



## **FINAL PROGRAMME REPORT FORMAT**

### **EXECUTIVE SUMMARY**

Birth defects are a diverse group of disorders of prenatal origin which can be caused by single gene defects, chromosomal disorders, multifactorial inheritance, environmental teratogens and micronutrient deficiencies. Maternal infectious diseases such as syphilis and rubella are a significant cause of birth defects in low- and middle-income countries. Maternal illnesses like diabetes mellitus, conditions such as iodine and folic acid deficiency, and exposure to medicines and recreational drugs including alcohol and tobacco, certain environmental chemicals, and high doses of radiation are other factors that cause birth defects

There are currently no sound estimates of the number of children born with a serious congenital disorder attributable to genetic or environmental causes. Congenital disorders are a common condition. WHO estimates that some 260 000 deaths worldwide (about 7% of all neonatal deaths) were caused by congenital anomalies in 2004<sup>1</sup>. They are most prominent as a cause of death in settings where overall mortality rates are lower, for example in the European Region, where as many as 25% of neonatal deaths are due to congenital anomalies.

The issue of increased prevalence of congenital malformations dates back to 90s when some independent studies found an increased prevalence in certain parts of the country after the first Gulf War. There, however, wasn't a clear scientific reasons presented inside Iraq for any increase in congenital malformations (CM). There are continued concerns raised regarding increased number of congenital birth defects (CBD) in Iraq, however there is no scientifically reliable data on the magnitude of the birth defects and associated risk factor in Iraq. Four studies, however, were conducted in the post war scenario pointing towards some of the evidence based on review of the hospital records as well smaller level household survey in Fallujah district. These studies do not establish an explicit cause-and-effect relationship between the increase in prevalence of CBD.

In view of the mentioned considerations WHO was requested by Ministry of Health to technically assist them in the conduction of study which aimed at:

1. Drawing initial baseline data from selected districts in 8 governorates and understanding the trends of birth defects in the selected governorates in Iraq; analyzing spatial and temporal trends and detect changes in the incidence of birth defects in Iraq
2. Capacity building of MoH national public health TORCH (Toxoplasmosis, Rubella, Cytomegalo and Herpes virus) laboratory and technicians.

The initial descriptive study was intended to answer the basic questions regarding the distribution, type, trend and magnitude of the birth defects in the selected governorates, which are affected, where they live and when the anomaly appeared. Determination as to why these defects are happening in specific populations, in specific locations and during specific times will be done during later phases of the programme.

The data was collected from selected districts in eight governorates (Baghdad/karkh and Rasafa, Anbar, Basrah, Thi Qar, Sulaymaniyah, Mosul, Babil and Dialah ). The selection of areas was done according to the following criteria:

- Feasibility and security conditions;
- Vulnerability and identified need (using the recent Analysis in the framework of IHAP and UNDAF);
- Catchments population; and
- Regional balance

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<sup>1</sup> *The global burden of disease: 2004 update*. Geneva, World Health Organization, 2008.

As part of the initial steps of the mentioned study MOH submitted a study protocol to WHO for revision and finalization by WHO experts. The methodology of the study protocol involved collecting data on congenital birth defects at household level from 18 districts in 8 governorates as a pilot. A draft tool for data collection was prepared which was reviewed by experts at the global level because assessing the magnitude of congenital birth defects and its correlation with a probable cause is not something which can be arrived using simplistic tools, that is why the need for review of the tool from experts who have been engaged in similar exercises globally was very crucial for the outcome of the process.

In response to the request of the MOH, WHO organized the First Technical Consultation Meeting on the project "Pilot Assessment of Congenital Birth Defects (CBD) in Iraq", 27-29 September 2010, Istanbul, Turkey. More than thirty international and national experts from the Ministry of Health, Center for Disease Control and Prevention in Atlanta and the World Health organization represented by WHO/Iraq office, consultants from the RO, HQ and WHO collaborating centre participated in the meeting to discuss the methodology of the up-coming household survey which aimed to assess the magnitude, distribution and trend of the Congenital Birth Defects in Iraq in Six Governorates. During the three days meeting, the experts had a chance to review and update the Ministry of Health draft protocol, data collection tools and data analysis plan. The participants developed the outlines for the study questionnaire, design the sampling theme for the study including the sample size, methodology and came out with a work plan including the logistic and financial resources and time frame for key activities.

Subsequent to this important planning meeting the Minister of health Iraq established a steering committee headed by a deputy minister and comprised of public health professionals from MOH, Statistical experts from Ministry of Planning and experts from Ministries of Environment and Agriculture. WHO was tasked to serve as the secretariat of the steering committee. Below terms of reference were agreed for the steering committee:

- Ensure ongoing coordination and planning between the MoH, MoP, MoEn, MoAgri and partners.
- Review and finalize the draft survey protocol
- Discuss and approve the work plan
- Ensuring adequate financial, human and organizational resources for the implementation of the work plan
- On-going planning and implementation of the survey
- Ensuring timely data analysis, report writing and dissemination
- Discussing the draft report presenting the results of the survey
- Organizing high level meetings to advocate for action based on the results of the survey
- Assist in planning additional activities to implement preventive interventions or further studies

A second technical meeting was held from 27-29 July 2011, Erbil-Iraq. The meeting was participated by 20 members of the CBD project steering committee from MoH, MoHE, and Ministry of Environment and other line ministries and WHO technical officers to discuss the and agree on the methodology. The methodology by then was reviewed and updated by some best global experts on the subject as well as technical experts from WHO Regional Office and HQ. The meeting also decided to extend the study to eight (eight plus one dividing Baghdad into two) governorates. The meeting finalized the survey methodology, approved the workplan as well as approving the co-financing of the activities of the workplan by MOH and WHO. The following objectives were agreed for the survey:

1. Measuring the magnitude, trend, and type of congenital birth defects at the selected district level.
2. Identifying the possible risk factors of CBD
3. Assessment of the burden (impact) of CBD on the care providers.



### **Second Technical Consultation meeting on CBD, Erbil ,Iraq July 2011**

Discussion and preparation for the study started in mid-2011. Since the design of the study and agreeing on the scientific methodology required inputs from the best experts in the world, it took almost 10 months to develop the methodology, subjected it to pilot-testing and make amendments after the pilot testing. The study started in May/June 2012 and the data collection process has been completed in the beginning of October 2012. Currently, data is being analyzed and based on the decision of Ministry of Health of Iraq, the results of the study will be published by May-June 2013 as it requires extensive data analysis and report writing.

#### **Survey Methodology**

A large sample size in 8+1 governorates was selected for interviews and verification. Every married women aged 15 -49 years at the time of the Survey living in selected households was included in the survey frame. A two-stage cluster sampling design was used with stratification to generate estimates for the outcomes and trends at district levels. The total sample size is (10800) households selected from (18) districts in (8) governorates with a sample size of 600 households from each districts. The criteria for selecting these districts were based on the following:

Prevalence of birth defects in the health statistical records of related governorates.  
Whether the district is of a high, medium or low risk (security situation).

The sample size was determined using standard statistical procedures. The anticipated prevalence, desired precision, and assumed design effect for each outcome were determined based on the results from previous surveys and studies related to the outcomes of interest.

#### **The survey covered the following key information:**

- Household information
- The Main risk factors that were addressed in the questionnaire on Congenital Birth Defects:
  - Genetic causes of congenital anomalies
  - Infectious diseases
  - Physical agents
  - Drugs

- Maternal age, effective Antenatal care, , parental consanguinity, family history of birth defects and previous abortions and stillbirths

- Also a module on sibling history to detect the presence of CBD in other members in the family was added. Besides some questions that provided information about the impact of taking care of a person with CBD on the health status of the care providers

ICD-10 coding was used for the type of CBD present in all the following districts. The following table shows the governorates and the districts included in the survey. Two districts were selected in each governorate; one considered as high risk district the other one as a control within the same governorate (please see the table below).

### Focus of the study

The study is looking at the prevalence of congenital birth defects in the selected 8+1 governorates among

No	Governorates	High risk districts	Control Districts	No	Governorates	High risk districts	Control Districts
1.	Baghdad/Rasafa	Al- Madaeen	Al Rasefa	2.	Diyala	Al Khalis	Baladrooz
3.	Baghdad/Kharth	Al Mahmoudia	Al Tarimeia	4.	Babel	AL-Musaib	Al-Hilla
5.	Anbar	Fallujah	Al Qaim	6.	Ninewa	Telafer	AL-Mousul
7.	Dhi-Qaar	Al Jabayiash	Al Nasseria	8.	Sulaimaniyah	Halabjah	Jimjamal
9.	Basrah	Al Zubair	Abu Al Qaseeb				

children.

The reason for looking at the CBD is the desire of the MOH Iraq to gather more evidence about CBD in the country in the wake of some increase noticed in the MOH Health Information Reports and few individual studies conducted in Iraq pointing towards an increase in the prevalence. The independent studies were confined to smaller geographical areas (mostly few districts) reviewing only the hospital records; that is why the MOH decided to conduct a household survey on a wider sample size. The study will also be looking at some of the biological and environmental risk factors, although a clear cause and effect relationship with risk factors will be difficult to discern for which more studies may be required. As mentioned earlier, all types of congenital birth anomalies are looked into according to International Classification of Diseases (ICD)-10. Around 29 codes are included in the data collection process which covers the spectrum of all congenital anomalies. If the results show a high prevalence, WHO will advocate for additional studies to find out the reasons and invite other agencies/institutions for further research.

### Launching the results of the study:

The data is currently being analyzed by WHO experts as well as the trained staff from the steering committee. The Regional Advisor EST/EMRO is leading the data analysis process with the national authorities and national experts. A three day extensive discussion, led by RA/EST, took place in Erbil in October preparing the following roadmap for publishing the results (please see below). It is pertinent to mention here that the leadership and ownership vis-à-vis

NO	Activity	Time frame
1	Completion of Data entry from the two districts of Sulamaniya governorate	12 <sup>th</sup> of November
2	Cleaning of the data from Sulaimaniyah will be carried out on online basis	19 <sup>th</sup> November
3	Translation of the questionnaire into English completed	3 <sup>rd</sup> of November
4	Data Dictionary in English created	10 <sup>th</sup> November
5	Preparation of the first 2 chapters of the report by National team	15 <sup>th</sup> December
6	Identify and recruit consultant to undertake the analysis of the data and develop a study report	15 <sup>th</sup> November
7	Data from all the 9 governorates along with the support documents and data dictionary will be sent to EST Department for further review and overseeing the production of tables along with the consultant	ASAP
8	Internal meeting to discuss the findings of the draft study report	Feb 2013
9	Finalization, editing and printing of the report	March- April 2013
10	Launch of the final study report	May- June 2013

The provision of solid baseline data and information on congenital birth defect amongst the Iraqi population at national and Governorate levels contributes to the NDS Goal: 7. Improve quality of Health. It directly contributes to ICI Benchmarks 4.4.1.4 Improve health and nutrition of all Iraqis as a cornerstone of welfare and economic development, and to the UNCT's health and nutrition outcome: "Health and nutrition policy makers and service providers at all levels have developed, reviewed and implemented policies, strategies, plans and programmes." Existing figures indicate that work on reducing the incidence of and mortality associated with congenital anomalies needs to be linked to efforts to achieve the Millennium Development Goal (MDG) 4 target of a two thirds reduction in the mortality rate of children under-five years of age between 1990 and 2015.

## I. Assessment of Programme Results:

It is to mention that one of the main outputs of this project has been the conduction of household survey and the development of survey findings report which will reflect the prevalence of congenital birth defect in selected governorates of Iraq. The reason for looking at the CBD is the desire of the MOH Iraq to gather more evidence about CBD in the country in the wake of some increase noticed in the MOH Health Information Reports and few individual studies conducted in Iraq pointing towards an increase in the prevalence. The independent studies were confined to smaller geographical areas (mostly few districts) reviewing only the hospital records; that is why the MOH decided to conduct a household survey on a wider sample size. The study will also be looking at some of the biological and environmental risk factors, although a clear cause and effect relationship with risk factors will be difficult to discern for which more studies may be required. The mandate of the study is to map and to assess scientifically the prevalence of congenital birth defects using the most viable methodology for a larger sample size and geographical area. As mentioned earlier, all types of congenital birth anomalies are looked into according to International Classification of Diseases (ICD)-10. Around 29 codes are included in the data collection process which covers the spectrum of all congenital anomalies. If the results show a high prevalence, MOH will embark on additional studies to find out the reasons and invite other agencies/institutions for further research.

**Outcomes:** Health and nutrition policy makers and service providers at all levels have developed, reviewed and implemented policies, strategies, plans and programmes. It is important to underscore that the mentioned outcome has been achieved through the development of various strategies supported by a number of other UNDH –ITF projects including this project. The evidence provided by the study conducted under this project will led to the development of strategy on how to manage the increasing burden of diseases caused by congenital birth defects.

The following 2 outputs were accomplished through timely implementation of the following activities.

**Outputs:** JP Output 1.1: MoH is better able to understand the distribution, type, trends and magnitude of birth defects in selected districts of 6 governorates

- WHO /Iraq in coordination with the WHO/HQ expert, Consultant from WHO collaborating center in Rome and Professor of community genetics from University college, London reviewed and finalized the first draft of the CBD survey protocol and questionnaire;
- Review of literatures by WHO in coordination with members of steering committee and WHO experts was conducted to finalize the study protocol;
- Series of discussions were made through meetings with Ministry of environment about environmental pollutions and its effect on birth defects;
- Ministry of Health in Iraq in collaboration with WHO organized the second Technical Consultation Meeting on the project "Pilot Assessment of Congenital Birth Defects (CBD) in Iraq 27-29 July 2011, Erbil-Iraq. During the three days meeting, the members had the chance to review and update the study questionnaire, discuss the sampling frame for the study including the sample size, methodology and they come out with a work plan which includes the logistic and financial resources and time frame for key activities;
- Development of social mobilization plan for conducting the CBD survey
- Ministry of Health in Iraq in collaboration with World Health Organization organized the third Technical Consultation Meeting on the project "Pilot Assessment of Congenital Birth Defects (CBD) in Iraq 17-18 December 2011. The meeting was participated by 7 members of the CBD project steering committee from MoH, Federal and Kurdistan –Iraq, CSO and MoHE, and WHO CBD Programme manager. The meeting was facilitated by WHO Regional Advisor/EST. During the 2 days meeting, the members had the chance to review and update the study questionnaire, discuss the sampling frame for the study including the sample size, methodology and they come out with a work plan for CBD survey implementation for the period 1st January -31 July 2012 which includes budget and time line for key activities;
- WHO conducted quarterly VC meetings with MoH steering committee members and WHO/EMRO to discuss the survey tools( March, June, September and November 2011)
- Finalization of the sampling frame in the 8 selected governorates and 18 districts
- WHO supported MoH in conducting the Training Workshop for the central and local supervisors on Congenital Birth Defects survey (CBD) in selected governorates in Iraq
- WHO conducted 2 VC meetings with MoH steering committee members to discuss the survey tools (February-March 2012)
- Technical support to MoH teams during the implementation of the survey through supervision of the teams through visiting the households and conducting interviews of women by WHO programme manager.
- WHO supported MoH in conducting the Training Workshop for the central and local supervisors on Congenital Birth Defects survey (CBD) in selected governorates in Iraq with the following objectives: to
  - Train survey teams on Data collection tools (questionnaires and instruction manuals)
  - Discuss Survey methodology and Field work implementation plan
  - Discuss roles and responsibilities for central and local supervisors
- The study protocol for the CBD survey was finalized for the 18 districts in the 8 selected governorates, where the survey was conducted.
- Printing of the three Arabic and Kurdish questionnaire forms and survey instruction was completed.

- Implementation of the CBD survey in all selected governorates was completed including Kurdistan. The number of households in all the 18 district was 10,800(600 household /district)
- Provision of stationery and other logistical support to the survey teams, central and local supervisors.
- A training workshop took place in Erbil during the period of 21-23 October 2012, with the technical assistance of WHO Regional Office. The objective of this training workshop was to review the process of data collection, entry, and secondary data preliminary analysis of the data, as well as agreeing on the next steps of the study completion.

**Output 1.2:** MoH TORCH laboratory technicians have improved capacities to conduct tests on risk factors associated to birth defects.

The following activities aiming to strengthen the various capacity aspects of MOH officials were undertaken which contributed to the successful accomplishment of the mentioned output.

- Organization of three fellowships for the three participants from the TORCH lab to participate in training in Rome on Congenital Birth Defects Surveillance.
- Conducted 4 steering committee meeting to discuss the plan of action for CBD surveillance
- Three training course for 75 participants from central Lab technicians on TORCH
- Two training course for 42 Lab technicians from central public health on toxoplasmosis, Rubella, Cytomegalovirus and Herpes lab. analysis ( TORCH)
- Training of 2 data programmer in Cairo on CSpro data entry programme for 6 days.

#### **Qualitative assessment:**

- WHO being the lead agency in this joint project have worked closely with MOH and MoP/CSO representatives, key managers, middle managers and health professionals from the central, governorate and district levels, which directly increases levels of capacity building and long term sustainability.
- WHO worked closely through its National Staff network in governorates with the government officials at governorate and district levels through teleconferencing and direct meetings organized both in Amman and Baghdad. The entire WHO network of staff, logistics and telecommunication contributed to support the MoH. Close collaboration has been sustained with the UN Health Cluster throughout all phases of implementation of this project.
- Other highlights and **cross-cutting issues** pertinent to the results being reported on.

**Human Rights:** This programme has assisted in identifying the magnitude of the population exposed to risk factors and hence will provide clear independent evidence on CBD in Iraq to assist in formulating human rights based policy and targeted interventions.

**Gender equality: This project and its main outputs supported** Ministry of Health and Ministry of Planning and Development Cooperation, COSIT and KRSO, Ministry of Higher Education in data collection that is segregated by sex which will provide accurate information on distribution of CBD burden on the health system. The need for gender mainstreaming throughout all policies and activities has been addressed in the various trainings and technical support rendered to the GoI within the context of this programme.

**Key environmental issues:** Implementation of the project does not have any direct effect on the environment. However, there are selected environmental risk factors for congenital anomalies based on evidence. Phase two which will deal with the environmental interventions will be taking into consideration the results of Phase One.

**Employment generation:** This programme contributed to the generation of direct and indirect local employment opportunities in Iraq. It offered opportunities for participants to acquire specific training skills that they will be able to utilize for individual and social development. A large number of professional staff was involved in the conduction of study, various technical discussion and meetings and thus have benefited technically especially in terms of enhanced knowledge on data analysis ,interpretation etc.

## ii) Indicator Based Performance Assessment:

Using the **Programme Results Framework from the Project Document / AWP**s - provide details of the achievement of indicators at both the output and outcome level in the table below. Where it has not been possible to collect data on indicators, clear explanation should be given explaining why.

	<b>Performance Indicators</b>	<b>Indicator Baselines</b>	<b>Planned Indicator Targets</b>	<b>Achieved Indicator Targets</b>	<b>Reasons for Variance</b>	<b>Source of Verification</b>	<b>Comments (if any)</b>
<b>Outcome 1:</b> <i>Health and nutrition policy makers and service providers at all levels have developed, reviewed and implemented policies, strategies, plans and programmes</i>							
<b>Output 1.1</b> MoH is better able to understand the distribution, type, trends and magnitude of birth defects in selected districts of 6 governorates	<b>Indicator 1.1.1</b> A protocol on assessment of congenital birth defects developed	0	1	Protocol and questionnaire finalized		MoH and WHO progress report	
	<b>Indicator 1.1.2</b> Number of districts which successfully completed the initial descriptive study	0	18 districts in 8 governorates	0	Survey successfully undertaken as planned	Survey reports	The survey was implemented in May-June 2012.
	<b>Indicator 1.1.3</b> Number of data collectors(field workers) trained on data collection tools	0	48	12		Training reports	Members of the steering committee
	<b>Indicator 1.1.4</b> % of trainees satisfied with the quality of training in terms relevance and usefulness	NA	80%	40%		Pre-post training assessment	-All trainees were satisfied from the quality of training.  - two training courses were conducted in April 2012 for the interviewer and data entry staff
	<b>Indicator 1.1.5</b> Number of local supervisors trained on study on data collection tools	0	7	0		Training reports	The activity was implemented early 2012.
	<b>Indicator 1.1.6</b> % of trainees satisfied with	NA	80%	Not		Pre-post training	The activity was implemented early

	the quality of training in terms relevance and usefulness			implemented		assessment	2012.
	<b>Indicator 1.1.7</b> Assessment on type, trends and magnitude of birth defects in 6 districts completed	0	1	0	Survey was successfully implemented	Assessment Report	The survey took place in May- June 2012.
<b>Output 1.2</b>	<b>Indicator 1.2.1</b> Number of laboratory personnel trained on PCR for detecting associated risk factors(Toxoplasmosis, Rubella Cytomegalo and Herpes virus)	0	30	8		Training report	
	<b>Indicator 1.2.2</b> % of trainees satisfied with the quality of training in terms relevance and usefulness	0	80%	40%		Pre and post training tests	
	<b>Indicator 1.2.3</b> Number of PCR equipment provided to MoH laboratories	0	2	Completed		Receiving reports	
	<b>Indicator 1.2. 4</b> Number of Diagnostic kits provided to MoH laboratories	0	10	Completed		Receiving reports	

## **i) Evaluation, Best Practices and Lessons Learned**

The MoH and the DoH in the selected governorates were the key implementing partners whilst WHO was responsible for overall management, coordination and reporting. In addition to the close collaboration between WHO expertise at Head Quarter (HQ) and the Regional office and the Government, WHO worked extensively with WHO Collaborating Centers which enabled timely and efficient access to the best experts in the area of congenital birth defects. The WHO collaborating centers are institutions such as research institutes, parts of universities or academies, which are designated by the WHO Director-General to carry out activities in support of the Organization's programmes.

WHO also sought active participation of relevant UN agencies and Non- Governmental Organizations (NGOs). The study questionnaire and protocols for the study on Congenital Birth Defect was developed in close collaboration of the agencies leading the Multiple Indicator Cluster Survey (MICS 4) and the Iraq Women's Health Survey (I-WISH) in order to include additional questions that will complement the data from this study.

The Project Manager was in charge of the day-to-day management of the project, including implementation the work plan, budget planning and oversight, drafting terms of reference for the acquisition of services and supplies and the oversight of operations in the field. The WHO Regional for the Eastern Mediterranean and WHO Headquarters provided technical support and back up as needed.

The project team had monthly meetings and reviewed the progress of the project, addressed problems and bottlenecks and assisted in follow up of activities related to the study planning, implementation, monitoring and maintaining documentation. In addition, the Director of Primary Health Care and Deputy Director of Public Health Directorate based in Baghdad managed the technical aspects of the study and coordination between WHO Iraq Country Office, COSIT and KRSO. These two persons were responsible for ensuring that the technical quality standards of the study, coordination of training workshops and reporting are maintained.

The MoH established and chaired a Programme Steering Committee (PSC) in coordination with WHO in order to oversee the project and serve as the guiding mechanism for the larger programme once additional funding is secured. The PSC met at least on a quarterly basis and ad hoc whenever needed to review the implementation and provide feedback. The PSC supervised the activities of a Technical Project Committee (TPC) and also was responsible for following and ensuring that the project is implemented in accordance with relevant standards and guidelines.

Moreover, WHO followed its monitoring and evaluation guidelines benefiting from existing monitoring structures in Iraq such as WHO offices and meeting points in the North, South and Central regions, as well as the Governorate-based facilitator network. Field staff monitored the implementation of the project on the ground with oversight from the Project Manager who reports to the PSC. Progress was monitored against outputs and indicators as detailed in the results framework in this project document. The regular meetings of PSC and periodic reports from the technical experts, COSIT and KRSO provided regular updates on the progress of activities.

WHO used its internal monitoring and evaluation process as described below.

- Track implementation of activities
- Identify risks and provide contingency action
- Ensure that technical support is timely provided as necessary
- Provide a financial updates

- Submit the quarterly fiches

WHO produced quarterly reports which were submitted to the PSC Chair. The report covered the following:

- Follow up on progress in the implementation of all programme activities as outlined in the programme annual plans of action
- Identify any delays in programme implementation and recommend corrective action needed
- Review quarterly financial reports for each of the programme activities.

The PSC conducted quarterly meetings to:

- Review quarterly progress narrative and financial reports submitted by WHO to report on results,
- Take action over any contingencies and risks that may delay/hinder the project implementation,
- Oversee the midterm review process.

In addition, a regular monthly monitoring and reporting mechanism was instituted. This enabled the Project Manager and Project Coordinator to regularly monitor the implementation process. In addition, to ensure the effectiveness of monitoring system, the six Governorate Focal Points worked in close coordination with the Project Manager and Project Coordinator.<sup>2</sup> This standardized WHO integrated monitoring system allowed fast reaction to any sudden changes which could have affected the implementation of the programme.

**Problem / Challenge faced:**

Despite the sensitive nature of this project, it is imperative to underscore that all the project phases went very smoothly with no major constraints.

There was delay in finalization of the study protocols which caused delay in the conduction of the study. As this study had to be conducted involving larger geographical area and there were no ready questionnaire and study protocols as well as inadequate in house capacity which necessitated the deployment of various experts to review the protocols and adapt it to Iraq situation. The process of deployment of experts especially in view of the prevailing security situation caused delay in the finalization of survey tools and thus conduction of study however the delay was not significant which would have affected the pace of study negatively.

The specific sensitivity created by the media and some other smaller level studies which were carried out by some National and International experts and the unprecedented nature of this study has caused some unrest especially about the scope and mandate of the study. This problem has been addressed by issuance of press releases especially focusing on the scope and mandate of this study.

**Programme Interventions:**

The mentioned problems and mild constraints in the delivery of project outputs were carefully managed by establishing a clear project design and monitoring structure fully owned and participated by the government counterparts. In addition, the project activities were closely aligned with relevant implementing partners especially with those who were responsible to undertake big health sector studies i.e. with UNICEF for MICS 4 studies and with UNFPA for I-WISH study.

The data confidentially has been preserved as articulated in the study protocols to avoid the unnecessary

<sup>2</sup> WHO has a network of national staff in Iraq at governorate level. This network will back up the implementation of the program whenever needed and will provide an additional monitoring mechanism.

anxiety and concerned which would have been caused by the early release of the preliminary findings.

The highly political and sensitive nature of the study under this project caused all the 3 levels of the organization to work together and make the process and findings truly evidence based. In addition the study protocols and questionnaire were reviewed by a number of international and national experts in order to make it more scientifically sound and tailored to Iraq context.

### **Results:**

The large size household survey which was supported by this project enhanced the capacity of government at all levels in the design of study protocols, implementation, monitoring of survey as well as management and analysis of data. The management structure which was established to oversee the implementation of this study and which was capacitated from time to time will assist in the design and implementation of subsequent studies which might be needed in order to establish the true cause and effect relationship of the CBD and the factors which will be revealed by the current study.

In addition several technical trainings aiming to enhance the knowledge of various involved government partners were conducted which will facilitate the conduction of similar studies in the coming period.

It is important to underline that the findings of the mentioned household study is currently under critical technical review in order to make it more scientifically robust. The findings will be shared with the government and will be launched by the government as when they deem appropriate.

### **Lessons Learned:**

- Ownership of the government and involvement and understanding of the various levels of government officials from multiple Ministries played a key role in the successful implementation of this project especially in the conduction of study of such sensitive nature.
- In addition, close collaboration and involvement of all key stakeholders played a landmark role in the delivery of various project activities supported by this project with no significant delay.
- Enhanced focus to build the capacity of government counterparts in all stages of project design, implementation and monitoring has been found a successful strategy in order to tackle the delay and enhance the use of findings of studies by the official for evidence based decision making and programing.
- The involvement of 3 levels of WHO has been found very useful especially in the building of capacity of various levels of government as well as ensuring technical support from a wide range of globally available experts in order to make the study of true significance. This will assist the government in managing the probable high burden of congenital anomalies and in the development of future appropriate policy options.

Some photos taken during the CBD survey in Iraq in the month of May- June 2012

