Support to Iraqi National Tuberculosis and AIDS/HIV Control Programs Funded by Global Fund to Fight AIDS/HIV, Tuberculosis and Malaria

Annual Progress report 2012
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<tr>
<td>ACSM</td>
<td>Advocacy, Communication and Social Mobilization</td>
</tr>
<tr>
<td>AMAR ICF</td>
<td>AMAR International Charitable Foundation</td>
</tr>
<tr>
<td>C.R%</td>
<td>Cure Rate</td>
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<tr>
<td>CCM</td>
<td>Country Coordination Mechanism</td>
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<td>CDR</td>
<td>Case Detection Rate</td>
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<tr>
<td>CHV</td>
<td>Community Health Volunteer</td>
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<tr>
<td>COMBI</td>
<td>Communication Mobilization Behavioral Impact</td>
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<tr>
<td>DG</td>
<td>Director General</td>
</tr>
<tr>
<td>DOTs</td>
<td>Direct Observed Treatment short course</td>
</tr>
<tr>
<td>DST</td>
<td>Drug Sensitivity Testing</td>
</tr>
<tr>
<td>EMR</td>
<td>Eastern Mediterranean Region</td>
</tr>
<tr>
<td>ENRS</td>
<td>Electronic Numeric Reporting System</td>
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<tr>
<td>EQA</td>
<td>External Quality Assurance</td>
</tr>
<tr>
<td>FLD</td>
<td>Anti-TB First Line Drugs</td>
</tr>
<tr>
<td>FPM</td>
<td>Fund Portfolio Manager</td>
</tr>
<tr>
<td>GFATM</td>
<td>Global Fund to Fight AIDS, TB and Malaria</td>
</tr>
<tr>
<td>GoI</td>
<td>Government of Iraq</td>
</tr>
<tr>
<td>GTC</td>
<td>Governorate TB Coordinator</td>
</tr>
<tr>
<td>IATA</td>
<td>Iraqi Anti-TB Association</td>
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<tr>
<td>IDPs</td>
<td>Internally Displaced Populations</td>
</tr>
<tr>
<td>IMA</td>
<td>Iraqi Medical Association</td>
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<tr>
<td>IMC</td>
<td>International Medical Corps</td>
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<tr>
<td>ISTC</td>
<td>International Standards for TB Care</td>
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<td>IUATLD</td>
<td>International Union against Tuberculosis and Lung Disease</td>
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<tr>
<td>KR</td>
<td>Kurdistan Region</td>
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<tr>
<td>LFA</td>
<td>Local Fund Agent</td>
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<tr>
<td>MDGs</td>
<td>Millennium Development Goals</td>
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<tr>
<td>MDR-TB</td>
<td>Multi Drug Resistant TB</td>
</tr>
<tr>
<td>MODP</td>
<td>Ministry of Displaced Population</td>
</tr>
<tr>
<td>MoH</td>
<td>Ministry of Health</td>
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<tr>
<td>NGO</td>
<td>Non-Governmental Organization</td>
</tr>
<tr>
<td>NRL</td>
<td>National Reference Laboratory</td>
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<tr>
<td>NTP</td>
<td>National TB Control Program</td>
</tr>
<tr>
<td>OR</td>
<td>Operational Research</td>
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<tr>
<td>OSDV</td>
<td>On Site Data Verification</td>
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<tr>
<td>PHC</td>
<td>Primary Health Care</td>
</tr>
<tr>
<td>PHCC</td>
<td>Primary Health Care Centre</td>
</tr>
<tr>
<td>PPM</td>
<td>Public-Private Mix</td>
</tr>
<tr>
<td>PR</td>
<td>Principle Recipient</td>
</tr>
<tr>
<td>PU-AMI</td>
<td>Premiere Urgence-Aide Medicale Internationale</td>
</tr>
<tr>
<td>QA</td>
<td>Quality Assurance</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Full Form</td>
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<td>--------------</td>
<td>-----------</td>
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<tr>
<td>QAP</td>
<td>Quality Assurance Plan</td>
</tr>
<tr>
<td>S.R%</td>
<td>Treatment Success Rate</td>
</tr>
<tr>
<td>SDA</td>
<td>Service Delivery Area</td>
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<tr>
<td>SLD</td>
<td>Anti-TB Second Line Drugs</td>
</tr>
<tr>
<td>SNRL</td>
<td>Supra National Reference Laboratory</td>
</tr>
<tr>
<td>SOPs</td>
<td>Standard Operational Procedures</td>
</tr>
<tr>
<td>SR</td>
<td>Sub-Recipient</td>
</tr>
<tr>
<td>SS+</td>
<td>Sputum Smear Positive (contagious)</td>
</tr>
<tr>
<td>SSF</td>
<td>Single Stream Funding</td>
</tr>
<tr>
<td>SSM</td>
<td>Sputum Smear Microscopy</td>
</tr>
<tr>
<td>SSR</td>
<td>Sub-Sub Recipient</td>
</tr>
<tr>
<td>TB</td>
<td>Tuberculosis</td>
</tr>
<tr>
<td>TBMU</td>
<td>TB Management Unit</td>
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<tr>
<td>TOT</td>
<td>Training of Trainers</td>
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<td>UNDP</td>
<td>United Nations Development Programme</td>
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<tr>
<td>WHO</td>
<td>World Health Organization</td>
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<tr>
<td>WHV</td>
<td>Woman Health Volunteer</td>
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</table>
I. Executive summary

The Global Fund to Fight AIDS/HIV, Tuberculosis and Malaria (GFATM) grant being the only external source of funding for the National Tuberculosis Control Program (NTP) in Iraq, it addresses the identified gaps in financing the NTP to considerably expand and strengthen the comprehensive response to Tuberculosis (TB) in the country, to meet the national and global Millennium Development Goals (MDGs) targets to halt and reverse the incidence, prevalence and death rates of TB by 2015 compared with their level in 1990.

UNDP Iraq was nominated and chosen as Principle Recipient (PR) for the GFATM grant in Iraq since late 2006, hence UNDP and the GFATM signed the grant agreement number IRQ-607-G01-T effective 15th November 2007 till 30th September 2011 with a total amount of US$ 14,500,157 of which US$11,445,495 was disbursed by the GFATM to UNDP by 1st October 2010 under UNDP Project ID: 56801 TB, under 6th Round. UNDP Iraq was again nominated as PR for the TB grant approved to Iraq under 9th round of GFATM call for proposals. The GFATM modified their funding architecture through consolidation of different overlapping grants for the TB component as a Single Stream Funding (SSF). Hence in October 2010, UNDP and the GFATM signed an agreement for the consolidated grant; merging the remaining of grant agreement number IRQ-607-G01-T and the new grant approved under round 9.

The original project document approved was entitled “Strengthening TB control in Iraq particularly among poor and vulnerable populations” for the project 56801. As a result of the consolidation of the two grants, the first grant activities should have closed by 30th September 2010, and the new consolidated grant activities to have started from 1st October 2010 till 31st December 2012. Most of the activities initially planned for the last quarter of 2010 under the consolidated agreement needed to be implemented in 2011 since the first disbursement under the SSF agreement was disbursed late in December 2010. In addition to this project focusing on the TB disease component, it also addressed the national HIV/AIDS control program through supporting the development of a five year national strategic plan and resource mobilization efforts from the GFATM and other donors.

II. Situation Analysis

Iraq has an estimated population of 33 million and is ranked as 44 out of 212 countries and territories by estimated number of TB cases on the global level. It is considered among the 9 high TB burden countries in the Eastern Mediterranean Region (EMR), contributing to 3% of the total cases. The Government of Iraq (GoI) has given priority to TB control; however, after the 2003 war and deteriorated security situation, the infrastructure and human capacity to effectively provide TB care were seriously damaged. In fact, as a consequence notifications of TB cases continuously decreased in the years 2002 to 2007.
After the first TB grant in Iraq was signed between GFATM and UNDP in 2007, UNDP in collaboration with WHO began to support the delivery of services for quality Direct Observation Treatment Strategy (DOTS) TB care for the poor and vulnerable populations, including the expansion of DOTS to include the three northern governorates within the Kurdistan autonomous region of Iraq, and increasing National TB Program’s management capacity. As a result, notifications of smear positive cases finally increased from 2726 in 2010 to 2760 in 2012.

III. Strategy

The overall goal of this project is to drastically reduce the country’s burden of TB in Iraq, particularly among the poor and vulnerable population, by 2015, in line with the MDGs and Stop TB partnership targets.

This project follows the National TB strategy which is in line with the Global Stop TB Strategy. The strategies include:

1. Pursue quality DOTS expansion and enhancement.
2. Initiate new interventions to expand the DOTS framework to include TB/HIV, MDR-TB and other special challenges.
3. Contribute to health system strengthening to enhance the efficiency of health care services for respiratory illnesses.
4. Enhancing public-private partnership in delivering DOTS services. Other actors of the non-government sector such as NGOs will also be included in expanding delivery of TB services, especially in terms of reaching out to vulnerable populations in remote areas.
5. Empowering patients and communities through advocacy, communication and social mobilization (ACSM).
6. Enabling and promoting research to improve programme performance through development of NTP’s operations research capacity to improve programme performance and design.

The Project addresses four main gaps: damaged network of TB care; limited care for poor and vulnerable populations; strengthening DOTS implementation in the three governorates of the Kurdistan Region of Iraq; and limited technical and managerial capacity of NTP particularly at the central level.
IV. Implementing Partners

As mentioned earlier, UNDP Iraq was nominated and chosen as Principle Recipient (PR) for the GFATM grant in Iraq for round 6 and 9 of this grant; this role includes overall management of the project and the Sub recipients of this grant, in addition to covering the NTPs needs of procurement of health and non-health supplies and rehabilitation for NTP facilities. With WHO as a Sole Sub Recipient (SR) that provides technical support to the NTP and manages the Sub-Sub-Recipients (SSRs) of the grant. The first and main implementer of this project is the NTP, and the other four NGOs mentioned below have entered into partnership under this grant at different points in time to play very specific roles:

1. **NTP**: its main responsibilities are the strengthening of the laboratory network within NTP and primary health care facilities (PHCs), TB drug management, strengthening the M&E system, implementation of operations research, provision of DOTS services in prisons, conducting Advocacy Communication and Social Mobilization (ACSM), and programmatic management of drug-resistant TB (PMDR TB).

2. **International Medical Corps (IMC) – based in Baghdad and Erbil**: is responsible for the rehabilitation of training centers under NTP, the training of Master Trainers among NTP staff for future delivery of training, and delivery of training to NTP staff in line with identified human capacity development needs throughout Iraq.

3. **AMAR Charitable Foundation (AMAR ICF) – based in Basra**: carries out the specialized task of delivering TB control services to the hard-to-reach Marshland population (around 1.2 million population) inhabiting three governorates in southern Iraq (Muthana, Basra, Theqar).

4. **Iraqi Anti-TB Association (IATA) – based in Baghdad with representation in all governorates**: is responsible for the implementation of TB control interventions for Internally Displaced Population (IDPs) and development of guidance materials for TB contact tracing and pediatric TB.

5. **Premiere Urgence-Aide Medicale Internationale (PU-AMI) – based in Baghdad**: is the partner responsible for implementation of Private-Public-Mix (PPM) DOTS, namely the training of private practitioners, and inclusion of DOTS into pre-service training; the newest partner to the grant implementation. In the original application, the Iraqi Medical Association (IMA) had been envisioned to implement the PPM-DOTS component. However, after approval of grant IMA’s bank account was frozen by the government of Iraq until election of a new Chair. The election process took longer than anticipated and therefore the Country Coordinating Mechanism (CCM) decided to advertise for a new implementing partner. Eventually, PU-AMI became the SSR for the PPM component.
Figure 1. Chart illustrates the implementation modality for Round 9 of GFATM grant in Iraq
V. Annual Progress on Scope of Work:

Objective 1: Increase the Case Detection Rate of TB Sputum Smear positive TB cases from 43% to at least 70% by 2014 and maintain high treatment outcome among detected cases

15,934 new sputum smear positive (SS+) cases were notified since the beginning of the GFATM grant in Iraq from 2008 till 2012; among these cases 14,459 SS+ had successfully completed treatment with the support of this grant. In 2012, 2,760 new pulmonary sputum smear positive TB cases were detected against a targeted 3,360 (11/100,000 of the population), with an 82% achievement of the target in comparison with 69.8% achievement in 2011. In Regards to KR, an annual improvement has been observed in SS+ case notification in Erbil governorate during 2012, with a treatment success rate of 78% for the 2011 cohort (6% annual increase).

Figure 1. Illustrating the annual changes in new TB Sputum Smear Positive (SS+) case detection for all Iraq governorates
As shown in figure 1, the program has also witnessed noticeable increase in CDR for the governorates of Ninewa, Erbil and Najaf, and a significant annual decrease in the governorates: Baghdad, Diyala, Sulimaniya, Diwaniya, Karbala and Anbar. In table 1, the annual numbers are shown in comparison to 2011, where there is a decrease in sputum smear positive for Iraq is -299, the major decrease in Baghdad -53, Anbar -42, Diyala -41 cases. With increased efforts on Erbil governorate (previously one of the poorest performing governorates in Iraq and KRG) the case notification has actually increase by +21 cases that indicates the effectiveness of the interventions used and additional attention given to this governorate.

<table>
<thead>
<tr>
<th>Governorates</th>
<th>New SS+ve 2011</th>
<th>New SS+ve 2012</th>
<th>Annual Change in SS+ve case notification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Erbil</td>
<td>83</td>
<td>104</td>
<td>21</td>
</tr>
<tr>
<td>Ninewa</td>
<td>170</td>
<td>179</td>
<td>9</td>
</tr>
<tr>
<td>Najaf</td>
<td>103</td>
<td>111</td>
<td>8</td>
</tr>
<tr>
<td>Miysan</td>
<td>67</td>
<td>69</td>
<td>2</td>
</tr>
<tr>
<td>Muthana</td>
<td>72</td>
<td>70</td>
<td>-2</td>
</tr>
<tr>
<td>Duhok</td>
<td>57</td>
<td>48</td>
<td>-9</td>
</tr>
<tr>
<td>Theqar</td>
<td>197</td>
<td>187</td>
<td>-10</td>
</tr>
<tr>
<td>Basra</td>
<td>219</td>
<td>207</td>
<td>-12</td>
</tr>
<tr>
<td>Salahdeen</td>
<td>111</td>
<td>97</td>
<td>-14</td>
</tr>
<tr>
<td>Kirkuk</td>
<td>101</td>
<td>86</td>
<td>-15</td>
</tr>
<tr>
<td>Wassit</td>
<td>129</td>
<td>113</td>
<td>-16</td>
</tr>
<tr>
<td>Babil</td>
<td>176</td>
<td>149</td>
<td>-27</td>
</tr>
<tr>
<td>Sulimaniya</td>
<td>188</td>
<td>159</td>
<td>-29</td>
</tr>
<tr>
<td>Kerbala</td>
<td>122</td>
<td>91</td>
<td>-31</td>
</tr>
<tr>
<td>Diwanyia</td>
<td>145</td>
<td>107</td>
<td>-38</td>
</tr>
<tr>
<td>Diyala</td>
<td>220</td>
<td>179</td>
<td>-41</td>
</tr>
<tr>
<td>Anbar</td>
<td>117</td>
<td>75</td>
<td>-42</td>
</tr>
<tr>
<td>Baghdad</td>
<td>782</td>
<td>729</td>
<td>-53</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>3059</strong></td>
<td><strong>2760</strong></td>
<td><strong>-299</strong></td>
</tr>
<tr>
<td>KRG</td>
<td>328</td>
<td>311</td>
<td>-17</td>
</tr>
</tbody>
</table>

*Table 1 showing the change in TB sputum smear positive notification in 2011 and 2012 in all governorates of Iraq*

Cure Rate (C.R %) for cohort of 2011 patients has shown a 3% increase for the whole country But Treatment Success Rate (S.R %) has remained constant at 89%. Improvements in C.R% and S.R% numbers have been recorded in the governorates of Erbil, Najaf and Salahdeen, but for the governorates of Babil, Sulimaniya and Kirkuk both have a decreased S.R% and C.R%.

As for KR as a region, S.R.% has decreased 3% due to decreased numbers in Sulimaniya and Duhok (despite the 6% increase in Erbil), but C.R% has increased 4% due to a 16% increase in Erbil (highest increase among all governorates, despite 8% decrease in Duhok numbers). Even with the increase in cure and treatment success rates the region is still in need of further attention in order to strengthen DOTS implementation in KR to be in line with the country wide trend.
There are many Service Delivery Areas (SDA) that are the focus for achieving this objective through the use of effective interventions.

**SDA 1.1 Expansion of quality assured TB diagnostic and treatment services**

The expansion of DOTS within the primary health care system in Iraq by increasing number of Primary Health Care Centers (PHCCs) implementing DOTS from 1,093 at the beginning of 2012 to reach 1,494 by the end of 2012, against an intended target of 1,027 PHCCs giving an achievement rate of 128%. The increase in number of PHCCs implementing DOTS in Ninewa to 303 PHCCs and 52 PHCCs in Erbil have yielded noticeable results in terms of increase in SS+ CDR and S.R%, but despite the increase in number of PHCCs involved in DOTS in Baghdad, Anbar and Diyala, both case notification and treatment success rates have actually decreased in these governorates during this year.

In terms of renovating TB health facilities during 2012 GFATM have approved the renovation of three TB clinics inside prisons (Basra Maqal prison for women, Hilla central prison and Missan Central Prison) and two governorate TB clinics (Sulimaniya and Duhok) in addition to some modifications needed to be added to the previously UNDP-renovated Sulimaniya MDR-TB hospital in Sayeed Sadiq. These works are to be carried out during 2013.
1.1.1 TB diagnostic services for sputum smear microscopy within the existing PHC system

After providing 214 Microscopes to the NTP since the beginning of the grant, along with the necessary reagents for performing direct sputum smear microscopy.

Note: All procurement was performed by UNDP.

1.1.2 Update, development of guidelines and manuals for TB laboratory procedures, and training of laboratory personnel

No progress has been reported from WHO on development of the guidelines and manuals for TB diagnostic laboratory procedures as they are still under development, once they are developed, 1,000 copies of these publications shall be distributed all through-out the country.

In terms of training lab technicians on sputum smear microscopy (SSM), 110 technicians were trained to support the expansion of the TB diagnostic lab network (33 additional TB labs in 2012). When observing the figures in table 2, three new TB labs have been established in KR but no technicians had been trained. Also, in Diwaniya no lab technicians were trained although nine new TB labs were established.

*Implementer of the training was NTP (SSR) under WHO (sole SR).

1.1.3 Quality Assurance for TB microscopy laboratories

Panel testing has been conducted from the National Reference Laboratory (NRL) to 17 intermediate labs and from the 17 intermediate labs has been conducted to the 120 peripheral labs and 109 hospitals during quarter 3 of 2012. Results are expected to be shared during 2013.

Laboratory experts from NTP were trained at the Supra National Reference Laboratory (SNRL) in Egypt on External Quality Assurance (EQA), the training was held from 18-22nd of March 2012 for fourteen participants.

*Implementer of panel testing is NTP (SSR) under WHO (sole SR). The training abroad was organized by WHO (sole SR).

1.1.4 Improved diagnostic services by Chest X-Ray

To date the project has procured 32 x-ray machines: 22 for governorate TB clinics and NTP headquarters in Baghdad, and another 10 x-rays for prisons. No other X-rays have been purchased in 2012.

1.1.5 Human Resources Development/Capacity Building

IMC are the main implementer of trainings that focus on strengthening the NTP staff capacity at the service delivery level through the provision of trainings to ensure that the TB care that is provided is of high quality within the primary health care system, these trainings include training of the newly appointed staff, due to the expansion of PHCCs implementing DOTS and the constant high turnover of staff working in TB care in Iraq. Refresher courses are also provided for the previously trained staff to refresh their knowledge and update them on the latest guidelines and practices in TB care. In 2012, the total number of NTP staff trained in Iraq on DOTS was 895 (258 physicians, 271 paramedics and 366 administrative staff).
As shown in (Figure 3ii) Sulimaniya has not trained any staff of DOTS during 2012, although DOTS has expanded to include another 12 new PHCCs in 2012, this could be an underlying reason for the governorates poor annual performance in comparison to other governorates. For a second year in row Anbar has hardly trained any staff on DOTs (only 3 physicians in 2011, 8 physicians in 2012 and no paramedics or administrative staff trained) although 109 new PHCC have been involved in DOTs during this year, this also is a poor performing governorate.

*this DOTS training component is implemented by IMC (SSR) under WHO (sole SR).

1.1.6 TB drug and supply management
The project has continued procuring first line and second line anti-TB drugs for NTP in 2012. As part of building the national capacity, UNDP conducted a workshop to develop a drug Quality Assurance Plan (QAP) was developed by NTP and UNDP to ensure provision of high quality anti-TB drugs to TB patients in Iraq.

Training on TB related procurement and supply management were conducted for 143 NTP staff from PHCCs, drug managers, logistics officers. From these 143 only three were trained from KR (one from each governorates), in comparison to one trainee from Sulimaniya in 2011.

1.1.7 Advocacy, Communication and Social Mobilization (ACSM)

1.1.7.1 Establishment of a National Partnership to Stop TB
In 2012 National Stop TB partnership was launched on 27th June 2012, in Sulimaniya under the patronage of Iraq’s first lady; Herro Talabni, in line with regional efforts and the Global Stop TB Partnership. The event was attended by high-level representatives of the Government, civil society leaders, representatives of public and private health sectors and UN agencies. Media partners under
National STOP TB partnership that includes TV, radio and newspaper representatives. The Stop TB Partnership developed its Partnership ACSM plan but plan is not yet costed.

Also a representative of the Stop TB partnership attended the IUATLD meeting in Kuala Lumpur in November 2012.

1.1.7.2 Communication activities
The KAP study was conducted during July 2012, the three Northern governorates (KR) were finalized and preparations were carried out to complete KAP study in the remaining 15 governorates, the process was supported by ministry of planning and health promotion department in the ministry of health and approved by Ministry of Defense, by Mapping of health facilities and household mapping, training for governorate coordinators, followed by hiring of data collectors in each governorate, printing of questionnaires and field implementation. The final report has been drafted and is still under review.

Also a National Communication Mobilization Behavioral Impact (COMBI) Plan for action was also finalized. And during a workshop held in January 2012, aiming to develop and enhance participant’s capacity to plan and implement behavior and social change communication strategies for TB four work plans were developed by NTP participants in COMBI workshop: Role of media in communication of TB messages; Low rate of TB in Iraq; Lack of awareness among most of the medical staff and health regarding short time treatment under direct supervision programme (DOTs); Limited number of patients with tuberculosis because of social stigma.

With the approval of GFATM on training request, TB health communication and information dissemination workshop was conducted on 16-19 December 2012 for 15 participants from MoH for four days in Erbil. The objective of this workshop was to create awareness of TB program among media, to help media realize their role in generating messages for TB and help them create TB messages. The workshop also covered concept and theories of communication and practical part on how to design camping, response to emergencies etc.

A Contract was signed with three Iraqi channels for dissemination of TB health information on World TB Day. The channels were also contracted to prepare a song for children on TB and prepare a short documentary on TB situation in Iraq. These will be displayed in World TB Day 2013.

1.1.7.3 Community empowerment
A total of 80 community events were reported to be conducted throughout the country by NTP as the means to reach out to the community, TB awareness activities were conducted and materials were disseminated. These events took place in the following 11 governorates (Wassit, Salahdeen, Karbala, Anbar, Basra, Diyala, Muthana, Baghdad, Theqar, Kirkuk and Ninewa), no events were conducted in KR three governorates or Diwana, Najaf, Babil or Missan. It was reported that some of the governorates did not conduct events due to poor security condition yet the KR has been relatively secure in comparison to most regions within Iraq and no activities were reported to take place in its three governorates.
1.1.8 Monitoring and Evaluation

**Supervision:** NTP conducted 54 quarterly supervisory visits which include central NTP to 18 governorate Respiratory and Chest Disease Clinics (intermediate), and 416 supervisory visits from 18 governorates to health districts (TB Management Units), and 2444 visits from the health districts to peripheral PHCCs. By the end of 2012 the number of total supervisory visits conducted by the NTP was 2931 visits.

National Annual TB Review Meeting was held from 28-29 May 2012 in Istanbul, Turkey. The meeting was attended by approximately thirty governorate coordinators from National TB Control Program, in addition to Deputy DG of public health, partner NGOs and UNDP. The focus of the two day workshop was on review of TB Control Program Implementation in 2011, progress, challenges and recommendations. Moreover, thirty quarterly governorate TB review meetings were conducted through-out 2012 with a total of participants (Q1=252, Q2=286, Q3=251 and Q4=305). It is worth noting that none of these meetings took place in the three KR governorates or Baghdad Resafa (highest TB burden in the country).

1.1.9 Strengthening NTP's program implementation capacity

In order to effectively deliver services and meet the project’s targets, NTP’s managerial capacity was strengthened through the recruitment of additional staff while pursuing retention of already existing cadres. Technical assistance was provided by WHO to support the NTP in developing national policy, guidelines and strategic documents on TB control. This technical assistance also included capacity-building, partnership development, and management of the grant implementation.

**Trainings abroad:**

- Study tour on DOTS implementation in Jordan, NTP for 6 Doctors for 5 days during March 2012
- 7-19 May 2012 six participants attended in Sondalo, Italy
- NTP Manager together with the focal person from the surveillance department attended the inter-country meeting of EMRO on strategic planning in Cairo, Egypt.
- The conference took place on 13-17th Nov. 2012 in Kuala Lumpur, Malaysia 43rd UNION conference and five participants attended
- Training on TB control in Egypt, 10 Doctors from NTP for 5 days

**SDA 1.2 Interventions among high risk population groups**

In this project, the high-risk population groups that were identified included: prisoners, Marshland population, Internally Displaced Populations (IDPs), and TB contacts.

1.2.1 TB in prisons

**Staff Trainings:** There are 64 prisons in Iraq, the NTP (SSR) is collaborating with all 64 of these prisons in the provision of DOTS services. In 2012, 597 prison staff were trained on DOTS (377 Administrative and 220 Medical Staff).

**Supervisory visits to prisons:** Regular supervisory trips are conducted by relevant Governorate and District TB Coordinators to 64 prisons. During 2012, 216 visits were conducted to prisons all over Iraq.
**Prisons assessment**: A study to assess structure, administrative context and TB epidemiological situation had been initiated: the study protocol for prison assessment was developed and revised and sampling was decided on. All necessary assessment tools were prepared. Sampling of prisons, number of guards and health providers from all prisons was finalized for the study. The study received the ethical clearance from the MOH and MOJ, training of the study personnel (data collectors) took place in Baghdad TB center by NTP focal person for two days. Coordination mechanisms for field were also decided with the support of WHO. This includes: For each prison, following has been decided: number of questionnaires/interviewer; number of supervisors and number of drivers during the study period. Two checklists for governorates under study were also developed for the purpose of monitoring and payment and summary of field work. The checklist include information regarding: Name of governorate; Name of prison covered under GTC; Name of field staff; Total questionnaire targeted for prison; Total questionnaires received from all interviewers in the prison; Remark by GTC on field work; Picture of the team; Name of prison visited; Total number of questionnaire filled; and Stamp by prison administration on each questionnaire to approve the payment for the field staff by GTC. Date entry and analysis is planned for 2013.

**Study Tour**: Based on agreement with the GFATM a study tour was conducted in Azerbaijan on Dec 18-20 December 2012 for 5 officials from MOH and Medical Officer from WHO attended this tour. The purpose of this study tour was to facilitate the collaboration between the National TB Control Program, Ministry of Health of Iraq and the Penitentiary Service of Ministry of Justice of Azerbaijan by meeting with the leading experts of Azerbaijan from Main Medical Department of Penitentiary System and observe the best practices related to TB care and control activities in Azerbaijan’s penitentiary facilities.

**1.2.2 Marshland Population**

WHO (SR), in collaboration with AMAR International Charitable Foundation (SSR), which is specialized in providing awareness services to marshland populations since years, quarterly trainings were delivered in each of the 3 Marshland governorates of Missan, Muthana and Theqar for 160 Community Health Volunteers. These Volunteers conducted 64,208 visits to families during 2012.

Eighteen Supervisory visits were conducted by AMAR staff to the implementation sites on regular basis to ensure correct implementation and identify challenges in the field.

AMAR held 63 community events in 15 locations during 2012. The events were well attended reaching 2,139 people, an average of 34 people per event

**1.2.3 Internally Displaced Populations (IDPs)**

Activities related to addressing IDPs in the context of increased TB case detection and TB control are carried out by IATA (SSR). Mapping of IDP camps and collective settlements and poor areas with high IDP concentration was concluded in 2011. This was done in research groups formed of the responsible SSR, the Ministry of Displaced Population (MODP) and NTP.

Due to the delay in the process of obtaining tax clearance from the GoI for the entry of two mobile clinics into Iraq, community outreach activities could not be implemented as planned.
Health assessment was conducted at IDP camps by a team of 4 people representing IATA, Ministry of Displaced Populations (MoDP) and MOH together with NTP Governorate coordinator of related areas for four IDP camps:

- Diwaniya IDP Camp
- Basra IDP Camp
- Al Ghareer Camp in Kirkuk
- Al Kalaoa Camp in Sulimaniya

The total number of population /each camp was between 500-2000 populations. Full details of the IDP situation including demographical, geographical and socio medical status were gathered and used for the analysis. Major findings show that TB care services are not available at the camp, activities at the camp level are focused on information, education and communication and delivery of messages about TB aiming to raise the awareness among the IDPs. Basic services including safe water supply, electricity, human excreta disposal and disposal services and primary health care are available for about 27% of the internally displaced populations while about 73% of them were without health services. The poverty is moderately prevailing among the IDPs. Priority needs identified include limited availability and accessibility of primary health care services for the IDPs at the camp level; Non –availability of TB care services for the IDPs at the camp level; Non-availability of follow up mechanisms for TB cases/suspects at the camp level (treatment supporters and volunteers); The priority of TB control programme for the IDPs is to identify and treat infectious patients, and ensure that they become non-infectious as soon as possible. The shelters moderately ventilated, with windows, roofs and inner doors, yet unhygienic favoring the transmission of air-borne diseases such as acute respiratory tract infections and tuberculosis.

Due to delay in the process of obtaining exemption letter and license plates for the two mobile clinics to be used for visits to the IDP camps, training of mobile clinic staff on DOTS along with these planned activities was postponed to 2013. Health education materials were developed and printed consisting of health messages for IDP in the form of brochures (1000 Copy).

126 community health volunteers (CHVs) have already been trained on TB control from the planned 260 CHVs; one community health volunteers was trained to cover a population of 5,000. Four workshops to train these CHVs were conducted. The plan for conducting community events was revised, 43 events were to take place (30 within Baghdad and 13 in the governorates). A total of 23 Community events were conducted for more than 500 people. All events were conducted in compounds within Baghdad and governorates in: Imam Sadiq, Imam Ali, Fadaq, Zainab al Kubra, Dar Al salam Chekkook, old Chekkok compound, Al Zahraa compound, Al Hesabat.

1.2.4 Ensure proper investigation and care for TB contacts
Implementation of this SDA falls under the responsibility of IATA (SSR). In order to ensure proper investigation of TB contacts, SOPs on contact investigation were developed through a number of consultative meetings and workshops with technical support from WHO & NTP. These SOPs clearly define the TB index case, the contact, the procedures to use in investigating TB contacts, and the
monitoring system to follow contact investigation activities. These SOPs were printed and handed over to NTP for distribution.

Early 2012 a meeting was conducted by the team that developed the SOPs from both IATA and NGOs in addition to district managers and PHCC that were included in the Contact tracing activity that was conducted to escalate the quality and speed of the achievements. Then the Final seminar was conducted to endorse these contact tracing SOPs and Pediatric guideline through a 2-day workshop including 25 participants representing the field team and experts from both pediatric committee and NTP.

In order to Introduce contact investigation activities in 20 pilot sites, on 21-22 November, 2012 a 2 -day workshop for IATA staff and for 6 district coordinators was conducted. The total participants were 18. Out of them 4 supervisors were selected to supervise the contact tracing activities. Contact tracing activities were conducted in Erbil Governorate included the following districts: Mohammed Bajelan, Nazdar Bamerny, Nawroz, shahidan and Mulla Afandi PHCCs (total of 42 families visited). And In Baghdad in following districts: Al Adamia, Al Kademia, Beah, Baldyat, Al shaab and Al sadre districts. An evaluation of the pilots took place by the NTP and WHO with no cost to the program. It is planned to expand this activity to include an addition 20 districts every year with no cost to the GFATM grant.

In consultation with the Iraqi Pediatric Association and so as to strengthen TB management among children through a standardized algorithm of TB detection and contact tracing, pediatric TB management guidelines were developed, printed and distributed.

**SDA 1.3 Engagement of the non-NTP private and public sectors in the TB Control Programme**

This SDA has two components: 1) PPM-DOTS, and 2) Pre-service training on DOTS, which are both under the responsibility of PU-AMI (SSR).

The National TB committee held three meetings to discuss various issues related to adaptation of International Standards for TB Care (ISTC).The members agreed to hold a symposium on international standards to combat TB in April 2012. All preparations including invitation lists, coordination with all stakeholders, and selection of venue are in preparatory stage. Consultative meetings with the NTP and the responsible officers at the MoH took place on mechanisms of adaptations of ISTC within the public health law of Iraq.

The National TB Control Program, Ministry of Health organized fourth National TB Conference with the support of World Health Organization- Iraq office and Premiere Urgence- Aide Medicale Internationale (PU-AMI) at the Rotana Hotel in Erbil on 17th April, 2012 that was attended by approximately sixty people. The conference was attended by Dr. Hassan Hadi Baqer, DG of Public Health, Dr. Syed Jaffer Hussein, WHO Representative for Iraq, Dr. Dhafer Hashem, NTP manager and governorate TB coordinators among others. The Conference conferred with the current situation of TB in Iraq including the increasing threat of Multi-Drug Resistant TB. The main objective of the conference was meeting of all stakeholders and TB control implementers to discuss TB and TB control in Iraq; to raise awareness among the participants on NTP and WHO activities in Iraq; and to share scientific knowledge through presentation regarding TB to update the participants with the new methods and technique in TB control.
In this regard, a wide variety of scientific topics related to the diagnosis and treatment of TB in connection with the Iraqi context were presented during the conference followed by active participation of conference attendees.

Two Training of Trainers (ToT) courses on PPM-DOTS for different groups of PPM implementers on the National level were conducted in Baghdad and Erbil for 56 participants. The trainers resulting from this ToT in their role trained 338 participants from different PPM implementers in 14 governorates (Salahdeen, Wassit, Babil, Theqar, Muthana, Basra, Duhok, Anbar, Ninewa, Missan, Karbala, Diwaniya, Kirkuk and Erbil) health directory areas of Iraq. The referral form for the PPM has been developed and printed to be distributed to all participants in the PPM training courses from the private clinics. Development of other forms pending on full implementation of PPM DOTS component to identify the changes and additions to the already available NTP forms. PU-AMI together with NTP and WHO proceeded with the development of the concept for supervision of PPM-DOTS sites taking into account long-term activity implementation by NTP. The actual implementation is planned for 2013.

Two types of ACSM material were developed and submitted by PU-AMI to NTP in 2012 for further feedback. The comments from NTP and WHO were integrated, Printing and distribution will take place in 2013. Plans were shared with UNDP by WHO for training for hospital staff on PPM-DOTS but activities of PU-AMI were limited because of issues related to their registration status with the Iraqi government. Therefore, the training activities didn't take place.

For development of DOTS curriculum for medical schools, 3 meetings with NTP medical association, ministry of higher education on the development and integration of curriculum into formal education were held to develop this curriculum and 2 meetings remain until the drafting committee will finalize the material in 2013. Therefore, no workshop was conducted to present and endorse a DOTS curriculum to academic staff. A concept paper is in the process of development. Contact with the community departments of target universities has been established. Field projects will not be conducted within the project period but can be implemented in Phase 2 based on the concept developed by PU-AMI in agreement with target universities and NTP.

**SDA 1.4 Operation's research and impact measurement**

**TB Management and Surveillance Database development and pilot:** After the initial draft version of this web based database was presented by the developer ISG in 2011 and 3 ToT trainings took place, The Iraqi government sent an official request through NTP/MoH to separate the two databases (surveillance and management components) in July 2012, accordingly the updated version came with two user manuals in English and Arabic. NTP shared with UNDP the evaluation finding of Piloting the data base in 6 governorates from January 2012, the main issue they faced was ineffective internet system at all levels in Iraq, UNDP was studying the best internet options in country that can be provided to NTP at all levels.

The piloting of this M&E database was done on two phases:

- Phase I already started in January 2012 for six governorates: Baghdad Karkh, Baghdad Rasafa, Babil, Duhok, Diwaniya, Karbala and Missan.
- Phase II started in October 2012 including the following six governorates: Erbil, Muthana, Najaf, Ninewa, Theqar and Wassit.
- Phase II is planned to start in 2013 to include the remaining six governorates: Anbar, Basra, Kirkuk, Salahdeen and Sulimaniya.

**TB Capture study**  TB Capture study to determine the tuberculosis burden in Iraq” carried out with the technical support of WHO in cooperation with the National TB Control Program, was completed. The final report was shared with the esteemed Ministry of Health on 13th April 2012. Based on this report, WHO revised the estimates of TB burden in Iraq and publish these in the 2012 Global TB report. Based on the findings of this report modeling exercise will be applied to estimate the prevalence and mortality related to TB in Iraq. In this connection, the final report also includes the manuscript developed by the main investigators which has been published in the International Union against Tuberculosis and Lung Disease (IUATLD).

**Operational Research** OR Board meeting was held on 8th March 2012 where proposals were distributed along with evaluation sheets to all board members. Each proposal was reviewed by three members. Five proposals were selected as priority research for NTP under 2011 budget. Research methodology and proposal development workshop for fifteen participants from National TB Control Program Iraq was held from, 24th to 28th June 2012 in Dead sea, Jordan. The participants were Public health, Research and surveillance officers of the National Disease tuberculosis Control Programs. The objective of the workshop was to develop protocols addressing the challenges facing tuberculosis control while strengthening the research capacity of the national disease control programs. The workshop covered basic principles of epidemiologic methodology, data analysis and surveillance, and operational research proposal development. Research protocols were developed during the five day duration of the workshop. During the developmental process of the protocol, each section was presented and peer-reviewed by a panel of experts and the participants for further improvement until the first draft was developed at the end of the workshop. Protocols were developed by end of the workshop addressing key challenges facing tuberculosis control with the goal to improve program performance through operations research. The workshop documents are attached.

As consequence contracts were signed with principle investigators and two meetings of the OR Board were conducted review of the OR studies priorities and protocols in September 2012 and the second meeting was on Monitoring of Implementation of the approved OR studies in November 2012.

Three contracts were signed for three of the five proposals accepted. The tile of each research and the principle investigator name is as below:

1. **Active case finding for household contacts of TB patient in Baghdad city-** Dr. Layth Salih
2. **Prevalence of latent and symptomatic Tuberculosis among prisoners in Diwania and Babil governorates/ Iraq -** Dr. Badr Abdullah
3. **Molecular epidemiology and genotyping of Mycobacterial tuberculosis Isolated from Baghdad-** Dr. Rukiya Ali
UNDP M&E As consequence of increasing UNDP staff in-country, UNDP Erbil-based project officer conducted seven supervisory visits to NTP service delivery points to assess the quality of services delivers as a principle recipient of the grant in Iraq:

1. Erbil governorate TB Clinic
2. Mulla Afandi district TB clinic
3. Sulimaniya governorate Clinic
4. MDR-TB hospital in Sayed sadiq-Sulimaniya
5. Duhok governorate TB Clinic
6. Baghdad Jadeeda district TB clinic
7. Kirkuk governorate TB Clinic
8. Ninewa governorate TB Clinic

The major findings of these visits were: the high default rate of TB patients in Erbil governorate, poor storage conditions of anti-TB drugs, weakness in reporting and recording of some of these governorates.

UNDP Meetings with Counterparts

- **(April 15-16,18)Country Coordination Mechanism (CCM) Iraq Meeting in Erbil:** UNDP-GFATM Iraq team facilitated a meeting for CCM-Iraq in preparation for application of a renewal request for the next phase of the GFATM Tuberculosis project in Iraq (2012-2015).
- **(May 29) Meeting with H.E. Iraqi Minister of Health; Dr. Majeed Hamad Ameen:** Representatives of Country Coordination Mechanism (CCM), UNDP, WHO and MoH-KRG attended a meeting to discuss the major issues impeding the progress of some activities of GFATM grant in Iraq.
- **Meeting with H.E. Iraqi Minister of Health for KRG; Dr. Rekawt H. Rasheed:** Representatives of the National TB control Program (NTP), Country Coordination Mechanism (CCM), UNDP and WHO attended a meeting with H.E. Minister of Health for KRG; Dr. Rekawt Rasheed to discuss the major reasons behind poor treatment outcome of TB in Erbil governorate and what steps can be taken to strengthen the program in this governorate. At the end of this meeting H.E. Minister of Health for KRG expressed his full support to this request.
- **Meeting with senior officials in the Ministry of Health-KRG:** The UNDP-GFATM team conducted several meetings with senior official in the regional ministry of health during September in efforts to increase the political commitment to fight TB and update them on the project evaluation and role of UNDP as a Principle recipient for the GFATM grant in Iraq.
- **Meeting with Director General of Health in Erbil Governorate; Dr. Magdeed Kh. Majid:** The DG was briefed on the GFATM project and observations and concerns regarding state of TB in Erbil governorate, he expressed his support to the project and assigned a focal point to constantly follow up on the NTP in Erbil.
Meeting with Director General of Health Affairs; Dr. Dara Rashid Mahmood and Spokesman of MoH-KRG; Dr. Khalis Qadir: UNDP presented a brief on the situation of TB in KRG and the implementing structure of the GFATM grant, with special emphasis on the poor treatment outcome of TB specifically in Erbil governorate. The officials expressed their willingness and commitment to make the program succeed.

Meeting with Deputy Director of Health in Sulimaniya; Dr. Najmaddin Hassan Ahmed: Dr. Najmaddin as a specialist in public health expressed his support to the Program and future cooperation for Sulimaniya governorate.
Meeting with Governorate TB Coordinator in Sulimaniya; Dr. Faraydoon Ibrahim:
- UNDP team visited this Sulimaniya TB Clinic and meet with the coordinator to update him on the latest developments in the project and future plans.

Meeting with senior officials in the Ministry of Health-KRG: The UNDP-GFATM team conducted a meeting with senior official in the regional ministry of health for KRG on 24th October 2012, in efforts to focus on fighting TB in Erbil governorate. As a result of the Independent External Evaluation conducted in Erbil, many weaknesses were identified and this was the focus of this meeting, and a plan was set to follow up on improving performance in this governorate. This meeting was attended by: Director General of Health –Erbil, Director General for Communicable Disease Control (CDC)-MoH-KRG, Focal point for GFATM project at Directory of Health-Erbil, UNDP project Officer-Erbil

Meeting with GFATM: UNDP team, WHO team and International Medical Corps (IMC); Sub-sub recipient to the GFATM grant in Iraq, met with Global Fund- Iraq Fund Portfolio Manager (FPM); Amy Clancy in preparation for phase II of Round 9 of the GFATM grant in Iraq.

43rd Union World Conference on Lung Health: UNDP-GFATM staff attended the 43rd Union World Conference on Lung Health held in Kuala Lumpur along with senior members of the National TB Control Program in Iraq, where the latest developments in TB care are were presented (clinically, epidemiologically, managerially and financially). In addition to attending the Stop TB Symposium, impact acceleration was the major goal of all parties with the aim of setting a drastic goal like reaching zero cases of TB globally by 2050.
- **Project Evaluation Briefing meeting**: Following the project external evaluation mission that was conducted in May 2012, UNDP organized a meeting including all the project stakeholders, including officials such as: Director General of Health in Erbil; Dr. Maghdeed Kheder, Director of CDC in Erbil; Dr. Sarhang Jalal, Director of the National TB Control Program; Dr. Fadhil Ali. The aim of the meeting was to discuss the content of the general Evaluation report and also a comprehensive case study for Erbil governorate and open the floor for counterparts to give their feedback and views regarding the report and whole evaluation process.

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**WHO M&E** As a SR majorly providing technical assistance and managing the SSRs, WHO have also increased presence inside Iraq. WHO has two field officers inside Iraq one is based in Erbil (covers 5 governorates: Erbil, Sulimaniya, Duhok, Kirkuk, Ninewa) and one in Baghdad (covers remaining governorates) and works directly from the NTP on a daily basis. The two officers conduct supervisory visits for training courses conducted by NTP or SSR under the GFATM work plan. The following supervisory visits and meetings were done:

1. Diwaniya governorate TB clinic
2. Afak district TB clinic in Diwaniya
3. Basra TB Governorate Clinic and PHCC in
4. Khaleej Al Arabic district TB Clinic
5. Sulimaniya governorate TB clinic (two visits)
6. MDR-TB hospital in Sayed sadiq-Sulimaniya (two visits)
7. Halabcha district TB Clinic
8. Dukan district TB Clinic
9. Erbil governorate TB Clinic, on DOTS implementation and drug situation
10. Mulla Afandi district TB clinic
11. Kirkuk governorate TB Clinic & 2 districts (two visits)
12. Mosul governorate TB Clinic
13. Duhok governorate TB Clinic
14. Azadi Hospital
15. Zahko TB District clinic in Duhok
16. Delal PHCC in Duhok
17. Dakuk District TB clinic in Kirkuk
18. Al-Salam PHCC in Kirkuk
19. Rania District TB Clinic

**WHO Meetings** Trainings monitored and meetings conducted:

1. ENRS training in Erbil done by NTP
2. Supervised refresher course on DOTS for medical staff in Erbil conducted by IMC
3. On PPM activity supervision (PU-AMI), PU-AMI together with NTP under WHO guidance developed a supervisory visit concept to monitor performance under this component.
4. Baghdad, 10-15 July: develop standardized supervisory visit reporting forms for WHO field visits, Finalize MoU with KIMEDIA on procurement on drugs, funding issues.
5. Baghdad, 8-19 September: WEBTBS improvement and upcoming evaluation, lab trainings and improving 2013 approach, DRS survey, development of database for training for future analysis purposes, drug management of FLD and SLDs, ACSM plan
6. Baghdad, 8-18 October: Develop concept for the supervision of the PPM-DOTS implementers in 2013; develop concept of how the Partnership’s ACSM plan would support the NTP’s ACSM plan; finalize agenda of the upcoming National TB Review Meeting, the NGO Coordination Meeting, and also to discuss the UNDP evaluation report; finalize Performance Framework for Phase II with relevant NTP staff.
7. WHO Medical Officer represented WHO and Iraq NTP in 3 meetings held in Geneva during July 2012: 1) STAG meeting; 2) TB TEAM meeting; 3) GFATM meeting, in addition to side-meetings with GDF to solve issues of delays in delivery of first-line anti-TB drugs to country.

**Internal Auditing and On-Site-Data-Verification of LFA** UNDP internal auditors for GFATM project and Local Fund Agent (LFA) for GFATM (KPMG Jordan) conducted missions inside Iraq. The LFA for the first time to conduct On-Site-Data Verification took place in Kurdistan region in 2012 due to the security stability in KR in relation to other parts of the country.

**Project External Evaluation** Also the project conducted its first ever external evaluation by a team of one international expert and 5 national consultants, main findings of the evaluation were:

**General Recommendations**

1. NTP needs to re-emphasize adopting DOTS in its “policy strategy” for TB control supported with extensive advocacy lead by WHO
2. Develop and implement systems for active identification and fast tracking of TB suspects in outpatient departments with the involvement of paramedical workers at the registration counter / the first point of contact
3. All public and private hospitals should be systematically involved in DOTS and a well-defined referral policy formulated and implemented
4. Microscopy center and DOT centers must be established in all teaching hospitals attached to medical colleges
5. Promote sputum microscopy as the primary diagnostic tool in pulmonary TB suspects with X-ray chest as a supporting tool
6. NTP should prioritize consolidating its key function of removing infectious TB patients from the pool of prevalent TB cases transmitting tuberculosis
7. A patient – centered adherence strategy, including facilitated treatment agreeable to the patient should be adopted at all service outlets. DOT must be the standard of care
8. Cure rate should be used as an index of quality implementation of treatment amongst all smear positive cases
9. Quarterly comprehensive feedback by the central level to the governorates should be adopted as a policy procedure to be also followed by the governorates in respect of TBMU’s in their jurisdiction
10. Community including cured TB patients should be promoted as DOT providers; and patients need to be treated as VIP of the program. Recruited DOT providers should be trained.

**MDR TB: Recommendations**
1. Universal access to DOTS should precede and receive priority over universal access to MDR-TB, which will help set up a system of diagnosis and successful management of TB cases within the existing health care infrastructure which would subsequently be used for MDR-TB
2. Program urgently needs to consolidate its key function of removing infectious TB patients from the pool of prevalent TB cases transmitting tuberculosis
3. Annual quality certification through panel testing for NRL by SNRL and for private laboratory in Erbil needs to be ensured
4. An independent procurement agency should be hired for procurement of anti TB drugs including second line drugs and their distribution responsibility within the country should be discharged by NTP
5. A separate independent quality control agency should be hired to ensure quality of drugs at all levels from the time of arrival in Iraq till their consumption by the patients
6. To benefit from the global experience in up-scaling MDR - TB services, involvement of GLC and GDF in technical assistance and program monitoring must be undertaken on a continuing basis
7. Intensified efforts need to be made to make two MDR-TB hospitals functional at the earliest
8. Monitor and address the anticipated emergence and spread of resistance to second line drugs
9. To design and establish a comprehensive laboratory network clearly outlining the role and responsibilities to start with at most populated and high risk governorates.
Objective 2: Ensure universal access to diagnosis, treatment and care for Drug-Resistant TB (DR-TB)

SDA 2.1 Quality Assured Laboratory Services for DR-TB

Under this objective the National Reference Laboratory (NRL) successfully passed the panel test on culture and Drug Sensitivity Testing (DST) conducted by the Supra National Reference Laboratory (SNRL) – Egypt and obtained quality certificate for the first time in March 2011 that remained valid for 2012. To dates, four culture laboratories have been established: Baghdad, Erbil, Basra, Najaf, Babil and Ninewa. The focus of laboratory procurement for 2012 has been on multi drug resistance TB diagnosis by providing all equipment, consumables/non consumables for culture laboratories (identifying type of drug resistance) and Gene-Xpert (Real-time Polymerase Chain Reaction instrument for diagnosis of MDR-TB).

Culture laboratory items include: Consumables, Non-consumables, 2 Water distillatory, 2 refrigerator, Circular 7 day temperature recorder, 3 Inspirators, One Shaker, One Large cradle, 3 Portable turbidimeters, 2 PH/MV meters, 2 Hotplate stirrer, 10 Pipettes, 10 Electronic precision balances along with accessories and kits, 6 Incubators, 6 UPS, 2 Portable non electronic sterilizer, 8 Steam sterilizer control strip, one 80- freezer ultra-low, 7 day temperature chart recorder, 10 Variable Volume pipettes, 25 Fixed Volume pipettes, 2 Autoclaves, Digital water path.

Gene X-pert items include: Five in devices, in addition to consumables, 5 UBSs, calibration of devices for three years and 4000 test cartridges.

Note: All procurement was performed by UNDP

Regarding the routine culture and DST examination: Panel testing from NRL to 6 culture labs has been conducted late 2012 and the results will be available 2013.

2.1.2 MDR-TB case finding and case management:
The case finding approach is limited to provision of culture and DST services to all retreatment cases, TB patients who are contacts of Multi Drug Resistant- TB (MDR-TB) patients, and TB patients who are HIV positive. Treatment regime has been set and provided for 115 (50 first cohort and 65 second cohort) MDR TB patients. A national Drug Resistance Survey has been planned to take place in 2013, preparations were taken place during 2012.

First draft of guidelines for treatment supporters in Arabic has been developed, revised and will be sent to WHO Office for fist revision, MDR-TB brochures for doctor and health staff (English version) have been developed and final revision received and printing in process.

SDA 2.2 MDR-TB specific human resources development

The following trainings were conducted to build the capacity of the NTP laboratory staff:
- Eight laboratory staff from the National Reference Laboratory (NRL) were trained from 16-28th January, 2012 on culture examination/Drug Sensitivity Testing.
- Eleven laboratory technologists from NRL were trained on culture examinations 11-15 March 2012 in Baghdad.
- Seven NTP staff were trained on culture examinations from 2-9th Sept 2012 in Milan, Italy

Refreshing session were also conducted for those staff previously trained on culture testing, for nine NRL staff for three days 8-19 January 2012 in Baghdad. In terms of Line Probe Assay (LPA) seven staff were trained 2-10 September 2012. Another Thirteen NTP participants were trained on a five-day MDR-TB programmatic and case management course from 12-16 February 2012 in Egypt.

SDA 2.3 MDR-TB drug management
Second line anti-TB drugs (SLD) were provided to the first cohort of 50 MDR-TB patients were and 65 second cohort patients, along with the necessary multivitamins.

SDA 2.4 Monitoring and Evaluation of MDR-TB program
Monitoring and Evaluation visit was conducted to Ibn-Zuhur MDR-TB hospital in Baghdad by WHO team, but no visits were conducted by WHO to Saray Subhan Agha MDR-TB Hospital in Sulimaniya since the hospital was still being equipped and furnished during 2012.

NRL has conducted visits to all four functioning culture laboratory in Basra, Sulimaniya, Najaf and Babil, each one visit per quarter. For quarter four of 2012 eight NRL an additional supervisory visit was conducted to Erbil Culture laboratory. MDR-TB recording and reporting forms have been developed and reported to have been under printing.

SDA 2.5 MDR-TB case management
Four guidelines were developed and were reported to be under printing:

1. Management of DR-TB Diagnostic Evaluation and Follow up monitoring

2. MDR TB management in Iraq

3. MDR TB management: Standard operating procedures for treatment regimens in Iraq

2.5.1 Inpatient treatment of MDR TB patients

After completion of renovation for the MDR-TB hospital in Sulimaniya, on 28th January 2012 UNDP handed this hospital over to the Iraqi Ministry of Health in the presence of KRG minister of health. Many meetings were conducted between all stakeholders to identify the equipment, furniture, technical needs to operationalize the hospital at the earliest time possible. By the end of 2012, 15 staff were appointed at this hospital with furniture by the Iraqi government and UNDP had procured all the requested equipment (some delivered and installed, some still in pipeline).

2.5.2 Ambulatory treatment of MDR-TB patients

During quarter one of this year, 50 treatment supporters had been identified (near the patients) and trained to observe the patient’s daily treatment.

The total Number of MDR-TB cases under the treatment by the end of 2012 were 112 patients. Out of them only 47 only received the food allowance and support (the first cohort of 50 patients and 3 of them already died).

The M&E visits under this SDA were integrated within the NTP regular supervisory visits. As the budget line set for M&E visits for MDR-TB was utilized to conduct a Drug Resistance Survey (DRS) Workshop in Amman on 6-8 November 2012. Technical assistance for the workshop was provided by the WHO country and regional offices. By the end of the workshop, protocols/methodology and the DRS budget was developed.
VI. Observations and Recommendations

- Performance of NTP in all Iraq has decreased in terms of case detection with the exception of Erbil governorate that has been increasing continuously for the last three years. Efforts need to focus on studying the reasons for this decline (in addition to the capture-recapture study already conducted by WHO).

- KRG has annually improved in terms of case detection, and treatment success rates, but it still remains a challenge as the region still needs further efforts to reach the national rates in case detection and treatment success.

- It was reported that some of the governorates did not conduct ACSM events due to poor security yet the KR has been relatively secure in comparison to most regions within Iraq and no activities were reported to take place in its three governorates.

- The overall targets for training NTP staff have been achieved, never the less, when observing participation from individual governorates its noted that some governorates have not received the required amount of training that may have led to lower performance:
  - Anbar has 109 new PHCCs involved in DOTS yet only 8 physicians in 2012 (only 3 physicians were trained in 2011) and no paramedics or administrative staff trained in 2012.
  - Training on TB related procurement and supply management were conducted for 143 NTP staff from PHCCs, drug managers, logistics officers. From these 143 staff only three were trained from KR, one from each of the three governorates (in 2011 only one trainee from KR, in Sulimaniya).

  Further trainings are required for these governorates in order to increase quality of TB care provided.

- Thirty quarterly governorate TB review meetings were conducted through-out 2012 with a total of participants (Q1=252, Q2=286, Q3=251 and Q4=305). It is worth noting that none of these meetings took place in the three KR governorates or Baghdad Resafa (highest TB burden in the country).

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1 Change of estimates for TB burden in Iraq according to the WHO capture-recapture study is a contributing factor to increase in percentage of achievement
2 DOTS trainings for Medical and Administration Prison staff has not been calculated in Table 3. Nor within SDA 1.1.5
3 Recording and Reporting Trainings for MDR-TB are listed within SDA 2.2