



United Nations Development Programme Iraq

**Strengthen TB Control (including Drug Resistant) with an Increased Case Detection High Treatment Outcome and Improved Access to Poor and Vulnerable Populations**

Award: 00047321, Project: 00056801

**2013 ANNUAL PROGRESS REPORT**



<b>Project Title:</b>	Support to National TB and HIV/AIDS Control Programs
<b>UNDP Project #:</b>	00056801
<b>Project Duration:</b>	January 2013 – September 2015
<b>Project Resources:</b>	Global Fund to Fight AIDS, Malaria and TB
<b>UNDP Iraq Focal Point:</b>	Dr Mohammed Siddig Mudawi

<b>UNDAF Outcome(s)</b>	Increased access to quality essential services.
<b>CP Outcome(s):</b>	Strengthened regulatory frameworks, institutions and processes in place for accountable, transparent and participatory governance at national and local levels
<b>Output(s):</b>	Enhanced Capacity of GoI to address TB and HIV/AIDS including the delivery and usage of the Global Fund to Fight Aids, TB and Malaria
<b>Implementing Partner:</b>	UNDP-Iraq
<b>Responsible Partner:</b>	WHO-Iraq, International Medical Corps (IMC), AMAR International Charitable Foundation (AMAR ICF), National TB Control Program (NTP), Iraqi Anti-TB Association (IATA).
<b>Project Location(s):</b>	Country-wide

**Strengthen TB Control (including Drug Resistant) with an Increased Case Detection High Treatment Outcome and Improved Access to Poor and Vulnerable Populations DONORS: [Global Fund to Fight AIDS, Tuberculosis and Malaria](#)**

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## Executive summary

Strengthen TB Control (including Drug Resistant) with an Increased Case Detection High Treatment Outcome and Improved Access to Poor and Vulnerable Populations project has been designed to aid the Government of Iraq (GoI) through providing financial and technical support to strengthen and empower the National Tuberculosis control Program (NTP) to provide high quality health services in relation to diagnosis and treatment of all Iraqi TB patients. Although the activities and the objectives have been designed to be in line with both the Millennium Development Goal (MDG) 6 ; Combat HIV/AIDS, Malaria and other diseases, but it has also focusing that these activities and their objectives meet the National Development Goals; enhance social protection through ensuring the availability of basic health services, improve the capacity of GoI to address TB and HIV/AIDS including the delivery and usage of the Global Fund to Fight AIDS.

The project received an A2 rating from the Global Fund for the project's performance in 2013, which clearly indicates that the project has met the expected results for that year. This rating was achieved despite the difficult start during Phase II - Round 9 of the Global Fund Grant for Iraq in 2013, the extensive negotiation periods between GFATM and UNDP, UNDP and Sub-recipients (SR) of the Grant, Sub-recipients and Sub-sub-recipients (SSR) was the reason behind the delay faced in implementation of the activities of the grant, this delay had a limited effect on the project as majority of professional trainings and high level of procurement planned for this period was delivered.

In 2013; Both UNDP-Iraq and WHO-Iraq main offices were re-located back to Baghdad, this re-location had some implications on the project. Regarding UNDP, there was an increased presence in-country and coordination with the national counterparts but this re-location carried with it a departure of the majority of the WHO-GFATM team that decided not come to Iraq which affected the performance of this SR that had witnessed a large decline.

2013 project works carried out training of NTP staff on a wide range of capacity development varies from basic data entry trainings to highly specialized management of Multi-Drug Resistance TB (MDR-TB) cases, in addition to procurements that worth 941,370 USD. As a result 8,883 sputum smear positive new TB cases were notified and had been provided with high quality management in 2013.

## I. Context

This project aims to provide technical and financial support to NTP and strengthen their capacity to ensure sustainability of the impact of the project activities after the end of the grant. Phase II of Round 9 GFATM grant started early 2013, which was preceded by Round 6 grant and Round 9 Phase I. The main two objectives of the project are:

1. Increase the Case Detection Rate of SS+ TB cases from 43% to at least 70% by 2014
2. Maintain high treatment outcome among detected cases, the second objective is to ensure universal access to diagnosis, treatment and care for Drug-Resistant TB (DR-TB).

*The activities of this project contribute directly to **MDG 6**. The project has a focus on developing the infrastructure of the NTP facilities and providing needed equipment also building capacities of the staff but the constant turnover of staff is still a challenging factor in strengthening the service delivery system for TB control.*

*The project contributes directly to these benchmarks set within the NDP:*

- Developing high-quality infrastructure and services
- Building partnerships between the private and public sectors, supporting integration between them at all levels of construction, continuity, and efficiency
- Controlling contagious diseases
- Using all publicity media to increase citizens' health awareness
- Advancing health education provided by educational organizations, civil society organizations, and municipality councils through courses, symposiums, and publications
- Strengthening the capabilities of the health staff workers such as doctors, assistants and managers by providing specialized training and expertise to improve the system
- Providing advanced technology for diagnosis and treatment

The project has provided general and highly specialised trainings in the field of TB management, renovation of TB service delivery units, increasing awareness and educating the population through the Advocacy, Communication and Social Mobilization (ACSM) intervention. Involvement of private and public health sectors was continued through the Public-Private Mix (PPM) strategic intervention. Procurement medicines, medical equipment and consumables was continued through the whole program period that had included the provision of more advanced diagnostic equipment to a large number of governorates that provided strength in term of time, specificity and sensitivity in in that diagnosis of TB Mycobacterium and the identification of strains that are resistant to first line anti-TB drugs.

*IAs aimed within the **UNDAF** the project works on strengthening provision of TB care at primary health care level and expansion of the NTP to reach the whole population; the program contributes to UNDAF priority number 4 that focuses on "Increased access to quality essential services"*

- *Health system that supports primary health care to ensure basic services that meet the needs of the individuals and the society; controlling of communicable disease outbreaks and improving access to quality health services by transforming a hospital-oriented system to service delivery at primary health care (PHC) levels.*
- *Development and management of health human resources, forecasting, management and logistics of medical supplies and commodities; de-concentration of functions between national and sub-national levels; and monitoring and support mechanisms for service delivery at the PHC level.*

*(4.3) Government of Iraq has enabled improved access to and utilization of quality Primary Health Care services for all people in Iraq*

*Indicator 4.3.10 Proportion of tuberculosis cases detected and cured under directly observed treatment short course (2008:43%, 2014:70%)*

Case Detection Rate (CDR) for TB in Iraq for 2013 was 59% with a total of 8883 cases detected and treatment outcome of 90% for patients enrolled in Directly Observed Treatment Short course (DOTS) in 2012.

*As for projects achievement towards the main outcome and output(s) expected as per the approved Country Programme Action Plan (CPAP) that provide overall direction to the project, which is; Enhanced capacity of GoI to address TB and HIV/AIDS including the delivery and usage of the Global Fund to Fight AIDS, TB and Malaria (GFATM) ; indicator Number of delivery points for TB and HIV services meeting (WHO/national) defined minimum and gender-sensitive standards, disaggregated by counselling/testing/antiretroviral treatment (2010: 0, 2014: 15)*

The project has supported the MoH and NTP to reach coverage of 128 Primary Health Care Centres in Iraq within all 19 Directorates of Health in Iraq, yet this expansion is still very challenging as the security situation

## II. Performance review

### Progress review

#### **CPAP outcome and output:**

The project has continued implementing activities of the GFATM grant as aimed in the CPAP, 489 health professionals, support staff and volunteers have been trained under the grant in 2013. Certification of the National reference Laboratory was sustained, Drug Resistance Survey (DRS) had continued during the year despite security restraints in some regions of the country. More laboratories were equipped with Microscopes to perform direct sputum microscopy, culture lab equipment to culture *Mycobacterium tuberculosis* and latest technology GeneXpert devices for real time PCR were purchased for another 6 governorates.

Involvement of the public and private non-NTP TB care providers was directly implemented by UNDP Iraq with a focus on governorate with less performance and a total of 1490 TB cases were referred to the NTP during 2013. Prison screenings were also conducted during the year and a total of 21 TB cases were found.

Another two vulnerable populations that the project targeted were the internally displaced populations (IDPs) and Marshland populations; 14 IDPs camps in Baghdad with total population 13850 and 28 days community awareness and screening events implemented in these camps in Baghdad during 2013. Another 8 IDPs camps in 4 governorates (Karbala, Babel, Diwaniya, and Wassit) with total population 9800 and 8 days community awareness and screening events implemented in these camps during 2013.

UNDP Iraq renovated three TB clinics in Sulimaniya, Duhok and Renovation of X ray rooms at 3 Prisons in Missan, Basra and Babel. Also the first federal specialized hospital to treat multi-drug resistant tuberculosis (MDR-TB) cases, located in Sulimaniya governorate was subjected to further renovation works in 2013 and this was followed by the official opening of the hospital on 9th May 2013 by H.E. Minister of Health (MoH) of the Kurdistan Regional Government (KRG) and the Director General of Primary health care from Iraqi Ministry of Health. Both the officials expressed their sincere gratitude to UNDP for all their efforts in rehabilitating, equipping the hospital with latest diagnostic tools and liaising with all stakeholders to finally open this federal hospital within the Kurdistan region.

#### **Capacity Development:**

A major focus of this project is to build capacity of the NTP and non-NTP staff to provide high quality TB care, summary of the capacity development trainings that have been conducted in 2013 are illustrated in (Table 1).

In addition to these trainings, the UNDP team designed an action plan to address needs in Kurdistan Region of Iraq (KR-I) to find solutions for gaps within TB control of the region that have been leading to poor performance of the program in the region, this action plan was approved for funding by GFATM and is planned to be implemented in 2014.

Also as part of the UNDP's role as a principle recipient of the grant, UNDP Iraq contacted a firm to conduct a capacity assessment for the sole two national implementers within the project; NTP and the Iraqi Anti-TB Associated (this is an NGO that is currently a SSR of the grants working with the IDPs). According to these assessments the project team has designed a capacity development plan, for each of these two entities. These two plans are still subject to GFATM final approval and will be implemented late 2014.

**Impact on direct and indirect beneficiaries:**

Although the project focuses on TB care service delivery but it also impacts reform within the health system on both central level and on primary health care level, this is due to the need of a strong infrastructure for the health system in addition to a strong health system itself.

**Table 1: Capacity Development activities - 2013**

	Type of trainings	Type of participants	Attendance	Planned participants	Achievement percentage
1	Direct Smear Microscopy (introductory and refresher)	Lab technicians	144	60	240%
2	TB culturing and Drug Sensitivity Testing (introductory and refresher)	Lab technicians	64	73	88%
3	TB management for Physicians (introductory and refresher)	Physicians	246	227	108%
4	TB management for health staff (introductory and refresher)	Health staff	243	227	107%
5	Monitoring and Evaluation (introductory and refresher)	Statistics staff	78	243	32%
6	TB Drug Management for Pharmacy	Pharmacists and health staff working in the Pharmacy departments	46	N/A	N/A
7	TB Management training in Sondalo Italy	Physicians	4	4	100%
8	LPA equipment TB	Lab technicians	3	N/A	N/A
9	External Quality Assessment and Drug Sensitivity Training in Egypt	Physicians and Lab technicians	4	4	100%
10	PPM-DOTS training on the governorate level	Physicians and Surgeons	240	235	98%
	MDR case management (introductory and refresher)	Physicians and health staff	40	N/A	40



## Implementation strategy review

### **Participatory/ Consultative Process:**

The increased presence of the GFATM team within the country after relocation of the UNDP Iraq inside the country has had a massive impact on communication between the organization and GoI, specifically NTP. Also the assignments of three UNDP officers within the National TB Institute has ensured adequate engagement and follow up on the project activities and the needs of the NTP.

Two semi-annual TB review meetings have been conducted in 2013 to review progress of activities, TB trends, performance of governorates; also all stakeholders are invited and present their contribution to the project. By the end of these meeting recommendations are raised for different implementers and accordingly amendments are made to the original work plan within boundaries of the donor and UNDP regulations.

In addition to 34 tri-annual governorate TB review meetings, these meetings include: director general and/or deputy generals of the directorate of health, medical school professors, hospital coordinators and physicians, NTP district coordinators, directors of health at the district and governorate level, and TB clinic health staff.

### **Quality of partnership:**

Due to the relocation of both UNDP and WHO Iraq within the country, this limited the human resources available for UNDP and WHO because of the high cost for the presence of international staff within the international zone in Baghdad, therefore the WHO focal person for the GFATM project along with the majority of the team that were working within this project had left leaving a large void and significantly affected the performance of WHO as a SR to the grant and technical partner. As result UNDP GFATM team have been taking burden of many activities that have been relocated from WHO Iraq to UNDP.

### **National Ownership:**

As mentioned in the section above increased presence of UNDP Iraq in the country has enhanced communication between UNDP and NTP, this has led to more joint planning and decisions. On a lower level since the start of the project the end implementers of any training has been the NTP in terms of instructors and knowledge.

### **Sustainability:**

The project's plans to increase capacity of the NTP through its work plan and capacity development had ensured compliance to the goal of enabling GoI to eventually relay on its own human resources and with the multiple renovation works the project has been able to strengthen the infrastructure of the NTP and also equip with the basic and also the latest of technology. It is also worth mentioning that the GoI have already started depending on national resources to purchase first line drugs and second line drugs starting 2013.

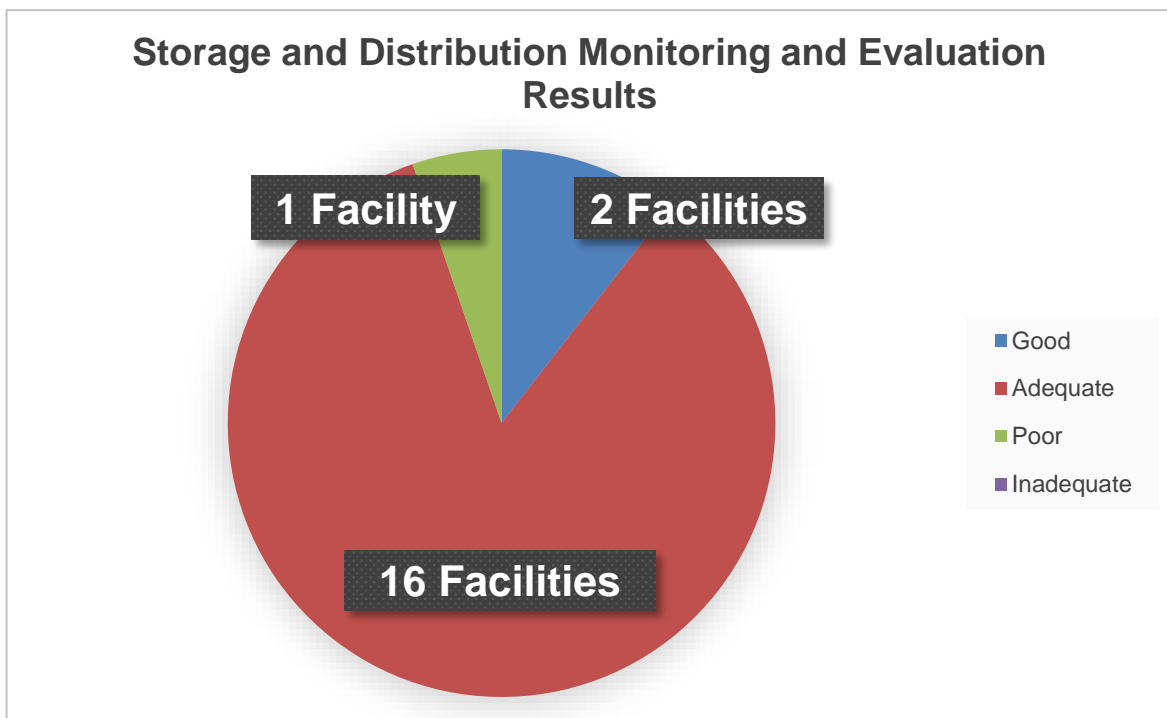
## Management effectiveness review

### 1. Quality of monitoring

UNDP recognizes that The availability, efficacy, safely and good quality of anti-TB drugs sustainability are achieved by the efforts of multiple health directorates through effective regulations and several activities that are needed to meet the required sustainability to improve good treatment outcome.

Human resources with the necessary skills to meet the good practices in the drug management cycle; that includes proper storage and distribution, based on well-established legislations is essentials and monitoring and evaluation of all the related activities and the provision of guidance and support are required to minimize the problems that can lead to the interruption of supplies and will ensure the present of high quality treatment.

Accordingly UNDP team in coordination with NTP conducted 15 filed visits and 4 phone assessment (due to security reasons) to the Chest and Respiratory Specialized Diseases Centre and to the Chest (CRDC) and Respiratory Diseases Consultation Clinics (CRDCC) at the governorate level which have the main warehouses for each governorate to assess the storage and distribution procedures of anti-TB drugs and lab items. The assessment study was implemented through data collection using a developed questionnaire that has been designed to meet the objectives of the assessment and face to face discussion with the responsible and working staff at each location. The result of the visits was as illustrated in the following chart:



Further details of the assessment can be found in the attached report (Annex 1).

Based on the findings and results several recommendations were submitted to the NTP to be considered in order to improve the work practices in addition to the development of a standard operation procedures (SOPs) that covers all the aspects of the storage and distribution of the anti-TB drugs and lab items.

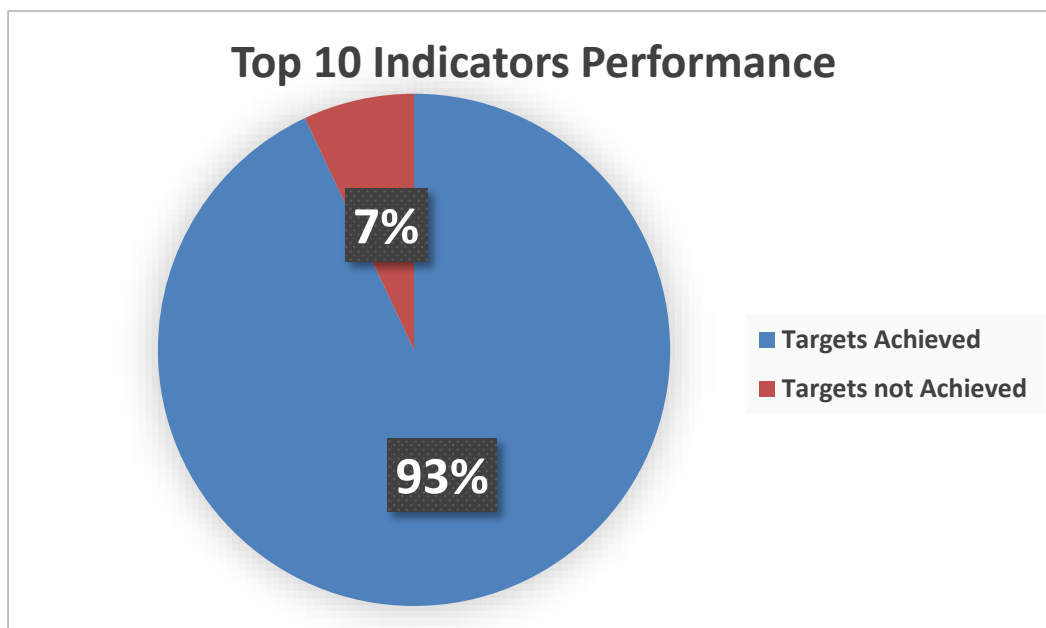
As a respond to the recommendations submitted, several actions have been conducted by NTP improve the work through following up and addressing the recommendations through endorsing the SOPs that has been developed, planning to provide more training for the related staff to empower their skills and working to improve the infrastructure.

## 2. Timely delivery of outputs

Most of the activities have been mostly achieved and the delay in reaching some targets mostly due to the delayed in implementation and late start of phase 2 and signing of agreements with SRs as clearly illustrated in the table below.

GF has described the performance of the project in the IRQ-T- UNDP: Progress Review of Period 13 As "Overall performance for the second semester of the second implementation period was rated A2." (1 July - 31 December 2013) (Annex 2).

Indicators (Top 10 Indicators)		Target	Verified result	Results %
1	Number of new smear positive TB cases detected under DOTS	3,362	2,738	81%
2	Number of laboratory-confirmed MDR-TB enrolled in second line anti-TB treatment	58	38	66%
3	Number of laboratory-confirmed MDR-TB under treatment who converted culture to negative in 6 months (Laboratory confirmed)	37	32	86%
4	Number of PHCCs supported and involved in DOTS	60	151	120%
5	Number of lab technicians trained in direct sputum smear microscopy	40	124	120%
6	Number and percentage of all forms of TB Patients successfully treated (cured plus completed treatment) among the all TB forms patients registered (New All New Forms+ Relapse)	8,415	7,873	102%
7	Number and percentage of districts and Governorates TB clinics submitting timely and complete reports according to National Guidelines using M&E TB Management database.	45	33	73%

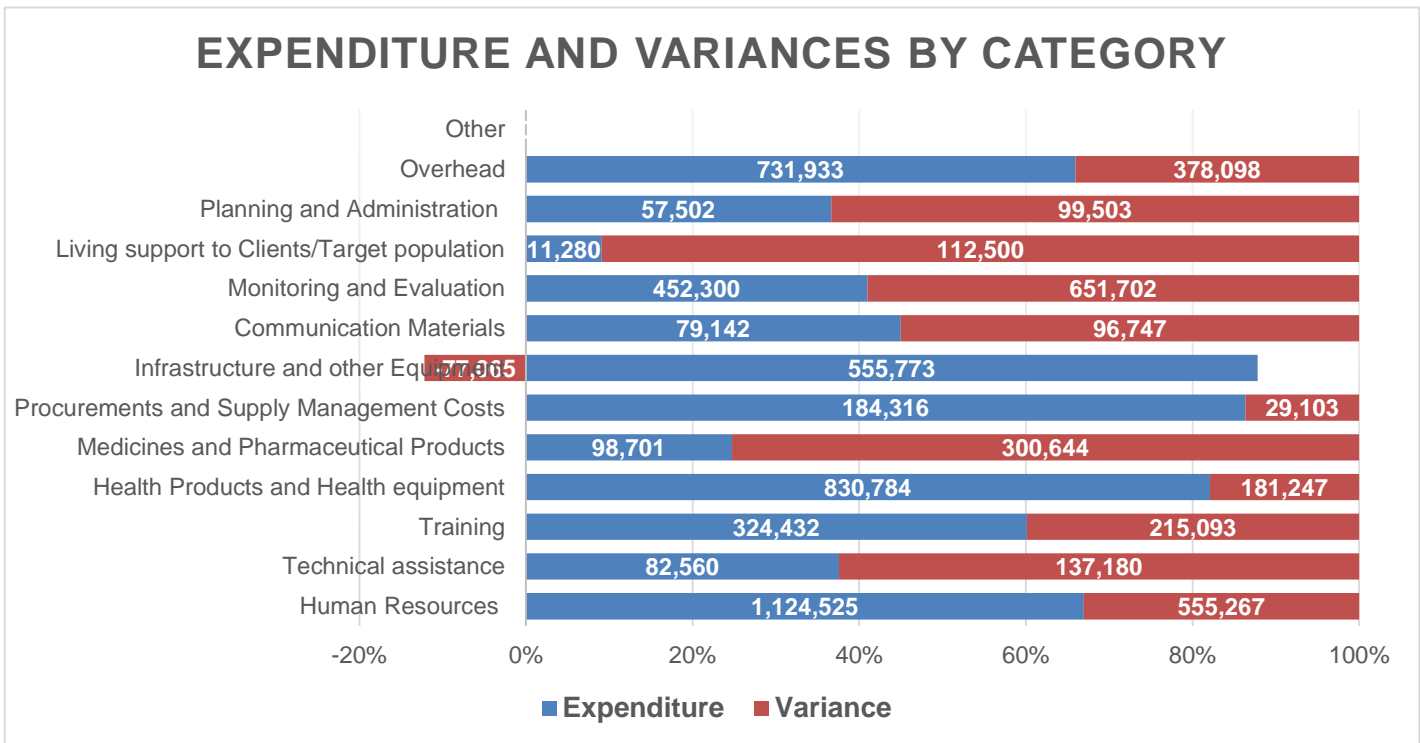
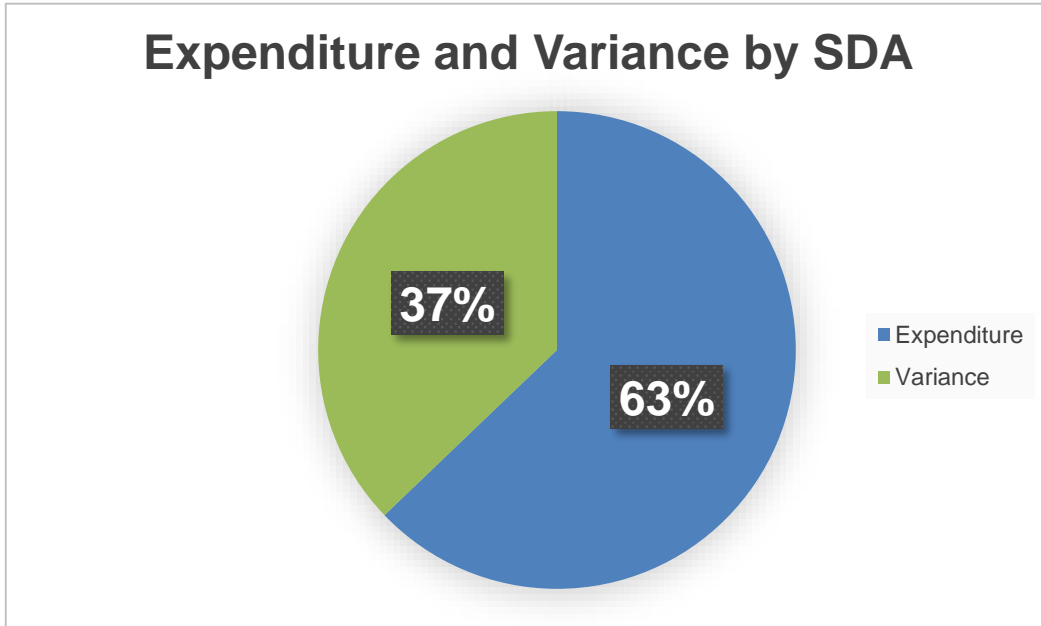


### 3. Resources allocation

PR/SR	Name	Budget (USD)	Expenditure( USD)	Variance (USD)	Comments
PR	UNDP	3,980,780.51	3,123,622.35	857,158.16	-----
		2,426,482.73	897,999.00	1,528,483.73	
		371,770.01	335,404.80	36,365.21	
		151,467.90	61,119.80	90,348.10	
SR	WHO	282,765.87	115,101.48	167,664.39	\$ 167,664 variance is due to delayed implementation of PPM activities due to late start of phase 2 and inability to find suitable SR. In August 2013, UNDP starting implementation of PPM activities directly
Total (USD)		7,213,267.02	4,533,247.43	2,680,019.59	

## 4. Cost-effective use of inputs

SDA	Budget (USD)	Expenditure (USD)	Variance (USD)	Comments
SDA1.1 : Expansion of Quality Assured TB Diagnostic and treatment services	2,349,629	1,852,832	496,797	Despite overspending was recording but the delayed implementation due to late start of phase 2 and signing of agreements with SRs, delayed payments for completed Activities by SRs and actual Savings contributed to this variance.
SDA 1.2 : Interventions among high risk population groups	610,310	343,725	266,585	Despite overspending was recording but the delayed implementation due to late start of phase 2 and signing of agreements with SRs, delayed payments for completed Activities by SRs and actual Savings contributed to this variance.
SDA 1.3: Engagement of the non-NTP private and Puplic Sectors in the TB control programme	282,766	115,101	167,664	Variance due to delayed implementation of PPM activities due to late start of phase 2 and inability to find suitable SR.
SDA 1.4 : operation's Research and Impact Measurement	107,606	31,668	75,938	Variance is due to ongoing operational research studies by WHO
SDA 1.5 : Grant Management by SR & PR	1,862,540	1,225,274	637,266	Despite overspending was recording but the delayed implementation due to late start of phase 2 and actual Savings contributed to this variance.
SDA 2.1: Quality Assured laboratory Services for DR-TB	862,819	735,095	127,723	variance is for training of staff on MDR-TB programmatic and case management due to delayed implementation due to late start of phase 2 and signing of agreements
SDA 2.2: MDR-TB Specific Human Resources Development	72,800	36,670	36,130	Variance is for training of staff on MDR-TB programmatic and case management due to delayed implementation due to late start of phase 2 and signing of agreements
SDA 2.3: MDR-TB Drug Management	418,907	114,372	304,535	Variance is for procurement of SLDs related shipping cost and testing of pharmaceuticals for Quality Control by UNDP
SDA 2.4: Monitoring and Evaluation of MDR-TB Program	330,942	32,251	298,691	Variance is for ongoing DRS by WHO
SDA 2.5: MDR-TB case management	145,980	11,280	134,700	Variance due to the delayed implementation due to late start of phase 2
SDA 2.6: SR Grant Management	168,969	34,979	133,990	Variance is for UNDP and WHO overhead cost
<b>Total (USD)</b>	<b>7,213,267</b>	<b>4,533,247</b>	<b>2,680,020</b>	



### III. Project results summary

As stated in the project document the following are the four outputs of the project with related activities under each output:

**Output 1:** Case Detection Rate of Smear Positive (SS+) TB cases increased from 43% to at least 70% by 2014 and high treatment outcome among detected cases maintained: Result was **8883**

**1. Activity Result:** Expansion of quality assured TB diagnostic and treatment services:

Action	Result
Expand TB diagnostic services for sputum smear microscopy within the existing PHC system	<ol style="list-style-type: none"> <li>Expansion in DSM labs into 284 lab in 2013 that marked the increasing of 47 DSM labs comparing to 2012(237 labs in 2012).</li> <li>One culture lab was established and the total number of culture labs at the end of 2013 is 12 (11 labs in 2012).</li> <li>Passed the international proficiency tests (PT) in 2012 (Waiting for PT in 2013).</li> <li>Implementation of PT for 284DSM and PT for 10 culture lab in 2013</li> <li>Provision of technical assistant for the NRL by an International Expert was conducted in April 2013, this marked the first International Expert visit since 1999.</li> <li>Updating and reviewing the National TB lab manual.</li> <li>Erbil, Najaf and Basrah labs had been selected as regional lab for the Northern, Southern and Middle Euphrates regions respectively.</li> </ol>
Enhance the Quality Assurance for TB microscopy laboratories	Total no of TBMU lab examined in this activity were 266 in all Iraq; 242 labs had passed and 24 labs had not passed
Improved diagnostic services by Chest X-Ray	10 Chest X-ray devices handed to NTP along with maintenance of all devices provided through GFATM grant to the NTP
Human Resources Development and Capacity Building	489 health professionals were trained on DOTS.
Procurement and supply management of TB drugs	46 Pharmacist were trained in two workshops for procurement and supply management of TB Drugs
Advocacy, communication and Social mobilization	<ul style="list-style-type: none"> <li>- One National Stop TB Partnership meeting was conducted in Baghdad</li> <li>- No dissemination of health information through the media</li> <li>- No printing of health education materials</li> <li>- Community events conducted in 62 districts during Q1 and Q2 2013 to increase community awareness about TB disease.</li> </ul>

	<p>While in Q3 and Q4 symposium on TB control for teacher (health coordinator) conducted at schools in districts.</p> <ul style="list-style-type: none"> <li>- Commemoration of World TB Day at National Level was conducted in Basra governorate as a national event in March 2013.</li> </ul> <p>ACSM activities as illustrated previously were under-achieved due to WHO human resources insufficiency.</p>
<p>Monitoring and Evaluation</p>	<ul style="list-style-type: none"> <li>- Conduction of 28 supervisory (12 in 1<sup>st</sup> half and 16 in the 2<sup>nd</sup> half) visits from NTP central level to 18 governorates (Central level Supervisory Visits). The main challenge was the security situation that denied the covering of all governorates and implementing the monitoring and evaluation plan (mainly in Ninewa, Anbar, and Salahdeen).</li> <li>- Conduction of 256 biannual supervisory visits (150 visits in the 1<sup>st</sup> half and 106 visits in the 2<sup>nd</sup> half of 2013 ) from 18 governorates Respiratory and Chest Consultations Clinics to 128 health districts in all Iraq (Governorate level Supervisory visit);</li> <li>- Conduction of by annual supervisory trips from 188 districts to 1922 PHCC facilities; Total of 612 visits conducted in first half of 2013 (Q1:333 and Q2:279). Total of 654 visits conducted in 2nd half of 2013 (Q3:330 and Q4:324).</li> <li>- Evaluation of pilot phase of Web TBS workshop; WEBTBS was implemented in 6 governorates: Baghdad, Karbala, Bebel, Diwaniya, Missan, and Duhok, the implementation faced many obstacles as below: <ul style="list-style-type: none"> <li>▪ Internet access is provided through (Zain company) modem at Clinic and district levels, which were of low speed and weak signal with subscription by charging cards.</li> <li>▪ The loading of WTBS windows are heavy and one patient data entry consume about one US dollar.</li> <li>▪ Many times the user names and password are deleted from the users list, I don't how.</li> <li>▪ There are new districts established or large district is divided in 2 districts that's need to revise the districts name.</li> <li>▪ In some districts in many governorates and even by using my user names the</li> </ul> </li> </ul>



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Strengthening NTP's program implementation capacity	<ul style="list-style-type: none"> <li>- There are two types for staff working in NTP to implement NTP activities in Iraq under WHO contacts have been provided to NTP during 2013 (5 Professional and supportive staff)</li> <li>- high speed Internet and air time for mobile phones was provided for NTP and 19 Governorate Respiratory and Chest Diseases Clinics</li> <li>- Rehabilitation of two TB governorate clinics at Duhok and Sulimaniya, insurance of mobile clinics was done</li> <li>- Conduct Capacity Development Need Assessment and preparation of Capacity Development Plans for NTP and IATA was done</li> <li>- Renovation of X ray rooms at 3 Prisons in Missan, Basra and Babel</li> </ul>

**2. Activity Result: Enhance TB interventions among high risk population groups**

Action	Result
Improve TB services in prisons	Clinical examination and sputum collection from prisoners for DSM screening conducted in 26 prisons; Baghdad (12), Basra (2), Najaf (1), Karbala (1), Babel (1), Thi-Qar (1), Diwaniya (1), Anbar (1), Wassit (1), Muthana (1), Missan (1), Kirkuk (1), Salahdeen (1) and Erbil (1). There were difficulties in implementation of screening project in many prisons because of security situation and warnings given after repeated events of prisoners escape. In addition screening project could not be implemented in Duhok and Sulimaniya governorates.
Expand TB services to Marshland Population	<ul style="list-style-type: none"> <li>- Number of health education materials distributed at each diagnostic TB health centre of:                      Basra and its related districts: <b>1,734</b>                      Thi-Qar and its related districts: <b>1,251</b>                      Missan and its related districts: <b>1,628</b></li> <li>- Number of community health volunteers trained on TB control with focus on: awareness raising, TB Contacts management and tracing of defaulters) in Basra and its related districts: <b>190</b>                      Thi-Qar and its related districts: <b>135</b>                      Missan and its related districts: <b>182</b></li> <li>- Number of community events organized in Basra and its related districts: <b>67</b>                      Thi-Qar and its related districts: <b>20</b>                      Missan and its districts: <b>29</b></li> </ul>

	<ul style="list-style-type: none"> <li>- Number of community members attended the community events in Basra and its related districts:<b>216</b> Thi-Qar and its related districts:<b>432</b> Missan and its related districts:<b>465</b></li> <li>- Number of supervisory visits conducted by AMAR to 8 districts in Basra:<b>18</b> To 6 districts in Thi-Qar:<b>15</b> To 4 districts in Missan:<b>25</b></li> <li>- Number of contacts of smear-positive TB patients reported by the community health supporters among the contacts of the new smear-positive TB patients reported to Basra and its related districts: 76 Thi-Qar and its related districts:37 Missan and its related districts: 46</li> </ul>
Expand TB services to IDPs	
Ensure proper investigation and care for TB contacts	

**3. Activity Result:** Engagement of the non-NTP private and public sectors in the TB Control Programme

Action	Result
Strengthen Public Private Mix on DOTS Pre-service training on DOTS	<ul style="list-style-type: none"> <li>-12 trainings were conducted for 235 private practitioners with an average of 50% increase in knowledge of TB from pre and post assessments</li> <li>-PPM guidelines were developed as result of 5 workshops</li> <li>-Printing of PPM referral forms, 235 referral books (each book consists of 50 pairs of sheets) have been distributed to be used by non-NTP public and private sector.</li> <li>-Supervision plan for the PPM was developed and endorsed and it has been scheduled to be conducted in 2014</li> </ul>
conduct Operation research	6 operational research studies were planned in 2013 from the grant after approval of EMRO and scientific committee in Iraq MOH; 04 of them completed that are; (1) Prevalence of latent and symptomatic Tuberculosis among prisoners in Diwaniya and Babil governorates/ Iraq, (2) Molecular epidemiology and genotyping of Mycobacterial tuberculosis Isolates from Baghdad, (3) Risk Factor Related to Causation of TB in Slums and Marshland Population and (4) Active case finding for household contacts of Tuberculosis patients in Baghdad city. We are waiting to receive their final reports.

**Output 2:** Universal access to diagnosis, treatment and care for Drug-Resistant TB (DR-TB) facilitated

<b>1. Activity Result: Diagnosis of DR-TB cases</b>	
<b>Action</b>	<b>Result</b>
Quality assured laboratory services for DR-TB, MDR-TB case finding	<ul style="list-style-type: none"> <li>- Lab equipment worth 370,038 was procured and handed to the NTP</li> <li>- Logistic support for transportation of samples from peripheral labs to intermediate culture labs and to NRL was provided</li> <li>- Additional Renovation work at MDR Hospital in Sulimaniya were done</li> </ul>
<b>2. Activity Result: MDR-TB specific human resources development</b>	
<b>Action</b>	<b>Result</b>
Basic and refresher Training courses	- 40 were trained on MDR-TB programmatic and case management
<b>3. Activity Result: MDR-TB drug management</b>	
<b>Action</b>	<b>Result</b>
procurement of Second Line Drugs	This was provided
Quality Assurance for TB drugs through sampling and testing abroad	12 types of anti-TB drugs of different batch numbers had been through sampling and testing abroad. All the drugs have been found to be of very good quality.
<b>3. Activity Result: Monitoring and Evaluation of MDR-TB program</b>	
<b>Action</b>	<b>Result</b>
Develop and print Recording and Reporting forms	Due to availability of MDR TB recording forms, available budget to train the paramedical staff of Ibn-Ulzher Hospital on MDR-TB programmatic and case management and due to anticipation that actual DR-TB management in these hospitals will start soon this training for 10 participants was organized. This training took place in Ibn-Ulzher Hospital for 10 participants on 1-3 Dec 2013.
National TB Drugs Resistance Survey	<p>National Drug Resistance Survey started with first TOT workshop for the National DRS-research coordination team implemented in May 2013. 20 participants trained which will represent steering committee and central coordinating team who will lead DRS study 5 training activities for all governorates implemented for the National team on Oct, all staff technically trained on their work on aims, eligibility, logistics, and forms filling, any defect observed centrally is immediately followed by feedback and requests for clarification or to do amendments.</p> <p>With the support of consultant meeting with NTP for development implementation operational plan for the period 17-27 September, 2013 and on the 1st of Nov, 2013 the study survey started in all governorates.</p>

Engage Green Line Committee to provide technical assistance to the MDR program of Iraq	Done
<b>4. Activity Result: MDR-TB case management</b>	
<b>Action</b>	<b>Result</b>
Provision of food and transportation allowances for MDR-TB patients	80 MDR-TB patients received food and transportation allowances
Training of treatment supporters for MDR-TB patients	Because of difficulty to implement this activity due to various reasons, NTP staff requested to shift the budget to the MDR training activity.
<b>Output 3: National HIV/AIDS strategic plan developed and resources mobilization efforts supported</b>	
<b>Action</b>	<b>Result</b>
National Strategic Plan (NSP) on HIV/AIDS endorsed	one meeting for endorsement of the National Strategic Plan (NSP) on HIV/AIDS was conducted January 2013
<b>Output 4: Administrative Support to the Country Coordination Mechanism (CCM) provided</b>	
<b>Action</b>	<b>Result</b>
Recruit a CCM coordinator and one secretary to provide admin support	One CCM coordinator was recruited for administrative support to the CCM

## IV. Implementation challenges

### **Risks and actions:**

As mentioned earlier both UNDP-Iraq and WHO-Iraq main offices were relocated back to Baghdad, this relocation had implications on the project. In terms of UNDP, there was an increased presence in-country and coordination with the national counterparts. But with the departure of the majority of the WHO-GFATM team upon the in-country relocation, the performance of this SR witnessed a large decline which effected the implementation of certain interventions like the Advocacy Communication and social mobilization, printing and production of various health education materials.

This also resulted in extra burden on UNDP GFATM project team, with little time remaining to conduct sufficient supervisory visits and to complete and update the database for GFATM assets in the country (physical verification of assets and tagging assets).

The ongoing deteriorating security situation in some governorates has led to decrease of activity in those governorates which resulted in poor performance like Anbar Governorate.

Low political commitment of from directories of health in governorates had also been among the major reasons in low performing governorates.

### **Project Issues and actions:**

A major issue the project and NTP were facing in general was the performance of TB control in KR-I, therefore an assessment was made by visits to all three TB governorate clinics in the region to devise an action plan and target the factors impeding the progress in these three governorates.

## V. Lessons learnt and next steps

### Lessons learnt

In managing the grant and implementing the activities there are several issues that faced during 2013:

- Deterioration of the security situation in 2013 provided inaccessibility to some districts which prevent conducted some of the activities that has been planned.
- Delayed implementation due to late start of phase 2 and signing of agreements with SRs had reflected on delay implementation or postponing of some activities to next year.
- Due to the relocation of both UNDP and WHO Iraq within the country, this limited the human resources available for UNDP and WHO because of the high cost for the presence of international staff within the international zone in Baghdad, therefore the WHO focal person for the GFATM project along with the majority of the team that were working within this project had left leaving a large void and significantly affected the performance of WHO as a SR to the grant and technical partner.
- As a result of the previous point; UNDP GFATM team have been taking the burden of many activities that have been relocated from WHO Iraq to UNDP.
- Delay in the reporting from NTP and some SRs that indicated delays in UNDP reporting.

### Recommendations

- NTP departments lacks the updated written guidelines and manuals related to TB management and accordingly several guidelines and manuals covering different aspects of TB management have been recommended to be developed, printed and distributed to improve case management.
- Monitoring and evaluation for the private practitioners that have been trained within the PPM-DOTS training is needed to be implemented, the monitoring and evaluation will provide an insight to the practices that have been followed by these practitioners in relation to TB case management, establishing contact with the PPM sites to create close coordination with them to maintain and encourage the continuous partnership, collecting data from private practitioners regarding TB suspects identified during 2012-2014, follow up the referral procedures (to which NTP sites, so as to cross-check registers) and addressing any problems or issues needed to facilitate and improve PPM partnership.
- Developing of a National TB Control Strategic Plan (NSP) in 2014 to address the period of 2015 – 2019. The new NSP will fully expresses the needs based on current situation if maximum control of TB is to be achieved by 2019 and to be as a guide for the actions of the Ministry of Health, as well as all decision-makers and implementers within the government, and in the non-governmental sector, both national and international, whose duties touch on TB control in the country. It should be the main guide for funding agencies considering investment for TB control in Iraq during the same period.

## Annexes

1. Annex 1 (Storage and Distribution of the anti-TB drugs and lab items).
2. Annex 2 (Global Fund Management Letter / April 16<sup>th</sup>, 2014- MENA/2014/MS/AAN/IRQ-T-UNDP/D6/ML).





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## ABBREVIATION

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<b>CRDC</b>	<b>the Chest and Respiratory Diseases Center</b>
<b>CRCC</b>	<b>the Chest and Respiratory Consultations Clinic</b>
<b>DoH</b>	<b>Directorate of Health</b>
<b>GF</b>	<b>the Global Fund</b>
<b>GDPs</b>	<b>Good Distribution Procedures</b>
<b>GSPs</b>	<b>Good Storage Procedures</b>
<b>HS</b>	<b>Health Sector</b>
<b>MoH</b>	<b>Ministry of Health</b>
<b>NTP</b>	<b>National Tuberculosis Program</b>
<b>PHCC</b>	<b>Primary Health Care Center</b>
<b>SOPs</b>	<b>Standard Operation Procedures</b>

## **Summary of the assessment of the storage and distribution system in 18 governorates of Iraq.**

**Introduction:** The availability, efficacy, safely and good quality of anti-TB drugs sustainability are achieved by the efforts of multiple health directorates through effective regulations and several activities that are needed to meet the required sustainability in order to reach country goals in improving good treatment outcome.

Human resources with the necessary skills to meet the good practices in the drug management cycle; that includes proper storage and distribution, based on well-established legislations is essentials and the key element to prevent or minimize the problems that can lead to the interruption of supplies and will ensure the present of high quality treatment.

**Methods:** The study was conducted through 15 field visits and 4 phone assessment to the Chest and Respiratory Diseases Center and the Chest and Respiratory Clinics at the governorate level which have the main warehouses for each governorate. The assessment study was implemented through data collection using a developed questionnaire that has been designed to meet the objectives of the assessment.

**Results:** The sum of the storage and distribution practices score was categorized into four types: (score of 0-25 as Inadequate, 26-50 as Poor, 51-75 as Adequate and 76-100 as Good). CRDC was categorized as *Adequate*, 2 categorized as *Good*, 15 CDCCs were categorized as *Adequate* and 1 CDCC was categorized as *Poor*.

**Conclusion:** The average overall adequacy of good storage and distribution practices that had been founded during this assessment ensure the proper delivery of the treatment at all the levels, nevertheless improvement is required at some points.

## Introduction

IRAQ has adapted the global targets for Tuberculosis (TB) control set by the World Health Assembly in 1991, which are to detect 70% of new (i.e., incident) sputum smear-positive cases arising annually and to successfully treat 85% of those detected. The TB control target set by the United Nations Millennium Development Goals is a worldwide reduction in TB incidence by 2015.

TB notifications in Iraq increased slightly in 2008–2010 and as case detection rates continues to increase, it is imperative that country maintains a sufficient and well managed supply of anti-TB drugs to uphold treatment outcome success rate target of 85%. The National TB Program (NTP) utilizes grants of Global Fund (GF) to purchase anti-TB drugs, laboratory items and tuberculin. Being the major components of Direct Observed Treatment Short course (DOTS), an uninterrupted and sustained supply of quality-assured anti TB drugs is fundamental to TB control.

Poor drug management is the major impediment in functioning of effective drug logistic management system. The regular supply, distribution and good storage of anti-TB drugs and laboratory consumables along with other objectives are required to improve TB control.

This study aims to improve logistic management system of anti-TB drugs to address gaps in the management and distribution system.

## Objectives of the assessment

The objectives of the assessment is to determine the status of anti-TB drugs storage facilities and the distribution procedures to determine the requirements needed to ensure that Standard Operation Procedures (SOPs) are implemented within the drug management cycle in Iraq. The objectives can be summarized in four points:

1. Identify the strength and weakness in the storage and distribution system that being followed in the following sectors:
  - Receiving
  - Storage space and condition
  - Human resources
  - Distribution
2. Identify the requirements to achieve Good Storage Procedures (GSPs) and Good Distribution Procedures (GDPs).
3. Recommendations for intervention to work on the requirements needed to meet the necessary GSPs and GDPs.
4. Develop a national guideline for SOPs that will ensure:
  - a. GSPs

## b. GDPs

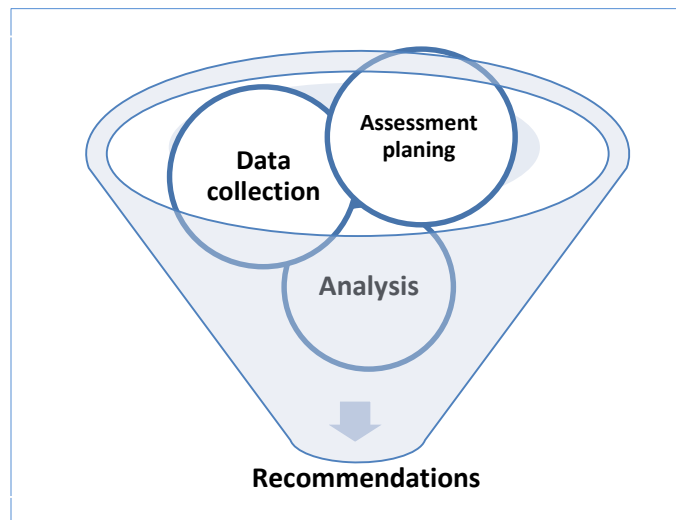
### The focus of the assessment

1. Assessment of the warehouse infrastructure at central and governorate levels, filing and reporting systems and develop storage guidelines.
2. To assess distribution system for TB drugs including the assessment of capacity of vehicles used by each of the governorates.
3. To examine capacity of cold chain transportation (for Tuberculin and some Lab items).
4. Identify causes of expiry, presence of obsolete and damaged drugs as well as actions to avoid the same in the future.
5. Develop SOPS for storage and distribution of TB drugs throughout the supply chain

## Methodology

### The bases of the methodology

1. Evaluate the storage and the distribution system in terms of facilities and human resources.
2. Review the procedures and legislation that are followed.
3. Examine how are the storage and distribution activities being carried out and it they meet their objectives.



Figures 1: Assessment process consists of 4 parts

### Assessment

The assessment process consists of 4 steps (figure 1):

1. Assessments planning: several meetings were conducted with NTP for the purpose of coordination, participation of NTP in the assessment and having official approvals.

2. Data Collection: A questionnaire was developed (ANNEX 1) to collect all the relative information regarding the storage and distribution process. Field visits and phone assessment were conducted to collect the information and meet with the responsible persons. 14 governorates were field visited and 4 governorates were contacted through phone contact and e-mail to conduct the assessment.
3. Data analysis: A scoring system was designed to transfer the questionnaire into measurable data that will contribute to the analysis of the assessment.
4. Recommendations

### Data collection

The study was conducted through 15 field visits and 4 phone assessment (chart 1). The Chest and Respiratory Diseases Center (CRDC) in Baghdad and 14 Chest and Respiratory Consultation Clinic (CRCC) in Baghdad, and 14 Chest and Respiratory Consultation Clinics (CRCCs) at the governorate level were visited; these CRCCs (with exception to Baghdad / Karkh CRCC) considered to be the main points of the storage and distribution of anti-TB drugs and laboratory items at each governorate. The assessment study was implemented through data collection using a developed questionnaire that has been designed to meet the objectives of the assessment. The questionnaire consists of 5 sections that cover all the aspects of the storage and distribution system (Receiving, storage of anti-TB drugs, storage of the laboratory item and human resources), each section composed of several questions used to test and assess different and important issues related to each category.

The answers for the questionnaire were obtained by direct observation to the storage site and discussion with the director of the CRCC and the staff responsible for the storage and distribution management during the field visits to the governorates. Phone contact assessment, receiving the photos of the storage areas and filling of the questionnaire that have been sent by the e-mails by the Director of the CRCC in cooperation with staff responsible for the storage and distribution management was the methods that used to collect the information from the governorates that were not visited. Official approvals from the MoH and NTP were obtained. During the assessment 39 working staff were interviewed and phone contacted for filling the questionnaire as they are directly involved in the storage and distribution management and follow up (Directors of CRCCs, Pharmacists, Pharmacists assistant and Medical assistant).

### Data analysis

The collected data that has been obtained were analyzed by

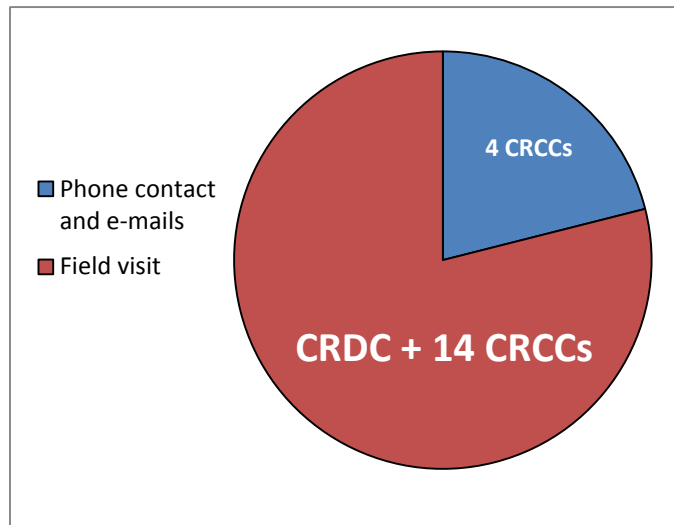


Chart 1: Methods of assessment

using of scoring system that was designed to ensure that the GSPs and GDPs will have the high scoring points and according to the priority of these practices and their effect on the storage and distribution. The maximum score for each section of the questionnaire is illustrated in (Table 1); the sum of all the questions scores will be 100. Descriptive analysis was computed as tables, graphs and charts. The Storage of anti-TB drugs were given the highest scoring criteria because it contains different important aspects as condition of the storage area, stock follows up and dealing with expiratory and damaged drugs.

Category	Maximum score
1 Receiving	10
2 Storage of anti-TB drugs	47
3 Storage of lab items	21
4 Distribution	12
5 Human resources	10
Total	100

Table 1: score of each section of the questionnaire

### Results: Baghdad Central warehouses

**Availability of anti-TB drugs, laboratory items and tuberculin:** There were no drug shortages at the store; the essential anti-TB drugs (1st line and 2nd line) were available and can cover the needs. The annual country drug needs

estimation is submitted once a year. Laboratory items and tuberculin were available.

**Forecasting and need assessment:** There is adequate forecasting currently being done at central and governorate level. The annual country drug needs that are calculated depending on the epidemiological studies done at the governorate level improve to be accurate and the availability of all the items and drugs reflect this accuracy.

**Receiving of anti-TB drugs:** the CRDC receives the supplies irregularly through the year, the supplies will undergo primary checking for accuracy and completeness of the documents (release order –RO- and the invoice) when receiving the supplies from MoH. Physical inspection of the supplies to count down the boxes is the main them of receiving. At the receiving site; a committee is formed to be responsible for receiving the items, physical inspection is conducted and visual inspection to identify damages to the drugs and items is not usually preformed, damaged items that might be discovered later (during the stocking) will be reported to MoH and further steps are taken accordingly (isolation of the damaged drugs, finding the causes of damage and replacement). Names of the items, quantities, batch and expiry date are recorded and kept with the original RO and the invoice.

**Storage of anti-TB drugs and tuberculin:** The central warehouse is about 48m<sup>2</sup> and about 240m<sup>3</sup> and in term of space. The central warehouse was inadequate in term of space as about 70% of the area was occupied at the time that most of the governorates had received their 3rd quarterly share regarding the 1st line of ant-TB drugs and 4th bimonthly share regarding the 2nd line of anti-TB drugs. In order to overcome this; some of anti-TB drugs were stored in other area designated to serves as a storage area of drug shares of the outpatient clinic in the center which includes also the main office of the pharmacy department where all the documents related to the both stores kept there.

The warehouse lacks shelves and the supplies were arranged in blocks –of different numbers of columns and rows- over floor pallets, each block consists of the same type of supplies where large labels on the boxes of the supplies showing name of the drugs, batch number and expiry date are very clear. The staff of the warehouse manages to have adequate equipment needed to facilitate the work inside the warehouse. The warehouse was adequately ventilated, humidity and lightening were good. Although the temperature was adequate at the time of the assessment due to the present of electricity and air conditioning unit, but at the end of working hours in the center the electricity will be cut off (according to MoH instructions to prevent electrical fault that might causes fire) and the air conditioning unit will stop working leading to

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increase the temperature in the warehouse. Adequate security measures against theft were good and automatic fire alert and automatic fire fighting systems are installed and well-functioned.

The storage of Tuberculin is taking place in specific refrigerator and temperature is being followed up. The laboratory items and equipment are stored in a separated. The items are arranged on floor pallet, no labels showing the name of the items and expiry date were attached. Although the temperature, humidity and ventilation was adequate, but as the electricity cut off the temperature and humidity will be increased.

**Stock follow up:** Count and determine the number boxes or items physically available at the store and compare to the number of boxes or items that have been previously recorded in the last stock follow up registration and determine discrepancies between stocks as per physical count and the last stock registration record is the usual procedures that are conducted in the stock follow up twice monthly.

All the ROs, invoices and prescriptions are reviewed during the stock follow up that are conducted regularly after sending supplies to the governorates and twice monthly. Records of the stock follow up are kept in specific files that are very well organized, kept up-to-date and dependable. Unfortunately visual and physical inspection of the supplies during the stock follows up to identify damages is not always done due to poor access to all of the supplies because of the crowding.

**Expired drugs:** accuracy of forecasting and the strictly followed FEFO policy make the incident of having expired drugs nearly null. If expired drugs are expected then the *Transfer* of drugs among CRCCs in different governorates and among Health Sectors (HSs) and among Primary Health Care Centers (PHCCs) is the main process to reduce the incidents of expired drugs and ensure maximum benefits of drugs by other CRCCs, HSs and PHCCs.

If the later process failed then the expired drugs will be isolated and notification to the MoH / pharmacy department to take the necessary steps (investigation of the causes and destroyed of expired drugs)

**Transportation and distribution:** Central warehouse delivers the anti-TB drugs from the main MoH warehouses within 24 hrs – 72hrs by non-specific vehicles that have the minimal requirement for the protection of anti-TB drugs and items. The distributions from the central warehouse to the governorates are arranged by the coordination between the health staff from both parties and the transportation of anti-TB drugs is also conducted by non-specific vehicles with the same specifications mentioned above. The transportation of Tuberculin is conducted exclusively through specific vehicles

that have cooling system and protection from direct sun light or the using of cool boxes.

The drugs have been regularly supplied to the governorate level on as quarterly and bimonthly shares regarding the 1st line and the 2nd line of anti-TB drugs respectively based on the epidemiological studies of each governorate and current storage status with an extra 10% (if applicable) to cover any expected increase of demands. The tuberculin and laboratory items are distributed irregularly based on the consumption of each governorate.

**Human resources:** There are 8 health staff workers (4 pharmacists are among the workers) responsible of the storage, supplying of shares and stock follow up at the central warehouses which is adequate according to them. All of the key staff has specific job descriptions but they are performing shared tasks and handling responsibilities more than what they were employed to do. Many of the staff has had a formal training in drug cycle management.

**Policy documents:** There are various MoH instructions and guidelines that cover all the aspect of the drug management cycles and logistics, all the employments passed undergo trainings and guiding by their older and highly experienced colleagues when they have been introduced to their new position and tasks. Despite that there were no written policy guidelines seen during the assessment but there are various MoH instruction that have been sent on different occasions and regarding several issues related to the drug cycle management and it has been very clear that each one of the staff is very oriented and capable to deal with different issues related to the work.

**Supervision:** There are direct personnel at the NTP and MoH level responsible for undertaking supervision and monitoring of drug storage and distribution. The last supervision visit was conducted by MoH / the General Inspector Office in June 2013. No defects or recommendations were mentioned in the reports only observations of good work practice were mentioned.

#### Results:

The overall storage and distribution systems regarding the anti-TB drugs, laboratory items and tuberculin are *adequate*.

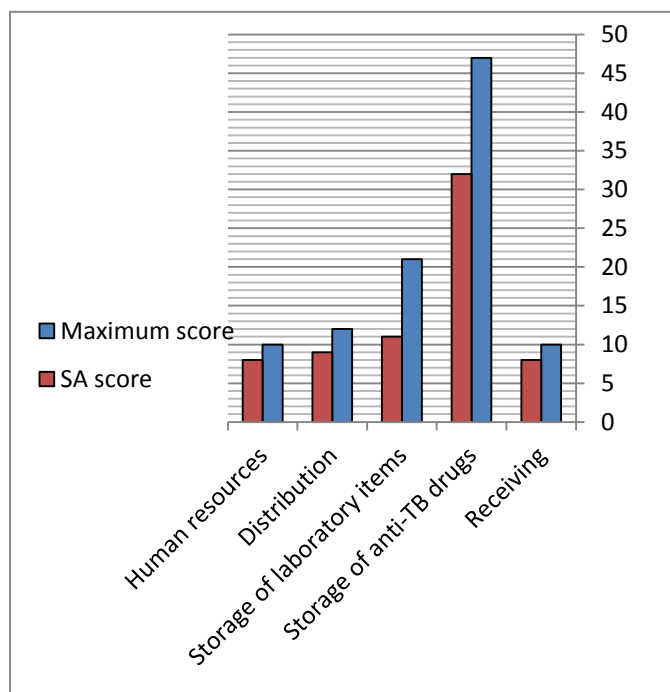
The main findings can be briefed in that:

- No shortage was recorded regarding the drugs, laboratory items and tuberculin.
- Steps followed in receiving the drugs and items are typical.
- The storage area allocated for storage is inadequate in term of space.
- The stocking of items and despite that the boxes were

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rested on each other that might cause damage to the lower rows; was adequate taking into consideration the small space allocated for the storage.

- The environmental conditions of the storage areas are adequate in the presence of the electricity and ranging from adequate to poor when the electricity cut off.
- Distribution procedures are adequate, regular and controlled by well-established system and no problems have been recorded.
- Human resources are effective.



The overall score of the storage and distribution system at the CRDC

#### Results: Governorates

**Availability of anti-TB drugs, laboratory items and tuberculin:** 1<sup>st</sup> lines of anti-TB drugs were available and no shortage was recorded in 17 CRCCs and shortage was recorded in 1 CRCC due to mismanagement (expired drugs). 2<sup>nd</sup> lines of anti-TB drugs were available in 12 governorates and none were available in 6 governorates because there were no recorded MDR patients or the MDR patients are traveling to the CRDC in Baghdad to receive their treatment and follow up management (culture is not available at their CRCCs). Laboratory items were available and no shortage were recorded in 18 CRCCs in all the governorates with the exception that 1 CRCC reported that their laboratory items being received from its Directorate of Health (DoH) and the CRCC in that governorate did not receive laboratory items from

the CRDC since 3 years. (CRDC confirmed that all the laboratory items allocated for this governorate were received by its DoH and because these items delivered from the DoH to the CRCC the director expected that these items are from the DoH and not CRDC)

Tuberculin was available in 17 CRCC and shortage was recorded in 1 CRCC, furthermore all the governorates were notified by CRDC to receive their shares from the Tuberculin at time coincided with the assessment and any shortage is expected to be cover.

**Forecasting and need assessment:** adequate forecasting is done at all the governorates that explain the no shortage status in all the governorates regarding the 1<sup>st</sup> line and 2<sup>nd</sup> line of anti-TB drugs (with exception to 1 governorate where shortage was recorded in 1<sup>st</sup> line of anti-TB drugs due to mismanagement as mentioned in previous paragraph). The shares are allocated for each governorate depending on their epidemiological study plus extra 10% (if applicable) and their current anti-TB drugs storage status. The CRCCs prepare their data in cooperation with the HSs and the PHCCs under their responsibilities which is regularly updated and submitted to CRDC quarterly at the time of receiving the shares using special excel sheet developed by the pharmacy department in CRDC.

After reviewing the data submitted by the CRCCs; the pharmacy department in the CRDC allocates the share for each governorate.

The CRCCs can ask for requests additional items supply for anti-TB drugs or other items from CRDC because their drugs or items are insufficient to meet the needs by providing details in support of the supplementary requirement.

**Receiving of anti-TB drugs by the CRCCs:** the CRCCs are receiving their shares of 1<sup>st</sup> line and 2<sup>nd</sup> line of anti-TB drugs (if the governorate has MDR patients receiving drugs from its CRCC) on *quarterly* and *bimonthly* bases respectively. The shares were used to be distributed every 6 months during the previous years but this has been modified to the previously mentioned schedule to have better control on drug distribution, close follow up and to prevent the distribution of large quantities of anti-TB drugs to the governorates that can create shortage in the main warehouse and mismanagement due to increase demands (i.e. increase cases detection, relapse,...etc.) in one governorate and decrease demands in other governorates (patients not receiving treatment, death,...etc.) that can create lost in time in the process of transfer of drugs from one location to another.

The pharmacy department in CRDC is preparing the RO and the invoice or the DoH is it is responsible for receiving the share based on the original RO and invoice that contains the name of the drugs and their quantities; no expiry date or batch number of the drugs is recorded in these receipts. The invoice of 17 governorates include the name of the drugs and

their quantities and only invoice of 1 CRCC (ANNEX 2) which prepared by its DoH includes the name of the drugs, their quantities, expiry dates and batch number, the DoH in this governorate is responsible for receiving the share from the CRDC. The invoices of supplying tuberculin contain the quantity, expiry date and batch number.

At the time of receiving; the supplies will undergo primary checking for accuracy and completeness of the documents (release order –RO- and the invoice) when receiving the supplies from MoH. Physical inspection of the supplies to count down the boxes is the main them of receiving. At the receiving site; a committee is formed in all the CRCCs to be responsible for receiving the items, physical inspection is conducted and visual inspection to identify damages to the drugs and items is not usually preformed, damaged items that might be discovered later (during the stocking) will be reported to CRDC and further steps are taken accordingly (isolation of the damaged drugs, finding the causes of damage and replacement). Names of the items and quantities are recorded and kept with the original RO and the invoice in 18 CRCCs (batch number is recorded in 1 CRCC and batch number and expiry date are recorded in 1 CRCC) . All the related document and data records are very sensitive process that are carefully conducted and kept in in specific files and are reliable for revision in all the governorates.

The tuberculin and laboratory items are received irregularly depending on the availability of the tuberculin and laboratory items. The shares are designed according to the consumption of these items in the CRCCs. Laboratory items and Tuberculin will go under extensive check during receiving, RO, invoice and data records of the supplies also kept in specific files that are dependable and reliable.

**Storage of anti-TB drugs and tuberculin:** the storage area is adequate in term of space in 18 CRCCs.

There are 3 types of areas designed as a storage area for the anti-TB drugs storage:

1. Separated room allocated to store anti-TB drugs that does not have any connection to other departments was seen in 6 governorates
2. An extension room to the pharmacy where it shares the same entrance with it and there is connection door separated the two rooms was found in 6 governorates.
3. The anti-TB drugs stored in the pharmacy of the CRCCs in 2 governorates.

Anti-TB drugs were stored in simple pallet racks, cupboards and in boxes over floor pallets in 18 CRCCs. Clear labels that contain the name of the drug and the expiry date attached to the shelves or to the boxes in the storage area and the pharmacy were found in 13 CRCC and labels were attached to some shelves or boxes of anti-TB drugs storage area and in the pharmacy or were unclear in 5 CRCCs.



Anti-TB drugs are stored in a simple pallet rack where clear labels showing the name of the drug and expiry date are attached to each shelf.

Regarding the condition of the storage area; the following table (Table 2) contains the evaluation of the environment in the governorates:

Category	Good	Adequate	Poor	Inadequate
Temperature	5*	13	0	0
Ventilation	7	8	1	2
Humidity	6	12	0	0
Lightening	13	5	0	0

\* No. of governorate

Table 2: Environment evaluation of the anti-TB drugs storage

The temperature and humidity evaluation was based on the presence of air conditioning units that are working during the normal daily work hours, the temperature ranged between 25c° to 34c° at the time of the assessment, but due to MoH instructions that stated that the electricity should be cut off from air conditioning after the end of daily working hours to prevent electrical fault that may lead to fire (2 incidents of fire due to electrical fault were recorded in 2 governorates but the incidents were not related to the storage area). Security measures against theft were good in all the CRCCs, fire automatic alarm system was installed in 1 CRCCs only, no automatic fire fighting system was installed in any CRCCs and fire extinguisher was available in all CRCCs and is regularly checked to ensure it is working properly and no accidents

were recorded previously.

Thermometer was installed in 9 CRCCs; 2 of them were electronic and they record both the temperature and humidity. The tuberculin stored in refrigerators in all the governorates



Electronic records of the temperature and humidity

where the temperature is closely followed up to ensure proper temperature. The laboratory storage area is separated or as extension room in 14 CRCCs and the laboratory items were found to be stored in the laboratory or unspecific area in 4 CRCCs. The laboratory items storage areas were founded to be adequate in term of space in 11 governorates, inadequate in 4 governorates and sometimes exceed the storage capacity of the storage area in stored in 3 CRCCs.

The condition of the laboratory items storage was good in 2 CRCCs, adequate in 14, poor in 2 and inadequate in 1 CRCC. The organizing of items was well in 2 CRCCs, adequate in 12 and not well organized in 4 CRCCs. In the later the items were stored in different unspecific areas in some CRCCs.

The security measures against theft and against fire (fire extinguisher) are adequate in 18 CRCCs and good in 2 CRCCs regarding the measures against fire (automatic fire alarm system was installed in ach one).

**Stock follows up:** Count and determine the number boxes or items physically available at the store and compare to the number of boxes or items that have been previously recorded in the last stock follow up registration and determine the discrepancies between stocks as per physical count and the last stock registration record is the usual procedures that are conducted in the stock follow up. All the ROs, invoices and





Two photos illustrated the difference between well-organized storage of laboratory items and inadequate organization taking into consideration that both storage area have the same size

prescriptions are reviewed during the stock follow up that are conducted:

1. Irregularly (every 2-3 days) in 3 CRCCs.
2. Regularly (monthly and quarterly) in 15.
3. In addition to the previous two, stock follow that is conducted by a committee from within the CRCCs that includes the director of the CRCC suddenly during every week in 18 CRCCs.

Records of the stock follow up are kept in the files that are very well organized, kept up-to-date and dependable. Unfortunately visual and physical inspection of the supplies during the stock follows up to identify damages is not always done due to poor access to all of the supplies because of the crowding. All the records of the supplying of HSs, stock follow up and daily consumption of drugs are paper based in 16 CRCCs and computerized in 2 CRCCs.

**Expired drugs:** accuracy of forecasting and the strictly followed FEFO policy make the incident of having expired drugs nearly null also in the CRCCs. If expired drugs are expected then the *Transfer* of drugs from one CRCCs to another CRCC in other governorates or among HSs under its responsibility is the main process to reduce the incidents of expired drugs and ensure maximum benefits of drugs by other CRCCs, HSs and PHCCs. This process is conducted in coordination with the DoH at that governorate and not CRDS. If the later process failed then the expired drugs will be isolated and notification to the MoH / pharmacy department to take the necessary steps (investigation of the causes and destroyed of expired drugs)

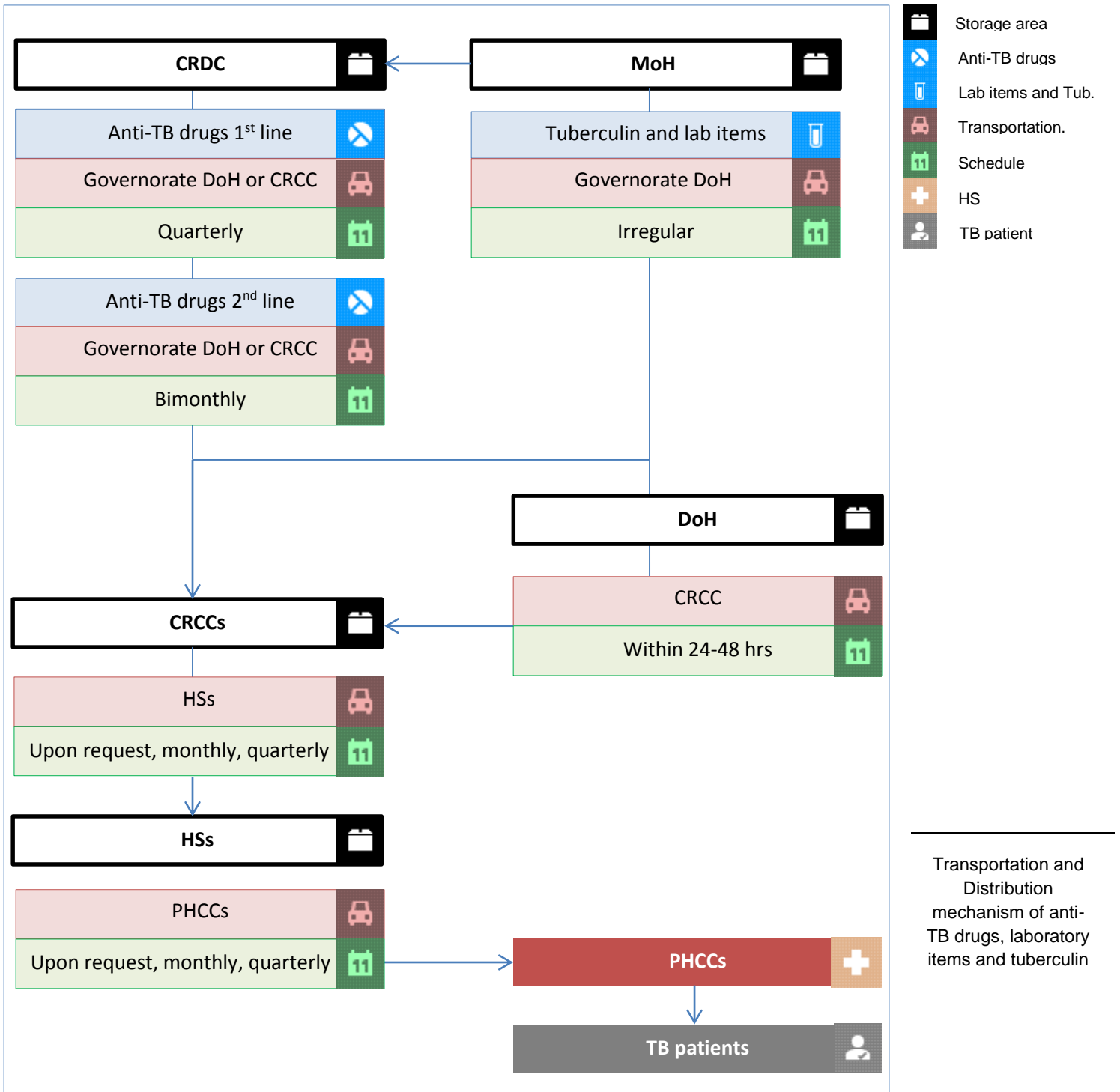
**Transportation and distribution:** 13 CRCCs deliver the anti-  
September 19, 2013

TB drugs from the main MoH warehouses within 24– 72hrs by non-specific vehicles that have the minimal requirement for the protection of anti-TB drugs and items. DoH at 5 governorates is responsible for delivering the anti-TB drugs to their stores within 24– 72hrs after receiving request from the CRCC, delays of delivering anti-TB drugs (by the later path) were recorded once in 1 CRCC.

CRCCs distributed the shares to the HSs under its responsibility depending on their epidemiological data quarterly in 9 CRCCs and monthly in 3 CRCCs and irregularly in 5 CRCCs according to the requests of the HSs (*the rule is that the CRCCs, HSs and PHCCs must have 6 months, 3 months and 1 month coverage of anti-TB drugs respectively*). The HSs can request additional items supply for anti-TB drugs or other items from CRCC because their drugs or items are insufficient to meet the needs, the request consist only of the drugs and quantities requested and CRCC has to approve the request according to their data that it is related to that HSs. (ANNEX 3)

The delivery of the of the anti-TB drugs shares are the responsibility of the HSs which are arranged by the coordination between the health staff from both parties and the transportation of anti-TB drugs is also conducted by non-specific vehicles with the same specifications mentioned above.

Laboratory items and Tuberculin are received from the MoH main warehouses; DoH / pharmacy department in each governorate is responsible for delivering the laboratory items and Tuberculin after receiving notification for the availability of the share from CRCC of the governorate, then CRCC is responsible for delivering the shares from the DoH warehouses.



The distribution of the laboratory items and tuberculin is conducted irregularly and depends on the availability of the items. The transportation of Tuberculin is conducted exclusively through specific vehicles that have cooling system and protection from direct sun light or the using of cool boxes. The CRCCs are responsible for delivering the laboratory items and tuberculin from the DoH, the delivery is conducted within 24-48hrs in all the governorates.

**Human resources:** The number of medical staff working in the storage area and pharmacy department varies from one governorate to another and they are sufficient in 12 CRCCs and can be improved in 6 CRCCs. Pharmacists are working in the pharmacy department who some of them are responsible for the storage, distribution and stock follow up of anti-TB drugs and tuberculin in 7 CRCCs while pharmacist assistants or medical assistants are the responsible persons in 11 CRCCs. All of the key staff have specific job descriptions but they are performing shared tasks and handling responsibilities more than what they were employed to do. Majority of the staff has had a formal training in drug cycle management.



Training certificate of participation of a medical staff responsible for the storage in *managing medicine and pharmaceutical supplies for TB*

**Policy documents:** There are various MoH instructions and guidelines that cover all the aspects of the drug management cycles and logistics, all the employments passed undergo trainings and guiding by their older and highly experienced colleagues when they have been introduced to their new position and tasks. Despite that there were no written policy guidelines seen during the assessment but there are various MoH instructions that have been sent on different occasions and regarding several issues related to the drug cycle management and it has been very clear that each one of the staff is very oriented and capable to deal with different issues related to the work.

September 19, 2013

**Supervision:** There are direct personnel at the CRDC, MoH level and governorates' DoHs responsible for undertaking supervision and monitoring of drug storage and distribution. All the CRCCs have been visited once (during the previous 3 months) by different parties for the purpose of monitoring and evaluation. No defects or recommendations were mentioned in the reports only observations of good work practices.

## Results

The following are the summary result (total score can be seen in (ANNEX 5):

1. Every incoming share is checked physically at the time of receiving while visual inspection to identify damages to the drugs is not usually performed in the 18 CRCCs.
2. Records of the names of the drugs and quantities of the received shares are conducted in 18 CRCCs and the records of above mentioned in addition to batch number and expiry date is conducted in 2 CRCCs.
3. Separated anti-TB storage areas are recorded in 8 CRCCs. Separated Laboratory items storage area are recorded in 12 CRCCs
4. Storage areas capacities are adequate in term of space in 18 CRCCs regarding anti-TB drugs and in 11 CRCCs regarding the laboratory items.
5. The average overall conditions of the storage areas are *adequate* in 18 CRCCs.
6. Tuberculin is stored in specific refrigerators and temperature is being followed up closely in 18 CRCCs
7. The anti-TB drugs storage area is well organized in 10 CRCCs and adequate in 8 CRCCs. Laboratory items storage area is well organized in 2 CRCCs, adequate in 12 CRCCs and not well organized in 4 CRCCs.
8. Clear labels showing the name of the drugs and expiry date are available in 18 CRCCs
9. Updated stock records are performed regularly in 15 CRCCs and irregular in 3 CRCCs. *Sudden* stock follow that is conducted by a committee is done weekly.
10. Paper based inventory mechanism is used in 18 CRCCs in addition to computerized base in 2 CRCCs
11. The overall security measures are adequate in 18 CRCCs.
12. Distributions to HSs are regular in 12 CRCCs and irregular in 5 CRCCs.
13. Vehicles with minimal requirements of appropriately controlled temperature and humidity and protection from rain and direct sunlight are used for the transportation in 18 CRCCs.
14. Tuberculin is transported using appropriate vehicles with cooling system and protection from direct sun light or cool boxes in 18 CRCCs.
15. The majority of the medical staff responsible for the

storage and distribution had participated in trainings regarding the drug cycle management.

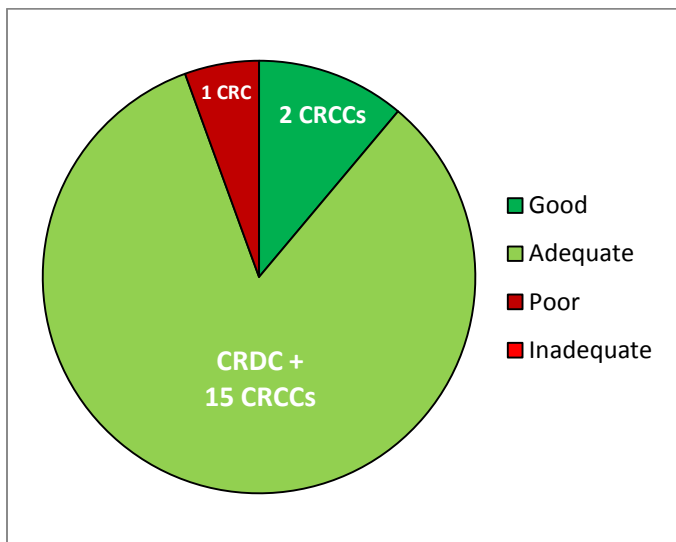


Chart 2: Results of the assessment

## Rehabilitation

There were 3 CRCCs that have been assessed and they are located in temporarily locations as their permanent buildings were under rehabilitation the new buildings designed to meet all the standards requirements for a specialized medical clinic and one of them is developed to be a small hospital that has emergency room, admission rooms and the outpatient clinics. The storage areas have been improved in term of space and adequacy.

2 CRCCs are expected to move to their new location within one month and the 3<sup>rd</sup> one is expected to move to the new location before the end of this year.

## Recommendations:

---

1. The records of the receiving items should include the name of the drugs, quantities, batch number and expiry date.
2. Visual inspection should be encouraged and must be performed if the seal and or exterior suggest damage, shortage or if the damage and shortage have been recorded before.
3. It is highly recommended that CRCCs work to allocate one separated room to be the storage area; this room should be large enough to store the maximum quantities of items that are usually received. Separated room is needed to limit the access to the storage area to only authorized persons and should be locked when these persons are out of it.
4. Ceiling and side walls should preferably be insulated, ensuring that the increase in the temperature during peak summer due to cut off of electricity after the daily working hours does not result in damage to anti-TB drugs and other items sensitive to heat.
5. The CRCCs should install pallet racks or other simple shelves that are in line with the SOPs, the resting of boxes one each other can lead to sagging of the boxes in the bottom row, also this is recommended to improve the stocking of items in CRCCs with poor or inadequate organization of items.
6. Clear labels showing name of the drug and expiry date must be attached to all the boxes or the shelves.
7. Stock follow up should be conducted regularly and it is recommended to be on monthly bases.
8. Visual inspection is recommended to identify damage to the items must be performed during the stock follow up.
9. Anti-TB drugs must be stored in room temperature (24c° - 26c°) and because the storage area temperature is exceeding this range especially after the daily working hours due to the cut of temperature; random sampling of items must be sent to MoH Quality Control Laboratory CL to test for accuracy once during the period from May till September.
10. Fire alarm system must be installed in all the CRCCs and especially in the storage areas. Fire alarm system is cheap and can be easily installed.
11. Stock follow up should be conducted regularly on monthly bases and visual inspection should be encouraged and must be performed if exterior of the boxes suggest damage.
12. Computer software or simple excel sheet should be developed and used for items movement and stock follows up. Medical staff should have proper training on this software or sheet prior to implementation.
13. A form must be developed and used for the extra requests that are sometimes submitted by the HSs.
14. Vehicles have appropriately controlled temperature and humidity and protection from rain and direct sunlight must be used to transport anti-TB drugs.
15. Pharmacist must be available in the pharmacy department in each CRCC.
16. All the medical staff working the storage areas in CRCCs that did not participate in any training in drug cycle management is needed to attend such training to improve their capacity.
17. Policy documents and MoH legislations regarding the storage and distribution should be available in all the CRCCs to solve the problems or legal issues that might be faced.

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## ANNEXES

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- ANNEX 1**      **Assessment questionnaire**
- ANNEX 2**      **Invoice**
- ANNEX 3**      **Additional drugs request by HS**
- ANNEX 4**      **Scores of the CRDC and CRCCs**
- ANNEX 5**      **Photos**

**ANNEX 1: Assessment questionnaire**

Background information					
Name of the governorate:		Date of the visit:	dd	mm	y
Name of the facility:					
% covering of the governorate:					
Name of the participants in the assessment		Position			
1					
2					
3					
4					
5					

1 Receiving	
1.1	Does the health facility have a policy document for receiving of shares? Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know <input type="checkbox"/>
1.2	Every incoming share is checked at the time of receiving for accuracy and completeness of the documents Yes <input type="checkbox"/> No <input type="checkbox"/> Not always <input type="checkbox"/>
1.3	Visual and physical inspection of the share is preformed to identify damages to the drugs Yes <input type="checkbox"/> No <input type="checkbox"/> Not always <input type="checkbox"/>
1.4	Records of receiving include: Name of the drug <input type="checkbox"/> Quantities <input type="checkbox"/> Expiratory date <input type="checkbox"/> Patch no. <input type="checkbox"/>

2 Storage of anti-TB drugs	
2.1	Does the health facility have a policy document for storage activities? Yes <input type="checkbox"/> No <input type="checkbox"/> Don't know <input type="checkbox"/>
2.2	Does the health facility have separate warehouses? Yes <input type="checkbox"/> Extension room <input type="checkbox"/> No <input type="checkbox"/>
2.3	Is the storage capacity adequate to receive the shares Yes <input type="checkbox"/> No <input type="checkbox"/> Sometimes <input type="checkbox"/>
2.4	Size of the drug warehouse: ..... m <sup>2</sup>
2.5	The warehouse management ensures proper storage conditions: Temperature      Excellent <input type="checkbox"/> Adequate <input type="checkbox"/> Poor <input type="checkbox"/> Inadequate <input type="checkbox"/> Ventilation      Excellent <input type="checkbox"/> Adequate <input type="checkbox"/> Poor <input type="checkbox"/> Inadequate <input type="checkbox"/>

	Humidity	Excellent <input type="checkbox"/>	Adequate <input type="checkbox"/>	Poor <input type="checkbox"/>	Inadequate <input type="checkbox"/>
	Lightening	Excellent <input type="checkbox"/>	Adequate <input type="checkbox"/>	Poor <input type="checkbox"/>	Inadequate <input type="checkbox"/>
2.6	Proper monitoring devices are installed to follow the storage capacity?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Some <input type="checkbox"/>	
2.7	Adequate storage equipment available at the warehouse (e.g. pallet racks, trolleys, forklifts, refrigerators etc.)	Yes <input type="checkbox"/>	No <input type="checkbox"/>		

2.8	The storage areas are well organized (e.g., with specified block/bay, shelves)	Well org. <input type="checkbox"/>	Adequate <input type="checkbox"/>	No <input type="checkbox"/>	
2.9	Tuberculin is stored in refrigerators	Yes <input type="checkbox"/>	No <input type="checkbox"/>		
2.10	Clear labels showing name of the drug and expiry date are attached to the boxes or the shelves?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not for all <input type="checkbox"/>	
2.11	Updated stock records for the storage maintained	Regular <input type="checkbox"/>	Irregular <input type="checkbox"/>		
2.12	Visual and physical inspection is performed to identify damages to the drugs during stock follow up	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not always <input type="checkbox"/>	
2.13	Which inventory mechanism is used	Paper <input type="checkbox"/>	Computer <input type="checkbox"/>	Both <input type="checkbox"/>	
2.14	Describe the security measures (e.g., theft, fire etc.)	Good <input type="checkbox"/>	Adequate <input type="checkbox"/>	Weak <input type="checkbox"/>	
2.15	FEFO policy	Followed <input type="checkbox"/>	Not followed <input type="checkbox"/>		
2.16	Notification before the drug expiry dates is conducted:	> 9 months <input type="checkbox"/>	> 6 months <input type="checkbox"/>	> 3 months <input type="checkbox"/>	> 1 month <input type="checkbox"/>
2.17	Does the health facility have a policy document for dealing with expired/defective drugs?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Don't know <input type="checkbox"/>	
2.18	Are there expired/defective drugs found during this year?	Yes <input type="checkbox"/>	No <input type="checkbox"/>		

3 Storage of Laboratory items					
3.1	Does the health facility have a policy document for storage activities?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Don't know <input type="checkbox"/>	
3.2	Does the health facility have separate warehouse?	Yes <input type="checkbox"/>	Extension room <input type="checkbox"/>	No <input type="checkbox"/>	
3.3	Is the storage capacity adequate to receive the shares	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Sometimes <input type="checkbox"/>	
3.4	Size of the warehouse: .....m <sup>2</sup>				
3.5	The warehouse storage conditions:	Excellent <input type="checkbox"/>	Adequate <input type="checkbox"/>	Poor <input type="checkbox"/>	Inadequate <input type="checkbox"/>
3.6	The storage areas are well organized (e.g., with specified block/bay, shelves) and clearly labeled	Well org. <input type="checkbox"/>	Adequate <input type="checkbox"/>	No <input type="checkbox"/>	



3.7	Updated stock records for the storage maintained	Regular <input type="checkbox"/>	Irregular <input type="checkbox"/>
3.8	Visual and physical inspection is preformed to identify damages to the items during stock follow up	Yes <input type="checkbox"/>	No <input type="checkbox"/> Not always <input type="checkbox"/>
3.9	Which inventory mechanism is used	Paper <input type="checkbox"/>	Computer <input type="checkbox"/> Both <input type="checkbox"/>
3.10	Describe the security measures (e.g., theft, fire etc.)	Good <input type="checkbox"/>	Adequate <input type="checkbox"/> Weak <input type="checkbox"/>

<b>4</b>	<b>Distribution</b>		
4.1	Does the health facility have a policy document for distribution activities?	Yes <input type="checkbox"/>	No <input type="checkbox"/> Don't know <input type="checkbox"/>
4.2	Distribution schedule is:	Regular <input type="checkbox"/>	Irregular <input type="checkbox"/>

4.3	Specific and appropriate vehicles for transportation	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.4	For the transportation of tuberculin; The vehicles have cooling system and protection from direct sun light	Yes <input type="checkbox"/>	No <input type="checkbox"/> Sometimes <input type="checkbox"/>
4.5	Vehicles have appropriately controlled temperature and humidity and protection from rain and direct sunlight to transport anti-TB drugs	Yes <input type="checkbox"/>	No <input type="checkbox"/> Not always <input type="checkbox"/>
4.6	Problems faced during the distributions: Delays <input type="checkbox"/> Off roads <input type="checkbox"/> Long distance <input type="checkbox"/> Transportation <input type="checkbox"/> Security <input type="checkbox"/> Others <input type="checkbox"/>		

<b>5</b>	<b>Human resourses</b>		
5.1	Sufficient number of staff available to conduct and/or coordinate the storage and distribution activities	Strongly agree <input type="checkbox"/>	Agree, but can be improved <input type="checkbox"/> Disagree <input type="checkbox"/>
5.2	Does the staff participate in any training regarding the drug cycle management?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
5.3	There is an officially appointed person(s) or committee that are responsible for different activities	Yes <input type="checkbox"/>	No <input type="checkbox"/> Mixed tasks <input type="checkbox"/>
5.4	Pharmacists is among the staff	Yes <input type="checkbox"/>	No <input type="checkbox"/>
5.5	Does this overall management and coordination capacity appear to be adequate?	Strongly agree <input type="checkbox"/>	Agree, but can be improved <input type="checkbox"/> Disagree <input type="checkbox"/>

ANNEX 2: Invoice

2013-07-21

وزارة الصحة  
 دائرة صحة دھوك  
 قسم الصيدلة

**قائمة توزيع الأدوية**

رقم القائمة : 21330  
 التاريخ القائمة : 2013-07-21

المؤسسة الصحية : 4  
 مركز التدنن والأمراض المعدية

ت Sn	رقم المادة Code	الاسم التجاري TradeName	Comm	الكمية Quantity	الوحدة Unit	تاريخ التاريخ Expiry	رقم المادة Batch	سعر البيضة Price	المبلغ Value	ملاحظات Mark
اسم العملة دينار عراقي										
ANTI-BIOTIC 3 المخزون المجهز										
1	4454	RIFAM. 150MG+ISON. 75MG+PYRAZ. 400MG+ETHAM. 275M	T.B	8064.000	BLISTER	2014-11-01	GD1833	0.000		<input type="checkbox"/>
2	4443	RIFAMPICIN 150MG+ISONIAZID 75MG X28TAB.	T.B	12096.000	BLISTER	2014-11-01	GA18198	0.000		<input type="checkbox"/>
3	8555	ETHAMBUTOL 400MG X 1000TABLETS	T.B	2688.000	BOX	2015-07-01	ETA1007	0.000		<input type="checkbox"/>
4	*****	ISONIAZID 100MG TAB.	T.B	20000.000	BLISTER	2016-01-01	EW204A	0.000		<input type="checkbox"/>
5	94981	AKURIT KID(RIFAM.60MG+ISON.30MG)84TAB.	T.B	1680.000	PACK	2013-11-01	AL10021	0.000		<input type="checkbox"/>
6	94980	AKURIT-2 KID(RIFAMPICINE	T.B	1680.000	BLISTER	2013-11-01	AN10038	0.000		<input type="checkbox"/>
اسم العملة دينار عراقي										
مجموع العملة ANTI-BIOTIC 3 مجموع المخزون المجهز										

DOH / DUHOK  
Central Pharmacy  
(I Descriptions approved at  
Doh)

كشورنا شركة دھوك  
Dohok Consulant Clinic  
العيادة الاستشارية للأمراض المعدية  
Dohok

Dr. Abdulrahman L. Bakal  
PHYSICIAN  
R. Bakal

Certified By:  
Mirkhan N. Salih  
Pharmacy Dep. Manager

Voucher Prepared By:  
Pharmacist :

Consignment Prepared By:  
Storekeeper :  
عبدالله عمار

Name of Receiptant :  
Signature of Receiptant :

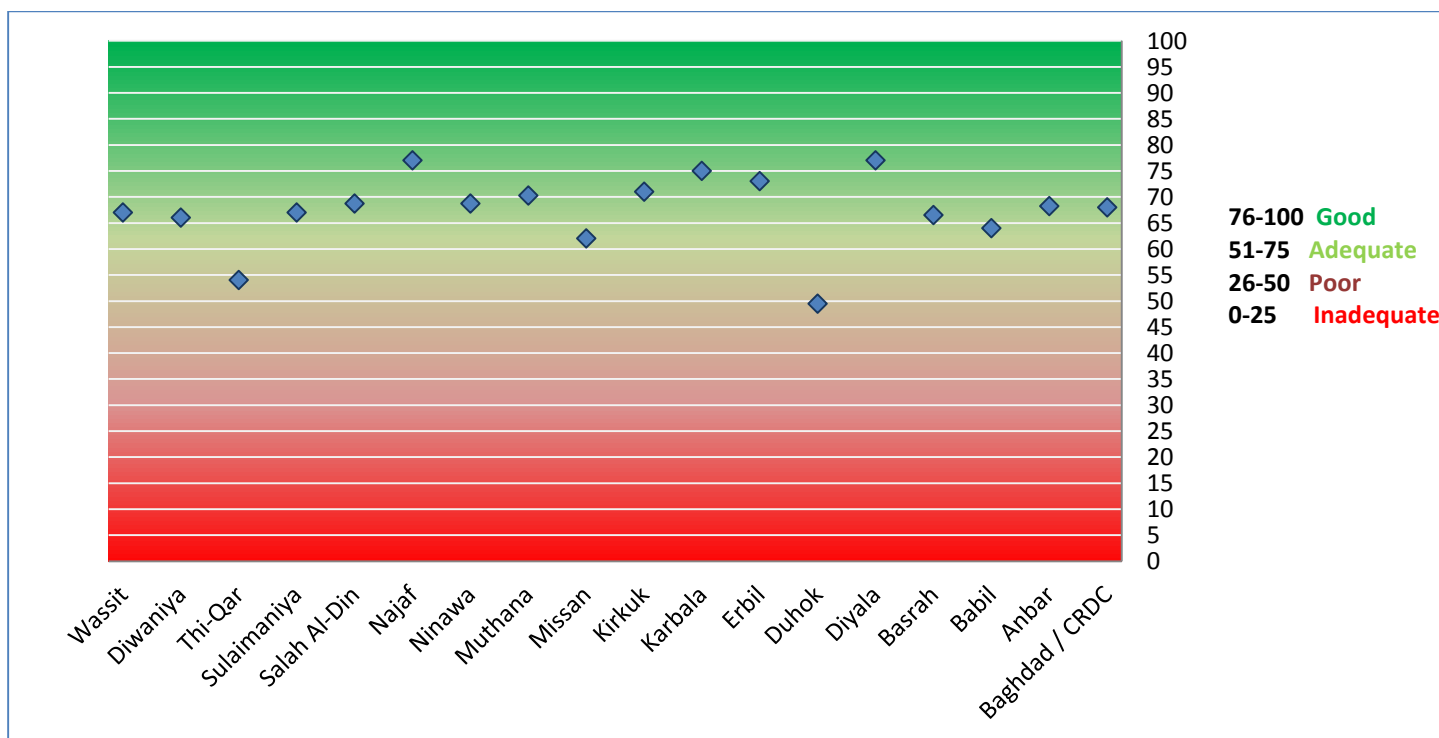
Page 1

The invoice of 17 governorates include the name of the drugs and their quantities and only this invoice of 1 CRCC which prepared by its DoH includes the name of the drugs, their quantities, expiry dates and batch number, the DoH in this governorate is responsible for receiving the share from the CRDC.



ANNEX 4: Scores of the CRDC and CRCCs

Governorate	Receiving	Storage of anti-TB drugs	Storage of Lab items	Distribution	Human Resources	Total score
Baghdad	8	32	11	9	8	68
Karbala	6	39	11	11	8	75
Babil	6	32	10	9	7	64
Diyala	6	37	14	11	9	77
Diwaniya	6	31	11	11	7	66
Najaf	6	42	10	9	10	77
Wassit	6	34	9	11	7	67
Thi-Qar	6	28	5	10	5	54
Sulaimaniya	6	36	9	10	6	67
Kirkiuk	6	36	10	10	9	71
Duhok	5	29	5	9.5	1	49.5
Erbil	6	41	5	11	10	73
Ninewa	8	34.75	11	7	8	68.75
Basrah	6	39	7	7.5	7	66.5
Missan	6	31	10	8	7	62
Anbar	7	34.75	14	6.5	6	68.25
Salahaldin	7	35.75	13	9	4	68.75
Muthana	7	32.75	13	10.5	7	70.25



ANNEX 5: Photos





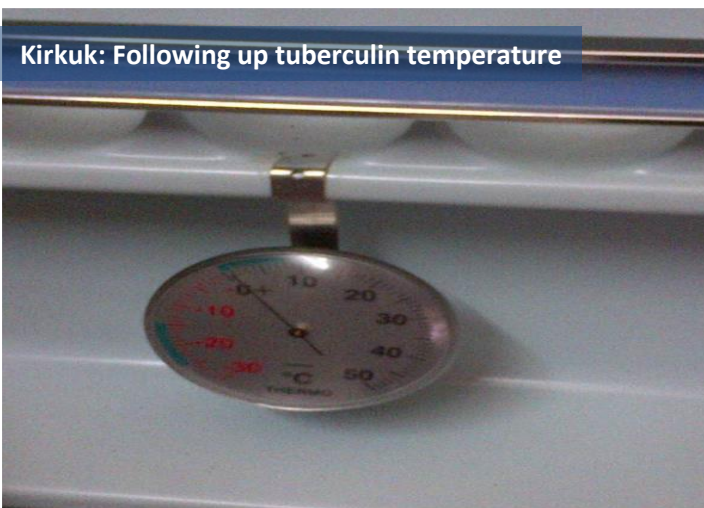
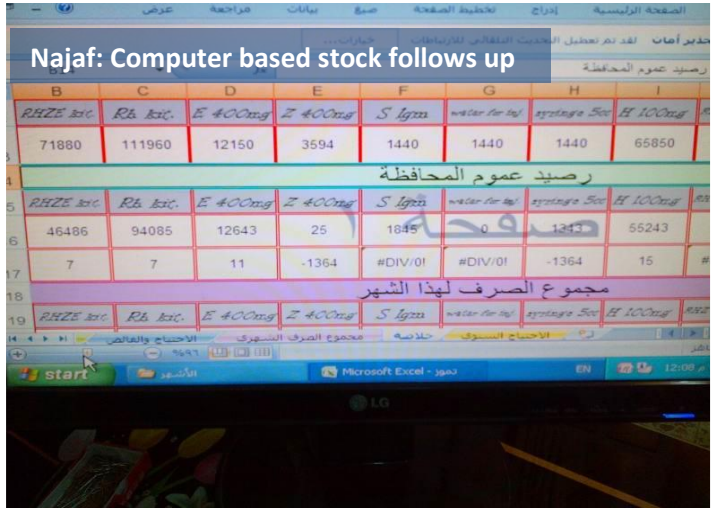
Diwaniya: Drugs records

5	6	7	8
500501	1	32	11-2014
500502	12	39	11-2014
500503	14	41	
500509	12	49	
500510	10	29	
500512	10	29	
500514	10	19	
500551	10	32	11-2014
500510	10	27	
500520	6	21	
500523	6	15	
500525	3	12	
05952	4	5	
05985	2	5	4-032
05986	2	5	4-032
05953	6800	21424	
05956	6720	14704	
05995	1344	13260	
11999	6720	6640	
5968	1344	5276	
05964	4032	1264	

Sulaimaniya: Drugs records

Streptomycin 13 Via/	عدد	عدد	عدد
3000	494		
71	403		
30	373		
68	505		
112	193		
300	503		
198	355		
91	244		
300	500		
121	403		
161	362		
78	184		
112	67		
250	377		
83	214		
71	163		
300	463		
60	403		
75	328		
8	320		
22	248		
20	378		
222	149		







Our Ref: MENA/2014/MS/AAN/IRQ-T-UNDP/D6/ ML

16 April 2014

Mr Adam Abdelmoula  
Country Director  
UNDP Iraq  
16 Majed Al-Edwan Street  
Amman 11194  
Hashemite Kingdom of Jordan

**Subject: IRQ-T-UNDP: Progress Review of Period 13  
(1 July – 31 December 2013)**

Dear Mr Abdelmoula

We are pleased to confirm that we have completed the review of Progress Update No 11 for the period 1 July to 31 December 2013, submitted by the Principal Recipient (PR), UNDP Iraq, under the above referenced grant number.

This letter provides a summary of the key findings of the review of programmatic and financial performance, identifies key issues related to the implementation of the grant and outlines key actions and areas of improvements to be considered by the PR for the next period of implementation.

#### **A. PROGRAMMATIC PERFORMANCE**

Overall performance for the second semester of the second implementation period was rated **A2**. The average indicator performance for all indicators was 99% and 97% for top ten indicators.

During the period under review, 8 out of 12 indicators met or exceeded their targets.

Going forward, please ensure that for all coverage indicators (percentage in the performance framework) both numerators and denominators are reported.

#### **B. FINANCIAL PERFORMANCE**

Total expenditure for the period under review amounted to US\$ 2,676,519, which represents 78% of the budget. The variance is a result of delayed activities and procurement processes.

The reported cash balance at 31 December 2012 was US\$ 2,573,262.

#### **C. STATUS OF CONDITIONS PRECEDENT AND SPECIAL CONDITIONS**

Below is a summary of the status of the conditions that have not yet been fully met:



**Condition Precedent 1.** *The use by the Principal Recipient of Grant funds budgeted under the activity “Capacity building of national entities to manage the Global Fund grants as Sub-Recipient” will be subject to the Global Fund’s written approval of the detailed budget for the activity.*

**Please review the capacity building plans in the context of transitional funding available for Iraq by 30 June 2014.**

#### D. OVERALL RATING

Following the analysis of performance of the program, including implementation of activities, completion of conditions and management actions, as well as program management during period under review, the overall rating of the grant is **A2**.

#### E. DISBURSEMENT DECISION

The Global Fund made a **disbursement decision of US \$ 2,372,413**.

The disbursement decision amount has arrived at as follows:

	Budget for the period 1 January - 31 December 2014	US\$ 3,724,249
Add	Budget for the buffer period 1 January – 31 March 2015	US\$ 936,163
Add	Commitments at 31 December 2013	US\$ 676,029
Add	Additional Commitments at SR level	US\$ 428,322
Less	Cash available at PR and SR level at 31 December 2013	US\$ 3,392,350

The disbursement will be released in two tranches as follows:

Q2 (released to the PR) US\$ 2,347,413

Q2 (disbursed directly to GLC): US\$ 25,000

#### F. UPCOMING REPORTING REQUIREMENTS

- The next PU is expected to be completed by 15 August 2014.

We take this opportunity to thank the PR and other implementing partners for the progress to date. We look forward to seeing continued improvement in program implementation over the subsequent reporting periods.

Sincerely



Musoke J Sempala  
Fund Portfolio Manager  
Africa and the Middle East Department

Enc: Annex 1 – Indicators used in rating calculation

Cc: Dr Thamer Al-Hilfi, CCM Vice-Chair  
Ms Rini Reza, Head of Governance Cluster, UNDP Iraq  
Dr Mohammed Siddig Mudawi, Project Manager – Global Fund Unit, UNDP Iraq  
Mr Mohammed Abu Dalo, Kpmg Kawasmy and Partners, Local Fund Agent

**Annex 1 – Indicators used in rating calculation**

Top 10	Indicator	Target	Verified Results	Results (%)
Yes	Number of new smear positive TB cases detected under DOTS	3,362	2,738	81%
No	Number and percentage of new smear positive TB cases that successfully complete their treatment among the new smear positive cases during a year (successful completion entails clinical success with or without bacteriological evidence of cure)	2,579 (89.2%)	2,493 (91%)	110%
Yes	Number of laboratory-confirmed MDR-TB patients enrolled in second line anti-TB treatment	58	38	66%
Yes	Number of laboratory-confirmed MDR-TB cases under treatment who converted culture to negative in 6 months (Laboratory confirmed)	37 (64.9%)	32 (56.1%)	86%
Yes	Number of PHCCs supported and involved in DOTS	60	151	120%
Yes	Number of lab technicians trained in direct sputum smear microscopy	40	124	120%
No	Number of staff (doctors, nurses, paramedical staff, drug management, and prisons health and administrative staff) trained on DOTS	120	468	120%
No	Number of laboratories showing adequate performance in external quality assurance for smear microscopy among the total number of laboratories that undertake smear microscopy during the reporting period (number and percentage)	233 (82.9%)	243 (91%)	110%
No	Number of TB culture laboratories showing adequate performance in external quality assurance among the total number of laboratories that undertake TB culture during the reporting period (number and percentage)	11	10	91%
Yes	Number and percentage of all forms of TB patients successfully treated (cured plus completed treatment) among the all TB forms patients registered (New All New Forms + Relapse)	8,415 (89%)	7,873 (90.9%)	102%
Yes	Number and percentage of districts and Governorates TB clinics submitting timely and complete reports according to national guidelines using M&E TB Management database.	45 (30%)	33 (22%)	73%
No	Number and percentage of new smear-positive TB patients referred by a non-NTP health care provider (private and prison) among the total new SS+ TB patients reported to NTP	1,008 (30%)	897 (41.5%)	120%