

**Kingdom of Saudi Arabia**  
**Ministry of Health**  
**Deputy Minister for Preventive Medicine**

## **The National Plan for Preventing Flu Pandemics**

**1430 – 2009**

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## **Preface**

In line with the efforts exerted by MOH for tracing the developments of the current swine flu pandemic, in coordination with the World Health Organization (WHO), the USA Centers for Disease Control, and relative international organizations, great attention has been paid for updating the National Plan for Preventing Flu Pandemics, with the help of the latest WHO guidelines and consultations provided by the National Scientific Committee for Infectious Diseases, which is composed of MOH preventive medicine specialists and representatives from the different health sectors in the Kingdom. This updated copy of the National Plan has delivered to the different directorates of health affairs.

May Allah protect us all from this epidemic and keep us in good health under the auspices of the government of the Custodian of the Two Holy Mosques.

**The Minister of Health**  
**Dr. Abdullah bin Abdul Aziz Al-Rabeeah**

## Introduction:

Flu epidemics are difficult to predict, but they are recurrent and have severe impacts on communities. Since the 1500s, the world has been witnessing flu outbreaks within time intervals ranging from 10 to 50 years.

### Features of the 3 Epidemics Occurring During the Last Century

Epidemic	Area	Type of Virus	Estimated Mortality rate	Estimated Increase in Death Cases	Mostly Affected Age Categories	International Income Loss
1918-1919 (Spanish Flu)	Not Clear	H1N1	2-3%	20-50m	Youths	-16.9 to 2.4
1957-1958 (Asian Flu)	Southern China	H2N2	Less than 0.2%	1-4m	Children	-3.5 to 0.4
1968-1969 Hong Kong Flu	Southern China	H3N2	Less than 0.2%	1-4m	All Ages	-0.4 to -1.5

The fact that an epidemic and its impacts are difficult to predict, together with the fact that the preparations for confronting outbreaks in most countries are incomplete, have led to the following:

- The precautionary measures for confronting outbreaks are taken within a very limited time.
- Medical facilities suffer high pressure during outbreaks due to increased demand.
- Resultant shortages in employees and products affect the basic infrastructure and health services. They also prevent commercial and government sectors from continuing their services.
- Outbreaks cause delays and shortages in providing vaccines, antiviral drugs, and medical equipment.
- The negative socioeconomic impacts continue for a long time after an outbreak.
- The state of emergency declared by most countries during pandemics limits the ability of obtaining international aid.

### How the Flu Virus Develops to Trigger a Pandemic

Flu viruses usually circulate among animals, especially birds. However, a flu virus may transform into a pattern capable of infecting humans and causing pandemics, but such cases occur usually as scattered individual cases or small clusters.

A pandemic occurs when an animal virus - to which the human body has no immunity - develops the ability to transmit from human to human and cause large outbreaks. Such change occurs in either of two cases:

- Genes of animal and flu viruses interact and unite to produce a new type of virus.
- An animal flu virus mutates to acquire the ability of developing human to human transmission.

### **Avian Flu Pandemic:**

The ability of H5N1, a subtype of influenza (A) avian flu virus, to infect humans was recognized in 1997 for the first time following an epidemic it triggered among poultry in Hong Kong. The virus returned once more during 2003 and 2004 to start a large outbreak that involved hundred millions of poultry and more than 400 cases among humans. The spreading of H5N1 on a large scale among humans has always been of high morbidity and mortality compared to the other types of influenza viruses, the highest mortality rate occurring in 1918. Human to human transmission of H5N1 has always been rare, occurring only from an infected human to family members. The major risk factor for contracting infections involving animals and humans is direct touching or direct exposure to infected animals. The virus has been confined to tamed birds in a number of countries during the five years that passed since the virus started its worldwide spreading. In addition, controlling the virus among poultry has been effective in preventing its transmission to humans and minimizing the economic burdens resultant from its wide scale spreading.

H5N1 epidemics usually impose challenges that necessitate coordination between human and animal health authorities in affected countries. But in spite of the ability of H5N1 to cause a pandemic, it is not alone in this respect. Wild birds and animals are reservoirs to a large number of the other types of influenza and any of these viruses may mutate to cause large outbreaks among humans.

Other subtypes of animal flu viruses which are known to infect humans include H7N1, H9N2 and swine flu. H2N2, which was the subtype responsible for the 1957 pandemic, is expected to return back to initiate further outbreaks in the future.

The fact that we don't know which of the subtypes is likely to cause an epidemic in the future necessitates that the plans for confronting any future epidemic should not be confined to H5N1. It should rather be based on intensive investigation and sustained scientific evaluation.

### **Preparations for Epidemics**

A swine flue epidemic, like any other health emergency, necessitates urgent steps to be taken for ensuring that the efforts for controlling the epidemic are made within a balanced situation in which individual needs do not contradict with community safety. Decision makers adopt certain ethical values in their endeavours to establish this balanced situation. The principles of human rights are strictly observed in a way that any measures binding the freedoms of individuals must be limited, rational, equal, non racial, and in harmony with local and international laws.

### **Including the Preparatory Plan within the General Emergency Plan:**

The activities of the national preparatory plan for confronting the epidemic must be included within the national priorities, taking into consideration the available capabilities. Since we are unaware of the time when any flu epidemic may occur, the following steps must be taken for ensuring readiness towards any future epidemic:

- The national preparatory plan must be included within the activities of the national plan for confronting emergencies.
- The activities of the national preparatory plan can be utilized for strengthening basic health and emergency capabilities, including primary health care, examining respiratory diseases, and lab diagnosis.
- The activities of the national preparatory plan must be utilized for activating the channels of communication between the community and health sectors.
- The plans set for confronting the epidemic must be subject to continuous improvement, amendment, evaluation, and updating.

By adopting the above considerations, government and relative health bodies shall have the opportunity to strengthen the preparations for any future epidemic and build capabilities for dealing with local, national, and international emergency plans.

## **Requirements for a Flu Pandemic**

- A new virus with the capability of infecting humans appears.
- The virus acquires the ability of multiplying in humans and causing the disease.
- The virus acquires the ability of transmitting among humans and causing disease spreading.

Historically, the first and second requirements were fulfilled 4 times: In 1997 in Hong Kong (H5N1), in 2003 in Hong Kong (H5N1), in 2003 in Holland (H7N7), and in 2004 in Vietnam and Thailand (H5N1). The H5N1 pandemics were severe and highly fatal. It was for the first time that any of the swine flu viruses shows such wide spreading in a number of countries.

The above realities show the real danger involved in any swine flu pandemic. They are indicators that the world will be under threatened for years to come unless early preparations and precautions are made.

## The Preparatory Plan

- **Stages of Swine Flu Pandemic:**

1. **First Stage**

No animal to human cases

2. **Second stage**

Viruses which usually transmit between tamed and wild animals cause infections among humans, an indication for a possibility of a pandemic.

3. **Third Stage**

Human and animal viruses mutate to cause scattered or limited group infections among humans, but with no human to human infections.

4. **Fourth Stage**

Human to human infections are caused by a new type of the virus which has acquired the ability of causing limited epidemics. The epidemic is limited, indicating that the virus has not adapted to infect humans.

5. **Fifth Stage**

Human to human infections occur at least in two countries in one of WHO regions, but no signs of the pandemic in the other countries.

6. **Sixth Stage (The Pandemic Stage)**

The disease spreads among large groups of people in at least two of WHO regions, with the possibility for worldwide spreading.

### **- Post-Climax Stage**

This is the stage where the number of cases drops, but additional waves of the pandemic may follow.

### **- Post -Epidemic Stage**

The number of cases return to its normal status.

## **First to Third Stages**

### **a- Planning and Coordination**

- A committee including representatives from the different government sectors formed.
- Priorities set.
- Officials in the provinces and districts are advised on practical plans and their performances evaluated.
- The plan is revised and updated in the center, the provinces, and the districts. Coordination is set with other relative sectors, such as the Ministry of Agriculture and the private sector, in light with the directives of the World Health Organization.
- Legal precautions to be taken prior to any intervention.
- Human considerations to be observed while formulating and applying the national plan.
- The national plan to be converted to a plan for emergency and early confrontation.
- Concerned government and private facilities to be provided with the necessary information for including them in the plan.
- Preventive measures to be taken at the openings must be worked out.
- Officials must take utmost care to participate in all regional and international events concerning the flu epidemic.

### **b- Surveillance**

- The epidemic must be monitored on the national level and information relative to human and seasonal flu viruses collected.
- Flu cases among animals and humans must be detected, sources of infection to humans known, and WHO informed.
- Abnormal cases and death cases must be discovered and monitored.



- WHO, FAO, and the Center for Preventing Animal Diseases must be included for providing help in obtaining vaccines and monitoring the resistance of the virus.
- National labs to be strengthened.
- Officials to be appointed permanently for taking actions during large outbreaks of human or animal flu.

### **c- Measures for Minimizing Spreading**

- **Preventing animal to human transmission**

- Minimizing transmission from animals to humans - in cases of outbreaks among animals - through health awareness, training, protective equipment, and medication.

- Minimizing cases resulting from touching infected animals.

- Adopting a plan for controlling spreading among animals and ensuring safety of animal food in coordination with relative bodies (e.g. Ministry of Agriculture).

- **Individuals at Home**

- Washing and sterilizing the hands.

- **The Community**

- Formulating agreements for closing schools in cases of outbreaks.

- Avoiding crowded or unnecessary traveling.

- Taking legal measures for cancelling or limiting gatherings during outbreaks.

- **Traveling Abroad**

- According to international health regulations, the decisions for prohibiting or allowing travels between countries must be taken by WHO.

- **Antiviral Drugs**

- Defining the quantities of antiviral drugs required for treatment and prevention.
- Formulating a plan for selecting and distributing antiviral drugs in accordance with national plans.
- Preparing all other requirements, including antibiotics, intravenous drugs, oxygen, etc.
- Measuring the efficiency of offered treatment.

- **The Vaccine**

- Increasing coverage by the seasonal human flu vaccine for high risk groups.
- Setting a plan for distributing the vaccine within 7 days.
- Using the neomococcal vaccine must be taken into consideration since it is a part of the routine vaccination advised by WHO.

#### **d- Continuation of Health Services**

- Ensuring readiness of government and private health facilities to handle outbreaks.
- Revising and updating the strategies of health facilities at the national level.
- Setting plans and strategies for training medical and non medical staff on the ways or dealing with outbreaks among animals.
- Setting a plan for detecting cases, providing treatment, and preventing outbreaks.
- Formulating a protocol for sample collecting, sending, and checking.
- Providing free treatment for encouraging public reports on animal and human cases.
- Providing prompt chekups to patients.
- Monitoring outbreaks at hospitals.

## **e- Communication**

- Setting an emergency committee, with the latest telecommunication facilities.
- Equipping health officials with regular updates on the status at the international level.
- Establishing a close relationship with the media.
- Reaching the community through health campaigns.
- Setting a strategy for health awareness through concentrating on individuals and families.
- Enlightening individuals on protective measures.
- Sending awareness messages to populations in remote areas.
- Carrying out simulation tests on telecommunication sets.
- Updating communication means and effective analysis for the feed back ensured.

## **Fourth Stage**

The goal of this stage is to contain the virus in a certain place, or delay its spreading, by introducing preventive measures, such as providing vaccines.

## **a- Planning and Coordination**

### **In Endemic Countries**

- Facilitating direct and prompt coordination with WHO in the efforts for containing the virus.
- Activating the work of the National Committee for Confronting Disasters and Emergencies.
- Making arrangements for utilizing and moving additional human and material capabilities.
- Mobilizing operational and fast supply teams.
- Defining the needs for international aid.
- Establishing models for certain statuses (such as emergency) for facilitating fast containment measures.
- Providing WHO and other international parties, on regular basis, with the latest data on the situation, in light with international health regulations.
- Encouraging coordination with surrounding countries through data exchanging.
- Activating the plans for potential outbreaks at all sectors deemed vital for necessary reserve services.

- Finalizing the preparations for potential outbreaks, including the preparatory plans for required medicines.

### **In Non Endemic Countries**

- Finalizing the preparations for potential outbreaks through activating internal arrangements, including mobilization of field teams during emergencies.
- Responding, as possible, to WHO requests for offering international aids.

## **b- Epidemic Surveillance**

### **In Endemic Countries**

- Strengthening the epidemic surveillance system, diagnosing the cases, and reporting for new cases.
- Collecting and classifying samples in accordance with WHO protocols.
- Exchanging samples and virus types for developing diagnostic equipment and appropriate vaccines.
- Collecting clinical and epidemiological data in accordance with available time and resources.
- Evaluating the response, the security level, and applied procedures, together with exchanging the results with the international community and WHO.

### **In Non Endemic Countries**

- Strengthening the epidemic surveillance and viral system for detecting suspect cases, especially in cases of traveling to and trading with affected countries.
- Reporting the suspect cases to the national authorities and WHO.

## **c- Measures for minimizing spreading**

### **Country to country passengers**

- Screening leaving passengers, especially in the first few countries witnessing outbreaks.
- Providing consultations to passengers.

### **In Endemic Countries**

- Activating surveillance for facilitating early discovery and drafting case reports.
- Collecting samples for lab analysis and detecting the virus by use of protocols and measures advised by WHO.
- Exchanging samples and virus types for developing viral detectors, vaccines, and antiviral drugs.
- Collecting detailed epidemiological and clinical data to the extent allowed by available capabilities and time.
- Ensuring response, safety, and efficiency of measures, together with including the international community and WHO.

### **In Non Endemic Countries**

- Activating surveillance for early discovery of potential individual and cluster cases, especially if they are related to movements in endemic areas.
- Fast containment of outbreaks in coordination with the international community and WHO.
- Distributing antiviral drugs from WHO or national or regional stocks for treatment and prevention.
- Using vaccines as much as they are available.
- Implementing preventive measures at individual, family, and community levels.
- Confining traveling to the minimum necessary requirements and screening passengers.

## **d- Continuation of Health Services**

### **In Endemic Countries**

- Providing guidebooks for health workers dealing with cases suffering from respiratory inflammations.
- Implementing measures for preventing infections and generalizing the use of masks and other means of personal protection.
- Activating labs and emergency plans for dealing with cases during times of manpower shortages.
- Activating emergency strategies for isolating and treating suspect cases.

### **In Non Endemic Countries**

- Activating the arrangements for alternative plans.
- Advising health works on the possibilities of being infected during handling cases of respiratory disorders, especially passengers and those in contact with patients from endemic countries.

### **e- Communication**

#### **In All Countries**

- Enhancing communication for ensuring the best distribution of data.
- Updating scientific data and providing copies of them to all involved parties for ensuring exchange of unified information.
- Issuing regular press releases, provided that care must be taken to avoid causing panic among the population.

#### **In Endemic Countries**

- Maintaining regular contact by observing the following:
  - Utilizing available information on the virus, the epidemic, and implemented or required measures.
  - Limiting traveling to areas defined for containment or screening as well as any other unnecessary areas.
  - Commitment to advised measures for preventing outbreaks.
  - Providing medicines and necessary services to areas defined for containment.
- Maintaining regular contact, analyzing feedbacks from the general public and risk groups, and utilizing the results in awareness campaigns aiming at risk groups.
- Cooperating with surrounding countries for data exchange.

### **Fifth and Sixth Stages**

In these two stages we move from the preparatory stages to activities at the international level. The aim of the following measures is to minimize the effects of the outbreaks on the community:

## **a- Planning and Coordination**

### **In Endemic Countries**

- Building trust between the community and health authorities through commitment to transparency and credibility.
- Declaring emergency if the need arises.
- Selecting officials who are capable of coordinating between the different sectors.
- Commitment to transparency while dealing with stocks.
- Taking decisions on cases deserving external humanitarian needs.

### **In Non Endemic Countries**

- Finalizing relative preparations well before any imminent outbreak provided that such preparations must include plans for boosting emergency committees and national systems for disease control.
- Updating national guidelines and recommendations taking into consideration the data obtained from affected countries.

## **b- Monitoring Epidemic Status**

### **In Endemic Countries**

#### **Epidemiological Monitoring**

- Carrying out intensive evaluations for the first cases of the epidemic.
- Documenting the evolving epidemic, including geographical distribution, directions, and resultant effects.
- Documenting any epidemiological or clinical changes in the causative virus.
- Maintaining continuous monitoring on the virus for detecting any gene mutations.
- Updating clinical symptoms and lab findings as necessary.

#### **Monitoring resultant Effects**

- Monitoring health requirements such as medical supplies, antiviral drugs, vaccines, pharmaceutical necessities, health workers, hospital capacities, stored lab materials, etc.

- Monitoring and evaluating the effects at the national level by use of certain criteriae, such as absence from work or school, high risk areas or groups, and manpower.
- Predicting the economic consequences as possible.

## **Measures for Controlling Outbreaks**

### **In all Countries**

#### **Measures for Traveling between Countries**

- Abiding by WHO instructions while issuing traveling documents and formulating health warnings.

### **In Endemic Countries**

#### **Measures Concerning Individuals and Families**

- Patients with severe respiratory inflammations are advised to stay at home and avoid contacts with family members.
- Family members in contact with a flu patient are advised to avoid outside contacts and isolate themselves when any of the first flu symptoms appears.
- Service providers dealing with infected families are advised to abide by the health instructions based on the instructions obtained from WHO.

#### **Measures Concerning the Community**

- Minimizing individual contacts through implementing certain measures such as closing schools, changing work hours, etc.
- Encouraging individuals to minimize traveling and avoid crowded areas.
- Minimizing large gatherings as necessary.

#### **Measures for Traveling between Countries**

- Screening leaving passengers as a part of the international measures for controlling the epidemic.
- Providing consultations to passengers.



## **Pharmaceutical Measures**

- Distributing antiviral drugs and other medical supplies in accordance with set plans.
- Implementing plans for purchasing the vaccine.
- Implementing plans for distributing the vaccine as well as launching extended vaccination campaigns.
- Adopting strategies for antiviral drugs and vaccines on the basis of information obtained from disease follow up.
- Launching vaccination and treatment campaigns in accordance with relative priorities and stocks available.
- Monitoring the safety and efficiency of pharmaceutical interventions.

## **Non Endemic Countries**

- Ensuring readiness at country levels to execute interventions for controlling the spreading of the disease.
- Updating the recommendations relative to interventions on the basis of experiences and information obtained from endemic countries.
- Setting plans for distributing medicines and other needs to relative areas.
- Screening arriving passengers at the openings.

## **Maintaining Health Care Provision**

- Implementing emergency plans for overall enhancement of the health system, including health facilities and health workers at both central and regional levels.
- Boosting the system for combating the infection at the health facilities and labs, including distribution of protective equipment as set in the national plan.
- Providing medical and non medical support to patients and caretakers within families and health facilities.
- Providing psychological and social support to patients and health workers.

## **Non Endemic Countries**

- Readiness to shift to the arrangements of a pandemic.

## **Reaching the Community**

- Launching public awareness campaigns on the pandemic, including ways of transmission, relative symptoms, and protective measures.
- Creating channels for clarifying community concerns on traveling issues, closing borders and schools, and the economy.
- Community must be updated on finding resources for financing emergencies, medical care, and disease cases not relative to the epidemic.

## **Post-Climax Period**

The aim of the procedures taken during this period is to study the effects of an outbreak on the community and the preparations for potential outbreaks.

### **a- Planning and Coordination**

- Defining the other resources and capabilities which may be during potential outbreaks.
- Rebuilding basic services.
- Following the psychological impacts of the pandemic on health workers.
- Providing assistance to countries where the virus is still spreading.
- Revising the situation and reconsidering distribution of medicines and equipment accordingly.
- Revising and evaluating national plans.

### **b- Monitoring the Status**

- Activating surveillance works for revealing potential outbreaks.
- Evaluating the resources necessary for monitoring outbreaks.

### **c- Measures necessary for minimizing spreading**

- Evaluating the efficiency of adopted measures, updating them, and defining guidelines and plans accordingly.
- Following vaccination programs in accordance with national plans, priorities, and availability of vaccines.

#### **d- Maintaining Health Care Provision**

- Making sure that health workers are having rest intervals during work.
- Boosting stocks for ensuring adequate supplies of medicines and equipment.
- Revising and updating the preparations for potential outbreaks.
- Revising case identification and ways of treatment.

#### **e- Reaching the Community**

- Providing the community and health workers with the latest updates on the health situation.
- Reaching the community for ensuring abidance with protective measures.
- Providing the health sector with the latest updates, together any developments that may affect the extent of infection.

### **Post-Epidemic Period**

The aim of the procedures taken during this period is to study the long range impacts of the epidemic on the health situation and its effects on the community.

#### **a- Planning and Coordination**

- Evaluating the efficiency of interventions and informing the international community accordingly.
- Evaluating obtained lessons and utilizing them in confronting emergencies.
- Revising the plans set for confronting the epidemic.

#### **b- Monitoring the Status**

- Collecting and analyzing available data for evaluating the clinical, viral, and epidemiological features of the outbreak.
- Revising, updating and following the impacts of the epidemic, evaluation tools, and emergency precautions for potential outbreaks.
- Monitoring seasonal flu outbreaks, with concentration on the causative virus.

### **c- Measures Necessary for Minimizing Spreading**

- Adopted interventions to be evaluated thoroughly at individual, family, and community levels.
- Pharmaceutical interventions to be evaluated, including:
  - Efficiency, safety, and resistance of antiviral drugs
  - Efficiency, safety, and extent of vaccination coverage
- Revising and updating relative issues as necessary.
- Maintaining vaccination programs in accordance with the National Plan, set priorities, and availability of sera.

### **d- Maintaining Health Care Provision**

- Collecting and analyzing available data for evaluating the ability of the health system to confront outbreaks.
- Evaluating obtained lessons and exchanging expertise with the international community.
- Amending the plans and procedures to include the lessons obtained.

### **e- Reaching the Community**

- Sending gratitude messages to participant individuals, departments, etc
- Maintaining contacts with the community and other sectors on obtained lessons.
- Encouraging government and private sectors to participate in evaluating emergency plans in accordance with obtained lessons.
- Maintaining intensive contacts for discovering other epidemic diseases
- Improving contact plans for enabling prediction of expected significant health events.

### **Plan Objective**

The plan aims at protecting the Kingdom from flu outbreaks, by imposing restrictive precautionary measures for preventing entry of the flu virus to the Kingdom, controlling human infections, containing or delaying

outbreaks, lowering morbidity and mortality rates, and controlling social disturbance in case of occurrence of an outbreak.

## **Plan Elements**

- 1- Disease surveillance
- 2- Lab Surveillance
- 3- Vaccination
- 4- Using antiviral drugs
- 5- Role of MOH health directorates
- 6- Health awareness
- 7- Precautions recommended for travelers to endemic countries
- 8- Community participation
- 9- Combating infection at hospitals
- 10- Non-medicinal intervention
- 11- Other measures

## **The Elements in Detail**

### **1- Disease Surveillance**

- Exploring infections in humans throughout the year.
- Reporting suspect cases at government and private hospitals (In accordance with the Article on identifying suspect and potential cases) to the concerned Health Directorate, and from there to the MOH Directorate of Infectious Diseases.
- Examining suspect cases at the nearest hospital and sending relative reports to the concerned Health Directorate, and from there to the MOH Directorate of Infectious Diseases.
- Transferring any suspect case at the Kingdom openings to the nearest MOH hospital.

### **2- Lab follow up**

- Three reference labs in the main regions have been selected for laboratory checkups, namely the central lab in Riyadh, the regional lab in Jeddah, and the regional lab in Dammam.
- Providing abroad training at Namru Laboratories in Cairo for selected specialists at the above labs in coordination with WHO Eastern Mediterranean Office.
- Ensuring availability of lab detectors.

- Suspect cases and people in contact with confirmed cases, who show symptoms similar to the symptoms of the disease, are tested in accordance with the requirements of the guidebook prepared for dealing with such cases.

### **3- Vaccination**

A human vaccine for controlling the seasonal flu is available and updated annually by WHO for three subtypes of the virus deemed to be the mostly prevalent subtypes throughout the year. But in case of any new pandemic, WHO requires about two to three months for manufacturing a vaccine, in which case other precautions must be taken for handling the pandemic till a vaccine is available.

The seasonal flu vaccine is recommended for the following categories:

- 1- Health workers who are in charge with treating and nursing suspect or confirmed cases.
- 2- Patients with chronic heart or respiratory diseases, whose cases require using aspirin for a long time.
- 3- People above 60 years of age.
- 4- Pregnant women.
- 5- Other medical reasons usually followed in preventing human flu.

### **4- Use of Antiviral Drugs**

Four types of antiviral drugs are used in accordance with the sensitivity of the virus to the drug as advised by WHO and the USA Centers for Disease Control. These types are Oseltamivir, Remantidine, Zanamivir, and Amantidine. Zanamivir and Oseltamivir are already available in the Kingdom for dealing with confirmed cases and people in contact.

### **5- Role of MOH Health Directorates**

- Executing the MOH plan for preventing flu pandemics.
- Activating the committees assigned for confronting the disease in the different directorates and sending reports.

- Including early preparatory committees within the activities for confronting the disease in respective directorates.
- Reporting all suspect cases recorded at the health facilities in respective directorates.
- Submitting MOH memos regarding the epidemic to all government and private hospitals in respective directorates.
- Launching awareness campaigns.

## **6- Health awareness**

- Educating health care providers at all government and private sectors to ensure they report all suspect cases.
- Enlightening the public on the different aspects of the disease and ways of protection.
- Enhancing cooperation between the citizens and health authorities in disseminating information on the disease.

## **7- Precautions to be Observed when Traveling to an Endemic Country**

- 1- Limiting traveling to countries where cases of the flu disease had been found is the responsibility of WHO.
- 2- Any arrangement for screening passengers arriving from countries where cases of the disease had been found is the responsibility of WHO.
- 3- Passengers are advised to obtain medical consultation prior to leaving to any of the countries where cases of the infection had occurred. They are also advised to obtain all information or instructions which might help them during their stay in such countries.
- 4- While staying in a country where cases of the infection had been traced, the passenger is advised by the following:
  - He must avoid areas where infection is possible such as markets.
  - Hands must be washed and sterilized.
  - Medical help must be sought in case of appearance of any symptoms.

## **f-Community Participation**

- Encouraging community leaders, including mosque imams and teachers, to participate in health awareness campaigns.

- Reporting suspect cases among humans.

### **g- Combating Infections At Hospitals**

- Abiding by the instructions and controls set for combating infections occurring within the labs and hospitals.
- Cleaning and sterilizing the hands.
- Taking precautionary measures relative to respiratory secretions.
- Isolating patients.
- Taking precautionary measures against infections through cough droplets.

### **10- Interventions Other than Treatment**

- Quarantining people who were in contact with infected cases for a period of seven to ten days (Minimum movement and traveling).
- Closing schools.
- Minimizing gatherings in limited areas.

### **11- Other Measures**

Role of other government bodies in implementing the national plan:

#### **- Ministry of Interior (MOI)**

- It is the highest administrative body assigned with limiting gatherings in markets, playfields, public events, etc.
- Providing medical care for MOI employees at MOI hospitals and clinics, including treatment, protection, lab tests, etc.

#### **- Ministry of Defense (MOD)**

- Providing medical care for MOD patients at MOD hospitals and clinics, including treatment, protection, lab tests, etc.

#### **- National Guard (NG)**

- Providing medical care for NG patients at NG hospitals and clinics, including treatment, protection, lab tests, etc.

#### **- Ministry of Education**

- Enlightening school children on the infection.



- Closing schools in times of outbreaks.

**- Ministry of Higher Education**

- Closing Universities at times of outbreaks.

**- Ministry of Culture and Information**

- Assisting in health awareness campaigns.
- Acting as a connecting link between the Ministry of Health and the community.

**- Ministry of Religious Affairs**

- Assisting in health awareness campaigns.