

Quality and Productivity Commission
29th Annual Productivity and Quality Awards Program
Champions of Change: Together We Make a Difference

2015 APPLICATION

Title of Project (Limited to 50 characters, including spaces):
NAME OF PROJECT: DATA MINING – IHSS FRAUD DETECTION & PREVENTION

Date of Implementation/Adoption: April 14, 2014

Project Status: Ongoing One-time only

Did you submit this project before? Yes No

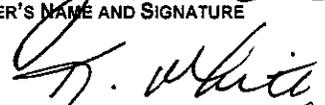
Executive Summary: Describe the project in 15 lines or less using 12 point font. Summarize the problem, solution, and benefits of the project in a clear and direct manner

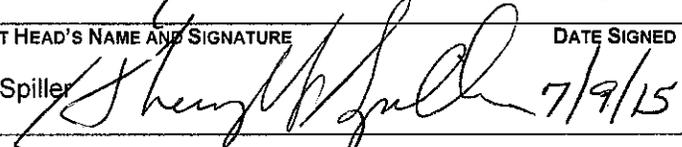
1 The Los Angeles County Department of Public Social Services (DPSS) faced an ever
 2 increasing In-Home Supportive Services (IHSS) caseload and the corresponding
 3 potential for increased fraud from both consumers and IHSS Program care providers.
 4 As a result, the Data Mining Solution (DMS) for IHSS Fraud Detection and Prevention
 5 was developed and implemented on April 14, 2014. Leveraging the success of the
 6 DMS for Stage 1 Child Care, DMS incorporates predictive statistical models to allow
 7 fraud investigators to identify and expedite the review of suspicious cases or individuals
 8 for investigation, as their characteristics resemble confirmed historical patterns of fraud.
 9 Estimates of cost avoidance were calculated in two areas, totaling \$7 million: new fraud
 10 referrals not previously detected by existing investigative methods of approximately \$1.6
 11 million and early fraud detection which reflects payments that would have been avoided
 12 of approximately \$5.4 million.
 13
 14
 15

(1) ESTIMATED/ACTUAL ANNUAL COST AVOIDANCE	(2) ESTIMATED/ACTUAL ANNUAL COST SAVINGS	(3) ESTIMATED/ACTUAL ANNUAL REVENUE	(1) + (2) + (3) TOTAL ESTIMATED/ACTUAL BENEFIT	SERVICE ENHANCEMENT PROJECT
\$7 Million	\$0	\$0	\$7 MILLION	

SUBMITTING DEPARTMENT NAME AND COMPLETE ADDRESS (INCLUDE TELEPHONE AND FAX NUMBER)
 Department of Public Social Services
 12860 Crossroads Parkway South
 City of Industry, CA 91746
 Telephone: (562) 908-8600 / FAX: (562) 695-4801

PROGRAM MANAGER'S NAME Michael J. Sylvester	TELEPHONE NUMBER (562) 908-8327
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PRODUCTIVITY MANAGER'S NAME AND SIGNATURE Kimberly White	DATE SIGNED 7-9-15	TELEPHONE NUMBER (562) 908-6330
		EMAIL: KimberlyWhite@dpss.lacounty.gov

DEPARTMENT HEAD'S NAME AND SIGNATURE Sheryl L. Spiller	DATE SIGNED 7/9/15	TELEPHONE NUMBER (562) 908-8600
		

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1st Fact Sheet – limited to 3 pages only: Describe the **Challenge, Solution, and Benefits** of the project, written in plain language. Include a discussion of the technology, links to the County Strategic Plan. The description should identify Performance Measures.

Challenge:

The Los Angeles County IHSS Program provides services to low-income elderly, blind, or disabled individuals, including children, so that they can receive care and remain safely in their own home. DPSS is fighting fraud by enhancing investigations and preventing improper payments to those who seek to take advantage of the IHSS Program. Faced with an increasing IHSS caseload and the corresponding potential for increased fraud in the IHSS Program from both consumers and IHSS care providers, DPSS expanded its IHSS fraud detection and prevention efforts. Fraud perpetrated by IHSS consumers and providers not only reduces the money available to the most vulnerable and in need; it also hurts and damages the public's confidence in a vital program.

Solution:

The Data Mining Solution (DMS) for IHSS Fraud Detection and Prevention was implemented on April 14, 2014 to assist Los Angeles County in the detection of fraud relating to in-home care. Prior to DMS, fraud referrals were generated by IHSS workers, consumers and/or providers, internal auditors, anonymous tips, and members of the public. The predictive statistical models used by DMS allow fraud investigators to identify suspicious cases independent of the traditional fraud referral method and expedite the review of suspected fraud cases or individuals much earlier than under the previous method.

DMS utilizes a comprehensive technology solution of analytic and intelligence software including (1) data integration tools; (2) data mining software; (3) social network analysis software; and (4) business intelligence tools to identify and assess cases that require closer scrutiny, as their profiles resemble confirmed historical patterns of fraud. Using predictive models and peer group analysis to detect anomalies in the utilization of in-home care services, fraud risk scores were developed to assist investigators in prioritizing their work to focus on cases with a high level of suspicion. The system also provides investigators with tools to identify collusive fraud rings and companion cases.

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Benefits:

DMS has proven to be highly effective in identifying and expediting the review of suspicious cases for investigation. Specifically, it assists with: (1) early detection of suspicious cases; (2) detection of likely fraudulent in-home care providers and/or consumers; (3) detection of collusive behavior and fraud rings; and (4) improved inter-agency collaboration.

In its first nine months of operation, April 2014 through May 2015, the following actions were initiated:

- 106 DMS fraud referrals initiated for investigation;
- 378 Referrals to DPSS IHSS Social Workers for follow up action, which resulted in one or more of the following:
 - Fraud referrals were submitted to Welfare Fraud Prevention & Investigations for investigation.
 - Denial/Termination/Reduction of various public assistance benefits.
 - Identification and/or recovery of overpayments.
- 539 Two-Way Grams Reviews were submitted to IHSS Line Offices for follow-up on an IHSS consumer case.
- 486 Two-Way Grams record reviews were submitted to Line staff for unreported income by the IHSS provider who is also a DPSS participant.

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Data Mining Solution for In-Home Supportive Services is linked to the Los Angeles County Strategic Plan Goal 1, Strategic Initiative 4: Innovative Technology Application:

“Develop innovative Information Technology solutions that achieve efficiencies and transform service delivery.”

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Cost Avoidance, Cost Savings, and Revenue Generated (Estimated Benefit): Use this form and provide details on the estimated/actual benefits. As a suggestion, work with your fiscal staff.

Cost Avoidance: Anticipated costs that are eliminated or not incurred as a result of program outcomes.

Cost Savings: A reduction or lessening of expenditures as a result of program outcomes.

Revenue: Increases in existing revenue streams or new revenue sources to the County as a result of program outcomes.

(1) ESTIMATED/ACTUAL ANNUAL COST AVOIDANCE	(2) ESTIMATED/ACTUAL ANNUAL COST SAVINGS	(3) ESTIMATED/ACTUAL ANNUAL REVENUE	(1) + (2) + (3) TOTAL ESTIMATED/ACTUAL BENEFIT	SERVICE ENHANCEMENT PROJECT
\$7 Million	\$0	\$0	\$7 Million	<input type="checkbox"/>

ANNUAL = 12 MONTHS ONLY

Available data indicates that the use of DMS for IHSS is very successful and positively affects the community by reducing the duration of fraudulent activity, deterring future fraud in the program, and generating potential public savings in the form of restitution from fraud cases that would have previously gone undetected and cost avoidance from deterring future fraud. The estimated annual savings is based on the following:

1. An estimated \$1.6 million attributed to new referrals not previously detected by existing investigation methods. This is based on DPSS' current investigation success rates and cost avoidance calculations.
2. Projected savings of \$5.4 million attributed to early detection, which reflects payments that would have been avoided if the DMS fraud detection solution had been in place.