

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: STRATEGIC PLANNING AREA DASHBOARD

DATE OF IMPLEMENTATION/ADOPTION: MARCH 20, 2018

(Must have been fully implemented for a minimum of at least one year - on or before July 1, 2018)

PROJECT STATUS: Ongoing One-time only

HAS YOUR DEPARTMENT PREVIOUSLY SUBMITTED THIS PROJECT? Yes 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 Rancho Los Amigos National Rehabilitation Center (RLANRC) Data Analytics
 2 Strategic Planning Area (SPA), led by the Chief Information Officer (CIO), Chief Medical
 3 Information Officer (CMIO), and Database Administrator in partnership with the Chief
 4 Quality Officer (CQO), is developing process and outcomes measures for several
 5 critical initiatives, including programmatic development, clinical outreach and clinician
 6 productivity. Outcomes are vetted by the CMIO, and the data are acquired from existing
 7 Department of Health Services (DHS) databases, including ORCHID and eConsult, and
 8 incorporated into an executive dashboard by the Database Administrator. The Data
 9 Analytics SPA has further enhanced this dashboard through continuous nuanced
 10 collaboration with hospital and clinical leadership and production of a user-friendly
 11 graphical interface. The SPA Dashboard, as it is now known, highlights the strategic
 12 objectives of the hospital more succinctly, with significantly more actionable and
 13 transparent metrics. The SPA Dashboard has identified many points for robust
 14 discussion and data-driven decision-making, including trends in hospital census and
 15 time from hospital referral to admission.

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
\$	\$	\$	\$	<input checked="" type="checkbox"/>

ANNUAL = 12 MONTHS ONLY

SUBMITTING DEPARTMENT NAME AND COMPLETE ADDRESS-
 DHS - Rancho Los Amigos National Rehabilitation Center
 7601 E. Imperial Highway
 Downey, CA 90242

TELEPHONE NUMBER

PROGRAM MANAGER'S NAME
 Dr. Gordon Sun

TELEPHONE NUMBER

562-385-6252

EMAIL
 Gsun@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

DATE
 6/12/2019

TELEPHONE NUMBER
 (213) 288-8384

DEPARTMENT HEAD'S NAME AND SIGNATURE
 Dr. Christina Ghaly



DATE
 6/28/2019

EMAIL
 COSanchez@dhs.lacounty.gov

TELEPHONE NUMBER
 (213) 288-8050

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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.

CHALLENGE

DHS data governance is undergoing significant change. Currently, DHS uses several executive dashboards that focus on broad, enterprise-level metrics such as patient admission volume, empanelment, average length of stay, surgical volume, and number of specialty care visits. However, there are no widely deployed best practices or common taxonomy regarding local performance metrics, which would be instrumental to data-driven and clinically, operationally, and fiscally responsible decision-making. In a resource-constrained safety-net hospital such as RLANRC, reliable and accessible data are critical to fair, nimble, and effective hospital management. The need to efficiently capture data from disparate sources and put it into an accessible and usable format led to the creation of the **Strategic Planning Area (SPA) Dashboard**. This application represents the concerted efforts of RLANRC to address its local business and strategic analytics needs and can be used as a scalable model for replication across DHS.

SOLUTION

The RLANRC SPA Dashboard is a tool made available to executive level staff at RLANRC, created using the business analytics program SAS. The Dashboard was developed by the CIO, CMIO, and Database Administrator, partnering with the CQO. The purpose of the Dashboard is to provide an accurate, transparent display of performance metrics sponsored and reviewed by C-suite executives at RLANRC (including the CMIO) and updated on at least a monthly basis.

The SPA Dashboard is a significant improvement from its predecessor, the Executive Council Dashboard, in 2 ways. First, the Dashboard reports more granular data at the hospital, department, division, and in select cases the individual level. The performance metrics measured by the tool encompass the spectrum of practice at RLANRC—inpatient, outpatient, and surgical care—and highlight the hospital’s SPAs and their priorities. Second, the performance metrics are displayed graphically using simple, colorful gauges and charts, and the underlying data are still accessible in spreadsheet form for those who wish to see it. This cleaner graphic design makes data more accessible and useful as a planning tool to inform decisions about hospital strategy and operations.

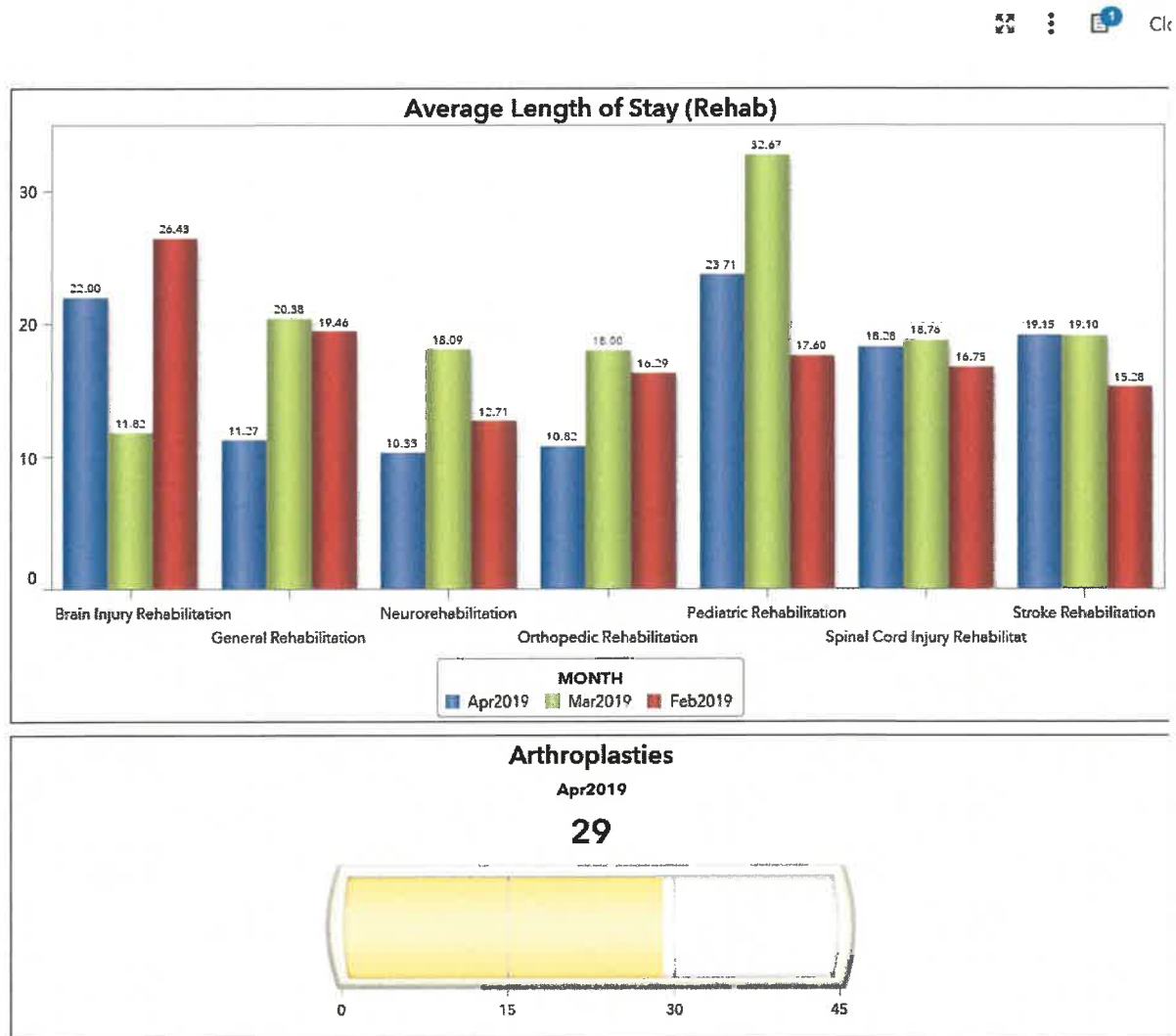
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See below for an example screen:



Most of the data in the Dashboard are automatically collected through ORCHID, which is DHS’ electronic health record, and other DHS databases. These data are manually cleaned, analyzed, and vetted by the Database Administrator and Chief Medical Information Officer prior to incorporation into the SPA Dashboard on a monthly basis. Although the **SPA Dashboard has been active since March 2018**, a substantial proportion of the data goes as far back as 2017, allowing us to see trends over time. Future sustainability plans include implementation of an automated email alert system for leadership whenever a performance metric is “red” (requiring intervention), a roll-out to front-line staff and management as further enhancements are made and validated, and working with DHS leadership to develop infrastructure for automated, real-time data uploading into the Dashboard.

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BENEFITS

The SPA Dashboard has had immediate impact on executive decision-making at RLANRC. Posting outcomes in a readily accessible format for hospital leadership to review has improved accountability and overall understanding of the status of key quality and efficiency metrics critical to operating a hospital. In one particularly notable case, the Dashboard produced results showing that the median time from inpatient referral to admission was about 2 days, which was slower than expected and significantly slower than the 4-hour turnaround benchmark used by many community hospitals. This was information that was previously unknown to hospital leadership. Subsequently, the patient referral process was revamped to reduce bottlenecks. Additionally, the Dashboard found that LAC+USC Medical Center and Harbor-UCLA Medical Center were particularly high-volume referral sources. Because internal DHS referrals are high-priority, the admissions and referrals office leadership decided to reassign some staff specifically to review referrals solely from LAC+USC and Harbor-UCLA and serve as points of contact for their counterparts at these two hospitals, facilitating better communication as a result.

As additional metrics are posted on the SPA Dashboard, the hospital expects that the information will guide key decision-making processes such as performance improvement, staffing, and operational modifications. Data-driven decision-making naturally yields positive impacts on service enhancement (e.g. identifying slower-than-expected operational processes) and potential cost avoidance/savings (e.g. identifying clinical programs that have significantly lower-than-expected patient volume or higher-than-expected clinician expenditures). RLANRC anticipates future benefits at the hospital and program level once sufficient data are present to identify performance trends. For example, one of the metrics being evaluated is the volume of joint replacement surgeries being done. In the fall of 2019, RLANRC plans to recruit a new full-time orthopedic surgeon for joint surgeries. This tool will demonstrate whether the new surgeon will increase the hospital's surgical volume and how quickly. Moreover, because the Dashboard also tracks hospital bed utilization, we will be able to anticipate whether there will be sufficient room to hospitalize these patients based on past and present performance.

Finally, developing the SPA Dashboard has demonstrated the need for a “common language” regarding hospital standards and data definitions. Should this project be implemented at other DHS facilities, efficiencies of scale will become possible as development and implementation costs for the dashboard will be minimized, while operational standardization will help further reduce costs. RLANRC anticipates that the SPA Dashboard will serve as a “gold standard” for reporting, accountability, and transparency regarding important hospital-based outcomes.

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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.

This project addresses Strategic Points III.2 (Leverage Technology to Increase Visibility of and Access to Services) and III.3 (Prioritize and Implement Technology Initiatives That Enhance Service Delivery and Increase Efficiency) of the 2016-2021 County of Los Angeles Strategic Plan. Developing a “Digital Government” is one of the key objectives of Los Angeles County, involving implementation of technology-based business solutions to securely store and transmit data, improve access to services, and enhance service delivery.

Prior to the advent of the SPA Dashboard, executive decisions were often made based on anecdotes and sparse data of uncertain reliability, which was not conducive to transparency and trust. Accountability was also more difficult to achieve without clear, measurable performance metrics and without clear ownership of the aforementioned metrics. The SPA Dashboard we developed at RLANRC is a technology-based solution, using software programs already available to DHS, to securely capture and display clinical, operational, and fiscal data at the hospital, department, and division level, improving visibility among hospital employees and identifying areas for growth and optimization of resource allocation across the facility.

The Dashboard has promoted better planning and strategy, greater appreciation for objective data vetted by respected experts, and a stronger sense of community among leaders at RLANRC. The Dashboard is reviewed up to twice monthly, keeping the information fresh in the minds of the hospital leadership. Moreover, because the leadership is connected to all clinical and operational facets of the hospital, decisions to act upon data displayed in the Dashboard can be conducted more nimbly. In the earlier example of the orthopedic surgeon recruitment, the hospital has hired this clinician in part to significantly reduce the backlog/wait time for joint replacement surgery across DHS. The Dashboard monitors joint replacement volume in aggregate and by provider on a monthly basis. Therefore, leadership will be able to easily determine whether the new surgeon is performing a sufficient number of joint replacements and is consequently meeting the needs and expectations of RLANRC and DHS at large.

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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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