

**Quality and Productivity Commission
31st Annual Productivity and Quality Awards Program
"Celebrating Quality Service"**

2017 APPLICATION

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

NAME OF PROJECT: FAST AND FURIOUS: RUNNING DOWN TB IN SKID ROW

DATE OF IMPLEMENTATION/ADOPTION: APRIL 2013
(Must have been implemented at least one year - on or before July 1, 2016)

PROJECT STATUS: Ongoing One-time only

HAS YOUR DEPARTMENT PREVIOUSLY SUBMITTED THIS PROJECT? Yes No

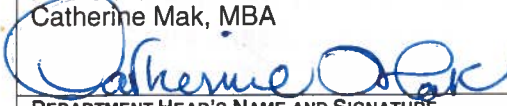
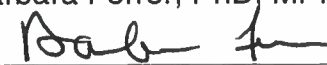
EXECUTIVE SUMMARY: Describe the project in 15 lines or less using Arial 12 point font. State clearly and concisely what difference the project has made.

1 The Department of Public Health (DPH) has diligently monitored an ongoing outbreak of
2 Tuberculosis (TB) among the homeless population. The homeless are especially
3 vulnerable to TB infections due to conditions that increase the spread of TB, i.e.,
4 crowded shelters, substance abuse, HIV infection, and lack of access to appropriate
5 health care. Community Health Services (CHS) operates a TB satellite clinic in Skid
6 Row which provides various public health services. One main goal of the clinic is to find
7 and treat homeless persons with active TB disease or latent TB infection (LTBI) and
8 provide them with appropriate treatment to prevent the spread of TB. LTBI completion
9 rates among the homeless have been below 5%. As reported in 2017, of the 58,000
10 homeless individuals, approximately 4,000 are in Downtown Skid Row. Since 2013, our
11 TB satellite clinic has implemented a new short course treatment (3HP) reducing the
12 length of LTBI treatment; streamlined access to care; and initiated temporary housing
13 during treatment. Enrollment in 3HP increased annually and completion rates are now
14 above 65%. The Centers for Disease Control and Prevention (CDC) recognized CHS
15 with the prestigious CDC U.S. TB Elimination Champion award in early 2017.

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
\$ 126,345.00	\$	\$	\$	XX

ANNUAL = 12 MONTHS ONLY

SUBMITTING DEPARTMENT NAME AND COMPLETE ADDRESS Department of Public Health 313 N. Figueroa Street, Room 807 Los Angeles, CA 90012		TELEPHONE NUMBER (213) 240-8117
PROGRAM MANAGER'S NAME Cristin Mondy, RN, MSN, MPH Area Health Officer - SPA 3 & 4		TELEPHONE NUMBER 213-240-8049 EMAIL cmondy@ph.lacounty.gov
PRODUCTIVITY MANAGER'S NAME AND SIGNATURE (PLEASE CALL (213) 893-0322 IF YOU DO NOT KNOW YOUR PRODUCTIVITY MANAGER'S NAME) Catherine Mak, MBA 	DATE 6-28-2017	TELEPHONE NUMBER (213) 989-7240 EMAIL cmak@ph.lacounty.gov
DEPARTMENT HEAD'S NAME AND SIGNATURE Barbara Ferrer, PhD, MPH, Med 		TELEPHONE NUMBER (213) 240-8117

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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. What quality and/or productivity-related outcome(s) has the project achieved? Provide measures of success. Use Arial 12 point font

Challenge:

The Los Angeles County (LAC) Department of Public Health (DPH) has been diligently monitoring an ongoing outbreak of tuberculosis (TB), primarily among the LAC homeless population. Between 2007 and December 2016, there have been 151 active TB cases linked to a specific TB genotype; 115 (76%) of these cases reported a history of homelessness 12 months prior to their diagnosis. There are two kinds of TB: latent TB infection (TB bacteria is present in the body but is asymptomatic and cannot be spread) or active TB disease (TB bacteria is active and can spread to other people). Homeless individuals are especially vulnerable to TB infections due to conditions that increase the spread of TB, including crowded shelters, substance abuse, HIV infection, and lack of access to appropriate health care. In response, DPH and various partner agencies have worked collaboratively to coordinate efforts that address finding and treating homeless persons with suspected or confirmed TB disease and providing preventative treatment to identified high-risk persons with LTBI to ensure they do not progress into active TB disease.

In 2017, LAC reported nearly 58,000 homeless individuals, of which an estimated 4,000 are congregated in a 50-block radius of the Downtown Los Angeles Skid Row area. The Center for Community Health, located in Skid Row, hosts the John Wesley Community Health Institute (JWCH), a private health care provider, and several County Departments including DPH, Departments of Health Services and Mental Health in an effort to promote an integrated health system to address the complex needs of homeless clients. CHS, the service delivery arm of the LAC DPH, operates a TB satellite clinic as part of the Center for Community Health. The clinic provides many needed services including adult immunizations, communicable disease triage, and TB services. A TB physician, clinic nurse, radiology technician, community worker, and a support staff form a dedicated clinic team to provide the best possible TB care.

Over the past four years, CHS has gone to great lengths to continuously improve its TB services in the hopes of increasing LTBI completion rates among homeless patients, which historically hovered below 5%. LTBI treatment is a critical component in preventing the onset of active TB disease in individuals who would experience a variety of TB-related symptoms and may subsequently spread the TB bacteria to others. Ensuring treatment compliance in homeless individuals is particularly challenging due to their often transient nature, potential co-occurring conditions, and the extended length of time needed to complete treatment.

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Use Arial 12 point font.

Solution:

In April 2013, TB satellite clinic staff began a pilot project to reduce the length of LTBI treatment and improve the overall LTBI completion rates by implementing short course LTBI therapy (3HP) for homeless clients. 3HP reduced the length of treatment to 12 weeks versus the traditional Isoniazid (INH) therapy, which requires 6 to 9 months to complete. The 3HP therapy calls for fewer clinical visits and immediately improved overall completion rates, which increased to 77% during the first year (2013) of implementation. Additionally, as part of the pilot, State funding secured by the Tuberculosis Control Program (TBCP) allowed for clinic staff to offer patients incentives during each follow up clinic visit. To further support the implementation of 3HP, the overall number of clinic sessions were increased to improve patient access to services. Multidisciplinary teams were established to discuss both clinical and auxiliary service needs of difficult patients, and partnerships were expanded with local Skid Row shelters: LA Mission, Union Rescue Mission (URM), Midnight Mission, and Los Angeles Homeless Services Authority. Trainings to prevent the spread of TB were also offered to our Skid Row shelter partners. Understanding that various health care providers serve the homeless, CHS and DPH TBCP worked together to establish memorandums of understanding (MOUs) with such external health clinics in Skid Row as LA Christian, JWCH, and UCLA School of Nursing at URM to expand TB screening services through the use of DPH pharmacy, laboratory and radiology services.

In 2015, the LTBI project was expanded to include additional components. Staff streamlined the TB evaluation process for sheltered homeless clients by combining services into fewer patient visits before starting LTBI treatment. Most recently, TBCP worked closely with TB satellite clinic staff to initiate a pilot housing project for homeless clients which allowed them to maintain temporary housing through the duration of their LTBI treatment and increased the utilization of public health investigators for locating patients who missed directly observed therapy or clinic appointments.

Benefit:

The number of clients enrolling in 3HP continues to increase each year and completion rates as of 2015 are 79%. The willingness of TB clinic staff to implement new and innovative practices as well as be flexible with clinic appointments and services is a model for LTBI case management. A more patient-centered model for LTBI case management, specifically for contact and select high-risk clients as the homeless, could include provision of transportation, flexible clinic appointments, linkages to social services (i.e. long-term housing), and other public health programs.

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Additionally, due to the successful implementation of 3HP at the TB satellite clinic, CHS expanded the use of 3HP to all DPH health centers which provide TB treatment services and increased eligibility beyond homeless clients to include all TB infected individuals (based on inclusion criteria).

The Centers for Disease Control and Prevention (CDC) recognized CHS as a 2017 CDC U.S. TB Elimination Champion for expanding latent TB infection testing and treatment in their communities and for making a significant contribution to preventing and controlling TB. This national award showcases the hard work of the CHS team and places CHS on the national platform as a leading fighter against the spread of TB.

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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.

CHS's Fast and Furious: Running Down TB in Skid Row project to improve LTBI completion rates in homeless clients clearly meets the vision and mission of the Department of Public Health and aligns with all three of the County strategic plan goals: Strategic Goal I: Make Investments That Transform Lives, Strategic Goal II: Foster Vibrant and Resilient Communities, as well as Strategic Goal III: Realize Tomorrow's Government Today.

Our project aims to address the complex societal problem of homelessness. The implementation of timely and appropriate preventive interventions to stop the onset of active TB disease creates a positive impact on the lives of an often marginalized segment of the population. The prevention of active TB provides the possibility for our clients to maintain and/or improve their health and well-being, to eliminate potential obstacles which may decrease the ability to secure housing, to obtain and to sustain employment, and finally, to qualify and receive additional services to ensure participation within the community.

Our project also supports the health and wellness of the community by reducing the spread of TB within our most vulnerable populations and to our community at large. Internal and external partnerships help to strengthen our service capacity and leverage resources in order to meet the complex and changing needs of individuals and cultivate and maintain strong and resilient communities. Furthermore, the project increases both efficiency and effectiveness of our service delivery in partnership with internal and external entities to respond to our LTBI homeless clients' needs. Our collective effort culminates in an overall cost saving to the County.

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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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\$ 126,345.00	\$	\$	\$	X <input type="checkbox"/>

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Data shows, that 1 in 10 immuno-compromised individuals (e.g. homeless) infected with LTBI will likely progress to active TB. Treatment of active TB patients would include lengthy treatment and increased medical costs. By ensuring that TB infected individuals complete LTBI treatment and do not progress to active TB disease, the estimated cost avoidance per case is \$33,692 (new estimate as of 2015) which includes only the direct medical cost per case. It should be noted that additional indirect cost savings for surveillance, contact investigation and case management are difficult to quantify and are not included here. Based on the above conservative estimate, which again does not include any tangential expenses involved in the treatment of each patient, the estimated total TB satellite clinic cost avoidance since the implementation of 3HP in 2013, is as follows:

Year	Estimated medical cost/active TB case	Number of patients completing treatment (3HP)	Number of LTBI patients with high risk of progressing to active TB (1:10)	Estimated Cost Avoidance for LAC
2013	\$33,692	30	3	\$101,076
2014	\$33,692	23	2	\$67,384
2015	\$33,692	52	5	\$168,460
2016	\$33,692	51	5	\$168,460
Estimated Total Cost of Avoidance since inception of pilot =				\$505,380

Estimated total cost Avoidance = (Cost/case x number of LTBI patients who progress to active TB) over the course of the project since inception to 2016 / by 4 (the number of years of this pilot program) = \$126,345, the conservative estimated annual cost avoidance without taken unquantifiable indirect cost of treatment into account.