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: **QUALITY ACADEMY: BUILDING CAPACITY FOR IMPROVEMENT**

DATE OF IMPLEMENTATION/ADOPTION: JULY 1, 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.

1 The Quality Academy: Building Capacity for Improvement (Quality Academy) is a novel
2 Quality Improvement (QI) training program, begun in 2016, that uses a unique evidence-
3 based curriculum and has graduated over 175 staff of all levels from across the
4 Department of Health Services (DHS). Developed by LAC+USC staff using existing
5 resources, this program has demonstrated the ability to build capacity for QI expertise.
6 Over 161 QI projects were implemented across DHS, including LAC+USC, Correctional
7 Health Services, the Ambulatory Care Network, High Desert Regional, Martin Luther King
8 Jr. Ambulatory Care Center and Rancho Los Amigos. Select projects analyzed post hoc
9 for the estimated annual cost avoidance demonstrated a financial impact of
10 $55,077,635.24 per year in aggregate. A formal evaluation of the Quality Academy
11 Program demonstrated statistically significant results ($p<.001$) in proficiency across five
12 educational domains: knowledge of QI models, knowledge of QI tools, use of analytical
13 and statistical tools, management of QI process, and leading and sustaining QI initiatives.
14 A junior mentorship program ensures that the QI knowledge achieved in class is
15 maintained and distributed across the Department of Health Services.

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
$ 55,077,635.24	$	$	$	☐

ANNUAL = 12 MONTHS ONLY

SUBMITTING DEPARTMENT NAME AND COMPLETE ADDRESS LAC+USC Quality Management 2020 Zonal Ave, Rm 929 Los Angeles, CA 90033	**TELEPHONE NUMBER** 323-409-1000
PROGRAM MANAGER'S NAME Laura Sarff, DNP, RN	**TELEPHONE NUMBER** 323-409-2815 **EMAIL**
PRODUCTIVITY MANAGER'S NAME AND SIGNATURE (PLEASE CALL (213) 893-0322 IF YOU DO NOT KNOW YOUR PRODUCTIVITY MANAGER'S NAME) Connie Salgado-Sanchez **DATE** 6/21/19	**TELEPHONE NUMBER** (213) 288-8483 **EMAIL** cosanchez@dhs.lacounty.gov
DEPARTMENT HEAD'S NAME AND SIGNATURE Christina R. Ghaly, M.D. **DATE** 6/27/19	**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: **QUALITY ACADEMY: BUILDING CAPACITY FOR IMPROVEMENT**

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.

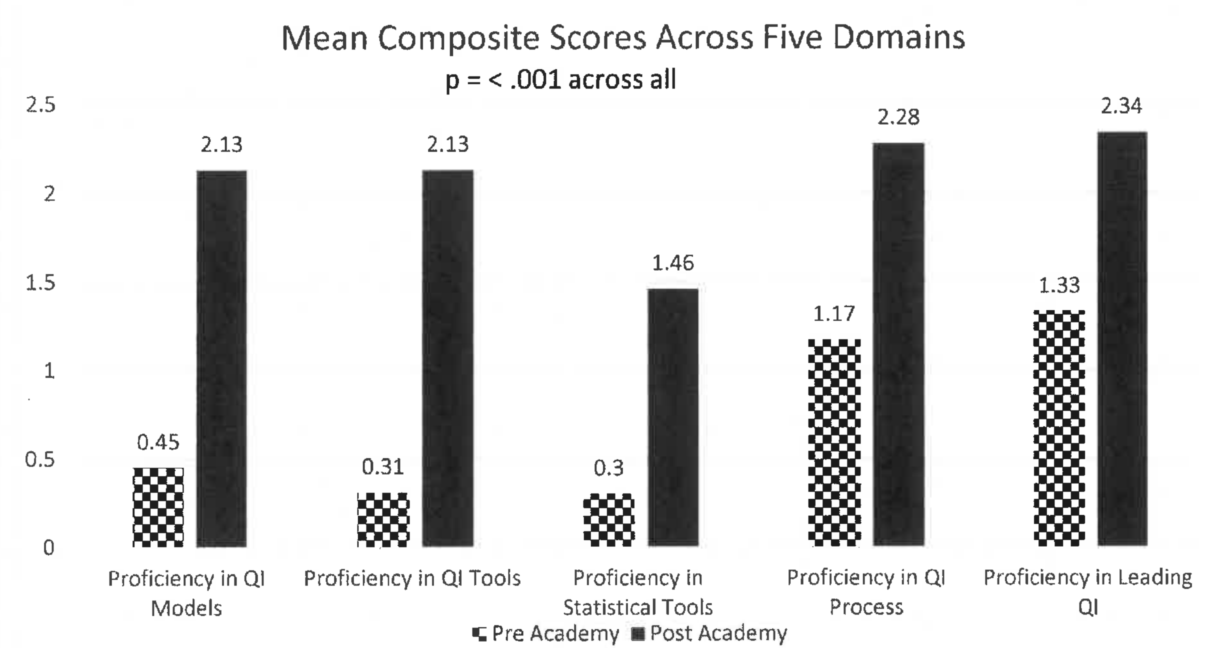
Challenge: Medical errors result in significant human costs and create needless financial burdens on hospitals. Patient harm events are frequently the result of poorly designed systems. Organizations report reduced patient harm after investing in quality improvement (QI) training for staff. Results include lower hospital readmission rates, decreased hospital-acquired pressure ulcers, reduced falls, improved hand hygiene, and improved access to care. QI training programs build staff capability and organizational capacity for improving work processes, and ultimately patient outcomes. Most organizations lack internal expertise in quality improvement, and the financial impact of hiring consultants is a deterrent to developing quality improvement training.

Solution: The Quality Academy was developed in 2016 with the vision and objective of expanding hospital-wide capacity for QI by building capability in staff to implement and lead QI projects. Initially participants were just from LAC+USC but as word of the program spread, participation increased across DHS. With professional interest, motivation to learn, and support from their supervisor, participants from Olive View-UCLA, Correctional Health Services, the Ambulatory Care Network, High Desert, MLK, and Rancho Los Amigos enrolled. From administration to clerical, the Academy instructs health care staff at all levels in QI efforts and provides the tools to develop, implement, and sustain improvement projects. Since inception, class capacity has grown from 17 in the first iteration, to 50 in the seventh. Classes begin each spring and fall and enrollment is on-going.

A unique curriculum distinguishes the Quality Academy. The curriculum includes 39 evidence-based elements supporting staff capability and organizational capacity that provide the foundation for effective QI sustainability. Participants complete nine didactic sessions over 6 months and implement an experiential project that is meaningful to their practice, unit, or work location, and aligned with their strategic goals. In addition, participants receive 1:1 mentorship from a Certified Professional in Healthcare Quality (CPHQ). The Quality Academy is resourceful. The Academy and individual projects require no additional funds. Graduates of the program, as Junior Mentors are paired with an experienced mentor to provide support for additional QI projects in their areas. The cultivation of Junior Mentors has significantly expanded the program's capacity to increase class size. In addition, each project team consists of existing staff that contribute to the success of the project; a sponsor, a champion, a leader, and a quality improvement mentor.

Statistically significant results demonstrating proficiency ($p<.001$) were obtained across five educational domains: knowledge of QI models; knowledge of QI tools, use of analytical and statistical tools, QI process management, and the leading and sustaining of QI initiatives (see Figure below).

Title of Project (Limited to 50 characters, including spaces, using Arial 12-point font):
NAME OF PROJECT: QUALITY ACADEMY: BUILDING CAPACITY FOR IMPROVEMENT



Benefits: The benefits of the Quality Academy are exponential as each graduating class (total n=175) produces quality improvement experts and junior mentors at all levels within the healthcare system. Successful projects which demonstrate sustainability are extended to other units in the hospital (or other clinic locations), thus spreading improvement to other areas and ultimately DHS-wide. The improvements can be calculated as an estimated annual cost avoidance for the County.

Post hoc financial analysis aggregated projects around the strategic goals of improving productivity and efficiency, and reducing preventable harm. Five projects sought to improve patient flow by reducing the number of broken appointments (no-shows) and seven projects sought to decrease cycle times in various clinics. Across projects, the clinic no-show rates were reduced by a total of 77%. Given a patient load of 57,023 patients per year across clinics in these studies, this translates to an estimated cost avoidance of $41,626,790 per year. Across eight cycle time QI projects, the total time saved on cycle time was 512 minutes or just a little over 8 and a half hours. There were eight projects focused on preventing patient harm, calculating an estimated cost avoidance of $994,185.24 per year. Three projects focused on increasing hand hygiene compliance avoided and estimated $12,456,660.00 per year in costs related to hospital-associated infections.

Other non-tangible results included projects to: (a) improve compliance with various regulatory requirements, (b) reduce preventable harm related to patient injuries, (c) improve employee and patient satisfaction, (d) improve productivity, and (e) re-organize stock rooms.

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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 "Quality Academy: Building Capacity for Improvement", addresses the overarching Los Angeles County *Goal III, Realize Tomorrow's Government Today*. Specifically, *Strategy III.1 "Continually pursue development of our workforce*." The Quality Academy is a novel training program with 1:1 mentorship and a structured curriculum that includes 39 evidence-based elements. Five cohorts of participants, (n=175), comprised of clinical and non-clinical staff across all levels have graduated from the Quality Academy since its inception in 2016. Graduates have gone on to be promoted, taken on various leadership positions in their current roles, and become junior mentors.

The Quality Academy was established with limited resources and as our striking results demonstrate, have garnered a cost avoidance of over $55 million dollars per year. The Quality Academy is directly implementing the County's strategy of "[Investing] in tomorrow's workforce today and today's workforce for a better tomorrow." The literature reports improved workforce engagement through QI training. A positive work environment supports staff interests and efforts in achieving quality goals for the organization. By using the evidence-based elements of success such as infrastructure to support quality improvement, communication, positive attitude toward change, managerial support, and quality improvement in the natural work environment, we are building a more engaged, positive workforce. Through the Academy, we are developing staff and effective frontline leaders trained to conduct quality improvement initiatives in their home unit. In this way, we are building capacity for organization-wide (and DHS-wide) improvement at all levels of healthcare workers. The Quality Academy is spreading quality improvement capacity beyond our doors and DHS-wide.

Title of Project (Limited to 50 characters, including spaces, using Arial 12-point font):
NAME OF PROJECT: QUALITY ACADEMY: BUILDING CAPACITY FOR IMPROVEMENT

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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$ 55,077,635.24	$	$	$	xxx☐

ANNUAL= 12 MONTHS ONLY

Select projects were analyzed post hoc for the estimated annual cost avoidance and demonstrated a financial impact of $55,077,635.24 in aggregate. Five QI projects sought to decrease the no-show rate for clinic appointments, thereby improving productivity. For each project, data collected provided a no-show rate before and after implementation of the QI project. We took the difference in no-show rate, multiplied it by sum of patient visits per year, and then multiplied that by cost per outpatient clinic visit. This method gave an aggregated annual cost avoidance of $41,626,790 per year.

Three QI projects sough to reduce preventable harm in inpatient settings. Using cost estimates from the 2018 AHRQ report, cost avoidance from prevented harm was calculated as the cost of a hospital fall, pressure ulcer or infection incident multiplied by the decrease in those preventable harm incidents per month. The sum of those values was multiple by 12 months per year to give a total of $994,185.24 in aggregated costs avoided by preventing harm.

Three projects focused on increasing hand hygiene compliance. Using a simulation model based on a study done at Duke University Medical Center, the study concluded the mean cost of a hand-washing non-compliance event was $1.98. The daily noncompliance rate was obtained pre and post-QI and multiplied by the average length of a hospital stay, multiplied by the average number of admissions. This number was then multiplied by $1.98 to obtain the annual estimated cost of non-compliance giving a total of $12,456,660.00

Eight projects decreased clinic cycle times. For each study, we examined the cycle time data collected before and after implementation of the QI project. The difference between these two values was the total time saved, which was used to calculate an aggregate value. Across all of the cycle time QI projects, the total time saved on cycle time was 512 minutes or just a little over 8 and a half hours.