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: OVMC PHARMACY LED TRANSITIONS OF CARE PROGRAM

DATE OF IMPLEMENTATION/ADOPTION: **JANUARY 8, 2018**
(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.

The Center for Medicare and Medicaid Services (CMS) imposed reimbursement rate reductions upon Olive View UCLA Medical Center (OVMC) for 5 consecutive years. The pharmacy led transitions of care (TOC) program at OVMC was designed and implemented in January 2018. This program was developed to address medication-related issues associated with rehospitalization in high-risk patients. At OVMC, congestive heart failure (CHF) patients are the most at-risk for hospital readmission. The TOC Pharmacists target CHF patients and provide services at the time of a patient's admission, throughout hospitalization, and at discharge. Through medication reconciliation services, optimization of CHF related therapy and extended follow-up care, the 30- and 90-day post-discharge readmission rates and 90-day post-discharge emergency department (ED) visits were significantly reduced. As a result, in 2018, approximately **27 hospital readmissions and 26 ED visits were prevented**, leading to an annual estimated hospital readmission cost avoidance between **$1,694,520 to $3,862,890** and an additional annual cost avoidance of **$43,862** for ED visits. Subsequently, CMS reimbursement rate reductions decreased to **0.07% in 2018.**

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
$ 2,500,000			**$ 2,500,000**	☐

ANNUAL = 12 MONTHS ONLY

SUBMITTING DEPARTMENT NAME AND COMPLETE ADDRESS Olive View UCLA Medical Center Pharmacy 14445 Olive View Dr. Sylmar, CA 91342	**TELEPHONE NUMBER** 747-210-3059
PROGRAM MANAGER'S NAME Nadrine Balady-Bouziane Pharm D. Lisa Osahon Pharm D. Rana Entabi Pharm D.	**TELEPHONE NUMBER** 747-210-3059 **EMAIL** nbalady@dhs.lacounty.gov
PRODUCTIVITY MANAGER'S NAME AND SIGNATURE (PLEASE CALL (213) 893-0322 IF YOU DO NOT KNOW YOUR PRODUCTIVITY MANAGER'S NAME) **DATE** Connie Salgado-Sanchez - Signature on File 6/25/19	**TELEPHONE NUMBER** (213) 288-8384 **EMAIL** cosanchez@dhs.lacounty.gov
DEPARTMENT HEAD'S NAME AND SIGNATURE **DATE** Christina R. Ghaly, M.D. - Signature on File 6/25/19	**TELEPHONE NUMBER** (213) 288-8050

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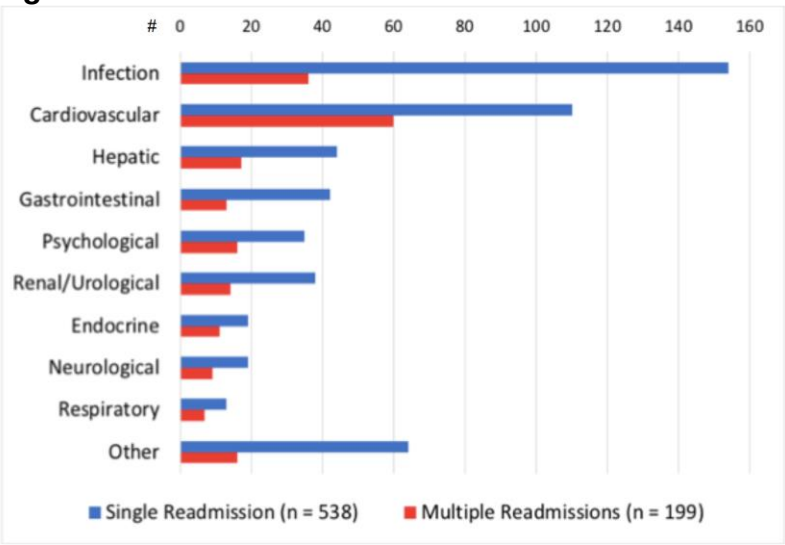
Challenge 1: CHF is the leading cause of hospital readmissions in the U.S. The Center for Medicare and Medicaid Services (CMS) imposes penalties to the hospital when there is an excessive rate of readmission for certain disease states, one of which is congestive heart failure (CHF). This penalty is applied across the board to all payments and reimbursements received from CMS. CMS has imposed the following reimbursed rates reductions upon Olive View UCLA Medical Center (OVMC) from fiscal years 2013-2017 due to excessive readmissions.

Hospital	2013 (%)	2014 (%)	2015 (%)	2016 (%)	2017 (%)	No.Yrs
Olive View	0.15	0.19	0.38	0.17	0.29	5

A retrospective study performed at OVMC in collaboration with the University of Southern California (USC) identified disease states that were associated with readmissions in 2017.

Infection related diagnoses were the leading cause of single readmission; **however, cardiovascular diagnoses were associated with multiple readmissions** (Figure A). **Furthermore, a diagnosis of heart failure increased the likelihood of readmission by three-fold.**

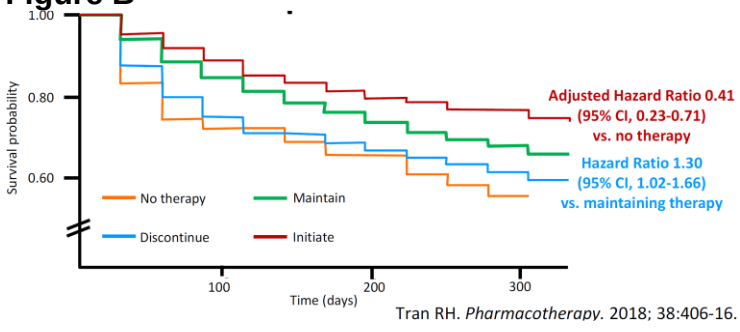
Figure A



Challenge 2: Medication discrepancies occur in up to 70% of patients at admission and/or discharge. Inaccurate medication lists used to create inpatient medication orders have been identified to be a source of error. Almost one-third of these discrepancies have the potential to cause patient harm and may lead to prolonged hospital stays or subsequent hospital/emergency department visits. (Leap Frog Hospital Survey Fact Sheet: Medication Reconciliation)

Challenge 3: Life-saving medication therapy for CHF is often discontinued or remains suboptimal during a patient's inpatient stay. Poor management of CHF related medication therapy during hospitalization is associated with reduced survival probability. (Figure B)

Figure B



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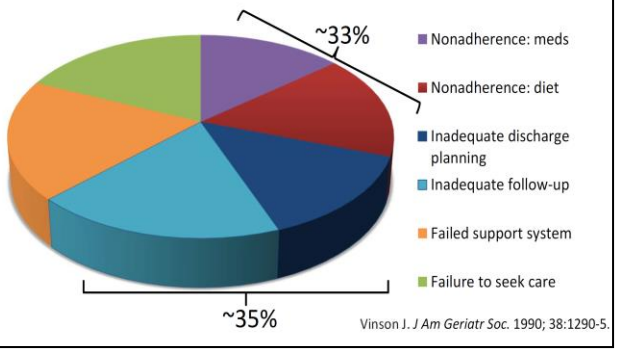
Challenge 4:

Figure C



Factors contributing to preventable hospital readmissions for CHF include:

- **inadequate discharge planning/follow-up**
- **non-adherence to medications/diet** (Figure C)

Solution 1: Develop a pharmacy led transitions of care program that targets admitted CHF patients to provide pharmacy services at the time of admission, throughout the hospitalization, and at discharge.

Solution 2: Verify the accuracy of medication lists used to create inpatient and discharge orders. Pharmacists gather information from multiple sources to generate a medication list that is used to identify discrepancies at admission and discharge, a process known as medication reconciliation.

Solution 3: Provide recommendations to the medical team to optimize medication therapy prior to patient discharge.

Solution 4: Eliminate gaps in care post discharge:

- Communicate to patients changes in medication therapy at discharge.
- Deliver medications at bedside (meds to beds program) promoting medication compliance.
- Educate patients on disease state management.
- Coordinate post discharge follow-up with CHF clinic within 2 weeks of discharge.
- Conduct a 7-day post discharge phone call to address barriers in treatment.

Benefit 1: Lower hospital readmissions and ED visits

A retrospective, collaborative study with Western University of Health Sciences demonstrated that the **OVMC pharmacy led transition of care program**, implemented in January 2018, **is associated with significantly lower 30- and 90-day readmission rates. In addition, a notable reduction of ED visits within 90 days of initial discharge were observed**. (Figure D)

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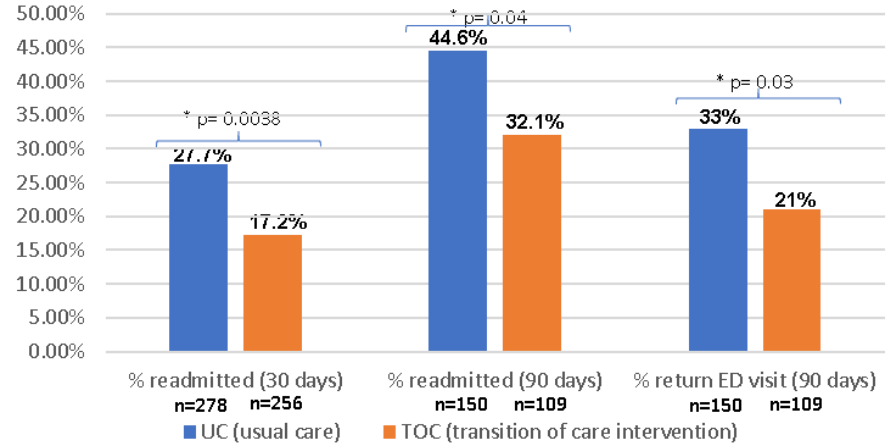
Figure D: Impact of Pharmacy Led TOC Program



30-day readmission results based on 12-month analysis

90-day readmission results based on 6-month analysis

Benefit 2: Cost avoidance through readmission prevention in 2018

30 day post-discharge readmissions avoided	27 readmissions
Cost to hospital per day for CHF admission (based on level of care *i.e. acute medical vs. intensive care*)	$10,460-$23,845
Total cost to hospital per visit for CHF admission (avg length of stay = 6 days)	$62,760-$143,070
Cost avoidance of readmissions prevented by TOC program in 2018	**$1,694,520-$3,862,890**

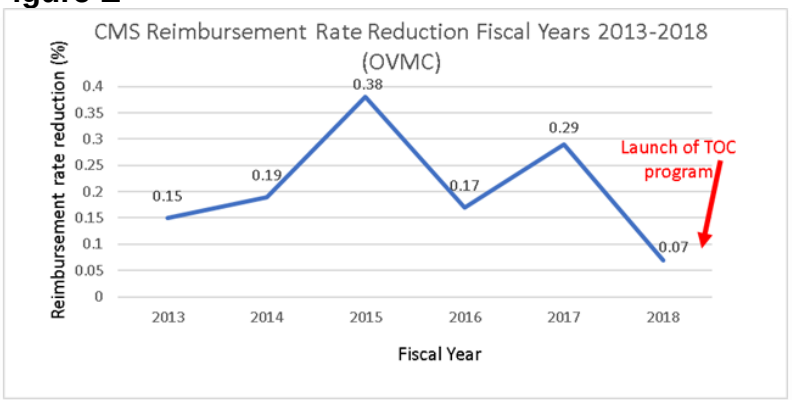
Benefit 3: Cost avoidance through ED visit prevention 2018

ED visits prevented 90 days post-discharge (6 mo. study)	13 visits
ED visits prevented 90 days post-discharge (projected annually)	26 visits
Estimated cost of avg ED visit *per OVMC financial department report*	$1,687
Cost avoidance of ED visit by TOC program in 2018	**$43,862**

Benefit 4: Cost savings through decreased CMS reimbursement reduction rates

A reduction of 0.22% from the previous year amounted to an additional reimbursement. (Figure E)

Figure E



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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.

The Olive View UCLA Pharmacy Led Transitions of Care Program aligns with Los Angeles County's Strategic Plan for 2016-2021, namely:

Strategy I.1 – Increase Our Focus on Prevention Initiatives

This TOC program aims to 'implement evidence-based practices to increase our residents' self-sufficiency and prevent long-term reliance on the County's' acute care health services.

A lack of early intervention and support of high-risk patients during the hospitalization period, especially those with CHF, is associated with increased mortality and decreased quality of life.

The Transitions of Care Program at Olive View UCLA Medical Center:

- **Promotes** early intervention during hospitalization;
- **Minimizes** gaps of care within the health system;
- **Empowers** the patient through disease-state education

As a result, patients are provided with the tools and resources to be more proactive in their own care and adhere to their life-saving medications. These interventions reduce acute health care utilization, which ultimately improves the patients' quality of life.

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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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Estimated Annual Cost Avoidance from Transitions of Care (TOC) Program Outcomes is $ 2,500,000

The annual cost avoidance was estimated by taking the average cost avoidance from 30 day hospital readmission prevention in 2018 and adding this value to the estimated cost avoidance from 90 day ER utilization prevention in 2018 (see Benefit 2 and 3 for details). This value was subtracted by the cost of two full time pharmacists (total cost of $311,066 per year).

30-day readmission cost avoidance average in 2018: (**$1,694,520 + $3,862,890) / 2= $2,778,705**
Plus 90 day ED utilization cost avoidance in 2018 **$43, 862 =** **$2,822,567**
Subtract cost of two full time TOC pharmacists in 2018: **$311,066 =** **$ 2,511,501**
~ 2,500,000 in 2018

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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 **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:**_____