

# **Control and Prevention-Tuberculosis**

## **China Country Narrative Family Health International (FHI 360)**

**FY2014 Semi-Annual Performance Report  
(October 1, 2013 – March 31, 2014)**



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## Acronyms

|             |   |
|-------------|---|
| AIDS        | Acquired immune-deficiency syndrome   |
| BCC         | Behavioral Change Communication   |
| CAA         | Chinese Antituberculosis Association  |
| CAP-TB      | Control and Prevention of Tuberculosis (Greater Mekong Sub-region Multidrug-Resistant Tuberculosis Prevention and Management Project) |
| CBO         | Community-based organization  |
| CDC         | Center for Disease Control and Prevention   |
| CHC         | Community health center   |
| DOT         | Directly-observed treatment   |
| DR          | Drug resistant  |
| DQA         | Data Quality Assessment   |
| EQA         | External Quality Assessment   |
| F&A         | Finance and Administrative  |
| FHI 360     | Family Health International 360   |
| FY          | Fiscal year   |
| Global Fund | Global Fund to Fight AIDS, Tuberculosis, and Malaria  |
| HIV         | Human Immunodeficiency Virus  |
| IC          | Infection Control   |
| IEC         | Information, Education, and Communication   |
| IR          | Intermediate Result   |
| M&E         | Monitoring and evaluation   |
| MDR-TB      | Multidrug resistant tuberculosis  |
| MTB         | <i>Mycobacterium tuberculosis</i>   |
| NA          | Not Available   |
| NCTB        | Chinese National Center for Tuberculosis Control and Prevention   |
| NTP         | National Tuberculosis Control Program   |
| OCA         | Organizational Capacity Assessment  |
| PLHIV       | Person (People) living with HIV/AIDS  |
| PMDT        | Programmatic Management of Drug-Resistant Tuberculosis  |
| PPP         | Private-public partnership  |
| PTB         | Pulmonary tuberculosis  |
| Q           | Quarter   |
| RD          | Residential District ( <i>jie dao</i> 街道)   |
| SFDA        | Chinese State Food and Drug Administration  |
| SOP         | Standard operating procedures   |
| TA          | Technical Assistance  |
| TB          | Tuberculosis  |
| YATA        | Yunnan Anti-Tuberculosis Association  |
| Yunnan TCC  | Yunnan Tuberculosis Clinical Center   |
| The Union   | The International Union Against Tuberculosis and Lung Disease   |
| USAID       | United States Agency for International Development  |

## **Narrative I: Executive Summary**

The following report details Family Health International (FHI) 360's progress in implementing the Control and Prevention of Tuberculosis (CAP-TB) project during the first half of fiscal year 2014 (October 2013 through March 2014) in Kunming, Yunnan Province (China).

**YATA:** The Tuberculosis Association of Yunnan Province (YATA) continues to serve as the very effective lead partner for CAP-TB in Yunnan, being responsible for coordination of project activities implemented through Kunming City CDC, Xi Shan CDC and Fu Hai Residential District (RD) in Xi Shan District.

**Xi Shan CDC:** Xi Shan CDC has hired two full-time project officers to implement the CAP-TB model that was piloted by the five CAP-TB outreach workers in FY12. This strategy was implemented to ensure greater sustainability by allowing direct integration with the government TB control program. Xi Shan CDC is responsible for planning and implementing community activities related to prevention and education, and treatment success. Community education was more focused on Fu Hai RD, which has the largest number of migrants, instead of two RDs in Xi Shan District. There has also been a shift to following TB/MDR-TB patients in Fu Hai RD to ensure treatment success.

- **Prevention and education:** the two full-time project officers follow up with community activities; conduct quarterly community events (successful in FY13), lead small-group thematic sessions with elderly and/or migrants, and conduct outreach with migrants at key public venues such as long distance bus terminals. Through coordination with leadership support from the drug administration bureau, CAP-TB China will facilitate the involvement of the private sector (private pharmacies) for their support to presumptive TB patients.
- **Treatment success:** the two project officers follow up with all MDR-TB patients identified in Xi Shan CDC and all TB patients from Fu Hai RD with support from Fu Hai Community Health Center/stations. These project officers pay home visits, make follow-up phone calls, conduct infection control education and assessment of household of TB and MDR-TB patients, and strengthen patients' linkage with TB treatment service providers – Yunnan TB Clinical Center and Kunming No.3 Hospital, a new implementing agency (IA) for FY14 under CAP-TB China.

**Kunming No.3 hospital:** In order to refine the strategy and maximize project impact in FY14, CAP-TB China has engaged with one new local partner – Kunming No.3 Hospital, a public- for-profit hospital providing care for the largest number of TB and MDR-TB patients in the province. During the reporting period, CAP-TB China worked with No. 3 Hospital on TB/MDR-TB prevention and treatment; coordinated and supported with YATA to conduct external quality assessment (EQA) for the TB laboratory in No.3 Hospital; and set up adherence counseling working group among the patients at No. 3 Hospital.

## **Narrative II: Program performance/achievements and key challenges encountered during reporting period by thematic area**

### **A: MDR-TB Prevention**

#### **Output 1.1 Mobilized communities to advocate for and use TB services**

##### ***Activity 1.1.1: Provide support and build capacity for community-based groups to further strengthen the CAP-TB Strategic Model for MDR-TB prevention, diagnosis and care in Xi Shan District***

FHI 360 provided support to Xishan CDC and Fuhai Residential District (RD) and 57 Zone, the QQ patient support group, to further strengthen the CAP-TB strategic model. For details please see Activity 1.1.2, Activity 2.4.2 and F: capacity building and technical assistance.

##### ***Activity 1.1.2 Conduct community educational activities on TB and MDR-TB***

Small-group educational sessions: During the reporting period, four small-group educational sessions were conducted for a total of 93 participants (45 men and 48 women) (USAID PMP Indicator 9; CAP-TB Indicator 2) who are most at risk for TB infection (elderly and Diabetes). TB flipcharts developed by CAP-TB China were used to guide the conversation with the participants. Topics included: basic TB knowledge on the transmission routes, signs and symptoms, and information about TB services as well as infection control for TB prevention. At the end of the activities, leaflets, eco-friendly bags with TB messages and masks were distributed.

Community night event: Following successful community night events in FY13, CAP-TB China conducted a night event in Yang Jia Community in Fu Hai RD on 27<sup>th</sup> December 2013. All the CAP-TB partners from the provincial to community level were actively involved in the events. The edutainment event included popular singing and dancing, and TB related drama by Ai Yan Se Group, as well as participatory sessions such as TB101 Q&A, and infection control skill building. On such a cold winter night, the event exceeded expectations and reached an audience of approximately 500 people (320 men and 180 women) (USAID PMP Indicator 9; CAP-TB Indicator 2) and more than 20 people participated in the interactive sessions. One more community event was conducted integrated into the World TB Day activities (Please see 2014 World TB Campaign Initiatives).

TB education via social media sites: Since March 2013, CAP-TB China project has begun to disseminate TB messages through CAP-TB social media sites with Tencent ([http://t.qq.com/CAP\\_TB/mine](http://t.qq.com/CAP_TB/mine)) and Sina (<http://weibo.com/CAPTb>). Key TB knowledge and CAP-TB activities are regularly updated on both sites on. During this reporting period, there have been 7,307 viewers for the posts on Tencent site and 9,986 on Sina, with average increases of 33.49% and 68.06% respectively compared to FY13 Q4.

***Activity 1.1.3: Organize activities to commemorate World TB Day (please see Appendix III for photos of activities discussed below)***

World TB Day Event: On Saturday March 22, FHI 360 in partnership with the Yunnan Province, Kunming Municipal, and Xishan District, Centers for Diseases Control and Prevention (CDC), Fuhai Community Health Services, and Yunnan Anti-TB Association (YATA) held a community event to mark World TB Day with a CAP-TB China slogan – “We are all united by the same air we breathe”. The event was held during the morning from 9 am to 12:30 pm, and took place at the Long Jiang Community Park in Xishan District. Twenty-two university students came to volunteer and raise awareness with the CAP-TB team. Activities included a “snap and share” booth, where people took photos and shared them via social media sites, games that quizzed participants on their TB knowledge, opportunities for on-site doctor consultation and sign up for health screenings. Dance performances, TB drama, a participatory session on demonstration of proper infection control techniques, and a speaking contest for the event slogan rounded out the day. During the event, hundreds of people took photos of themselves at the ‘*place your face here*’ TB poster with their own phone cameras. The key messages on the posters includes “We are all united by the same air we breathe”, “To prevent MDR-TB needs real Kung Fu”, “Shared commitment for a world free of TB” and ‘Take swift action to stop TB’. Nearly 700 people (400 men and 300 women) (USAID PMP Indicator 9; CAP-TB Indicator 2) attended the event. Specifically, approximately 500 people (300 men and 200 women), participated in, ‘*snap and share*’ activity, and 107 (25 men and 82 women) in the ‘Angry Birds’ board game. **On March 24, Kunming No.3 Hospital held the World TB Day campaign in the hospital with participants of 60 people (36 men and 24 women) (USAID PMP Indicator 9; CAP-TB Indicator 2).**

TB educational sessions for university students in Kunming: FHI 360 and YATA conducted three educational sessions for 305 university students in Yunnan Agricultural University, Kunming Medical University and Yunnan Southwest Forestry University on 12<sup>nd</sup>, 13<sup>rd</sup> and 19<sup>th</sup> March 2014. Basic TB knowledge and planned 2014 World TB Day activities were introduced to the participants. Many students actively asked questions and expressed their willingness to volunteer for helping with community education.

TB short films design contest among university students mainly: Contests are often a popular method to encourage TB education and awareness while also stimulating creativity for effective communication. The TB educational session in Yunnan Southwest Forestry University initiated the launch of a five-month-long contest that calls for involvement of talented university students and/or the general public to design creative short films for education targeting either the general community or TB patients.

World TB day posters for communities in Xishan District: CAP-TB project designed a large-sized poster for community education for World TB Day. Xi Shan CDC had the poster reprinted with more than 300 copies posted on the key community bulletin boards situated in Xi Shan district, Kunming. The posters will remain exhibited for at least one month.

TB short film show on long-distance shuttle bus: Migrants and mobile population are priority for TB prevention. CAP-TB project created a 15-sec film that was shown in more than 300 long-distance shuttle buses departing from Kunming to other parts of Yunnan Province for at least one month since World TB Day.

Mass media coverage: The World TB Campaign activities were profiled in the March 23<sup>rd</sup> or 24<sup>th</sup> editions of four key mass media in Kunming – *Yunnan Daily*, *Kunming Daily*, *the Spring City Evening Post*, and *YNTV.CN*. *Spring City Evening Post* is one of the most popular newspapers in Yunnan with a circulation of 320,000 copies per day.

#### ***Activity 1.1.4: Strengthen leadership support through sensitization trainings for community health service centers***

On 4 December 2013, 18 leaders from 13 community health centers in Fu Hai RD attended a TB training in Jing Niu Community Health Station. (8 men and 10 women) (USAID PMP Indicator 20; CAP-TB Indicator 21) Mr. Xia Xuejing, head of Chronic Diseases Division of Xi Shan CDC chaired the training with the support of FHI 360 staff. Mr. Xia introduced the national TB programmatic management guideline, explained clearly how the involvement of the community health stations may reduce their risks of TB infection and contribute to TB prevention and control in Kunming. Mr. Xu, program officer from FHI 360 introduced key steps, costs, expected outcomes and deliverables for their involvement. The community health stations are expected to provide follow-up adherence support to all the TB patients from the respective community they are responsible for. At the end of the training, participants openly discussed follow-up for MDR-TB patients. CAP-TB project secured the participants' verbal commitment. In FY14 Q2, Xi Shan CDC and FHI 360 provided on-site TA to five community health stations for better quality treatment adherence support to TB/MDR patients in their communities.

### **Output 1.2 Strengthened private sector involvement for TB/MDR-TB prevention**

#### ***Activity 1.2.1: Provide support to private clinics/pharmacies about MDR-TB***

Based on the experience in FY13, the design of CAP-TB referral slips were improved to include key M&E messages and facilitate completion. The redesigned referral slips were reprinted and distributed in November 2013. The experiences in FY13 showed that almost all the referrals by the private sector were from private clinics including community health stations, and not private pharmacies even though outreach workers paid regular visits to each pharmacy in the project catchment area. **Frequent staff turnover with the private pharmacies makes it difficult to maintain their continuous involvement in TB awareness training and on-site support has to start from scratch. A common, shared misperception among pharmacy staff was that selling drugs to treat presumptive TB patients for their symptoms was not a good practice, as the patients often leave soon immediately after receiving the drugs. If the patients are truly at risk for TB, they should be referred for further testing and screening within the TB system.** In FY14, to promote the involvement of private pharmacies, Xi Shan CDC has started to engage with Xi Shan Drug Administration Bureau and Xi Shan Society of Private Medical Practitioners, resulting in their greater commitment to facilitate TB suspect referrals from private sector. A coordination meeting was scheduled in April, 2014.

During the reporting period, Fu Hai CHC received 187 presumptive TB cases (107 men and 80 women) (CAP-TB Indicator 3) referred by private clinics in Fu Hai RD. These referrals were made even without the project's five outreach workers who had previously conducted regular visits during FY13 to private sector partners. This represents strong sustainability of the project's initiatives from FY13; the hope is that referrals made by private clinics in Fu Hai RD will remain stable through continued, effective coordination among the private sector, a system that was established by CAP-TB.

***Activity 1.2.2: Strengthen the capacity of Kunming No.3 Hospital to provide appropriate TB diagnosis and first-line treatment for MDR-TB prevention***

For details, please refer to F: Capacity Building and Technical Assistance.

**Output 1.3 Scaled-up implementation of TB infection control in communities and health facilities**

***Activity 1.3.1: Conduct TB infection control training and regular assessments in health care facilities***

Yunnan CDC will conduct infection control assessments in 16 TB service sites involved in CAP-TB project during FY 14 Q3. The 16 sites include: Kunming No.3 Hospital, Kunming CDC, Xi Shan CDC and 13 community health centers/stations in Fu Hai RD. Infection control checklist for health care facilities will be used as a standard assessment tool. Based on the assessment results, more focused and targeted training will be provided at each site.

N95 and surgical masks: To support the implementation of TB infection control in communities and health facilities supported by CAP-TB project, YATA procured a batch of masks at the end of December 2013, including 120 N95 and 13,370 surgical masks. The masks were distributed to each health facility supported by the CAP-TB project.

***Activity 1.3.3: Conduct TB infection control training and regular assessments in households***

Since late November 2013, two CAP-TB project officers from Xi Shan CDC have made 44 home visits to 29 patients in Xi Shan District, including 26 TB patients, and 3 MDR-TB patients, of which 27 patients have received household infection control assessment by using the CAP-TB infection control checklist as an assessment tool. According to the assessments, 23 of the households met infection control standards, including 20 TB patients and 3 MDR-TB patients (CAP-TB Indicator 6). The 4 TB patients who failed to meet the standards are living in migrants- populated villages in Xi Shan District, where there are very small rooms with poor air exchange. In order to reduce the infection risks in their households, the two project officers trained them on risk reduction infection control skills such as drying pillows, blanket and clothes in the sun, keeping windows open as long as possible, cleaning the floor with wet mop and disinfectant as well as wearing masks when in close contact with their family members.

**B: MDR-TB Management**

During the reporting period, 26 MDR-TB cases (19 men and 7 women) (USAID PMP Indicator 7; CAP-TB Indicator 6) were found in Kunming by YNCDC, 16 of whom initiated treatment (USAID PMP Indicator 10; CAP-TB Indicator 11). The Yunnan TCC screened 1,951 TB suspects, 559 of whom were found having TB. They provided treatment to 1,819 outpatients and 132 inpatients, including 19 MDR-TB patients. Kunming No.3 Hospital (No.2 TB Division) screened 4146 outpatients and 502 inpatients. Kunming No. 3 Hospital identified 20 patients as Xishan residents, i.e. 18 TB patients and 2 MDR-TB patients (CAP-TB Indicator 13), all reported and successfully referred for Xishan CDC to provide follow-up services.

**Output 2.1 Ensured capacity availability and quality of laboratory testing to support the diagnosis and monitoring of TB patients, including the rapid diagnosis of MDR-TB**

***Activity 2.1.1: Provide TA to strengthen the capacity of laboratory staff in diagnosis of MDR-TB***

Yunnan CDC TB laboratory ISO15189 application: During the reporting period, senior leaders from Yunnan CDC gave their approval to Yunnan CDC TB Laboratory’s application for ISO15189 certification. YNCDC is working on the documents preparation according to the TA CAP-TB provided in FY 13.

External Quality Audit (EQA) for the laboratory of No. 3 hospital: with the support from CAP-TB, No. 3 hospital has agreed to have an EQA assessment from the Yunnan CDC for their TB laboratory. Yunnan CDC selected four TB Laboratories for external quality audit (EQA) with support from the national TB center laboratory. Those four are: Yunnan CDC TB Laboratory, Honghe Prefecture TB Laboratory, Yuxi Municipal TB Laboratory and Kunming No.3 Hospital TB Laboratory. Samples from the above four laboratories were collected and sent to the national TB reference laboratory for verification. Results showed that they all met the standards except Kunming No.3 Hospital. YNCDC plans to conduct a technical meeting with Kunming No.3 Hospital to troubleshoot and help make improvements accordingly in FY 14 Q3.

Use of GeneXpert for rapid diagnosis of MDR-TB: During the reporting period, 1,692 LED samples (988 men and 704 women) were tested and 202 samples were assayed with the GeneXpert machine procured by CAP-TB project, resulting in the detection of 64 rifampicin-resistant cases, as follows:

**Table 1:** GeneXpert Tests conducted at the Yunnan CDC

| Month         | Samples tested | Mycobacterium tuberculosis (MTB) complex DNA |                      | MTB not detected | Errors | Invalid Numbers |
|---------------|----------------|--|----------------------|------------------|--------|-----------------|
|               |                | Rifampicin Resistant                         | Rifampicin Sensitive |                  |        |                 |
| Oct 13        | 13             | 7  | 4                    | 2                | 0      | 0               |
| Nov 13        | 31             | 8  | 20                   | 3                | 0      | 0               |
| Dec 13        | 77             | 21   | 46                   | 9                | 1      | 0               |
| Jan 14        | 41             | 17   | 23                   | 1                | 0      | 0               |
| Feb 14        | 40             | 11   | 8                    | 21               | 0      | 0               |
| Mar 14        | 0              | 0  | 0                    | 0                | 0      | 0               |
| <b>Total:</b> | 202            | 64   | 101                  | 36               | 1      | 0               |

## Output 2.2 Strengthened case finding and referral for MDR-TB

*Activity 2.2.1: Provide incentives for referrals of MDR-TB suspects and conduct regular feedback meeting among private and public sectors*

For details, please see Activity 1.2.1.

*Activity 2.2.2: Train TB health staff in the detection and management of MDR-TB*

For details, please refer to F: Capacity Building and Technical Assistance.

## Output 2.3: Strengthened human resource capacity for MDR-TB management

*Activity 2.3.1: Support participants to attend national and international level MDR-TB training conducted by National Center for TB Control and Prevention (NCTB), Union and WHO*

To be carried out during the second half of FY14.

## Output 2.4 Scaled-up quality treatment and community approaches for PMDT

*Activity 2.4.1: Provide health care providers with a training in effective communication with patients*

To be carried out in FY14 Q3.

*Activity 2.4.2: Provide treatment adherence education and support to TB/MDR-TB patients*

For capacity building activities, please go to F: Capacity Building and Technical Assistance.

Education and counseling for hospitalized TB/MDR-TB patients: CAP-TB China supported two TB treatment sites in Kunming for provision of adherence education and support to TB/MDR-TB patients through one-on-one counseling and small-group educational activities by TB peer counselors and nurses.

At TCC, the newly refurbished roof garden is an ideal space for small group activities or one-on-one educational sessions in terms of infection control. A small room on the fourth floor of the TCC building was set up as a counseling room which gives more privacy for one-on-one counseling with patients. After the intensive training and on-site supervised counseling sessions, the trained nurses and peer counselors are able to practice counseling and facilitation skills in their work. A standard form for counseling developed by CAP-TB program, together with TB/MDR-TB educational flipcharts, is used to guide their educational activities with patients. Completed counseling forms, centrally filed in order of patient names, are securely kept in the filing cabinets in the counseling room. During the reporting period, TCC provided TB education to 134 participants (88 men and 46 women) (USAID PMP Indicator 9; CAP-TB Indicator 2), of those 55 TB/MDR-TB patients and their family members (29 men and 26 women) through six small group activities and 79 patients (59 men and 20 women) through one-on-one counseling.

**At Kunming No.3 Hospital,** Mr. Chen, a TB patient/college student, received one-on-one mentoring from FHI 360 in addition to the TB training dated 28 November 2013. The nurses who attended three counseling trainings (November, December 2013 and February 2014) practiced their skills through supervised counseling sessions and small-group activities with support of FHI 360. During the reporting period, Kunming No.3 Hospital conducted five small-group educational activities for 124 participants (67 men and 57 women) (USAID PMP Indicator 9; CAP-TB Indicator 2), including 80 TB/MDR-TB patients and 44 of their family members. Many inpatients from No.1 TB Division attended the group activities when they heard of the activity news. They also provided counseling through one-on-one conversation with 127 TB/MDR-TB patients (72 men and 55 women) (USAID PMP Indicator 9; CAP-TB Indicator 2).

The educational activities at both sites strongly indicated that TB/MDR-TB patients have significant needs for proper TB knowledge, attitudes and skills to cope with TB, including how to maintain good treatment compliance, coping with adverse drug reactions and TB stigma as well as infection control. Some patients who suffered from TB for five years were not even aware of how they contracted TB. They associated their TB with fatigue.

In addition to increased knowledge and skills among TB/MDR-TB patients, the participatory educational activities at both TCC and No. 3 Hospital led to improved interpersonal relationship between patients and doctors. A good example is that patients are more eager to voice their concerns and consult with their doctors.

57 Zone – internet-based peer support: 57 Zone is a virtual group created by CAP-TB China through Tencent QQ. 57 Zone is an instant messaging service to network TB patients in Kunming and beyond for quality TB treatment education as well as peer care and support among TB patients. 57, literally pronounced ‘wu qi’ in Chinese, sounds like ‘No cheat’( trust), ‘no give up’, and ‘I am healthy’, which represents common concerns and desires among Chinese TB patients as well as representing what 57 Zone can do. Trained peer counsellors and peer volunteers manage the group and provide online education and counselling on a daily basis. TB service providers from Kunming No.3 Hospital and Yunnan TB Clinical Center, two CAP-TB supported sites, are invited to join 57 Zone to provide technical consultation to patients online as well. The patients who receive treatment at the above hospitals and have access to internet are invited to join the group. The platform was formally launched and introduced to patients in December 2013 when a logo and QR code for 57 Zone were created and promotional material was printed. At the end of the reporting period, more than 70 people signed up for 57 Zone, and we expect that this number will grow quickly. The hope is that 57 Zone will become a virtual community of current/former TB patients owned and managed by peer counsellors/peer volunteers in China. A card here designed for promotion of 57 Zone for internet-based education for TB/MDR-TB patients



*‘My Year of the Horse’*: In order to promote greater involvement of TB patients, 57 Zone organized an internet-based activity called *‘My Year of the Horse’* during the one month period of Chinese New Year. TB patients at TCC and Kunming No.3 Hospital or who have signed up at 57 Zone were encouraged to take a photo of themselves holding a sign in their hands that indicated their own wishes for new year and shared the photos with other patients who could view and comment at the 57 zone platform. 36 people, including TB doctors and nurses, participated in the activities.

Follow-up Support to TB patients in the community and feedback meetings with Kunming No.3 hospital and TCC: During the reporting period, the two CAP-TB project officers from Xi Shan CDC have provided support to TB and MDR-TB patients in home-based care with a focus on treatment adherence, coping with treatment adverse effects, and infection control. The home visit form developed by CAP-TB was used as a tool to guide the project officers to deliver quality care of services. During this reporting period, these two project officers from Xi Shan CDC paid 44 visits to 26 TB patients (16 men and 10 women) and 3 MDR-TB patients (1men and 2 women) (USAID PMP Indicator 9; CAP-TB Indicator 2). In addition, they made 737 phone calls to follow up with 106 TB patients and 6 MDR-TB patients (USAID PMP Indicator 9; CAP-TB Indicator 2). Every month, the project officers joined the small group activities for patients at TCC and Kunming No.3 Hospital. They were introduced to meet with the inpatients from Xi Shan District for whom they would provide follow up support when they return to their communities. On a regular basis or when needed, they conduct feedback meetings with TCC or Kunming No.3 Hospital to highlight areas that need improvement. The project officers thus form a critical link between TB clinical services and Xi Shan District community.

#### ***Activity 2.4.3: Develop user friendly counseling toolkit and educational material for TB/MDR-TB patients***

With support of Yunnan CDC, Yunnan TB Clinical Center and Kunming No.3 Hospital, FHI 360 developed two new educational flipcharts for TB patients (400 copies) and MDR-TB patients (440 copies) respectively during the reporting period. The newly developed flipcharts are very popular among doctors, nurses, TB counselors, caregivers and community health workers.

During Q2 of FY14, CAP-TB project designed a *‘TB patients staying healthy’* pocket-sized book to help patients record their treatment and diagnosis results, and provide them with key knowledge or useful tips to plan and cope with their lives throughout the course of TB treatment. 2,000 copies were produced and distributed to the patients at TCC and Kunming No.3 Hospital.

#### ***Activity 2.4.4: Conduct stress management activities to health care providers***

To be carried out in the second half of FY14.

### **C: Strategic Information**

#### **Output 3.1: Strengthened capacity of TB program to collect, use and analyze data for management**

##### ***Activity 3.1.1: Assist with reinforcement of TB Working Group***

Bi-monthly working group meetings: On 12 December 2013, CAP-TB project conducted the first bi-monthly working group meeting for FY14. There were 14 participants from YATA/Yunnan CDC, FHI 360, TCC, Kunming CDC and Xi Shan CDC. YATA reviewed the FY14 workplan with the local partners and made sure that everyone involved understood clearly the strategic priorities for FY14. YATA and FHI 360 reviewed financial procurement for CAP-TB project and clarified decision making roles in authorization of activity fund request. In addition, CAP-TB project conducted two more working group meetings on 17<sup>th</sup> January and 18<sup>th</sup> March 2014 for preparations for Mid-term evaluation and 2014 World TB Campaign respectively.

##### ***Activity 3.1.2: Provide TA for site supervision***

YATA/Yunnan CDC, FHI 360, Kunming CDC and Xi Shan CDC paid field visits to CAP-TB sites on a monthly basis or when needs arose. They conducted frequent joint site visits and discussed issues on the spot.

#### *Activity 3.1.4: Conduct CAP-TB annual review meeting*

To be carried out in September 2014.

### **Output 3.2 Increased TB research activity**

#### *Activity 3.2.1: Document the process of bi-directional screening of TB/DM*

On 24 October 2013, a mid-term review meeting was conducted in the Xi Shan CDC meeting room regarding the bi-directional screening of TB/DM. 30 participants from FHI 360, Yunnan CDC, Xi Shan CDC, TB screening service providers and M&E staff from 10 community health centers attended the meeting. They updated the research progress, highlighted problems encountered and discussed the priority to increase case finding and promote successful referrals for TB confirmation. Through a simulation session for TB symptom screening, the participants from the involved community health centers increased their capacity to deliver quality services. Two community health centers with the best performance were invited to share their experiences.

In order to ensure consistency in quality of services and data, YATA and FHI 360 developed a checklist to guide each of the 10 community centers for quality data collection and appropriate filing. Close monitoring was conducted to all the sites, with examination of all relevant M&E records. From June 2013 to the end of March 2014, total of 3735 TB screens were conducted among DM patients who presented to DM clinic, and 258 were found positive with signs of TB symptoms (3 PTB cases confirmed); and TCC identified 5 new DM patients among 438 TB/MDR-TB patients screened for DM. The DM/TB bi-directional screening initiative will continue until the end of April 2014. With a current sputum positivity rate of approximately 1%, the DM/TB bidirectional screening in the community center setting may not be as cost-effective as screening in the tertiary hospital setting. The latter has been studied by the IUATLD previously in China, and it may be the logical next step in Yunnan to compare with the community health center data.

#### *Activity 3.2.2: Adopt 9-month regimen for MDR-TB*

To be carried out when and if the clinical trial is approved by NCTB and adequate funding is secured.

### **D: Monitoring and Evaluation**

#### *Activity 3.1.3: Strengthen Data Quality Assurance (DQA) and data analysis for data management*

CAP-TB M&E system orientation: On October 23, 2013, FHI 360 China conducted an M&E training for project managers and M&E staff from two IAs - YATA and Kunming No.3 Hospital. CAP-TB M&E guideline and standard data collection forms were carefully explained to the participants. In addition, discussion was made to update a clear communication flow chart for data management and reporting. Roles and responsibilities for M&E focal points designated by each CAP-TB partners were explained and clarified. One week after the training, FHI 360 provided on-site TA to help Kunming No.3 Hospital, a new IA for FY14, to set up their M&E system for CAP-TB.

TA support from FHI 360 APRO: USAID/RDMA and FHI 360 APRO reviewed PMP indicators and decreased the number of indicators for reporting to meet the real needs of CAP-TB project. In December, Anh Innes, Chief of Party, CAP-TB Regional Project, provided TA to CAP-TB China via emails and teleconference to discuss, clarify and finalize the list of indicators (PMP indicators and CAP-TB indicators) and targets for CAP-TB China.

Conduct regular DQA: In October 2013, program officers of FHI 360 conducted the second data quality assessment (DQA) for CAP-TB China. They paid field visits to Fu Hai CHC, Zong Shu Ying CHC, Xi Shan CDC, and TCC. They completed DQA checklists based on the interview with designated M&E staff, review of the M&E records and random data verification. At the end of the field visits, recommendations were discussed with the local partners. All the DQA results indicated that all the local CAP-TB partners in

Kunming have established a M&E system that ensures solid and quality project data, especially in terms of establishment of M&E focal persons, clear roles and responsibilities for different partners, and documentation tools. Another DQA is scheduled in May 2014 for Kunming No.3 Hospital and YATA.

USAID Mid-term Evaluation: Between 24 February and 1 March 2014, USAID mid-term evaluation team ( Mr. Aimé De Muynck, Ms. Carina Stover, and Ms. Amy Bloom) evaluated CAP-TB China through field visits to Kunming and Beijing. They had meetings with all the CAP-TB partners and primary and secondary stakeholders, including FHI 360 China/Kunming Office, YATA/Yunnan CDC, Xishan CDC, TB/DM bi-directional screening community health center, TCC and Kunming No.3 Hospital, Yunnan AIDS Care Center, Yunnan Provincial Bureau of Health, WHO Beijing Office and the Union China Office. The team also interviewed primary beneficiaries - TB/MDR-TB patients in hospital/or in the communities.

The final evaluation results were overall positive. They identified the following key strengths for CAP-TB: 1) Major contribution is the outreach to the patients and the broad educational efforts; 2) MDR-TB management trainings through close contact with Union office in Beijing; 3) regular case review sessions for capacity building; 4) clinical consult for difficult MDR-TB cases; 5) Screening of vulnerable population such as PLHIV and diabetes; 6) Community involvement in MDR-TB prevention; 7) Good organizational set-up of MDR-TB programs; 8) MDR-TB control approach is recognized as very innovative, and extension desired; 9) Focused efforts on improvement of quality of MDR-TB care; 10) excellent interface with partners and hospitals; 11) high cost effectiveness; 12) Great attention to strategic information; 13) Virtual network of TB/MDR-TB patients called “57 Zone”; 14) CAP-TB China was widely accepted by authorities which indicates great potential for sustainability.

The team also highlighted a few major concerns that CAP-TB China plans to improve or strengthen in the next one or two years:

| Major concerns                         | Future response  |
|--|--|
| High number of initial defaulters      | To conduct follow-up interviews of initial defaulters to understand why or barriers<br>To strengthen quality post-test counseling for new TB/MDR-TB patients |
| Weak data management                   | To strengthen TA by FHI 360 and through the Union to influence the national TB data system for better data management  |
| Insufficient documentation of impact   | To integrate documentation of impact for key project initiatives or activities into the work plans for the next two years                                    |
| Low notification rates of the elderly  | To strengthen follow-up case management  |
| No implementation research             | To take this issue into consideration, but may be low priority due to limited project resources  |
| Insufficient attention to the migrants | To increase educational efforts in the communities populated with migrants and the public venues congregated with migrants                                   |
| Insufficient attention to DOT          | To strengthen community-based DOTS with greater involvement of family members, community caregivers and peer patients with support of 57 Zone                |

## **E: Enabling Environment for MDR-TB Prevention and Control**

### **Output 4.1: Improved capacity of National Tuberculosis Program (NTP) to develop finance and implement national TB control strategies in line with global strategies**

*Activity 4.1.1: Conduct cost-effectiveness analysis with the London School of Hygiene and Tropical Medicine (LSHTM)*

From 18 to 21 November 2013, a team of four scholars from LSHTM led by Professor Richard Coker conducted a study tour to Kunming and Yuxi in order to understand more about the TB response strategies, DOTS, TB internet-based reporting system, and TB laboratory work in Yunnan. Based on the understanding gained in the field, the team will work with YNCDC/CAP-TB project to conduct the cost effective analysis using the national and project data, as well as conducting qualitative analyses on the impact of gender, incentives, and barriers in accessing TB diagnosis and treatment. In March 2014, the research protocol was submitted to Yunnan CDC Ethical Committee with approval granted in April 2014.

***Activity 4.1.2: Conduct a CAP-TB project debriefing and project update meeting with institutional members of YATA***

On 10 January 2014, YATA organized a CAP-TB project debriefing meeting for the key institutional members. There were 46 participants, including Mr. HUANG Xingli, Director of Scientific Education, Yunnan Bureau of Health; Ms. OUYANG Lin, Deputy Director of Diseases Control, Ms. LI Ying, Deputy Director, Yunnan Association of Sciences; Mr. CHA Shun, Director the board, YATA; Mr. LI Zhen, Deputy Director of the board, YATA; Ms. XU Lin, Secretary General, YATA as well as leaders and/or experts from four technical working groups at the local level. On behalf of CAP-TB project, Ms. XU Lin gave an overall introduction of the CAP-TB project YATA implemented through Yunnan CDC – Yunnan Center for TB Control and Prevention and highlighted significant milestones. The final feedback and discussion indicated that the participants, including key health officials, positively acknowledged CAP-TB project implemented by YATA.

**Output 4.2: Strengthened partnership for quality TB care including private sector**

***Activity 4.2.2: Conduct regular referral coordination meetings with private and public sector***

For details, please refer to Activity 1.2.1.

***Activity 4.2.3: Conduct a sensitization training for TB health care providers in Kunming***

On 26-27 December 2013, Kunming No.3 Hospital and TB Sub-branch of Kunming Academy of Medicine jointly organized a conference on the most advanced TB clinical management in Jia Lu Da Hotel, Kunming. There were 278 participants (77 men and 201 women) from the public and private hospitals and CDCs in greater Kunming and beyond. The TB clinical service providers in Kunming increased their understanding of appropriate diagnosis and treatment of MDR-TB.

**F: Capacity building and technical assistance**

*Train TB health staff in the detection and management of MDR-TB*

MDR-TB management TA and training conducted by the Union: Dr. Chiang Chen-yuan from the Union paid a one-week field visit to CAP-TB China between 6 and 10 January 2014. The purpose of the visit was to provide TA on clinical management of drug resistance TB at both TCC and Kunming No.3 Hospital and to assess case finding of drug resistance in Kunming. After the trip to examine TB case detection in Jing Ning County, Dr. Chiang conducted a half-day MDR-TB case review training at Kunming No.3 Hospital and another one-day training at TCC for a total number of 36 TB doctors and nurses (11 Men and 25 Women) ([USAID PMP Indicator 18](#); [CAP-TB Indicator 15](#)). He organized lectures and interactive discussion with doctors and nurses. During the training workshop, Chiang introduced the concept of a clinical audit study that is used to assess regimens and dosages used in the treatment of both new and retreatment TB patients. At the end of his trip in China, Dr. Chiang met with Mr. CHEN M-T, Vice Director, NCTB and updated him the Union's involvement in CAP-TB China project in Kunming, China.

TB/HIV training conducted by the Union: Dr. Ignacio Monedero from the Union conducted a five-day on-site training for doctors from Yunnan AIDS Care Center from March 10<sup>th</sup> to 14<sup>th</sup>, 2014. A total of 22 participants (14 men and 8 women) ([USAID PMP Indicator 18](#); [CAP-TB Indicator 15](#)) attended this training. The purpose

of this training are as follows: 1. Harmonize treatment and management of HIV-positive patients with TB and thus reduce mortality, especially in patients with various complications; 2. Contribute to creation of a critical number of health workers with skills and competencies in provision of quality care to patients with TB-HIV. At the end of the training there was a debriefing discussion about the training progress. Next steps were defined as: 1. Video conferences every 3-4 months with the physician team to support advice on complicated cases, operational research or other issues as necessary; 2. On line regular contact and support on operational research and paper publication; 3. Possibility in 2015 for a new practical and clinical TB/HIV training with the increasing participation of Yunnan Hospital physicians as trainers (know-how transference) and a big number of doctors attendees from the whole province.

#### *Provide treatment adherence education and support to TB/MDR-TB patients*

TB Counseling Trainings for health providers from No. 3 hospital and TCC: On 12-13 November 2013, the CAP-TB team organized a two-day intensive counseling training for 15 participants (CAP-TB Indicator 16). The training was mainly focused on adherence education and support to hospitalized TB/MDR-TB patients through trained TB counselors. The training was adapted according to the TB counseling training modules developed by PATH's Ukraine TB/HIV project supported by USAID. The training was followed by on-site practical sessions with TB/MDR-TB patients for the newly trained TB counselors from TCC and Kunming No.3 Hospital.

The No. 2 TB Division of Kunming No.3 hospital, which partners with CAP-TB, manages an average of 130 inpatients each month. The inpatients and their family members have great expectations and needs on how to deal with treatment adherence, adverse drug effects and infection control in their households. In order to meet the needs of the patients for TB education, Kunming No.3 Hospital requested FHI 360 to train their nurses on counseling skills. 5 nurses from No.2 TB Division of No. 3 Hospital were trained on counseling techniques and skills on 13 December 2013 (CAP-TB Indicator 16), along with two nurses who had attended the TB counseling training on 12-13 November 2013.

Community-based care for TB/MDR-TB patients training: on 28 November 2013, Xi Shan CDC and FHI 360 organized a training on community-based care for TB staff in the community health centers and stations in Fu Hai RD. There were 26 participants from Yunnan CDC, Kunming CDC, Xi Shan CDC and 13 community health stations from Fu Hai RD (CAP-TB Indicator 16). The one-day training was adapted based on the TB counseling training dated 12-13 November 2013. Patient-centered counseling guidelines and tools were introduced to the participants. The trained community health workers will meet TB patients in their own communities at least twice during the course of TB treatment and make at least once monthly phone calls to ensure good treatment compliance.

Refresher counseling training by Ms. OC Lin: Further to the counselling skills training by Ms. OC Lin from Hong Kong AIDS Foundation in September 2013, she offered to voluntarily organize a follow-up refresher training for all trained counsellors/nurses on 10-11 Feb 2014. The refresher training including telephone counseling skills building session in the classroom and on-site supervision and coaching at TCC and Kunming No.3 Hospital. Total number of 32 TB doctors and nurses have been trained. (4 Men and 28 Women) (CAP-TB Indicator 16). Through lectures, role-play, and counseling demonstration, Ms. OC Lin helped the participants see clearly their own areas for improvement. At the end of her work in Kunming, Ms. OC Lin acknowledges the remarkable progress made by the trained counselors since the counseling training in September 2013.

#### **Annex I: Method used to estimate total number of individuals reached and adjustment factor to calculate for potential overlap among different partners and other USG (Narrative)**

Estimations were made for large-group activities reported for PMP #9 (CAP-TB #2). Estimations were performed as follows for large community events (e.g., WTBD): all volunteers were instructed to keep count of the number of participants with whom they interacted and conducted surveys. At the end of the event, the

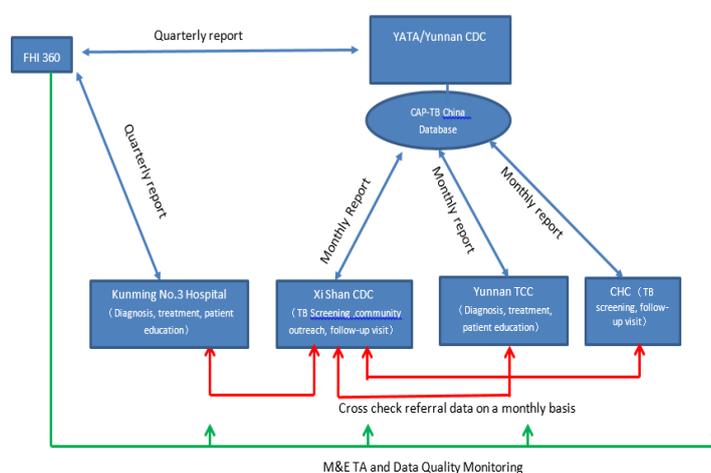
number of volunteers was multiplied by the average number of participants. For community events, an average head count was conducted at the beginning, middle, and end of the event, and the average of the three counts was used to give the total participants in the event.

**USG funded partners:** The CAP-3D project was closed in Kunming in September 2013, thus there is no USG funded partners in project sites now.

**Partners funded by other donors:** CAP-TB project has been programmed in close coordination with NTP through YATA/Yunnan CDC, the implementing agency which leads the CAP-TB work in China. Through regular meetings with the health officials and CDC leaders responsible for TB work in Kunming and in Yunnan, CAP-TB project made the scope of work clear to other TB programs funded or supported by the Chinese government. Yunnan CDC manages the GFATM funded TB program in Yunnan. Through coordination, CAP-TB project mainly support on: 1) Provide MDR-TB diagnosis and treatment TA to health providers; 2) Patients peer support group.

## Annex II: Processes carried out to ensure data quality

FHI 360 developed a data flow chart that included all the involved local partners with components, flow of reporting, feedback mechanism and responsibilities of related staff. The data management process of CAP TB was explained to program and M&E staff of each local partner through CAP-TB bi-monthly meetings and field visits to each service site. Through the CAP-TB Working Group via QQ, a social media site in China, all the M&E staff are connected conveniently for instant communication and feedback about M&E issues on a daily basis.



The CAP TB DQA checklist and assessment documents had been developed based on the *Data Quality Assessment Standard Operating Procedure of USAID RDMA Performance Management Plan by APRO*. It serves as a guideline for DQA practices in the country. All the local partners have prepared and reviewed their M&E data carefully on a monthly basis to ensure quality of data to be submitted to YATA.

**Annex III: Summary of accomplishments against the work plan and targets (Please fill in separate excel sheet).**