Government of Saint Lucia

National Influenza Plan
Volume 4: Ministry of Health Plan

Document of the Saint Lucia National Emergency Management Plan
Developed from
World Health Organisation Pandemic Influenza Guidelines and
Pandemic influenza and ambulance services: Guidance for ambulance services and their staff in England – Department of Health and
Nauru - Ministry of Health, Emergency Operations Plan for Pandemic Influenza
www.spc.int/phs/PPHSN/Outbreak/Influenza/nauru_pandemic_flu_plan_draft-version4.doc

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Cabinet Conclusion 498/2009 (18 May, 2009)
Authorised the National Influenza Plan for Saint Lucia


Cap Pt.
Pigeon I.
Rodney Bay
Gros Islet
CASTRIES
Grande Cul de Sac Bay
Babonneau
Anse la Raye
Roseau
La Caye
Canaries
Dennery
Mt. Gimie
Praslin
Soufrière
Micoud
Canelles
Desruisseaux
St. Lucia I.
Choiseul
Laborie
Hewanorra Int'l Airport
Vieux Fort
Maria Is.

Preamble

NATIONAL INFLUENZA PLAN

The National Influenza Pandemic Preparedness Plan is a collection of Documents as listed below.

The procedures are supported by the Saint Lucia National Emergency Management Plans, Policies, Legislation and Standard Operating Procedures.

Volume

0. Policy
1. Concept of Operations
2. Strategic Plan
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4. Ministry of Health Plan
5. Ministry of Agriculture Plan
6. Education Strategy
7. Law Enforcement, Public Safety, and Security
8. Essential Services
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    b. Saint Lucia Fire Service
    c. LUCELEC
    d. Digicel
    e. LIME
    f. WASCO
    g. SLASPA

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ABBREVIATIONS

CDERA	-	Caribbean Disaster Emergency Response Agency
CFR	-	Case Fatality Rate
CMO	-	Chief Medical Officer
CVO	-	Chief Veterinary Officer
FAO	-	Food and Agriculture Organization
IICA	-	Inter-American Institute for Cooperation in Agriculture
ILI	-	Influenza Like Illness
MAFF	-	Ministry of Agriculture, Fisheries and Forestry
MoH	-	Ministry of Health
NEMO	-	National Emergency Management Organisation
NIPPP		National Influenza Pandemic Preparedness Plan
OIE	-	International Organization of Epizootics [Now the World Animal Health Organisation]
PAHO	-	Pan American Health Organisation
PHEIC	-	Public Health Emergency of International Concern
PPE	-	Personal Protective Equipment
SLASPA	-	Saint Lucia Air and Seaports Authority

INTRODUCTION:

RELATED DOCUMENTS

The Ministry of Health Pandemic Influenza Plan is supported by:

- Ministry of Health Crisis Communications Strategy
- National Health Strategic Plan ; 2006-2011Volume 2

INFLUENZA

Influenza is a viral respiratory disease affecting humans and certain animals. Clinical disease ranges from mild non specific illness to life threatening pneumonia and death, depending on the nature of the influenza strain and host characteristics. Human influenza is usually a recurrent seasonal illness which occurs at various times of the year in different continents (for example, typically late winter and spring in temperate countries of the Northern hemisphere). Although seasonal human influenza is certainly responsible for excess seasonal mortality every year all over the world (particularly at the extreme ages of the life and chronically ill), the usual mortality rate is relatively low and only minimal disruption of essential services occurs during a normal influenza season.

PANDEMIC INFLUENZA

However, when a **completely new strain of influenza** emerges among human populations, mortality rates can be much higher than usual (generally from severe respiratory disease); spread can be nearly universal, sometimes within a matter of months, and disruption of all sectors of the society. Such a situation is called a "pandemic." Major influenza pandemics have occurred three times during the last century, respectively in 1918 (Spanish flu), 1957 (Asian flu) and 1968 (Hong Kong flu). The 1918 pandemic was especially dramatic, causing at least 20 million deaths worldwide. Evidence shows that these new influenza pandemic strains usually originate from animal influenza viruses.

Recent experiences with highly pathogenic H5N1 avian influenza have given the world its first advance warning that another influenza pandemic may be imminent. Given the serious consequences of past pandemics, this advance warning has stimulated a search for ways to prevent such an event from occurring.

Adaptation and improving transmissibility are the conditions for the international spread of Avian Influenza (H5N1) virus. Highly Pathogenic H5N1 can arrive in the Caribbean as both an animal panzootic and a human pandemic. Saint Lucia is not an exception and it is timely to start the preparation of a National Plan for Influenza Pandemic Preparedness and Response with the commitment and collaboration of all stakeholders involved.

In 2005, two research groups published studies based on the mathematical modeling of transmission patterns that might be seen near the start of a pandemic. These studies suggested that an initial outbreak caused by an emerging pandemic virus might be contained, provided, several demanding conditions were met within a very short timeframe. In both studies, *mass administrative of antiviral drugs within the outbreak zone was the cornerstone of the containment strategy*, supported by additional non-pharmaceutical measures, such as area quarantine and social distancing, aimed at reducing transmission within the area and minimizing spread beyond it. The studies further concluded that, should the containment strategy fail to prevent the emergence of a fully transmissible pandemic virus, it could nonetheless delay international spread.

AVIAN INFLUENZA

Avian Influenza (AI) or Bird Flu as it is commonly called, is a highly contagious viral disease affecting the respiratory, digestive and nervous systems of many bird species and other mammals, including man. The disease is caused by a high pathogenic (HPIA) or low pathogenic (LPAI) strain of the Type A Influenza virus, presenting mild to severe clinical/ pathological manifestations, depending on the type of viral surface antigens H and N present.

The symptoms generally associated with poultry are: sudden death without clinical signs; lack of appetite; decrease egg production; deformed eggs; swelling and cyanosis of the head, eyelids, comb, wattles and legs; nasal discharge, sneezing and coughing; in-coordination and diarrhea. Symptoms reported in humans have range from typical influenza-like symptoms such as fever, cough, sore throat, and muscle aches to conjunctivitis, pneumonia, acute respiratory distress and other severe life-threatening complications.

The influenza viruses have worldwide distribution and are frequently recovered from clinically normal seabirds and migratory waterfowls, being considered as the main source of AI outbreaks.

In recent years many pathogenic strains have caused high mortality in birds in the USA, Europe, Canada and Asia, resulting in death and destruction of millions of birds and costing the poultry industry millions of dollars. However, the H5N1 Influenza virus causing the panzootic/ pandemic in Asia, Europe, Africa, and threatening the Americas and the rest of the world, is such that the world now nervously anticipates one of its worse pandemics. The disease in animals caused by the H5N1 influenza virus has resulted in the culling of at least 150 million birds in the last two years. To date, 170 confirmed human cases which resulted in 92 deaths have been reported. According to the World Bank, this disease can cost the global economy about US$800 billion a year.

The H5N1 virus remains for the moment an animal disease, but the World Health Organization (WHO) has warned that H5N1 is a virus that has the potential to ignite a human influenza pandemic. Genetic recombination of animal and human viruses during mixed infections may give rise to pandemic strains.

According to FAO Chief Veterinary Officer, there is still a window of opportunity for substantially reducing the risk of a human pandemic evolving from H5N1 by controlling the virus at its source, in animals. Because influenza pandemics have typically caused enormous social and economic disruption, WHO is advising its member states to develop national strategies to cope with such a public health emergency, as well as coordinating with international partners to develop a comprehensive response.

It is precisely this approach that Saint Lucia has taken to effectively address the AI challenge. The Veterinary and Livestock Services Division (VLSD) of the Ministry of Agriculture, Forestry and Fisheries has closely collaborated with the Chief Medical Officer, the Epidemiology Unit, the Environmental Health Department and Laboratory of Ministry of Health, Human Services, Family Affairs and Gender Relations, as a member of the National Communicable Disease Surveillance and Response Team, to develop and implement a National Avian Influenza Prevention and Response Plan.. It must be noted that SLASPA, Police, Fire Service, Immigration, Customs and NEMO are other agencies involved.

1.2 Objective of the health sector plan:

- To reduce transmission of the pandemic virus strain, to decrease cases, hospitalizations and deaths, to maintain essential services and to reduce the economic and social impact of a pandemic

Definitions

An epidemic - is defined as the occurrence in a community or region of cases of an illness, a specific health related behaviour, or other health related events clearly in excess of normal expectancy.

Outbreak- is an epidemic where there is an increase in the incidence of disease or event in a specific area.

A pandemic - is a worldwide epidemic

<u>WHO Pandemic Phases:</u>

Phase1. - No new influenza virus subtypes have been detected in human beings. A subtype of the virus that has caused human infection could be present or absent in animals.

Lack of recognized animal or human infections does not mean that no action is needed

Preparedness requires planning and action in advance.

Objective:

- Development of the National Influenza Pandemic Contingency Plan by the National Pandemic Response Team

Phase2. - No new subtypes of the influenza virus have been detected in humans; however a subtype of the influenza animal virus circulating represents a considerable risk for human disease.

Although the risk of human infection or disease is considered low, there are actions that should be taken (for example, enhanced surveillance in animals and public health measures to protect persons at risk).

Pandemic Alert Period

Phase3. – In this phase one or several case of human infection are detected with a new viral subtype without propagation from person to person, or as a maximum in rare cases propagation happens in close contacts.

$The occurrence of cases of human disease increases the chance that the virus may adapt or re-assort to become transmissible from human to human, especially if coinciding with a seasonal outbreak of influenza.

Measures are needed to detect and prevent spread of disease. Rare instances of transmission to a close contact- for example, in a household or health care setting may occur, but do not alter the main attribute of this phase, ie that the virus is essentially not transmissible from human to human.

Objective:

- Capacity to early detection, notification and response in these cases

Examples:

1. One or more unlinked human cases with a clear history of exposure to an animal source/ non-human source (with laboratory confirmation in a WHO Collaborating Centre).

2. Rare instances of spread from a case to close household or unprotected healthcare contacts without evidence of sustained human to human transmission.

3. One or more small independent clusters of human cases (such as family members) who may have acquired infection from a common source or the environment but for whom human to human transmission cannot be excluded.

4. Persons whose source of exposure cannot be determined, but are not associated with clusters or outbreaks of human cases.

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

Virus has increased human to human transmissibility but is not well adapted to humans and remains highly localized, so that its spread may possibly be delayed or contained.

Examples:

1. One or more clusters involving a small number of human cases, eg a cluster of < 25 cases with the cluster lasting <2 weeks.

2. Appearance of a small number of human cases in one or several geographically-linked areas without a clear history of a non-human source of exposure, for which the most likely explanation is considered to be human to human transmission.

Phase5. - Larger cluster(s) but human to human spread still localized overseas, suggesting that the virus is becoming increasingly better adapted to humans, but may not yet be fully transmissible (substantial pandemic risk).

The virus is more adapted to humans, and therefore more easily transmissible among humans. It spreads in larger clusters, but spread is localized.

This is likely to be the last chance for massive coordinated global intervention, targeted to one or more foci, to delay or contain spread. In view of possible delays in documenting spread of infection during Phase 4, it is anticipated that there would be a low threshold for progress to Phase 5.

Examples:

1. Ongoing cluster-related transmission but total number of cases is not rapidly increasing, eg a cluster of 25-50 cases with the cluster lasting from 2-4 weeks.

2. Ongoing transmission but cases appear to be localized (remote village, university, military base, island).

3. In a community known to have a cluster, appearance of a small number of cases whose source of exposure is not readily apparent (eg beginning of more extensive spread).

4. Appearance of clusters caused by same or closely related virus strains in one or more geographic areas without rapidly increasing numbers of cases.

Pandemic period Phase5. - Larger cluster(s) but human to human spread still localized overseas, suggesting that the virus is becoming increasingly better adapted to humans, but may not yet be fully transmissible (substantial pandemic risk).

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Pandemic period

Phase 6. - Increased and sustained transmission in the general population overseas.

Rationale: Major change in global surveillance and response strategy, since pandemic risk is imminent for all countries. The national response is determined primarily by the disease impact within the country.

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Post-pandemic period

A return to the inter-pandemic period (the expected levels of disease with a seasonal strain) follows, with regularly updated planning. An intensive phase of recovery and evaluation may be required.

Pandemic Phases in Saint Lucia:

<table>
<tr><th>General
Alert Levels</th><th>World Health
Organisation
Alert Levels</th><th>Saint Lucia
Alert Levels</th></tr>
<tr><td><u>PREPARE</u>

Phase One and Two

Prepare for influenza now</td><td>Phase 1
Low risk of human case

Phase 2
Higher risk of human case</td><td>GREEN ALERT</td></tr>
<tr><td><u>PREVENT</u>

Phase Three and Four

Influenza in Community/Country</td><td>Phase 3
No or very limited human-to-human transmission

Phase 4
Evidence of increased human-to-human transmission</td><td>YELLOW ALERT

Evidence of human to human transmission, but spread is highly localized</td></tr>
<tr><td rowspan="3"><u>RESPONSE</u>

Phase Five and Six

EMS affected by influenza</td><td rowspan="2">Phase 5
Evidence of significant human-to-human transmission</td><td>ORANGE ALERT

Not fully transmitted but human to human is s till localized</td></tr>
<tr><td>RED ALERT

Large cluster but human to human spread is still localized</td></tr>
<tr><td>Phase 6
Efficient and sustained human-to-human transmission</td><td>BLACK ALERT
High severe diseases and death rates. Situation beyond control. Healthcare system overwhelmed Panic sweeps through Community/Country</td></tr>
</table>

I - PREPARING FOR AN EMERGENCY

RISK ASSESSMENT:

PROJECTIONS BASED ON LOCAL DATA FORECAST

National estimates of the potential impact

The National estimates of the potential impact of the next influenza pandemic has been prepared following a model of U.S. Department of Health and Human Services (software) which provides a range of national estimates of impact in terms of number of deaths, hospitalizations, outpatient visits, and those who will become ill but not seek medical care due to pandemic influenza .

Looking at the 1918 pandemic statistics, a severe" pandemic, it was realized that the clinical attack rates was 25%.

We are applying this worst case scenario to Saint Lucia-

The following numbers illustrate what could happen during a pandemic based on different durations and clinical attack rates (25%), assuming a "more severe" pandemic, such as one that might produce deaths and hospitalizations at rates comparables to the 1918 pandemic.

If a Pandemic with an attack rate of 25% (i.e. **25% of 164,791 populations** affected) were to occur in Saint Lucia and there were no pandemic vaccine or treatment available over **a 6- 8 weeks** period we could see:

Local pandemic impacts over a six week period

Characteristic	Severe pandemic (1918 – like)
Total Saint Lucia Population	**164,791**
Outpatient Care	**31,414**
Hospitalization	**540**
Deaths	**200**

Estimated numbers of illness, hospitalization, and deaths for a severe pandemic scenario in Saint Lucia based on CDC Models

COMMAND AND CONTROL

For major policy decisions, ensuring coordination among affected units, maintaining list of key partners and mobilizing additional resources: **Minister, Permanent Secretary, Chief Medical Officer**

Information to key government officials and various stakeholders of the plan: **CMO**

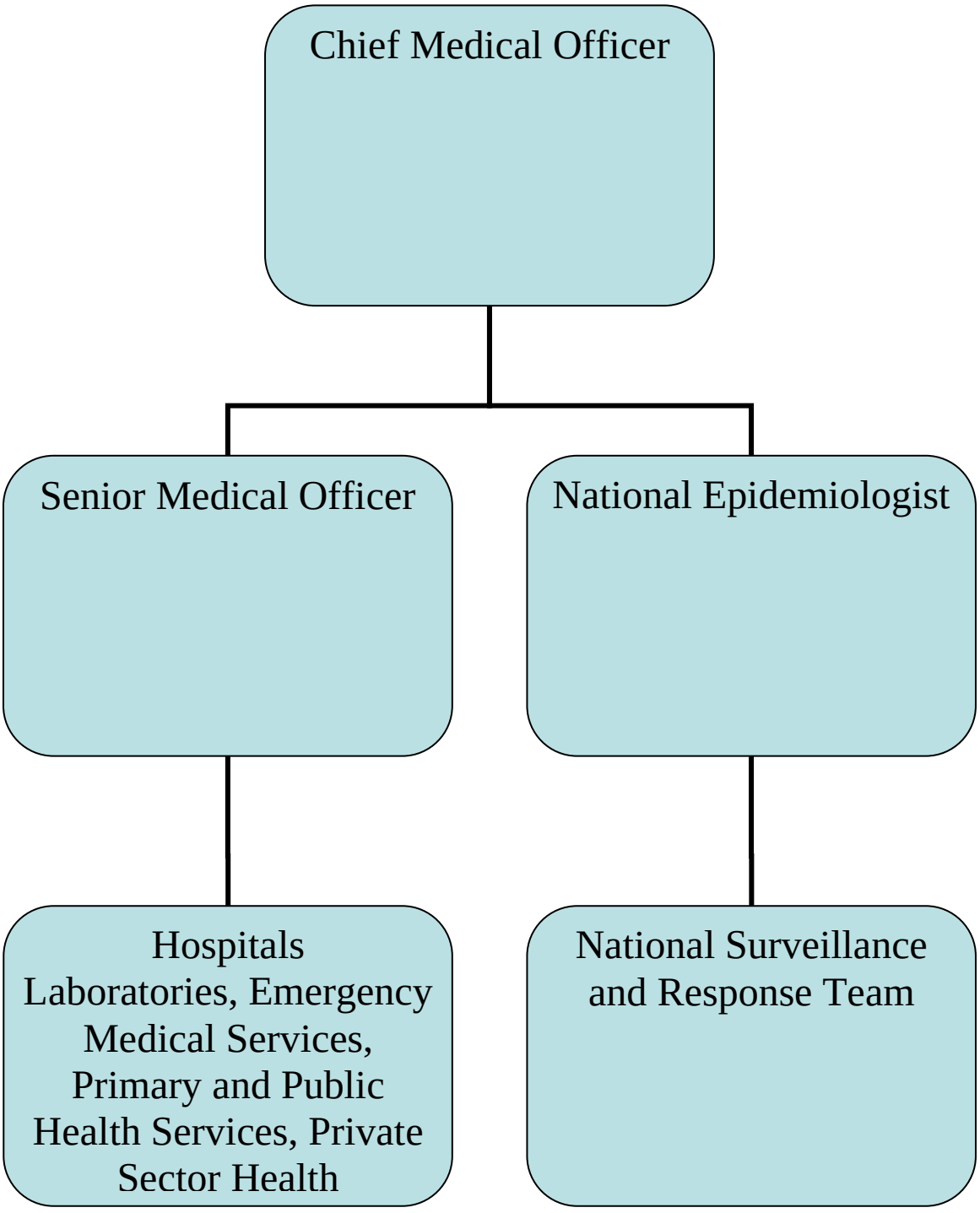
Confirmation of adequacy of public health laws that will be needed to deal with a pandemic, including the ability to restrict movement of infected individuals and the ability to prohibit public gatherings, statues for mandatory vaccination, etc: **PS, CMO**

Creation of a communication system and strategy to provide updated information to the public, to educate the public on disease prevention and surveillance, and to instruct the public on the location of specialized clinics and wards for patients with Acute Respiratory Illness (ARI): **CMO, Director of Health Promotion.**

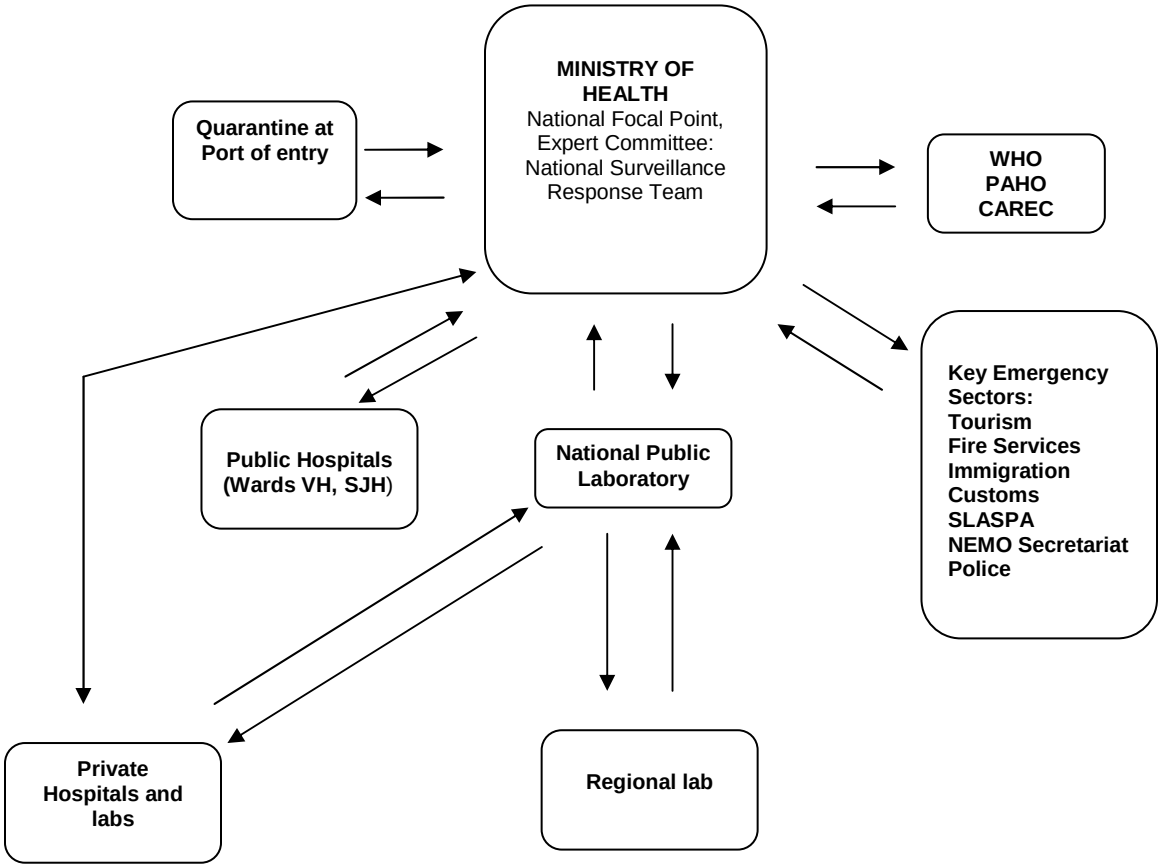
Details on:

- **Command and Control are available in Vol.1 – Concept of Operations**
- **Crisis Communications: Information Management in Disasters, Crisis Communications Strategy and Ministry of Health Communications Plan**

COMMUNICATION AND RESPONSE FLOW CHART



FLOW CHART OF COMMUNICATION MINISTRY OF HEALTH



MINISTRY OF HEALTH DEPARTMENTS REQUIRED TO RESPOND:

- Epidemiology Unit
- Primary Health Care
- Hospitals
- Environmental Health (Port health, vector control, food safety)
- National Laboratory
- Immunization Program
- National Pharmacy
- Health Promotion
- Administration
- Health Disaster

PRIVATE HEALTH SECTOR REQUIRED TO RESPOND

- Private practitioners
- NGO's
- Private Hospitals
- Alternative Medicine practitioners

Legal and Ethical Issues:

Legal framework and implications of the response:

International Health Regulations 2005

Disaster Management Act No. 30 of 2006

Education Act No. 41 of 1999

Emergency Powers [Disaster] Act No. 5 of 1995
Animal Disease Importation Act 1994 [amended]
Public Health Act No. 8 of 1975 [*Rev. December 31, 2001*]
Employees [Occupational Health and Safety] Act No. 10 of 1985
Police Ordinance No. 30 of 1965
Quarantine Act No. 13 of 1945 [*Rev. December 31, 2001*]

Strategic Activities:

- Development and implementation of Planning and Coordination strategy (coordination, communication and roles and responsibilities)
- Enhance Situation Monitoring and assessment (surveillance in animal and human systems)
- Emergency Response strategy
- Public Health Measures

- Communication Strategy

RESPONSE BY PHASE

INTERPANDEMIC PERIOD (Phase 1 and 2)

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.

1) PLANNING AND COORDINATION	***Strategy 1*** A National Influenza Planning Committee (NIPC) will be the appropriate decision making body that is in place and have the necessary expertise and authority to make decisions quickly and effectively in the face of rapidly developing situations (see Command and control) ***Strategy 2*** Promote national and global capacity to respond to early reports of new influenza virus strains. ***Strategy 3*** Develop effective mechanisms for mobilization and rapid deployment of resources to areas of need. ***Strategy 4*** Develop effective mechanisms for decision making and subsequent actions regarding national and international responses to influenza related health emergencies, by strengthening intersectoral and intergovernmental cooperative arrangements that will identify and minimize the risk of human infection with a new influenza virus.
2) SITUATION MONITORING AND ASSESSMENT	***Strategy 1*** Have available up-to-date information on trends in human infection with seasonal strains of influenza based on WHO, FAO and OIE guidance).Annex 2 ***Strategy 2*** Develop the capacity to detect animal and human infections

	with new influenza virus strains, identify potential animal sources of human infection and assess the risk of transmission to humans. ***Strategy 3*** To develop plans for ongoing assessment of impact and resource needs during the pandemic period
3) PUBLIC HEALTH MEASURES	***Strategy 1*** Develop a range of containment strategies based on non-pharmaceutical public health actions ***Strategy 2*** Ensure adequate supply of vaccines, antiviral medication and other medical supplies.
4) HEALTH SYSTEMS RESPONSE	. ***Strategy 1*** Ensure that up-to-date contingency plans and strategies are in place for pandemic response in the health sector.
5) COMMUNICATION	***Strategy 1*** Develop mechanisms for routine and emergency communications between the Ministry of Health and other relevant government and non-Government Agencies/organizations likely to be involved in a pandemic response, and with the public. ***Strategy 2*** Maintain an appropriate level of awareness among government and other essential partners ***Strategy 3*** Ensure collaborative working relationship with the media and other stake holders regarding epidemics, including the roles, responsibilities and operating practices of public health system

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

1) PLANNING AND COORDINATION	***Strategy 1*** Ensure completion of all elements of Phase 1 ***Strategy 2*** Ensure a heightened response capacity to address possible human cases. ***Strategy 3*** Coordinate implementation of measures in close collaboration with animal health authorities in order to limit the risks of human infection.
2) SITUATION MONITORING AND ASSESSMENT	***Strategy 1*** Identify interspecies transmission at an early stage and transmit this information to WHO and other appropriate partners. ***Strategy 2*** Provide ongoing risk assessment for transmission of viruses with pandemic potential to humans.
3) PUBLIC HEALTH MEASURES	***Strategy 1*** Develop a range of containment strategies based on non-pharmaceutical public health actions ***Strategy 2*** Ensure adequate supply of vaccines, antiviral medication and other medical supplies.
4) HEALTH SYSTEMS RESPONSE	***Strategy 1*** Ensure that up-to-date contingency plans and strategies are in place for pandemic response in the health sector.
5) COMMUNICATION	***Strategy 1*** Ensure that relevant information is shared rapidly among health

	departments, other partners and the public ***Strategy 21*** Ensure that mechanisms exists for communication with the Ministry of Agriculture

ROLES AND RESPONSIBILITIES DURING INTERPANDEMIC PERIOD

National Surveillance and Response Team	▪ Coordinates response and assessment. ▪ Recommends actions to be taken ▪ Provides scientific and clinical advice on pandemic influenza preparedness and response. ▪ Meeting with other sectors accordingly
Epidemiology Unit	Will be responsible for leading the outbreak investigation team in the event of a suspected case • Provides communicable disease control and epidemiological advice to assist the CMO, PS etc • .Establishes methods for national surveillance of cases and contacts, including case definitions. • Assists in developing public health protocols and guidelines as the need arises. • Provides an operational resource for the investigation and control of outbreaks of pandemic influenza in Saint Lucia
Health care services	Establishment of fever clinics for assessment of suspected cases of pandemic influenza - Operational plans for hospitals to meet increased demands and reduced workforce capacity

	- Implementation of infection control measures in health care facilities to reduce pandemic spread -Dissemination of educational materials including infection control information for households. - Define institutional arrangements for surge capacity in the event of a pandemic
Public Health Laboratory	Advises on diagnostic capability. • Assists in evaluation of screening tests and development of diagnostic tests. • Supports outbreak investigation team in surveillance and response. • Adequate laboratory resources and surge capacity to ensure that diagnosis of cases can be made rapidly in the early phases with the aim of reducing spread.
Expanded Program Immunization (EPI)	- Management of antivirals and other supplies to ensure rapid deployment to priority groups - Arrangement for management/distribution of existing jurisdictional supplies of antivirals, personal protective equipment (PPE) and other medical equipment. - Antivirals and vaccine registers - Maintenance of a register of vaccinated health care and emergency service workers and those receiving antivirals - Maintenance of a register of border personnel employees who are vaccinated or have been provided with antivirals by states and territories. - Surveillance with data collection and data

	transfer to national collection to assist with rapid detection and epidemiological analysis. - Development of a mass immunization prophylaxis plan based on priority risk groups - Establishment of pandemic influenza vaccination centers to achieve maximal vaccination numbers as soon as possible.

PANDEMIC ALERT PERIOD
(Phase 3, and 4)

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

1) PLANNING AND COORDINATION	***Strategy 1*** Ensure completion of all elements of Phase 2 ***Strategy 2*** Ensure that mechanisms exist so that imminent potential human health threats can be recognized and dealt with. ***Strategy 3*** Coordinate timely interventions that will reduce the risk of a pandemic
2) SITUATION MONITORING AND ASSESSMENT	***Strategy 1*** Develop the capacity to exclude wider human-to-human transmission, and to detect this as soon as it occurs. ***Strategy 2*** Develop the capacity to detect and characterize additional cases (including risk factors for

	transmission).
3) PUBLIC HEALTH MEASURES	***Strategy 1*** Develop a range of containment strategies based on non-pharmaceutical public health actions ***Strategy 2*** Ensure adequate supply of vaccines, antiviral medication and other medical supplies.
4) HEALTH SYSTEMS RESPONSE	***Strategy 1*** Ensure that up-to-date contingency plans and strategies are in place for pandemic response in the health sector including the institution of practices aimed at the prevention of nosocomial transmission and laboratory infections. ***Strategy 2*** Ensure heightened awareness among health care workers regarding the possibility of case and or cluster of cases. ***Strategy 3*** Ensure laboratory capacity and capability to allow rapid and accurate identification of emerging subtypes, including appropriate bio-secure facilities and national guidelines for the handling and testing of specimens
5) COMMUNICATION	***Strategy 1*** Communicate transparently with the public regarding possible outbreak progression and contingencies to be expected ***Strategy 2***

	Ensure rapid sharing of appropriate information among health departments other, relevant Government Agencies and other partners including what is known and what is unknown.

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

1) PLANNING AND COORDINATION	***Strategy 1*** Ensure completion of all elements of Phase 3 ***Strategy 2*** Ensure that systems exist to detect and characterize outbreaks, and assess the risk of escalation into a pandemic. ***Strategy 3*** Coordinate the implementation of procedures that will delay or contain the spread of human infection within limited foci.
2) SITUATION MONITORING AND ASSESSMENT	***Strategy 1*** Assess the extent of human-to-human transmission ***Strategy 2*** Detect, notify and characterize additional clusters (including the identification of risk factors and other data concerning transmission as requested by WHO). ***Strategy 3*** Assess the threat to human health and the impact of any control measures, and identify resources required for enhanced control. ***Strategy 4*** Enhance surveillance especially at points of entry in relation to countries with which we

	have extensive travel/travel links that are affected.
3) PUBLIC HEALTH MEASURES	***Strategy 1*** Institute and maintaining appropriate national surveillance activities to ensure early detection of virus subtypes in both animal and human populations. ***Strategy 2*** Contain or delay human-to-human virus transmission thereby limiting morbidity and mortality associated with current human infections. ***Strategy 2*** Gain early experience in pandemic vaccine use under field conditions to improve effectiveness and efficiency of vaccine access and deployment.
4) HEALTH SYSTEMS RESPONSE	***Continue strategies of Phase 3*** ***Strategy 2*** Provide adequate attention to the health and other needs of persons in quarantine
5) COMMUNICATION	***Strategy 1*** Ensure rapid sharing of information among health departments, other relevant Government Agencies and other partners, including what is known and what is unknown ***Strategy 2*** Prepare the public and partners for possible rapid progression of events and other possible contingency measures

Responsibilities for Containment Provisions

- Planning for establishment of appropriate isolation/quarantine facilities

- Consideration of how and where social distancing measures might be instituted – such as closure of schools and limiting mass gatherings.

- Monitoring of disinfection procedures

The Chief Medical Officer/ Chief Environmental Health have primary responsibility for human quarantine activities in Saint Lucia.

The purpose of these activities is to allow for the identification, surveillance and management of persons who have been potentially exposed to, or have symptoms of, a quarantinable disease.

The CMO has overall responsibility for human quarantine policy. The CMO has available to him the powers of the Act and is responsible for providing directions to the Chief Environmental Health Officer for human quarantine.

For decisions requiring application of quarantine powers under the *Quarantine Act 2001* the CMO, may make the final decisions following consultation with relevant agencies and states and territories.

The Environmental Health and Veterinary Department have responsibility for plant and animal quarantine and for the application of human quarantine controls at Saint Lucia air and sea ports.

In conjunction with relevant clinicians, Public Health officers are also responsible for the management of a case of a quarantinable disease that is identified within Saint Lucia. and they will undertake any necessary public health action which may be required in the event of an outbreak of a quarantinable disease in the country.

PANDEMIC PERIOD
(Phase 5 and 6)

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).

1) PLANNING AND COORDINATION	***Strategy 1*** Ensure completion of all elements of Phase 4 ***Strategy 1*** Ensure completion of all elements of Phase 4 Coordinate and ensure maximum efforts to delay or possibly avert a pandemic.
2) SITUATION MONITORING AND ASSESSMENT	***Strategy 1*** Determine pandemic risk and exclude spread to other islands/countries/regions and to identify this as soon as it occurs. ***Strategy 2*** Determine and monitor public health resources required for pandemic response.
3) PUBLIC HEALTH MEASURES	***Strategy 1*** Make massive efforts to contain or delay human-to-human virus transmission thereby limiting morbidity and mortality associated with current human infections as well as the onset of a pandemic.
4) HEALTH SYSTEMS RESPONSE	***Continue strategies of Phase 4*** ***Strategy 2*** Ensure that health systems are ready to scale up response and implement changes in triage and treatment priorities, and that these actions occur as soon as country

	becomes affected.
5) COMMUNICATION	***Strategy 1*** Publicly address community emotions as cases intensify the pandemic. ***Strategy 2*** Prepare the public and other partners for likely progression of events, additional contingency measures and disruption to normal life. ***Strategy 3*** Ensure rapid sharing of appropriate information among all key stakeholders

Phase 6

Increased and sustained transmission in the general population in affected countries.

1) PLANNING AND COORDINATION	***Strategy 1*** Ensure completion of all elements of Phase 5 ***Strategy 2*** Provide leadership and coordination of multi-sectoral resources that will: minimize morbidity and mortality; preserve health-care system effectiveness; minimize societal disruption; and minimize the economic impact of a pandemic. ***Strategy3*** ensure rational access to finite national resources, including pharmaceutical supplies and(when available) vaccine ***Strategy4*** Evaluate the effectiveness of specific responses and interventions. ***Strategy5*** Establish and maintain trust across all agencies and organizations and with the public, through

	a commitment to transparency and credible actions. ***Strategy6*** Draw lessons from the ongoing pandemic response in order to improve response strategy and inform future planning.
2) SITUATION MONITORING AND ASSESSMENT	***Strategy 1*** Monitor the epidemiological, virological and clinical features, and the course and impact of the pandemic at the national level, in order to forecast trends and optimize the use of finite resources. ***Startegy 2*** Assess the effectiveness of interventions used to date in order to guide future actions.
3) PUBLIC HEALTH MEASURES	***Strategy 1*** Make massive efforts to contain or delay increased virus transmission using all appropriate public health interventions while limiting societal disruption. ***Strategy 2*** Minimize morbidity and mortality through the use of rational use of available pharmaceuticals e.g. Vaccines and antiviral. ***Strategy 3*** Continue to monitor and evaluate the activities of the influenza plan and make modifications accordingly.
4) HEALTH SYSTEMS RESPONSE	***Continue strategies of Phase 5*** ***Strategy 2*** Manage demand on health care resources and systems in order to maximize the sustainability of response. This includes the optimization of patient care with limited resources and reducing the impact of the pandemic (morbidity and mortality).

5) COMMUNICATION	***Strategy 1*** Ensure public access to regularly-updated official national sources and focal points for credible, consistent information related to the pandemic. ***Strategy 2*** Maintain open and accessible channels for advice to the public on specific subjects (e.g. travel, social gatherings, etc.). ***Strategy 3*** Achieve public acceptance and support for national responses and contingency measures. ***Strategy 4*** Ensure rapid sharing of information regarding progress of the pandemic among health authorities, other relevant government departments and other partners.

II - SURVEILLANCE

a) Interpandemic Surveillance
b) Enhanced Surveillance
c) Pandemic Surveillance **NOT THERE**

INTERPANDEMIC SURVEILLANCE

Responsible: **Epidemiology Unit (National Epidemiologist, Deputy Epidemiologist, Statistical Assistants)**

Main components:

- **Virologic surveillance**
- **Surveillance of outpatient influenza like illness**
- **Surveillance for influenza and pneumonia related deaths**
- **Assessment of influenza activity at the state level**
- **Case investigation and treatment**

1) Virologic Surveillance*:*

- **Encourage all doctors in increasing use of rapid influenza diagnosis tests year round of all admitted cases with Severe Syndrome of Fever and Respiratory Symptoms and/ or suspected cases in outpatient services**

- **Monitoring of the collection of appropriated clinical specimens from at least a minimum number of health care providers at the** sentinel sites **(E& A VH, STJ and Polyclinic)**

- **Weekly laboratory reports**

- **Laboratory Case Notification (confirmed cases) as occur.**

- **Isolation and subtype of all influenza viruses identified especially A in clinical specimens during the influenza season (CAREC)**

2) Surveillance for influenza – like illness:

- **Syndromic surveillance:**

    - **Fever and respiratory symptoms (ARI) < 5 yrs**
    - **Fever and respiratory symptoms (ARI) ≥ 5 yrs**

- **Use of standard case definition developed and distributed for Fever and Respiratory Symptoms/ ARI at all sites and appropriated forms (Hospitals and Health Centres)**

- **Case definition**

    - **Fever and Respiratory Symptoms or Acute Respiratory Infection:**

      Acute (sudden) febrile illness,(> 38.0ºC or 100.4ºF) in a previously healthy person, presenting with cough or sore throat with or without respiratory distress.

- **Weekly reporting of syndromes from the health centres and sentinel sites**

- **Hospital base notification surveillance**

- Sentinel hospital base surveillance**: E&A at VH, STJ hospitals and Gros Islet polyclinic (weekly report to Epidemiology Unit of number of cases seen at the E&A presenting symptoms of Influenza Like Illness and reporting of individuals with acute respiratory illness on/or during admission trough Hospital Case Notification and Daily Tally Sheet forms respectively**

- **Monitoring of number of cases with Fever and Respiratory Symptoms at the Health Centre level trough Daily Tally Sheet on a weekly basis**

- **Reporting of all confirmed cases of influenza trough Laboratory Case Notification forms within 24 hours**

- **Case investigation of all confirmed cases reported within 24 hours**

- **Early warming to detect unusual or unexplained events of acute respiratory illness**

- **If identify unusual or severe influenza outbreaks there is an indication of rapid notification to Epi Unit within 24 hours**

- **Feedback and communication with sentinel sites and HC for follow up on unusual reports**

- **Submit weekly Surveillance Reports to Minister, CMO, PS and National Surveillance and Response Team including other agencies**

3) Monitoring influenza – related deaths and hospitalizations

- **Surveillance of unexplained deaths caused by acute respiratory illness at the Hospital trough Hospital Case Notifications and Sudden Deaths Notifications from the Health Centres**

- **Case investigation of all reported cases**

4) Others informally sources:

- **Notifications of clusters or unusual diseases or syndromes, rumors e.g. workplace, long term facilities, schools etc.**

5) Assessment of Influenza activity at the country level

Influenza-Like Illness [ILI] activity will be assessed using the reporting of data from different sources including schools/ workplace absenteeism, and others

6) Case Investigation and Treatment

Continuous case investigation of all reported cases as well as their contacts year round.

Guidelines for clinical management and treatment has been developed

6) Outbreak investigation

Investigation of all outbreaks **of influenza like illness reported to the EPI Unit.**

Inter- pandemic period

Saint Lucia Phases	**Description of phases**	**Surveillance objectives**	**Surveillance activities**
1	No circulating animal influenza subtypes in Saint Lucia that have caused human disease	To detect unusual clusters or cases that may be due to a new influenza virus	- Conduct routine influenza surveillance (Fever and Respiratory symptoms)through sentinel sites and the HC - Undertake laboratory surveillance to all hospitalized cases to monitor influenza virus isolates and detect local novel influenza strains in travelers returning from high risk areas overseas

			- Undertake hospital – based surveillance
2	No new subtypes of Influenza virus have been detected in humans; however a subtype of the influenza animal virus circulating represents a considerable risk for human cases (Animal infection)	Although the risk of human infection or disease is considered low, there are actions that should be taken	- Conduct routine influenza surveillance through sentinel sites and HC - Undertake laboratory surveillance to monitor influenza virus isolates and detect local novel influenza strains in travelers returning from high risk areas overseas - Undertake hospital – based surveillance - Undertake sero surveys, data collection and epidemiological analysis to identify human respiratory infections associated with exposure to infected animals eg poultry workers, vets and cullers through surveillance system in place - Monitor passive reporting of unusual clusters of influenza-like illness or acute respiratory disease

ENHANCED SURVEILLANCE
(Phase 2 and beyond)

Surveillance will be enhanced to identify new strain in humans.

The Unit will collect and share clinical and epidemiological data on suspect/ possible and confirmed cases to provide data to inform policy decisions.

a) Surveillance of outpatient influenza like illness (monitor trends and early warning system)

Monitoring on a daily basis the number of cases detection by the National Epidemiologist and Deputy Epidemiologist.

Surveillance will be enhanced in targeted groups:

- **Increasing case detection at all health services especially among persons who recently traveled to an outbreak area and present with clinical illness possible caused by influenza including pneumonia, acute respiratory distress syndrome or other severe respiratory illness. Appropriate specimens should be collected**

- **Increasing case detection of incoming travelers (Port Health Surveillance) to our country, arriving from infected regions or countries by all means of transport to diagnose influenza infection and report**

- **People involved (Veterinary Department) in culling birds or animals infected with influenza like symptoms (single case and/or clusters) should be reported to Epi Unit**

- **Other people exposed to birds or animals infected with influenza, for example farmers and veterinarians presenting symptoms (single cases and/ or clusters) should be reported**

- **Health care workers caring for patients with suspected or confirmed pandemic strain influenza infection presenting symptoms (single cases and/or clusters) should be reported**

- **Laboratory workers handling clinical specimens from patients with suspected or confirmed pandemic strain influenza infection presenting symptoms (single case and / or clusters) should be reported**

- **Mortuary room workers identified as suspected cases should be reported**

- **Rumor surveillance to identify possible cases that might not have been notified by routine surveillance**

- **Monitoring of work force absenteeism in services**

- **Monitoring of school absenteeism in teachers, students and other staff.**

- **Monitoring of guest at the hotels and staff.**

- **Monitoring adverse vaccine events attributed to the pandemic vaccine if available**

- **Monitoring antiviral use and adverse events attribute to antiviral use if**
- **applicable**

Ensure appropriate specimens are collected at the beginning when individuals and small clusters are identified- Laboratory

Pandemic Alert

Saint Lucia Phases	**Description of phases**	**Surveillance objectives**	**Surveillance activities**
3	Human infection in Saint Lucia are detected with new viral subtype without propagation from person to person, or as a maximum in rare cases, especially if coinciding with a seasonal outbreak of influenza	To rapidly detect new clusters of cases in Saint Lucia To collect and share clinical and epidemiological data on suspect/ possible and confirmed cases To provide data to inform policy decisions	- Conduct routine influenza surveillance (Fever and Respiratory symptoms) through sentinel sites and the HC - Undertake laboratory surveillance to all hospitalized cases to monitor influenza virus isolates and detect local novel influenza strains in travelers returning from high risk areas overseas and Saint Lucia - Isolate the pandemic virus strain for vaccine production - Undertake data collection and epidemiological analysis on suspect,/ possible and confirmed cases through syndromic surveillance system - Monitor passive reporting of unusual clusters of influenza like illness or acute respiratory disease

Pandemic Alert

4	Human infection in Saint Lucia (small clusters, consistent with limited human to human transmission but spread is highly localized, suggesting the virus is not well adapted to humans	To monitor the geographical spread of pandemic influenza within Saint Lucia To monitor the distribution of pandemic by time, place and person To guide the appropriate allocation of national resources	- Conduct routine influenza surveillance through sentinel sites and HC - Undertake laboratory surveillance to monitor influenza virus isolates and detect local novel influenza strains in travelers returning from high risk areas overseas or within Saint Lucia - Isolate the pandemic virus strain for vaccine production - Undertake hospital – based surveillance - Monitor passive reporting of unusual clusters of influenza-like illness or acute respiratory disease - Conduct border screening for IL in travelers from affected areas - Undertake surveillance of IL in health care workers exposed to suspect, probable or confirmed pandemic flu cases or their specimens

Saint Lucia Phases	**Description of phases**	**Surveillance objectives**	**Surveillance activities**
5-6	Human infection increased and sustained transmission in the general population overseas	To monitor the distribution of pandemic by time, place and person To monitor the impact of the pandemic on health and essential services staffing To measure the effectiveness of pandemic influenza vaccine To define susceptibility of virus to antiviral drugs To monitor adverse events following vaccination with pandemic influenza vaccine	- Conduct routine influenza surveillance (Fever and Respiratory symptoms)through sentinel sites and the HC - Undertake laboratory surveillance to all hospitalized cases to monitor influenza virus isolates and detect local novel influenza strains in travelers returning from high risk areas overseas and Saint Lucia - Undertake data collection and epidemiological analysis on suspect,/ possible and confirmed cases through syndromic surveillance system - Monitor passive reporting of unusual clusters of influenza like illness or acute respiratory disease Conduct border screening for IL in travelers from affected regions Conduct entry and exit border screening Undertake surveillance of IL in health care workers exposed to suspect, probable or confirmed pandemic flu cases or their specimens Undertake hospital – based surveillance Monitor absenteeism among essential services personnel Undertake studies to measure

			effectiveness of antivirals and/ or vaccines and adverse events associated with antiviral and or vaccine use

b) Continue with surveillance for influenza and pneumonia – related deaths and hospitalizations

Reporting of unexplained deaths caused by acute respiratory illness at the Hospital through Hospital Case Notifications and Sudden Deaths Notifications from the Health Centers.

c) Case investigation of all reported cases

d) Outbreak investigation

Investigation of all outbreak of influenza like illness reported to the EPI Unit.

PANDEMIC SURVEILLANCE

Epidemiology Unit will be responsible for conducting surveillance to monitor for signals that may indicate that a novel influenza virus has begun to spread from person to person in Saint Lucia and thus trigger the intervention.

Signal detection and reporting

Potential signals include the identification of a virus with certain genetic features, the detection of certain epidemiological patterns, or an unforeseen combination of laboratory and epidemiological findings.

Once identified a signal suggesting person-to-person transmission of a novel influenza virus, the Epidemiology Unit is expected to immediately begin investigations and simultaneously notify WHO of the event (in line with requirements set out in the International Health Regulations (2005), the country is expected to report the event to WHO within 24 hours). WHO will rapidly assess the situation using all necessary means and could indicate the following:

- Urgently continue investigations, perhaps with international assistance (rapid response)
- Begin containment procedures without delay as evidence is sufficient to conclude that a pandemic virus has emerged

Decisions of a rapid response:

- Conduct additional investigations and to maintain vigilance if necessary by epidemiologist and deputy epidemiologist
- High degree of suspicion, and a capacity for rapid reporting from doctors nurses, lab technicians etc
- Virological surveillance.

Containment will be strongly considered in the following circumstances:

- An influenza virus isolated from an ill person has a haemagluttinin gene derived from a nonhuman influenza virus and one or more internal genes derived from a human influenza virus.
- There is epidemiological evidence that infection from a novel influenza virus has been transmitted from an index case to 5 or more secondary cases.
- There is epidemiological evidence that infection from a novel influenza virus has been transmitted from 3 or more secondary cases to tertiary cases.
- There is other evidence strongly suggestive or indicative of sustained person-to person spread of a novel influenza virus.

At this stage the public health measures will be as followed:

- The implementation and maintenance of quarantine of all persons and vehicles around the area of the outbreak.
- The Unit will be responsible for conducting active surveillance of the area surrounding the quarantined area to identify other cases
- Implementing heightened surveillance in the rest of the country.

If the response is thought to have successfully achieved containment, then heightened surveillance throughout the country will continue for six months or longer such a: solation of the ill person and such as isolation of the ill person, and monitoring and addressing the physical and mental well-being of the population within the quarantine zone.

Epidemiological Investigation and Contact Management

As soon as the Epidemiology Unit receives the notification of a confirm case of influenza caused by a new strain, field investigation will be carried out by the Deputy Epidemiologist to assess the exposure and the likelihood of human – to human transmission .

Epidemiological investigation will be conducted by the Deputy Epidemiologist together with Community Health Nursing and Environmental Health to identify how suspected human cases of a new influenza strain became infected, to assess the clinical impact of the disease, and to determine the risk that infected persons or their environment may represent for others.

Mechanisms of daily reporting of cases have been established from Hospitals, HC and Laboratory by phone or fax to Epi Unit.

Guidelines for case investigation and management of contacts have been developed with recommendations and information about education, general hygiene measures, medical follow up, isolation, prophylactic treatment with antiviral drugs etc.

Surveillance and Monitoring of Health-Care Workers

- **Instruct health-care workers to be vigilant for the development of fever, respiratory symptoms, and/or conjunctivitis (i.e., eye infections) for 1 week after last exposure to avian influenza-infected patients.**

- **Health-care workers who become ill should seek medical care and, prior to arrival, notify their health-care provider that they may have been exposed to avian influenza. In addition, employees should notify occupational health and infection control personnel at their facility.**

- **With the exception of visiting a health-care provider, health-care workers who become ill should be advised to stay home until 24 hours after resolution of fever, unless an alternative diagnosis is established or diagnostic tests are negative for influenza A virus.**

Virological Surveillance of Influenza

- **Expansion of laboratory diagnostic capacity at Sentinel Hospitals.**

- **1 hospital (VH) has the technical capacity for the rapid diagnosis of Influenza**

- **All hospitalized patients should be tested**

- **Confirmed cases should be reported to the Epi Unit through Laboratory Case Notification in 24 hours**

III - CASE INVESTIGATION AND TREATMENT

Management of cases

These guidelines apply to infectious cases. The objective of the management of an infectious case is to provide adequate health care and to minimize transmission**.**

Assessment of infectious cases by hospitals (e.g. emergency departments)

- **During a pandemic, infectious cases may telephone or present to hospitals. In this situation, the objective is to prevent transmission to attending hospital staff and patients**.

- **Hospital staff who are eligible for antiviral prophylaxis should be provided with the medication (if it is available) and written information about its use, recommended infection control precautions, and what to do if they develop symptoms of infection.**

Prior to clinical assessment of an infectious case

- **Any person who telephones or presents at a hospital should immediately be questioned to determine if he or she could be an infectious case.**

- **If the patient is being escorted to the hospital, then the escort should be instructed to collect a mask from the triage desk and to provide the mask to the infectious case to wear before he or she enters the facility.**

During clinical assessment of an infectious case

- **The patient should immediately be isolated in a single room (preferably a negative pressure room), and should wear a surgical mask until he or she is advised to remove it by attending staff.**

- **The door to the patient's room should remain closed and attending staff and the patient should be informed of this requirement, including appropriate signage.**

- **The patient's movement should be restricted. If the patient must leave his or her room, then he or she should only do so while wearing a surgical mask.**

- **If oxygen is required, nasal oxygen prongs should be used and covered with a surgical mask.**

- **Disposable equipment should be used wherever possible during the treatment and care of patients and should be disposed of appropriately in the general waste. If**

equipment is to be reused, then it should be disinfected in accordance with the manufacturer's instructions.

Following clinical assessment of an infectious case

- **If the patient is discharged home, then the patient should be advised to avoid contact with other persons until the infectious period has passed, and should be provided with written information advising the patient what infection control precautions to take and what actions to take if his or her symptoms worsen.**

Management of contacts

When a patient (early in pandemic) is diagnosed with pandemic influenza, Epidemiology Unit and Community Health Nursing will become involved. They will perform contact tracing to identify close contacts – for example, family members, work or classroom contacts. Once a pandemic is established it will not be possible to do this because of the increasing number of contacts.

Depending upon the transmissibility of the virus and the demands on public health units, contacts will undergo monitoring (passive surveillance or active surveillance) and quarantine.

It is likely that contact monitoring will be instituted in Phase 3, when the first human cases are occurring.

Quarantine of contacts, in conjunction with monitoring will be implemented in Phase Overseas 4, when human to human transmission is occurring in small clusters.

When animal disease is present, a person who has had exposure to an animal or its environment in an area known to have outbreaks will also require monitoring through Epi Unit. This monitoring is likely to start at Phase 1.

- Duration

Provided the person who is a contact does not become symptomatic, the duration of monitoring and quarantine will be for:

• Two times the incubation period of the virus, from the day of last exposure;

OR

• Until the diagnosis of pandemic influenza has been excluded in the index case.

Active surveillance

Public health staff will contact a person daily to assess the person's health, either by telephone or in person. All people on active daily surveillance should measure and record their temperatures twice daily (at least 4 hours after any medications that may lower fever).

Passive surveillance

Contacts will be asked to monitor their own health, record their temperatures daily and report to the public health unit if they develop a fever or respiratory symptoms.

Quarantine

Quarantine applies to people who have been exposed to someone with pandemic influenza and may be infected, but are not symptomatic. Separating exposed people and restricting their movements is intended to stop the spread of pandemic influenza.

People may be quarantined in their own homes or in another facility. In most cases, quarantine is voluntary; however, state, territory and the Saint Lucia government have authority to compel quarantine to protect the public. Those in quarantine will still be monitored.

- Education

Uninfected contacts quarantined at home with an infected case are advised to:

- **minimize close contact with the infectious case**
- **use separate living, dining, bathing, laundry and toilet facilities to the infectious case (if available)**
- **minimize use or handling of (and regularly clean) items or surfaces in the home that might be used/touched by the infectious case**
- **wear masks (if available), or cover their nose and mouth while in close contact (i.e. less than one metre) or while in a confined space with the infectious case.**

IV - PREVENTING SPREAD OF DISEASE

PUBLIC HEALTH MEASURES

Community infection-control measures:

- Management of cases in the community

During a pandemic it is likely that access to hospital beds will be limited and thus it will be necessary for some cases to be cared for at home. The same principles would apply in residential care.

In this situation, the objective is to provide adequate treatment and care for the case and to minimize secondary transmission, especially to uninfected contacts at high risk of complications.

If an infectious case is isolated at home, then visitors should be discouraged and be provided with written information about what to do if symptoms worsen and what infection control precautions to practice.

Infectious cases who are isolated at home are advised to:

• minimize contact with other uninfected (well) persons

• use separate living, dining, bathing, laundry and toilet facilities to uninfected household contacts (if available) or to immediately clean the objects that they used/touched in these facilities after they have used/touched them

• minimize use or handling of (and regularly clean) items or surfaces in the home that might have contact with uninfected household contacts

• wear a mask (if available), or cover their mouths and nose while in close contact with uninfected household contacts

• cease isolation once their infectious periods have passed.

The mainstays of the clinical management of cases in the community will include:

• general support and advice about the use of antipyretics (not aspirin in children), oral fluids, nutrition, bed rest, no smoking (these will vary depending on whether the patients are adult or pediatric)

• ensuring adequate supervision within the home of the ill case

• advice to the case or the care-giver about seeking clinical review if further deterioration

• antibiotics for bacterial complications of influenza

• antiviral therapy if presentation has been within 48 hours of disease onset (and depending on their availability within the context of pandemic requirements)

• management of contacts may include antiviral prophylaxis, advice about relevant vaccination (eg pandemic strain vaccine if available, usual influenza vaccination, pneumococcal vaccination).

SOCIAL AND DISTANT QUARANTINE REGULATIONS

In accordance with the legislation, the Minister of Health/ Chief Medical Officer will have the legal authority to:

- **Consider closure of educational institutions or day care facilities (based on a define criteria for implementation with the Ministry of Education)**
- **Prohibit mass gathering when required**
- **Design places where persons can be held in quarantine**
- **Ensure medical care, food supply, social support and psychological assistance for these people**
- **Ensure adequate transportation of persons to these places, and from there to hospitals or mortuaries.**
- **Travel and restrictions: According with the situation**

ENVIRONMENTAL HEALTH/ PORT HEALTH SURVEILLANCE RESPONSE PLAN

Team composed by:

• Port Health officers

• First responders (firefighters, police officers)

• Emergency medical services

• Representatives of airports, seaports

• Red Cross and other humanitarian organizations

Responsibilities:

- **Meeting flights with a reported ill passenger**
- **Notification to the Epidemiology Unit**
- **Providing a medical assessment of the ill traveler and referral for evaluation and care**
- **Separating the ill traveler from other passengers during the initial medical assessment**
- **Transporting the ill traveler to a designated healthcare facility**
- **Identifying other ill passengers and separating them from passengers who are not sick**
- **Transporting and quarantining contacts, if necessary**
- **Enforcing isolation and quarantine, if necessary, when ill travelers or their contacts are uncooperative**
- **Apply case definitions (e.g., symptoms, travel history) for avian influenza A (H5N1) and other novel influenza strains of public health concern as they arise.**
- **Actions to take and persons to contact at their home offices, local quarantine station about a sick passenger who might have novel influenza**
- **Information dissemination**
- **Premises/household inspection for general sanitation at community level.**
- **Regulating movement and disposal of infected material including human remains, dead birds especially across boarders and for mass casualties.**
- **Supervision of decontamination of infected materials/facilities.**

IMMUNIZATION PROGRAM RESPONSE PLAN

Responsible person: Expanded Program Immunization Manager

Procurement for a pandemic will be as for seasonal influenza vaccines.

Priority Groups:

- **Animal and bird cullers**
- **Veterinarians**
- **Farmers (poultry)**
- **Health care workers (Doctor to Janitor)**
- **Fire Officers**
- **Police Officers**
- **Laboratory Personnel**
- **Sanitation Workers**
- **Essential Utilities Workers (Electricity, Water, Telephone)**
- **>6/12 old with chronic illness**
- **≥ 65 years old with chronic illness**

Storage, Distribution and Administration:

- **Same as for seasonal influenza vaccine.**

Designation:

- **All health facilities will be utilized in the administration of vaccine.**

Staffing:

- **Health center staff will be utilized and if needs be, retired nurses will be recruited.**

Vaccine storage capacity and cold chain:

- **An additional refrigerator will be purchased for storage of vaccines. Cold chain will be as for seasonal influenza vaccines.**

Vaccine security:

- **As for regular vaccines.**

Records:

- **Documentation will be kept in three (3) areas/levels: Individual, health-center and national level**

- **Individuals will be issued a personal immunization card, which will bear the name of the vaccine, date administered, batch number of vaccine, and signature of the person who administered the vaccine.**

- **A ledger will be maintained at each health facility bearing the same information as above.**

- **At central level, immunization information will be formatted.**

Adverse Event Surveillance:

- **All persons experiencing signs and symptoms of adverse reactions of the vaccine will report to the health center where vaccine was administered. This will be communicated to all clients during the group talk preceding the administration of the vaccine.**

- **Information received from clients will be transferred to an immunization adverse reaction register, which will be forwarded to central level. Following is a sample of the immunization adverse reaction form.**

Antivirals

- **Only persons who are admitted to hospital will receive antiviral therapy**

V - MAINTAINING ESSENTIAL SERVICES

HEALTH SERVICES RESPONSE

Pandemic Alert general

As soon as the Surveillance Unit receives the report of the suspicion or confirmation of a case in humans the mechanisms established to activate the emergency team will be in place as follows:

Deploy the outbreak team

The Epidemiology Unit will notify immediately to the CMO and all the members of the National Pandemic Response Team to make decisions on the technical basis and to call other sectors accordingly. This activity will be by phone or fax.

The meeting will be held at the Ministry of Health Conference Room within 24 hours.

The Chief Medical Officer will inform the Minister and the Permanent Secretary of the situation. Declaration of Pandemic Alert Period phase 3 or 4.

Each of the key stakeholders will activate their own plan according to the situation for human and material resources management during an emergency.

Relevant components of the plan will be activation as the need arises.

Developed public information will be disseminated as agreed by the spokesperson.

TARGET GROUPS FOR TREATMENT AND VACCINATION PRIORITIZATION

It is expected that no specific pandemic influenza strain vaccine will be available initially. If it becomes available, it will likely be difficult to obtain sufficient doses for the entire population.

The following list should therefore also be used to prioritize persons who will first receive the vaccine.

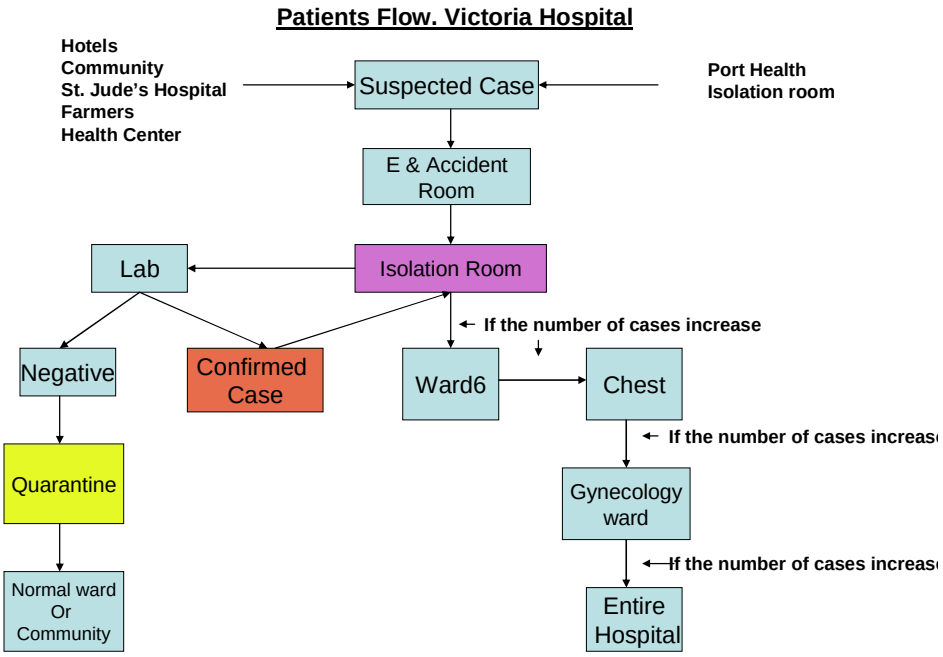
Priority level	**Essential services**
Highest priority	**Doctors**
	Nurses + nurse aides
	Medical laboratory staff
Second priority	For use by doctors to treat high risk patients
	NEMO Volunteers dealing with high risk patients
	Ambulance drivers
	Customs, Immigration
Third priority	Governor General, Prime Minister, Cabinet, Cabinet Secretary, Leader of the Opposition
	Police
	NEMO Staff
	Airport Staff
	Fire Service
	Port Services
	Medical quarantine
	Communication
	Utilities (water, electricity, fuel)

Case definition of influenza-like illness (ILI) for surveillance purposes

- An acute onset of fever (T> over 38°C),
- AND cough or sore throat,
- AND myalgia
- in the absence of other diagnoses.

Criteria for hospital admission of flu patients

- Severe pneumonia
- Encephalitis
- Dehydration
- Persons over 60 with severe infection
- Children under 5 with severe infection



The Medical Superintendent/Medical Director of the hospitals is the most senior person in the Hospital command post (refer to hospital operational plan).

In the event of a pandemic of influenza, Victoria Hospital is designated as the receiving hospital for **ALL patients requiring hospitalisation.**

Victoria Hospital is selected because it is the location: where rapid screening and testing is done, where the specialized drugs are stockpiled, where there are mechanical ventilators.

The Plan will be initiated on the arrival of the first infected:

Possible case of Influenza A (H5)

- Person with acute respiratory illness, characterized by fever (temperature >38 C) and cough and fatigue with onset of symptoms within seven days of:

  a.) contact with a confirmed case of influenza A(H5) during the infectious period

  or

b.) visit to a poultry farm or other poultry contact in an area known to have outbreaks of influenza A(H5)

or

c.) having worked in a laboratory that is processing samples from persons or animals that are suspected to have influenza A(H5) infection.

- For details on diagnostic testing and laboratory confirmation see annex 5: *Laboratory guidelines.*

- An **infectious case** of pandemic influenza is a confirmed or suspected case for which the infectious period has not expired.

Reception, Triage and Routing of clients

Please note that patients who test positive for Influenza A from the rapid test kits will be admitted straight to the ward and hence bypass A&E. These patients will come from several sources:

District Health Centres

Gros Islet Polyclinic

SLASPA surveillance clinics at air and seaports

Hotels (tourists and staff)

The patient will be transferred to the "SARS" room in the Ward 6 building.

Full infection control measures will be initiated

All persons entering the area will use personal protective equipment (PPE), and comply with infection control requirements. Only essential personnel will have access to the patient.

As numbers of victims increase, they will be accommodated in Ward 6, utilising further cubicles as required. Males and females will both be admitted in separate cubicles.

If necessary the whole ward will be used to treat epidemic victims.

As the epidemic continues, more ward space will be devoted to the victims.

When Ward 6 is full, additional patients will be sent to the Chest Wing and when this is full, the Gynaecology Ward. Here again rooms will be designated "male" or "female" as appropriate.

Further progression of the epidemic will necessitate more wards being devoted to the victims.

Routine hospital functions will correspondingly decrease. Elective surgery will be suspended until the epidemic is over.

This will allow a number of theatre nurses to be redeployed throughout the hospital as required, leaving the basic number of nurses in theatre to cover emergencies.

A minimum of beds will be set aside for "routine" emergencies in Wards 8 & 9. Patients admitted here will not come into contact with epidemic victims. Any patient requiring surgery will be operated on in the usual theatres.

Patients may need to be transferred to St. Jude Hospital if there is insufficient bed space at Victoria Hospital.

Any epidemic victim requiring emergency surgery will be operated on in the old Gynaecology / Obstetric theatre.

Outpatient clinics will also be suspended to decrease contact with the public whilst the epidemic is at its height and again allowing these nurses to be assigned other duties in the hospital.

Information will be given to the public as to when normal services can be expected to resume.

Clinical Management

All patients who present to a health-care setting with fever and respiratory symptoms should be managed according to recommendations in the guidelines and questioned regarding their recent travel history.

Patients with a history of travel within 7 to10 days to a country with avian influenza activity and are hospitalized with a severe febrile respiratory illness, or are otherwise under evaluation for avian influenza, should be managed using isolation.

END OF PROCEDURE

ACCIDENT AND EMERGENCY RESPONSE VH PLAN

The response of the Accident and Emergency unit will be appropriate to the number of infected patients arriving at the department. The Mass Casualty Response Plan will be activated when 10 or more infected patients are diagnosed.

Infected patients will be accommodated in a designated quarantine area. This will be the Primary Health Care area.

Staff treating infected patients are to follow guidelines listed under infection control.

Any patient, referred from anywhere, who has not been tested with the rapid test kits MUST pass through A&E

Infection Control Response

The Infection Control Nurse will notify members of the Infection Control Committee and Surveillance team to carry out procedures required as listed below:
Some members of the surveillance team are:

- Chief Medical Officer
- Chief Epidemiologist
- Medical Director
- Infection Control Nurse
- Laboratory Superintendent
- Members of the Surveillance team will receive reports of possible infections from all ports of entry to Saint Lucia.

The Surveillance team in collaboration with Victoria Hospital Management and the consultants in General Medicine will apply epidemic containment systems based on CAREC guidelines.

Information from the epidemic will be communicated to CAREC via the Epidemiology Unit of the Ministry of Health

In the event of a major influenza pandemic was decided that **St. Jude Hospital** refers all cases with the disease for hospitalization to Victoria Hospital, and St. Jude in turn will receive all non-influenza hospital admissions from Victoria Hospital

END OF PROCEDURE

ST. JUDE HOSPITAL

In the event of a influenza pandemic St. Jude Hospital will refer all cases with the disease for hospitalization to Victoria Hospital,

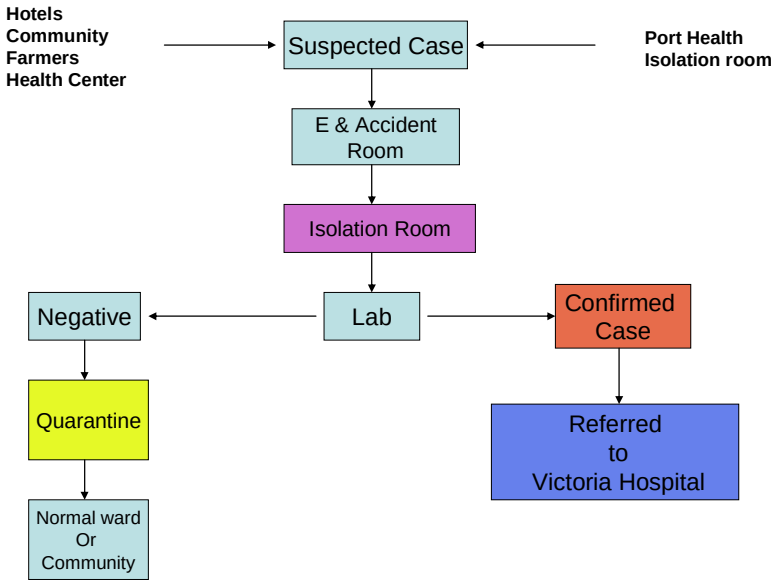
St. Jude in turn will receive all non- influenza hospital admissions from Victoria Hospital

There will be a designated Yellow area for patients with Fever and Respiratory symptoms in the waiting room area.

All patients with Fever and Respiratory symptoms the specimens will be referred to Victoria Hospital for testing.

Infection Control measures will be followed and the use of PPE for the staff.

Patients Flow. St Jude's Hospital



END OF PROCEDURE

HEALTH CENTERS RESPONSE PLAN

MANAGEMENT TEAM

Principal Nursing Officers – Community Dennery Hospital, Soufriere Hospital
Administration for Polyclinic and Soufriere Hospital supported by Public Health Nursing Supervisors.

Lines of Command

As soon as The Epidemiology Unit receive the report of the increased number of patients will notify immediately all the members of the National Surveillance and Response Team to declare Pandemic Alert (phase 4 to 5) The Principal Nursing Officer will make decisions on the technical basis accordingly. This activity will be by phone.

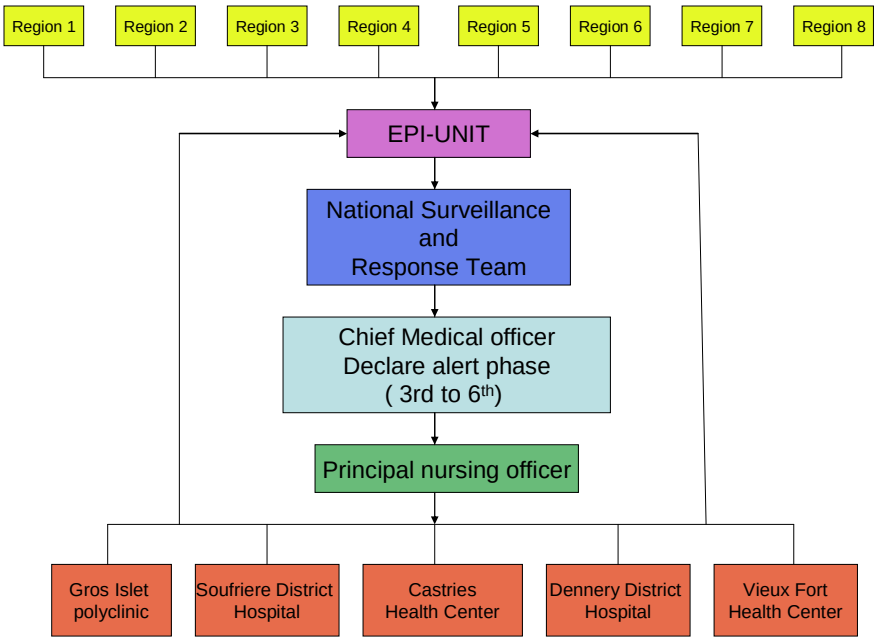
The meeting will be held at the Community Nursing Office within 24 hours.

The Principal Nursing Officer will activate the plan according to the situation for human and material resources management during an emergency.

Relevant components of the plan will be activated as the need arises.

Following direction of the Chief Medical Officer **5 Health Centers** will open for 24 hours during the pandemic

- Gros Islet Polyclinic
- Soufriere District hospital
- Dennery District hospital
- Vieux Fort Health Center
- Castries Health Center



Personnel:

Nurses will be deployed from health centers in the respective regions served by the above institutions

Clinic services at other health centers will be combined

Chronic diseases services will be suspended at these institutions and redirected to other health centers

Referral System

Clients will be redirected and will be signs in the waiting room areas to direct suspected cases

There will be an established referral system to the hospital

Linkage with ambulance services will have to be established for all epidemic centers

Medical Coverage

At least 3 or 4 doctors will be assigned for every influenza HC to able to cover 24 hours

Family Nurse Practitioner will be deployed to assist with medical clinics

Day shift will require 2 Doctors per health centre or one Doctor with Family Nurse Practitioner.

Regional Management

Polyclinic

Primary care will be provided at Monchy and Grand Riviere HC

Block C will be utilized for pandemic patients

An additional 4 nurses will be needed to manage the 24 hours clinic requirement

Castries Health Center

Clinics will be shifted to Entrepot Health Center and will be staffed accordingly

Castries Health Center will be used for management of influenza clients.

Soufriere Hospital

Primary care section will be used for pandemic

Primary care services will be moved to Etangs Health Centre

Temporary closure of Delcer, Mongouge and Fond St Jacques Health Centres

La Fargue and Canaries Health Centres will function for clients to access primary care services

Vieux Fort Health Centre

Labory health centre will be used for primary care services

Temporary closure of Saltibus, Belle Vue and Grace health centres

Staff will be redeploy accordingly

Vieux Fort health centre will be used for influenza patients

Region 4 nurses will provide support

GUIDELINES FOR CLIENT MANAGEMENT AT HEALTH CENTRES.

- Facilities should have a designated area for treatment of clients
- Triage area should be to the front of facility
- All clients should be triage on arrival at the facility
- Use questionnaire to interview clients
- Clients with signs and symptoms should be referred to treatment area

END OF PROCEDURE

DENNERY HOSPITAL

Hospital will be used to manage clients

Rich Fond health centre will be used for primary care services

Staff will be deploy accordingly

Extra Stocks of following will be required:

During the Epidemic distribution and turn around time of supplies will be enhanced.
Personal Protective Equipment
Disposable towels
Antiseptic hand washing liquid
Color coded Garbage bags
Questionnaires for interview to assist with triage

Queries:

Vaccine coverage for Health Care Workers

Training for:

- Questionnaire for interview, to assist with triage
- Review session on Barrier Nursing
- Guidelines for Universal precaution
- Guidelines for management
- Supplies ordering and delivery

END OF PROCEDURE

NATIONAL LABORATORY RESPONSE PLAN

Ezra Long Laboratory Activation Plan:

Laboratory Director/ Laboratory Superintendent is the most Senior person in the command post. In the absence of the Laboratory Director and Laboratory Superintendent contact the Senior Medical Technologist in the relevant department.

As soon as a sample is received from a suspected case, rapid testing it will be conducted.

If result is confirmed, it will be reported to the Epi Unit.

If the Pandemic Alert period is declared, the Laboratory Director will be responsible for:

- Alerting and deployment of staff providing laboratory services
- Helping to guide the clinical management of patients
- Facilitating the early investigation of clusters
- Enhancing the participation on the WHO Global Influenza Surveillance Network.
- Establishing communications with other health medical officers
- Ensuring that all staff and other personnel are assigned to their posts and are prepared to function in accordance with the Emergency Plan
- Double – checking the list of medical supplies in the different laboratories
- Reporting and recording data
- Enforcing directives from CMO or /and Epidemiology Unit
- Ensuring stockpile for PPE
- Providing continuous education to staff and community
- Enforcing Universal precautions and Biosafety conditions
- Ensuring the distribution of the guidelines for proper collection, storage and transportation of samples
- Reassessing and evaluating, and reporting on Laboratory status to relevant personnel

Respiratory Tract Specimens

- Nasopharyngeal aspirates
- Broncheoalveolar lavage
- **Nasopharyngeal swabs (preferred specimen)**
- **Throat swabs (preferred specimen)**
- Sputum

Window Period for Sample Collection

Specimens should be collected within first 3 days after onset of symptoms

The Role of Ambulance Services during an Influenza Pandemic

RELATED DOCUMENT

Fire Service Protocol for Response to Swine Influenza or Swine Flu (like) Incidents: April 28, 2009

Responding to this significant challenge will require each section of the health community to prepare and plan for this eventuality, but this planning must be integrated across and within all those organisations that deliver health and social care to the population. Only through this whole-systems approach, including engagement with Emergency Services and Communities, will robust and effective healthcare be maintained under extremely demanding conditions.

Adding value to the response

Nine Emergency Services and Communities provide ambulance services across Saint Lucia:

1. Saint Lucia Fire Service Headquarters
2. Gros Islet Fire Service
3. Vieux Fort Fire Service
4. Victoria Hospital
5. Canaries Community
6. Choiseul Community
7. Saint Lucia Red Cross Society
8. George FL Charles Airport
9. Hewanorra International Airport

They will need to maintain local planning and readiness for pandemic influenza based on a common response strategy, integrated with health plans.

This strategy will provide the framework for:

- Prioritising effort, and ensuring resilience to arrangements locally and nationally.
- The demands likely to be placed on ambulance services will bring these organisations to such a critical level that normal and routine activity cannot continue in the same form.
- This will be both from a patient demand perspective and from a business continuity angle, principally around the provision of resources.
- In their planning ambulance services should address the following key questions:
  - During an influenza pandemic, what services can safely be curtailed or downgraded?
  - At what trigger points would these steps happen?
  - Who would take these decisions at the time?
  - Who would need to be informed?
- What resources are released as a result of this action?
- What is the impact of releasing these resources?
- How can these resources be put to best use primarily in the local health response but also the multi-agency response?

The role of ambulance services during an influenza pandemic

- How can ambulance personnel be appropriately supported (including training and clinical supervision) to work differently in order to facilitate the principle of 'assess, treat and leave at home' for the majority of cases, triaging only the most unwell and vulnerable patients for transportation to hospital?

- What is the Services' own ability to continue its critical function during an influenza pandemic?

In answering these questions, planners should bear in mind that other illnesses and injuries will continue to occur, and that ambulance response capability to other emergencies needs to be maintained as far as possible.

Whole-systems approach to healthcare – interfacing with the ambulance service response

Ambulance services must develop a coordinated and consistent approach towards responding to patients. Linked to the coordination of methods of handling calls seeking help is the need for appropriate assessment that takes account of the patient's reported needs and the availability of resources according to the availability of care.

Overarching principles

- Ambulance services will play a vital role in acting as one of the main gateways to healthcare. For this to be effective, ambulance services must work in partnership GPs, emergency departments, health centres and others that provide access to Health Services. Pandemic-specific pre-hospital patient assessment and treatment protocols will need to recognise that hospital capacity will be extremely limited, emphasising treatment at home and ensuring that only patients with serious or life-threatening conditions are actually admitted into the acute sector. This work has been initiated nationally. Local response plans should also consider the extent to which the field assessment and treatment skills of ambulance staff could be utilised to support the wider delivery of home care.

- The process, however, should not be viewed as starting with the ambulance personnel arriving at the patient's location, but rather with the receipt of the call. Key pre-prepared questions will need to be asked to ensure that the limited resources available are targeted to those most in need. A challenge in achieving this will be to ensure that the call prioritisation used by ambulance services reflects these priorities. This work has been

initiated nationally, but will need to be completed as part of national influenza planning and preparedness.

- Effective communication strategies informing patients why their expectations may not be met are being developed nationally by the Government of Saint Lucia's National Flu Pandemic Preparedness Team. In these scenarios, staff in ambulance service control centres will play a vital role in providing consistent and accurate advice and information. These types of message must be consistent with advice provided by other health professionals.

- Ambulance services have other experiences and resources that are vital when responding to pandemic influenza. Ambulance services, through their knowledge and understanding of command and control systems, are well placed to assist in planning the establishment of call-handling centres and patient tracking systems.

- Many vulnerable patients of all ages and those with long-term conditions who are being cared for in their home setting are likely to be well known to ambulance and other local services. The scheduling systems used for non-emergency patient transport services may be one component that can provide assistance in the planning and scheduling of healthcare to vulnerable patients in the home setting.

- Ambulance services should explore the potential role of emergency care practitioners during an influenza pandemic in conjunction with local healthcare providers.

- The aim should be to transport to hospital only those patients who are most critically ill, in parallel with maintaining services to other patients, for example those receiving life-sustaining outpatient treatment or those injured as a result of accidents, and those receiving maternity care.

- Ambulance services will play a vital role in the safe transport of patients away from acute settings, especially those sites implementing a policy of increased discharge rates as a result of the pandemic.

Children

For ambulance services during the influenza pandemic, the principles for managing children should be along the same pathways as for adults, whilst taking into account the different physiology and needs of children. The severity of a child's illness may be more difficult to assess than that of an adult. They should therefore be seen by a person with the appropriate training and experience to make that assessment in a timely manner. Ambulance services are advised to build this contingency into their pandemic influenza plans.

Strategic command, control and coordination arrangements

Ambulance services work regularly with the police and fire services. This experience places the ambulance service as a useful link between the wider healthcare system and the resilience community.

As the clinical attack rate increases, consideration must be given to reducing or ceasing certain service provision in order to pool and target resources effectively. During the pandemic period (WHO Phases 5 & 6), this may require daily assessment of resource availability. When considering the whole-systems approach, any reduction or cessation of ambulance service provision will need to be agreed with the Ministry of Health, Hospitals and Emergency Services as there will be a knock-on effect elsewhere in the healthcare system.

The command, control and coordination arrangements have been reviewed and revised to take account of the changes made to the organisation of the Health Sector and also to the needs of the service during a pandemic. Details are available from the National Plan Vol. 1: Concept of Operations

Recovery

Ambulance services will need to consider, as part of contingency planning, a recovery strategy for the post-pandemic period. Although the objective is to return to pre-pandemic levels of functioning as soon as possible, the pace of recovery will depend on the residual impact of the pandemic, ongoing demands, backlogs, staff and organisational fatigue and continuing supply difficulties in most organisations. Therefore, a gradual return to normality should be anticipated and expectations shaped accordingly. Plans at all levels should recognise the potential need to prioritise the restoration of services and to phase the return to normal in a managed and sustainable way.

Ambulance services are likely to experience persistent secondary effects for some time with increased demand for continuing care from:

- patients whose existing illnesses have been exacerbated by influenza
- those who may continue to suffer potential medium or long-term health complications
- a backlog of work resulting from the postponement of treatment for less urgent conditions.

The reintroduction of performance targets and normal care standards also needs to recognise loss of staff and their experience, and that most staff will have been working under acute pressure for prolonged periods and are likely to require rest and continuing support.

Human resource issues will need to be considered carefully.

Details are available from the National Well-being Plan.

Facilities and essential supplies may also be depleted, resupply difficulties might persist and critical physical assets are likely to be in need of backlog maintenance, refurbishment or replacement, meaning impact assessments will be required.

Audit trails for both clinical and corporate governance purposes will need to be reviewed in preparation for any wider inquiry into the response, or for increased requests for information on the treatment provided to individuals. Any backlog of routine work that was put on hold, such as training and similar activity, may need to be prioritised to ensure that the service can continue to move forward.

Ambulance services should also consider developing arrangements for regrouping services between waves of the pandemic.

ANNEXES

Annex 1 - Characteristics of influenza infection

The management of infectious cases of pandemic influenza and their contacts is determined by the mode of transmission, the incubation period and the infectious period.

Influenza is a respiratory infection that is spread from person-to-person primarily by inhalation or contact with respiratory droplets. These droplets, which may be produced by coughing or sneezing, only travel short distances and remain suspended in the air for only a short time.

Other methods of disease transmission such as airborne spread by droplet nuclei (i.e., small droplets that remain suspended in the air and may travel longer distances, for example, through ventilation systems) or direct contact with articles recently contaminated by nasopharyngeal secretions are thought to play a more minor overall role in transmission compared with droplet transmission.

Influenza is highly contagious, especially among institutionalized populations. Patients are most infectious during the 24 hours before the onset of symptoms and during the most symptomatic period, which generally lasts 3 to 5 days after the onset of illness.

Detectable viral shedding in the nasal secretions usually ceases within 7 days of the onset of illness but can be prolonged in young children and immunodeficient patients.

Transmission

• Droplet (respiratory secretions) transmission is common among close (within one metre) contacts.

• Contact (respiratory secretions) transmission may occur through hand-to-mouth or hand-to-eye transmission after touching an influenza virus-contaminated object or surface.

• Airborne transmission predominates among crowded populations in enclosed spaces.

Incubation period

The incubation period for human influenza viruses is two to three days, with a range of one to seven days.

Infectious period

The infectious period is usually from the onset of symptoms to:

• seven days from resolution of fever (in those > 12 years); and

• 21 days from onset of illness (in those ≤ 12 year).

A small proportion of patients may be infectious from just before symptoms appear.

Possible case of Influenza A (H5)32

- **Person with acute respiratory illness, characterized by fever (temperature >38 C) and cough and fatigue with onset of symptoms within seven days of:**

  b.) **contact with a confirmed case of influenza A(H5) during the infectious period**

  or

  d.) **visit to a poultry farm or other poultry contact in an area known to have outbreaks of influenza A(H5)**

  or

  e.) **having worked in a laboratory that is processing samples from persons or animals that are suspected to have influenza A(H5) infection.**

- **For details on diagnostic testing and laboratory confirmation see annex 5: *Laboratory guidelines.***

- **An** infectious case **of pandemic influenza is a confirmed or suspected case for which the infectious period has not expired.**

- Contact definition

A contact of pandemic influenza is a person who had close (ie within one metre) contact with an infectious case or who has spent more than 60 minutes in a confined space (such as an aeroplane, or an enclosed room) with an infectious person.

Annex 2 - Infection Control Measures

These guidelines include standard precautions, which should be followed when caring for all patients, regardless of their diagnosis, and transmission based precautions, which should be used when a patient is known or suspected to be infected or colonized with an epidemiologically important pathogen.

While droplets are the primary mode of influenza transmission, influenza viruses also may survive for hours on environmental surfaces that have been contaminated with secretions and be transmitted following contact.

Airborne transmission has been hypothesized to explain some outbreaks but has not been well documented. The efficacy of placing infected persons in room with negative pressure in relation to their immediate environment has not been assessed. In addition, this measure would likely be impractical during a pandemic where the number of patients with influenza would exceed the availability of negative pressure rooms.

Standard Precautions

Standard Precautions address the importance of hand hygiene before and after caring for a patient; use of gloves, masks, eye protection, face shields, and gowns when splashes or sprays of blood, body fluids, secretions, or excretions are possible; cleaning of patient-care equipment, the patients' physical environment, and soiled linen; precautions to reduce the possibility of health care worker exposure to blood borne pathogens; and patient placement.
During the care of a patient with suspected or confirmed influenza:

- Wear gloves **if hand contact with respiratory secretions or potentially contaminated surfaces is expected.**

- Wear a gown **if soiling of clothes with patient's respiratory secretions is expected.**

- Change gloves and gowns **after each patient encounter and before touching any noncontaminated items or touching another patient, and perform hand hygiene.**

- Decontaminate hands **before and after touching the patient, after touching the patient's environment, or after touching the patient's respiratory secretions, whether or not gloves are worn.**

- When hands are visibly soiled or contaminated with respiratory secretions**, wash hands with either a non-antimicrobial or an antimicrobial soap and water. Hand hygiene with plain soap or detergent for at least 10 to 15 seconds under running water is**

an effective method of removing soil and transient microorganisms. If sinks for hand hygiene are not readily available, alcohol-based agents can be used.

- If hands are not visibly soiled and after glove removal**, use an alcohol-based hand rub for routinely decontaminating hands in clinical situations. Alternatively, wash hands with an antimicrobial soap and water.**

During a pandemic, it is possible that health care institutions may become overwhelmed and care delivered at alternative sites. These alternative sites may not have sinks as readily accessible as traditional health care settings. Therefore, consideration should be give to using detergent containing towelettes to cleanse hands followed by alcohol-based hand rubs for antisepsis. The protocol (as indicated in standard precautions) for glove use should remain unchanged regardless of the setting in which medical care is provided.

Annex 3 - Personal protective equipment (PPE)

PPE includes:

• P2 (N95) mask33

• disposable gloves

• protective eyewear (ie goggles/visor/shield)

• long-sleeved cuffed gown

• cap (in high-risk situations where there may be increased aerosols)

• plastic apron (if splashing of blood, body fluids, excretions or secretions is anticipated).

PPE should be worn by:

• All people who provide direct patient care (eg doctors, nurses, radiographers, physiotherapists, border workers and airline staff)

• all supporting staff, including medical aides and cleaning staff

• all laboratory workers handling specimens from a patient being investigated for pandemic or avian influenza

• all sterilizing services workers handling equipment that requires decontamination and has come from a patient with pandemic or avian influenza

• family members or visitors.

Masks

- **P2 (N95) masks are expected to minimize air-borne and droplet transmission of respiratory secretions from an infectious case to the attending person. If used, they should be properly fit tested.**

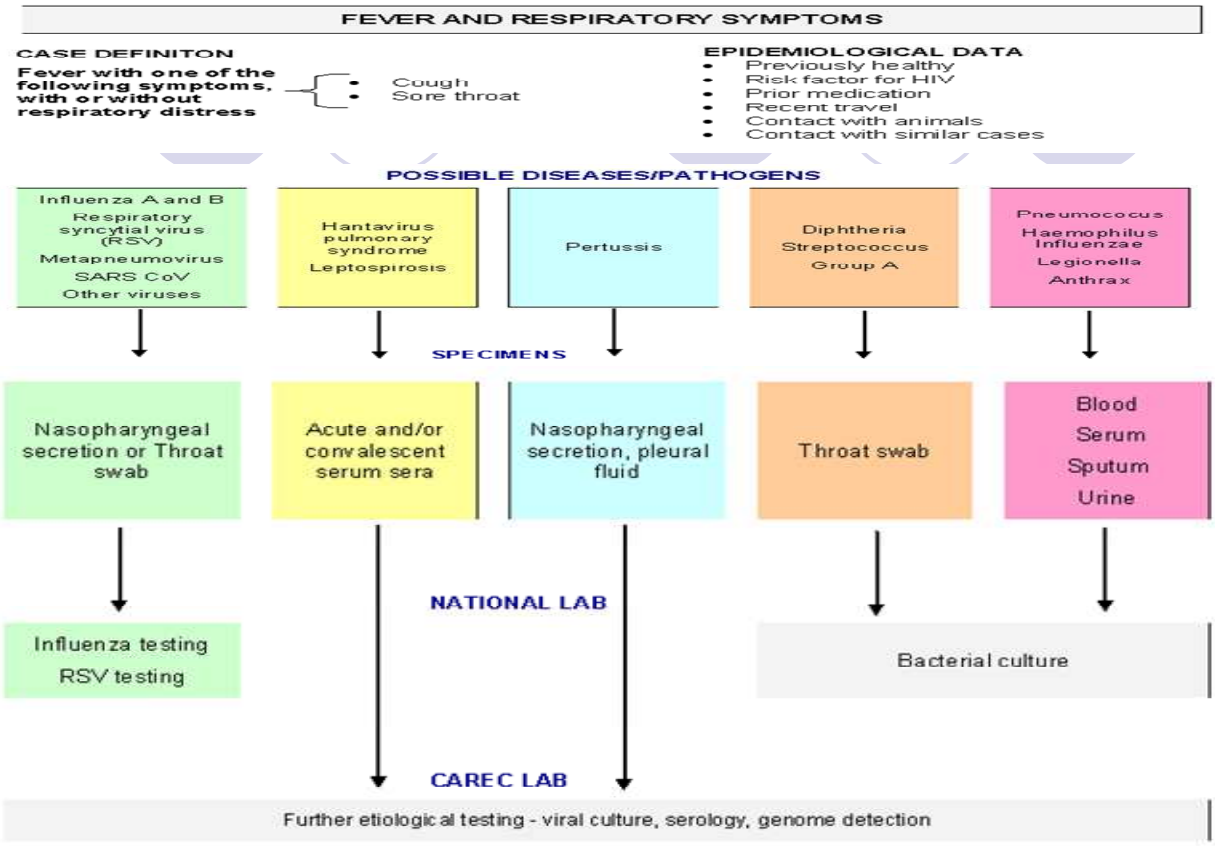
- **Surgical masks are expected to minimize** droplet transmission **of respiratory secretions from an infectious case to other close contacts. Unless it needs to be removed for examination purposes, the infectious case should wear a surgical mask to minimize exhalation of respiratory secretions when other people are within 1 metro or are in the same room.**

Cleaning and disinfection

- **The H5N1 influenza virus is inactivated by alcohol and by chlorine. Cleaning of environmental surfaces with a neutral detergent followed by a disinfectant solution is recommended. Refer to the table below for appropriate concentrations of the disinfectant.**

- **The optimal mask for protecting attending staff is a P2 (N95) mask. However, if they are not available then a surgical mask is the next best option.**

Annex 4 - Flow Chart of Syndrome of Fever and Respiratory Symptoms



NOTE: Acute Serum: ?5 days from onset of symptoms, Convalescent serum > 5 days from onset of symptoms

END OF PROCEDURE

Annex 5 - Legal preparedness

The government is primarily responsible for preventing the introduction, transmission, and spread of communicable diseases from foreign countries into Saint Lucia. Local health authorities may also take measures, such as quarantine of ill travelers and their contacts, to prevent the spread of communicable diseases within their borders (Quarantine act 2001).

To be adequately prepared for management of travel-related risks, national health department should:

• Ensure that legal authorities for the isolation of ill persons and the quarantine of exposed persons are known and understood.

• Requirements for pre-departure screening of international and domestic travelers

• Requirements for arrival screening and/or quarantine of international and domestic travelers

• Prohibitions on travel by ill persons and their contacts

• Cancellation of nonessential travel

• Develop plans and protocols for enforcing travel restrictions, if necessary.

Annex 6 - Managing ill passengers

- **If an ill passenger with a suspected case of novel influenza is reported aboard an arriving airplane or cruise ship, a health official or quarantine officer should do the following:**

    - **Request information on the ill passenger's symptoms and travel and exposure history to make an initial assessment if the illness meets the current clinical and epidemiologic criteria for avian influenza A (H5N1) or is suspicious for a novel influenza strain.**

    - **Determine if a public health worker and/or quarantine officer should meet the airplane or cruise ship to further evaluate the ill traveler.**

    - **Provide the crew with guidance on infection control procedures, if needed (e.g., separate the ill passenger as much as possible from other passengers; provide the ill passenger with a mask or tissues to cover coughs and sneezes).**

    - **If a public health worker and/or quarantine officer decides to meet the airplane or cruise ship and perform an initial medical evaluation of the ill traveler, the passengers and crew should be informed of the situation and should not be allowed to disembark until the evaluation is complete.**

    - **If public health officials determine that the ill passenger meets the clinical and epidemiologic criteria for infection with a novel influenza strain, the patient should be sent by ambulance to a hospital, using appropriate infection control procedures for transit and patient isolation.**

Annex 7 - Managing travel contacts

National health departments, in consultation with CAREC and PAHO, should decide how to manage an ill person's travel contacts on a case-by-case basis, taking into consideration the following factors:

- **Likelihood that the suspected case is due to a novel influenza strain (based on symptoms and travel history, if laboratory results are not available**

- **Likelihood that the causative virus is transmitted from person to person with a moderate or high efficiency (as in later phases of the Pandemic Alert Period)**

- **Feasibility of tracing and monitoring travel contacts, as well as the patient's family members, workmates, schoolmates, and healthcare providers**

Management of contacts might include:

- **Passive or active monitoring without activity restrictions**

- **Quarantine at home or in a designated facility, and/or**

- **Antiviral prophylaxis or treatment.**

- **For retrospectively identified cases, if passengers and crew members cannot be traced within 48-72 hours of the presumed exposure, local and/or state health departments, in consultation with PAHO, might consider other options (e.g., issue a public notice through the news media).**

- **During the Pandemic Alert Period, especially during the earlier phases, health departments should quarantine travel contacts (i.e., passengers, crew, response workers)** only when there is a high probability that the ill passenger is infected with a novel influenza strain that is transmitted between people.

- **If a decision is made to initiate quarantine, persons who cannot be quarantined at home should be housed in a pre- designated temporary care facility until the diagnosis of the ill passenger is confirmed or disproved. Each quarantined person should receive a preliminary medical assessment and should be interviewed to ascertain their travel and exposure histories.**

- **If the diagnosis of a novel strain of influenza is confirmed, quarantined persons should be transferred as soon as possible to a pre-designated longer-term quarantine facility and should remain there for the maximum length of the incubation period for influenza. Each quarantined person may receive antiviral medication and should be monitored twice a day for fever and other signs of influenza.**

- **Medical follow-up and travel assistance should be provided to all quarantined persons when the quarantine period is over.**

Annex 8 - Recommendations for the Pandemic Period

Travel-related containment measures

Once the pandemic has spread outside and within Saint Lucia, screening for arriving ill passengers will become less useful and feasible. Although exit-screening of travelers from affected areas ("source control") is likely to be a more effective disease control measure, its effectiveness will be limited.

To manage arriving ill passengers, public health authorities or quarantine officers should do the following:

• If a suspected case of pandemic influenza is reported aboard an arriving airplane or cruise ship during the early stages of a pandemic, obtain preliminary information about the ill passenger, and advise the captain and crew on patient isolation and infection control.

If the likelihood of pandemic influenza infection appears high, consider these actions:

• Notify the airport to mobilize its first responders, and arrange for patient transport and preparation of quarantine facilities.

• Meet the airplane or ship, perform a medical evaluation of the ill traveler, and assess the risk to public health.

• Inform the passengers and crew of the situation, and do not allow them to disembark until the evaluation is complete. Procedures for medical management of the patient, passengers, and crew are in the guidelines.

Annex 9 - Travel health precautions and warnings

As the pandemic spreads from country to country, Epi Unit following recommendations from PAHO and CAREC will update country-specific travel notices and advise accordingly.

Travel Health Precautions

Describe steps that can be taken to reduce the risk of infection (e.g., avoiding travel to high-risk settings and communities where transmission is occurring).

Travel Health Warnings

That recommend postponement of nonessential travel

Travel-related measures at early stages of a pandemic

When there is limited transmission in other countries and potential for importation of cases into Saint Lucia, Epi Unit and Port health might consider the following actions:

• Initiate enhanced disease surveillance at ports of entry.

• Provide guidance on infection control procedures that can be implemented, if needed, on airplanes or ships (e.g., separate the ill passenger from other passengers; provide the ill passenger with a mask or tissues to prevent viral spread via coughing).

• Isolate arriving ill passengers, and quarantine their contacts as necessary.

• Collect information on all arriving passengers if notification is warranted (e.g., for antiviral administration, vaccination, or health monitoring).

Travel-related measures at later stages of a pandemic

If the situation worsens overseas and there is extensive and sustained transmission in other countries, Epi Unit and Port health departments might consider these actions:

• Distribute travel health alert notices to passengers arriving from affected countries (i.e., countries for which health warnings have been issued).

• Post travel health alert notices in airports (e.g., on posters)

• Arrange with airline industry partners to show videos or public announcements about pandemic influenza on airplanes or ships arriving from affected countries.

• Recommend canceling or limiting nonessential travel to affected countries.

• Collect information on all arriving passengers if notification is warranted (e.g., for antiviral administration, vaccination, or health monitoring).

Decisions regarding the implementation of these actions may depend on how widely the pandemic disease has spread within Saint Lucia.

Other potential control measures might include increasing disease surveillance among passengers arriving from affected countries by visually inspecting travelers as they disembark, screening travelers for fever or other influenza symptoms, or administering questionnaires on possible exposures to influenza (e.g., contacts with influenza patients or visits to high-risk areas).

Travel out of Saint Lucia

If the level of influenza transmission in the country presents a high risk for exportation of disease, Epi Unit and Port Health should consider the following actions:

• Distribute travel health warnings to outbound passengers who live in or have visited affected areas.

• Recommend the cancellation of nonessential travel to other countries from ports of entry in affected areas.

• Implement pre-departure screening (e.g., temperature screening or visual screening) of outbound travelers.

Travel within Saint Lucia

If the level of influenza transmission is high in one district and most other districts have not yet been affected, Epi Unit and local health authorities might decide to recommend limiting travel to that area or to implement increased disease surveillance measures.

Other containment measures and travel restrictions to slow disease spread within Saint Lucia that might be considered include:

• Distributing travel health alert notices on buses

• Closing mass transit systems (e.g., buses and taxis etc)

Annex 10 - Capacity and Resources available in the Health Services Network

Outpatient Care

• **Number of outpatient care facilities in government health services network in each territorial jurisdiction.**	**No of Health Centers**: **33** **Regions** ----- **HC** • Region 1------ 3 • Region 2------ 2 • Region 3------ 3 • Region 4------ 4 • Region 5------ 5 • Region 6------ 7 • Region 7------ 4 • Region 8-------7
• **Human resources available for outpatient care, (physicians, nurses and respiratory therapist).**	**Community level**: • Physicians------ 13 DMOs • CHN ---------- 45 • CH Aids---------- 69 • Attendants------- 40 Polyclinic: • Nurses ---------- 4 • Doctors --------- 3 Respiratory Therapist**:** •
• **Outpatient care personnel in charge of respiratory therapy.**	• Respiratory Therapist in charge : -----
• **Knowledge and/or registries of social organizations, private, etc., e.g. Red Cross, Rotary, O.N.G.**	• Red Cross: ---- 4 • St John ambulance: ---- 4

Availability o**f:** • **Drugs, antibiotics, antiviral, others** • **Supplies and equipment for infection control** • **Personal protection equipment**	• Antibiotics: ----- • Antivirales ------ • Supplies and equipments for Infection Control: ------- • PPE: -----

Hospital Care

• **Number of government hospital facilities in the health services network, disaggregated by territorial jurisdiction (if corresponds).**	**No of government Hospital facilities: 4** **Region 8:** • Victoria Hospital : Nurses ----- 165 Doctors ---- 43 Respiratory Therapist ---- • Golden Hope: Nurses ------- 17 Doctors ------ 4 Nursing Assistants --- 6 • Turning Point: Nurses ------- 2 **Region 5:** • St Jude Hospital: Nurses ------ 78 Doctors ----- 28 Respiratory Therapist ---
• **Number of hospital facilities of the private care network.**	**No of Private Hospitals: 1** Tapion Hospital

• **Total number of beds available by health services facility network (government).**	**No of beds by health services facility:** • St Jude Hosp: --------- 88 • Victoria Hosp: --------- 164 • Soufriere District hosp: 22 • Dennery District hosp: 21 • Golden Hope: -------- 162
• **Total number of beds available by private care network facility.**	**No of beds by private care facility:** • Tapion Hosp: -------
• **Total number of emergency beds available (intermediate and intensive) by health services network.**	**Emergency beds available in public services:** • Victoria Hosp: ----- 2 • St Jude hosp: ----- 2
Total number of emergency beds available (intermediate and intensive) by private care facility network.	**Emergency beds available in private services:** • Tapion hosp: ----
• **Availability of equipment that sustains the current critical care activity in the health services facility network.**	**Availability of equipments**: • Ventilators: Victoria hosp: --- 7 St Jude hosp: --- 1
• **Availability of human resources that sustain the current critical care activity.**	**Availability of human resources in critical care** • Victoria Hosp: ----- 2 • St Jude hosp: ----- 2

• **Indicators of current hospital management; occupancy rates, average length of stay, etc.**	• **Average length in days in a hospital non ICU (bed for Influenza related illness)** Victoria Hosp: -----4 days St Jude hosp: ----- 4 days • **Average length in days in a hospital ICU (bed for Influenza related illness)** Victoria Hosp: -----5 days St Jude hosp: -----5 days
Availability of: • **Drugs, antiviral, antibiotic and others** • **Supplies and equipment for infection control** • **Personal protection equipment**	• Antibiotics: ----- • Antivirales ------ • Supplies and equipments for Infection Control: ------- • PPE: -----

Annex 11 – Contact Information of National Response Team

The** Contact Information of National Response Team **is part of the National Pandemic Influenza Plan and is a stand alone document.