



# **COMPLETION REPORT FOR PROJECT:**

D2-09: MALARIA AND LEISHMANIA PREVENTION AND CONTROL PROGRAMME & AVIAN INFLUENZA PREVENTION AND CONTROL PROGRAMME TODAY'S DATE 30 MARCH 2007

Summary	
Participating UN Organisation:	Cluster:
The World Health Organization	Cluster D: Health
Project No. and Project Title:	Project Location/Region/Province:
D2-09: Malaria and Leishmania Prevention and Control Programme & Avian Influenza prevention and control programme	All over Iraq with special attention to the endemic areas; mainly the North for Malaria control and the Centre, Upper and Lower South for Leishmaniasis Control. Avian influenza activities have been conducted all over Iraq.
Reporting Period:	Report Number:
September 2005- November 2006	3 (Final) Atlas award number 54890 Atlas project number 66890
Counterpart organisations / implementing partners:	Project cost:

## Abbreviations and acronyms:

Ministry of Health

Ministry of Health MOH:

World Health Organization WHO:

# **Project Duration:**

Approval 29 Aug 2005 Starting 15 September 2005 Completion 30 November 2006 14 months

**US\$ 5,156,640** - received September 2005

# I. Purpose

The project aims to control malaria and leishmania and intensify the prevention activities nationwide with special attention to areas with high endemicity since Iraq is moving towards malaria elimination. In addition, to support Avian Influenza control and prevention activities including strengthening early warning system, improving lab based surveillance, conducting community and other awareness activities.

# Main objectives and outcomes expected as per approved Project/Programme/project document:

The development goal of this project is to strengthen control and prevention activities for malaria and leishmania so that they are no longer major public health problems in Iraq, and to strengthen control and prevention activities for avian influenza. The main objectives are:

- 1. To reduce morbidity and maintain prevention of mortality due to malaria and leishmania;
- 2. To maintain the malaria and leishmania free areas and prevent epidemics;
- 3. To prevent and control avian influenza.

# The expected outcomes of the project are as per the following:

- 3. Morbidity is reduced and prevention of mortality due to malaria and leishmania is maintained;
- 4. Malaria and leishmania free areas are maintained;
- 5. Malaria and leishmania epidemics are prevented;
- 4. Avian influenza is controlled and prevented





#### The expected outcomes of the programme within this reporting period were

- Integrated vector control including spraying and fogging of at least 90% of households in endemic areas conducted and bednets distributed to selected families in high risk areas.
- Advocacy meetings in high risk governorates to raise the community awareness on preventive and control measures for malaria and leishmaniasis for community leaders, religious leaders, teachers, and other key influential persons conducted.
- Capacity building on case management and prevention of malaria and leishmaniasis provided.
- Disease surveillance for early detection and prompt response to outbreak strengthened in epidemic prone areas.
- Epidemiological and laboratory based surveillance system for Avian Influenza

strengthened and community awareness campaigns conducted.

Reference to how the programme/project related to the UN Assistance Strategy to Iraq and how it aimed to support Iraq national development goals and the Millennium Development Goals:

This project is in line with the UN Iraq assistance strategy and the UN Health Cluster matrix, as it addresses the outcome related to enhancing disease prevention and control. Furthermore, it is linked to **MDG 6** (Combating HIV/AIDS, Malaria and other diseases).

UN Health Cluster Matrix – Part related to communicable disease:

Outcome: enhance disease prevention and control including HIV/AIDS	<ul> <li>Disease control / prevention strategies , policies and programmes (communicable and non communicable/ mental health) strengthened and enhanced</li> <li>Capacity development programmes for all MOH cadres developed and implemented.</li> <li>Public health laboratories network strengthened</li> <li>Strengthened programme for prevention and early detection for HIV AIDS and other STI's</li> <li>Comprehensive approach to HIV-AIDS treatment and care developed and mainstreamed into existing services</li> </ul>

#### **Project Management arrangements**

The deterioration of the security situation, high turnover of staff and the paradox of humanitarian and developmental assistance are factors that entails cross border operation. WHO and the UN country team had to be innovative in order to successfully adapt operational modalities to the challenging environment.

The responsibility of enhancing and improving health indicators falls in most parts on WHO 's primary partner, the MOH. That said, it is recognised that the actions undertaken by other ministries also have a great impact on successful implementation. Hence, project managers have worked closely several ministries including the Ministry of: Education, Higher Education, Environment, Municipalities and Public Works, Agriculture, Interior, Finance, and Planning.

Through the programmatic approach adopted by the UN in Iraq, WHO, as the leading agency in health, works in close collaboration with all the other Health Cluster members including UNICEF, WFP, UNFPA, UNIDO UNOPS, IOM and UNIFEM. This collaboration is especially important during the planning and implementation stages to ensure consistency and continuity and to prevent overlapping. In addition to UN partners, WHO has been actively engaged with United States Agency for International Development (USAID) and other international organizations.

All items procured are being posted on IRFFI website, WHO website and Jordan and Iraq local newspapers, if the items procured are available in Iraq then it will be done inside the country, if the not then it will go through the international competitive bidding process.

Most of the training is being implemented in Amman or neighbouring countries.

Currently WHO has focal points in the Northern, Central and the Southern parts of the country who will monitor work implemented and will also report on public health issues.

WHO as the leading agency in the health and nutrition cluster acts as the secretariat for the health sector working group's biweekly meetings. These meetings are led by the MOH with the participation of the international organizations and donors. During these meeting different policies are discussed and proposals are endorsed.

#### II. Resources

Total approved budget and summary of resources used for the programme/project from the UNDG Iraq Trust Fund (and non-Trust Fund resources where applicable):

The total project budget approved by the UNDG Trust Fund Steering Committee was US\$ 5,156,640. Funds were received by WHO around the 9<sup>th</sup> September 2005, the official start date for implementation of the project. The funds were earmarked in the Trust Fund from the European Commission to the Health Cluster.

This budget was allocated to cover the costs of the following component activities:

- Supplies and Equipment: US\$ 3,510,000
- Contracts: US\$ 862,000
- Training: US\$ 166,100
- Personnel: US\$ 95,000
- Miscellaneous: US\$ 231,655
- Agency Support Costs: US\$ 291,885

Other additional resources which are being used in the implementation of the project, which are not included in the above mentioned budget include:

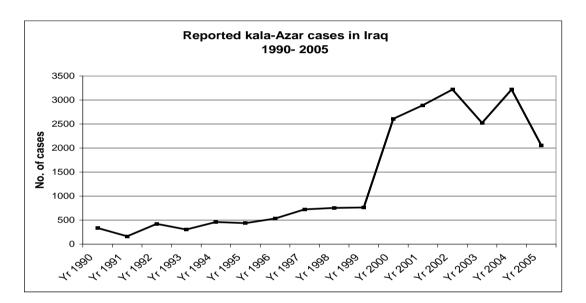
- Logistics and administrative facilities of WHO, such as videoconferencing tools which have been key to coordination and interaction with the MOH and other partners involved in the project;
- Technical support and backstopping received from the Regional and Headquarters offices outside the agency management support framework;
- Additional MOH and WHO personnel involved in the project implementation, monitoring, evaluation and reporting.

## III. Results

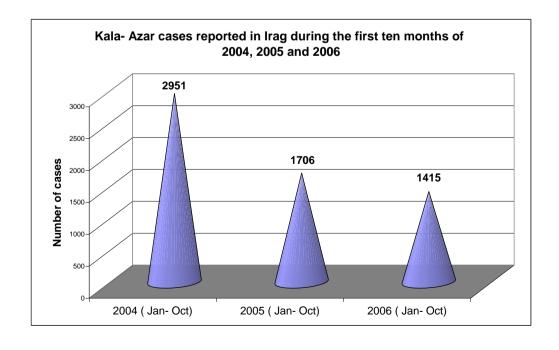
An assessment of the extent to which the programme/project component / programme /project has achieved the outcomes and outputs expected

#### Leishamania

The impact of the programme has been significant. Outbreaks of both malaria and leishmania have been prevented with 40% decrease in Visceral Leishmaniasis (Kala- Azar) cases reported during 2005 in comparison with 2004.

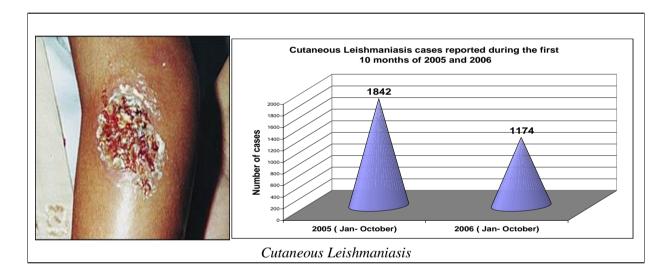


1,415 cases of Kala-Azar were reported in Iraq during the first 10 months of 2006, while 1,706 cases were reported during the first 10 months of 2005 and 2,951 cases during the first 10 months of 2004.



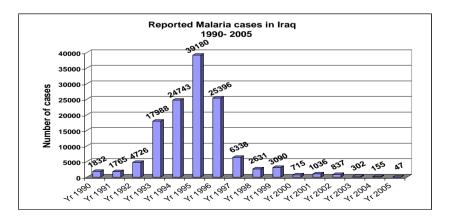
For Cutaneous Leishmaniasis, remarkable decrease in the incidence of cases has been noticed; only 1,174 cases were reported during the first 10 months of 2006 compared to 1,842 cases reported during the same period of 2005.

Cutaneous		
Leishmaniasis	2005	2006
January	482	415
February	494	331
March	410	255
April	155	71
May	53	30
June	13	13
July	21	4
August	35	19
September	39	9
October	140	27
Total	1842	1174

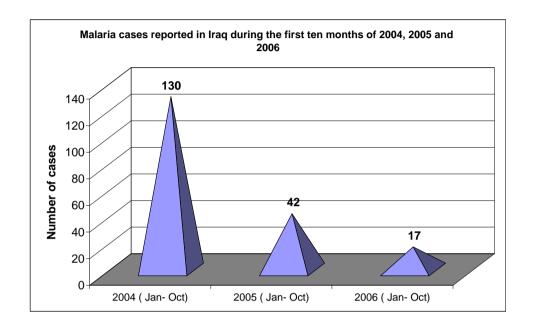


#### Malaria

17 cases of malaria have been reported in Iraq during the first 10 months of 2006 in comparison to 42 cases were reported during the first 10 months of 2005. A total of 47 cases were reported during 2005, 155 cases during 2004 and more than 1,000 cases during 2002.



The malaria situation in Iraq indicates that Iraq is moving towards the elimination phase in which the disease is now isolated in very specific areas. Movement into a malaria elimination phase has been agreed upon during the WHO inter-country malaria meeting that was conducted in Cairo, May 2005. This achievement is due to the comprehensive package of prevention and control activities conducted by the MOH with full technical and logistic support from WHO including early diagnosis and response, indoor spraying, fogging, entomological surveillance activities, rodent control activities and distribution of bednets



#### **Avian Influenza**

Since more than one year WHO Iraq is providing full technical and logistical support to reduce opportunities for the H5N1 avian influenza virus to infect humans and to strengthen avian and human pandemic influenza early warning system in Iraq. During November 2005, WHO Representative-Iraq (Cluster Coordinator) met the Deputy Prime Minister (Chairperson) for National Committee Avian Influenza Emergency and Response to accelerate the pandemic influenza strategic planning process. Committees have been established to implement the national preparedness plan; epidemiological and laboratory based surveillance systems have been strengthened; and community awareness campaigns have been conducted. Iraq showed full transparency and timely exchange of information related to the cases of Avian Influenza which is in line with the International Health Regulations

To date, only three cases of human H5N1 have been confirmed in Iraq, several suspected cases have been reported in the Northern governorates of Erbil and Sulaymaniyah and in the southern governorates of Missan, Wassit, Thiqar, Babel, Basra, as well as in Ninewah, Diala and the capital, Baghdad during the first few months of 2006.

About 450 human specimens were collected in order to screen all suspected cases, all the human suspected cases were negative for H5N1 except for the three cases; two from Suleimaniyah and one from Baghdad.

# Main activities undertaken and achievements/impacts:

## Malaria & Leishmania

Control of communicable diseases such as malaria and leishmaniasis is implemented through programmatic approaches and comprehensive packages of interventions.

During the reporting period many activities have been supported including the following:

- Full support for the spraying campaigns conducted in September- October 2005 and April-May 2006
- Full support for the fogging activities during 2005 and 2006





Spraying activities in Mosul





Fogging activities in Basra

Malaria spraying in Wassit

• Provision of long-lasting insecticide treated bed nets: WHO had provided bed nets for 192,000 families and supported distribution to the governorates;

S.N.	Governorate	No. of bed nets
1	Dahok	10,000
2	Erbil	10,000
3	Sulaimania	10,000
4	Ninawa	10,000
S.N. 1 2 3 4 5	Kirkuk	10,000

6	Diala	15,000
7	Baghdad\Kerkh	10,000
8	Baghdad\Rasafa	10,000
9	Babel	11,000
10	Najaf	7,000
11	Kerbala	10,000
12	Diwania	10,000
13	Muthanna	7,000
14	Anbar	10,000
15	Salahedin	7,000
16	Thiqar	11,000
17	Missan	10,000
18	Basra	11,000
19	Wassit	11,000
20	CDC (Reserve)	2,000
	Total	192,000

Distribution of bed-nets by governorates

- Conducted two national seminars (100 participants, for 2 days for each);
- 31 national training workshops have been conducted (3-4 days each) to raise the awareness of medical and paramedical workers in the government and private sectors on different malaria, leishmania prevention and control activities

Area	No. of workshops	Males	Females	Total
Leishmania	19	567	165	732
Malaria	12	371	145	516
Total	31	938	310	1248

• Finalizing the strategy for eliminating malaria; a meeting has been conducted in Amman where all malaria focal points and WHO Regional office experts participated.



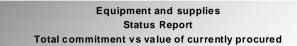


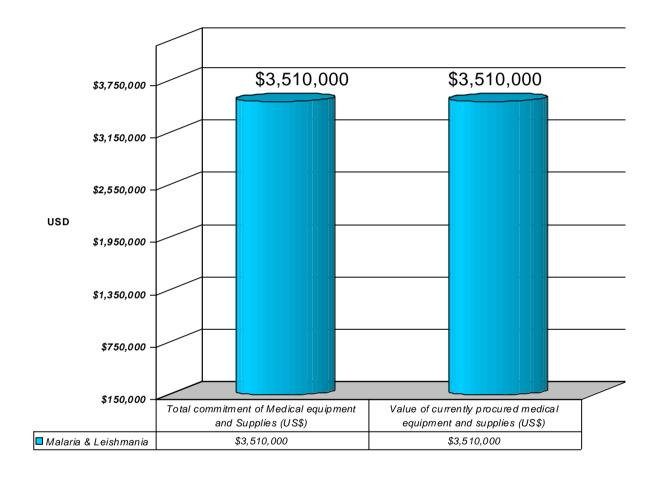
Participants during the meeting

- 19 entomological monitoring surveys have been conducted;
- 19 rodent control campaigns have been conducted all over Iraq;
- Vector control activities have been conducted, these included 19 training workshops, providing the needed kits and spraying at water collection and dumping sites;

Area	No. of workshops	Males	Females	Total
Vector Control	19	469	100	569

• Equipments and supplies have been procured and been delivered to Iraq. WHO has procured different pieces of medical equipment, supplies, kits, insecticides; accessories, etc worth US\$ 3,510,000 for malaria, leishmania and avian influenza programmes





# Procured Equipment, Supplies, Kits

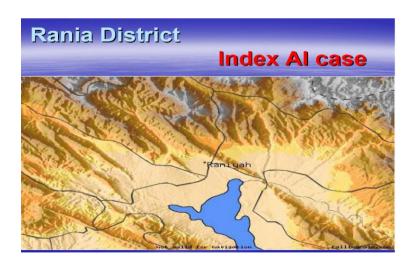
Description	Qty.
Long lasting insecticidal mosquito net	192,000
Dissecting/Stereo Microscope	30
Microscopes with binocular phototube with digital photo camera	6
Laboratory Microscope, biological standard set	100

ICT Malaria Combo Pf/Pan – Pv/Pm/Po, Cassette, 25 tests, shelf-life: 16 months	200 Kit
Mobile laboratory with special body to accommodate related equipment and	1
items	_
Toyota Double Cabin 4WD	21
Staining dish Schiefferdecker, for 20 slides of 76 x 26 mm	100
Microscope slides 76 x 26 mm  Blood lancet, SS, single packed	<i>40,000</i> <i>10,000</i>
PH meter with buffer solutions	20
Pipettes Color coded fixed volume (10, 20, 25, 50, 100, 200, 250, 500 and 1000	20
<i>uL</i> )	50 set
Tips for pipettes 0.5 to 250uL, pack of 1000	100
1.ps jo. p.pones one to 20 one, paids of 1000	pack 100
Tips for pipettes 200 to 1000uL, pack of 1000	pack
Water Still, 4 liters/hr – fully automatic	20
Diamond Pencil, clinical aids	100
Slide drying box, capacity 100 slide	1,000
Cover slide, pack of 100	50 Pack
Side lamp, mobile	47
Graduated cylinders, borosilicate glass capacity 1000ml	120
Beakers, low form, with graduation and spout capacity 250ml	120
Beakers, low form, with graduation and spout capacity 600ml	120
Beakers, low form, with graduation and spout capacity 1000ml	120
Conical flask, Erlenmeyer flask, narrow neck capacity 250ml	120
Conical flask, Erlenmeyer flask, narrow neck capacity 500ml	120
	15,000
Insecticides	kg
Support provided to National Influenza Center (Avian Influenza)	
Real Time Polymerase Chain reaction (RT-PCR) Applied Biosystem 7300, with training for 2 health technology staff	1
Kit, Flu A kit, 20 tests	5 kit
Kit, In Vitri EIA Flu A kit, 20 tests	5 kit
Viral specimen collection swab Culturette, packing size: box/100 pcs	50 pk
Tissue culture tubes with round bottom sterile, pk of 500	8 pk
MDCK serum free medium, pk of 1 L	5
D-MEM, pack of 500ml	20 bottle
RPMI 1640, pk of 6x500ml	2 bottle
Gentamicin Sulfate 50mg/ml, 10ml	100pk
Trypsin-EDTA 0.05%, pk of 6x100ml	2 pk
Tissue culture flask, growth area 25cm2, case of 500 pcs	4 case
Liquid Nitrogen Dewars, Classic 25 litre	20
Centrifuge, bench top refrigerated model Rotanta 460 R Hettich with swing out	2
rotor	
Fluorescence microscope	2

Inverted microscope	2
Inverted microscope with digital photo camera	1
Liquid Nitrogen Generator, 10 L	1
Egg Incubator	2
Liquid Nitrogen freezer , Cryogenic System 10K	1
CO2 incubator	2
PPE – Surgical Masks, box of 50	9,440 box
Latex gloves, M-size, box of 100	8,000 box
Latex gloves, L-size, box of 100	8,000 box
Disposable coverall head cover X-Large	90,000
Masks FFP2	40,000
Goggles, uncolored full screen protective, reusable	30,000
Tamiflue ( Anti Viral)	70,000 tablets

#### Avian Influenza

Three cases of human H5N1 have been confirmed in Iraq. Between 3-4 December 2005, representatives from the Ministry of Health, Ministry of Agriculture, Ministry of Environment, Ministry of Interior, Ministry of Education, Ministry of Higher Education, Deputy Prime Minister Office, beside representatives from the national technical committee have met in Amman, the meeting was organized by WHO and the MOH Iraq to draft the National Avian and Pandemic Influenza Strategic plan for Iraq. During the meeting, WHO has clarified the guidelines and the importance of identifying the interventions needed in different phases. Responsibilities of the technical committee, high level committee and every ministry concerned were identified; at the end of the meeting the first draft of the strategic plan was ready. WHO Iraq is providing full technical and logistic support to reduce opportunities for human H5N1 infections and to strengthen early warning system in Iraq.



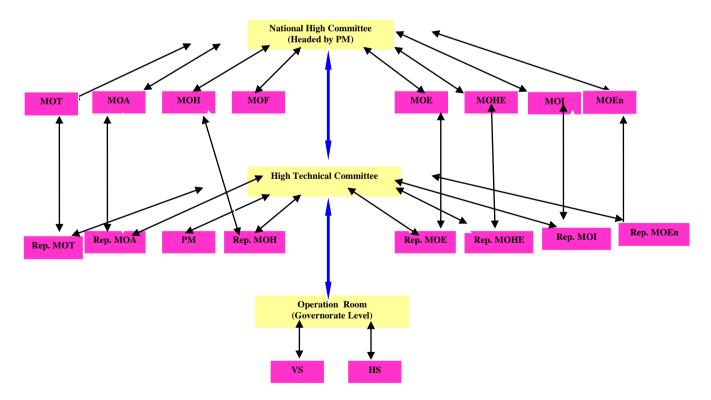
Mission organized upon the request of the Ministry of Health of Iraq and the MOH in Kurdistan area to assist in the investigation of Avian Influenza outbreak in Northern Iraq and after the first human case has been confirmed in Suleimniyah (Rania district)



Avian influenza International Experts' Mission to Iraq led by WHO

Under the control and prevention of Avian Influenza, technical and logistic support have been provided by WHO including the following:

• The establishment of a technical and high level committee led by the Deputy Prime Minister including the Ministry of Health, Ministry of Environment, Ministry of Interior, Ministry of Agriculture, Ministry of Education, Ministry of Higher Education, Ministry of Finance and Ministry of Trade.



• Between 28- 30 November 2005, four Iraqis and two WHO Iraq staff have participated in WHO Avian and pandemic Influenza intercountry meeting conducted in Cairo.



Participants during the meeting

- Technical and logistical support for testing Avian influenza samples (by the end of November 2006, about 450 human samples were tested in WHO reference laboratories)
- WHO Iraq has received the list of laboratory equipments, reagents and kits needed to improve Avian Influenza laboratory based surveillance for Iraq, the list includes the kits for polymerase chain reaction (PCR) identification of all types of influenza A type, kits for PCR identification of all types of influenza B type, kits for rapid detection of influenza, etc. The list has been procured through WHO/EMRO. Some of the kits have been procured from the local market (Amman) to insure rapid delivery.
- During the first few months of 2006, WHO Iraq has provided personal protective equipments (PPEs), with total cost: US\$ 45,000, which have been distributed to the Avian Influenza isolation units according to their needs.
- Real time PCR has been procured, two staff from the central public health lab (CPHL) -Baghdad have been trained in Amman on the use of the machine before it has been sent to Baghdad
- Antiviral treatment (Tamiflue) has been procured by WHO and distributed to the governorates according to the epidemiological situation, the total amount procured is 70,000 tablets
- Urgent investigation missions conducted by communicable diseases control (CDC) Baghdad to the North and Missan have been supported
- Avian Influenza surveillance tools have been revised and finalized. Posters have been printed and distributed to all governorates of Iraq
- The liquid nitrogen generator has been procured and will be delivered to Iraq as soon as possible. Two engineers have been trained in the Netherlands on the installation and use of the machine.
- PPEs for all Iraq (total cost of about US\$ 500,000) have been procured and delivered to Iraq.
- Between 5<sup>th</sup> 17<sup>th</sup> March 2006, four staff from the CPHL Baghdad have been trained in Naval Medical Research Unit No.3; (NAMRU) 3/Cairo on the advance techniques for the isolation and identification of different types and subtypes of Avian Influenza.

- Training on epidemiology and infection control for physicians and health workers in the isolation units, hospitals and PHC centers have been provided;
- Community awareness activities have been supported as per the following:
- 1. 10 TV spots
- 2. Leaflets have been technically reviewed, 700,000 copies have been printed and distributed
- 3. Health education materials in the Kurdish language for the Northern governorates (Cost: US\$ 3000) printed.
- 4. 83 Advocacy meetings including community leaders, women groups, mass media, high risk groups, PHC staff, etc as per the following

Governorate	No. of advocacy meetings	Males	Females	Total participants
Erbil	1	7	16	23
Mosul	5	110	30	140
Kirkuk	4	77	33	110
Basra	8	184	66	250
Missan	5	107	42	149
Muthana	3	73	17	90
Thiqar	4	79	31	110
Baghdad	22	300	355	655
Salaeddin	4	82	28	110
Babel	4	71	39	110
Diwaniyah	4	69	41	110
Najaf	4	84	26	110
Diala	4	75	35	110
Ramadi	4	88	22	110
Wassit	4	85	25	110
Karabala	3	57	23	80
Total	83	1548	829	2377









# Community awareness advocacy meetings





TV spots















#### Health education leaflets

- Production and distribution of weekly Information bulletins (12 bulletins have been issued and distributed, kindly refer to the WHO-Iraq website :www.emro.who.int/iraq)
- With technical and logistic support of WHO, a training workshop on Avian Influenza surveillance tools, approved by the Iraq MOH, has been conducted in Amman between 17-18 March 2006 with the participation of Avian Influenza focal points in all governorates. The purpose of the workshop was to train all the participants on the surveillance tools including case definition, case investigation, etc. taking into consideration the new situation in Iraq with regard to Avian Influenza

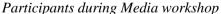




Participants during the AI workshop

• With the mandate to support national control and preparedness efforts through providing guidance for effective advocacy and communication for behaviour change, as well as to prevent and prepare for any Avian Influenza pandemic, WHO and UNICEF have jointly organized two consecutive training workshops for media practitioners and governorate spokesperson between 26<sup>th</sup> – 27<sup>th</sup> and 29<sup>th</sup> – 30<sup>th</sup> March 2006.







Participants during spokesperson workshop

- UNICEF/WHO workshop on the development of Avian Influenza communication and social mobilization strategy to identify priority communication and social mobilization needs
- Between 12-13 April 2006, six Iraqi officials from MOH and MOA, in addition to WHO Iraq Avian Influenza focal point have participated in the joint WHO FAO Avian Influenza meeting in Ankara. The purpose of the meeting was to bring together human and animal health officials from MOH and MOA to promote technical and operational joint collaboration for influenza surveillance, response and containment and to share experiences and practical lessons learned between countries affected in the regions Armenia, Azerbaijan, Georgia, Iran, Iraq, Syria and Turkey.
- Joint WHO-FAO- UNICEF working session for NGOs on Avian Influenza, 20 representatives

from local and international NGO's participated in this session.

- A joint WHO-FAO- UNICEF WFP Avian influenza fact sheet has been developed and distributed.
- Within the framework of UN system responses, WHO-FAO-UNICEF-WFP held a joint meeting from April 30 1 May 2006 in Cairo, Egypt to develop a joint strategic approach for the four organizations to respond to the country's needs, to formulate a memorandum of understanding (MOU) by the four organizations and to develop a plan for wider inter-country meetings on Avian Influenza/Human Influenza in the near future involving other partners and donor agencies.
- The WHO Iraq focal point for Avian Influenza has participated in the rapid response for Avian and Pandemic Influenza training of trainers workshop, which was conducted in Bangkok-Thailand during the period 17th -21st of July, 2006. The workshop was organized by the Global Disease Detection/International Emerging Infections Programme, Thai Ministry of Public Health (MOPH) USA Center for Disease Control (CDC) Collaboration, Department of Human Health Services (HHS)/ Centers for Disease Control and Prevention, Thai MOPH and WHO.



Rapid Response for Avian and Pandemic Influenza Training of Trainers Workshop, Bangkok, Thailand

A team from the Kurdistan region has participated in the rapid response for Avian and Pandemic Influenza training of trainers workshop which was conducted in Cairo- Egypt, WHO Iraq focal point for Avian Influenza was one of the facilitators in the workshop, the main objectives which were:

- 1. To develop qualified teams of professionals that will be responsible for investigation of outbreaks of human avian influenza cases and provide immediate response to the outbreak.
- 2. To develop a group of well trained staff to further conduct training of rapid response teams in their affiliated countries.



Rapid Response for Avian and Pandemic Influenza Training of Trainers Workshop, Cairo

Implementation constraints, lessons learned from addressing these and knowledge gained from assessments, evaluations and studies that have taken place during the project:

Security continues to hamper all areas of implementation. Transportation of supplies into Iraq was sometimes affected.

Remote management, procurement and cross border shipment of supplies are other sources of difficulties and delays.

#### Key partnerships and inter-agency collaboration, impact on results:

WHO's strongest partnership is with the MOH; the impact on results of this collaboration has been consistent capacity building of MOH staff in the project, which will strengthen the long term viability of this area of important work in Iraq.

# Highlights and cross cutting issues pertinent to the results e.g. gender disaggregation, policy engagement and participation of the public:

The programme outputs benefits all men, women and children of all creeds all over Iraq. The success of this program has been dependent on community participation and especially the roles of religious leader's and teachers in ensuring that people adopt preventative measures and that public health interventions are fully in place. Furthermore, the spraying and fogging campaigns have improved the environment.

# IV. Follow up actions and sustainability

Priority actions that should be supported/implemented following completion of project to build on achievements and partnerships rectify shortcomings encountered and use the lessons learned during the project with strong emphasis on achieving sustainability of the outcomes:

To ensure sustainability and to maintain the success achieved, two proposals have been developed and submitted to the UNDG Iraq Trust Fund, the first- the Avian and pandemic Influenza proposal (US\$ 4,300,000) has been approved, and the second- the communicable diseases proposal which has been submitted to UNDG and still under process for approval.

# Indication of major adjustments in the strategies, targets or key outcomes and outputs:

Due to savings made in the procurement of supplies by WHO in this project, WHO requested an change in project scope from the Steering Committee Support Office (SCSO), in order to continue support to Iraq for communicable disease control; specifically for Avian Influenza.

# Annex 1 Key Performance Indicators – Log Frame Matrix

Objectives	Measurable indicators	Means of verification	Outcomes
Development Objective  To strengthen control and prevention activities for Malaria and Leishmania so they are no longer major public health problems in Iraq	Morbidity and Mortality indicators	Communicable diseases data received from CDC Baghdad.	<ul> <li>No deaths due to Malaria or Leishmania have been reported</li> <li>Clear decrease in the incidence of Malaria and Leishmania.</li> <li>Iraq is moving towards Malaria elimination</li> </ul>
<ul> <li>Immediate Objectives:</li> <li>To reduce morbidity and maintain prevention of mortality due to Malaria and Leishmania;</li> <li>To maintain the Malaria and Leishmania free areas;</li> <li>To prevent Malaria and Leishmania epidemics.</li> <li>To prevent and control Avian Influenza</li> </ul>	No of confirmed and unconfirmed cases of malaria and < 5 Leishmania No of confirmed deaths due to malaria and Leishmania Source: Morbidity indicators/ CDC BaghdadPublic health reports received from the WHO focal points in the different governorates	-Disease surveillance/ CDC BaghdadThe presence of WHO focal points in different governorates will help in the verification.	<ul> <li>No deaths due to Malaria or Leishmania have been reported</li> <li>Malaria free areas have been maintained</li> <li>No epidemics due to Malaria or Leishmanai have been reported</li> <li>40% decrease in Visceral Leishmaniasis (Kala- Azar) cases reported during 2005 in comparison with 2004</li> <li>Only 1415 cases of Kala-Azar have been reported in Iraq during the first 10 months of 2006, while 1706 cases were reported during the first 10 months of 2005 and 2951 cases during the first 10 months of 2004</li> <li>Clear decrease in the incidence of Cutaneous Leishmaniasis has been noticed; only 1174 cases were reported during the first 10 months of 2006 while 1842 cases were reported during the first 10 months of 2005.</li> <li>17 cases of Malaria have been reported in Iraq during the first 10 months of 2005.</li> <li>17 cases of Malaria have been reported in Iraq during the first 10 months of 2005 and 130 cases during the first 10 months of 2004 only three cases of Avian Influenza have been reported during the first three months of 2006, since April 2006 no cases of Avian Influenza have been reported.</li> </ul>

#### **Outputs:**

- Integrated vector control including spraying and fogging of at least 90% of households in endemic areas; distribution of bednets to families in high risk areas.
- 2 national seminars and 10 advocacy meetings are conducted to raise the community awareness.
- 10 training workshops, ten fellowships are provided on case management and prevention of Malaria and leishmaniasis. A meeting in Amman is conducted to update Malaria Strategy.
- Disease surveillance for early detection and prompt response to outbreak is strengthened in epidemic prone areas.

- No of bed nets distributed
- No of seminars and advocacy meetings conducted
- No of health staff received training
- Number of fellowships provided
- No of emergency sprayings conducted
- -Disease surveillance/ CDC Baghdad. -The presence of WHO focal points in different governorates will help in the verification.
- 192,000 bed nets have been distributed to end users
- Two Prevention Malaria and leishmania spraying and fogging campaigns have been conducted
- Two national seminars;100 participants in each have been conducted
- 1248 health professional have been trained on Malaria and Leishmania prevention
- 10 fellowships have been provided
- Malaria Elimination strategic plan have drafted through a meeting conducted in Amman where Malaria focal points from all governorates have participated
- 19 Entomological monitoring surveys have been conducted
- 19 Rodent control campaigns have been conducted all over Iraq;
- WHO have procured almost 245,150 different pieces of medical equipment, supplies, kits
- 10 TV spots on Avian Influenza have been conducted
- 700,000 Avian Influenza leaflets have been prepared, printed and distributed
- 83 AI Advocacy meetings have been conducted
- Avian and Pandemic Influenza strategic contingency plan have been drafted
- Avian influenza surveillance tools have been finalized

# **Annex 2 PROJECT COSTS**

	UNDG ITF	Actual	
CATEGORY	approved budget	COST	Percentage of Approved
1. Personnel	US\$95,000	US\$95,000	100%
• including staff and consultants			
2. Contracts	US\$862,000	US\$862,000	100%
• including companies,			
professional services, grants			
3. Training	US\$166,100	US\$166,100	100%
4. Transport			
5. Supplies and commodities	US\$3,510,000	US\$3,510,000	100%
6. Equipment			
7. Travel			
8. Security	US\$92,662	US\$92,662	100%
9. Miscellaneous	US\$138,993	US\$138,993	100%
10. Agency Management	US\$291,885	US\$291,885	100%
Support			
Total Expenditure	US\$5,156,640	US\$5,156,640	100%