


# **GRENADA NATIONAL INFLUENZA PANDEMIC PREPAREDNESS PLAN**



## ***OPERATIONAL MANUAL***

October, 2007



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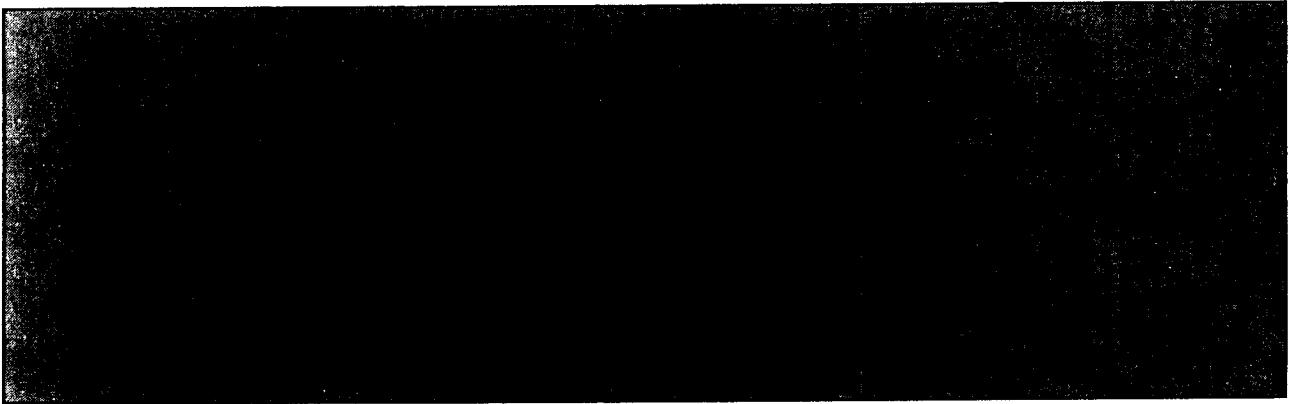
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## ABBREVIATIONS

DMS — Director Medical Services  
DCHS — " Community Health Services  
FBO — Faith Based Organization  
GPA  
GAA  
GIS — Govt. info. Service  
MOA — Min. of Agriculture  
MOH — Min. of Health

NaDMA-National Disaster Management Agency

NaDMAC — " " " " Advisory Council

PAHO/WHO

NDC — National Disaster Coordinator

EOC — Emergency Operation Command Centre

NAPITF — National avian/Endemic Influenza task force.



## **1.1 Background:**

The Grenada National Influenza Pandemic Preparedness Plan is being prepared in the context of the occurrence of the highly pathogenic H5N1 virus in birds which has caused widespread devastation in the poultry industry as well as affected wild and migratory birds in many countries. More alarmingly there has been transmission of the virus to humans causing a respiratory viral illness with an approximate 50% mortality.

Understanding the usual cyclic nature of pandemic influenza outbreaks, the length of time since the last pandemic, and the relationship between these outbreaks and the highly pathogenic avian influenza virus, there is worldwide concern of a pending outbreak of pandemic influenza.

Grenada following the advice of PAHO/WHO is preparing plans to help to delay the occurrence of a pandemic as well as to prepare for the possibility of a disease outbreak in animals or humans. Contingency plans have been prepared with contributions from multiple sectors; the lead agencies in this process were the Ministry of Agriculture, Ministry of Health and the National Disaster Management Agency (NaDMA)

### **Objectives:**

- To prevent the introduction of, and/or minimise the spread of a new avian influenza virus subtype in animals and humans.
- To detect the presence of a novel strain of influenza virus in animals and humans, and its resulting clinical illnesses.
- To rapidly assess the emerging epidemiology of a new pandemic to inform control measures e.g. the age groups predominantly affected.
- To limit morbidity and mortality due to infection with the avian influenza virus H5N1 or a pandemic strain.
- To provide treatment and care for large numbers of persons ill from influenza and its complications.
- To manage the eventuality of large numbers of persons dying from avian influenza or an influenza pandemic strain
- To reduce the impact on health services consequent to an influenza pandemic, including any consequences for other patients as a result.
- To reduce the impact of an avian influenza and/or pandemic influenza outbreak on the general population, in particular the workforce.



- To provide timely, clear, accurate, relevant, targeted and up to date information for professionals, the public and the media throughout the pre-pandemic or actual pandemic period.
- To collaborate effectively with both national, regional and international partner organisations, in respect of overarching arrangements for dealing with an influenza pandemic (including vaccination) in the state of Grenada.
- To strengthen the human resource capacity to detect and respond to an avian influenza or pandemic influenza outbreak.

### **WHO Pandemic Phases:**

The state of Grenada adopts the new pandemic phases issued by WHO in April 2005 and are classified as follows:

#### **Interpandemic period**

**Phase 1.** No new influenza virus subtypes have been detected in humans. An influenza virus subtype which has caused human infection may be present in animals. If present in animals, the risk of human infection or disease is considered to be low.

**Phase 2.** No new influenza virus subtypes have been detected in humans. However, a circulating animal influenza virus subtype poses a substantial risk of human disease.

#### **Period of Pandemic Alert**

**Phase 3.** Human infection(s) with a new subtype, but no human-to-human spread, or at most rare instances of spread to a close contact.

**Phase 4.** Small cluster(s) with limited human-to-human spread but spread is highly localized, suggesting that the virus is not well adapted to humans.

**Phase 5.** Larger cluster(s) but human-to-human spread still localized, suggesting that the virus is becoming increasingly more adaptive to humans, but may not be fully transmissible (substantial pandemic risk).

#### **Pandemic period**

**Phase 6.** Increased and sustained transmission in the general population in affected countries.

#### **Postpandemic period**

Return to interpandemic period



## **Pandemic Phases in Grenada:**

<b>PANDEMIC PERIOD</b>	<b>NATIONAL STATUS</b>	<b>NATIONAL OBJECTIVES</b>	<b>RESPONSIBLE AGENCY</b>
<b>Interpandemic period</b>			
<b>Phase 1.</b> No new influenza virus subtypes have been detected in humans. An influenza virus subtype that has caused human infection may be present in animals. If present in animals, the risk of human infection or disease is considered to be low.		<ol style="list-style-type: none"> <li>1. To develop and maintain national influenza pandemic contingency plans</li> <li>2. To develop and maintain national capacity to respond to early reports of new influenza virus strains</li> <li>3. To initiate surveillance systems for avian influenza and seasonal influenza</li> <li>4. Strengthening of the Information System</li> </ol>	MOA MOH
<b>Phase 2.</b> No new influenza virus subtypes have been detected in humans. However, a circulating animal influenza virus subtype poses a substantial risk of human disease.	<b>Not affected</b>	<ol style="list-style-type: none"> <li>1. To continue with objectives in phase 1</li> <li>2. To prevent /delay the introduction of the virus into the state of Grenada</li> <li>3. To implement preparedness measures for avian influenza</li> </ol>	MOA MOH
	<b>Affected</b> or extensive travel / trade links with affected countries	<ol style="list-style-type: none"> <li>1. To activate Emergency Animal Disease Preparedness Plan</li> <li>2. To intensify surveillance for persons at greater risk to avian influenza</li> <li>3. To implement communication strategy</li> </ol>	MOA MOH GPA GAA GIS Customs and Excise



Period of pandemic alert			
<b>Phase 3.</b> Human infection(s) with a new subtype, but no human-to-human spread, or at most rare instances of spread to a close contact.	<b>Not affected</b>	<ol style="list-style-type: none"> <li>1. To continue objectives of phase 2 (Not Affected)</li> <li>2. To intensify surveillance for persons at greater risk to avian influenza</li> <li>3. To continue communication strategy</li> </ol>	MOA MOH GPA GAA GIS Customs and Excise NaDMA
	<b>Affected</b> or extensive travel/trade links exist with affected countries	<ol style="list-style-type: none"> <li>1. To minimize the risk of transmission to humans</li> <li>2. To strengthen human and animal surveillance system for Avian Influenza</li> <li>3. To identify and manage human infections</li> <li>4. To intensify port health surveillance</li> <li>5. To investigate and report animal and human cases and contain or delay the spread of the virus</li> <li>6. To continue communication strategy</li> </ol>	
<b>Phase 4.</b> Small cluster(s) with limited human-to-human spread but spread is highly localised, suggesting that the virus is not well adapted to humans.	<b>Not affected</b>	<ol style="list-style-type: none"> <li>1. To continue objectives of phase 3 (Not Affected)</li> <li>2. To intensify port health surveillance</li> <li>3. To continue human and animal surveillance system for Avian Influenza</li> </ol>	MOA MOH GPA GAA GIS Customs and Excise NaDMA

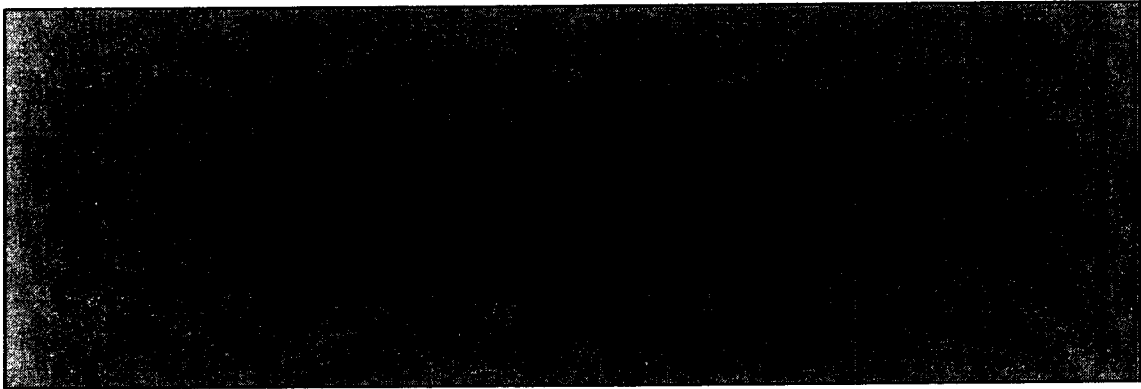


<p><b>Phase 4.</b> Small cluster(s) with limited human-to-human spread but spread is highly localised, suggesting that the virus is not well adapted to humans.</p>	<p><b>Affected</b> or extensive travel/trade links exist with affected countries</p>	<ol style="list-style-type: none"> <li>1. To contain the spread of the new virus within the clusters.</li> <li>2. To investigate and report animal cases and contain or delay the spread of the virus</li> <li>3. To reduce morbidity, mortality and social disruption.</li> <li>4. To continue communication strategy</li> <li>5. To identify and manage human infections</li> <li>7. To strengthen human and animal surveillance system for Avian Influenza</li> <li>8. To intensify port health surveillance</li> </ol>	<p>Security Forces MOA MOH GPA GAA GIS Customs and Excise NaDMA</p>
<p><b>Phase 5.</b> Larger cluster(s) but human-to-human spread still localised, suggesting that the virus is becoming increasingly more adaptive to humans, but may not be fully transmissible (substantial pandemic risk).</p>	<p><b>Not affected</b></p>	<ol style="list-style-type: none"> <li>1. To continue objectives phase 4 (Not Affected)</li> </ol>	<p>Security Forces MOA MOH GPA GAA GIS Customs and Excise NaDMA Customs and Excise</p>
	<p><b>Affected</b> or extensive travel/trade links exist with affected countries</p>	<ol style="list-style-type: none"> <li>1. To Continue objectives of phase 4 (Affected)</li> <li>2. To maximize efforts to contain or delay the spread of human to human transmission of the virus with an aim to avoid the pandemic.</li> </ol>	



<b>Phase 6.</b> Increased and sustained transmission in the general population in affected countries.	<b>Not affected</b>	<ol style="list-style-type: none"> <li>1. To continue objectives of phase 5 (Not Affected)</li> <li>2. To implement trade/travel restrictions with/from affected countries</li> </ol>	Security Forces MOA MOH GPA GAA GIS Customs and Excise NaDMA
	<b>Affected</b> or extensive travel/trade links exist with affected countries	<ol style="list-style-type: none"> <li>1. To continue the objectives of phase 5 (Affected)</li> <li>2. To minimise the impact of the pandemic</li> </ol>	Security Forces MOA MOH GPA GAA GIS Customs and Excise NaDMA
	<b>Subsided</b>	<ol style="list-style-type: none"> <li>1. To continue to evaluate and revise the plan</li> <li>2. Take appropriate action as needed</li> </ol>	MOA MOH
	<b>Next wave</b>	Apply relevant objectives according to the phase and country status.	All relevant agencies
<b>Post pandemic period</b>	Return to interpandemic period	<ol style="list-style-type: none"> <li>1. To work towards recovery of the health and agricultural sectors</li> <li>2. Recovery of the economy</li> </ol>	All relevant agencies





Preparing for the Emergency



## **CHAPTER 2: Command, Control & Communication**

### **Authority**

This plan draws its authority from the Grenada Emergency and Disaster Management Act, 1985. The Act established the system, processes and protocols for the coordination of matters related to disaster management (preparedness, prevention, alert, response, and rehabilitation).

The authority under this Act outlines the:

- National coordination of agencies involved or who should be involved in disaster management
- Delegation of responsibilities for technical input and control by specific agencies
- Call out mechanisms for the declaration of emergencies/disasters based on advice of specialised monitoring agencies
- Communication of actions to be taken by the public and the dissemination of actions deemed necessary for public safety
- Designation of specially vulnerable areas

In the event of an avian influenza pandemic, the following procedures will apply:

1. Establishment of the National Emergency Management Organisation
2. Appointment of a Director of the National Emergency Management Organisation
3. Establishment of a National Emergency Advisory Council
4. Provision of the development of a National Disaster Management Plan, to regulate disaster operation centres and shelters, to coordinate activities of persons involved in disaster management, to designate specially vulnerable areas and for related matters.

### **NATIONAL DISASTER MANAGEMENT ORGANISATION**

There is established an agency of Government named the National Disaster Management Agency

The National Disaster Management Agency shall act as the central agency for coordinating disaster management in the State.

The National Disaster Management Organisation shall consist of the:

- (a) National Disaster Management Advisory Council;
- (b) National Disaster Management Committees;
- (c) District disaster management committees; and
- (d) Public officer holding the title of the National Disaster Coordinator of the National Disaster Management Agency who shall be appointed by the Public Service Commission;

Public officers or other persons may be appointed or designated, including a deputy coordinator or assistant coordinator, for the effective performance of the functions of the National Disaster Management Agency.



The National Disaster Management Advisory Council shall consist of the following membership is as follows:

- Honourable Prime Minister - Chairman
- Permanent Secretary, Office of the Prime Minister - Deputy Chairman
- Minister of National Security
- Permanent Secretary Ministry of Foreign Affairs
- Permanent Secretary, Ministry of Finance
- Permanent Secretary Ministry of Tourism
- Commissioner of Police
- Chief Educational Officer, Ministry of Education.
- Chief Medical Officer, Ministry of Health
- Chief Technical Officer, Ministry of Communication & Works.
- Chief Technical Officer, Ministry of Agriculture.
- Chief Meteorologist, Point Salines International Airport
- Director of Information. GIS.
- Representative, Point Salines International Airport.
- Representative, Grenada Ports Authority.
- Representative, Grenlec.
- Representative, National Water & Sewage Authority.
- Representative, Cable & Wireless.
- Representative, Digicel.
- Director General, Grenada Red Cross Society
- Representative, Customs & Excise Department.
- Representative, National Telecommunications Regulatory Commission.
- Representative, Grenada Solid Waste Management Authority.
- Representative, Grenada Private Sector Organisation
- Representative, Texaco
- Representative, Shell
- Saint George's University.
- Representative, Conference of Churches Grenada.
- Representative, Service Clubs – Rotary & Salvation Army.
- Representative, Marketing & National Importing Board.
- Representative, Trades Union Council.
- Representative, National Youth Council.

The role of the National Disaster Management Organisation must not be seen simply as that of rendering "help after the storm or eruption". Instead, its role is one of activating the response organisations and the community on a country wide basis to deal with any type of disaster. The function of the National Disaster Management Organisation with respect to emergencies can conveniently, be divided into five categories:

- **Informing** - the development and dissemination of information which will enhance the capability of the individual or the private organisation to cope with emergencies, to get help when needed.



- **Warning** - the analysis and forecasting of the nature of potential emergencies and the development and operation of systems designed to maximize warning time and precision for the benefit of both victims and helpers
- **Co-ordination** - the development of systems to enable resources to be effectively applied to emergencies and disasters.
- **Providing** - the provision and maintenance, when necessary, of extra-ordinary resources as well as the diversion of normal resources to meet emergency or disaster needs.
- **Evaluating** - the review of the performance of the Organisation with a view to its improvement.

For structure, roles and responsibilities of the National Disaster Management Advisory Committee refer to the National Disaster Plan.

Under the direction of the cabinet the mandate was given to form a national task force consisting of specialist in clinical, epidemiological, management and other technical areas. This task force has been further divided into sub committees with the responsibility of elaborating sections of the plan in each technical area and coordinating the associated operational activities relating to preparation, mitigation and response to pandemic and avian influenza.

**National Avian/Pandemic Influenza Task Force**  
**Chairperson: Chief Medical Officer**

AGENCY	AREA, DEPARTMENT/ DIVISION	POST OR REPRESENTATIVE
Ministry of Health	Administration	Permanent Secretary Chief Medical Officer Health Disaster Coordinator
	Epidemiology Unit	<i>Dir. NIDCU</i> Epidemiologist/ Surveillance Officer <i>HEALTH INFO OFFICER</i>
	Community Health	Director of Community Health Services Chief Community Health Nurse Senior Health Promotion Officer Health Promotion Officer Chief Environmental Health Officer
	Hospital Services	Chief Pharmacist Director of Hospital Services Director of Medical Services Director of Nursing Services Director of Laboratory Services Person responsible for Infection Control Quality Improvement Officer
	Carriacou Health Services	Health Services Administrator
Prime Minister Ministry	NaDMA	Director of NaDMA
Ministry Of Carriacou Affairs	Administration	Permanent Secretary



<b>Ministry of Agriculture, Lands, Forestry, Fisheries, MNIB, Energy And Public Utilities</b>	Administration	Chief Veterinary Officer Veterinary Officer Poultry Officer
<b>Ministry of Finance</b>	Treasury Customs & Excise Dept.	Permanent Secretary Comptroller
<b>Ministry of Education, Labour and Legal Affairs</b>	Administration	Chief Education Officer ?
<b>Ministry of Foreign Affairs International Trade</b>	Administration	Permanent Secretary
<b>Ministry of National Security</b>	Police, Coast Guard and Fire Services	Representative
<b>Department of Public Utilities</b>	NAWASA, GRENLEC, GRENTel	Representative
<b>Ministry of Tourism and Civil Aviation</b>	Grenada Airport Authority Grenada Port Authority	Manager Manager
<b>NGO</b>	Grenada Association of Poultry Producers Grenada Red Cross Funeral Directors Chambers of commerce	President  Officer responsible for Health Representative Representative

## Concept of Operations

### Activation

In the event of a public health emergency, (the Minister of Health) <sup>!!</sup> may order the chairman of the national task force to implement all or a portion of the Pandemic preparedness plan under the public health act, 1990. (Interpandemic period and pandemic alert)

In the event of an outbreak of pandemic influenza where Grenada is affected, the Prime Minister who is the head of the National Disaster Management Advisory Council under the advice of the National Disaster Coordinator or designate will evoke emergency powers under the national disaster act. (Pandemic Period)

### Direction and Control

In the event of a public health emergency, the Ministry responsible for notification of the outbreak will activate an Emergency Operations Center (EOC) to coordinate public health operations. The EOC is equipped with computers having Internet access, a fax machine, numerous land-line telephones, cellular telephones, satellite telephones, televisions with cable service, and interactive web access to the national EOC.

In Grenada, when the prime minister declares a "State of Emergency", the NEOC/ Incident Command System will be activated. The NADMAC will gather at Fort Frederick, the National Emergency Operation Center (NEOC).

The NADMC will follow the national disaster management protocols of an emergency through the National Incident Management System and the National Response Plan.



## **PROCEDURE**

Upon the declaration of a disaster or imminent threat thereof, the National Emergency Operations Center shall be activated, under the direction of the Prime Minister, by the Disaster Coordinator or designate. The National Disaster Coordinator, <sup>or designate</sup> shall assume full responsibility for NaDMA and shall be responsible for the coordination of all response and relief activities as identified under the Disaster Management Act of the Laws of Grenada.

In carrying out his responsibilities the NDC shall advise the Prime Minister, on a daily basis, of all actions undertaken or planned.

Specific policies regarding the management of the current disaster plan are as follows:

### **Public Education.**

The NDC, in collaboration with the Ministry of Health's Disaster Coordinator, will prepare appropriate explanatory notes of the plan, and conduct community meetings to apprise the population of the plan and their responsibilities. Additionally, a comprehensive training program for Shelter Managers, Evacuation personnel, and community leaders will be developed and implemented by NaDMA.

### **Reporting Procedures**

A daily meeting, to assess the progress of relief efforts, will be held with all sub-committees actively involved in response, rehabilitation and recovery activities. This meeting should be chaired by the NDC or designate.

All records from these meetings shall be kept by the NDC, and should be used as the basis for preparing funding submissions to external sources, should this be deemed necessary.

### **Emergency Operations Centre**

A designated Emergency Operation Centre shall be established and maintained in a state of readiness for any eventuality. The EOC shall be equipped with an emergency power supply, fuel and communication system, for use in the event of a disaster. All equipment should be tested on a monthly basis to ensure that they are in proper working order. All persons responsible for running the EOC are expected to be present, on a rotation basis, when these monthly checks are being carried out.

### **Organisation**

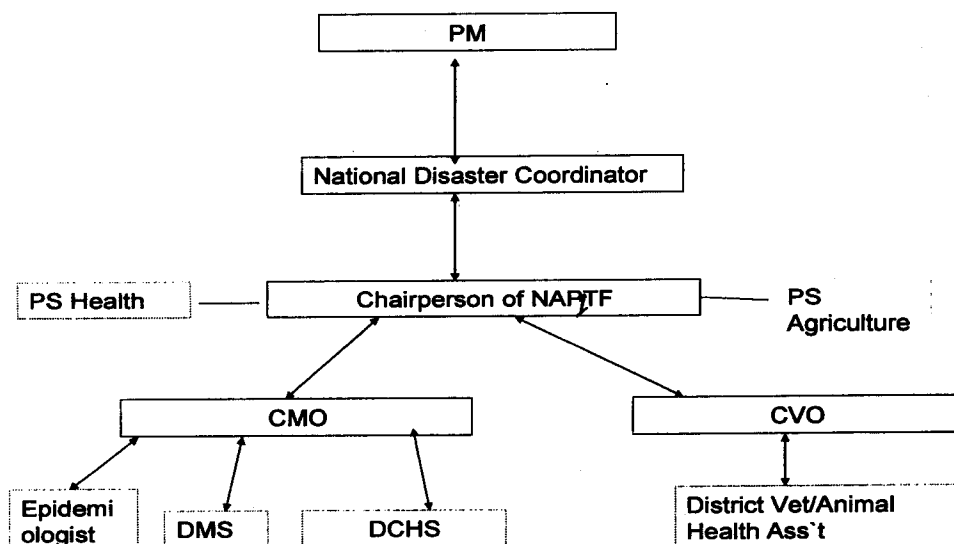
The National Disaster Management Agency is responsible for the management of the National Response Plan, to include conducting of annual simulations, maintenance of an updated resource list and Memoranda of Understandings, demographic statistics, the identification of vulnerable locations and working with communities to prepare local disaster response plans. Additionally, NaDMA in collaboration with the Ministries of Health and Agriculture shall perform all coordinating functions related to the management of the event. *of AI & PI*



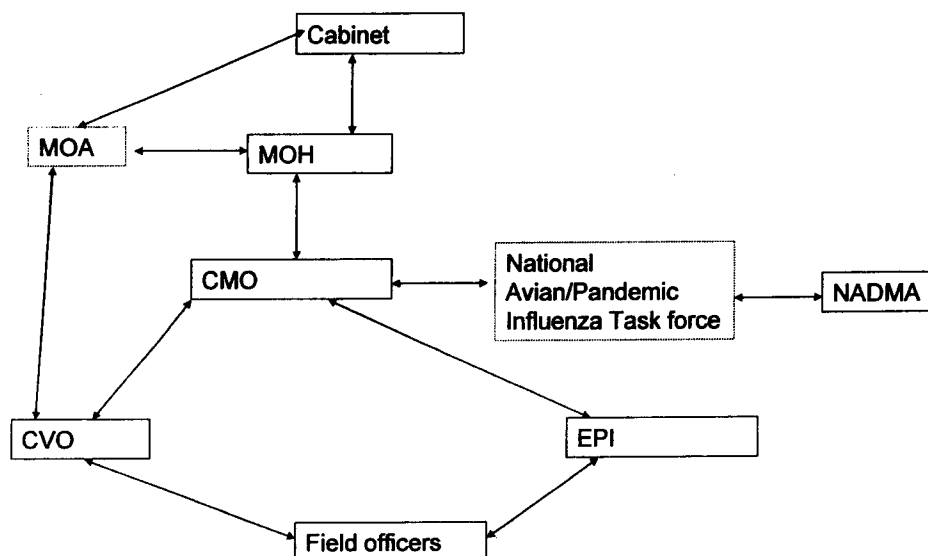
The general direction and control of the Organisation resides with the Honorable Prime Minister.

## Chain of Command and Control Structure Pandemic Period

### Command and Control



## Interpandemic and Pandemic Alert Period





## **Stakeholders**

### **Roles and Responsibilities (see Annex 2 )**

- Ministry of Health
- Ministry of Agriculture
- Ministry of Finance
- Ministry of Tourism
- Prime Minister Ministry
  - National Security
  - NADMA
  - GIS
- Ministry of Labour
- Ministry of Education
- Port Authorities
- Customs and excise
- Medical Associations
- Red Cross
- GAPP-Grenada Association of poultry producers
- NGO's and private sector organisations
- FBO
- Media Houses
- Private Hospitals
- Community
- Funeral Agencies
- Emergency Services
- Business Sector
- Chamber of Commerce
- Public Utilities
- Universities
- International Partners

## **2.4 Communication**

Communication strategies are an important component in managing any infectious disease outbreak, and are essential in the event of a pandemic. Accurate and timely information at all levels is critical in order to minimize unwanted and unforeseen social disruption and economic consequences and to maximize the effective outcome of the response.

### **Objectives**

1. To develop and implement communication mechanisms and strategies in support of national pandemic preparedness and containment initiatives aimed at agencies, the media, identified publics and essential partners, and to encourage similar effort in the private sector and civil society.



2. To ensure that health partners and other stakeholders are prepared to respond to enormous public communications challenges
3. To promote consistent, coordinated and effective public communications at all phases of the pandemic plan.
4. To ensure that mechanisms exist within the National Influenza Preparedness Plan to communicate among national, regional and international agencies and stakeholders.
5. To build support for pandemic preparedness efforts and to encourage similar efforts in the private sector, nongovernmental organization and civil society
6. To build trust through broad agreement among senior management to adhere to the WHO Outbreak Communication Guidelines

**Person(s) Responsible:**

**Designated Spokeperson: NDC  
NaDMA  
Health Promotion Unit, MOH  
Epidemiologist.**

## **Public Communication**

### **Interpandemic period (Phase 1 & Phase 2)**

- Conduct needs assessment of health care provider, other partners and general public.
- Develop and conduct risk communication and media relations training for identified employees and public health teams.
- Conduct training associated with Pandemic Influenza epidemiology, clinical features, diagnostics and surveillance to relevant persons on an ongoing basis
- Conduct needs assessment of the general public's knowledge, attitude and perceptions on pandemic influenza and its impact on society.
- Develop a list of special target groups/publics to be targeted based on their needs and perceived/potential impact of pandemic influenza on their existence prepared
- Organize health education outreach activities guided by evidenced-based information
  - Q&A fact sheet for various publics
  - Food safety campaign re-activated
  - Media Campaign (Newspaper/ TV/ Radio)
  - Mobilization of community organizations/volunteers for promoting messages and getting to the hard-to reach population
- Prepare and continuously update targeted messages and materials to be disseminated during the various phases of a pandemic.
- Develop national interactive website
- Design and publish quarterly electronic newsletter updating situation and disclosing preparedness initiatives
- Sensitize labour unions, PTAs, churches, CSOs.
- Consultation with national media to brief them on essential elements of plan and assess their own internal response plan

### **Pandemic Alert Period (Phase 3, 4&5- Grenada not affected)**



- Continue steps in the interpandemic phase
- Identify and train spokespersons in risk communication, media relations, and Pandemic Influenza epidemiology, clinical features, diagnostics and surveillance.
- Review and update NaDMA National Disaster Communication Plan to deal with various phases of the pandemic
- Identify and train appropriate personnel to staff hotlines and communication centre.

#### **Phase 3,4 &5 (Grenada not affected) continued**

- Evaluation of logistical issues that influence communication effectiveness
- Evaluate adequacy of printing and other resources to meet emergency needs
- Ensure availability of cell phones, email equipment, and laptops needed by communication staff at the time of deployment
- Website Development
- Evaluate and improve capacity of hotlines and web servers to accommodate increased use as needed.
- Available information to be reviewed and amended as appropriate when new information becomes available.
- Review and Clearance Protocol for Avian/ Pandemic Influenza Messages and Materials

#### **Phase 3, 4 & 5 (Grenada affected)**

- Continue steps in all previous phases
- Activation of Emergency Operations Communications Plan (including communication center)
- All printing facilities of the state to be placed on alert to prioritize printing needs of the Emergency response network during the crisis stage
- Assign and deploy cell phones and laptops as needed by communication staff. Email capacity confirmed
- Facilitating Public Information Officers in the field

#### **During the pandemic period**

- Continue all steps in previous phases according to communication plan

#### **Communication among those involved in the response**

##### **Pandemic Alert Period**

##### **(Phase 3,4 & 5- Grenada not affected)**

- Develop plans and mechanisms for communicating quickly and consistently with other Ministries and organizations and responders involved.
- Put in place the necessary technology and networks for rapid communication within the country, e.g. teleconference and fax equipment, Internet and e-mail capacity.
- Members may include representatives of various departments in health, agriculture and emergency services, and consumer organizations. A representative of this group should be part of the national pandemic planning committee.



- Ensure that mechanisms exist for information sharing between national authorities, WHO and other United Nations agencies. Coordinate with, or use, existing mechanisms set up for the implementation of the International Health Regulations.
- Ensure that a mechanism exists for the timely and consistent distribution of information to all individual health-care facilities, including emergency facilities that may be established in the community and relevant authorities.
- Communication materials and strategies targeting the general public, media, health care workers and other community organizations should be geared at promoting immunization and reducing unnecessary hospital visits.
- Develop inventories of existing communication systems (hardware and software).
- Identify gaps in the existing systems that will require additional resources.
- Develop a point of contact with all involved Departments, Ministries and organizations to ensure names/numbers/e-mails are up-to-date and document sharing is possible.
- Develop performance measurement criteria, to facilitate evaluation of the communication activities in the post-pandemic period (including socio-economic evaluations).

#### **PANDEMIC ALERT PERIOD (PHASES 3,4 AND 5- Grenada Affected)**

- Continue steps in not affected phases
- Once a Pandemic Alert phase is issued, the communication team will notify all partners and stakeholders according to plans.
- 

Objective 1: Coordination of local, state and national communication effort

- Briefings
- Field Joint Information Centres
- Interaction with the Emergency Communication Systems
- Message Consistency

Objective 2: Keeping communications staff at all levels prepared and informed

- Dissemination of materials available through the team
- Local-Level Coordination

## **2.5 Legal and Ethical Issues:**

Ethical (and related human rights and legal) considerations in the planning and preparation for, and response to, pandemic influenza should be in accordance with the laws of the State and in keeping with all relevant treaties, conventions or any other protocol which Grenada is signatory. Consideration should also be given to WHO guidelines and recommendations and international regulations. During a pandemic, it may be necessary to overrule existing legislation or (individual) human rights. Examples are the enforcement of quarantine (overruling individual freedom of movement), use of privately owned buildings for hospitals, off-license use of drugs, compulsory vaccination or implementation of emergency shifts in essential services. These decisions will be guided by the legal framework outlined.



The Influenza Pandemic Preparedness operations in Grenada will operate within the legal framework of:

*inadequate* /  
○ **The Public Health Act, Chapters 263, Vol. VI – Revised Laws of Grenada, 1990**  
Part IV – Notifiable Infectious Diseases  
Part V – Epidemic and Endemic Diseases

○ **The Public Health (school children immunization) Act, Chapters 264, Vol. VI – Revised Laws of Grenada, 1990**

○ **Animals (disease and importation) Act 15- Revised laws of Grenada, 1990**

○ **The Quarantine Act, Chapter 271, Vol. VI – Revised Laws of Grenada, 1990**

○ **The Vaccination Act, Chapter 333, Vol. VII – Revised Laws of Grenada, 1990**

○ **The International Health Regulations (2005)**

The revised regulations - IHR (2005) - require countries to report on “all events which may constitute a public health emergency of international concern”. The revised IHR should come into force in 2007.

2.6 Response plan by Pandemic Phase



number





## **CHAPTER 3: Avian Flu and Veterinary Public Health**

### **ABBREVIATIONS**

AHA	Animal Health Assistant
AO	Agricultural Officer
AT	Appraisal Team
CAO	Chief Agricultural Officer
DHE	Disposal and Heavy Equipment
CVO	Chief Veterinary Officer
EAD/Prep	Emergency Avian Influenza Preparedness Plan
EATTAF	Emergency Avian Influenza Task Force
FC	Field Component
Fch	Fire Chief
IO	Information Officer
LC	Laboratory Component
LG	Legal Component
LO	Legal Officer
MAFF	Ministry of Agriculture, Forestry and Fisheries
NEMO	National Emergency Management Organization
OIC/PD	Officer in Charge of Police Detail
P	Police
P0	Police Officer
Q-C/DO	Quarantine and Cleaning/Disinfection Officer
FC	Field Component
FCo	Field Coordinator
SO	Supply Officer
TFCo	Task Force Coordinator
VO	Veterinary Officer



## Animal Health Staff

NAME	DESIGNATION	TELEPHONE #
Dr. Bowen Louison	Chief Veterinary Officer	473-440-395
None	Agricultural Officer	
Dr. Claude DeAllie	Veterinary Officer(pathologist)	473-440-3195
Mr. Derek Thomas	Poultry Extension Officer	473-440-3195
Mr. Francis Pierre	Animal Health Instructor	473-442 6466
Mr. Simon Charles	Animal Health Instructor	473-442-6466
Mrs. Yolande Lord Telesford	Animal Health Instructor	473-440-9618
Mr. Wilcox Alexander	Animal Health Instructor	
Mr. Andre Edwards	Animal Health Instructor	
Mr	Animal Health Instructor	
Ms.	Animal Health Instructor	
Mr.	Veterinary Assistant	



**COMPOSITION OF NATIONAL EMERGENCY ANIMAL DISEASE COMMITTEE**  
(Chart)

<b>AGENCY</b>	<b>AREA, DEPARTMENT/ DIVISION</b>	<b>POST OR REPRESENTATIVE</b>
<b>Ministry of Agriculture, Lands, Forestry, Fisheries, MNIB, Energy And Public Utilities.</b>	<b>Administration</b>	<b>Minister/Permanent Secretary</b>
	<b>Veterinary and Livestock Division</b>	<b>C.V.O.</b>
	<b>Veterinary Laboratory</b>	<b>Veterinary Pathologist</b>
	<b>Legal Department</b>	<b>Legal Advisor</b>
<b>Ministry of Health</b>	<b>Information Unit</b>	<b>Head</b>
	<b>Extension Division</b>	<b>Head</b>
	<b>Plant Quarantine</b>	<b>Head</b>
<b>Ministry of Finance</b>	<b>Environmental Health Unit</b>	<b>Chief Environmental Officer</b>
<b>Ministry of Foreign Affairs International Trade</b>	<b>Treasury</b>	<b>Permanent Secretary or Representative</b>
	<b>Port Authority</b>	<b>General Manager</b>
	<b>Customs &amp; Excise Dept.</b>	<b>Comptroller</b>
<b>Ministry of National Security</b>	<b>Administration</b>	<b>Permanent Secretary</b>
<b>Department of Public Utilities</b>	<b>Police, Coast Guard and Fire Services</b>	<b>Representatives</b>
<b>Ministry of Tourism and Civil Aviation</b>	<b>NAWASA, GRENLEC, GRENTel</b>	<b>Representatives</b>
<b>Inter-American Institute for Cooperation in Agriculture</b>	<b>Airport Authority</b>	<b>Chairperson</b>
<b>Pan American Health Organization</b>	<b>Technical Cooperation Agency- Agricultural Health</b>	<b>Agricultural Health Specialist</b>
<b>NGO</b>	<b>Animal Health Technical Agency</b>	<b>Consultant</b>
	<b>Grenada Society for the Prevention of Cruelty to Animals</b>	<b>President</b>

## **Role of Veterinary Services**

### **1.0 Overall Policy for Avian Influenza**



In the event of **Highly Pathogenic Avian Influenza (HPAI)** the following shall apply:

- *stamp out* by destruction of all birds on infected places
- institute *pre-emptive slaughter* of birds on other premises, depending on information derived from trace back, surveillance and study of the behavior of the disease;
- *quarantine and control movement* of poultry, poultry products and associated items in infected areas to prevent spread of infection;
- *clean and disinfect* facilities, avian products and associated items to eliminate the virus on IPs and to prevent spread in declared areas;
- conduct *trace back and surveillance* to determine the source and extent of infection and to establish proof of freedom from the disease;
- consider *vaccination of poultry*,
- *ensure bio-security* at poultry establishments;
- conduct *public awareness campaign* to promote cooperation from industry and the community; and
- collaborate with Ministry of Health and the Environment to ensure that personnel at risk are vaccinated.

## **1.2 Low Pathogenic Avian Influenza (H5/H7)**

With LPAI:

- *increase trace back and surveillance* to determine the source and extent of infection and to establish proof of freedom from the disease; followed by

*either*

- *stamping out* as for HPAI, if the infection is limited in distribution in the poultry industry, and slaughter of infected flocks is manageable;

*or*

- *emergency vaccination*, if the infection is or becomes too widespread in the poultry industry to control by stamping out alone;

*and*



- *quarantine and movement controls* on poultry, poultry products and associated items in known IPs to prevent spread of infection;
- institute *stamp out measures*;
- *clean and disinfect* facilities, products and associated items to eliminate the virus;
- *increase bio-security* at poultry establishments;
- *conduct a public awareness campaign* to promote cooperation from industry and the community.

### **1.3 Low Pathogenic Avian Influenza (not H5/H7)**

- increase *trace back and surveillance*;
- *increase bio-security* at poultry establishments;
- conduct *an awareness campaign* in the poultry industry;
- engage *industry personnel in control programme*.

### **1.4 Avian Influenza (H5/H7) in Wild Birds**

- *immediate increased tracing and surveillance* in domestic poultry to determine whether infection has occurred;
- *increased bio-security* at poultry establishments; and
- *an awareness campaign* in the poultry industry.

Establish information on migratory routes and bird species.

Increase surveillance and testing

## **2. Strategy for eradication of outbreaks of HPAI**

The strategies for an effective and efficient eradication programme for HPAI will be:

- quarantine and movement controls on infected and suspect flocks;



- stamping out of infected flocks and decontamination of IPs;
- comprehensive, integrated local and national surveillance and diagnostic programmes;
- improved bio-security at all levels of the poultry production and processing industry and government agencies; and
- effective information flow to the industry on the means for AI control, the importance of surveillance and the control strategies being undertaken.

## 2.1 Stamping out and pre-emptive slaughter

All birds on IPs will be subject to stamping out if there is clinical disease or evidence of active HPAI virus infection.

People engaged in eradication activities should be protected from infection.

## 2.2 Quarantine and movement controls

Movements of people and vehicles will be controlled and personal and vehicle decontamination will be required before leaving the premises.

The access of wild birds to sheds and water supplies will be restricted. Bird-proofing will begin as soon as possible. Pets will be confined.

Infected birds will not be allowed to be moved for process slaughter, but process slaughter should be used for uninfected flocks where feasible.

There will be a declaration of two major disease control areas:

- a **restricted area (RA)** with a radius of between 1 and 5 km from all IPs and including as many DCPs and SPs as possible. More than one RA may be declared; and
- a **control area (CA)** encapsulating each RA, with a boundary no closer to the RA boundary than 2-10 km, to form a buffer between the infected and free areas — this will help contain the disease within the RA, will have its own level of restrictions, and will enable a reasonable level of commercial activity to continue.

## 2.2 Treatment of infected birds

The treatment of infected birds will not be permitted.

## 2.3 Treatment of poultry products and byproducts

Manure and litter disposal may require individual approval and treatment, depending on the premises and circumstances. The requirements for heat treatment of eggs, meat and offal will be



according to the proposed movement of products.

People engaged in product treatment must be protected from infection.

## **2.4 Vaccination**

If the disease is spreading at a rate injurious to the industry (as determined by the Emergency Avian Influenza Task Force), vaccination, strict bio-security and other infection control measures will be implemented to protect flocks from infection.

Sufficient stocks of vaccine would have to be assured before a policy of general vaccination could be adopted. Only H5 and H7 subtype vaccines are likely to be available for import.

## **2.6 Tracing and surveillance**

Tracing and surveillance will be conducted to determine the source and extent of infection and to establish proof of freedom from the disease.

Backyard poultry flocks of chickens, turkeys, guinea hens and ducks, especially where they are farmed near chickens, might be used as indicators for the passage of AI virus from waterfowl to domestic poultry.

## **2.7 Cleaning and Disinfection**

As AI virus is relatively stable in faeces and litter, buildings, equipment, vehicles, manure and litter on IPs must all be cleaned and disinfected, or destroyed. People should undergo personal decontamination procedures.

## **2.8 Public health implications**

Personnel engaged in eradication activities should be vaccinated (with the currently available human vaccine), treated with antivirals (if appropriate) and be protected from infection by wearing protective clothing. Face masks or other equipment preventing eye splash and supplying air to workers should be worn at all times when near birds.

Personnel showing clinical signs and symptoms consistent with influenza must not come in contact with infected birds, in order to reduce the chances of combination of AI with a human strain.

## **2.9 Public awareness and media**

The initial media release confirming HPAI needs to be cleared by the Chief Agricultural Officer (with input from the District Medical Officer) and the Permanent Secretary of the Ministry of Agriculture Forestry and Fisheries. The release is to be circulated to members of the Emergency Animal Disease Committee before the first press conference.



### **3. Strategy for control and eradication of LPAI (H5/H7)**

A strategic plan for stamping out or stamping out with vaccination will be essentially the same as for HPAI. Special measures and adaptations of the HPAI measures are outlined in the following sections.

#### **3.1 Stamping out**

A programme using stamping out will require consideration of the following matters:

- The action will need to be as rigorous as for HPAI, if eradication of the infection is to be achieved in a reasonable timeframe.
- Resources will need to be sufficient to sustain rapid slaughter and disposal of infected, dangerous contact and suspect flocks.
- As an initial step, the extent of infection should be determined using rapid diagnostic technology such as real-time PCR. This has the potential to limit the size of the RA and CA while helping to restrict infection to the area in which control and eradication measures will continue.

If poultry infection is widespread and a longer timeframe for eradication is acceptable, process slaughtering in the RA or CA will enable depopulation through the marketing process and limit the economic impact of the outbreak.

- As for HPAI, all the ancillary regulatory controls for an Emergency Animal Disease will need to be used to prevent further spread of the virus into the poultry industry.
- Tracing and surveillance will need to be thorough to ensure that infection is being kept under control.
- Thorough clean-up and disinfection will be required between production batches on all farms.
- Swift action will be taken to meet WHO and the Animal Health & Production Department requirements for the protection of workers if the virus mutates into HPAI.
- People engaged in activities associated with the eradication of LPAI (H5/H7) do not need to be protected against infection as for HPAI.

#### **3.2 Quarantine and movement controls**

Quarantine and controls on the movement of infected poultry, contaminated poultry products and equipment such as transports and crates are core requirements for achieving disease control. Zoning may also allow time for the outbreak to be brought under control, with or without vaccination and the orderly slaughter of infected flocks by process slaughter in commercial poultry plants. Backyard chickens, turkeys, ostriches and ducks, especially where they are



farmed near chickens, might be used as indicators for the passage of AI virus from waterfowl to domestic poultry.

### **3.3 Treatment of infected birds**

The treatment of birds infected with LPAI (H5/H7) would be ineffectual, and will therefore not be permitted.

### **3.4 Treatment of poultry products and byproducts**

The safe disposal of manure, litter and other wastes from IPs and SPs is critical for disease control purposes.

### **3.5 Vaccination**

- A decision will need to be made on whether to use vaccination in the RA and/or CA (i.e. repressive or protective vaccination).
- Action must be rigorous and fast, as for HPAI, if the outbreak is to be eradicated quickly.
- Sufficient supplies of vaccine need to be available to meet immediate and longer term demands.
- The risk of mutation of the LPAI (H5/H7) virus to HPAI, and possible infection of humans, will need to be assessed.
- Slaughtering should be used judiciously; process slaughter through commercial poultry plants should be used where practicable.
- Tracing and surveillance will need to be extensive and thorough to ensure that infection is being kept under control and HPAI viruses are not arising by mutation.
- Thorough clean-up and disinfection of facilities will be required between production batches on all farms in both the RA and the CA.
- Farmers will need to work towards all-in-all-out operations to minimize re-infection.

### **3.6 Tracing and surveillance**

Surveillance should be undertaken using rapid diagnostic technology such as real-time PCR to speed the clarification of infection on premises.

Thorough monitoring will be needed to ensure the early detection of AI infection in mammalian



species, especially pigs. Any pigs on IPs and in the RA need to be monitored for infection, including by collection of samples for virus isolation and/or serology.

### **3.7 Cleaning and Disinfection**

A clear public communications program needs to be developed to avoid public misunderstandings about what is being undertaken.

## **5 Criteria for proof of freedom**

The OIE Terrestrial Code allows for the status of a country, zone or compartment to be determined on the basis of a risk assessment, provided that 'notifiable avian influenza' (NAI, which includes HPNAI and LPNAI) is notifiable and appropriate surveillance is in place. Based on surveillance, a country, zone or compartment is considered to be free from NAI when HPNAI and LPNAI have not been present for at least the previous 12 months.

If NAI infection has occurred in an NAI-free country, free status can be regained three months after a stamping-out policy (including disinfection of all affected establishments) is applied provided that surveillance in accordance with OIE Guidelines have been carried out during the three-month period.

If Grenada were to move into a vaccination programme as part of the eradication strategy, the earliest that freedom from disease could be declared would depend on whether or not stamping out is carried out on all IPs, as follows:

- vaccination *with* stamping out of IPs — three months;
- vaccination *without* stamping out of IPs — 12 months.

Proof of freedom from AI can best be achieved by clinical observations and dead-bird sampling of repopulated barns and of possible disease outbreaks, rather than by widespread biological testing. Some serological surveillance will be required. It is recommended that this be performed on former IPs, DCPs and SPs at 30 days and at five months after repopulation, in such a way as to produce 95% confidence of detecting infection at less than 5%. This would be supported by twice weekly clinical examinations of the flocks on those premises for 30 days and then fortnightly for five months, and by virus isolation carried out on a sample of dead birds. Sero-positive flocks will require further investigation and attempts to isolate AI virus.

Some ancillary surveillance, concentrated on the commercial poultry industry, will be needed in the former RA and CA to demonstrate freedom from the disease agent. Further testing may be considered in other areas if the epidemiological information suggests that this is warranted.

## **6. Funding and compensation**

Category 1 also includes diseases that may have slightly lower national socioeconomic consequences, but also have significant public health and/or environmental consequences. For this category, the government will bear 100% of the costs provided the producer meets industry's



bio-security standards.,

For Category 2, the costs will be shared 80% by governments and 20% by the relevant industries, provided the producer meets industry's bio-security standards.

AI infections classified as LPAI (not H5/H7) are not subject to emergency disease response. This means that the costs of the control of such infections, including compensation to owners for the destruction of birds, will not be shared by government and industry.

## **7. Strategy if the disease becomes established**

If HPAI were to become established, properly applied hygiene measures and widespread vaccination could effectively limit transmission of AI infection in the commercial poultry industry. Coupled with a policy to stamp out infected flocks, government and industry would have to collaborate in a preventive programme incorporating:

- consultation with industry;
- education of industry about the disease, the control programme and the need to maintain good records;
- prevention of infection through programmes to encourage isolation, bird-proofing of poultry houses, exclusion of other wildlife and rodents, and treatment of drinking water to kill viruses using chlorine, chlorine dioxide or UV light;
- monitoring for disease by serological sampling of meat chicken flocks at processing plants and laying flocks on an annual basis;
- rapid reporting of suspicious flocks;
- upgrading of hygiene and other bio- security management procedures;
- effective high vaccination rates of all breeder and layer flocks in the infected area;
- strict isolation of suspect flocks until they can be confirmed negative or be depopulated; and
- industry-government cooperation to trace the source of the outbreak and to improve future control strategies.

## **PART A. IMPLEMENTATION OF THE ANIMAL (DISEASES AND IMPORTATION) REGULATIONS**

**See EMERGENCY PREPAREDNESS PLAN FOR THE PREVENTION AND ERADICATION OF AVIAN**



## **INFLUENZA**

### **PART E. PUBLIC AWARENESS AND EDUCATION**

Part of the routine prevention of AVIAN INFLUENZA must be the continuous campaign for increased public awareness and vigilance which should include:

1. Timely press releases.
2. Regular seminars/workshops for farmers, technical staff.
3. Regular education programmes for schools.
4. Public television broadcasts depicting the ongoing disease preventive and control measures being taken and the potential national impact if and when AVIAN INFLUENZA is introduced into the country.
5. Constant reminders, such as posters, placed conspicuously at official and designated ports of entry, on ways and means by which AVIAN INFLUENZA can be prevented.
6. Provision of information to travelers such as announcements, information brochures to and from St. Vincent and the Grenadines (through the various airlines, etc.), concerning the entry of live poultry, poultry products and used poultry equipment.
7. Provision of information to the general public through radio, television, trade shows and agricultural fairs.

## **SECTION 111**

### **CONTAINMENT AND CONTROL/ERADICATION**

#### **PART A: OUTLINE OF SEQUENCE OF EVENTS**

1. Suspicious index case observed.
2. Notification given to VO or AA/AHA or in their absence any agricultural personnel or police officer.
3. AA/AI or VO goes to farm to investigate, and then VO makes a field diagnosis.



4. If VO does not confirm the suspicion of an emergency animal disease (False Alarm) the sequence ends.
5. If VO makes the field diagnosis of an emergency animal disease, he/she notifies the farm owner officially instructs AA/AI to quarantine the area and to dispose of dead animals properly. VO collects the necessary samples and sends them immediately to the Laboratory.
6. VO notifies TFC i.e. Chief Veterinary Officer (CVO).
7. TFC activates emergency mobilization plan, alerts the National Emergency Animal Disease Committee (NEADC).
8. Upon receipt of specimens, Veterinary Pathologist facilitates the transports of the specimens to an OIE reference laboratory. The relevant Laboratory Director is alerted to the specimens' imminent arrival.
9. If additional specimens are required, the Veterinary Pathologist advises the Vet Field Component on the appropriate samples to be submitted
10. Field Component is mobilized. CVO acts as the Team Leader for the Field Component and sets up Operation Headquarters.
11. CVO mobilizes Field Component personnel from other districts to the outbreak area if the necessity arises; orchestrates the coordination of work and communication amongst the various components.
12. Police set-up and man checkpoints around the outbreak area and restrict all movements of animals, humans and vehicles on and off the infected premises.
13. Field Component searches for cases, prepares farm inventories and submits the same to the Task Force Coordinator, who in turn submits these to the National Committee for appraisal as to cost of indemnification, in the event that a slaughter policy is adopted.
14. Task Force Coordinator, the CVO, serves notice to farmers (see Form #9) in the quarantine zone.
15. Meanwhile, Field Component along with the Field Engineering Division personnel, dispose of dead animals properly while awaiting laboratory confirmation of diagnosis.
16. Upon receipt of laboratory confirmation of diagnosis, this information is immediately relayed to the National Committee, which then meets in full session to determine the strategy to be adopted. If laboratory diagnosis is negative (False Alarm), the National Committee orders lifting of quarantine, inactivates mobilization plan. Sequence ends.



17. If laboratory diagnosis confirms field diagnosis, the National Committee authorizes destruction of sick and exposed animals with compensation if applicable.
18. Task Force Coordinator implements strategy adopted by Committee serves lifting of quarantine notice and deactivates mobilization plan in case of a "false alarm". If otherwise, directs the Field Component, the Military and the Field Engineering Components to destroy all sick and exposed animals and to dispose of them appropriately followed by disinfection of premises.
19. The Communication Unit of MAFF will serve as the official spokesperson to the media. The public is to be kept informed on all actions taken by relevant authorities on a timely basis.



### **3. QUARANTINE OF INFECTED PREMISES**

When the presence of AVIAN INFLUENZA is confirmed, the premises should be quarantined; or if previously quarantined, the quarantine should be amended to the specific Avian Influenza subtype involved.

3.1. Police or Military measures should be instituted to ensure night and day compliance with the 3.2. For the first 7 days following disposal and preliminary disinfection, movement of personnel and equipment from the premises shall be limited to that necessary to carry out emergency operations.

3.3 In an emergency, other movement of personnel, equipment and non-susceptible animals may be authorized through a permit after proper cleaning and disinfection.

### **4. ESTABLISHMENT OF RESTRICTED AND CONTROL AREA**

4.1. A restricted area should be established around the infected premises or area. This zone should have a radius of 2 to 5 km from the point of infection. Natural barriers, such as rivers and swamps should be considered when the perimeter of this zone is established.

4.2. If the infection spreads, the restricted area must be enlarged. As areas become free from infection, the area may be reduced. The restricted area should be clearly outlined and information concerning its location should be publicized. Quarantine signs should be posted in conspicuous places all around the area.

4.3. A control area with a width of 2 to 10 km (or other distance as determined necessary) beyond the restricted area should also be established. Natural barriers and roads should also be considered here. Restricted and control areas should be divided into inspection sectors.

### **5. PROCEDURES OF INSPECTION FOR RESTRICTED AND CONTROL AREA**



All birds in each area should be inspected as rapidly as possible to determine the extent of the disease outbreak. The following procedures of inspection should be observed.

5.1. Inspections within a quarantine zone shall be made by a DVO. A DVO assigned to a sector in the quarantine zone should make daily inspections of all susceptible animals on the premises in his assigned sector.

5.1.1. The DVO should observe all birds on the premises daily by walking among them. All signs suggestive of Avian Influenza should be recorded. Suspicious cases must be reported immediately to the DAH (TFCo).

5.1.2. Daily inspections of all non-infected flocks in the restricted area will continue for a period of time pre-determined by the TFCo following destruction of the last infected flock within the area.

5.1.3. Strict sanitary measures shall be observed by inspectors working within the restricted area. Clean (or disposable) clothing shall be worn for each inspection and should be disinfected before entering and before leaving the premises. Vehicles will not be driven onto the premises unless absolutely necessary. Each contaminated piece of equipment or clothing must be thoroughly cleaned and disinfected before leaving the premises.

5.2. Inspections in the control area should be conducted by a DVO. If DVOs are not available, AHAs who have had experience inspecting poultry for sign of AVIAN INFLUENZA may make the inspection.

## **6. RESTRICTED AND CONTROL AREA SECURITY (POLICE)**

6.1. Checkpoints will be established on all rural roads at the perimeter of the restricted area. The primary purpose of the checkpoints is to control the movement of poultry, and products or materials such as contaminated vehicles and farm products.

## **8. PROCESSING PLANTS**



## **8.1 OPERATION OF PROCESSING PLANTS OR SLAUGHTER PLANTS IN THE RESTRICTED AREA.**

The following operational restrictions should be imposed to any processing plant that operates in an area under quarantine measures:

- a. An immediate veterinary inspection of all poultry in the production unit.
- b. Only poultry with movement permits from AHPD will be received at slaughter plants.
- c. Plant personnel will not be allowed to make contact with poultry outside the quarantine zone.
- d. Poultry owned by plant employees will be subject to quarantine for a pre-determined period of time and kept under official surveillance
- e. Cleaning and disinfection will be implemented for all personnel and especially for equipment that leave the plant using adequate products.
- f. Plant wastes to be processed should be transported in heat sealed and disinfected containers.
- g. Plants with no residual waters treatment system will be evaluated for their operation and adjustments in their operation made.
- h. All the products from plants that operate in a quarantine area will only be sold inside that area having received permission from the Director of Animal Health.
- i. Representative serum samples will be taken from each flock that is slaughtered for further serological test.

## **9. MOVEMENT OF POULTRY TO SLAUGHTER**

- 9.1. No infected poultry will be allowed to move to slaughter plants within a restricted area, or to any additional designated slaughter plant.



9.2. No poultry may be moved to slaughter plants if the emergency disease has been diagnosed in the flock or within a 10 km radius of the flock within the preceding pre-determined time period, unless authorized in writing by the DVO.

9.3. No poultry may be moved to slaughter plants from flocks that have had direct or indirect exposure (dangerous contact) within the preceding pre-determined period of time, unless authorized in writing by the DVO.

9.4. No permit may be issued for movement to slaughter plants unless the poultry flock (as defined in 8.1 to 8.3) has been inspected by a DVO and found to be apparently free of the emergency disease.

9.5. Veterinary inspection shall include:

9.5.1. A record of barn inspection of poultry to be shipped.

9.5.2. Physical examination of randomly selected poultry in the flock exhibiting any abnormalities. Physical examination should be specific.

9.6. All vehicles and crates used to transport poultry to slaughter plants must be cleaned and disinfected under supervision of an AHA immediately before they enter the farm of origin and after they are unloaded at destination. Vehicles must be accompanied by a designated officer from farm of origin to destination.

9.7. The person (generally a DVO or AHA) issuing the permit should immediately notify the person-in-charge at the slaughter plant by telephone or other available means giving him the expected arrival time. The person-in-charge of slaughter should also be given the name and telephone number of the person to call if the shipment does not arrive by close of business on the scheduled day of arrival.

9.8 All vehicles entering or leaving the restricted area zone must be treated with adequate disinfectant.

## **11. EMBARGO ZONE AND MORATORIUM ON ANIMAL MOVEMENTS**



11.1 A 7-day moratorium on the movement of all poultry within a prescribed embargo zone will be declared by the Minister of Agriculture in conjunction with the declaration of an emergency from the time of laboratory confirmation of field diagnosis. *An embargo zone is the region where the disease is known to exist and the most probable area of dissemination.* This zone is set up by joint agreement between the TFCo and RFCo.

The FVO within the region comprising the embargo zone will be notified of the moratorium by the TFCo. The DVO of each district will be expected to cooperate with the embargo and will use his/her authority and powers to implement it within the district's boundaries through the local police.

## **2. PROCEDURES WHEN AVIAN INFLUENZA IS SLIGHTLY SUSPECTED**

When the DVO is only mildly or lightly suspicious of AVIAN INFLUENZA, such as when only few poultry are showing atypical clinical signs and post mortem lesions, the following actions should be initiated as deemed appropriate:

- 2.1. Ask for consultation with other veterinarians familiar with the suspected disease condition.
- 2.2. Send diagnostic specimens to the Veterinary Diagnostic Laboratory at Central Farm.
- 2.3. Place Hold Order or Quarantine on suspected infected premises.
- 2.4. Examine the flock several times each day for additional poultry to develop signs.
- 2.5. Allow animal products to be removed from the premises by means of permit only and ensure that trace-back can be carried out.

**Slaughter birds using approved methods of slaughter.**



## **Supporting Documents:**

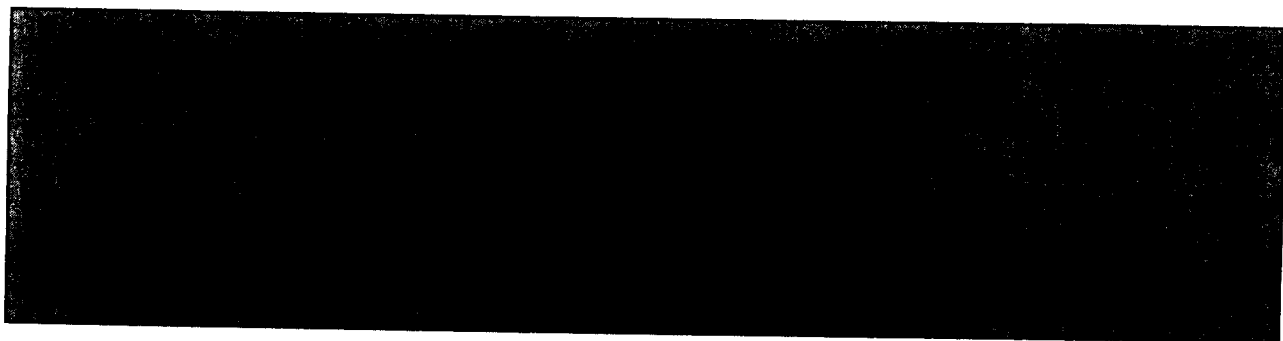
AI Contingency Plan

<http://www.who.int/foodsafety/micro/avian/en/index.html>

[http://www.oie.int/eng/maladies/fiches/a\\_A150.htm](http://www.oie.int/eng/maladies/fiches/a_A150.htm)

[http://www.oie.int/eng/normes/MANUAL/A\\_00037.htm](http://www.oie.int/eng/normes/MANUAL/A_00037.htm)







## **Chapter 4: Surveillance**

### **Objectives :-**

- To strengthen existing surveillance system and capacity in Grenada.
- To progressively detect, control and eradicate HPAI in domestic poultry.
- To strengthen the national capacity to detect, diagnose, monitor and control outbreaks of diseases of epidemic potential.
- To strengthen the national capacity to prepare for, respond to and recover from public health emergencies in Grenada.

### **Person(s) responsible :-**

Veterinary Laboratory/pathologist.  
Laboratory Director, General Hospital.  
Epidemiologist.  
Surveillance Nurse.

### **Human Surveillance**

The purpose of surveillance is to monitor influenza morbidity and mortality in Grenada and to detect any unusual viral subtypes, particularly to detect a novel subtype that may signal the beginning of an epidemic. While it is most likely that a new subtype will emerge outside of Grenada, it could also emerge in Grenada.

Nationally, there is weak surveillance for influenza, and as such very little is known about the morbidity and mortality in Grenada. Even when diagnosis of influenza is made, there is little virology/typing done and the magnitude of the problem is never grasped.

Surveillance in the context of a global epidemic of influenza must be targeted, well focused and syndromic in nature. National surveillance must focus on the following:

- Virologic surveillance in conjunction with WHO certified centers of excellence. Virology should include information on the number of specimens sent, number positive by virus type (A or B) and subtype.
- Surveillance for influenza type illness. Reporting must be done by ALL public and private health care providers. Active surveillance is necessary under these circumstances.
- Surveillance for influenza and pneumonia deaths.
- Surveillance for level of influenza activity. National Epidemiology Unit is to assess, based on reports, on a weekly basis the level of influenza activity in Grenada.



**Interpandemic period:****(Phases 1&2)**

- Strengthen and increase present surveillance system, including port health. Syndromic surveillance must be instituted in all health care facilities (private and public)
- Review and update all port health procedures at airport and seaports
- Train all port health, quarantine, customs, immigration and other relevant personnel in existing and updated port health/ surveillance procedures
- Institute sentinel sites for influenza surveillance in all health districts
- Educate health care providers on the collection, storage and transportation of samples
- Submit to regional, WHO certified lab specimen for testing ( type and subtype)
- Report to CAREC on influenza data (positives and negatives) each week
- Ensure that at least the minimum sentinel providers regularly report their weekly influenza like illnesses
- Monitor reports from sentinel sites for accuracy and completeness
- Assess overall influenza activity through out the country
- Provide information to health care providers and the general public regarding the prevention and control of influenza
- Simulation exercises to test national plan
- Develop, implement and test a communication strategy
- Review case definition (suspected, probable and confirmed)
- Distribute data collection forms and transmission instructions/protocols

**Pandemic Period Alert****(Phases 3, 4 & 5)****Enhanced surveillance**

- Continue activities initiated in the interpandemic phase
- Review composition of national surveillance team when and where necessary
- Institute plan for the handling of increase number of influenza specimens
- Re-emphasis to sentinel sites the need to report in a timely manner
- In a timely manner investigate reported outbreaks and increases in influenza like illnesses
- Early detection and isolate patients with influenza
- Refer to most current guidelines from WHO/CDC
- Focus on data collection and determine trends
- Use data to modify/adjust policies
- Implement surveillance of products and persons originating from countries at risk
- Field epidemiological investigation and contact tracing
- Activate early warning systems
- Activate protocols for outbreak investigation
- Simulation exercise to test national plan
- Implement pharmacy surveillance for over the counter medications for cough and colds



- Review the type and quantities of medical supplies needed for a pandemic event
- Advise on travel requirements and restriction on entering Grenada
- Implement the use of health alert cards at ports of entry

**Pandemic Surveillance :**

- Enhance surveillance at ports of entry for products and persons from affected countries
- Recruiting of volunteers /agencies to do non technical health task
- Enhance pharmacy surveillance for over the counter medications for cough and colds
- Focus on data collection and determining trends
- Utilize data to modify and adjust policies
- Monitor surveillance activities; product reports and disseminate information



## **Clinical Laboratory Procedures for Influenza during the Inter-Pandemic Period. (Phases 1&2)**

### **Objective:**

To make preparation for routine Influenza A diagnosis and identification of H5N1 viral strain in humans.

**Responsible for Procedure:** Director of Laboratory Services, General Hospital

### **Steps: PHASE 1**

#### **Things to do:**

1. Sourcing supplies
  - Source and procure fluorescent microscope
  - Source and procure fluorescent antibody microslides
  - Obtain quotation from supplier
  - Prepare order based on estimated testing needs
  - Submit requisition to Procurement for purchasing test kits and viral transport packs
  - Prepare order and requisition N95 masks and glasses
  - Requisition from Central medical stores surplus gloves and bleach solution
2. Ensure access to CAREC or other designated reference laboratory, with an agreement on the level of support it is able to offer.
3. Distribute viral transport packs to all sites where sampling will be done
4. Train staff in biohazard protocols, use of test kits and shipping samples to CAREC or other Reference Laboratory.
5. Develop response team schedule with alternatives for backup
6. **Write Standard Operating Procedures (SOPs) and integrate into overall plan**
  - Develop specific SOP for every response function involving laboratory. This will include sample collection, testing, reporting and shipping.
  - Merge SOPs into one master document
  - Ensure that master document is read, discussed and understood by each person in the laboratory team
7. Ensure that SOPs for sample collection are displayed at all clinical settings where patients are likely to be managed



## **Steps: PHASE 2**

### **Things to do:**

1. Ensure implementation of bio-safety protocols.
2. Initiate testing for influenza.
3. **Monitor circulating influenza strains in humans** by performing influenza test on every suspected case.
4. Characterize circulating influenza viruses by sending every positive Influenza A virus sample to CAREC for confirmation of H5N1 viral strain.
5. Upon confirmation of infection of humans with Avian Influenza Virus do the following:
  - Call CMO and notify of report
  - Call requesting physician/nurse and notify of report
  - Photocopy report for distribution to requesting physician/nurse and epidemiology unit.
6. Conduct seroprevalence studies within households or in specific settings where confirmed cases were identified.

## **Clinical Laboratory Analyses for Influenza during the Period of Pandemic Alert (Phases 3, 4 & 5)**

**Responsible for Procedure:** Director of Laboratory Services, General Hospital

### **Objective:**

To collect samples for diagnostic testing of humans who may be considered to be at high risk of exposure or have symptoms of the Influenza A virus.

## **Steps: Phase 3 – Not affected**

### **Things to do:**

1. Continue with steps 1 to 6 above in Phase 2.
2. Monitor Supplies:
  - Maintain updated information and inventories of the number and types of immunofluorescent kits
  - Maintain updated information and inventories of the number and type of barrier protection (masks, glasses, gloves and gowns)



- Prepare updated information and inventories of the packaging and transport media to send specimens to CAREC for confirmation
- Maintain an updated directory of drivers who are responsible for transporting specimens from the laboratory to the DHL/FedEx office or airport loading area

**Steps: Phase 3 – Affected**

**Things to do:**

1. Continue with steps 1 to 6 above in Phase 2.
2. Monitor and maintain supplies as above.
3. Develop a strategy for rationing laboratory testing during an established pandemic.
4. Ensure laboratory staff is given anti-virals as a prophylactic.

**Steps: Phase 4 – Not affected**

**Things to do:**

1. Continue surveillance testing and reporting.
2. Continue to monitor and maintain supplies.

**Steps: Phase 4 – Affected**

**Things to do:**

1. Intensify surveillance testing.
2. Make available consistent updated advice to health care workers on the availability and interpretation of diagnostic testing for pandemic strain influenza.
3. Continue to monitor and maintain supplies.

**Steps: Phase 5 – Not affected**

**Things to do:**

Continue with steps as in Phase 4 above – not affected.

**Steps: Phase 5 – Affected**



**Things to do:**

Continue with steps as in Phase 4 above – affected.

**Clinical Laboratory Analyses for Influenza during the Pandemic Period (Phase 6)**

**Responsible for Procedure:** Director of Laboratory Services, General Hospital

**Objective:** To provide testing for identification of Influenza A in exposed clusters.

**Steps: Phase 6**

**Things to do:**

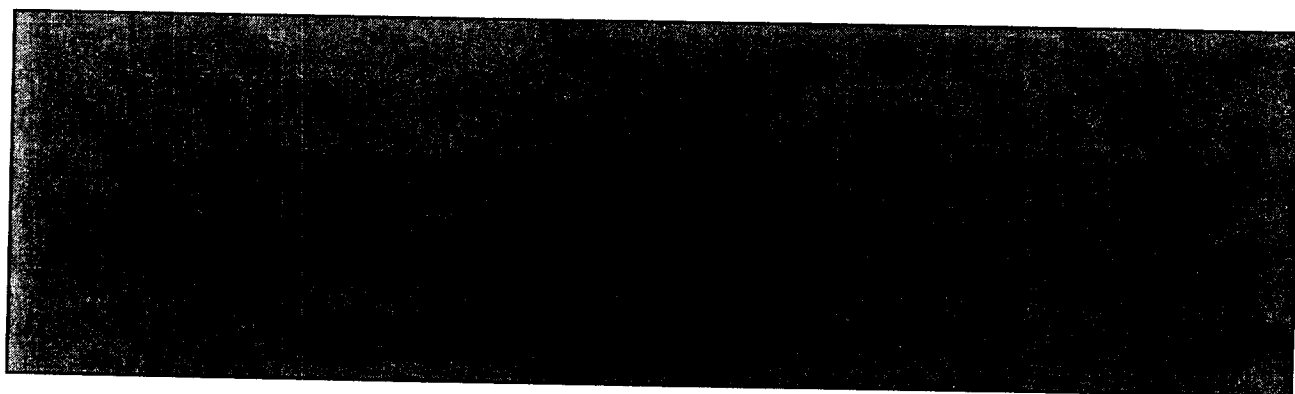
1. Intensify surveillance.
2. Initiate rationing of laboratory testing.

**Supporting Documents:**

WHO guidelines on Avian Influenza

Influenza Surveillance CAREC, June 27 – 06.







## **CHAPTER 5: Case Investigation and Treatment in Humans**

NOTE: For case investigation and treatment in animals, refer to Chapter 3: Avian Influenza and Veterinary Public Health

### **Objectives:**

- To identify all potential cases of avian influenza in humans or cases of influenza infection with a potentially pandemic subtype.
- To provide appropriate care and treatment of persons identified with avian influenza or of Influenza of a pandemic strain
- To minimize the spread of the influenza agent to contacts
- To provide ongoing information on findings to appropriate national, regional and international organizations.

**Responsible Person(s):** Director of Hospital Services and Medical Director  
Hospital Management Team

### **Interpandemic Period**

(Phase 1 & Phase 2)

- Review and update the Disease Outbreak Manual for epidemiological management
- Review and update the Infection Control Manual (respiratory isolation section)
- Procurement and of CAREC approved rapid test kits
- Procurement of bio-safety equipment and supplies (protective gear)
- Develop and maintain inventory for needed equipment and supplies
- Obtain a fluorescence microscope
- Develop and implement protocol for collection and transport of specimens
- Training for lab personnel in the use of kits and operation of fluorescence
- Training for health care personnel on taking samples
- Develop protocols and train health care personnel on clinical symptoms of the diseases
- Begin routine surveillance
- Develop protocols for and train health care personnel on biosafety measures, triage, care and treatment of affected persons (See Infection Control Manual, and Medical Attention SOP)
- Upgrade isolation rooms at the general hospital
- Designate alternative sites for hospitalization of patients in case of pandemic
- Develop contingency plan for hospital staffing and bed space in the case of pandemic with designated alternate sites.
- Develop and maintain plans for management of dead bodies in a pandemic phase and train appropriate personnel (See SOP for management of dead bodies)
- Develop notification procedures (national, regional and international) for positive cases



### **Period of Pandemic Alert**

#### **Phase 3 (Grenada not affected)**

- Continue steps in Interpandemic phase
- Intensify surveillance
- Check Inventory Ensure availability of supplies
- Revision and Testing of Plans
- Keep continually abreast of WHO updates

#### **Phase 3 (Grenada affected)**

- Continue steps in Interpandemic phase and in Phase 3 (not affected)
- Implement notification strategy
- Refer to and activate appropriate case investigation and treatment plans (SOP, Veterinary public health for animals, Disease Outbreak Manual
- Identify and manage human infections and potential
- Minimize the risk of transmission through biosafety and contact tracing methods (Refer to Infection Control Manual and Disease Outbreak Manual)

#### **Phase 4&5 (Grenada not affected)**

- Continue the steps in Interpandemic phase and Phase 3 (not affected|).
- Activate plans for port (air and sea) health surveillance and measures for control (See Port Health SOP)

#### **Phase 4&5 (Grenada affected)**

- Continue the steps in the Phases above
- Maximize efforts to control spread (refer appropriate phase in plans).
- Activate Port Health plans for case identification, transport and management
- Implement plans for management of dead bodies

### **Pandemic Period**

#### **Phase 6 (Grenada not affected)**

- Continue the steps in the Phases above
- Activate plans for restrictions on movement of persons at the ports (air and sea) (See Port Health SOP)
- Increase security and implement case surveillance and investigation at official and unofficial ports

#### **Phase 6 (Grenada affected)**

- Continue all steps in previous phases
- Implement plans for the control, management and treatment of affected persons
- Implement plans for the management and disposal of dead bodies

### **Post Pandemic Period**

- Review the event
- Evaluate and revise plans and take appropriate action as needed



**Supporting Documents:**

Infection Control Manual

Biomedical Waste Disposal Manual

Outbreak Disease Manual

Laboratory SOPs

Medical Attention SOPs (Including triage protocols and treatment guidelines)

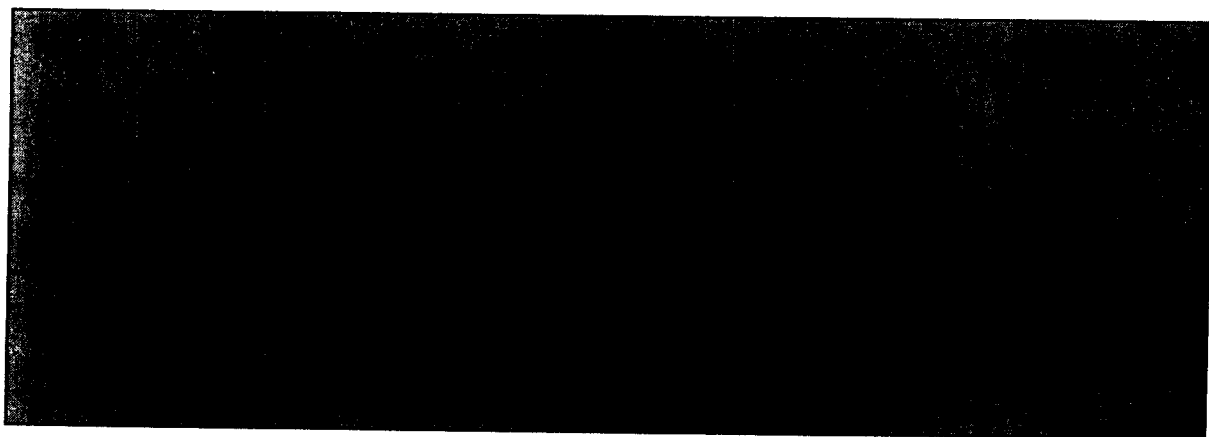
Port Health SOPs

Notification and Communication SOP

Disposal and Management of bodies SOP

Inventory for Equipment and Supplies







## **Chapter 6: Preventing Spread of Disease in the Community**

The Community Health team in response to an influenza pandemic would follow the guidelines in the disaster plan pertaining to the roles and responsibilities of each Officer.

### **Objectives:**

- To sensitize staff on measures to be implemented in preventing or delaying the spread of diseases
- To educate the public about risks to human health: who is at risk and what measures can be taken to reduce risk.
- To prevent the occurrence and spread of avian influenza in animals especially birds
- To prevent the transmission of avian influenza from animals to humans
- To reduce the transmission of influenza virus from human to human
- To reduce the potential of humans becoming mixing vessels for avian influenza and the influenza virus
- To effectively manage triage and treatment of persons seeking medical attention in the context of an avian influenza outbreak

**Responsible Person(s):** Director of Community Services  
Chief Community Nurse  
Primary Health Care teams

**Organization Responsible:** Ministry for Health

(The responsibility includes not only the execution of the procedure during an emergency, but its permanent revision, testing, updating and improvement, as well as the procurement of whatever resources are needed for its adequate execution)

### **Interpandemic Period:**

General Personal hygiene:

- Strengthen general knowledge on appropriate animal handling and cooking techniques for preventing the spread of zoonoses.
- Increase general knowledge on personal respiratory hygiene in the community
- Produce information on reducing risk of transmission of avian influenza/pandemic influenza
- Education on hand-washing techniques and their importance

Community infection-control measures:

- Increase awareness of community health personnel of notification and communication procedures (see Notification and Communication SOP)
- Develop and implement guidelines to control the spread of animal or avian influenza (Biosecurity measures)
- Review and maintain biosafety protocols in the community (Infection Control Manual)



- Develop and Maintain and train personnel in use of protocols for surveillance (Epidemiology Surveillance Manual, Disease Outbreak Manual)
- Define human populations at risk of influenza infection from animals
- Develop and maintain plans for management of dead bodies in a pandemic phase and train appropriate personnel (See SOP for management of dead bodies|)

**Social Distancing and quarantine:**

- Develop and implement protocols for prevention of influenza in humans who have contact with infected animals or birds.
- Develop guidelines for prevention of spread of avian influenza/ pandemic influenza in non-farm and non-medical settings e.g. back yard poultry/ homes for elderly/ prisons
- Develop protocols for care of patients at home in the event of pandemic influenza
- Develop protocols for Quarantine during an avian influenza/pandemic outbreak.

**Interpandemic Period (continued):**

**Vaccine Programs**

- Consideration of Feasibility of routine vaccination for seasonal flu
- Development of guidelines for vaccination at various phases of pandemic

**Antiviral use as a prevention method**

- Develop a strategy and protocols for the use of antivirals during avian influenza/ pandemic influenza outbreak.
- Procure and ensure availability of needed antivirals
- Train health providers in the protocols for use of antivirals

**Pandemic Period Alert**

**Phase 3 (Grenada not affected)**

- Continue steps in Interpandemic period
- Increase public awareness of avian influenza, seasonal influenza and pandemic influenza
- Step up Education campaign for personal hygiene and biosecurity measures
- Monitor biosecurity measures on farms and at the ports
- Implement influenza vaccination protocol
- Implement surveillance protocols for avian influenza and seasonal influenza

**Phase 3 (Grenada affected)**

- Continue steps in all previous phases
- Implement Notification Strategy/Plan
- Implement Quarantine protocols and restrictions
- Implement appropriate trade restrictions

**Phase 4&5 (not affected)**

- Continue steps in all previous phases
- Intensify active community surveillance



#### **Phase 4&5 (affected)**

- Continue steps in previous phases
- Identify and manage human cases in the community according to protocols (vaccination, quarantine and antiviral treatment, disposal of bodies)
- Ensure upkeep of inventory and supplies
- Activate appropriate security measures to isolate communities as necessary
- Restrict Mass gatherings
- Intensify targeted surveillance
- Activate airport and sea port surveillance

#### **Pandemic Period**

##### **Phase 6 (not affected)**

- Continue steps in previous phases as appropriate

##### **Phase 6 (affected)**

- Activate all contingency plans
- Activate Staffing plans, alternate sites and protocols for care of patients at home

#### **Post Pandemic Period**

- Review the event
- Evaluate and revise plans and take appropriate action as needed

### **Supporting Documents:**

Directory

Maps

Clinical Diagnosis and Treatment Guidelines

Triage and Referral Protocols

Infection Control Manual

Epidemiological surveillance/ Disease Outbreak manual

Medical Attention SOP

Inventory of equipment and materials

Protocols for Vaccination

Protocols for Treatment at home

Community Disaster Plan

WHO Guidance on Public Health

Advice on Prevention of Pandemic Influenza

WHO Guidance on Non-pharmacological interventions

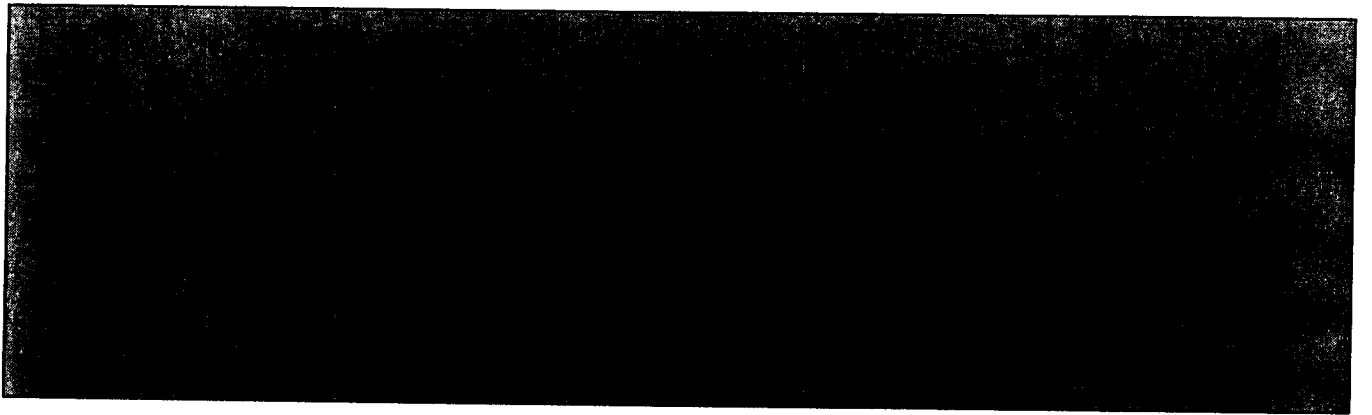
WHO Recommendations Relating to Travelers

Guidelines for the use of Seasonal Influenza Vaccines

WHO Guidelines on Vaccines and Antivirals

Use of Antivirals







## **Chapter 7: Maintaining Essential Services**

### **Objectives**

- To ensure the continuation of essential health services in the event of an outbreak.
- To maintain essential security services. Eg Police, Coast Guard, Port Officers
- To ensure provision of basic amenities. Eg Food supply, Water, Electricity, Phone.

### **Person(s) Responsible**

NADMA- Mr. Sylvan McIntyre  
Ms. Denise Guy

### **Inter-pandemic Period-(phases 1&2)**

- Continuously review and update modeling exercises for possible consequences of a pandemic influenza outbreak
- Review and update the National Disaster Plan to respond to an Avian influenza outbreak to include; an organizational chart and definitions of all stakeholder functions and roles in the relevant phases of pandemic alert and in the event of a pandemic
- Determine Police/Security Personnel needs and potential deficiencies based on modeling exercise and develop contingency plans.
- Anticipate interruptions in basic services based on modeling exercise and develop contingency plans.
- Determine health facility and personnel needs based on modeling exercise
- Develop an inventory of all health care facilities including number of general beds and number of critical care beds
- Identify alternate and additional patient care areas/facilities
- Map the location of all health care facilities and identified additional areas
- Produce a directory of all available trained health care personnel
- Develop a Health Services Contingency Plan to address gaps between needed and available resources to provide continuous care
- Develop guidelines for stock piling with mechanisms for storage and distribution. Eg. Food, medications.
- Develop regional relationships to help with all contingency plans

### **Pandemic Alert period**

Phases 3, 4 & 5 Grenada (Not affected)

- Continue steps above
- Review and update all current plans

Phase 3 Grenada ( affected)

- Activate communication strategy
- Continue steps above
- Activate avian influenza response strategy (see Veterinary Public Health)



**Phase 4&5 Grenada (affected)**

- Activate National Disaster Plan as is relevant to situation

**Pandemic Period-**

**Phases 6**

- Activate the National Disaster Plan
- Continue as above implementation

**Post Pandemic Period**

- Evaluate and review all related plans

**Supporting Documents:**

National Disaster Plan

Health Contingency Plan

Medical attention SOP

Avian Influenza response SOP

Triage Model

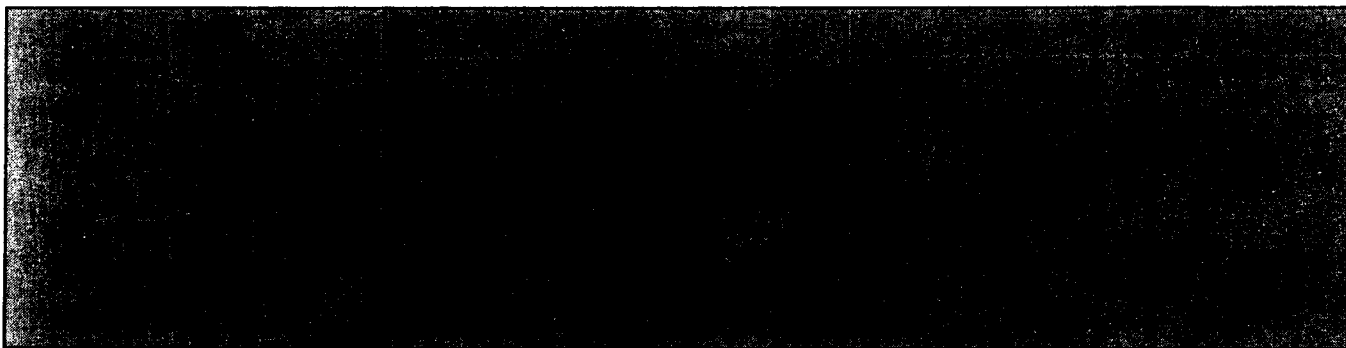
Health Care Planning

Organization of emergency health facilities and Psychological Care

PAHO - Management of Dead Bodies

Management of Dead Bodies – Model for Legal Framework-Mexico







## **Chapter 8: Research and Evaluation**

### **Objectives;**

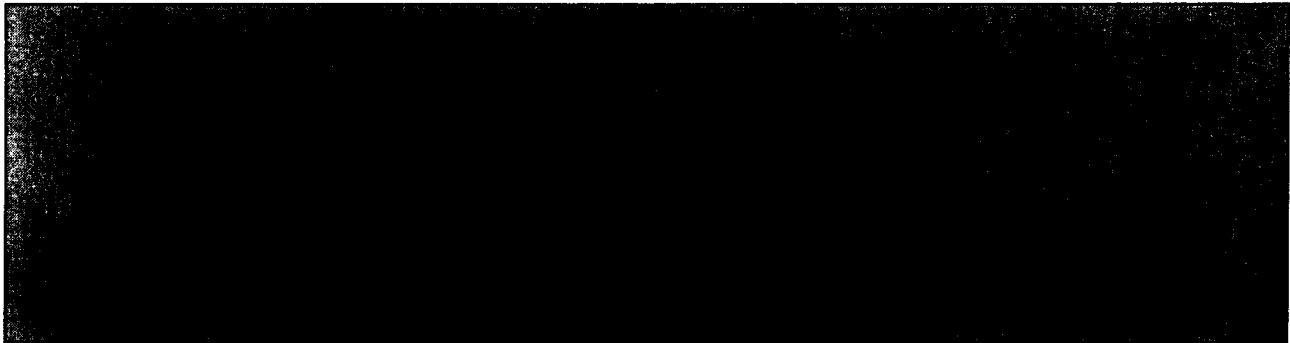
- To conduct ethical, relevant and feasible research activities through out various phases of the pandemic
- To collaborate with academic and other related research institutions.
- To keep abreast on current research, using the knowledge to improve our plans
- To conduct ongoing, systematic evaluations of our policies and plans.

### **All periods and Phases**

Accurate collection and analysis of relevant data with a view to making evidenced based decisions.

Develop procedures for systematic evaluation and improvement of all policies and plans implemented.







## **Chapter 9: Implementation, Testing and Revision of the National Plan**

### **Objectives**

- To ensure completion of all related plans and supporting documents.
- To conduct appropriate training for the implementation of plans.
- To conduct simulation exercises to test plan developed.
- To continually revise and evaluate plan.
- To systematically implement the plan according to the current phase and national status.

### **Person(s) responsible**

Chief Medical Officer/Chief Veterinary Officer (Ministries of Health and Agriculture)  
National Influenza Pandemic Planning Committee(NIPPC)  
National Disaster Management Agency (NaDMA)

### **Inter-pandemic Period**

(Phase 1 & 2 )

- Set deadlines for the completion of all plans and supporting documents
- Ensure dissemination of plans to all relevant personnel and departments
- Initial review of plans based on feedback from responsible personnel
- Schedule training for targeted work groups
- Conduct annual table top exercises
- Conduct simulation exercises
- Schedule and conduct at least quarterly meetings of the NIPPC
- Evaluate and revise plan as a result of the exercises\
- Continuous consultation with regional experts in the related fields  
eg. PAHO

### **Pandemic Period alert**

Phase 3 (Grenada not affected)

- Continue steps from the interpandemic phase
- Increase frequency of NIPPC meetings as appropriate
- Review and update plans and implement preparation plans for response to Avian Influenza outbreak
- Conduct refresher training sessions
- Conduct Phase 3 simulation exercise

Phase 3 (Grenada affected)

- Activate National Avian Influenza Response Plan
- Conduct continuous evaluation in keeping with plans

Phase 4&5 (Grenada not affected)



- Continue steps from the interpandemic phase
- Increase frequency of NIPPC meetings as appropriate
- Convene a meeting of National Disaster Management Advisory Council (NaDMAC) and Emergency Operations Committee (EOC)
- Review and update plans and implement preparation plans for response to Pandemic Influenza outbreak
- Conduct refresher training sessions
- Conduct Phase 4, 5 & 6 simulation exercises to evaluate and improve plans

**Phase 4&5 (Grenada affected)**

- Activate National Influenza Response Plans with emphasis on decrease of transmission, care and treatment
- Activate National Disaster Plans as appropriate with emphasis on security for quarantine and containment as well as port measures

**Pandemic Period**

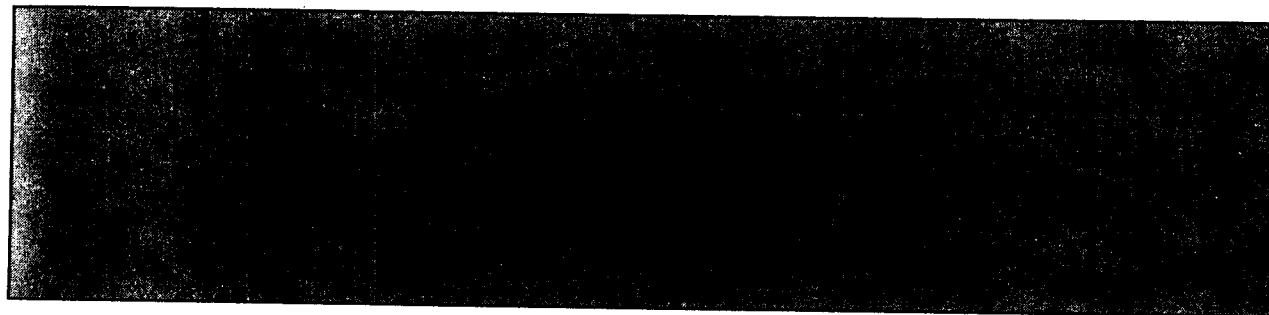
**Phase 6**

- Full activation of all response and contingency plans

**Post Pandemic Period**

- Evaluate and review all related plans







## **ANNEX 1**

### **Terms of Reference for the National Avian and Pandemic Influenza Task Force**

#### **Purpose**

To develop structures and institute measures to prevent the introduction of and /or minimize the spread of a new avian influenza virus subtype in animals and humans

To reduce the mortality and morbidity associated with the introduction due to the presence of a new avian influenza.

To provide timely, clear and accurate information to the public and the relevant authorities throughout the phases of pandemic influenza

#### **Accountability**

This task force will be accountable to the national disaster management advisory council through the permanent secretaries of health and agriculture.

#### **Membership**

Chairperson- CMO

Deputy Chairperson- CVO

#### **Roles and responsibilities**

##### **National Task Force**

- Develop, modify and promote policies and coordinate inputs of various Government ministries and other stakeholders in the prevention, control and spread of avian flu
- Define roles/responsibilities for the various stakeholders in the preparation and response to pandemic influenza
- Establish and agree on a pandemic preparedness plan workplan with timelines
- Implement a communication strategy and raise awareness to encourage pandemic planning
- Establish subcommittees for the development of sections of the plan based on technical expertise
- Request participation of individuals, agencies and other stakeholders in the preparation and response to pandemic influenza as deemed necessary
- Provide technical information on the status of avian and pandemic influenza
- Develop and maintain linkages with regional and international organizations
- Promote the development of research activities that will identify trends in respiratory diseases for evidence based planning



- Monitor and evaluate the progress of avian and pandemic influenza contingency planning
- Be the lead authority and source of information on avian and pandemic influenza
- Develop and prepare a budget for avian and pandemic influenza for preparedness and response

#### **Chairperson**

- To convene regular meetings of the task force and extraordinary meetings as necessary
- Provide briefings to the National Emergency Advisory Council
- Ensure that the subcommittees are functional
- Represent the task force at the policy level with regards to the provision of resources
- Ensure periodic review/update of the National Influenza Pandemic Preparedness plan
- To coordinate periodic simulation exercises to test the plan

#### **National Disaster Co-ordinator of the NaDMA**

##### **Permanent:**

- A member of the National Influenza Pandemic task force Committee chaired by the CMO.
- Ensure that the directories of the persons involved in this procedure that have to be notified are updated regularly.
- Ensure that the members of the NaDMAC and Chairpersons of the National and District Committees update the directories of the personnel and organisations they have to notify before the hurricane season by the 15<sup>th</sup> of May each year.
- To keep one copy of this procedure and its directories at the office and one at home.
- Coordinate with the Chairperson of the National Influenza Pandemic task force Committee from the MOH (CMO) about the mechanisms for the receiving notification that a suspected or confirmed case of infection with avian influenza virus or a pandemic strain has occurred in the state of Grenada.



- Distribute this procedure and its attachment to all the NaDMAC members, District Committees and other key stakeholders indicated in Attachment 1 to this procedure.
- Identify means of communications from the NaDMA to those who have to be notified and identify the most effective and fastest communication means to be used for notification.
- Revise and update this procedure at least once a year.

### **Time frame and frequency of meetings**

Quarterly meetings of the national taskforce and as required  
Monthly meetings of the subcommittees

### **Funding, administrative and secretarial and administrative support**

### **Subcommittees**

<b>Committee</b>	<b>Members</b>	<b>Responsibility</b>
<b>Communication</b> Chairperson-Health promotion officer	Communication Personnel- Agriculture (head of communication unit) NADMA PRO-Health PRO- Police Media Association Rep. Poultry association	<ul style="list-style-type: none"> <li>• Responsible for developing and continuous implementing communication plans for to promote preparedness internally (Government systems), among Stakeholders (local, national, regional, international) and in the Public.</li> <li>• Responsible for the development of the communication plan for response including appropriate SOPs</li> <li>• Ensure preparedness (all persons are aware of/ practiced plan).</li> <li>• Develop budget for preparedness: supplies, activities, training etc</li> </ul>



<b>Surveillance and Laboratory</b> Chairperson- Surveillance Officer	Director of Lab Services Port Surveillance- Health (Nurse and EHO) and Agriculture personnel Veterinary Officer Community Health Nurse Rep. St. George's University Rep. Immigration Rep. Customs and Excises Hospital-personnel responsible for infection control	<ul style="list-style-type: none"> <li>• Develop plans for preventing spread of infection in the community by phase population containment, immunization</li> <li>• Establish a Rapid Response Team</li> <li>•</li> </ul>
<b>Community Services</b> Chairperson- Director of community Health Services	Rep. National Infectious Disease Control Unit Chief Community Health Nurse EPI manager	<ul style="list-style-type: none"> <li>• Develop plans for preventing spread of infection in the community by phase population containment, immunization</li> <li>• Develop budget for preparedness: supplies, activities, training etc.</li> </ul>
<b>Environmental Health and Agriculture</b> Chairperson- Chief Environmental Health Officer	Poultry Officer Operations Officer of Grenada solid waste management authority Rep. NAWASA Rep. Grenada association of Poultry producers Rep. Funeral Directors	<ul style="list-style-type: none"> <li>• Develop plans for preventing spread of infection by phase including: population containment, immunization,</li> <li>• Consider the Legal and Ethical issues in the Prevention of Spread of Infection</li> <li>• Develop appropriate SOPs</li> <li>• Develop budget for preparedness: supplies, activities, training etc.</li> </ul>
<b>Pharmacy and Supplies</b> Chairperson- Chief Pharmacist	Procurement Officer Senior Hospital Pharmacist President of the Grenada Pharmacy Association Rep. Pharmaceutical Importer	<ul style="list-style-type: none"> <li>• Develop budget for preparedness: supplies</li> <li>• Develop plan for the procurement and distribution of supplies</li> </ul>
<b>Hospital Services</b> Chairperson- Director of	Director of Medical Services	<ul style="list-style-type: none"> <li>• Develop plans for preventing spread of</li> </ul>



<b>Hospital Services</b>	<p>Director of Nursing Services Infection Control Head of Accident and Emergency Department Director of St. Augustine Medical Services Health Services Administrator- Carriacou and Petite Martinique</p>	<p>infection by phase including: Isolation and Quarantine procedures</p> <ul style="list-style-type: none"> <li>• Develop appropriate SOPs</li> <li>• Develop budget for preparedness: supplies, activities, training etc.</li> </ul>
<p><b>Command and Control</b> Chairperson: Slyvan McIntyre</p>	<p>(includes chairpersons of subcommittees) Chief Medical Officer Chief Veterinary Officer</p>	<ul style="list-style-type: none"> <li>• Responsible for the Command and Control Section, Essential Services Maintenance Section and Recovery Section of the Plan by phase with appropriate Standard Operating Procedures (SOPs)</li> <li>• Responsible for the collation and oversight of the National Influenza Pandemic Preparedness Plan (NIPPP) and Budget</li> <li>• Responsible for testing the plan and implementing activities for preparedness</li> <li>• Periodic review and revision of the NIPPP</li> </ul>



## **ANNEX 2**

### **Stakeholders' Roles and responsibilities**

#### **Prime Minister Ministry**

##### **NADMA**

Coordinate National command and control; District Emergency Organisations to help with non technical health tasks in the home.

##### **-National Security**

- containment, security and maintenance of public order

##### **-GIS**

- Education of the general public, relations with the media
- Training in risk communication for health care personnel
- Assists with simulation exercises

#### **Ministry of Health**

- Coordination and facilitation of the National avian and pandemic task force
- Command centre for all public health emergencies
- Technical guidance for the preparation and response to pandemic influenza
- Perform surveillance, monitoring and reporting activities
- Implementation of the International Health Regulations

#### **Ministry of Agriculture**

- Perform surveillance, monitoring and reporting activities –zoonotic diseases, Laboratory services
- Sensitisation of the public – egg and poultry producers, traders and the general public
- Procure and make available PPE for all persons involved in handling birds in the case of a suspected outbreak of avian influenza
- Liaise with the Ministry of health on public health issues, zoonosis

#### **Ministry of Finance**

Budgetary allocation for disease emergencies

#### **Ministry of Tourism**

- Sensitise and provide continuous information to the industry on the status of avian and pandemic influenza.
- Contingency plan for the quarantine and/or transfer of ill tourists



**Ministry of Foreign affairs**

Contingency plans for travel and trade with affected countries.

**Ministry of Labour**

- Contingency plan for maintaining staff levels in the Ministry of Health and its institutions; and other ministries.
- Advising on occupational health and safety matters for the workforce, coordinate surveillance of workforce absenteeism during a pandemic,
- Sensitise workforce re: the possible economic impact of the pandemic on wages.

**Port Authorities and Immigration**

- Assist in the screening, quarantine and repatriation if necessary.

**Customs and excise**

- Enforcing import and trade regulations re meat and poultry products and live birds.

**Medical Associations**

- Contingency staffing for health care institutions,
- Education and communication for their members
- Participate in early warning surveillance

**Red Cross**

**NGO's and private sector organisations**

**FBO and Community**

- Non-technical Health task in the home,
- Identification of at risk persons in the community,
- utilization of infrastructure as alternative health care sites,
- Psychological support in the community.

**GAPP-Grenada Association of poultry producers**

- Educate their membership and workers about pandemic flu precautions, reporting of dead birds (early warning)

**Media Houses**

- Distribution of educational messages to the general public

**Private Hospitals**

- Early warning and excess in patient care



**Funeral Agencies**

- Assistance with body storage, transportation, repatriation and burial

**Emergency Services**

- Sensitization of staff about appropriate infection control measures

**Business Sector**

**Chamber of Commerce**

**Public Utilities**

- Contingency plans for the continuity of essential services

**Universities**

**International Partners**

- Provide technical expertise and support in the development and implementation of contingency plans for pandemic and avian influenza



## **ANNEX 3**

### **NaDMA Response to Pandemic Influenza**

#### **Objective**

To notify all members of the NaDMAC, District Disaster Committees' Chairpersons and key holders members of the NaDMC that suspected or confirmed cases of avian influenza are present in Grenada.

#### **Responsible for the Procedure:**

The National Disaster Co-ordinator. NaDMA.

In the absence of the National Disaster Co-ordinator, the Community Disaster preparedness Officer will execute this procedure.

#### **Steps of the Procedure.**

##### **Immediately after being contacted by the CMO.**

1. Receive/ask information from the CMO about:

The general characteristics of the situation.

Location of the event.

Magnitude of the event.

Immediate measures taken

Needs and next steps.

2. Go immediately to the emergency meeting of the National Influenza Pandemic Planning Committee in the MOH.
3. In the Committee meeting, find out about:
  - The need to convene a NaDMAC emergency meeting.
  - What is needed from the NaDMAC.
4. If a NaDMAC meeting is needed, determine in the Committee meeting a date and time for the NaDMAC meeting and inform the Committee so that its members would attend and inform the NaDMAC about the situation and steps to be followed.
5. Back in the NaDMA Office start the Notification Process. Notify International and Regional Stakeholders and local persons according to their contact numbers and/or means of communication agreed and stated in the directory attached to this procedure (See NaDMA Directory)



6. Ensure that all the persons that have to be notified are immediately notified also by email by the Technical Officer of the NADMA.
7. Inform every person/organisation notified about:
  1. The general characteristics of the situation.
  2. Location of the event.
  3. Magnitude of the event.
  4. Immediate measures taken
  5. Needs and next steps.
8. Ensure that in the NaDMA Advisory Council Emergency Meetings decisions/discussion/reports are made about:
  - Assessing the situation.
  - Securing the area affected
  - Emergency measures: security, customs, ports, etc.
  - Specific control measures in farms, markets, supermarkets, etc. ,Security.
  - Determine if a Declaration of the State of Emergency and Curfew is needed.
  - Passes for vehicles and for individuals.
  - Preparing and taping one message to be broadcasted immediately with the decisions made by the NaDMAC and recommendations to the general population such as a Prime Minister's Address to the Nation.
  - Ensure that press releases are produced in the NaDMAC and/or the Avian Influenza Committee and sent to the media with regularity.
  - Produce information and disseminate it abroad through the Ministry of Foreign Affairs.
  - Determine the need to activate the National EOC and any District EOCs.
  - Ensure key regional and international stakeholders are notified: PAHO, CDERA, UNDP, etc. and determine what assistance might be needed from them.
9. If due to the gravity of the situation at any point in time, demands the activation of the National EOC, activate it and operate it as it is established in the NEOC Manual.
10. Ensure that key stakeholders and members of the Avian Influenza Committee are present in the NEOC.
11. Coordinate the response activities until the situation demands the deactivation of the NEOC.
12. Prepare reports and disseminate information as stated in the NEOC Manual and its SOPS.



## ANNEX 4

### INFECTION CONTROL GUIDELINES

(Adapted from the Georgia Pandemic Influenza Standard Operating Plan, 2006)

#### Infection Control recommendations for care of patients with pandemic influenza

#### Summary of Infection Control Recommendations for Care of Patients with Pandemic Influenza

Component	Recommendations
<b>Standard Precautions</b>	See <a href="http://www.cdc.gov/ncidod/hip/ISOLAT/std_prec_excerpt.htm">www.cdc.gov/ncidod/hip/ISOLAT/std_prec_excerpt.htm</a> Perform hand hygiene after touching blood, body fluids, secretions, excretions, and contaminated items; after removing gloves; and between patient contacts. Hand hygiene includes both handwashing with either plain or antimicrobial soap and water or use of alcohol-based products (gels, rinses, foams) that contain an emollient and do not require the use of water. If hands are visibly soiled or contaminated with respiratory secretions, they should be washed with soap (either non-antimicrobial or antimicrobial) and water. In the absence of visible soiling of hands, approved alcohol-based products for hand disinfection are preferred over antimicrobial or plain soap and water because of their superior microbicidal activity, reduced drying of the skin, and convenience.
<b>Hand hygiene</b>	
<b>Personal protective equipment (PPE)</b>	<ul style="list-style-type: none"> <li>• For touching blood, body fluids, secretions, excretions, and contaminated items; for touching mucous membranes and non intact skin</li> <li>• During procedures and patient-care activities when contact of clothing/exposed skin with blood/body fluids, secretions, and excretions is anticipated</li> <li>• During procedures and patient care activities likely to generate splash or spray of blood, body fluids, secretions, excretions</li> </ul>
<b>Safe work practices</b>	Avoid touching eyes, nose, mouth, or exposed skin with contaminated hands (gloved or ungloved); avoid touching surfaces with contaminated gloves and other PPE that are not directly related to patient care (e.g., door knobs, keys, light switches).
<b>Patient resuscitation</b>	Avoid unnecessary mouth-to-mouth contact; use mouthpiece, resuscitation bag, or other ventilation devices to prevent contact with mouth and oral secretions.
<b>Soiled patient care equipment</b>	Handle in a manner that prevents transfer of microorganisms to oneself, others, and environmental surfaces; wear gloves if visibly contaminated; perform hand hygiene after handling equipment.
<b>Soiled linen and laundry</b>	Handle in a manner that prevents transfer of microorganisms to oneself, others, and to environmental surfaces; wear gloves (gown if necessary) when handling and transporting soiled linen and laundry; and perform hand hygiene.
<b>Needles and other sharps</b>	Use devices with safety features when available; do not recap, bend, break or hand-manipulate used needles; if recapping is necessary, use a one-handed scoop technique; place used sharps in a puncture-resistant container.



<b>Environmental cleaning and disinfection</b>	Use EPA-registered hospital detergent-disinfectant; follow standard facility procedures for cleaning and disinfection of environmental surfaces; emphasize cleaning/disinfection of frequently touched surfaces (e.g., bed rails, phones, lavatory surfaces).
<b>Disposal of solid waste</b>	Contain and dispose of solid waste (medical and non-medical) in accordance with facility procedures and/or local or state regulations; wear gloves when handling waste; wear gloves when handling waste containers; perform hand hygiene.
<b>Respiratory hygiene/cough etiquette</b>	Cover the mouth/nose when sneezing/coughing; use tissues and dispose in no-touch receptacles; perform hand hygiene after contact with respiratory secretions; wear a mask (procedure or surgical) if tolerated; sit or stand as far away as possible (more than 3 feet) from persons who are not ill.
<b>Droplet Precautions</b>	<p><a href="http://www.cdc.gov/ncidod/hip/ISOLAT/droplet_prec_excerpt.htm">www.cdc.gov/ncidod/hip/ISOLAT/droplet_prec_excerpt.htm</a></p> <p>Place patients with influenza in a private room or cohort with other patients with influenza.* Keep door closed or slightly ajar; maintain room assignments of patients in nursing homes and other residential settings; and apply droplet precautions to all persons in the room.</p> <p>*During the early stages of a pandemic, infection with influenza should be laboratory-confirmed, if possible. Personal protective equipment Wear a surgical or procedure mask for entry into patient room; wear other PPE as recommended for standard precautions.</p>
<b>Patient placement</b>	Limit patient movement outside of room to medically necessary purposes; have patient wear a procedure or surgical mask when outside the room.
<b>Patient transport</b>	Follow standard precautions and facility procedures for handling linen and laundry and dishes and eating utensils, and for cleaning/disinfection of environmental surfaces and patient care equipment, disposal of solid waste, and postmortem care.
<b>Other</b>	During procedures that may generate small particles of respiratory secretions (e.g., endotracheal intubation, bronchoscopy, nebulizer treatment, suctioning), healthcare personnel should wear gloves, gown, face/eye protection, and a fit-tested N95 respirator or other appropriate particulate respirator.
<b>Aerosol-Generating Procedures</b>	

## ***Respiratory hygiene/cough etiquette***

### **Box 2. Respiratory Hygiene/Cough Etiquette**

To contain respiratory secretions, all persons with signs and symptoms of a respiratory infection, regardless of presumed cause, should be instructed to:

- Cover the nose/mouth when coughing or sneezing.
- Use tissues to contain respiratory secretions.
- Dispose of tissues in the nearest waste receptacle after use.
- Perform hand hygiene after contact with respiratory secretions and contaminated objects/materials.

Healthcare facilities should ensure the availability of materials for adhering to respiratory hygiene/cough etiquette in waiting areas for patients and visitors:

- Provide tissues and no-touch receptacles for used tissue disposal.
- Provide conveniently located dispensers of alcohol-based hand rub.
- Provide soap and disposable towels for handwashing where sinks are available.



**Masking and separation of persons with symptoms of respiratory infection**

During periods of increased respiratory infection in the community, persons who are coughing should be offered either a procedure mask (i.e., with ear loops) or a surgical mask (i.e., with ties) to contain respiratory secretions. Coughing persons should be encouraged to sit as far away as possible (at least 3 feet) from others in common waiting areas. Some facilities may wish to institute this recommendation year-round.



## ANNEX 5

### Communication Strategy

Target Audience	Communication Channel	Key Messages
<b>Communication among those involved in the response:</b> Government Ministries Partner Agencies		
<b>Communication among those involved in the response:</b> Health Care Providers Physicians and Pharmacists		
<b>Public Communication</b> General Public		



