

General Framework

1.1 Background

Influenza is a viral disease that affects millions of people worldwide and kills approximately one million people annually. The higher burden of disease occurs in children in their first two years of life and adults older than 60 years of age.

Influenza viruses are continuously evolving, and periodically, surface antigens undergo changes. Constant, usually small, changes in antigens on the surface of the virus, known as *antigenic drift*, cause annual outbreaks of influenza and require influenza vaccine composition to be changed annually. Major antigenic changes known as *antigenic shift* also occur from time to time which result in the emergence of a new viral strain. When this newly emerged influenza virus adapts to the point where it is able to effectively spread from human to human, the disease can quickly spread resulting in a pandemic. The lack of previous exposure to this virus renders the world population susceptible, further facilitating the spread of the virus.

Outbreaks of influenza in animals, especially when happening simultaneously with annual outbreaks in humans, increase the chances of a pandemic, through the reassortment of animal and human influenza A viruses.

In the last century three pandemics have occurred. The Spanish Flu of 1918-1919 caused by the A/H1N1 virus, caused an estimated 50 million deaths world-wide. The other two pandemics occurred in 1957-1958 (Asian Flu, A (H2N2) virus) and 1968-1969 (Hong Kong Flu, A (H3N2) virus), each one responsible for an estimated excess mortality of 4 million people when compared to previous non-pandemic years.

Recent cluster of severe infection of humans with an avian influenza A virus was first documented in Hong Kong in 1997, with H5N1 virus causing respiratory disease in 18 humans, of whom 6 died. This cluster coincided with an epidemic of highly pathogenic avian influenza A (H5N1) in Hong Kong's poultry population. Extensive investigation of that outbreak determined that close contact with live infected poultry was the source of human infection.

From December 2003 until August 2007, a total of 332 H5N1 confirmed cases with 204 deaths were reported to the WHO, indicating a case fatality rate of 61% among reported cases to date. All that is necessary for a pandemic to occur is for the H5N1 virus to become adapted to sustained person-to-person transmission.

It is impossible to predict when the next influenza pandemic will occur. Nevertheless, it has been 38 years since the last pandemic, and the longest recorded inter-pandemic interval is 39 years. The impact of the next influenza pandemic is also difficult to predict, but what is certain is that global spread is likely to occur more rapidly than previous pandemics due to increased travel and urbanization.

Influenza pandemics have historically taken the world by surprise, leaving minimal time for health services to prepare for the abrupt increases in cases and deaths that characterize these events and make them so disruptive. The present situation is markedly different as the world has been warned in advance. This advance warning has brought an unprecedented opportunity to prepare for a pandemic and develop ways to mitigate its effects even in areas with problems of access to basic health services.

1.2 Aim & Objectives:

One goal of the Ministry of Health is to enhance the health of the community utilizing health promotion and prevention strategies and the management of health risks by working effectively with all key stakeholders. An influenza pandemic is being regarded as a health risk and as such it is imperative that we prepare for its probable occurrence.

This document provides a coordinated framework for a national response to the management of Pandemic influenza, and ultimately to minimise serious illness and deaths.

Specifically this plan seeks to:

- Identify the roles and responsibilities of stakeholders in the response to Pandemic Influenza.
- Recognise the introduction of a new strain of influenza virus introduction into Montserrat.
- Limit morbidity and mortality due to infection with the pandemic strain.
- Provide treatment and care for large numbers of people ill from influenza and its complications.
- Develop a strategy to cope with the eventuality of large numbers of people dying.
- Minimise the social and economic impact of pandemic influenza.
- Maintain essential services and during an influenza pandemic.
- Provide timely, authoritative and up to date information for professionals, the public and the media throughout the period of an imminent or actual pandemic.

1.3 WHO Pandemic Phases:

The World Health Organisation has provided the following guidelines regarding the assessment of the global situation as far as a pandemic is concerned. Presently, the world is in the **Pandemic Alert Period** at **Phase 3**.

Phase 1.	No new human influenza subtype. Low risk of human cases.	Interpandemic Period
Phase 2.	No new human influenza subtype. Circulating new animal influenza virus poses higher risk to humans	
Phase 3.	Human infection with the new subtype with no or very limited human-to-human transmission	Pandemic Alert Period
Phase 4.	Small clusters with evidence of human-to-human transmission.	
Phase 5.	Larger localised clusters with evidence of significant human to human transmission	
Phase 6.	Pandemic: Efficient and sustained human-to – human transmission in general population	Pandemic Period

1.3.1 Country Pandemic Phases

The Montserrat National Influenza Pandemic Preparedness Planning Committee (NIPPPC) has adopted the Phases outlined by the WHO.

1.4 Planning Assumptions

- The confirmation of an influenza pandemic will be announced by WHO.
- Our first cases of pandemic influenza are likely to be imported.
- All stakeholders (local, regional and international) will commit to and undertake their expected roles and responsibilities.
- The necessary legal framework and financial resources will be available to support the implementation of the plan.
- Other CARICOM nations will have similar control and prevention measures in place.
- Antiviral therapy as well as pandemic vaccines may be hard to procure.
- Given our limited resources and remote location we will need to rely more on public health measures instead of advanced technologies.
- Health services will be overwhelmed once a pandemic occurs.

2.0 Preparing for the Emergency

2.1 Getting Started

In July of 2006 a three person delegation consisting of the Director of the Disaster Management Coordination Agency, the Senior Livestock Officer in the Department of Agriculture and the Epidemiologist/Health Planner in the Ministry of Health attended a Training Workshop in Barbados. The workshop was designed to aid participants develop an Action Plan for Development of their National Influenza Pandemic Preparedness Plan. During 2006 and early 2007 the Health Disaster Coordinator also benefited from training in Influenza Pandemic Preparedness and Risk Communication with specific focus on preparation of a communication strategy as part of pandemic preparedness.

In January 2007 the first draft influenza preparedness plan was prepared in accordance with guidelines obtained at the July 2006 meeting. This draft was circulated to key stakeholders and subsequently discussed at a Sensitisation Workshop held April 23 – 24, 2007. At the end of that workshop it was recommended that a National Influenza Pandemic Preparedness Committee (NIPPC) be established as the coordinating committee. Further, four sub-committees should be established to address the functional areas outlined by the WHO. The following recommendations were made regarding the composition of the committee/subcommittees:

Committee	Chairperson	Members
National Influenza Pandemic Preparedness Committee	Epidemiologist/Health Planner	Chief Medical Officer Principal Environmental Health Officer Secondary Care Manager Deputy Director of the DMCA Livestock Officer of the Ministry of Agriculture
Surveillance & Monitoring Sub-committee	Epidemiologist/Health Planner	Public Health Nurse Snr Laboratory Technologist Snr Environmental Health Officer Nurse in charge of Casualty Dept Environmental Health Officer Trainee
Investigation & Treatment Sub-committee	Chief Medical Officer	Physician Specialist Medical Officers Hospital Infection Control Nurse Critical Care Nurse Senior Pharmacist EPI Manager

Committee	Chairperson	Members
Population Containment & Communication Sub-committee	Principal Environmental Health Officer	Senior Environmental Health Officer Member of staff from Office of the Attorney General Member of Staff of Customs & Excise Department Member of staff of the Montserrat Port Authority Member of staff of the Immigration Department Communications Officer DMCA Member of staff of Radio ZJB Member of staff of the Montserrat Reporter Representative from Royal Montserrat Defence Force
Health Services Continuity Sub-committee	Secondary Care Manager	Principal Nursing Officer Facilities Manager Hospital Nursing Manager Community Nursing Manager

2.2 Command & Control

The Governor of Montserrat has the overall responsibility for disaster preparedness and response. The Disaster Management Coordination Agency is the Government of Montserrat's response arm for all emergencies and disasters and will therefore lead the national response should Montserrat be affected during Phases 5 and 6 of the Pandemic. The lines of authority/command for managing an influenza pandemic will follow those presently observed for all other disasters.

The preparation of the National Pandemic Preparedness Plan is the responsibility of the NIPPC. Efforts have been made to ensure that this plan is synchronised with all National and Ministry of Health Disaster Plans.

The Ministry of Health & Community Services is responsible for planning for all health related plans and contingencies; while the Ministry of Agriculture, Lands, Housing & the Environment is responsible for those eventualities relating to animal health.

2.3 Risk Assessment

The estimated impact of influenza Pandemic on Montserrat utilising the Flu Surge and Flu Work Loss software reveal the following:

Estimated Influenza Impact at 15% Attack Rate

Total Hospital Admissions	
Most Likely Scenario	11
Minimum Scenario	5
Maximum Scenario	14
Total Deaths	
Most Likely Scenario	2
Minimum Scenario	2
Maximum Scenario	4

Estimated Influenza Impact at 25% Attack Rate

Total Hospital Admissions	
Most Likely Scenario	18
Minimum Scenario	8
Maximum Scenario	23
Total Deaths	
Most Likely Scenario	4
Minimum Scenario	3
Maximum Scenario	6

Estimated Influenza Impact at 35% Attack Rate

Total Hospital Admissions	
Most Likely Scenario	25
Minimum Scenario	11
Maximum Scenario	33
Total Deaths	
Most Likely Scenario	5
Minimum Scenario	4
Maximum Scenario	8

Comparison of Total Number of Workdays Lost at Different Attack Rates

Attack Rate	Total Workdays Lost		
	15%	25%	35%
Most Likely Scenario	1,269	2,114	2,960
Minimum Scenario	1,076	1,794	2,512
Maximum Scenario	1,570	2,617	3,664

2.4 Communication

Adequate preparation for a possible pandemic requires the incorporation of a communication strategy into the planning process. Accurate and timely information is critical to stakeholders to ensure that plans are effectively implemented; and to the public to prevent social disruption.

2.4.1 Public Communication

The Population Containment & Communication Sub-committee will prepare all public awareness announcements as well as determine the means by which this information will be disseminated and the frequency.

All information provided to the public will flow through approved channels and reflect what the NIPPC and the sub-committee understand to be most accurate and current at the time of release.

2.4.2 Communication among those involved in the process

The existing Communication Strategy employed by the DMCA will be adapted to serve the communication needs of the NIPPC and the Sub-committees.

2.5 Legal & Ethical Issues

The control of infectious diseases is governed by the Quarantine Act of 2002. It is imperative that the extent to which this Act addresses the ability to legally and implement social distancing strategies be assessed if we are to mitigate the effects of an influenza pandemic.

2.6 Response Plan by Pandemic Phase

The following plan outlines the functional areas, specific activities and the individuals or groups responsible for implementation. The planning commences in the 3rd Phase of the Pre Pandemic Period.