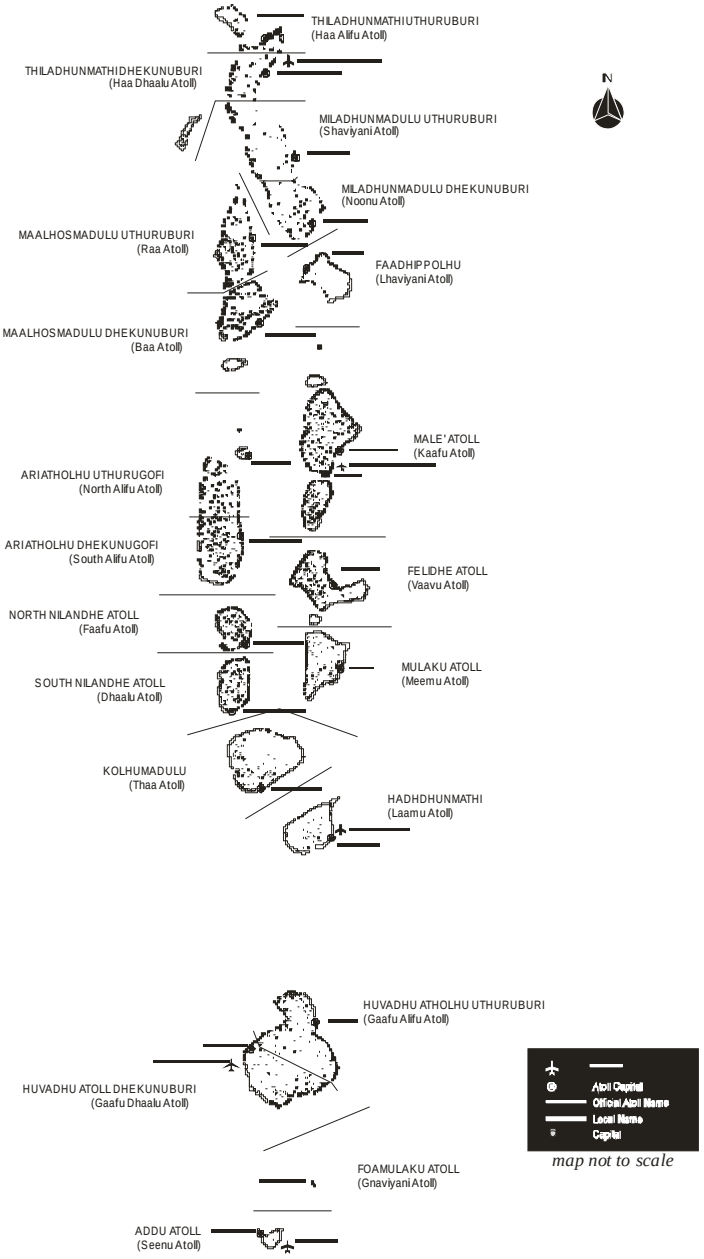
Republic of Maldives

National Influenza Pandemic Preparedness Plan

November 2009 Update

Ministry of Health & Family

Map of Maldives



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Executive Summary

The Maldives did not detect any cases of swine influenza upto 25th July 2009. Since then 6 cases of H1N1 was confirmed as imported cases. The first case of internal transmission was detected on 18th November 2009.

Swine influenza, or “swine flu”, is a highly contagious acute respiratory disease of pigs, caused by one of several swine influenza viruses. The virus is spread among pigs by aerosols and direct and indirect contact, and asymptomatic carrier pigs exist. Outbreaks in pigs occur year round, with an increased incidence in the fall and winter in temperate zones.

Swine influenza viruses are most commonly of the H1N1 subtype, but other subtypes are also circulating in pigs (e.g. H1N2, H3N1, H3N2). Pigs can also be infected with human influenza viruses and avian influenza viruses. Sometimes pigs can be infected with more than one virus type at a time, which can allow genes from these viruses to mix.

It is likely that most people, especially those who do not have regular contact with pigs, do not have immunity to swine influenza viruses that can prevent the virus infection. If a swine virus established efficient human to human transmission, it can cause an influenza pandemic. The impact of a pandemic caused by such a virus is difficult to predict: it depends on virulence of the virus, existing immunity among people, cross protection by antibodies acquired from seasonal influenza infection and host factors. Swine influenza viruses can give a rise to a hybrid virus by mixing with a human influenza virus and can cause pandemic.

The Government of Maldives is committed to preparing for a pandemic and its response. An intersectorial committee was formed which is chaired by the Permanent Secretary and co-chaired by the Director General of Health Services. The proceeds of this intersectoral committee meetings are fed to a Ministerial Committee chaired by the Minister of Health and Family and cochaired by the Vice President of Maldives.

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Section A: Overview

This plan provides the framework for a coordinated action for all levels of the government of the Republic of Maldives' (which will be referred to as Maldives) in planning, preparedness, and response to pandemic influenza.

1. Goals and Objectives

The goal of this plan is to minimize the impact of an influenza pandemic among the people of Maldives in terms of morbidity, mortality, and social and economic disruption.

Objectives

1. Reduce/ prevent human exposure to H1N1 virus
2. Enhance surveillance for rapid detection
3. Early diagnosis and treatment – laboratory and clinical
4. Ensure rapid containment
5. Review data to determine epidemiology and effectiveness of interventions
6. Ensure business continuity as far as possible
7. Ensure good coordination and communication – within departments; with external organizations; public, and the media

The response is based on recommended national public health actions for pandemic phases currently defined by the World Health Organization (WHO) and the corresponding national pandemic alert levels. See Annexure 4 for details of actions to be taken at each phase.

2. Key Players who will be involved in the planning and response

The overall responsibility for ensuring the planning and preparedness arrangements are in place rests with the Ministry of Health and Family (MoHF). A high level intersectoral National Influenza Pandemic Preparedness Planning Committee (NIPPPC) has been established to guide oversee and coordinate the process. Annexure 1 contains details of members of NIPPPC. The sectors that have input into the planning process are listed below.

A technical health team is also established to guide the intersectoral committee on technical matters. The health technical committee meets daily and as and when required according to the global and regional situation to report on latest updates and timeframes for planning. The Director General of Health Services chairs this committee. WHO is invited to this committee for technical advice.

The Ministerial Committee had established that the Ministry of Health and Family takes the lead during the preparedness and response activities of Influenza A (H1N1).

Intersectoral committee representations are from:

- Ministry of Health and Family
- National Disaster Management Centre
- Ministry of Defense and National Security
- Ministry of Finance and Treasury
- Ministry of Home Affairs
- Ministry of Tourism, Arts and Culture
- Ministry of Civil Aviation and Communication
- Maldives Customs service
- Maldives Ports Authority
- Male' International Airport
- Maldives Police Service
- Centre for Community Health and Disease Control

3. Command and Control

Decisions will be taken depending on the phase of the pandemic and current guidance available at the time. Maldives do not have pig farming practices. Therefore from WHO Phase 2 onwards where human health becomes an issue, MoHF will take the lead role.

Overall command and control of national response lies with the Ministerial committee comprising Ministers of key sectors who makes decision based on reports from the NIPPPC. The President's Office receives feedback via the Ministerial Committee.

Incident Room

To conduct pandemic response planning and coordination actions, a National Emergency Operation Centre (NEOC) is e set up at MoHF. The designated room/centre will have facilities for setting up extra phone and fax lines. Risk communication to the public and media will be operated through NEOC. The persons responsible for ensuring the setting up and operation of incident room with minimal delay are:

Permanent Secretary, MoHF
Director General of Health Services, MoHF
Director General, NDMC

Contact List

The secretariat of NEOC will be the Disaster Risk Reduction Unit of the MoHF. It will maintain an up to date contact list of essential persons who will be involved in the response. The person in charge of maintaining and updating this list is.

4. Simulation Exercises

The plan will be tested in a series of exercises. Different components will be tested at different stages, for example:

- Communication arrangements
- Dispatch of antivirals; PPE
- Laboratory protocol
- Screening at Ports of Entry
- Quarantine
- Transfer of patients and patient isolation
- Setting up the incident room and convening the outbreak control team.

After each exercise a meeting will be held with the NIPPPC to review what went well and where there is room for improvement. Any lessons learnt will be incorporated back into the plan.

Exercises will be held every 3 months until all components are tested. Thereafter exercises will be conducted twice a year.

The persons responsible for coordinating these exercises are:
Director General of Health Services, MoHF
Director General of Centre for Community Health and Disease Control, MoHF

5. Background – Influenza

Influenza is an acute respiratory disease caused by a virus. There are three subtypes of influenza virus: A, B, C. Influenza subtypes are classified by antigenic properties of surface glycoproteins. The three viral envelope proteins of influenza A virus are the most medically relevant. The HA, NA and M2 are essential viral proteins targeted by antibodies or antiviral drugs such as oseltamivir and rimantadine will be used. The type of drug to be used will be based on the WHO recommendations and latest evidence.

Relatively minor antigenic changes called antigenic drift of A and B viruses account for frequent epidemics and outbreaks that require the annual reformulation of the influenza vaccine.

The emergence of totally new influenza A subtypes result from antigenic shift in HA gene or a recombination of human and mammalian avian antigens. This leads to pandemics.

A **pandemic** is the worldwide spread of a disease, with outbreaks or epidemics occurring in many countries and in most regions of the world and affecting large segments of the population.

Three conditions need to be met for a pandemic to occur:

1. A novel influenza subtype to which there is little or no existing immunity must be transmitted to humans
2. The new virus must be able to replicate in humans and cause disease
3. The new virus must be efficiently transmitted from one human to another

Efficient human-to-human transmission implies sustained chains of transmission causing community-wide outbreaks. So far this has not happened in the world.

A pandemic virus capable of efficient human-to-human transmission could arise via two mechanisms:

1. virus reassortment (when genetic material is exchanged between human and avian viruses during a co-infection of a human or pig).
2. adaptive mutation whereby the capability of the virus to bind to human cells increases during subsequent infections of humans. Adaptive mutation, expressed initially as small clusters of human cases with some evidence of human-to-human transmission.

Since the 16th century on average three pandemics have occurred each century. In the last century the following pandemics occurred:

- 1918/19 (Spanish flu)
- 1957/58 (Asian flu)
- 1968/69 (Hong Kong flu)

This 4th Pandemic occurring in 2009, initiated from Mexico.

Potential Impact of a Pandemic Influenza

The potential effects of a pandemic would include:

- Considerable morbidity and mortality
- Health-care systems overwhelmed
- Economies strained
- Disruption to social order

The Spanish flu was estimated to have been responsible for between 20 and 40 million deaths worldwide with young adults showing the highest mortality rates. The pandemics of 1957 and 1968 were responsible for between 1-4 million deaths in the expected risk groups such as the elderly. No one can predict when the next pandemic might occur.

Planning and preparedness may help to minimize the consequences of a pandemic. For planning purposes, based on previous pandemics in the 20th Century, an attack rate of 25% of the population over one or more waves of around 12 weeks each, weeks or months apart is used. This compares with a usual seasonal influenza attack rate of 5-10%.

For the Maldives with a population of approximately 300000, this would mean 75000 people could be affected which, in context, is roughly the population of Male'. In Male' this would mean roughly 20000 people but with the difficulties of achieving social distancing given the limited geographical space of the island, this would mean rapid spread within the community.

Health facilities may be overwhelmed with a consequent shortage of health care workers as they may also succumb to the disease. The Maldives relies on expatriates for 30% of its health care workforce; experience shows that in an emergency situation these people leave for their homeland. But in the case of PI, this is not advisable. However, if this happens, it would leave the local population more vulnerable.

Apart from the health effects, other sectors in the country will be affected. The tourism industry would suffer leading to grave economic consequences. The workforce in all sectors would be reduced due to illness, and the country may come to a stand still. Hence the importance of preventing the disease coming into the country in the first place and having the necessary import regulations, protective equipment and training to reduce the human exposure and transmission.

6. Situation Analysis

6.1 Global and Regional Situation

Swine influenza, or “swine flu”, is a highly contagious acute respiratory disease of pigs, caused by one of several swine influenza viruses. The virus is spread among pigs by aerosols and direct and indirect contact, and asymptomatic carrier pigs exist.

Influenza A/H1N1 is a new strain of influenza virus that was never detected in swine or humans. The 2009 novel A (H1N1) strain contains an unusual mix of gene segments. The genetic sequencing of samples shows that the new flu virus contains segments from four different viruses: some North American swine viruses, some North American avian, one human influenza and two Eurasian swine viruses.

The first human cases were reported from Mexico and the United States of America. The cases began to appear on 17 March 2009 in Mexico. The human to human spread of the disease was established with the reported cases from Southern California in the United States on 17 April 2009 as neither cases had contact with animals.

Since the implementation of International Health Regulations (IHR 2005) in 2007 and prior to the current outbreak, WHO was notified of swine influenza cases from Spain and the United States. However, in the current outbreak confirmed human cases is thought to have started from Mexico spreading to 24 countries by 8 May 2009. As of 22 November 2009, worldwide more than 207 countries and overseas territories or communities have reported laboratory confirmed cases of pandemic influenza H1N1 2009, including over 7820 deaths. In East Asia, influenza transmission remains active..

Conservative estimates based on mathematical modeling suggest that the

next influenza pandemic could cause from 2 million to 7.4 million deaths although an upper limit of 150 million has also been quoted.

6.2 National Situation

The Maldives is an archipelago of 1190 islands in the Indian Ocean with a population of about 300,000 persons. The total surface area of 90,000 sq. km is made up of 20 atolls. Of the 1190 islands, 197 are inhabited and there are 89 resort islands. Neighboring countries include Sri Lanka and India. Roughly 80% of the inhabited islands have a population of less than 1,000 persons.

The population is young, with 45% under 15 years of age and the average population growth rate is 3.4 per cent per annum. Life expectancy is 60 years for men and 63 years for women. The literacy rate is estimated at 98.2%.

The Maldives has experienced rapid economic growth over the past 25 years, as a result of tourism. Tourism is the main source of income contributing 32.7% of the Gross Domestic Product. Maldives is dependent on importation for the majority of its agricultural and livestock products.

To date (27th November 2009), there are 12 confirmed cases of influenza infection of H1N1 virus in the Maldives with one death. Internal transmission began on 18th November and have spread within Male and 5 atolls in 10days.

i. Animal Health

Pigs are not reared in the Maldives. Pig meat (Pork) is imported into the country to cater the needs of foreigners and tourists and its sale is banned. Minisry of Fisheries and Agriculture is responsible for Coordinaing the Animal Health Response.

ii. Human Health

The Maldives has a developed health care system comprising family health sections (61) health posts (46), health centers (75), atoll hospitals (10), regional hospitals (6) and 2 national hospitals (1 private) and a number of private medical clinics

most of which are in Male' and house doctor in a number of resorts. Community health workers, family health workers, doctors and nurses provide health care.

Contingency PPE materials and antivirals are stocked for 1% of the population at the central level and atoll levels. Facilities for critical care are available at Central level, where Hulhumale hospital is designated as the isolation hospital and developed as critical care facility for the Male region. Facilities for critical care in the atolls are limited to provincial level where the capacity is limited to two to three critical cases at a time. There is plan for increasing the capacity at provincial level to handle more cases and necessary critical care equipments for patient transfer.

There is a need for training in the use of Personnel Protective Equipments (PPE), infection control and case management, including critical care for health care staff.

The persons responsible for coordinating health services are:

Division Head of Health Services, MOHF
Head, IGMH

iii. Laboratory Facilities

The laboratory of Indira Gandhi Memorial Hospital (IGMH) has been identified as the national reference laboratory for testing of Influenza illness through rapid test kits.

The laboratory at IGMH has a BSL 2 laboratory. PCR is already in use and a staff has been trained on its use. It is not envisaged that laboratories in the regional or atoll hospitals will undertake testing due to lack of accepted bio-safety standards. However, they will play a role in specimen collection, packaging and transport. There is therefore a need for PPE and equipment necessary for specimen collection to be placed in the peripheral laboratories. There is also a need for training in specimen collection and in packaging and use of PPE among all laboratory staff.

The contact of the national reference laboratory is;

Dr. Milza Abdul Muhsin
Head, Medical Laboratory
IGMH

Alternative laboratories identified for sending samples for human influenza testing is Medical Research Institute in SriLanka and Thai National Institute of Health. Their contacts are given below:

Ms. Geethanjali
Medical Research Institute,
Colombo
SriLanka

OR

Ms. Krongkaew Supawat
Senior Medical Scientist,
Chief, Enteric Bacteriology Laboratory,
Deputy Director,
Thai National Institute of Health,
Department of Medical Sciences, Nonthaburi , Thailand 11000
Tel 668 25899864

iv. Laboratory transport arrangements

The government of Maldives has already engaged in talks with the Island Aviation regarding transport of specimens within the country.

They have also come to an agreement with an international courier company (DHL) re transporting specimens to the respective reference laboratories.

Maldives will seek guidance and support of WHO in seeking the necessary permits for sending of clinical specimens to an international laboratory for further investigations. Specimens will be sent to the laboratory to which logistic arrangements are easy and specimen transport time is quick and documentation requirements are less.

Transport of clinical specimens will be in accordance with IATA standards and Internationally certified laboratory staff will be utilized.

The person responsible for coordinating laboratory testing is the **Director General Laboratory Services, MOHF**

v. Disease Surveillance

There exists an integrated disease surveillance system for communicable diseases that flows from island to atoll level and to central level epidemiology unit at CCHDC. The data flows electronically from atoll level to central level on a daily basis. All health care facilities engage in daily reporting of notifiable diseases or unusual events or outbreaks.

A surveillance system for Acute Respiratory Infections (ARI) exists. All health care workers have been given information on swine influenza. At a national field epidemiology training program the participants were briefed on the national plan to raise awareness and to reinforce the importance of their role in surveillance and management. Training in field epidemiology is required for community level workers

Airports and seaports are means of the disease entering the country, in terms of ill passengers and crew who may have been exposed to infected humans or animals. Port health officers are active at the ports of entry and facility for medical checkup and health screening is in place at the Male international airport. However sea ports lack facilities for medical examination and temporary set up will have to be established as the situation arises.

A permanent quarantine facility is not present a the designated port of entry in th eocuntry. A temporary building has been identified for quarantine. It has been approved to set a national quarantine facility at airport island to quarantine of persons entering the country if required. Home quarantine of suspected persons is considered in situation of internal spread.

The person responsible for coordinating surveillance activities is the **Director General,Centre for Community Health and Disease Control, MOHF**

vi. Legal considerations

In the interest of public health it may be necessary for the Government to impose restrictions or to enforce some activities:

- use of privately owned buildings as isolation facilities
- introduction of compulsory vaccination
- introduction of travel restrictions and quarantine at ports of entry

vii. Ethical considerations

During a pandemic with anticipated short supplies of countermeasures there will be difficult decisions to make in terms of rationing supplies of antiviral, PPE and vaccines when it becomes available.

In order to justify to the public the rationale behind Government related decisions, it is advisable to follow recommendations of WHO which would mean that decisions would be made on the best available evidence at the time. This would ensure that practice is in line with ethical principles.

SECTION B - THE PREPAREDNESS WORKPLAN

There are five strategic objectives against which there are recommended national actions. Timeframes are attached to each action as well as indicators for monitoring and evaluation.

1.1- Planning and Coordination

National Actions	Responsibility	Timeframe	Indicators
Establish a national intersectoral pandemic planning committee and Ministerial Committee for command and control	MoHF	April 2009	NIPPPC and ministerial committee formed
Set Up National Emergency Operations Centre	MoHF & NDMC	April 2009	NEOC set up and functioning
Set up Technical Health Team	MoHF	April 2009	Health Team convened
Develop and update national protocols	Health Tean and NIPPPC	April 2009 and ongoing	Protocols made available in the MoHF website;
Implement preparedness and response activities at all levels	NIPPPC	April 2009 and ongoing	Implementation ongoing
Training in surveillance and outbreak response; laboratory issues	MoHF / NIPPPC	April - June 2009	laboratory & health care staff trained

Test the plan through simulation exercises and mock drills	MoHF / NDMC	ongoing	Log of exercises kept; lessons learnt incorporated into plan
Brief and train key stakeholders to be mobilized during a pandemic	MoHF	May - June 2009	Stakeholder meetings documented
Develop a domestic stockpile of antivirals, PPE, test kits & diagnostic materials	MoHF	April – July 2009	purchase orders placed; Stockpile obtained;
Ensure laboratory procedures in place for specimen collection and transport; Have agreement with island aviation (Ministry of Transport and Civil Aviation) for inter atoll transport and international courier for transport to reference laboratories	MoHF	May 2009	Protocol in existence; Courier and reference lab agreement and import license obtained;
Training in specimen collection, packaging, transport	MoHF	May 2009	workers trained

1.2- Situation monitoring and assessment

National Actions	Responsibility	Timeframe	Indicators
Train laboratory workers for human testing	Health team; IGMH	May - July 2009	Laboratory workers trained
Establish rapid response teams and train teams	Health Team (CCHDC, IGMH; Atoll PHU)	June- Aug 2009	Teams trained & in place at atoll level
Strengthen surveillance systems for detection and investigation of clusters of ARI or unusual respiratory deaths Training of staff in Field Epidemiology and outbreak response	Health Team (CCHDC, IGMH, Atoll PHU)	June - July 2009	Case definition sent out; Information booklet distributed Nos trained

1.3 - Prevention and Containment

National Actions	Responsibility	Timeframe	Indicators
Develop guidelines for public health interventions e.g. awareness, mass/social gatherings, quarantine at ports of entry and islands, set up of isolation, health supplies delivery – how will they be carried out: mass media to	Health Team (CCHDC)/NIPPPC	April - June 2009	Protocols exist

raise public awareness and school and workplace campaigns			
Decide on location of quarantine facilities	NIPPPC/ Ministerial committee/ Provincial Offices	May - July 2009	Locations for quarantine identified;
Develop protocols for screening and quarantine at ports of entry	Health Team (CCHDC)/NIPPPC	May 2009	Protocols in place
Develop treatment strategy to ensure access and use of antivirals	Health Team/ NIPPPC	May 2009	Strategy & Protocol for use in place
Seasonal influenza vaccine – 2000 doses per year ordered for selected higher risk groups e.g. elderly, pregnant, under 5, immunosuppressed and chronic disease pts; make a decision re use of this for general population	Health Team (CCHDC)	June 2009	Policy decision made on use of seasonal influenza vaccine for the general population
Develop a plan for access and use (include logistics) of pandemic vaccines– who will get it; who will pay; storage, security and explore ways to increase access to pandemic vaccines	Health TEam (CCHDC; Atoll PHU)/NIPPPC	July 2009	Protocol developed in line with WHO recommendations
Develop a plan re allocation and use of PPE	Health Team (CCHDC,Atoll PHU	May 2009	Protocol in place

	, IGMH)		

1.4 - Health System Response

National Actions	Responsibility	Timeframe	Indicators
Ensure command and control structure in place	MoHF ,NDMC, PO	April 2009	Protocol in place; Health team identified with clear roles and responsibilities
Engage private hospital & clinics	MoHF	May2009	Private hospital & clinics contacted
Develop protocols for case finding and management of contacts; infection control guidelines; case management	Health Team (CCHDC)	June 2009	Protocols in place and surveillance working
Decide where patients would be managed; identify isolation facilities and equip those facilities	MoHF; NIPPPC/Ministerial committee	June 2009	Decision made and included in protocol; equipments obtained
Have in place laboratory guidelines: safe handling, packaging, where to send samples in all laboratories	Health Team (IGMH; CCHDC)	May 2009	Protocols in place
Increase awareness and training among health care providers – what to do if a suspected case presents	Health Team (CCHDC, Atoll PHU, IGMH)/private hospital	May 2009	Training sessions held

	& clinics		
Estimate pharmaceutical and other material supply needs e.g. antibiotics for secondary infection; syringes	Health Team; MOHF/ private hospital & pharmaceutical importers	May 2009	Estimates made & strategy for procurement and access in place
Deal with corpses- storage- need protocol for expatriate community; Inform public of procedures	Hospitals; Ministry of Islamic Affairs/Police/ Ministry of Foreign Affairs	July 2009	Protocol in place

1.5 - Communications

National Actions	Responsibility	Timeframe	Indicators
Develop a communication plan (protocols) to include communication channels internally across Government's sectors as well as externally e.g. with other agencies : FAO, and WHO.	MoHF; NDMC/ NIPPPC/ Ministerial Committee	May 2009	Communication Plan in place
Develop guideline and protocol for informing the public/media	Health Team (CCHDC)	June 2009	Protocol in place
Nominate communication focal points	MoHF	May 2009	Spokesperson appointed; Focal points know their roles and

			responsibilities
Train focal points on risk communication techniques and tools	Health Team (CCHDC)		Focal points trained
Develop IEC materials to inform the public through: Media messages TV spots Radio spots Orientation meetings/workshops/seminars	Health Team (CCHDC)	Ongoing	IEC materials available; meetings held; TV/Radio events broadcasted

BUDGET TO SUPPORT WORKPLAN (USD) 2009 – 2011

TOTAL BUDGET REQUIREMENT (3 YRS): 3,315,000 USD GoM commitment: 10% annual requirement		1315000	1029000	971000
COMPONENT CODE	ACTIVITIES	2009 USD	2010 USD	2011 USD
B10-PL	Planning and Coordination			
B10-PL1	- Epidemiologist (1 year)	75000		
B10-PL2	- Recruitment of three veterinarians	40000	40000	40000
B10-PL3	- Conduct a national workshop to endorse the plan	1000	-	-
B10-PL4	- Conduct simulation exercises to test the plan	5000	2000	2000
B10-PL5	- Attendance at relevant regional activities /workshops	6000	6000	6000
B10-PL6	- Review of NPPP every 6 months	2000	2000	2000
Total for component(B10-PL): 229000 USD		129000	50000	50000
B10-SEW	Surveillance and Early Warning			
B10-SEW1	- Field epidemiology training	16000	8000	8000
B10-SEW2	- PPE requirements(poultry/culling) – 20000	80000	80000	80000
B10-SEW3	- Training and investigation of events	50000	40000	40000
B10-SEW4	- Lab specimen packaging materials	2000	2000	2000
B10-SEW5	-Strengthen laboratory capacity- diagnostic reagents; primers	30000	30000	30000
B10-SEW6	- Training in specimen collection and PPE usage;	15000	15000	15000
B10-SEW7	- Dry Ice containers	7000		
B10-SEW8	- Training in lab sample packaging and bio-safety issues	15000	15000	15000
B10-SEW9	- Biosafety enhancement	25000	5000	5000
B10-SEW10	- On site lab training 15 days	10000	10000	-
B10-SEW11	- Transport of poultry lab specimens(inter-atoll & international)	60000	60000	65000
Total for component(B10-SEW): 835000 USD		310000	265000	260000

COMPONENT CODE	ACTIVITIES	2006	2007	2008
B10-PC	Prevention and Control			
B10-PC1	- Procure and stockpile emergency supplies of antivirals	20000	20000	20000
B10-PC2	- PPE (health)– 10000	40000	40000	40000
B10-PC3	- Training in handling/ disposal of dead birds	5000	5000	5000
B10-PC4	- Training video	20000	5000	5000
B10-PC5	- Spraying machine	30000	15000	20000
B10-PC6	- Disinfectant s	8000	5000	5000
B10-PC7	- Disposal of carcasses	15000	10000	7500
B10-PC8	- Compensation for culling	75000	50000	25000
B10-PC9	- Consultants in infection control and case management	50000	30000	30000
B10-PC10	- Screening & Prevention at ports of entry (air & sea)	5000	4000	4000
B10-PC11	- Training for ports officials	5000	5000	5000
Total for component(B10-PC): 748500 USD		338000	221000	189500
B10-HSR	Health Systems Response			
B10-HSR1	- Transport of human specimens inter	15000	15000	15000
B10-HSR2	- Transport of specimens to reference laboratories	10000	10000	10000
B10-HSR3	-Transport of patients and suspected cases inter atoll & to quarantine facilities (Including patient transport	180000	180000	180000
B10-HSR4	chamber)			
B10-HSR5	- Ventilators and other hospital supplies	150000	150000	150000
B10-HSR6	- Isolation facilities	100000	100000	100000
B10-HSR7	- Train health care workers in infection control; PPE usage	6000	6000	6000
	-Vaccines		80000	40000
Total for component (B10-HSR):915500 USD		343000	297000	275500
B10-RC	Risk Communication			
B10-RC1	- Media messages development and training with expert assistance	50000	30000	20000
B10-RC2	- TV spots	2000	2000	2000
B10-RC3	- Radio messages	1000	1000	1000
B10-RC4	- Awareness (IEC materials), plans and implementation	100000	100000	50000
B10-RC5	- Provide advice to the public regarding food safety aspects of poultry and poultry products.	10000	10000	10000
B10-RC6	-Awareness workshops and seminars in each atoll	100000	100000	100000
Total for component(B10-RC): 600000		200000	200000	200000

ANNEX 1- MEMBERSHIP OF COMMITTEES AND CONTACT DETAILS

I- Members of Ministerial Committee
(Advisory –command & control)

Dr.Amintath Jameeel	Minister of health and Family
Mr. Ameen Faisal	Minister of Defence and National Security
Mr. Ahmed Aslam	Minister of Housing Transport and Environment
Dr.Ibrahim Didi	Minister of Fisheries, Agriculture
Mr. Mohamed Rasheed	Minister of Economic Development and Trade
Dr. Ahmed Ali Sawad	Minister of Tourism, Arts and Culture
Mr. Ali Hashim	Minister of Finance and Treasury
Dr. Ahmed Shaheed	Minister of Foreign Affairs
Mr.Abdullah Shahid	State minister, NDMC

II- Members of National Influenza Pandemic Preparedness Planning Committee

Ministry of Health and Family

Dr. Sheena Moosa	Permanent Secretary
Dr. Ibrahim Yasir	Director General of Health Services
Dr. Ahmed Jamsheed Mohamed	Senior Medical Officer
Ms. Geela Ali	Director
Mr. Ahmed Khaleel	Deputy Director General
Ms. Shareefa Manike	Director General
Mr. Abdul Samad Abdul Rahman	Deputy Director General
Dr. Moosa Hussain	Medical Officer
Dr. Abdul Azeez Yoosuf	Senior Consultant in Medicine(IGMH)

National Disaster Management Center

Mr. Abdulla Shahid	State Minister
Mr.Mohamed Shahid	Director General
Mr. Moosa Ali Kaleyfaanu	Director General
Mr. Ranjith George	Consultant

Maldives National Defense Force

Mr. Ahmed Shiyam	Brigadier General
Dr. Ali Shahid	Major

Maldives Police Service

Mr. Ahmed Mohamed	C/ Inspector

Ministry of Finance and Treasury

Mr. Ismail Shafeeq	Permanent Secretary

Department of Civil Aviation

Mr. Abdulla Rasheed

Ministry of Civil Aviation and Communication

Mr. Abdulla Rasheed

Maldives Airports Company

Mr. Mohamed Fayaz

Mr. Moosa Habeeb

Mr. Ahmed Rasheed

Mr. Ahmed Fayaz	Head of Airport Emergency Services

Ministry of Toursim, Arts and Culture

Ms. Aishath Nahula

Mr. Hassan Zameel	Deputy Director

Maldives Customs Services

Ms. Mohamed Maseeh

Department of Immigration and Emigration

Mr. Ibrahim Ashraf

ADK Hospital

Mr. Ahmed Affal	Managing Director

Hulhumale' Development Corporation

Mr. Suhail Ahmed

Island Aviation Services

Mr. Mohamed Imthiyaz	Manager Airports Services

Ports Limited

Mr. Ahmed Rasheed	Habour Master

Funadhoo

Mr.Sattar	Funadhoo Quarantine Centre

III- National Technical Health Team

Dr. Ibrahim Yasir	**Alternate Chief Coordiantor / Spokesperson**
Dr. Ahmed Jamsheed Mohamed	**Coordinator, Health Awareness**
Ms. Geela Ali	**Coordinator, Surveillance**
Mr. Ahmed Khaleel	**Coordinator, Sea and air ports**
Ms. Shareefa Manike	**Coordinator, Laboratory**
Mr. Abdul Samad Abdul Rahman	**Coordinator, Health Supplies**
Dr. Moosa Hussain	**Coordinator, Provinces and Atolls**

Dr. Abdul Azeez Yoosuf	**Technical Advisor**
Dr. Ali Nazeem	**Clinical Focal Point - Adults**
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WHO PANDEMIC ALERT LEVELS

PHASE	DESCRIPTION	MAIN ACTIONS				
		PLANNING AND COORDINATION	SITUATION MONITORING AND ASSESSMENT	COMMUNICATIONS	REDUCING THE SPREAD OF DISEASE	CONTINUITY OF HEALTH CARE PROVISION
PHASE 1	No animal influenza virus circulating among animals have been reported to cause infection in humans.	Develop, exercise, and periodically revise national influenza pandemic preparedness and response plans.	Develop robust national surveillance systems in collaboration with national animal health authorities, and other relevant sectors.	Complete communications planning and initiate communications activities to communicate real and potential risks.	Promote beneficial behaviours in individuals for self protection. Plan for use of pharmaceuticals and vaccines.	Prepare the health system to scale up.
PHASE 2	An animal influenza virus circulating in domesticated or wild animals is known to have caused infection in humans and is therefore considered a specific potential pandemic threat.					
PHASE 3	An animal or human-animal influenza reassortant virus has caused sporadic cases or small clusters of disease in people, but has not resulted in human-to-human transmission sufficient to sustain community-level outbreaks.					
PHASE 4	Human to human transmission of an animal or human-animal influenza reassortant virus able to sustain community-level outbreaks has been verified.	Direct and coordinate rapid pandemic containment activities in collaboration with WHO to limit or delay the spread of infection.	Increase surveillance. Monitor containment operations. Share findings with WHO and the international community.	Promote and communicate recommended interventions to prevent and reduce population and individual risk.	Implement rapid pandemic containment operations and other activities; collaborate with WHO and the international community as necessary.	Activate contingency plans.
PHASE 5	The same identified virus has caused sustained community level outbreaks in two or more countries in one WHO region.	Provide leadership and coordination to multisectoral resources to mitigate the societal and economic impacts.	Actively monitor and assess the evolving pandemic and its impacts and mitigation measures.	Continue providing updates to general public and all stakeholders on the state of pandemic and measures to mitigate risk.	Implement individual, societal, and pharmaceutical measures.	Implement contingency plans for health systems at all levels.
PHASE 6	In addition to the criteria defined in Phase 5, the same virus has caused sustained community level outbreaks in at least one other country in another WHO region.					
POST PEAK PERIOD	Levels of pandemic influenza in most countries with adequate surveillance have dropped below peak levels.	Plan and coordinate for additional resources and capacities during possible future waves.	Continue surveillance to detect subsequent waves.	Regularly update the public and other stakeholders on any changes to the status of the pandemic.	Evaluate the effectiveness of the measures used to update guidelines, protocols, and algorithms.	Rest, restock resources, revise plans, and rebuild essential services.
POST PANDEMIC PERIOD	Levels of influenza activity have returned to the levels seen for seasonal influenza in most countries with adequate surveillance.	Review lessons learned and share experiences with the international community. Replenish resources.	Evaluate the pandemic characteristics and situation monitoring and assessment tools for the next pandemic and other public health emergencies.	Publicly acknowledge contributions of all communities and sectors and communicate the lessons learned; incorporate lessons learned into communications activities and planning for the next major public health crisis.	Conduct a thorough evaluation of all interventions implemented.	Evaluate the response of the health system to the pandemic and share the lessons learned.

H1N1 ALERT LEVELS IN MALDIVES	Updated:-- /--/----

ISLAND H1N1 2009 STATUS	PUBLIC HEALTH RECOMMENDATIONS
LEVEL 1: No cases **Definition:** No confirmed cases of H1N1	**Travel can proceed freely;** **Wash hands frequently and cover cough/sneeze; Face masks not required**
Atolls/Islands: All islands not listed elsewhere on this table	
LEVEL 2: Confirmed case/s: no in-country spread **Definition:** Confirmed cases are probably all imported; no definite community spread	**Travel can proceed freely;** **Wash hands frequently and cover cough/sneeze;** **Face masks not required**
Atoll/Island:	
LEVEL 3: Confirmed cases with some clusters **Definition:** Some cases have acquired their infection within the country, however the outbreak is mostly limited to **defined communities** (such as schools or households).	**Travel can proceed with precautions;** **Wash hands frequently and cover cough/sneeze;** **Face masks required in the clusters only.**
Atoll/Island:	
LEVEL 4: Area-specific community spread **Definition:** Infection being transmitted within the general community but **limited to some islands, atoll or province**.	**In general, travel can proceed with precautions** but consider deferring non-essential travel, especially:** - For those who are at higher risk of severe illness* - When onward travel may result in quarantine; **Wash hands frequently and cover cough/sneeze;** **Face masks not required; Avoid crowded places**
Atoll/Island:	

LEVEL 5: Widespread cases **Definition:** Widespread transmission within the general community, **through at least two provinces**.	**In general, travel can proceed with precautions** but consider deferring non-essential travel, especially:** - For those who are at higher risk of severe illness* - When onward travel may result in quarantine; **Wash hands frequently and cover cough/sneeze;** **Face masks required only in crowded places & health care settings;**
Atoll/Island:	

LEVEL 6: Decreasing spread	**Travel can proceed with precaution**
Definition: Peak of outbreak has passed. Number of new cases is clearly decreasing. Areas within the country with no new cases.	
Atoll/Island:	

*** <u>People at higher risk of severe illness include</u>:** Pregnant women and people with underlying immunosuppression or chronic conditions (such as diabetes, asthma, other lung diseases, heart disease, obesity),children under 5yrs