

Quality and Productivity Commission
34th Annual Productivity and Quality Awards Program
“Leading with Excellence”

2021 APPLICATION

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

NAME OF PROJECT: NURSING SPECIALTY SKILLS SURVEY AND DASHBOARD

DATE OF IMPLEMENTATION/ADOPTION: AUGUST 2020

(Must have been fully implemented for a minimum of at least one year - on or before July 1, 2020)

CHECK HERE IF THIS PROJECT IS BEING SUBMITTED FOR THE COVID-19 IMPACT AWARD ONLY. (Projects must be implemented on or before December 31, 2020. **Note:** Projects implemented less than one year ago will not be eligible for any other PQA awards. In addition, once a project is submitted, you cannot submit the same project for awards consideration in subsequent years).

PROJECT STATUS: Ongoing One-time only

HAS YOUR DEPARTMENT PREVIOUSLY SUBMITTED THIS PROJECT? Yes No

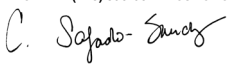
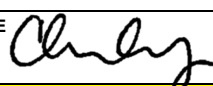
EXECUTIVE SUMMARY: Describe the project in 15 lines or less using Arial 12 point font. State clearly and concisely what difference the project has made.

1 The Los Angeles County Department of Health Services (DHS), Internal Services
 2 Department (ISD), and Labor partners developed a Deployment Dashboard to track
 3 staff (11,000) movement in response to the surge during the Coronavirus pandemic.
 4 A Registered Nurse (RN) Specialty Skills Survey was developed to identify additional
 5 clinical area skills to assist with the deployment of staff providing specialty care during
 6 the surge with COVID patients and other emergencies at our four County hospitals.
 7 A dashboard was developed to demonstrate the results of the survey, identify possible
 8 deployment based on staff home addresses in proximity to the closest County hospital,
 9 track staff movement (deployment) within and across each hospital and the ambulatory
 10 care clinics to provide real-time status reports for management teams to assist with
 11 decision-making and planning.
 12 This project eliminated the manual process and allowed DHS leadership teams to
 13 identify staff available for movement based on their skills and the specialty care areas
 14 requiring additional staff to meet the needs of patients and track the deployment status
 15 to ease the management of the emergency.

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 Health Services 5801 E. Slauson Ave, Ste. 200 Commerce CA 90040		TELEPHONE NUMBER (323) 914-6360
PROGRAM MANAGER'S NAME Sharon Robinson EMAIL sarobinson@dhs.lacounty.gov		TELEPHONE NUMBER (323) 914-6375
PRODUCTIVITY MANAGER'S NAME AND SIGNATURE <small>(PLEASE CALL (213) 893-0322 YOU DO NOT KNOW YOUR PRODUCTIVITY MANAGER'S NAME)</small> 	DATE 6/23/21	TELEPHONE NUMBER (213) 288-8483 EMAIL cosanchez@dhs.lacounty.gov
DEPARTMENT HEAD'S NAME AND SIGNATURE Christina R. Ghaly, M.D. 	DATE 6/23/21	TELEPHONE NUMBER (213) 288-8101

****ELECTRONIC, WET, OR SCANNED SIGNATURES ARE ACCEPTABLE****

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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**.

CHALLENGES.

The Los Angeles County Department of Health Services health care system encompasses four major hospitals, twenty-one health centers, five comprehensive health centers, and serves over 460,000 unique patients each year. The pandemic prompted DHS to quickly adapt and develop innovative strategies using technology to help the organization meet the demands of the public and patients they serve. Although DHS already had contracts in place to utilize registry staff for coverage and instituted additional contracts, due to the widespread national nature of the pandemic, the use of additional registry staff was very limited. DHS needed a method to deploy its own workforce to help handle the increasing hospital staffing shortages and develop a method to track the deployment/movement of staff, therefore, DHS created an electronic Nurse Specialty Skills Survey and Dashboard in collaboration with our labor partners.

Initially, staff deployment was conducted manually which required an enormous amount of collaboration and communication between departmental and facility management and Nursing Administration to ensure the hospitals were provided with enough staff and the skill sets to handle the immensely increased patient load. This movement of staff proved to be effective but extremely tasking to the management staff trying to monitor, maintain, report, and track the deployments. This included the deployment of staff internally within the hospitals as well as suspending services in the health centers to deploy staff (clinical and non-clinical) to the hospitals to augment services needed to meet patient care.

SOLUTION

The lull in the pandemic, provided DHS the opportunity to embark on a task to automate the manual RN and staff emergency deployment process and quell concerns from labor partners resulting from the first deployments. Implementation of the nurse specialty skills survey and dashboard provided real-time updates for management to facilitate decision-making and created a permanent solution for any future emergency requiring a reallocation of staff. The immediate and urgent goal was to develop a fully functional automated system before the next predicted patient surge.

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The nursing specialty skills survey provided the Registered Nurse (RN) workforce members (WFM) the opportunity to submit their previous work experiences, which allowed them to self-select preferred specialty care areas and to choose a convenient hospital location close to home in the event of a temporary work location deployment. Collection of the experience also provided management with information on the staffing skill sets and training. RN level staff included Registered Nurses, Nurse Practitioners, and other job classifications that require a RN license (all patient-facing, supervising, and administrative through management levels). The RN was required to select and complete their top three (3) specialty care area preferences from the specialties listed, rank each one and provide information pertaining to their experience, training or certification, length of time working in that specialty, ability to use selected medical equipment, point of care testing, and other general health care-related experiences.

The survey was electronically disseminated to all RNs to assist in preparation of a staff deployment process to be used during emergencies (e.g., COVID-19 pandemic) as well as the predicted surge that occurred at the end of 2020. To maintain the ongoing critical database information, the survey was mandatory and provided to all incoming RNs.

As part of the automation, the survey results were collected in a dashboard. The dashboard portrayed the survey results in a manner that executive staff could quickly view the data required to assess the staffing and skill sets available. Additional modules were added to the dashboard that helped facilitate the assignment and tracking of staff in the deployment process. The dashboard was subsequently expanded to include other clinical and non-clinical staff who were deployed to provide support to the nursing staff.

One of the modules in the dashboard assisted with the deployment process by allowing designated nurse management staff complete a form within the dashboard to communicate the assignment of staff to a facility. The form contained employee demographic information as well as preferred additional skills, originating work facility and unit, and current supervisor. Using survey data, the nurse managers could select the most appropriate staff for the areas in need (deployment work location and unit, deployment manager, effective date, orientation date, preceptorship, work shift), and could also designate whether the deployed staff can work independently or in a support role based on the experience level. ArcGIS (geographic mapping software) was also added to the dashboard which allowed management staff to consider the employee's home location, whenever possible, when deploying the employee to a DHS facility.

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BENEFITS

This project eliminated the manual process and allowed DHS leadership teams to identify staff available for movement based on their skills and the specialty care areas requiring additional staff to meet the needs of patients and track the deployment status to ease the management of the emergency.

Creation of this database and the ensuing modules proved very valuable during the pandemic surge in the winter 2020-2021. There were over 1400 staff deployments (internal and external) during the winter surge. Despite the varying shifts/schedules, weekends, and holidays, managing the staff in the system was easy as it was set up to allow real-time adjustments to assignments. Daily reports to executive leadership were simplified by eliminating much of the manual manipulation and real-time information could be provided immediately. The database allowed nurse management to view the staff with available skills and align them with the unit or the patients that needed specific care. The information provided trending and facilitated the analysis of the staffing needs of each hospital and helped to prepare them for future emergencies. All critical data resides in one location/dashboard, with an easy click on a tab, information about deployments, facility/unit needs, future deployments can be scheduled and viewed.

Based on the preferences provided by the RN, management could deploy staff with the necessary skills first to the hospital or hospital area of need. As other staff were needed, the training/competency was assessed, and the workforce member was assigned, as appropriate, to provide support for all aspects of the patient assignment.

Several additional modules were added to the dashboard that provided real-time information to executive management to assist in planning for adequate patient care coverage in critical care areas. These modules tracked staff deployed, the length of deployment, staff returned to their original work location, number of deployments, and staff leave status (illness, vacation, etc.). The leave status module allowed the manager to exempt the employee from deployment for that time period. Once the employee returned to work, the manager was able to indicate the return and the employee was added back to the available staff.

There was not enough time to look for and vet outside vendors to produce a system that would meet the immediate needs of our department. Expressing a need to our IT department netted a reach out to one of our sister departments with staff who had the capabilities to quickly design the survey and dashboard. This not only saved time but also kept funds within the County system. In this time of budget shortfalls due to the pandemic, the internal development was a positive move budgetarily. This project began in July 2020 and was fully operational by September 2020. Over 2800 staff deployments were initiated, tracked, and dispositioned through the dashboard.

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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.

Development and implementation of the nurse specialty skills survey and dashboard addresses LA County Strategic Plan III.2.3. “Prioritize and Implement Technology Initiatives that Enhance Service Delivery and Increase Efficiency: Support implementation of technological enhancements and acquisitions that increase efficiency (e.g. infrastructure, software, hardware, applications) including replacement of legacy systems.” The survey provided management with a means to assess the skill levels and availability of staff to meet the patient acuity and staffing needs at each of the hospitals during the pandemic surge. The collaboration of the different departments allowed the expansion of resources (software, skills, and talent) that created an efficient and timely management tool that was indisputably necessary during the pandemic patient surge and eliminated the previous manual process.

The design of the dashboard and user-friendly features required minimal training, however, a user guide was developed and made available. The leadership team was able to see survey status for tracking the percentage of completed surveys, the types of specialty skills/certifications identified, as well as granular detailed information on each RN’s skills, and length of experience per specialty area identified. Robust filtering and search features allowed system-wide tracking by each hospital, clinical specialty, and deployment, whether the employee was able to work fully independently or in a support role (team nursing), work shift, deployment manager, and end of deployment. Any field collected in the dashboard was used to display easy to read graphics or to export real-time data used to create decision-making reports.

Nintex Forms was the chosen platform for form development as a cost-effective solution. It was easy to adapt, which enabled quick and rapid application development. This tool was integrated with Office 365, which allowed capture of the user profile information and pre-load it to the form. Microsoft Power BI was the chosen platform to use for the dashboards and reports. It allowed for quick development, ability to connect to various sources such as the databases, SharePoint List on the cloud and provided colorful and easy to read visuals such as donut, pie, stacked column bar, tree map, matrix and GIS (geographic information system) maps.

This project was also an efficient use of available resources since the software utilized to create the survey and dashboard already existed in the departments which eliminated the need to purchase additional software.

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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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FOR COLLABORATING DEPARTMENTS ONLY

(For single department submissions, do not include this page)

DEPARTMENT NO. 2 NAME AND COMPLETE ADDRESS	
INTERNAL SERVICE DEPARTMENT, 1100 N. EASTERN AVENUE, LOS ANGELES, CA 90063	
PRODUCTIVITY MANAGER'S NAME AND SIGNATURE	DEPARTMENT HEAD'S NAME AND SIGNATURE
LETICIA PEREZ <i>Leticia Perez</i>	SELWYN HOLLINS <i>Selwyn Hollins</i>
EMAIL: <u>PEREZ@ISD.LACOUNTY.GOV</u>	EMAIL: <u>SHOLLINS@ISD.LACOUNTY.GOV</u>
DEPARTMENT NO. 3 NAME AND COMPLETE ADDRESS	
PRODUCTIVITY MANAGER'S NAME AND SIGNATURE	DEPARTMENT HEAD'S NAME AND SIGNATURE
EMAIL: _____	EMAIL: _____
DEPARTMENT NO. 4 NAME AND COMPLETE ADDRESS	
PRODUCTIVITY MANAGER'S NAME AND SIGNATURE	DEPARTMENT HEAD'S NAME AND SIGNATURE
EMAIL: _____	EMAIL: _____
DEPARTMENT NO. 5 NAME AND COMPLETE ADDRESS	
PRODUCTIVITY MANAGER'S NAME AND SIGNATURE	DEPARTMENT HEAD'S NAME AND SIGNATURE
EMAIL: _____	EMAIL: _____
DEPARTMENT NO. 6 NAME AND COMPLETE ADDRESS	
PRODUCTIVITY MANAGER'S NAME AND SIGNATURE	DEPARTMENT HEAD'S NAME AND SIGNATURE
EMAIL: _____	EMAIL: _____
DEPARTMENT NO. 7 NAME AND COMPLETE ADDRESS	
PRODUCTIVITY MANAGER'S NAME AND SIGNATURE	DEPARTMENT HEAD'S NAME AND SIGNATURE
EMAIL: _____	EMAIL: _____