



**Inter-Local  
Application  
For  
Tuberculosis Prevention and  
Control for FY 2013  
State Funds**

*<http://www.dshs.state.tx.us/idcu/disease/tb>*

Issue date: 5/16/12

Due date: 6/1/12

**TB Services Branch**

1100 W. 49<sup>th</sup> Street  
P. O. Box 149347, MS 1990  
Austin, Texas 78714

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David L. Lakey, M.D.  
Commissioner

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**Department of State Health Services  
Form A Face Page**

**RESPONDENT INFORMATION**

1) LEGAL BUSINESS NAME: COLLIN COUNTY HEALTH CARE SERVICES

2) MAILING Address Information (include mailing address, street, city, county, state and 9-digit zip code): Check if address change   
 COLLIN COUNTY HEALTH CARE SERVICES  
 825 N MCDONALD ST., SUITE 130  
 MCKINNEY, TX 75069

3) PAYEE Name and Mailing Address, including 9-digit zip code (if different from above): Check if address change   
 COLLIN COUNTY AUDITOR'S OFFICE  
 2300 BLOOMDALE, ROAD, SUITE 3100  
 MCKINNEY, TX 75071

4) DUNS Number (9-digit) required if receiving federal funds:

5) Federal Tax ID No. (9-digit), State of Texas Comptroller Vendor ID Number (14-digit) or Social Security Number (9-digit): 756000873

*\*The respondent acknowledges, understands and agrees that the respondent's choice to use a social security number as the vendor identification number for the contract, may result in the social security number being made public via state open records requests.*

6) TYPE OF ENTITY (check all that apply):

<input type="checkbox"/> City	<input type="checkbox"/> Nonprofit Organization*	<input type="checkbox"/> Individual
<input checked="" type="checkbox"/> County	<input type="checkbox"/> For Profit Organization*	<input type="checkbox"/> Federally Qualified Health Centers
<input type="checkbox"/> Other Political Subdivision	<input type="checkbox"/> HUB Certified	<input type="checkbox"/> State Controlled Institution of Higher Learning
<input type="checkbox"/> State Agency	<input type="checkbox"/> Community-Based Organization	<input type="checkbox"/> Hospital
<input type="checkbox"/> Indian Tribe	<input type="checkbox"/> Minority Organization	<input type="checkbox"/> Private
	<input type="checkbox"/> Faith Based (Nonprofit Org)	<input type="checkbox"/> Other (specify): _____

*\*If incorporated, provide 10-digit charter number assigned by Secretary of State:*

7) PROPOSED BUDGET PERIOD: Start Date: 09/01/2012 End Date: 08/31/2013

8) COUNTIES SERVED BY PROJECT:  
 COLLIN COUNTY

9) AMOUNT OF FUNDING REQUESTED: \$182,178

10) PROJECTED EXPENDITURES

Does respondent's projected federal expenditures exceed \$500,000, or its projected state expenditures exceed \$500,000, for respondent's current fiscal year (excluding amount requested in line 9 above)? \*\*

Yes  No

*\*\*Projected expenditures should include anticipated expenditures under all federal grants including "pass through" federal funds from all state agencies, or all anticipated expenditures under state grants, as applicable.*

11) PROJECT CONTACT PERSON

Name: PATSY MORRIS  
 Phone: 972-548-5503  
 Fax: 972-548-5550  
 Email: pmorris@co.collin.tx.us

12) FINANCIAL OFFICER

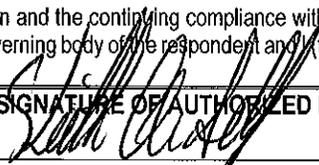
Name: JEFF MAY  
 Phone: 972-548-4641  
 Fax: 972-548-4696  
 Email: pmorris@co.collin.tx.us

The facts affirmed by me in this proposal are truthful and I warrant the respondent is in compliance with the assurances and certifications contained in **APPENDIX B: DSHS Assurances and Certifications**. I understand the truthfulness of the facts affirmed herein and the continuing compliance with these requirements are conditions precedent to the award of a contract. This document has been duly authorized by the governing body of the respondent and I (the person signing below) am authorized to represent the respondent.

13) AUTHORIZED REPRESENTATIVE Check if change

Name: KEITH SELF  
 Title: COUNTY JUDGE  
 Phone: 972-548-4635  
 Fax: 972-548-4699  
 Email: keith.self@co.collin.tx.us

14) SIGNATURE OF AUTHORIZED REPRESENTATIVE



15) DATE  
 5/24/12

## FORM A: FACE PAGE INSTRUCTIONS

This form provides basic information about the respondent and the proposed project with the Department of State Health Services (DSHS), including the signature of the authorized representative. It is the cover page of the proposal and is required to be completed. Signature affirms the facts contained in the respondent's response are truthful and the respondent is in compliance with the assurances and certifications contained in **APPENDIX B: DSHS Assurances and Certifications** and acknowledges that continued compliance is a condition for the award of a contract. Please follow the instructions below to complete the face page form and return with the respondent's proposal.

- 1) **LEGAL BUSINESS NAME** - Enter the legal name of the respondent.
- 2) **MAILING ADDRESS INFORMATION** - Enter the respondent's complete physical address and mailing address, city, county, state, and 9-digit zip code.
- 3) **PAYEE NAME AND MAILING ADDRESS** - Payee – Entity involved in a contractual relationship with respondent to receive payment for services rendered by respondent and to maintain the accounting records for the contract; i.e., fiscal agent. Enter the PAYEE's name and mailing address, including 9-digit zip code, if PAYEE is different from the respondent. The PAYEE is the corporation, entity or vendor who will be receiving payments.
- 4) **DUNS Number** – 9- digit Dun and Bradstreet Data Universal Numbering System (DUNS) number. . This number is required if receiving **ANY** federal funds and can be obtained at: <http://fedgov.dnb.com/webform>
- 5) **FEDERAL TAX ID or STATE OF TEXAS COMPTROLLER VENDOR ID NUMBER OR SOCIAL SECURITY NUMBER** - Enter the Federal Tax Identification Number (9-digit) or the Texas Vendor Identification Number assigned by the Texas State Comptroller (14-digit). \*The respondent acknowledges, understands and agrees the respondent's choice to use a social security number as its vendor identification number for the contract, may result in the social security number being made public via state open records requests.
- 6) **TYPE OF ENTITY** - Check the type of entity as defined by the Secretary of State at <http://www.sos.state.tx.us/corp/businessstructure.shtml> and/or the Texas State Comptroller at [https://fm.x.cpa.state.tx.us/fmx/pubs/tins/tinsguide/2009-04/TINS\\_Guide\\_0409.pdf](https://fm.x.cpa.state.tx.us/fmx/pubs/tins/tinsguide/2009-04/TINS_Guide_0409.pdf) and check all other boxes that describe the entity.  
  
Historically Underutilized Business: A minority or women-owned business as defined by Texas Government Code, Title 10, Subtitle D, Chapter 2161. (<http://www.window.state.tx.us/procurement/prog/hub/>)  
State Agency: an agency of the State of Texas as defined in Texas Government Code §2056.001.ii  
Institutions of higher education as defined by §61.003 of the Education Code.  
MINORITY ORGANIZATION is defined as an organization in which the Board of Directors is made up of 50% racial or ethnic minority members.  
If a Non-Profit Corporation or For-Profit Corporation, provide the 10-digit charter number assigned by the Secretary of State.
- 7) **PROPOSED BUDGET PERIOD** - Enter the budget period for this proposal. Budget period is defined in the RFP.
- 8) **COUNTIES SERVED BY PROJECT** - Enter the proposed counties served by the project.
- 9) **AMOUNT OF FUNDING REQUESTED** - Enter the amount of funding requested from DSHS for proposed project activities (not including possible renewals). This amount must match column (1) row K from the BUDGET SUMMARY used for cost reimbursement budgets.
- 10) **PROJECTED EXPENDITURES** - If respondent's projected federal expenditures exceed \$500,000 or its projected state expenditures exceed \$500,000 for respondent's current fiscal year, respondent must arrange for a financial compliance audit (Single Audit).
- 11) **PROJECT CONTACT PERSON** - Enter the name, phone, fax, and email address of the person responsible for the proposed project.
- 12) **FINANCIAL OFFICER** - Enter the name, phone, fax, and email address of the person responsible for the financial aspects of the proposed project.
- 13) **AUTHORIZED REPRESENTATIVE** - Enter the name, title, phone, fax, and email address of the person authorized to represent the respondent. Check the "Check if change" box if the authorized representative is different from previous submission to DSHS.
- 14) **SIGNATURE OF AUTHORIZED REPRESENTATIVE** - The person authorized to represent the respondent must sign in this blank.
- 15) **DATE** - Enter the date the authorized representative signed this form.

## FORM B: Inter-Local APPLICATION CHECKLIST

Legal Name of applicant: COLLIN COUNTY HEALTH CARE SERVICES

*This form is provided to ensure that the application is complete, proper signatures are included, and the required assurances, certifications, and attachments have been submitted.*

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FORM	DESCRIPTION	Included
A	Face Page completed, and proper signatures and date included	X
B	Application Checklist completed and included	X
C	Contact Person Information completed and included	X
D	Administrative Information completed and included (with supplemental documentation attached if required)	X
E	Organization, Resources and Capacity included	X
F	Performance Measures included	X
G	Work Plan included	X

## FORM C: CONTACT PERSON INFORMATION

Legal Name of Applicant: COLLIN COUNTY HEALTH CARE SERVICES

*This form provides information about appropriate contacts in the applicant's organization in addition to those on FORM A: FACE PAGE. If any of the following information changes during the term of the contract, please send written notification to the Infectious Disease Intervention and Control Branch.*

<b>Contact:</b>	<b>CANDY BLAIR</b>	<b>Mailing Address (incl. street, city, county, state, &amp; zip):</b>
<b>Title:</b>	<b>ADMINISTRATOR</b>	<b>825 N MCDONALD STREET, SUITE 130</b>
<b>Phone:</b>	<b>972-548-5504</b> <b>Ext.</b>	<b>MCKINNEY</b>
<b>Fax:</b>	<b>972-548-5550</b>	<b>COLLIN COUNTY</b>
<b>E-mail:</b>	<b>cblair@co.collin.tx.us</b>	<b>TEXAS, 75069</b>
<b>Contact:</b>	<b>PATSY MORRIS</b>	<b>Mailing Address (incl. street, city, county, state, &amp; zip):</b>
<b>Title:</b>	<b>HEALTHCARE COORDINATOR</b>	<b>825 N MCDONALD STREET, SUITE 130</b>
<b>Phone:</b>	<b>972-548-5503</b> <b>Ext.</b>	<b>MCKINNEY</b>
<b>Fax:</b>	<b>972-548-5550</b>	<b>COLLIN COUNTY</b>
<b>E-mail:</b>	<b>pmorris@co.collin.tx.us</b>	<b>TEXAS, 75069</b>

## FORM D: ADMINISTRATIVE INFORMATION - ILA

*This form provides information regarding identification and contract history on the applicant, executive management, project management, governing board members, and/or principal officers. Respond to each request for information or provide the required supplemental document behind this form. If responses require multiple pages, identify the supporting pages/documentation with the applicable request.*

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**Legal Name of Applicant:** COLLIN COUNTY HEALTH CARE SERVICES

### Identifying Information

**The applicant shall attach the following information:**

- Names (last, first, middle) and addresses for the officials who are authorized to enter into a contract on behalf of the applicant.

### Conflict of Interest and Contract History

The applicant shall disclose any existing or potential conflict of interest relative to the performance of the requirements of this Application for Funding. Examples of potential conflicts may include an existing business or personal relationship between the applicant, its principal, or any affiliate or subcontractor, with DSHS, the participating agencies, or any other entity or person involved in any way in any project that is the subject of this Application for Funding. Similarly, any personal or business relationship between the applicant, the principals, or any affiliate or subcontractor, with any employee of DSHS, a participating agency, or their respective suppliers, must be disclosed. Any such relationship that might be perceived or represented as a conflict shall be disclosed. Failure to disclose any such relationship may be cause for contract termination or disqualification of the proposal. If, following a review of this information, it is determined by DSHS that a conflict of interest exists, the applicant may be disqualified from further consideration for the award of a contract.

**1. Does anyone in the applicant organization have an existing or potential conflict of interest relative to the performance of the requirements of this Application for Funding?**

YES      NO     

*If YES, detail any such relationship(s) that might be perceived or represented as a conflict. (Attach no more than one additional page.)*

**2. Has any member of applicant's executive management, project management, governing board or principal officers been employed by the State of Texas 24 months prior to the application due date?**

YES      NO     

*If YES, indicate his/her name, social security number, job title, agency employed by, separation date, and reason for separation.*

## FORM D: ADMINISTRATIVE INFORMATION – ILA - continued

**3. Has applicant had a contract with DSHS within the past 24 months?**

YES     NO

*If YES, indicate the contract number(s):*

Contract Number(s)	
2012-040161 FY 2012 FEDERAL ILA	
2012-039047 FY 2012 STATE ILA	
2012-039108 FY 2012 IMMUNIZATION	
2012-039439 FY2012 RLSS-LPHS	

*If NO, applicant must be able to demonstrate fiscal solvency. Submit a copy of the organization's most recently audited balance sheet, statement of income and expenses and accompanying financial footnotes DSHS will evaluate the documents that are submitted and may, at its sole discretion, reject the proposal on the grounds of the applicant's financial capability.*

**4. Is applicant or any member of applicant's executive management, project management, board members or principal officers:**

- Delinquent on any state, federal or other debt;
- Affiliated with an organization which is delinquent on any state, federal or other debt; or
- In default on an agreed repayment schedule with any funding organization?

YES    NO   

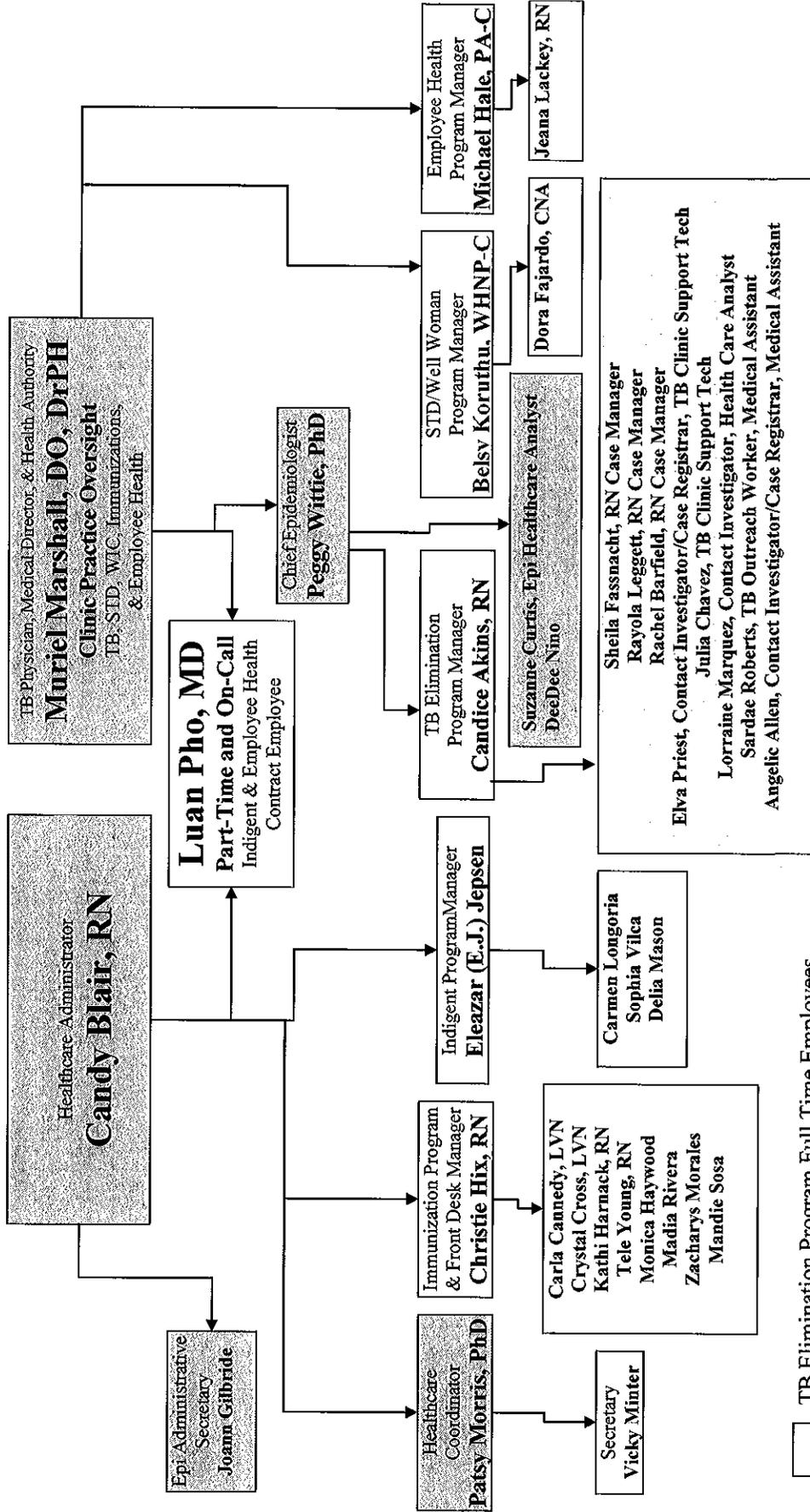
*If YES, please explain. (Attach no more than one additional page.)*

## **FORM E: ORGANIZATION, RESOURCES AND CAPACITY**

Collin County Health Care Services (CCHCS) is a local health department whose mission is to protect and promote the health of people of Collin County. CCHCS provides the following services to the community: childhood and adult immunizations, epidemiology (disease surveillance), Tuberculosis clinic services, STD/HIV clinic services, breast cancer services, WIC program services, state Indigent Program services, and primary care services through a partnership with independent clinics. **The CCHCS organizational chart is attached in the following page.**



# COLLIN COUNTY HEALTH CARE SERVICES ORGANIZATIONAL CHART



TB Elimination Program Full Time Employees  
 Staff available to provide support or spend a percentage of time with TB Elimination Program functions  
**ABC** Staff members who are bilingual in Spanish  
**ABC** Staff member who is bilingual in Malayalam

## FORM F: PERFORMANCE MEASURES

*In the event a contract is awarded, applicant agrees that performance measures will be used to assess, in part, the applicant's effectiveness in providing the services described.*

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1. Cases, and suspected cases, of TB under treatment by Contractor shall be placed on timely and appropriate Directly Observed Therapy (DOT). If data indicates a compliance rate for this Performance Measure of less than 90%, then DSHS may (at its sole discretion) require additional measures be taken by Contractor to improve that percentage, on a timeline set by DSHS;
2. Newly diagnosed TB cases that are eligible\* to complete treatment within 12 months shall complete therapy within 365 days or less;

*\*Exclude TB cases 1) diagnosed at death, 2) who die during therapy, 3) who are resistant to Rifampin, 4) who have meningeal disease, and/or 5) who are younger than 15 years with either miliary disease or a positive blood culture for TB.*

If data indicates a compliance rate for this Performance Measure of less than 85%, then DSHS may (at its sole discretion) require additional measures be taken by Contractor to improve that percentage, on a timeline set by DSHS;

3. TB cases with initial cultures positive for Mycobacterium tuberculosis complex shall be tested for drug susceptibility and have those results documented in their medical record. If data indicates a compliance rate for this Performance Measure of less than 97.4%, then DSHS may (at its sole discretion) require additional measures be taken by Contractor to improve that percentage, on a timeline set by DSHS;
4. Newly-reported cases of TB with Acid-fast Bacillus (AFB) positive sputum culture results will have documented conversion to sputum culture-negative within 60 days of initiation of treatment. If data indicates a compliance rate for this Performance Measure of less than 45%, then DSHS may (at its sole discretion) require additional measures be taken by contractor to improve the percentage, on a timeline set by DSHS;
5. Newly-reported TB cases shall have an HIV test performed (unless they are known HIV-positive, or if the patient refuses) and shall have positive or negative HIV test results reported to DSHS according to the reporting schedule provided in Section 1, B herein. If fewer than 80% of newly reported TB cases have a result of an HIV test reported, then DSHS may (at its sole discretion) require additional measures be taken by Contractor to improve that percentage, on a timeline set by DSHS;
6. Newly-reported suspected cases of TB disease shall be started in timely manner on the recommended initial 4-drug regimen. If fewer than 93.2% of newly-reported TB cases are started on an initial 4-drug regimen in accordance with this requirement, then DSHS may

(at its sole discretion) require additional measures be taken by Contractor to improve that percentage, on a timeline set by DSHS;

7. Newly-reported TB patients with a positive AFB sputum-smear result shall have at least three contacts identified as part of the contact investigation that must be pursued for each case. If data indicates a compliance rate for this Performance Measure of less than 90%, then DSHS may (at its sole discretion) require additional measures be taken by Contractor to improve that percentage, on a timeline set by DSHS;
8. Newly-identified contacts, identified through the contact investigation, that are associated with a sputum AFB smear-positive TB case shall be evaluated for TB infection and disease. If data indicates a compliance rate for this Performance Measure of less than 81.5%, then DSHS may (at its sole discretion) require additional measures be taken by Contractor to improve that percentage, on a timeline set by DSHS;
9. Contacts, identified through the contact investigation, that are associated with a sputum AFB smear-positive case and that are newly diagnosed with latent TB infection (LTBI) shall be started on timely and appropriate treatment. If data indicates a compliance rate for this Performance Measure of less than 65%, then DSHS may (at its sole discretion) require additional measures be taken by Contractor to improve that percentage, on a timeline set by DSHS;
10. Contacts, identified through the contact investigation, that are associated with a sputum AFB smear-positive case that are newly diagnosed with LTBI and that were started on treatment shall complete treatment for LTBI as described in Targeted Tuberculin Testing and Treatment of Latent TB Infection (LTBI), Morbidity and Mortality Weekly Report, Vol. 49, No. RR-6, 2000, and according to the timelines given therein. If data indicates a compliance rate for this Performance Measure of less than 45%, then DSHS may (at its sole discretion) require additional measures be taken by Contractor to improve that percentage, on a timeline set by DSHS;
10. Newly-reported TB patients that are older than 12-years-old and that have a pleural or respiratory site of disease shall have sputum AFB-culture results reported to DSHS according to the timelines for reporting initial and updated results given herein. If data indicates a compliance rate for this Performance Measure of less than 89.5%, then DSHS may (at its sole discretion) require additional measures be taken by Contractor to improve that percentage, on a timeline set by DSHS; and
11. Newly-reported TB patients that are older than 12-years-old and that have a pleural or respiratory site of disease shall have sputum AFB-culture results reported to DSHS according to the timelines for reporting initial and updated results given herein. If data indicates a compliance rate for this Performance Measure of less than 89.5%, then DSHS may (at its sole discretion) require additional measures be taken by Contractor to improve that percentage, on a timeline set by DSHS; and
12. All reporting to DSHS shall be completed as described in Section I, B-Reporting and submitted by the deadlines given

If the Contractor fails to meet any of the performance measures, the Contractor shall furnish in the narrative report, due February 15, 2013, a written explanation including a plan (with schedule) to meet those measures. This requirement does not excuse any violation of this Contract, nor does it limit DSHS as to any options available under the contract regarding breach.

The TB Services Branch Communicable Disease Control Group shall calculate performance measures based on the information maintained in databases kept at the TB Services Branch, through limited scope audits or inspections, and scheduled program reviews of successful applicants.

## FORM G: WORK PLAN

Applicant shall describe its plan for service delivery to the population in the proposed service area(s) and include timelines for accomplishments. Address the required elements (see WORK PLAN Requirements) associated with the services proposed in this proposal.

**A maximum of five (5) additional pages may be attached if needed.**

**QUESTION 1—Proposed services.** The proposed services aimed at the prevention and control of Tuberculosis (TB) provided by Collin County Health Care Services (CCHCS) through its TB Elimination Program include: performing TB skin testing or IGRA (when indicated) and chest x-ray services for the public as well as contacts to TB cases, providing TB-related medical care and Directly Observed Therapy (DOT) for active TB cases, providing Latent Tuberculosis Infection (LTBI) treatment and Directly Observed Preventive (DOPT) therapy to patients at risk of developing TB disease, providing TB screening for immigrants, performing contact investigations in compliance with the Texas Department of State Health Services (DSHS) standards, cooperating with other TB prevention partners in TB elimination activities, and imparting key information/education regarding the management of TB patients to medical and professional personnel in the community.

**Service area, Population to be Served.** The area served by the CCHCS TB Elimination Program is Collin County, Texas. Collin County, located in North Texas, is part of the Dallas/Fort Worth Metroplex. The geographical area of Collin County covers 847.56 square miles<sup>1</sup> and is comprised of metropolitan centers, suburban communities, and rural landscapes. The population of Collin County has increased to an estimated 842,364 residents in 2010<sup>2</sup>. McKinney, the county seat, was identified as the nation's fastest growing city between April 1, 2000 and July 1, 2008 when its population more than doubled to 121,211 residents<sup>3</sup>. Collin County's rise in numbers has been relatively diverse from an ethnicity standpoint in comparison with other counties and the state as a whole. With these factors in mind, it is of growing concern that the TB case rate for Collin County has steadily increased from 2.9 to 4.7 cases per 100,000 persons in recent years<sup>4</sup>.

POPULATION PERCENTAGE BY ETHNICITY, 2010 <sup>5</sup>					PERCENT CHANGE IN POPULATION BY ETHNICITY 2000-2010 <sup>5</sup>			
County	White, %	Black, %	Hispanic, %	Other, %	White, %	Black, %	Hispanic, %	Other, %
Collin	71.3	5.7	14.0	9.0	58.5	94.8	133.5	101.5
Dallas	31.7	20.3	41.9	6.1	-22.7	8.8	54.1	44.0
Denton	71.1	7.1	16.0	5.8	50.7	90.5	115.1	94.9
Tarrant	49.1	13.4	30.4	7.1	-1.4	30.3	94.5	100.8
Texas	45.1	11.5	38.8	4.6	3.3	20.8	47.7	69.0

**Individuals served from counties outside stated service area.** In order to serve community-based, TB-related health care needs, CCHCS partners with Collin County Detention Facility, as well as North Texas Job Corps Center (both located in McKinney). Furthermore, CCHCS has partnered with PrimaCare for TB DOT services in unusual situations. Serving individuals outside of Collin County is a challenge that requires diligent attention since the spread of TB can cross geographical boundaries as a result of patients moving and contact exposures. For new reports of suspect TB patients reported to CCHCS where the patient resides in another county, both the Epidemiology staff and the TB Program Manager forward lab results and critical information to the DSHS Region 2/3 office and/or the health department where the patient resides in order to expedite the follow up needed for that patient. For a small number of cases, the TB patient's workplace is located in Collin County, even though they reside in another county. Consequently, if the provision of DOT and/or TB services to the out of county TB patient has the potential to enhance compliance, the Collin County Health Authority and CCHCS Administrator will approve extending TB services to the out-of-county patient on a case-by-case basis.

**QUESTION 2—Service Delivery System, Workforce.** Collin County Health Care Services (CCHCS) is a local health department whose mission is to protect and promote the health of the people of Collin County. CCHCS provides the following services to the community: childhood and adult immunizations, epidemiology (disease surveillance), Tuberculosis clinic services, STD/HIV clinic services, WIC program services, state Indigent Program services, and primary care services through a partnership with independent clinics. **The CCHCS organizational chart is attached in the previous section.** The TB prevention services and control measures in place for the Collin County area are provided by the CCHCS Tuberculosis Elimination Program. Services are provided via: patient office visits; home DOT visits; contact investigations; verbal, written, and electronic communication to and from patients, health care providers, hospitals, state TB consultants, and other contacts. Although regular CCHCS business hours are Monday-Friday (8-11 a.m., 1-4 p.m.), the TB Clinic attends patients Monday-Friday (7 a.m.-5 p.m.), with nursing staff accommodating patient visits as needed.

The program staff workforce currently includes 9 Full Time Employees (1 TB Nurse Program Manager, 3 Registered Nurse Case Managers, 1 Outreach Worker, 2 Contact Investigator/Case Registrars, 1 Clinic Support Tech, and 1 Contact Investigator) as shown on the organizational chart (Form E-Organization, Resources & Capacity). The CCHCS Medical Director/Collin County Health Authority (MD/CCHA) spends roughly 60% of her work hours providing diagnosis, treatment, and follow up to TB patients during clinic hours and she is assisted by the nursing staff. The MD/CCHA also makes home visits to special needs or non-adherent TB patients as needed. The outreach worker is responsible for DOT visits, and other staff members perform DOT as a back up in addition to their regularly assigned tasks. There are also two Case Registrars who provide reporting, data entry, and data analysis tasks. To illustrate the challenges facing the TB Elimination Program staff, for calendar year 2010, the team members were responsible for a caseload of 37 TB suspects/cases and a total of 1,870 TB clinic office visits and 4,661 DOT home visits were performed.

Training plays an important role for program staff. It enables them to maintain a reliable working knowledge of TB case management and to keep abreast of important changes in laws/policies dictating patient treatment. Initial training is intensive for new employees—40 hours of job-related instruction during the first 6 weeks of employment and successful completion of the CDC's Core Curriculum on Tuberculosis (Revision 2011) and the CDC's TB 101 for Health Care Workers. Training is ongoing throughout the year for all program staff members via courses from CDC (Heartland National TB Center), DSHS, and other health care partners. These trainings include conferences, webinars, online courses, and peer training with other local health department TB program staff. In addition, the TB Elimination

<sup>1</sup> U.S. Census Bureau, State and County QuickFacts, Collin County, available from <http://quickfacts.census.gov/qfd/states/48/4805.html>; Internet; accessed 5/5/10.

<sup>2</sup> Texas Department of State Health Services, Texas Health Data—Population, available from <http://soupfin.tdh.state.tx.us/pop2000a.htm>, Internet; accessed 5/5/10.

<sup>3</sup> U.S. Census Bureau Press Release 7/1/09, available from <http://www.census.gov/Press-Release/www/releases/archives/population/013960.html>; Internet; accessed 5/5/10.

<sup>4</sup> Texas Department of State Health Services, IDCU Tuberculosis Statistics, M.TB Complex Surveillance Data (2005-2009), Cases and rates by county, available from; Internet; <http://www.dshs.state.tx.us/idcu/disease/tb/statistics/>; accessed 19 May 2011.

<sup>5</sup> Texas Department of State Health Services, Texas Health Data—Population, available from <http://soupfin.tdh.state.tx.us/pop2000a.htm>, Internet; accessed 5/5/10.

Program Manager performs an annual observation of each employee's skills to address any problems related to the performance of TB clinic duties. TB staff members meet together for case review sessions on a regular basis to discuss obstacles to treatment for current patients, updates on treatment status, challenges with contact investigation, and other patient issues that arise.

**Policies.** The primary set of policies outlining the duties, processes, and functions of the TB Elimination Program is contained in the *Collin County Health Care Services Policy and Procedure Manual—Tuberculosis Clinic*. State-mandated changes occur and are implemented throughout the year within 14 days of being notified of the change. The policy and procedures manual is reviewed, edited, and updated annually with the signed acknowledgment of all CCHCS staff members.

**Support Resources.** The CCHCS TB Elimination Program has a wide range of support resources. The most accessible support comes from CCHCS staff members assigned to other clinics/areas. For example, the CCHCS Administrator, MD/CCHA, CCHCS Coordinator, and Chief Epidemiologist perform QA, analyze data, perform case audits, and administrative tasks (managing grant funds, documentation of grant deliverables) for the TB Elimination Program. The CCHCS TB Elimination Program receives limited contract funding from the State of Texas and uses local funding to pay for the majority of its employee salaries and fringe benefits, travel, equipment, supplies, and other TB Elimination Program costs.

The CCHCS Coordinator has managed the TB grant funds from both state and federal agencies since 2008. Other CCHCS employees may provide various levels of support which can include, but is not limited to: data entry, compiling correspondence to patients and other agencies, and communicating with hospital and medical staff regarding labs or patient care. Furthermore, other Collin County departments, such as GIS/Rural Addressing and the Information Technology Department, have provided assistance by mapping out de-identified TB data for analysis and presentation to policy makers to help them understand the scope of TB in Collin County. The CCHCS TB Elimination Program also receives and appreciates the research and expertise offered by the Heartland TB consultants when difficult and/or unique challenges arise in the treatment and infection control of TB patients. In situations where an infectious TB patient becomes non-adherent, the MD/CCHA receives support from the Collin County Sheriff's Office and other local police jurisdictions when law enforcement officers escort her to the patient's home while she is performing her duties as the CCHA. Should a patient's actions require legal intervention or a legal consultation would benefit the CCHCS TB team, the CCHCS TB Elimination Program receives legal support from both the Collin County District Attorney's office and Collin County's contracted legal counsel.

**QUESTION 3—Number of persons receiving services.** The CCHCS TB Elimination Program Manager compiles monthly reports detailing the program services performed in the community. Reports can include the number of current patients based on their TB classification who are receiving medication and/or have been identified by CCHCS (i.e. active TB disease, LTBI, etc...), the number of diagnostic tests performed (i.e. TST's performed, IGRA's performed, chest radiograph), healthcare worker services (i.e. office visits, DOT visits, etc...) and other community interactions (i.e. jail data, large contact investigations, etc...) The monthly report is provided to the TB staff, the Chief Epidemiologist, the MD/CCHA, and the CCHCS Administrator. Documentation on services provided is also reported in mid-year and year-end grant reports.

**QUESTION 4—How data is collected and tabulated.** The CCHCS TB Elimination Program maintains current and historical records of all the services performed for its patients. Both hard copy patient files and electronic records are used to track services rendered. All patient services, treatment, lab reports, radiologic reports, progress notes, DSHS forms, Electronic Disease Notification (EDN) forms, Report of Verified Case of Tuberculosis forms, and relevant information are contained in the patient's chart for the duration of their treatment period. The patient's physical chart is retained indefinitely. The Case Registrar transfers specific patient and service information (i.e. information on cases, TB suspects, contacts to active TB cases, and LTBI's, skin test, sputum test results, chest x-ray results and other case information) from the TB400A and/or TB400B forms into Texas Wide Integration Client Encounter System (TWICES) according to current DSHS requirements. The TB Registrar also transfers the information provided on the CCHCS Cohort Review Presentation form to the centralized TB database (MS Excel). The CCHCS Cohort Review Presentation form is filled out quarterly by the Nurse Case Managers to capture essential patient data and information related to grant performance measures for each case/suspect. The database also contains information for patients who are LTBI's and non-LTBI's. The Case Registrar updates the information on the MS Excel database as new chart information becomes available. Additionally, assigned CCHCS TB Elimination Program staff members receive, process, and submit information related to immigrant and refugee patients according to DSHS and CDC standards. Every month, data from EDN processing is documented for future reporting at the quarterly cohort review meeting.

**How community surveillance is conducted.** Community surveillance is conducted throughout Collin County through a partnership with North Texas Job Corps, the Samaritan Inn, and the Collin County Detention Facility (Adult and Juvenile). North Texas Job Corps performs TB skin testing on all campus admissions. The TB Program Elimination staff coordinates treatment of all identified cases of LTBI. Should a Job Corps patient leave the Job Corps program prior to completion of LTBI treatment, the TB Elimination Program staff members oversee the transfer of the case to the appropriate health department to ensure the continuity of the patient's treatment. The Samaritan Inn, Collin County's only homeless shelter, also provides TB skin tests to their residents. Moreover, day care providers require their employees to undergo a skin test at the time of hiring and at yearly intervals. Other health care employers, such as area hospitals, have TB skin testing as a part of pre-employment screening and refer positive skin tests to the CCHCS TB Elimination program for evaluation by the MD/CCHA, treatment, and work clearance.

While CCHCS Elimination Program staff members continually respond to passive laboratory surveillance, they are working towards initiating active laboratory surveillance. On a daily basis, a nurse logs into the DSHS public health laboratory for sputum test results. The results are organized by provider, and the nurses can seek the test of a client based on the date of testing and name of the patient. DSHS calls this system PHLIMS – Public Health Laboratory Information Management System. DSHS limits access to records and data relevant to a specified facility's patients and laboratory specimens. At this time, CCHCS is in the preliminary stages of implementing an electronic medical records project and working through possible solutions to incorporate electronic laboratory reporting and enhanced surveillance. Furthermore, the contact investigation process allows for the team to identify unreported cases of TB.

Cases from outside of CCHCS are referred to the Collin County TB Elimination Program as a result of a continual effort to encourage health care providers in the community to follow the guidelines for notifiable conditions. In the past, CCHCS has provided school nurses and physicians with a handbook on clinic services which included information on reporting infectious disease and basic information about TB. The Epidemiology and TB team members interact with hospitals, health care providers, schools, day care centers, patients, and others on a daily basis, and instruct individuals on reporting timeframes and how to report TB to CCHCS. Additionally, the Chief Epidemiologists and the Health Authorities in the North Texas Area communicate/meet on a monthly basis to discuss public health issues, including TB. The MD/CCHA and CCHCS Administrator meet with the Collin-Fannin County Medical Society Meetings on an ongoing basis. Dr Marshall, the Health Director and Medical Director, of the Collin County (CC) TB Elimination Program, continues to be highly visible in the county's TB activities and facilitates physician referrals to the program. CCHCS is well known for its TB services and has a good relationship with area hospitals and their Infection Control Preventionists. Cases are frequently referred to the program from county providers.

**Outbreaks and how they are managed.** An outbreak of TB in Collin County would be defined as more than one case of active TB in a household or other identifiable cohort, with contact known to spread TB (i.e. a workplace with shared transportation.) An outbreak would be handled by providing initial and follow up skin testing of all contacts to the active TB case. Contacts would receive a thorough assessment and treatment for LTBI as indicated by current practice standards. The active TB case would be referenced as the index case to the contacts on both the DSHS forms in the patient file and in the MS Excel database.

The CCHCS TB Elimination Program has successfully treated and managed several TB outbreaks as defined above. For example, a TB outbreak occurred within an extended family that lived in crowded conditions in a trailer home in rural Collin County. The index TB case is the patriarch of the family and the contact investigation revealed that there were 6 other family members living in the home, including: his wife; his married daughter, son-in-law and their infant son, a young adult daughter; and a

daughter still in high school. The infant grandson living in the shared home was admitted to Children's hospital and treated for active TB. The remaining five family members living in the home were treated for LTBI. Aside from the family members living in the same household, the index TB case has an adult son who lives in a separate residence with his wife, 6 year old son, 4 year old son and 1 year old daughter. The contact investigation performed by the CCHCS TB Elimination Program staff revealed that there were additional close contacts that needed to be assessed and possibly treated. Even though he lived in a separate residence, staff members discovered that the 6 year old grandson spent a great deal of time after school at his grandfather's home. Due to the 6 yr old grandson's symptoms, he was admitted to Children's Hospital where he received a complete medical evaluation and subsequently began a four-drug therapy regimen. Also, because the 6 year old grandson attended a public elementary school, an extensive contact investigation was carried out at the school where 154 skin tests were administered, 8 LTBI cases were identified and treated (2 children, 6 adults). Next, the two other siblings to the 6 yr old grandson, a 4 yr old grandson and a 1 year old granddaughter, were also admitted to Children's Hospital for evaluation. Of note, the 1 year old granddaughter's gastric aspirates tested positive for MTB. To summarize, from the initial index case of active TB, 4 active pediatric TB cases and 14 LTBI cases were evaluated and treated by the CCHCS TB Elimination Program staff.

**QUESTION 5—DATA QUALITY**--Data is collected and tabulated on existing TB cases in addition to the new cases of suspect/confirmed TB and LTBI cases that are identified. Referrals may come from physicians, hospitals, or other local health departments. Lab reports and/or notifiable disease reports may be sent by health care providers, DSHS, school officials, detention facilities, and other community contacts either to the Epidemiology staff or the TB Program Elimination staff directly. Contact investigations also have a high probability of producing potential new cases.

As a new TB case or LTBI is identified, a dedicated hard-copy patient file is created to maintain all information for the patient, from initial report to case closing. Specific data from the DSHS reporting forms, toxicity checks, and DOT outreach visits are currently recorded in the hand-written patient file documents for data collection and analysis. To better gauge the overall performance of the CCHCS TB Elimination Program, the Nurse Case Managers fill out the CCHCS Cohort Review Presentation Form each quarter on each case/suspect assigned to them. The boxes/questions on the form directly relate to the data entry fields in the MS Excel database for TB cases. Some of the data entry categories/fields include: demographics, cases status, RVCT#, radiological findings, drug susceptibilities, drug regimen, total # of contacts identified, # of contacts appropriate for evaluation, # of contacts evaluated, total # of LTBI, # LTBI started treatment, # LTBI discontinued treatment, and specific questions related to grant performance measures. The Case Registrar enters the data into TWICES and the MS Excel database for TB cases as a part of their job function.

The CCHCS Chief Epidemiologist, as supervisor over the Epidemiology and TB Elimination Program staff, oversees the TB Elimination Program Manager, who is responsible for managing the staff members who perform data collection. The TB Elimination Program Manager works closely with the Case Registrar to make sure that patient data is transferred to both TWICES and the centralized TB database (MS Excel) promptly and accurately. To encourage the timeliness and accuracy of data collection, the TB Team Calendar was established to outline each TB team member's responsibilities and deadlines. The TB Nurse Case Managers and Contact Investigators meet each quarter with the CCHCS Chief Epidemiologist to review a minimum number of open and closed case/suspect charts and LTBI charts using the most current DSHS chart review/audit tools. Each quarter, the CCHCS Chief Epidemiologist provides the team with a written summary of findings that is discussed at the quarterly meeting. The TB Elimination Program staff is then able to understand any errors/problems with accuracy, reporting, contact investigations, etc... and address them as a group.

Another component of our data quality efforts at CCHCS TB Elimination Program is the use of the TB genotyping of cases for better contact investigations. The Chief Epidemiologist and the Health Authority have been working with the experts at the CDC and DSHS to understand how the program works and tracing cases back to clusters and sub-clusters with the objective of improving our case investigations, determining possible transmission areas, and understanding how our population is interconnected.

**Written Plan.** In 2011, CCHCS began using a strategic/written plan tailored to the time and staffing resources available to the CCHCS TB Elimination Program. The purpose of the strategic/written plan is to provide structure for the processes that need to occur throughout the year (i.e. case reviews, cohort reviews, data capturing, grant reporting, chart QA reviews, etc...). The strategic/written plan also outlines the team goals for the coming year. As such, the strategic/written plan includes the following sections: introduction, background, organizational chart, mission statement, SWOT analysis (Strength, Weaknesses, Opportunities, Threats), goals and action plan, and evaluation/assessment. The goals and action plan section contains program objectives as well as the TB Team Calendar which is a realistic schedule outlining the tasks related to the cohort review process for the calendar year. The quarterly cohort review meetings allow team members an opportunity to identify and document obstacles, areas for improvement, and successful outcomes during the previous quarter. It is also a means to provide feedback from chart reviews (QA), to review the current status of performance measures and give all team members insight on the program's performance on a quarterly basis. Using the strategic/written plan has increased awareness of TB performance measures, CDC and DSHS standards for all team members.

The two primary mechanisms used by the CCHCS TB Elimination Program to assess quality of our TB clinical data are the chart QA audits and the cohort review process. As part of the chart QA audit process, each nurse case manager has a minimum of 1 Open and 1 Closed active TB case/suspect chart reviewed each quarter. The Chief Epidemiologist conducts the chart audit with the most current DSHS case/suspect chart QA review tool, and compiles the findings for each case individually as well as in a summary format for all cases reviewed in the quarter. The assigned contact investigator also attends the chart review so that the contact investigation process is examined. Besides the case/suspect chart QA audits, the Chief Epidemiologist also meets with each Nurse Case Manager and reviews 1 Open and 1 Closed LTBI chart for accuracy and completeness. The Chief Epidemiologist uses the most current DSHS LTBI chart QA review tool to review each chart individually and uses the LTBI chart QA summary tool to provide an overview of all the LTBI charts audited. In this manner, a minimum of 3 Open and 3 Closed case/suspect charts are reviewed and 3 Open and 3 Closed LTBI charts are reviewed each quarter. In the span of a calendar year, 12 Open case/suspect charts, 12 Closed case/suspect charts, 12 Open LTBI charts, and 12 Closed LTBI charts are reviewed.

**QUESTION 6—Coordination with providers in service area and other community programs.** The CCHCS TB Elimination Program staff members work closely with various types of health and human services providers. In some instances, a patient's case may be initially reported to CCHCS, but the patient actually resides outside of Collin County and the staff members coordinate with the local health department where the patient resides to transfer the case. Coordination is especially important for persons who may begin treatment for LTBI at North Texas Job Corps, but leave the program later on and return to their previous out-of-county residence. In such cases, information is shared by fax and telephone with the appropriate personnel at the receiving health department in an effort to prevent disruption in treatment. Also, the collaboration between CCHCS and the Infection Control Practitioners working at area hospitals serves as a vital link in keeping up to date with potential cases and obstacles to patient treatment that may arise. These professionals provide early warning and documentation of potential TB cases. Staff members and the MD/CCHA act quickly to make contact with patients while they are still in the hospital, deliver the Health Authority Order, and expedite the patient education and contact investigation process. When a case investigation yields contacts who reside outside of Collin County, CCHCS TB Elimination Program staff members coordinate services such as skin testing and chest x-rays with their counterparts in the patient's county of residence to ensure continuity of assessment, case management, and treatment. Another example of coordination is a TB case where staff members worked hand-in-hand with a Department of Family and Protective Services (DFPS) caseworker because children in the household were placed in foster care. The MD/CCHA has also worked directly with private physicians directly when the active TB patient resided in a nursing home. In another situation, the MD/CCHA coordinated efforts with a Federal Probation officer when the TB patient was under the constraints of probation.

**Avoidance of duplication of services.** Regarding duplication of service in our service area, it is important to note that infectious disease, pulmonary, primary care, and other specialists refer all suspect and/or confirmed TB patients to Collin County Health Care Services (CCHCS) TB Clinic. Although a TB/LTBI patient may receive an

initial skin test or chest x-ray at another location, the CCHCS TB Elimination Program is the final destination for treatment, follow up care, and contact investigation for all county TB/LTBI patients.

**Plans for TB educational opportunities to area providers and community programs.** One of the main goals of the CCHCS TB Elimination Program team for the 2012 calendar year is to expand and enhance the educational opportunities made available to area providers. While the CCHCS TB Elimination team typically provides education to smaller groups through presentations, website, fax, and email updates, the team recognizes that providing educational opportunities is an area that can be improved. To that end, for calendar year 2012, the team members have brainstormed and put into place various means of providing relevant information to area providers and they include: developing a standardized TB outreach packet, creating monthly community education goals, discussing and assigning tasks related to outreach for the current month at case review meetings, partnering with other CCHCS clinics to include TB information when they go to outreach events, and making follow-up visits in person to area hospitals and/or physician's offices to provide education and reinforce appropriate infection control, reporting, and treatment practices. For 2012, the CCHCS TB Elimination Program team is also working diligently to host a small conference that will offer area health care providers the opportunity to learn more about TB and the services provided by the local health department

**QUESTION 7—Culturally diverse populations.** CCHCS offices are fully compliant with ADA regulations and we have successfully provided long term TB service to paraplegic patients. CCHCS is located centrally within Collin County in McKinney and the clinic is within blocks of three major thoroughfares (Highway 75, Highway 380, and Highway 5). Parking, including spaces specifically designated for the disabled, is easily accessible. Patients are seen weekdays from 7 a.m. to 5 p.m. Program staff members make extra efforts to accommodate patients who need DOT either before or after normal business hours. CCHCS has an agreement with one of its existing partners, PrimaCare, to allow TB patients to have their DOT performed at a PrimaCare location. With locations throughout Collin County in McKinney, Frisco, Plano, and Richardson and extended hours (8am-9pm weekdays, 8am-5pm weekends), we continue to use this option to improve DOT compliance and reduce/eliminate possible disruption to the TB patient's employment.

Assisting patients with TB and LTBI requires the delivery system to have the ability to provide services to culturally diverse populations. The CCHCS TB Elimination Program offers full range of service in Spanish, including consents, educational material, phone service, and clinical management. Also, we have several Spanish-speaking staff members, including contact investigators, a case registrar, and a support tech. For patients who require assistance in languages other than English or Spanish, the CCHCS TB Elimination Program staff access available educational materials via the internet in a language the patient is better able to understand. For office visits, or verbal communication, the program staff uses the telephone translation service, Language Line, so that the patient has a real-time translation of any instructions or information being dispensed to them. Subsequently, the CCHCS TB Elimination team has incorporated discussion on how to assist patients from a variety of cultural backgrounds as part of their quarterly cohort review sessions.

**QUESTION 8—Strategy for Management of TB cases and suspects.** The CCHCS TB Elimination Program has a full-time DOT outreach worker dedicated to the delivery and management of DOT and other staff members provide back-up DOT coverage as needed. In the beginning of process of working with the patient, the patient's home environment is assessed. Once DOT arrangements are made, a DOT outreach worker uses a county vehicle to deliver DOT directly to the patient at the patient's home or worksite, all the while carefully observing and monitoring the patient for toxicity and other health problems which may be due to treatment and/or underlying health conditions. Each DOT outreach worker has a county-issued cellular phone in order to be able to immediately and directly contact the TB Elimination Program Manager and/or the MD/CCHA in the event of an adverse reaction to medication or questions regarding medication administration. When these challenges arise, the CCHCS Administrator, MD/CCHA and Chief Epidemiologist work closely with the TB Elimination Program staff to assist where needed.

Incentives and enablers are used to ensure the well-being of TB cases and suspects. Food drives are employed to assist TB patients and in the past year, CCHCS has established a patient care fund that is supported by donations generated by a silent auction and employee 'jean day' contributions. The patient care fund is used to assist patients with transportation, fuel, and other care-related costs. All staff monitor whether patients need to be connected with a food bank or some other local resource. The program manager maintains close contact with the local homeless shelter to assure a high visibility with this community.

**QUESTION 9—Process for review of cases under management.** A Nurse Case Manager receives and reviews the initial disease report which typically includes patient demographics, diagnostic results, and treatment information. A patient file is created to hold all of TB-related information necessary for case management. Next, the Nurse Case Manager follows up with the referring provider/hospital/agency and establishes a discharge care plan or plan of action to transfer the patient's TB care to the CCHCS TB Elimination Program. Then, the assessment and planning phase begins by establishing contact with patient either at home or at the facility in which they currently reside. The staff member verifies the patient's medical history and conducts a review of symptoms.

As part of the patient's (and their family's) introduction to the TB program, the Nurse Case Manager tactfully provides them with information to help them understand the process of managing and treating TB. During that interchange, the staff member can ascertain any TB treatment adherence issues that need to be addressed. Next, the contact investigation begins as close contacts, friends and family are assessed for exposure timeframes. A plan is established to ensure access to care and to encourage adherence to medical care and guidance. During the initial office visit to the CCHCS TB Clinic or during the patient's hospital stay, the patient begins the patient-physician relationship by meeting with the MD/CCHA who will be providing and monitoring care. From that point on, the case is reviewed continually throughout the treatment period.

The patient's case is reviewed by the MD/CCHA throughout the patient's treatment, with special focus on detecting problems with adherence, adverse effects to medication, lab results indicating toxicity, changes in health such as pregnancy or diagnosis of other health conditions. The patient is examined by the MD/CCHA at least once a month, but may be seen more frequently if needed. Other considerations such as work/school absences, psychosocial issues, correspondence to U.S. Immigration representatives, correspondence to and from CDC officials, and any other necessary documentation, are kept in the patient's file. In addition, case review by the entire team occurs on a routine basis to assess the patients' status and needs. The TB contact investigation review team (Health Authority, Chief Epidemiologist, Contact Investigator, Program Manager, and others as appropriate) assess the conditions under which the case interacted with those in the community and decide whether the contact investigation needs to be expanded. Once patient completes the required therapy or the case is transferred because of change in residence, the case is closed according to state mandates.

**QUESTION 10—Strategy for Implementation of Cohort Analysis of Cases Quarterly.** The CCHCS TB Elimination Team has incorporated the CDC and DSHS guidelines for the cohort quarterly review process and created a customized strategic plan to use the available staffing and time resources. According to the CDC's guidelines, all patient cases should be reviewed approximately 6–9 months after the initial case reporting to analyze TB treatment and contact investigation results. The review would follow a cycle which would repeat throughout the year. For the CCHCS TB Elimination Program, the cohort review process includes a quarterly review of a minimum number of both open and closed case/suspect charts. All cases that are open and closed but not completed will have a CCHCS Cohort Review Presentation Form filled out each quarter by the Nurse Case Manager assigned to the case. Once the case has been closed and completed, the Nurse Case Manager fills out a final cohort review form. All cohort review forms are submitted to the Case Registrar to check for accuracy, data entry, and analysis. The Case Registrar is responsible for providing a quarterly report that includes the status on all performance measures based on case information provided on the CCHCS Cohort Review Presentation Forms. The closed cases are presented by the Nurse Case Managers for the previous quarter during the quarterly cohort review. Two staff members are assigned to document the lessons learned, cases reviewed, and program changes needed for the group. To round out the cohort review meetings, other staff members provide information such as case review documentation, chart QA summaries, community education documentation, pharmacy inventory documentation, EDN data, performance measure reports, and staff training documentation.

## Cohort Review Timeline and Schedule beginning January 2012

2011 4 <sup>th</sup> Quarter	2012 1 <sup>st</sup> Quarter	2012 2 <sup>nd</sup> Quarter	2012 3 <sup>rd</sup> Quarter	2012 4 <sup>th</sup> Quarter
TB cases counted, cohort review forms filled out, data from forms entered into TB database	TB cases counted, cohort review forms filled out, data from forms entered into TB database	TB cases counted, cohort review forms filled out, data from forms entered into TB database	TB cases counted, cohort review forms filled out, data from forms entered into TB database	TB cases counted, cohort review forms filled out, data from forms entered into TB database
Treatment started, ongoing, or completed based on case specifics	Treatment started, ongoing, or completed based on case specifics	Treatment started, ongoing, or completed based on case specifics	Treatment started, ongoing, or completed based on case specifics	Treatment started, ongoing, or completed based on case specifics
Contact investigation initiated, ongoing or completed as necessary	Contact investigation initiated, ongoing or completed as necessary	Contact investigation initiated, ongoing or completed as necessary	Contact investigation initiated, ongoing or completed as necessary	Contact investigation initiated, ongoing or completed as necessary
Infected contacts begin, continue or end LTBI treatment as necessary	Infected contacts begin, continue or end LTBI treatment as necessary	Infected contacts begin, continue or end LTBI treatment as necessary	Infected contacts begin, continue or end LTBI treatment as necessary	Infected contacts begin, continue or end LTBI treatment as necessary
Ongoing case management, case review meetings	Ongoing case management, case review meetings	Ongoing case management, case review meetings	Ongoing case management, case review meetings	Ongoing case management, case review meetings
Follow up on suggestions from cohort review	Follow up on suggestions from cohort review	Follow up on suggestions from cohort review	Follow up on suggestions from cohort review	Follow up on suggestions from cohort review
<b>1/5/2012—Quarterly Cohort Review Meeting</b>	<b>3/22/2012—Quarterly Cohort Review Meeting</b>	<b>6/7/2012—Quarterly Cohort Review Meeting</b>	<b>10/4/2012—Quarterly Cohort Review Meeting</b>	<b>1/4/2013—Quarterly Cohort Review Meeting</b>
<b>Cohort Review Session to discuss CLOSED cases from previous quarter</b>	<b>Cohort Review Session to discuss CLOSED cases from previous quarter</b>	<b>PM-Cohort Review Session to discuss CLOSED case from previous quarter</b>	<b>PM-Cohort Review Session to discuss CLOSED cases from previous quarter</b>	<b>PM—Cohort Review Session to discuss CLOSED cases from previous quarter</b>
Treatment completion rate and performance measure reporting presented for cases and contacts to cases for 2011 calendar year end report due 3/1/2012	Treatment completion rate and performance measure reporting presented for cases and contacts to cases from 2012 calendar year start through 1st quarter	Treatment completion rate and performance measure reporting presented for cases and contacts to cases from calendar year start through 2 <sup>nd</sup> quarter for mid year report due 7/1/2012	Treatment completion rate and performance measure reporting presented for cases and contacts to cases from calendar year start through 3 <sup>rd</sup> quarter	Treatment completion rate and performance measure reporting presented for cases and contacts to cases for 2012 calendar year end report
Document obstacles, lessons learned, and successes discussed during cohort review session	Document obstacles, lessons learned, and successes discussed during cohort review session	Document obstacles, lessons learned, and successes discussed during cohort review session	Document obstacles, lessons learned, and successes discussed during cohort review session	Document obstacles, lessons learned, and successes discussed during cohort review session
Strategic plan presented for new calendar year (2012)				Strategic plan presented for new calendar year (2013)

**QUESTION 11— Strategy for Management of Contacts and Positive Reactors.** Since June 2010, a formal nurse case management process was put into place that has resulted in a greater measure of quality control and personal accountability of TB cases. The implementation of case management has allowed for the Nurse Case Manager to focus on a certain number of patients. In this manner, the Nurse Case Manager is able to maintain a continuous relationship with the patient, have regular interactions with the patient and their family, and obtain the patient's cooperation and trust. This groundwork helps the Nurse Case Manager more quickly arrange for evaluation of family members or other household members who may need directly observed preventive therapy. DOPT is provided by the CCHCS TB Elimination Program for the following contacts to active TB: contacts less than 5 years of age, contacts who are infected with HIV or are substantially immune-compromised. The CCHCS TB Elimination Program is also willing to offer DOPT to contacts to active TB who may end treatment prematurely because of social or other obstacles such as substance abuse, unstable housing, chronic mental illness, or lack of employment.

**QUESTION 12— Contact Investigations.** The CCHCS TB Elimination Program staff members are committed to quickly identifying contacts to active TB as well as positive reactors. Whenever a case is reported, staff members immediately begin the process of conducting the contact investigations to expedite the discovery of additional active TB cases as well as identifying any LTBI patients who need evaluation and treatment. From the initial contact with the patient through to the end of treatment, staff members make sure that the patient has provided a clear and accurate picture of all contacts that may be at risk of infection. The Contact Investigator's role is to interview the patient, identify contacts, prioritize the contacts according to the most current CDC and DSHS guidelines, calculate the infection rate for the contact investigation, recommend expanding the contact investigation as needed, schedule contacts for TB screening, document TB screening results, document the treatment progress of the LTBI's, and report information regarding the contacts and their treatment progress to DSHS.

As part of their team goals in 2011, four members of the team received a comprehensive in-house training on contact investigations led by the team's primary contact investigator. A detailed contact investigation manual was developed as well as a PowerPoint presentation, two case studies, and a variety of references. The trainees practiced filling out the appropriate contact investigation forms based on the case studies and their comprehension was measured through a skills test with one of the case studies. By training additional staff members, the contact investigation case load has been divided amongst the contact investigators in a similar fashion to the nurse case management division of caseload. These cross-training efforts have resulted in an increased accountability of the contact investigations, better monitoring of the progress of the contact investigations, including ensuring that a minimum of three contacts are identified for every case, that contact investigation deadlines are consistently met, delays in interviewing patients are avoided, and the percentage of infected contacts who complete therapy continues to meet performance measure goals.

To help encourage patients to continue treatment, the CCHCS TB Elimination staff has taken the initiative to provide practical assistance to those emaciated TB patients who are unable to afford nutritious food. The staff members accept canned food donated by the community as well as personally donate fresh meat, produce, and/or protein sources for distribution to the patients. Additionally, the employees of CCHCS have held a silent auction of donated items to raise funds to assist patients who may need help with transportation costs, food, or other needs. This kind of personal attention can give patients an added incentive to continue and complete their treatment.

**QUESTION 13—Infection control procedures.** Universal precautions are observed in all areas of care for the patient whether the patient visits the clinic or the DOT outreach worker meets the patient at their home/workplace. Some standard practices include: hand washing, blood borne precautions, and respiratory precautions.

CCHCS has also adopted the Infection Control Manual for Ambulatory Care Clinics—2009 Fourth Edition that was distributed by DSHS for use in all CCHCS clinics and for staff members, patients, and visitors.

For patients seen at the CCHCS TB Clinic, respiratory control measures consist of both environmental control of exam rooms and personal respiratory protection. Environmental control of CCHCS exam rooms is managed by the use of four designated rooms equipped with HEPA systems. The HEPA system provides 100% recirculation of the negative air flow that is produced in the rooms. The room is closed a minimum of one hour after a patient with infectious TB leaves the room. The system is inspected once per month by the Collin County Facilities Management department.

To enhance the personal protection of all CCHCS staff, every staff member receives a skin test as part of their pre-employment as well as on a yearly basis. TB Elimination Program personnel are skin tested every six months. All TB Clinic staff and any other CCHCS employee who might have contact with active cases (front desk personnel, interpreters, etc.) are fit tested for N95 masks and instructed in their proper use. Routine re-fitting is carried out annually. CCHCS employees use N95 masks when they are in face-to-face contact with a suspect or known infectious case and when they perform procedures such as sputum collection or induction. TB suspects/cases that are considered contagious are provided with surgical masks to use while in the clinic.

**QUESTION 14—Targeted TB Screening Programs for High-Risk Populations.** The CCHCS TB Elimination Program staff understands the need to conduct targeted TB screening programs for high risk populations. Outreach services have been provided to the Samaritan Inn, Collin County's only homeless shelter, and CCHCS staff have participated in local health fairs, visiting community group settings (churches), visiting business groups, and other opportunities to increase the public awareness of services offered by CCHCS. CCHCS has also partnered with the local jail medical staff to provide TB-related education to physicians and nurses.

**QUESTION 15—Provision of Professional Education and Training Programs.** Education and training of the CCHCS TB Elimination Program staff is an ongoing process. As their priority after being hired, new clinical employees are required to successfully complete the CDC's Core Curriculum on Tuberculosis (Revision 2011) and the CDC's TB 101 for Health Care Workers. New TB Outreach Workers and staff members who provide back-up DOT are required to have 40 hours of office instruction and 40 hours of field work instruction. Successful understanding of instruction is documented by a pre-test and post-test process, as well as use of a preceptor in the field. The TB Elimination Program Manager also oversees the comprehensive initial training needed for new Nurse Case Managers, Contact Investigators, and/or Case Registrars. Targeted TB in-service trainings are held throughout the year in the form of online webinars offered by DSHS, Heartland TB Centers, and/or DSHS. To supplement daily work experience, clinical personnel are scheduled to attend professional conferences as available. DSHS provides TB training as well. Furthermore, The CCHCS TB Elimination Program has developed its own Outreach Worker Training Manual as well as a Contact Investigation Training Manual to provide detailed instructions on outreach worker and contact investigator tasks. Furthermore, on a yearly basis, the TB Elimination Program Manager observes the clinical skills and patient services performed by each team member and provides feedback and additional training as needed. Lastly, the CCHCS TB Elimination Program team successfully conducted a three-day training session in June 2011 to train four of its staff members to help with contact investigation duties.

**QUESTION 16—Evaluation of immigrants and refugees.** Immigrants, who enter the county with a designation of Class A, Class B-1, or Class B-2, are seen in the CCHCS TB Clinic, evaluated by the MD/CCHA, and provided treatment as indicated. Electronic Disease Notification (EDN) are processed and reported on as required by DSHS.

**STRATEGY TO DOCUMENT THE EVALUATION OF CLASSED-IMMIGRANTS AND REFUGEES**

Class A:1 Immigrants: Active Disease, Current Treatment	A TB400A and TB400B will be submitted to DSHS which documents current treatment and follow-up.
Class B:1 Immigrants: Pulmonary, No Treatment, Completed Treatment, and Extrapulmonary	<p>A TB400A and TB400B will be submitted that either rules out TB disease, thus a closure code of non-TB will be submitted, or; a TB 400A and B with the new change in ATS classification will be submitted. This will be done after the following is begun:</p> <ol style="list-style-type: none"> <li>1. Review TST status. If documentation is not available, a TST or IGRA will be administered. TST or IGRA results will be evaluated as per ATS/CDC guidelines.</li> <li>2. A current chest x-ray is taken and compared with the film from overseas.</li> <li>3. Past TB treatment history is reviewed; History and physical exam performed by MD/CCHA.</li> <li>4. Collection of sputum for testing on three consecutive days. One collection will be observed by clinic staff.</li> <li>5. Medication is prescribed as appropriate per ATS/CDC guidelines by MD/CCHA.</li> <li>6. Follow up as appropriate per ATS/CDC guidelines</li> </ol>
Class B:2 Immigrants: LTBI Evaluation	<p>A TB400A and TB400B will be submitted that either rules out TB disease, thus a closure code of non-TB will be submitted, or a TB 400A and B with the new change in ATS classification will be submitted. This will be done after the following occurs:</p> <ol style="list-style-type: none"> <li>1. Review TST status. If documentation is not available, a TST or IGRA will be administered. TST or IGRA results will be evaluated per ATS/CDC guidelines.</li> <li>2. A current chest x-ray is taken and compared with the film from overseas.</li> <li>3. Past TB treatment history is reviewed; History and physical exam performed by MD/CCHA.</li> <li>4. Collection of sputum for testing on three consecutive days if deemed necessary by provider.</li> <li>5. Medication is prescribed as appropriate per ATS/CDC guidelines by MD/CCHA.</li> <li>6. Follow up as appropriate per ATS/CDC guidelines.</li> </ol>
Class B:3 Immigrants: Contact Evaluation	<p>Immigrants who enter the county with a designation of Class B-3 must be seen in the TB Clinic and followed as a contact. A form TB 340 will be submitted with information regarding the Contact Investigation and any treatment given.</p>

## FORM G-1: WORK PLAN Guidelines

Applicant shall describe its plan for service delivery to the population in the proposed service area(s) and include time lines for accomplishments. Use of state funds for this work plan includes some restrictions. Contractor shall not supplant (i.e., use funds from this Contract to replace or substitute existing funding from other sources that also supports the activities that are the subject of this Contract) but rather shall use funds from this Contract to supplement existing state or local funds currently available for a particular activity. Contractor shall make a good faith effort to maintain its current level of support. Contractor may be required to submit documentation substantiating that a reduction in state or local funding, if any, resulted for reasons other than receipt or expected receipt of funding under this Contract. Recipients may only expend state funds for reasonable program purposes: personnel, travel, equipment, supplies, contractual services, and other. The work plan shall:

1. Summarize the proposed services, service area, population to be served, location (counties to be served), etc. List subcontractors you will work with in your area. Also, address if and how you will serve individuals from counties outside your stated service area.
2. Describe delivery systems, workforce (attach organizational chart), policies, support systems (i.e., training, research, technical assistance, information, financial and administrative systems) and other infrastructure available to achieve service delivery and policy-making activities. What resources do you have to perform the project, who will deliver services and how will they be delivered?
3. Describe how you will determine the number of persons who received from the CONTRACTOR in 2012 at least one TB service including but not limited to tuberculin skin tests, chest radiographs, health care worker services, or treatment with one or more anti-tuberculosis medications
4. Describe how data is collected and tabulated, who will be responsible for data collection and reporting, and how often data collection activities will occur. Describe how you will conduct community surveillance to identify unreported cases of TB including active surveillance activities for laboratories (specify names of labs) in your service area that perform acid-fast bacilli smears and cultures for *Mycobacterium tuberculosis* complex. Describe how you will maintain a record of outbreaks, in your area, with a description of the outbreak and how it was managed.
5. Describe how the accuracy, timeliness and completeness of data collected will be assessed and verified. If not already in place, describe how you will develop a written plan to assess the quality of data collected.
6. Describe coordination with the other health and human services providers in the service area(s) and delineate how duplication of services is to be avoided. List other community programs you will be working with in your jurisdiction (substance abuse programs, programs for homeless persons, other community based organizations, private providers, hospitals, and service organizations). Describe plans for TB educational opportunities to be offered to community health-care providers and community-based organizations that serve populations at high risk for TB.
7. Describe ability to provide services to culturally diverse populations (e.g., use of interpreter services, use of field outreach staff who are trained to present information appropriately to diverse cultures, language translation, compliance with ADA requirements, location, hours of service delivery, and other means to ensure accessibility for the defined population).
8. Describe your strategy for the management of TB cases and suspects, with emphasis on provision of directly observed therapy (DOT); and use of incentives and enablers.
9. Describe your process for review of cases under management.
10. Describe your strategy for the implementation of cohort analysis of cases at least quarterly.
11. Describe your strategy for the management of contacts and positive reactors, with emphasis on directly observed preventive therapy (DOPT) for all contacts diagnosed with LTBI who are less than five years of age or HIV-infected or live in the same residence as a case receiving directly observed therapy. DOPT may be provided to other persons at high risk for progression to TB disease as resources allow.
12. Describe your process for the review of ongoing contact investigations and your strategy to assess reasons for identification of fewer than three contacts for each case; for delays in interviewing cases or evaluating contacts, and low completion of preventive therapy for infected contacts.
13. Describe your infection control procedures.
14. Describe plans to conduct targeted TB screening programs for high-risk populations. Include steps to ensure effective interventions are implemented so that foreign-born and U.S.-born minorities at highest risk for developing TB are identified, evaluated, and treated for TB or LTBI.
15. Describe your strategy to provide professional education and training programs for new and current TB staff.
16. Describe your strategy to document the evaluation of immigrants and refugees with the following notifications: Class A (Applicants who have tuberculosis disease diagnosed [sputum smear positive or culture positive] and require treatment overseas but who have been granted a waiver to travel prior to the completion of therapy.);

Class B1 – Pulmonary (No treatment: - Applicants who have medical history, physical exam, or CXR findings suggestive of pulmonary tuberculosis but have negative AFB sputum smears and cultures and are not diagnosed with tuberculosis or can wait to have tuberculosis treatment started after immigration. Completed treatment: - Applicants who were diagnosed with pulmonary tuberculosis and successfully completed directly observed therapy prior to immigration.); Class B1 – Extra-pulmonary (evidence of extra-pulmonary tuberculosis); Class B2 (LTBI Evaluation – Applicants who have a tuberculin skin test  $\geq 10$  mm but who otherwise have a negative evaluation for tuberculosis.); Class B3 (Contact Evaluation – applicants who are a contact of a known tuberculosis case.)

# FORM I: BUDGET SUMMARY (REQUIRED)

Legal Name of Respondent:

Collin County Health Care Services

Budget Categories	Total Budget (1)	DSHS Funds Requested (2)	Direct Federal Funds (3)	Other State Agency Funds* (4)	Local Funding Sources (5)	Other Funds (6)
A. Personnel	\$523,560	\$136,975	\$73,778	\$16,518	\$296,289	\$0
B. Fringe Benefits	\$188,081	\$42,462	\$22,871	\$5,121	\$117,627	\$0
C. Travel	\$2,579	\$242	\$1,781	\$0	\$556	\$0
D. Equipment	\$0	\$0	\$0	\$0	\$0	\$0
E. Supplies	\$4,099	\$0	\$4,099	\$0	\$0	\$0
F. Contractual	\$35,860	\$2,400	\$33,460	\$0	\$0	\$0
G. Other	\$99	\$99	\$0	\$0	\$0	\$0
H. Total Direct Costs	\$754,278	\$182,178	\$135,989	\$21,639	\$414,472	\$0
I. Indirect Costs	\$0	\$0	\$0	\$0	\$0	\$0
J. Total (Sum of H and I)	\$754,278	\$182,178	\$135,989	\$21,639	\$414,472	\$0
K. Program Income - Projected Earnings	\$4,000	\$966	\$721	\$115	\$2,198	\$0

**NOTE:** The "Total Budget" amount for each Budget Category will have to be allocated (entered) manually among the funding sources. Enter amounts in whole dollars. After amounts have been entered for each funding source, verify that the "Distribution Total" below equals the respective amount under the "Total Budget" from column (1).

Budget Category	Distribution Total	Budget Total	Budget Category	Distribution Total	Budget Total
Personnel	\$523,560	\$523,560	Fringe Benefits	\$188,081	\$188,081
Travel	\$2,579	\$2,579	Equipment	\$0	\$0
Supplies	\$4,099	\$4,099	Contractual	\$35,860	\$35,860
Other	\$99	\$99	Indirect Costs	\$0	\$0

**TOTAL FOR:** Distribution Totals \$754,278 Budget Total \$754,278

\*Letter(s) of good standing that validate the respondent's programmatic, administrative, and financial capability must be placed after this form if respondent receives any funding from state agencies other than DSHS related to this project. If the respondent is a state agency or institution of higher education, letter(s) of good standing are not required. DO NOT include funding from other state agencies in column 4 or Federal sources in column 3 that is not related to activities being funded by this DSHS project.





Total for Conference / Workshop Travel

\$0

**Other / Local Travel Costs**

Justification	Number of Miles	Mileage Reimbursement Rate	Mileage Cost (a)	Other Costs (b)	Total (a) + (b)
Local DOT	440	\$0.550	\$242		\$242
			\$0		\$0
			\$0		\$0
			\$0		\$0
			\$0		\$0
			\$0		\$0
			\$0		\$0
TOTAL FROM TRAVEL SUPPLEMENTAL OTHER/LOCAL TRAVEL COSTS BUDGET SHEETS					\$0

Total for Other / Local Travel

\$242

Other / Local Travel Costs: \$242

Conference / Workshop Travel Costs: \$0

Total Travel Costs: \$242

Indicate Policy Used:

Respondent's Travel Policy

State of Texas Travel Policy



# FORM I-4: SUPPLIES Budget Category Detail Form

Legal Name of Respondent:

Collin County Health Care Services

Itemize and describe each supply item and provide an estimated quantity and cost (i.e. #of boxes & cost/box) if applicable. Provide a justification for each supply item. Costs may be categorized by each general type (e.g., office, computer, medical, educational, etc.) See attached example for definition of supplies and detailed instructions to complete this form.

Description of Item (If applicable, provide estimated quantity and cost (i.e. # of boxes & cost/box))	Purpose & Justification	Total Cost
None		\$0
		\$0
		\$0
		\$0
		\$0
		\$0
		\$0
		\$0
		\$0
		\$0
		\$0
		\$0
		\$0
		\$0
		\$0
		\$0
		\$0
		\$0
		\$0
	TOTAL FROM SUPPLIES SUPPLEMENTAL BUDGET SHEETS	\$0

Total Amount Requested for Supplies:

\$0

# FORM I-5: CONTRACTUAL Budget Category Detail Form

Legal Name of Respondent:

Collin County Health Care Services

List contracts for services related to the scope of work that is to be provided by a third party. If a third party is not yet identified, describe the service to be contracted and show contractors as "To Be Named." Justification for any contract that delegates \$100,000 or more of the scope of the project in the respondent's funding request, must be attached behind this form.

CONTRACTOR NAME (Agency or Individual)	DESCRIPTION OF SERVICES (Scope of Work)	Justification	METHOD OF PAYMENT (i.e., Monthly, Hourly, Unit, Lump Sum)	# of Months, Hours, Units, etc.	RATE OF PAYMENT (i.e., hourly rate, unit rate, lump sum amount)	TOTAL
Jerry Barnett	Pharmacist	Needed for TB patients	Monthly	12	\$200.00	\$2,400
						\$0
						\$0
						\$0
						\$0
						\$0
						\$0
						\$0
						\$0
						\$0
TOTAL FROM CONTRACTUAL SUPPLEMENTAL BUDGET SHEETS						\$0

\$2,400

Total Amount Requested for CONTRACTUAL:

# FORM I - 7 Indirect Costs

Legal Name of Respondent:

Collin County Health Care Services

Total amount of indirect costs allocable to the project:

Amount: \$0

Indirect costs are based on (mark the statement that is applicable):

The respondent's most recent indirect cost rate approved by a federal cognizant agency or state single audit coordinating agency. **Expired rate agreements are not acceptable. Attach a copy of the rate agreement to this form (Form I - 7 Indirect)**

RATE:  
BASE:

**Applies only to governmental entities.** The respondent's current central service cost rate or indirect cost rate based on a rate proposal prepared in accordance with OMB Circular A-87. **Attach a copy of Certification of Cost Allocation Plan or Certification of Indirect Costs.**

RATE:  
TYPE:  
BASE:

**Note:** Governmental units with only a Central Service Cost Rate must also include the indirect cost of the governmental units department (i.e. Health Department). In this case indirect costs will be comprised of central service costs (determined by applying the rate) and the indirect costs of the governmental department. The allocation of indirect costs must be addressed in Part V - Indirect Cost Allocation of the Cost Allocation Plan that is submitted to DSHS.

A cost allocation plan. A cost allocation plan as specified in the DSHS Contractor's Financial Procedures Manual (CFPM), Appendix A must be submitted to DSHS within 60 days of the contract start date. The CFPM is available on the following internet web link: <http://www.dshs.state.tx.us/contracts/>

GO TO PAGE 2 (below)

**Page 2, FORM I - 7 Indirect Costs**

If using an central service or indirect cost rate, identify the types of costs that are included (being allocated) in the rate:

Organizations that do not use an indirect cost rate and governmental entities with only a central service rate must identify the types of costs that will be allocated as indirect costs and the methodology used to allocate these costs in the space provided below. The costs/methodology must also be disclosed in Part V-Indirect Cost Allocation of the Cost Allocation Plan that is submitted to DSHS. **Identify the types of costs that are being allocated as indirect costs, the allocation methodology, and the allocation base:**