

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: QUEST DIAGNOSTICS' INVOICE VALIDATION PROCESS

DATE OF IMPLEMENTATION/ADOPTION: JULY 2018

(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 Department of Health Services (DHS) uses third party reference laboratories for
 2 clinical tests for patients when those tests are not offered by DHS' own labs. The
 3 process for reviewing, validating, and approving invoices from these reference labs is
 4 laborious, cumbersome, error prone and not standardized between the DHS labs. Quest
 5 Diagnostics (Quest) and its entities comprise the largest reference lab vendor used by
 6 the DHS Labs with an expenditure of \$15 million in FY 2017-18.
 7 The DHS Laboratories (Labs), Finance, Contracts and Grants (C&G), and Enterprise
 8 Clinical Services (ECS) collaborated to implement a new process that streamlines,
 9 standardizes and automates the invoice validation process for over 35 DHS – Quest
 10 accounts. This process resulted in validating 100% of invoices up from 0 – 100%,
 11 varying by DHS facility previously, improving resource utilization by saving an estimated
 12 87 hours of lab manager and lab staff work per month and generating a database for
 13 analytics for all tests performed at Quest. The database has been instrumental in
 14 providing visibility to non-standard ordering patterns and in driving subsequent changes
 15 and cost savings.

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
\$	\$785,534	\$	\$785,534	<input checked="" type="checkbox"/>

ANNUAL = 12 MONTHS ONLY

SUBMITTING DEPARTMENT NAME AND COMPLETE ADDRESS Diagnostic Services / Finance 313 N Figueroa St #1207 Los Angeles CA 90012		TELEPHONE NUMBER 213-288-8579 / 626-525-6417
PROGRAM MANAGER'S NAME Mala Nanda/Jihan Awad mnanda@dhs.lacounty.gov jawad@dhs.lacounty.gov EMAIL		TELEPHONE NUMBER 213-288-8579 / 626-525-6417
PRODUCTIVITY MANAGER'S NAME AND SIGNATURE (PLEASE CALL (213) 893-0322 YOU DO NOT KNOW YOUR PRODUCTIVITY MANAGER'S NAME) Connie Salgado-Sanchez 	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**. Use Arial 12 point font.

DHS has nine clinical laboratories across the county that perform clinical testing and pathology for DHS patients. For specialty testing that is not available at the DHS labs, patient specimens are sent to reference labs to complete the tests. DHS uses several reference labs. Quest Diagnostics is the largest reference lab vendor contracted with DHS and consists of several entities including Quest West Hills (QWH), Quest Infectious Diseases (QID), and Quest San Juan Capistrano (SJC). This project focused on improving the efficiency, effectiveness, and accuracy of validating invoices for QWH, the largest reference lab used by DHS.

The review and approval process for Quest’s invoices was extremely cumbersome. Monthly paper invoices were sent to each facility. Invoices varied in length from a few pages for our smallest facilities and could be up to three hundred pages long in the case of LAC+USC - the largest DHS facility. These documents would be manually reviewed by the Lab Manager or designee and approved manually by looking up pricing and service verification, before being processed for payment by finance. There was no standardized approach to validating the invoices; the smaller facilities could sometimes check 100% of the invoice entries before payment approval. However, the majority of the reference lab tests were ordered by the larger DHS facilities, and it was impossible to manually review these larger invoices for 100% accuracy. The invoices included information on the service performed, the turnaround time (TAT) for completion and the associated price of the test. Practices varied across DHS with some facilities randomly checking about 10% of invoice entries for accuracy of service performed, while others checked for service and pricing. Turnaround times were often not checked even though the Quest contract allowed for credit if the test result was delivered after the established TAT for that test. An estimated 100 hours per month were spent by lab managers or their designees in reviewing and validating the invoices for payment.

Another disadvantage of this manual process was a lack of visibility to enterprise test utilization. In other words, it was difficult to compare test ordering patterns between DHS facilities since each facility received a manual invoice and there was no central database to enable comparisons and ensure that providers were using testing services equitably for patients regardless of the facility where the patient presented. In a historically siloed system, each DHS facility’s providers made decisions for their individual organization.

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Our goals for this project were to:

- Significantly improve the efficiency of the invoice review and validation process using electronic means and reduce the time spent by lab managers to accomplish this manually.
- Ensure that the invoices were complying with the Quest contract regarding prices and TATs
- Generate DHS enterprise-wide utilization data for tests performed at Quest

Numerous challenges were encountered along the way. Partnering with our Contracts and Grants (C&G) lead Ron Fifer, we had difficult discussions with Quest leadership to get them aligned on the goals of the project. In order for the project to progress, we required electronic transmission of data from Quest in a manner that could be received and verified by DHS. We had to convince Quest of the solution, which was to have them convert a hard copy ten year old pricing exhibit consisting of several thousand tests to a verified electronic version, make changes to their invoicing system to include a unique identifier called an Accession number with each patient’s test to enable a match in our system - a significant effort on their part, as their existing process replaced the DHS Accession number with a unique Quest Accession number that was not recognized by DHS.

We also needed Quest to extract the actual TAT information from their clinical system and include it in their billing system. Additionally, Quest was not regularly providing us with their Commercial Fee Schedule updates as required by the contract. Our project finance leader Jihan Awad worked tirelessly with her counterparts at Quest and the ECS lab team to overcome these three hurdles.

At the DHS end, we needed an automated way of verifying service performed, pricing accuracy and contractual TAT performance. A complex three-way matching algorithm for invoice prices, contract prices, and Quest Commercial Fee Schedule prices was developed along with Turn-Around-Time validation by our finance lead. Finance also worked with the ECS leads to utilize information from the electronic health record to validate the service performed. The intent was to generate a service exception report for lab managers to quickly review, instead of a few hundred pages of an invoice.

We went through numerous iterations where Quest made changes and sent us data for review. Our cross functional team consisting of our ORCHID (DHS electronic health record) leads Dawn Burkhardt and Angie Jimenez, the lab subject matter expert (SME) Sherri Delarosa and Jihan Awad reviewed and verified test records and provided feedback for service, pricing and TAT accuracy as Quest continued to fine tune system changes. Starting in October 2017, the system was piloted at LACUSC, the largest and most complex facility that contracted with Quest. We hoped that if we were successful with the most complex site, implementation with the other sites would be easy!

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During the first month of the pilot, the Quest electronic invoice was put through the finance algorithm to produce internal exception reports. These exception reports were 56 lines long instead of an invoice that was 4,237 lines long! Records on the exception reports included those that did not have a price or service match or were higher in price and TAT than stated in the contract. The first two exception reports, instead of the lengthy invoices, were sent to the LAC+USC Lab Manager. Given that it consisted of only 56 records, she was able to manually look up each of the exceptions to determine if the charges were legitimate, resulting in 100% validation of service, price, and TAT – a goal that had never before been achieved at the DHS medical center labs. The last two reports were sent to Quest with the credit and disallowed amount for their record. This process was honed over the next few months to ensure accuracy while facilitating minimal manual involvement from the Lab Manager. Upon completion of a successful pilot, Audit and Compliance were contacted and reviewed the process for compliance before approving a complete roll-out to all facilities. A training program was developed and delivered in-person by Jihan to the appropriate lab personnel, facility administration and finance at each DHS lab. The project was successfully rolled out to all DHS labs by July 2018.

This project resulted in the following goals being met:

- Streamlining Invoice Processing
- 100% Price Validation electronically
- 100% Turn-Around-Time Validation electronically
- > 97% Service Validation Electronically for Accounts Interfaced with the EHR
- Improved Resource Utilization (approximately 87 hours per month redirected to more value-added work)
- Generation of a growing database of test utilization, which is being used to highlight and analyze high cost test trends across facilities

In the spirit of continuous improvement, we have leveraged the learnings from this project with QWH to extend this to Quest’s other entities QID and SJC. From the complex analysis of the resulting database performed by Jihan, we identified tests where Quest had different prices in place across its entities for the same test. Following lengthy negotiations with Quest in 2020, we were able to obtain identical pricing and TATs for the same tests across all Quest entities for the first time in the history of our relationship. This resulted in annualized savings of \$785,000 for 2020.

Our next goal is to expand this process to other lab vendors. The team consisting of Mala Nanda, Jihan Awad, Angelica Jimenez, Dawn Burkhardt, Sherri Delarosa, Ronald Fifer, Manal Dudar, and Sarah Davda collaborated with Quest for this project’s success.

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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 Los Angeles County Strategic Plan Strategy III.3 - Striving for operational effectiveness, fiscal responsibility, and accountability.

This lab project aligns perfectly with this strategic goal. The practices in place to validate invoices were laborious, non-standardized and incomplete, while taking up a considerable amount of time from highly qualified lab leaders who could otherwise be engaged in patient care or staff development

This goal focuses on operational effectiveness. Our project eliminated waste and non-value-added work while enhancing data visibility to improve operational effectiveness. It helped focus staff on more strategically important work that is better aligned with their talent. Additionally, it enabled opportunities for cost savings by standardizing prices and TATs from all three Quest entities for DHS Labs and continues to generate savings in 2021.

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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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	\$785,534	\$	\$785,534	<input checked="" type="checkbox"/>

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(2) The new process enabled DHS to validate the invoices and deduct a total of \$59,922 for TAT Credit and \$54,938 for Price Disallowance prior to processing the payments for January through December 2020 with a total annual cost savings of \$114,860.

After lengthy negotiations in 2020, Quest agreed to equalize their pricing and TAT for identical tests that were offered across their entities, by offering the lowest established price for all Quest entities; they agreed to make it retroactive to Jan 2020. A recently completed revalidation of Quest invoices for January through December 2020 against Quest’s Updated Commercial Fee Schedule shows a total of \$696,489 in TAT invoice credit and \$89,045 in price disallowance for a total 2020 annual cost savings of \$785,534 across DHS labs to be collected from Quest. This was an increase of \$670,674 from the initial annual cost savings of \$114,860, for a total of \$785,534. The savings trend continues in 2021.