIOID EPIDEMIC IN PRIMARY CARE

Use Arial 12 point font.

patients and the four "core" faculty that supervise the residents. As such, we mandated that all encounters for patients receiving long-term opioid therapy for chronic pain be supervised by one of these core faculty. This enabled the faculty to establish patient-provider rapport, which we deemed important for successfully controlling patient's pain.

In addition, residents received several lectures, didactics and a grand rounds lecture on the safe prescribing of opioids, the identification and treatment of opioid use disorder and became familiar with the DHS Opioid Taper Expected Practice. An X-waivered faculty member was available in clinic to provide Medication Assisted Treatment for patients identified as having opioid use disorder. Finally, our controlled substance agreement was revised based on the Cleveland Clinic's recommendations that focus on a harm reduction approach.

Several other interventions focused on enhancing our mental health services. Medical assistants began screening patients for anxiety and depression upon intake. Both of these conditions are known to worsen the perception of pain.[9-13] Furthermore, we integrated Psychiatry services with our primary care services so that patients who screened positive for depression or anxiety and had comorbid pain conditions could be given an appointment to see our Psychiatry service at the end of their visit.

We relied on other county-wide efforts aimed at curbing high-dose opioid prescribing as well. The Wellness Center provides pain management services to our patients; thus, we educated our staff and promoted its services to our patients. We partnered with our LAC+USC Pharmacy to help identify patients who were prescribed high doses of opioids or displayed drug-seeking behavior. We connected with the DHS Pain Management Workgroup that was working on establishing best practices for opioid prescribing and utilized a new advice portal which assists providers in managing chronic pain. Finally, in April 2018, DHS mandated that all prescriptions for controlled substances be sent via electronic prescription only.

Benefit(s):

To evaluate the efficacy of our interventions, between June 2016 and July 2018, we collected pharmacy data for patients who filled their prescriptions at one of two onsite pharmacies. Data collected included drug name, quantity, frequency, dose dispensed and prescriber for schedule II opioids. We measured the monthly change in number of prescriptions dispensed and number of patients receiving opioids. To better visualize the benefit to individual patients, we calculated how many patients received opioids over certain thresholds (50, 100, 150 MMEs). Finally, we calculated the average daily MMEs prescribed to patients over the 2-year study period.

We observed a statistically significant average monthly reduction of 2.44% (p<0.001) in the number of prescriptions dispensed and a 1.83% (p<0.001) monthly

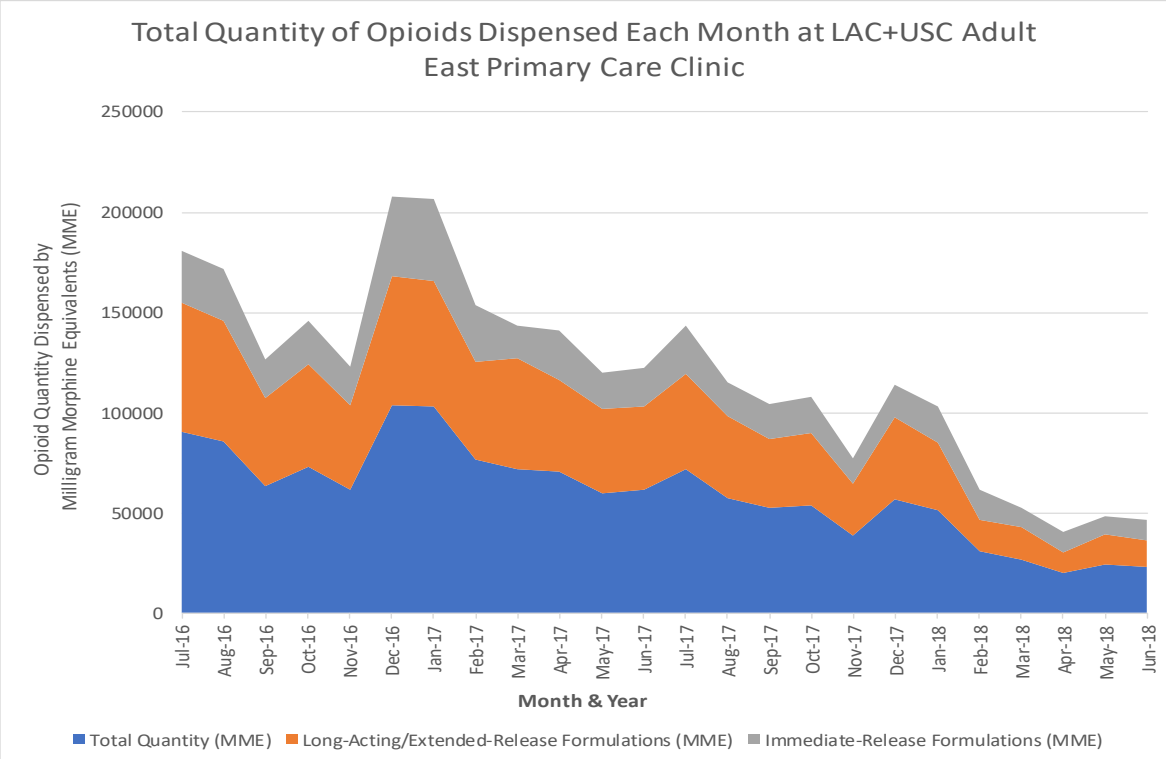
Title of Project (Limited to 50 characters, including spaces, using Arial 12 point font):
NAME OF PROJECT: CURBING THE OPIOID EPIDEMIC IN PRIMARY CARE

Use Arial 12 point font.

reduction in the number of patients receiving prescriptions. Over the two-year period, there was a 74.3% reduction in total MMEs prescribed and a 66.5% reduction in the average MMEs prescribed per patient.

Our efforts helped us successfully reduce opioid prescribing by a variety of measures – number of prescriptions, number of patients receiving opioids, quantity of opioids prescribed and average quantity of opioids prescribed per patient during our two-year study. This occurred with only a relatively minor decrease in the number of patients receiving opioids, indicating that few patients chose to leave our clinic. We are hopeful that the alternate modalities for pain control afforded by the Wellness center, non-opioid medications and psychiatric and social services enabled us to adequately manage patient's chronic pain, reduce morbidity and mortality associated with high dose opioid use and bring our practice within national guidelines even as we achieved this substantive reduction.

This initiative serves multiple purposes. Not only does it align our practices with national guidelines, but it engenders responsible opioid prescribing stewardship to the next generation of primary care providers. Furthermore, it reduces the prescribing of unsafe doses of opioids to individual patients and helps curb the impact of the opioid epidemic for Los Angeles County residents.



Title of Project (Limited to 50 characters, including spaces, using Arial 12 point font):
NAME OF PROJECT: CURBING THE OPIOID EPIDEMIC IN PRIMARY CARE

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.

Our initiative aligns with the Los Angeles County Strategic Plan across multiple domains. It aligns with the goal to "Focus on Prevention Initiatives" by significantly reducing the quantity of opioids prescribed to individual patients in Los Angeles County. By ensuring that we are prescribing opioids safely and, in an evidence-based manner, we hope to decrease the number of patients who eventually misuse opioids, grapple with addiction, and experience an opioid-related adverse event or overdose.

We also further the county's goal of "Fostering Vibrant and Resilient Communities" and "Supporting Wellness" by reducing the community's exposure to opioids and thus reducing their likelihood of misuse and addiction. Numerous studies have shown that use of high-dose opiates is directly correlated to increased rates of death and disease.[7,8]

This initiative also contributes to the goal to "Realize Tomorrow's Government Today" and "developing staff through multi-disciplinary approaches". Our model brings together doctors, nurses, pharmacists, social workers and others to work together to ensure safe prescribing.

Our model incorporates information technology to ensure standardized practice and allow us to capture accurate data. Our Primary Care providers can connect electronically with remote Pain Management specialists to discuss challenging cases. All providers must review the new California database CURES (Controlled Substance Utilization Review and Evaluation System) prior to prescribing opioids to patients. In addition, all prescriptions for controlled substances must be sent via electronic prescription only.

Lastly, we have been thoughtful in our methodology to "measure impact and effectiveness of our collective efforts". We identified evidence-based practices and have aligned our existing practices with national guidelines. We recorded the number of prescriptions for opioids sent from the primary care clinic and filled at one of two onsite pharmacies. We performed a subgroup analyses of various opioid formulations and performed an individual patient-level analysis. Data were analyzed using negative binomial regression analysis to model the relationship between time (months as measured from July 2016) and the number of opioid prescriptions or number of patients receiving prescriptions. This data was used to estimate a decrease in morbidity and mortality among our patient population due to this decrease in opioid prescribing.

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

NAME OF PROJECT: CURBING THE OPIOID EPIDEMIC IN PRIMARY CARE

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.

(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

Several studies cite a direct correlation between high-dose opioid prescribing and adverse events. Opioids have a number of side-effects including respiratory depression, overdose, negative effects on hormonal functioning and even death. We know that these adverse events lead then can lead to an increase in health care utilization which leads to an increased cost of care. One study focusing on patients receiving opioid medications for non-cancer pain showed a 25% increase in healthcare-related costs in patients receiving high doses of opioids.[14] Another study describes that patients who received opioids for low back pain, were on average, disabled for 69 days longer than those who did not, which placed a substantial burden on healthcare costs.[15]

Another way to measure benefit to our patients is to determine benefits in terms of number of overdoses prevented. One study found that patients receiving quantities in excess of 50 MMEs daily were 3.7 times more likely to overdose, whereas those receiving more than 100 MMEs per day had a 8.9-fold risk of overdose.[7] At the beginning of our interventions, the average patient receiving opioids was prescribed 67.9 MMEs of opioids on a daily basis. By the end of our initiative, the average daily opioid dispensed was 22.8 MMEs. Thus, for the average patient receiving opioids from our clinic, we were able to reduce their risk of overdose by nearly a factor of four.

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: CURBING THE OPIOID EPIDEMIC IN PRIMARY CARE

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 **EMAIL:**_____	**DEPARTMENT HEAD'S NAME AND SIGNATURE** **EMAIL:**_____
DEPARTMENT NO. 3 NAME AND COMPLETE ADDRESS	
PRODUCTIVITY MANAGER'S NAME AND SIGNATURE **EMAIL:**_____	**DEPARTMENT HEAD'S NAME AND SIGNATURE** **EMAIL:**_____
DEPARTMENT NO. 4 NAME AND COMPLETE ADDRESS	
PRODUCTIVITY MANAGER'S NAME AND SIGNATURE **EMAIL:**_____	**DEPARTMENT HEAD'S NAME AND SIGNATURE** **EMAIL:**_____
DEPARTMENT NO. 5 NAME AND COMPLETE ADDRESS	
PRODUCTIVITY MANAGER'S NAME AND SIGNATURE **EMAIL:**_____	**DEPARTMENT HEAD'S NAME AND SIGNATURE** **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:**_____