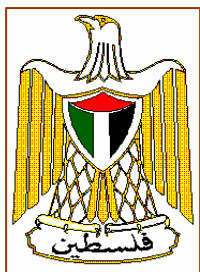


**Palestinian National plan  
for  
Pandemic  
Influenza**



**Palestinian National Authority  
Ministry of Health**

**2005**

## Table of Contents

	<i>Page</i>
A. Introduction .....	1
B. Background information( health services )..... .....	4
C. Early preparedness and response .....	6
<b>Annexes</b>	
<b>1</b> National committee for response to the threat of Avian Influenza	10
<b>2</b> National committee for response to the Avian Influenza pandemic threat	11
<b>3</b> Needs from vaccines and medications	12
<b>4</b> Protective Equipment	13
<b>5</b> Central Public Health Laboratories needs	14
<b>6</b> Cost of the preparedness for avian influenza threat	18

## Appreciations

PCR	Polymerase Chain Reaction
PNA	Palestinian National Authority
MoH	Ministry of Health
CPHL	Central Public Health Laboratories
MoA	Ministry of Agriculture
WHO	World Health Organization
UNICEF	United Nation Children's Fund
UNFPA	United Nations Fund for Population Activities
UNRWA	United Nations Relief and Works Agency for Palestine Refugees in the Near East
NGO	Non Governmental Organization
UN	United Nation
WB	West Bank
GS	Gaza Strip
HSWG	Health Sector Working Group
DG	Director General
ToT	Training of Trainers
PHC	Primary Health Care
PRCS	Palestinian Red Crescent Society

## **Introduction**

The Palestinian National Authority (PNA) considers the pandemic influenza as possible threat to the country as for the whole human being over the world.

The responsibility for preparedness and response to a pandemic influenza threat extends across all levels of government and all segments of society.

Cooperation and coordination among deferent ministries and other governmental institutions and between governmental and non-governmental organizations is crucial since no single entity alone can prevent or mitigate the impact of a pandemic.

Donors and UN agencies are requested to support financially and technically the Palestinian Authority to be able to cope efficiently with the impact of the pandemic and the required preparedness.

The Palestinian Authority will take all measures needed to support the Ministry of Agriculture and the Ministry of Health in general preparedness and response to the pandemic, at the same time call all non-governmental organization to support all governmental measures and take actions and initiatives toward facilitating and supporting the proper implementation of the national plan for avian influenza.

The Ministry of Health jointly with other PNA Ministries through cooperative efforts will be responsible for the following activities:

- Take the responsibility of preparedness, surveillance, response and containment activities.
- Secure the needed vaccines, Antivirals, diagnostic and personal protective equipment according to the recommendations of WHO.
- Strengthen the coordination and communication with the international community and mainly neighboring countries and to share information, exchange experiences and secure funds for implementing the needed activities.
- Improve the capacity of the Central Public Health Laboratories (CPHL) in diagnosis and research.
- Ensure that all governmental departments, health care facilities have developed and exercised preparedness and response plans.

- Providing guidance to the private sector and public on preparedness and response planning, in conjunction with the government and local authorities.

The Palestinian Ministry of Health in full cooperation with WHO and following its recommendations has build it is contingency plan to respond efficiently to the needs of outbreak of avian influenza cases in Palestine.

Palestine is located in the middle of the region and considered as one of the main passages of migratory wild birds in autumn and spring, around 550 million wild birds passes over Palestine yearly, thing which increase the possibility of transmission of avian influenza from these wild birds to the domestic birds and may be to human<sup>1</sup>.

The open trade with the countries of the region, tourism and free movement of missions, students, workers between Palestine and all other countries increase the risks of disease transmission.

According to the above ,the Ministry of Health communicated with WHO and started coordination with line ministries, deferent governmental departments, governmental and non- governmental institutes , private sector and all other concerned organizations, intensive meetings were conducted with WHO, and the Ministry of Agriculture/ veterinary department.

As a result the Minister of Health endorsed the drafted framework of the contingency plan and chaired a meeting with all stakeholders to finalize the contingency plan.

A national committee for response to the avian influenza threat was formed and approved by the Minister of Health (see annex 1), other committee for health education and public awareness also was formed and approved (annex 2). The Minister of Health also requested that district level subcommittees to be formed in each district, such subcommittees should report on regular bases to the national committee.

- The national committee for response to the avian influenza threat will be chaired by the assistant deputy minister of health.
- The committee will assign a spokesperson among its members.
- The national committee will assign a secretariat which will coordinate the communications between all concerned parties and

---

<sup>1</sup> Palestinian wildlife Society / <http://www.wildlife.org>

will be responsible for drafting the updates reports of the national committee distribution of any printed material, arranging the meetings of the national committee and any needed meetings with donors, UN agencies, national and international organizations and press conferences.

- The national committee will follow and benefit from the recommendations of WHO in all phases of the pandemic preparedness and response.
- The Central Public Health Laboratories in Ramallah and in Gaza city will be the main authorized laboratories for testing any material related to the avian influenza pandemic. The (CPHL) will have the right to send samples and to cooperate with other laboratories in the country or to any of affiliated with WHO laboratories as to confirm the diagnoses and to assure the quality of tests.
- It will be prohibited to any governmental or non governmental organization in the country to make any statements on the progress of the avian influenza pandemic without prior approval of the national committee.
- Notification<sup>2</sup> for any suspect case of avian influenza (among birds or human) should be sent immediately to the national committee with complete confidentiality as to avoid panic among the population. The technical staff will confirm the diagnosis and the national committee will be responsible to announce the presence of cases according to WHO recommendations.

### **Background information (Health Services)**

MoH is the main health care provider in Palestine; UNRWA is the second health care provider covering the 1,635,000 refugees. The MoH has the regulatory responsibility of the health system. Local NGOs and private professionals also provide some health services.

The health facility network in Palestine is well developed, in quantitative terms. At the end of 2004, among all providers, the total number of comprehensive PHC clinics was 630<sup>3</sup> (511 in the WB and 119 in GS).

Out of the total PHC clinics, 394 are run by the MoH, 54 by UNRWA (3) and 182 by NGOs. In addition, there are 230 maternal and child health

---

<sup>2</sup> WHO case definition: person with acute respiratory illness and epidemiological link to confirmed source and laboratory confirmation of A/H5 infection.

<sup>3</sup> Healthinform heath facilities database

clinics (202 in WB and 28 in GS), 153 specialized clinics (64 in WB and 89 in GS), 197 clinics for family planning (44 in GS and 153 in WB) and 58 dental clinics (27 in WB and 31 in GS).

On hospital care, the MoH is the main provider, as UNRWA almost exclusively focuses on PHC. In the Palestine, there are a total of 80 hospitals (57 in WB and 23 in GS) (+ two hospitals under construction Beit Hanun and Tal Sultan-Rafah). In total, 5,591 hospital beds are available, with a ratio of 15.4 beds per 10,000 populations. This rate is among the lowest in the region, if compared with Egypt (21/10,000) Jordan (18/10,000) Syria (14/10,000). Among all, 22 Hospitals are run by the MoH, with a total of 2,878 beds (1,668 in Gaza and 1,209 in WB); one hospital by UNRWA (in Qalquilia, with 63 beds) and 57 hospitals by the private sector ( NGOs: 33 hospitals, with 2,199 beds; private for profit: 24 hospitals, with 515 beds mainly gynecology and obstetric beds).

Among 16,935 employees in the Palestinian health system in 2003, about a half were working in the public sector (9,069 as in 2003 MoH staff). Physicians in the MoH are 1,722 and nurses (not including midwives) are 2,681 (according to).

**Table: Health sector workforce by category of personnel and provider/employer<sup>4</sup>**

	<b>MOH</b>	<b>NGOs</b>	<b>MPS</b>	<b>UNRWA</b>	<b>Total</b>
<b>Physicians</b>	1,722	976	253	142	<b>3,093</b>
<b>Nurses and midwives</b>	2,917	1,916	200	446	<b>5,479</b>
<b>Paramedical staff</b>	910	1,199	243	259	<b>2,611</b>
<b>Pharmacists</b>	254	37	36	2	<b>329</b>
<b>Dentists</b>	134	81	51	27	<b>293</b>
<b>Administration/ support</b>	3,064	1,385	276	257	<b>4,982</b>
<b>Health Workers</b>	68	38	18	24	<b>124</b>
<b>Total</b>	<b>9,069</b>	<b>5,632</b>	<b>1,077</b>	<b>1,157</b>	<b>16,935</b>
<b>% per employer</b>	53.55%	33.26%	6.36%	6.83%	<b>100%</b>

<sup>4</sup> MoH annual report 2003

## **Early preparedness and response**

The National committee for response to the threat of Avian Influenza approved the following activities as priorities to respond efficiently to the threat and to deal with the situation according to the phases of the pandemic as described by WHO.

### **1. Coordination with UN agencies and donors community**

- Through strengthening the cooperation with WHO offices in Palestine.
- Through Health Sector Working Group (HSWG) meetings.
- Through by bilateral meetings with donors, UN agencies and international organizations.

### **2. Coordination and cooperation with neighboring countries**

- Through participation in regional meetings.
- By exchanging epidemiological information.
- Unifying the efforts concerning :-
  - 1- The control on the borders.
  - 2- Movement of passengers.
  - 3- Inspection of importation from affected by avian influenza countries.

### **3. Training**

- Training of laboratories technicians and to refresh their skills in neighboring countries or laboratories affiliated with WHO.( Short term refreshing training for 5 laboratory technicians on how to examine the samples to identify the H5N1 using PCR technique ( 2 laboratory technicians from Ramallah CPHL, 2 from Gaza CPHL and one from veterinary departments laboratory of the Ministry of Agriculture).
- Training of health inspectors from the Ministry of Health and Ministry of Agriculture on sample taking and how to deal with the samples in all stages and setting guidelines for sample management. Number of trainees 300. Training will take place in Ramallah CPHL and Gaza CPHL.
- Training of trainers TOT of 100 medical doctors and nurses 60 from the West Bank and 40 from Gaza, training will include protocols of

avian influenza patient management, instructions for isolation, quarantine disinfection and prevention of disease transmission.

- Training of health education and promotion staff from the MoH and MoA and setting of a system of unified flow of information (training of 50 health educators (ToT) 30 from West Bank and 20 from Gaza). Training will take place in the Ministry of Health.
- Training of preventive medicine departments teams in Gaza and West Bank on how to build and maintain a surveillance system for avian influenza.

#### **4. Surveillance systems**

- Data collection on animal and human cases of avian influenza.
- Follow up of cases and regular reporting.
- Clinical reporting of cases according to WHO case definition.
- Laboratory reporting of the collected samples.
- Reporting the results of random samples of dead domestic and wild animals.

#### **5. Needs**

- Laboratory reagents ( see annex 3)
- Prevention equipment and disposables (annex 4).
- Medications for prevention and treatment (annex 5).
- Vaccines for avian influenza (when available).

### **VI. Awareness and health education for the society and school and universities students.**

- Printed educational material.
- TV spots radio spots and special programs and advertisements and short educational messages in the daily news papers
- Workshops and meetings with selected effective groups of the local society.

#### **6. Regulations and instructions**

- Embargo on importation of poultry, eggs and feather from affected countries.

- Recompensing of the poultry farmers in case of killing their flocks as preventive measure (proposal was made from the Minister of Agriculture to the Ministerial council.
- To quarantine passengers coming from countries with outbreak of human to human transmitted avian influenza.
- Adopting of WHO instructions concerning affected countries.

## **7. Hospitals and PHC Clinics**

- The central district clinic in each governorate was assigned as referral clinic for suspected cases.
- Five hospitals, 3 in the West Bank and 2 in Gaza strip were identified as referral hospitals for treating the diagnosed cases:
  - 1- Alia Hospital in Hebron
  - 2- Rafidia Hospital in Nablus
  - 3- Ramallah governmental hospital in Ramallah
  - 4- Al Shifa Hospital in Gaza city
  - 5- European Hospital in Khan Younis

## **8. Vaccination**

### **- Vaccine against pandemic influenza**

If a new pandemic virus strain emerges, and an effective and specific pandemic vaccine developed, the Ministry of Health will work to secure vaccination of all medical and paramedical staff, health inspectors and workers in paltry flocks and particularly those at high risk people.

Currently, vaccine against the influenza virus A/H5N1 is being developed and tested but the vaccine is not yet available for general or widespread use. Moreover, the current vaccine containing a recent H5N1 virus may or may not be effective against a future H5N1 strain, if such a strain emerges with the ability to spread easily among people.

MoH will contact manufacturers in advance through WHO to determine arrangements to procure vaccine in advance of its need.

Priority recipients will include those involved with direct clinical contact with patients, those staff required to maintain essential functions, and those at particularly high risk of serious complications, such as the elderly and those with chronic diseases. Any priority lists, when developed, will have to be compatible with recommendations of WHO.

## - Antiviral drugs

In recent years, new anti-viral agents to prevent or treat influenza infections have been developed mainly (Oseltamivir and Zanimivir). These drugs have been licensed for the prevention and treatment of human seasonal influenza in some countries.

However, initial analysis of viruses isolated from the recent human cases of A/H5N1 indicates that many of these viruses currently are resistant to the M2 inhibitors. In addition, only the neuraminidase inhibitors have been shown, in animal laboratory tests, to be effective against influenza virus A/H5N1. At this time, there is extremely little real world clinical experience with use or effectiveness of antiviral drugs against H5N1 viral infections in humans. Among the neuraminidase inhibitors, the only drug easily deliverable (orally in capsules) is oseltamivir, known in its only commercial form as Tamiflu®).

The following provides guidance on use of oseltamivir as prophylaxis or treatment:

- **Prophylaxis**

Antiviral drugs used for prophylaxis are given to people who are not infected and who are not ill. The purpose of prophylaxis is to try and prevent the development of severe pandemic disease in people who are potentially exposed to pandemic influenza.

Oseltamivir can be offered to selected staff of the Ministry of Health, other health care providers and ministry of agriculture staff.

The current prophylactic regimen is one tablet of 75mg per day.

Oseltamivir is licensed for up to six weeks of continuous use for prophylaxis.

- **Treatment**

In symptomatic patients suspected of having pandemic influenza, **Oseltamivir** can be administered as treatment. Current recommendations for **treatment**, based on treatment against seasonal influenza, are **two 75 mg. capsules a day** (total of 150 mg. per day) for 5 days. There are no data for use for children below the age of 1 year. Oral suspension for

children could be administered up to 40 kg when adult dosage can be used.

For maximum effect, the drug should be started within 48 hours of onset of symptoms. During a pandemic situation, the possibility to test an individual patient for influenza infection will be extremely limited and therefore decision about whether to treat or not will depend upon clinical findings.

Theoretically if the local supply is considered adequate, then oseltamivir could be provided to a person who does not have symptoms but who has had close and unprotected contact with another person who is suspected or confirmed to have pandemic influenza . In this situation it will not be clear if the exposed person is infected. However, giving that person antiviral drug theoretically could potentially protect the person from infection or reduce the severity and duration of the disease if the person has become infected. The drug would be administered in treatment doses as detailed above. The effectiveness or efficiency of this approach in preventing illness is theoretical, however, and has not been demonstrated.

Moreover, for most people it will not be known if they were "exposed" to pandemic influenza and during a widespread pandemic, it will not be feasible to give post-exposure treatment to most non-ill contacts. In most situations, it is expected that most oseltamivir will be used for treatment of persons with febrile or respiratory illnesses rather than prophylaxis.

Avian influenza is an unprecedented challenge for the Palestinian Authority and the Palestinian people which will overburden the already overburdened by the current political situation health system and economy.

Meeting this challenge request a nationwide preparedness of all sectors and all levels. The national plan for response to the pandemic threat was prepared with close cooperation of all concerned parties and with the technical support of WHO office for West Bank and Gaza, the planning process helped us to assess our weak areas and gave us the chance to institute necessary measures such as enhancing animal and human surveillance, sharing information and upgrade the public health laboratories capacities, and will embower our relations and partnership with national and international partners and neighbors.

## **Annex1**

### **National committee for response to the Avian Influenza pandemic threat**

<b>1</b>	Assistant Deputy Minister of Health
<b>2</b>	Director General of PHC West Bank
<b>3</b>	Director General of PHC Gaza Strip
<b>4</b>	Director General of International Cooperation Dept.
<b>5</b>	Deputy Director General PHC Gaza Strip
<b>6</b>	Preventive medicine officer UNRWA/ West Bank
<b>7</b>	Preventive medicine officer UNRWA/ Gaza Strip
<b>8</b>	Director of preventive medicine dept./ West Bank
<b>9</b>	Director General of veterinary services/ Ministry of Agriculture
<b>10</b>	Deputy Director General of veterinary services/ Ministry of Agriculture
<b>11</b>	Director General of Hospitals / Gaza
<b>12</b>	Director General of Hospitals/ West Bank
<b>13</b>	Director of Laboratories/ Gaza
<b>14</b>	Consultant in Molecular Biology/ Ramallah
<b>15</b>	Medical Relief Society representative
<b>16</b>	Health Work Committees representative
<b>17</b>	Palestinian Red Crescent Society( PRCS)
<b>17</b>	Palestinian Wildlife Society
<b>18</b>	WHO office representative as observer

## Annex 2

### **National committee for public awareness and education on Avian Influenza pandemic threat**

<b>1</b>	Director General of health education and promotion/ West Bank
<b>2</b>	Director of health education and promotion /Gaza Strip
<b>3</b>	Director school health Dept./ West Bank
<b>4</b>	Director school health Dept./ Gaza Strip
<b>5</b>	Representative of UNRWA/ West Bank
<b>6</b>	Representative of UNRWA/ Gaza Strip
<b>7</b>	Representative of Medical Relief Society
<b>8</b>	Representative of Palestinian Red Crescent Society
<b>9</b>	Representative of Ministry of Information
<b>10</b>	Representative of Health Work Committees
<b>11</b>	Director of vaccination / Gaza
<b>12</b>	Representative of UNICEF office as observer

### Annex 3

#### Preparing for the influenza pandemic – Phases and strategic actions

	phase	Transmission	Objectives	strategic actions
<b>Inter- pandemic period ( planning and preparedness</b>	<b>1</b>	influenza virus subtype in animals only( risk to humans low)	Strengthen pandemic preparedness at all levels	<ul style="list-style-type: none"> <li>• Prepare pandemic preparedness plan</li> <li>• Establish surveillance in animals</li> <li>• Establish human influenza surveillance</li> <li>• Establish collaboration between human and animal sectors</li> </ul>
	<b>2</b>	influenza virus subtype in animals only( risk to humans substantial)	<p>Minimize the risk of transmission to human;</p> <p>Detect and report rapidly, if it occurs</p>	<ul style="list-style-type: none"> <li>• Enhance animal surveillance and aggressive response to animal outbreak</li> <li>• Strengthen human surveillance</li> <li>• Stockpile antiviral,</li> <li>• Strengthen collaboration with deferent sectors and WHO/OIC /FAO</li> <li>• Develop and implement risk communication strategy</li> <li>• Prepare health and essential service contingency plan</li> </ul>
<b>pandemic Alert ( emergency and pre-emptive response)</b>	<b>3</b>	human infection ( transmission in close contacts only	<p>Ensure rapid characterization of new virus</p> <p>Detect, notify and respond to additional cases</p>	<ul style="list-style-type: none"> <li>• Enhance animal surveillance and aggressive animal outbreak containment</li> <li>• Enhance human surveillance and aggressive outbreak management</li> <li>• Early strategic use of antivirals</li> <li>• Social distancing</li> <li>• Implement risk communication strategy</li> </ul>
	<b>4</b>	limited human to human spread; small clusters < 25 cases lasting < 2 weeks	contain the virus or delay its spread	
	<b>5</b>	localized human to human spread; larger	maximum efforts to	

		clusters 25-50 cases over 2-4 weeks	contain or delay the spread	<ul style="list-style-type: none"> <li>• Issue alert for quick implementation of health and essential service contingency plan</li> </ul>
<b>Pandemic( minimizing impact )</b>	<b>6</b>	widespread in general population	minimize the impact of the pandemic	<ul style="list-style-type: none"> <li>• Implement health and essential services contingency plan</li> <li>• Risk communication;</li> <li>• Treat cases and contacts with antivirals, if available,</li> <li>• Social distancing: close school, ban gathering</li> <li>• Administer vaccine if available.</li> </ul>

## Annex 4

### NEEDS FROM VACCINES AND MEDICATIONS

Action	Quantity	Unit cost (in US dollars)	total in US\$
Pandemic strain vaccines	Staff with direct contact with patients; essential functions; high risk of serious complications (elderly and immunocompromised) 20,000 dose	NA	
Antivirals: <b>Tamiflu (oseltamivir) for treatment</b>	A 5-day course for 100,000 of population. The estimation was made for 3% of population only	<b>16.4/pack of 10 capsules</b>	<b>1,640,000</b>
Antivirals: <b>Tamiflu (oseltamivir) for treatment of children</b>	A 5-day course for 40,000 of population.	NA	<b>400,000 ESTIMATED</b>
Antivirals: <b>Tamiflu (oseltamivir) for prophylaxis</b>	One tablet per day for up to 6 weeks for staff performing essential functions (6000 person)	<b>16.4/pack of 10 capsules</b>	<b>0,410,000</b>

## Annex 5

### PROTECTIVE EQUIPMENT

Item	Description	Unit	Quantity	Unit price in Euro	Unit Price in Euro
1	Protective goggles, polycarbonate	Each	6000	2.39	14,340
2	Face mask grade P2 (or N95)	BX/20	6000	32.00	192,000
3	Surgical face mask 3-ply green	Each	6000	0.11	660
4	Surgical glove, deferent sizes, anatomically shaped, latex, reusable, non-sterile	PAIR	100,000	0.13	13,000
5	Surgical glove, deferent sizes, anatomically shaped, latex disposable, sterile. As per ASTM 3577 FDA 510(K)	PAIR	30,000	0.14	4,200
6	Apron, 125cm, white, 0.02mm thick PE, embossed, disposable	EACH	100.000	0.07	7,000
7	Operation cap, size M (diam 50cm), blue, non-woven, PP, disposable, elasticated	EACH	100.000	0.03	3,000
8	Shoe cover, abt 38cm length, embossed PE	EACH	100,000	0.02	2000
9	Surgical gowns, disposable, non sterile	EACH	2000	5.61	11,220
11	Disposal bag for bio hazardous waste, large, with "Bio Hazard" print, polypropylene	EACH	2000	0.35	700
12	Disposal bag for bio hazardous waste, small, with "Bio Hazard" print, polypropylene	EACH	2000	0.35	700
Total 248820 EURO = US\$ 295,237.6					

## Annex 6

### Central Public Health Laboratories needs

#### 1-Material required for PCR:

	Item	Specifications	Quantity		Total
			Ramallah	Gaza	
1	QIAamp Viral RNA Mini Kit	From body fluids 50 preparations Cat. No (QIAGEN 52904)	4	4	8
2	QIAGEN One Step RT-PCR kit	QIAGEN 25 preparations Cat. No. (QIAGEN 210210)	8	8	16
3	RNase inhibitor	- (ABI) - 2500 U (20U/μl) - Promega N211A	2	2	4
4	Positive control	(Obtained upon request from WHO H5 Reference Laboratory)	2	2	4
5	Primer sets	<u>HA gene primers for H5 amplification:</u> H5-1: GCC ATT CCA CAA CAT ACA CCC H5-3: CTC CCC TGC TCA TTG CTA TG  <u>HA gene primers for H9 amplification:</u> H9-426: GAA TCC AGA TCT TTC CAG AC H9-808R: CCA TAC CAT GGG GCA ATT AG  <u>NA gene primers for N1 amplification:</u> N1-1: TTG CTT GGT CGG CAA GTG C N1-2: CCA GTC CAC CCA TTT GGA TCC	1	1	2
6	Taq DNA Polymerase	- 500 U (5ul/u ) - Promega	1	1	2
7	dNTP' s mix	- Vial of 250ul (10mM) - Promega	1	1	2
10	Full sets of micropipettes	- (0.2-10 μl, 5-100μl, 20-300 μl, 50-1000 μl, 100-5000 μl) - Eppendorf	1	1	2

	<b>WHO influenza reagent kit for the identification of influenza A/H5 virus (1997-98, 2003 or 2004 version).</b>	<ul style="list-style-type: none"> <li>- <b>Reagents for immuno-fluorescence assay include:- Influenza type A /H5- specific monoclonal antibody pool</b></li> <li>- <b>Influenza A type specific and influenza B type specific monoclonal antibody pools.</b></li> <li>- <b>Infuenza-H1 and A/H3 subtype specific monoclonal antibodies</b></li> </ul>	<b>1</b>	<b>1</b>	<b>2</b>
<b>11</b>	<b>Antimouse IgG FITC conjugate</b>	<ul style="list-style-type: none"> <li>- <b>Antibody should exhibit reactivity with mouse IgG.</b></li> <li>- <b>The antibodies react with mouse IgG subclasses G1,G2a, G2b and G3</b></li> <li>- <b>The antibody must show no reactivity with human serum</b></li> </ul>	<b>1</b>	<b>1</b>	<b>2</b>

2- Disposables :

	Item	Specifications	Quantity		Total
			Ramallah	Gaza	
1	Viral transport media	<ul style="list-style-type: none"> <li>- ready made</li> <li>- suitable for collection for throat and nasopharyngeal swab</li> </ul>	1000	1000	2000
2	Polyester-fiber-tipped applicator	<ul style="list-style-type: none"> <li>- Sterile Dacron swab</li> </ul>	1000	1000	2000
3	Protective masks (N 95)	<ul style="list-style-type: none"> <li>- Comfortable two-piece face mask that is completely adjustable and reusable with replaceable disposable Nanofilter insert.</li> <li>- Effectively isolates and destroys viral and bacterial contaminants.</li> <li>- The mask must provide a personalized, secure fit and effective seal against the face and doesn't interfere with eyeweap.</li> </ul>	500	500	1000
4	Nano filters	<ul style="list-style-type: none"> <li>- Consistently achieves high levels of performance by utilizing nanotechnology enhanced filter media to remove virus and bacteria from inhaled and exhaled breath.</li> </ul>	500	500	1000
5	Polycarbonate face shield	<ul style="list-style-type: none"> <li>- Autoclavable</li> <li>- Cat. No. ( Fisher) 189994542</li> </ul>	2	2	4
6	Sterile micro- centrifuge tubes	<ul style="list-style-type: none"> <li>- Screw-cap tubes</li> <li>- Autoclavable</li> <li>- 1.5 ml</li> <li>- Conical bottom</li> <li>- Clear</li> </ul>	2000	2000	4000
7	PCR tubes	<ul style="list-style-type: none"> <li>- 0.2 ml</li> <li>- Autoclavable</li> <li>- Flat cap</li> </ul>	1000	1000	2000
8	Powder free gloves	<ul style="list-style-type: none"> <li>- Latex powder free</li> </ul>	10 boxes each	10 boxes each size	

### 3- Instruments:

	Item	Specifications	Quantity		Total
			Ramallah	Gaza	
1	Fluorescence microscope	<ul style="list-style-type: none"> <li>- Binuclear Head</li> <li>- Westover/Cat. No. 12-563-40</li> </ul>	1	-	1
2	Eppendorf microcentrifuge (5417 C)	<ul style="list-style-type: none"> <li>- Speed up to 16,000 rpm; 25,000 x g</li> <li>- 30-place capacity</li> <li>- Autoclavable rotor</li> <li>- Temp. range -9 – 40 °C</li> <li>- Compact and quiet</li> <li>- Adjustable –speed " momentary" button for quick</li> </ul>	1	1	2
3	Electrophoresis apparatus	<ul style="list-style-type: none"> <li>- Midgel standard</li> <li>- Horizontal (13 x 16 cm)</li> <li>- Fischer Biotech (Cat. No. FB-SB-1316)</li> </ul>	1	-	1

## Annex 7

### Cost of the preparedness for avian influenza threat

No.	Item	Cost in US\$
1	Training of the laboratories staff( MoH and MoA) and of selected numbers of Doctors and nurses	50,000
2	Surveillance needs and transportation of the inspectors of the MoH and MoA	20,000
3	Lab. Reagents and equipment for Ministry of health and Agriculture	40,000
4	Equipment for prevention	500,000
5	Preventive drugs and vaccines	1,000,000
6	Curative drugs	1,500,000
7	Educational materials, educational workshops and Radio and TV spots	40,000
	<b>Total</b>	<b>3,150,000</b>

**Palestinian National Plan for avian influenza pandemic  
Plan of action**

Action	Implementing agency/ Agencies	Expected output	Time frame
<b>1. Training</b>			
Need assessment of the requested by MoH training of: <ul style="list-style-type: none"> <li>- The CPHL staff (of MoH and MoA).</li> <li>- Medical doctors in Hospitals and PHC centers</li> <li>- Nurses</li> <li>- Health Inspectors</li> <li>- Health educators.</li> </ul>	MoH/MoA/ WHO	Areas of needed training identified and prioritized  plans for training in deferent areas and for deferent groups drafted and approved	Until November 20
Identify training institutions inside and outside the country (Mainly in Israel and Jordan and Egypt)and trainers available locally	MoH/WHO	List of training institutions / trainers available	Until November 30,2005
Preparation of lists of trainees	MoH	List available	November 10,2005
Identify medical and Nursing staff and workers in poultries at risk for calculation of needed preventive medication and equipment	MoH, MoA	List of staff by facility or location ready	November 30
<b>2. Communication with UN agencies Donors and neighboring countries</b>			
<ul style="list-style-type: none"> <li>• Conducting coordination meetings with UN agencies and donor community</li> <li>• Bilateral coordination meetings with Israeli MoH</li>   <li>• Coordination with the countries of the EMRO</li>   <li>• Coordination with Jordanian , Egyptian and Israeli Ministries of Health</li> </ul>	<p>WHO MoH with support from</p> <p>Regional meeting on Avian Influenza</p> <p>Search for Common Ground (middle east regional pandemic influenza preparedness conference )</p>	<p>National plan presented, funding of the cost of Implementation of the plan requested</p> <p>Palestinian National Plan presented , updated according to experience exchanged with other countries of the region</p> <p>exchange ideas and improve coordination and joint actions against the pandemic threat</p>	<p>Oct 27/ November 8 and follow up after preparing the project summaries</p> <p>28-30 of November /EMRO/ Cairo</p> <p>11- 14 December / MECIDS/Amman</p>
<b>3. procurement of Laboratories needs</b>			
<ul style="list-style-type: none"> <li>• Costing of the requested material</li> </ul>	MoH/ WHO	List of PCR reagents and costs of	by November 15

<ul style="list-style-type: none"> <li>• Procurement of PCR reagents</li> <li>• Procurement of other laboratories needs</li> <li>• preparing RFQ for the first quantities of reagents</li> </ul>		<p>the requested quantity prepared. Lists of other laboratories needs ready and costed. RFQ of reagent needed to start with ready</p>	
<b>4. Identifying of needs from equipment , vaccines and anti –influenza drug for prophylaxis and treatment</b>			
<ul style="list-style-type: none"> <li>• protective equipment</li> <li>• protective/prophylactic treatment</li> <li>• Drugs for treatment of affected population</li> <li>• Vaccine for anti –avian flu</li> </ul>			November 15
<b>5. Identify local Health facilities in WB, Gaza and Jerusalem</b>			
<ul style="list-style-type: none"> <li>• Referral hospitals three in West Bank, two in Gaza and one in East Jerusalem</li> <li>• One central clinic in each district</li> <li>• Strengthen the networking between MoH hospitals and PRCS ambulatory services</li> </ul>	MoH/ PRCS/ NGOs	Ambulatory and referral facilities identifies	November 30
<b>6. Surveillance System</b>			
<ul style="list-style-type: none"> <li>• Coordination meeting with UNICEF and WHO with the preventive medicine department/MoH and MoA to set the outlines of the requested surveillance system.</li> <li>• Preparing the guidelines and special forms for referred samples for laboratory testing.</li> <li>• Forms for notification of animal cases</li> <li>• Forms for notification of human suspected cases</li> <li>• Orders for treatment</li> </ul>			
<b>7. Awareness and health education</b>			
<ul style="list-style-type: none"> <li>• Press releases</li> <li>• Posters</li> <li>• Procures</li> <li>• Workshops for school teachers, poultry owners, poultry workers and others</li> </ul>			