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TB CARE I

TB CARE I - Kazakhstan

Year 2

Annual Report

October 1, 2011 – September 30, 2012

October 30, 2012

Table of Contents

Executive Summary	4
Introduction	6
Universal Access	7
Laboratories	9
Infection Control	13
Programmatic Management of Drug Resistant TB (PMDT).....	15
Health System Strengthening (HSS).....	16
Monitoring & Evaluation, Surveillance and OR.....	19
Financial Overview	21

List of Abbreviations

CAR	Central Asia Region
DOT	Directly Observed Treatment
DR-TB	Drug Resistant Tuberculosis
DST	Drug Susceptibility Test
EKO	East Kazakhstan Oblast
GFATM	Global Fund to fight AIDS, Tuberculosis and Malaria
IC	Infection Control
MDR-TB	Multi-drug resistant Tuberculosis
M&E	Monitoring and Evaluation
MOH	Ministry of Health
NCTP	National Center for Tuberculosis Problems
NTP	National Tuberculosis Program
OR	Operational Research
OTBD	Oblast Tuberculosis Dispensary
SES	Sanitary and Epidemiological Service
SLD	Second Line Drug
SOP	Standard operational procedure
TB	Tuberculosis
USAID	United States Agency for International Development
XDR-TB	Extensively Drug Resistant Tuberculosis

Executive Summary

The USAID supported five-year (2010 – 2015) TB CARE I project is implemented in Central Asian countries by KNCV Representative Office in Central Asia. During the second project year, TB CARE I was implemented at the national level, through collaboration with the National TB center, and at oblast/municipal levels in Almaty city and Akmola and East Kazakhstan oblasts.

TB CARE I is implemented in collaboration with NTP/MOH, the Prison Service, PIU GFATM, USAID The Quality Health Care Project and Dialogue on HIV and TB projects, and other local and international partners working in TB Control I Kazakhstan.

In year 2, TB CARE I focused on six technical areas:

1. Universal and early access
2. Laboratories
3. Infection control
4. Programmatic Management of Drug Resistant TB
5. Health System Strengthening
6. Monitoring and Evaluation, Operational Research

Universal access

Key achievements:

- TB CARE I established a multidisciplinary working group for the development and piloting of outpatient care model in Akmola oblast. Key specialists of local government, healthcare department, department of social affairs, department of education, law enforcement, TB and PHC services, SES, Prison Service and NGOs are members of the group. The group drafted a model of outpatient care and psychosocial support system for TB patients in September to be finalized by the end of the year. It also developed a plan for piloting and further expansion of outpatient care and customized psychosocial support system (based on patient-centered approach) in the whole Akmola region.
- The working group on Childhood TB from NTP, Akmola and East-Kazakhstan oblasts developed a protocol on management of TB/MDR TB in children in August 2012. International consultant, Iveta Ozere provided technical expertise in the policy development. This document will be incorporated in the national guideline on tuberculosis control in Kazakhstan, which will be revised later in 2012.

Laboratories

Key achievements:

- XpertMTB/RIF implementation plan and clinical laboratory protocols have been approved by NTP in February of 2012. Four GeneXpert machines and 3,120 cartridges were procured and shipped to Kazakhstan in April of 2012. To prepare managers, clinicians and lab specialists to utilize the new technology, a four-day TOT workshop and training was conducted in Almaty on June 19-22 for 20 representatives from general and prison TB services at the project sites, on the practical use of Xpert MTB/RIF. In July 2012, four XpertMTB/RIF machines were installed in four sites - National Reference Laboratory, Almaty City TB dispensary, Akmola and East Kazakhstan oblasts. A total of 720 tests were conducted from July to September by the four sites.
- A press conference on the successful introduction of GeneXpert in Kazakhstan was conducted on August 22. United States Ambassador to Kazakhstan Kenneth Fairfax, joined by MOH and NTP officials, participated in the press conference.
- MOU and agreements on free use of Xpert MTB/RIF were signed with NCTB and Almaty City TB Dispensary in July and with TB dispensaries of EKO and Akmola oblasts in August 2012.

Programmatic Management of Drug Resistant TB

Key achievements:

- TB CARE I facilitated the finalization of new MDR TB protocols that provide a more structured, comprehensive and detailed guidance on MDR TB management, including TB/HIV, TB in Children and other components. The protocols were developed under the guidance on NTP and introduced in Akmola and East Kazakhstan oblasts. These protocols will now be reviewed by NTP and will be the basis for new amendments to MDR TB Order #218 expected to be released later in 2012. The protocols will be further disseminated and introduced across Kazakhstan by NTP in collaboration with Global Fund.

Introduction

In Kazakhstan, TB CARE I project is implemented by KNCV Representative Office for Central Asia in two out of 14 oblasts of Kazakhstan – Eastern Kazakhstan and Akmola regions, with select interventions at the national level to support the development of national protocols and guidelines. KNCV has a Regional Representative Office based in Almaty, Kazakhstan. In APA2, \$1,100,000 was obligated to support TB CARE I program in Kazakhstan.

In year 2 the TB CARE I program worked in following six technical areas:

Universal and early access: under this technical area TB CARE I focused on the improvement of TB control in prison, strengthening of coordination and collaboration between prison and general TB services on TB control, development of Childhood TB, MDR-TB protocol and introduction and implementation of innovative approaches on outpatient care of (MDR) TB patients, and psychosocial support for patients.

Laboratories:

Technical assistance was provided to NTP with implementation of new diagnostic tool (XpertMTB/RIF) in Almaty, EKO and Akmola regions.

Infection control:

TB CARE I provided technical support in the development of individual action plans for implementation of TB-IC activities for the next Q 2012 in their respective job setting.

Programmatic Management of Drug Resistant TB:

TB CARE I focused on the development of PMDT protocols and their introduction in two project sites: East-Kazakhstan and Akmola oblasts.

Health System Strengthening:

TB CARE I contributed to strengthening local capacities in training on different aspects of TB control.

Monitoring and Evaluation, Operational Research:

TB CARE I focused on practical implementation of electronic surveillance system in Prison Service through on-the-job trainings.

TB CARE I created an electronic database for data entry and utilization in accordance with approved OR protocol, and focused on the improvement of skills of interviewers on collecting data for operational research.

TB CARE I supported existing technical working groups and involved specialists from general and prison TB services, SES and HIV/AIDS services. For specific events, the project involved international consultants and experts (KNCV HQ, WHO Europe, Latvian WHO collaborative Center, and other international consultants).

TB CARE I activities were implemented in close collaboration with NTP, prison system, GFATM project and other USAID projects (Quality Health Care Project and Dialogue on HIV and TB). Regular partners' meetings have been conducted by TB CARE I with USAID Quality Healthcare and Dialogue Projects on HIV and TB to coordinate and plan activities and share information. TB CARE I also conducted regular meetings with NTP and PIU GF project to synchronize activities. TB CARE I had weekly meetings with USAID mission to provide updates on project implementation.

Universal and Early Access

In Universal and Early Access, TB CARE I focused on the improvement of TB control in prison, strengthening of coordination and collaboration between prison and general TB services on TB control, development of Childhood TB, MDR-TB protocol and introduction and implementation of innovative approaches on outpatient care of (MDR) TB patients, and psychosocial support for patients.

Technical Outcomes

Expected Outcomes	Outcome Indicators	Indicator Definition	Baseline (Year or timeframe)	Target	Result	Comments	
				Y2	Y2		
1	Increased quality of TB services delivered among all care providers	Prisons with DOTS	Number (percent) of prisons with DOTS	7/7 (100%) 2011	7/7 (100%) 2012	7/7 (100%) 2012	Supervisory visits to prisons are scheduled for next quarter
2		Protocol on transitional care approved	Approved by NTP Protocol on transitional care	No (2011)	Yes (2012)	No	The work will be continued in APA3 within the frames of coordination meetings with high officials and training for prison and general TB service specialists on transitional care and adherence to treatment.
3		Pilot regional model for outpatient care approved by local government	Availability of model for outpatient care in TB CARE geographical areas	No (2011)	Yes (2012)	No	Finalization of protocol on December 2012

Key Achievements

- Establishment of multidisciplinary working group for the development of outpatient care model in Akmola oblast was approved in September by the order of Akmola regional healthcare department. Key specialists of local government, healthcare department, department of social affairs, department of education, law enforcement, TB and PHC services, SES, Prison Service and NGOs are members of the group. TB CARE I staff, jointly with members of TWG developed the terms of reference, division of tasks and action plan for the working group.

- The WG drafted a model of outpatient care and psychosocial support system for TB patients in September to be finalized by the end of the year.
- The WG developed a plan for piloting and further expansion of outpatient care and customized psychosocial support system (based on patient-centered approach) in the whole Akmola region in September.
- Upon NTP request in July, TB CARE I staff developed a set of recommendations on current policy and practice related to customized psychosocial support system, including standardization of social support packages, more active inclusion of Ministry of Social Protection and introduction of social workers and psychologists in TB services.
- The working group on Childhood TB from NTP, Akmola and East-Kazakhstan oblasts developed a protocol on management of TB/MDR TB in children in August 2012. International consultant, Iveta Ozere provided technical expertise in the policy development. This document will be incorporated in the national guideline on tuberculosis control in Kazakhstan, which will be revised later in 2012.
- Set of recommendations on strengthening of collaboration between general and prison TB services was made at the meeting of key partners from prison and general TB services from national and oblast levels in Astana in September 2012.

Photo 1. Working group meeting on drafting protocol on outpatient model of care in Akmola oblast, Sept 27-28, 2012



Challenges

- The Prison Service is currently reorganizing the TB control in prisons. The plans provides for shutting down three out of the seven TB colonies, however, there is no long term strategy for the reorganization of service.
- TB practitioners at district and lower levels are not trained enough on the latest TB in children recommendations.

Next Steps

- TB CARE I was requested to be involved in the development of the national strategy on TB control in prisons for 2013-2020. The Central Prison Committee is considering the development of recommendations as a basis for the future long term strategy.
- TB pediatricians from East-Kazakhstan and Akmola oblast will be trained in the newly developed protocol on TB in Children by the national team of trainers in APA3.
- Finalization of protocol on outpatient care and psychosocial support system for Akmola region and its implementation in APA3.

Laboratories

In Laboratories, TB CARE I focused on the introduction of GeneXpert technology in Kazakhstan. Four machines were procured and installed in 2012. Introduction of GeneXpert presents new opportunities for rapid diagnosis on TB patients and timely start of TB/MDR TB treatment.

Technical Outcomes

Expected Outcomes	Outcome Indicators	Indicator Definition	Baseline (Year or timeframe)	Target	Result	Comments	
				Y2	Y2		
1	Ensured optimal use of new approaches to the laboratory confirmation of TB and incorporation in national strategic lab plans	New technologies have been introduced	Number of laboratories using GeneXpert MTB/RIF and HAIN MTBDRplus disaggregated by type of technology and also disaggregated by national and TB CARE areas.	0 (2011)	Xpert MTB/Rif: Central (NRL) - 1 Provincia I - 3 (2012)	Xpert MTB/Rif: Central (NRL) - 1 Provincia I - 3 (2012)	4 GeneXpert machines with 3120 cartridges were procured and installed in pilot facilities. One machine is located at the national level (NRL) and 3 are located in TB CARE I pilot sites (Almaty city TB dispensary, Oskemen Regional TB dispensary and Kokshetau Regional TB dispensary)
2	Laboratories offering rapid tests for TB or drug-resistant TB	Number of laboratories using GeneXpert MTB/RIF	0 (2011)	4 (2012)	4 (2012)	Four laboratories using GeneXpert MTB/RIF (NRL, laboratories of Almaty city dispensary, Oskemen regional TB dispensary and Kokshetau regional TB dispensary)	
3	Rapid tests conducted	Annual number of tests for GeneXpert conducted disaggregated by national and TB CARE areas.	Total: 0 NRL- 0 TB CARE sites - 0 (2012)	Total: 6000 NRL- 1500 TB CARE sites - 4500 (2012)	Total - 720 NRL- 208 TB CARE I sites - 512 (2012)	TB CARE I procured 3,120 cartridges for the country. Four machines were installed in the summer of 2012 and continue to operate smoothly. Four TB CARE I pilot sites utilized 720 cartridges from July to September 2012. From August 3, NRL tested 208 samples and 71 (34, 1%) tests of those detected TB. 29 among them demonstrated Rif resistance (40, 8%). Almaty City TB Dispensary conducted	

							<p>220 tests from July 27. 110 (50%) tests detected TB, including 60 (54, 5%) tests with RIF resistance.</p> <p>EKO from August 8, conducted 116 tests, 54 (46,6%) of those detected TB including 27 (50%) tests with Rif resistance;</p> <p>Akmola conducted 176 tests from August 13, 2012. 86 (48,9%) tests of those are with TB, including 47 (54,7%) with Rif resistance.</p>
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Key Achievements

- XpertMTB/RIF implementation plan and clinical laboratory protocols have been approved by NTP in February 2012.
- Four GeneXpert machines and 3,120 cartridges were procured and shipped to Kazakhstan in April of 2012. To prepare managers, clinicians and lab specialists to utilize the new technology, a four-day TOT workshop and training was conducted in Almaty on June 19-22 for 20 representatives from general and prison TB services at the project sites, on the practical use of Xpert MTB/RIF. As a result, the trained specialists were ready to operate the machines after their shipment to the following sites in late July: National Reference Laboratory, Almaty City TB dispensary, Akmola and East Kazakhstan oblasts. In the last quarter of APA2, 720 tests were conducted by four sites. 321 tests identified TB while 163 showed resistance to Rif.
- A press -conference on the successful introduction of GeneXpert in Kazakhstan was conducted on August 22. United States Ambassador to Kazakhstan Kenneth Fairfax, joined by MOH and NTP officials, participated in the press conference.
- MOU and agreements on free use of Xpert MTB/RIF were signed with NCTB in May and Almaty City TB Dispensary in July and with TB dispensaries of EKO and Akmola oblasts in August 2012.

Photos 2-4. Workshop and training “XpertMTB/RIF for rapid diagnosis MDR TB in Kazakhstan”, June 19-20, 2012



Participants of XpertMTB/RIF workshop and training during session, June 19, 2012



Harm van Heerikhuizen shows preparation of sputum samples for XpertMTB/RIF to participants, June 20, 2012



Sanne van Kampen helps lab specialist from Akmol TB Dispensary to operate software of XpertMTB/RIF, June 22 2012

Photo 5. Interpretation of Xpert test results & practical use of Xpert test, Almaty, August 27, 2012



Next Steps

- M&E plan for Xpert data utilization will be developed for each pilot site in APA3.
- Monitoring of proper use of Xpert MTB/RIF in each pilot site will be conducted in APA 3.
- Data of Xpert impact on MDR TB/TB management in Kazakhstan after the pilot phase will be collected and analyzed in APA3.

Infection Control

In Infection Control, TB CARE I focused on preparing infection control professionals from general and prison TB services and SES, to properly utilize IC measurement tools and equipment. Participants of the IC workshop organized by TB CARE I, developed individual action plans for the improvement of IC practices in their workplaces.

Technical Outcomes

	Expected Outcomes	Outcome Indicators	Indicator Definition	Baseline (Year or timeframe)	Target	Result	Comments
					Y2	Y2	
1	Increased TB IC Political Commitment	National TB IC guidelines have been approved and disseminated in accordance with the WHO TB IC policy	Approve by NTP a National TB IC guideline	No (2011)	Yes (2012)	No (2012)	Final version of National TB IC Guideline will be presented by NTP for final discussion during round table on October 11, 2012.
2	Strengthened TB IC Monitoring & Measurement	Annual reporting on TB disease (all forms) among HCWs is available as part of the national R&R system	Availability of the national R&R forms on TB disease among HCWs	No (2011)	Yes (2012)	Yes (2012)	Follow up of the action plans will be done by TB CARE I staff in January, 2013.

Key Achievements

- KNCV HQ HRD Consultant, Ieva Leimane and Regional Infection Control Consultant, Vlad Furman, conducted training on TB-IC monitoring and measurement for general and prison TB services from Almaty, EKO and Akmola on September 3-7, 2012. During the training, individual action plans were developed by each course participant for the implementation of TB-IC activities for the next quarter of 2012 in their respective job setting.

Photo 6. Ieva Leimane shows to participants how to make a fit test.



Photo7. Participants are at practical training in interdistrict TB dispensary of Almaty



Challenges

National TB IC Guideline adoption was postponed to early APA3 due to longer than expected review of the draft guideline by NTP.

Next Steps

Follow up of the action plans will be done by TB CARE I RO in January of 2013.

Programmatic Management of Drug Resistant TB (PMDT)

In PMDT, TB CARE I focused on the development and introduction of MDR TB protocols in the pilot Akmola and East Kazakhstan oblasts. The protocols provide a more structured, comprehensive and detailed guidance on MDR TB management, including TB/HIV, TB in Children and other components.

Technical Outcomes

Expected Outcomes	Outcome Indicators	Indicator Definition	Baseline (Year or timeframe)	Target	Result	Comments	
				Y2	Y2		
1	Improved treatment success of MDR	The National MDR TB Guidelines address TB in prisons and provide clinical protocols for prison and civil TB services.	Approve and disseminate of the National MDR TB Guidelines address TB in prisons and provide clinical protocols for prison and civil TB services	No (2011)	Yes (2012)	Yes	The PMDT protocols will be distributed to TB practitioners in general and prison services in East-Kazakhstan and Akmola oblasts. NTP plans to distribute the MDR protocols at the national level.
		Number of prison and civil service staff trained on PMDT within the last year using TB CARE I funds.	Number of prison and civil service staff trained on PMDT TB CARE I geographic areas	0 (2011)	40 (2012)	60	The trained practitioners will introduce the protocols further at lower level, including management staff and clinicians of prison, TB, PHC and HIV services.

Key Achievements

- One-day workshop was conducted in Almaty on June 20 for 14 specialists from the national and oblast (Akmola oblast, East-Kazakhstan) TB control programs. MDR-TB Coordinators, Deputy Chief Doctor on clinical work, Drug Management Coordinators, Head of Ambulatory units participated in the training. During the workshop, TB CARE I facilitated the finalization of new MDR protocols that provide a more structured, comprehensive and detailed guidance on MDR TB management, including TB/HIV, TB in Children and other components. These protocols will now be reviewed by NTP and will be the basis for new amendments to MDR TB Order #218 expected to be released later in 2012.
- National MDR expert group developed protocols on programmatic management of drug-resistant TB with support from TB CARE I. The protocols were introduced in East Kazakhstan and Akmola oblast by Maria Idrissova, Regional TB Advisor, and National MDR TB Coordinator. The protocols will be further disseminated and introduced across Kazakhstan by NTP in collaboration with Global Fund.

Next Steps

Further review of the protocol use in practical settings will be made at partner sites during supervision visit. PMDT protocols will be distributed among all health care services involved in MDR TB program, including TB Service, Prison Service, PHC and HIV services.

Health System Strengthening (HSS)

In HSS, TB CARE I provided professional development opportunities for TB professionals (MDR TB training in Tartu, Estonia).

Technical Outcomes

Expected Outcomes	Outcome Indicators	Indicator Definition	Baseline (Year or timeframe)	Target	Result	Comments
				Y2	Y2	
1 TB control components (laboratories, community care, HRD and M&E) formed integral part of national plans, strategies and service delivery of these components	Supervisory visits conducted according to country supervisory standards	Supervisory visits on TB control in prisons	50% (3 out of 6 planned) (2011)	100% (8 out of 8 planned)	0	This activity will be conducted in APA3.
2 Improved local human resource capacity	People trained using TB CARE funds	Number of people trained using TB CARE funds	21 people trained 2011	210 specialists from prison and civil health care sectors: 1. Xpert MTB/Rif: - 72 specialists (managers, laboratory staff, clinicians) from 4 sites 2. TB-IC monitoring and measurement - 16 3. Refresh on M(XDR)TB - 60 doctors and 60 nurses from prison and civil TB services in 2 project sites 4. International course - 2	169 specialists from prison and civil health care sectors: 1. Xpert MTB/Rif: - 93 specialists (managers, laboratory staff, clinicians) from 4 sites 2. TB-IC monitoring and measurement - 12 3. Refresh on M(XDR)TB - 60 doctors from prison and civil TB services in 2 project sites 4. International course - 4	60 nurses from prison and general TB services will be trained in APA3

Challenges

- Given the late start of the program in the second year, limited opportunities were utilized to build the national capacity in TB control.

Key Achievements

- Four specialists from general and prison TB services participated in MDR TB workshop in Tartu, Estonia on August 15-22.

Monitoring & Evaluation, Surveillance and OR

Technical Outcomes

Expected Outcomes	Outcome Indicators	Indicator Definition	Baseline (Year or timeframe)	Target	Result	Comments	
				Y2	Y2		
1	Improved surveillance system in penitentiary system	Surveillance data are internally consistent	Reporting units at all levels of data flow submitting timely reports according to national guidelines (number and percentage)	87% (36 out of 41) 2011	95% (39 out of 41)	95% (39 out of 41)	TB CARE I M&E officer jointly with the specialist of Central Prison System will work on data validation during APA3.
2	Strengthened local capacities on OR	OR studies completed and results incorporated into national policy/guidelines	Number of operations research studies completed & results disseminated	0 2011	0	0	According to the plan of OR, TB CARE I is in process of data collection that will be completed in January 2013. Data entry and analysis will be done in the end of APA3.

Key Achievements

- Workshop on operational research on the effectiveness of patients support in EKO for 17 participants from National TB Program, regional TB dispensary and interviewers was held in Oskemen on May 16-18, 2012. A plan of OR implementation was agreed upon. Also, responsibilities were assigned among research implementers and data collection process was initiated.
- Specialized M&E software, IBM SPSS Statistics Base was procured in May 2012.
- Interviewers trained by TB CARE I staff were in the process of data collection for operational research on the effectiveness of patient support system in East Kazakhstan.
- TB CARE I developed electronic database for entry and utilization of data of operational research on evaluation of effectiveness of patient support system in July 2012.
- TB CARE I developed recommendations to improve the system of data collection in Prison Service.

Challenges

NTP and Prison Service still use their own databases for TB patients, which are not synchronized yet.

Next Steps

- TB CARE I will work with responsible specialists from Central Prison System on the data validation of electronic surveillance system during APA3.
- TB CARE I will continue to collect data, data entry and utilization of data for OR in APA3. TB CARE I will finalize and publish a manuscript in an international journal in APA3.