Business Continuity Planning in the Event of an Influenza Pandemic:
A Reference Guide

The newest threat facing AMWA members is the possibility of an influenza pandemic caused by H5N1 – an avian strain with pandemic potential. According to the World Health Organization (WHO), concern about an influenza pandemic is real and recurrent but still rare. However, for eight years WHO and other health experts have been monitoring H5N1-- a particularly severe strain of influenza virus.

Influenza pandemics happen when a new viral subtype emerges that has not previously circulated in humans. H5N1 has infected humans but only those in close contact with infected birds. A fully contagious virus that could be passed from human to human has not yet emerged although the possibility exists.

The public health community and the federal government are taking the threat very seriously. Their unease is based on the continued and expanded spread of the highly pathogenic - and now endemic - avian H5N1 virus across eastern Asia and other countries. The H5N1 virus has raised concerns about a potential human pandemic because:

- It is especially virulent,
- It is being spread by migratory birds,
- It can be transmitted from birds to mammals and in some limited circumstances to humans, and
- Like other influenza viruses, it continues to evolve.

Business Continuity Planning Assumptions

The North American Electric Reliability Council (NERC) has developed ten parameters for purposes of business continuity planning for an influenza pandemic. Many, if not all, of the assumptions appear appropriate for AMWA members. For your reference the assumptions are listed below followed by a checklist of possible actions. (Please remember these are not predictions but assumptions you could use for situational planning.)

1. The timing of the outbreak of a pandemic is uncertain and depends on many factors.
2. Once human-to-human transmission begins, the disease will spread very rapidly around the world within three to eight weeks.
3. Attack rate for the general population is expected to be in the range of 25 percent and these people would be very ill for up to a week.
4. Absentee rates for employees may be in the range of 35 percent for the duration of the pandemic due to illness and other factors such as needing to take care of family members. The pandemic could last for up to 6 months. Absentee rates will not be uniform across an

organization and will be caused by employee illness as well as family care issues, inability to get to work, etc.
5. Persons who contract the virus are not expected to contract the virus a second time due to a build up of immunity. However, if the virus mutates, recurrences for the same individual would be possible.
6. Personnel will need to be managed differently to conduct essential business processes and to minimize the spread of the virus.
7. Not enough anti-viral medicines or vaccines will be available for the entire population. There may be none in the early stages and then limited quantities for select populations. Anti-viral medicines, such as Tamiflu, present a variety of difficult issues such as availability, effectiveness against specific virus strains and dosage levels for pre-infection prevention as compared to post-infection treatment.
8. A pandemic will strike in at least to waves, each lasting six to eight weeks. The first wave will peak in three to four weeks. The second wave will be three to six months after the first and will likely be stronger than the first. There may also be a third wave with characteristics similar to the second.
9. It will be important to provide accurate and timely information distribution to employees, labor organizations and government before and during the pandemic.
10. Interdependencies with other sectors as well as contractors and suppliers will be severely tested during an influenza pandemic.

Pandemic Influenza Checklist

The following checklist is intended to provide utility management with "food for thought" when considering what steps might be warranted in light of the current information on a potential pandemic. The checklist is not a cookbook but identifies specific activities utilities could use to prepare. The list was culled from a variety of resources including CDC, WHO, NERC, Business Roundtable, etc.

The Checklist is divided into six key areas:

I. Develop Plans
II. Develop Policies
III. Conduct Training, Drills and Exercises
IV. Provide for Protective Equipment and Prepare Facilities
V. Prepare Response Actions
VI. Maintain Awareness and Communication Channels

Pandemic Influenza Checklist

Key Actions	Status		
I. Develop Plans	**Completed**	**In Progress**	**Not Started**
1) Develop appropriate response plans and procedures including:			
a) Provide for the recognition of the threat, and appropriate response levels.			
b) Identify critical functions of the organization that must be kept in operation.			
c) Identify functions of the organization that can be suspended.			
d) Define the roles and responsibilities of employees, labor organizations, staff, supervisors, managers, and staff medical personnel during a pandemic.			
e) Develop an emergency communications plan that includes key contacts, back-ups, medical contacts, communication chains and processes to track and communicate employee status.			
f) List(s) of staff critical to basic functionality of the organization.			
g) Put in place plans to have an increased number of employees work from home. Ensure I.T. systems infrastructure can support this action.			
h) Plans and procedures should include providing support and assistance from human resource staff to employees' families.			
2) Consider the need to separate the workforce to establish independent locations, and/or preserve a "clean" site.			
3) Consider expanding the use of teleconferencing and videoconferencing to limit the frequency of meetings and other types of face-to-face contact.			
4) Consider security issues and the limitations law enforcement agencies will face during influenza pandemic.			
5) Consider developing joint operational plans with service providers, suppliers and key customers.			

6) Evaluate potential financial and budget impacts of interrupted operations, reduced revenues as well as unusual supply, material and personnel costs.			
7) Evaluate potential insurance costs for increased medical costs.			
8) Consider the need to send home non-critical staff.			
9) Consider the need and conditions for more extreme measures such as sequestering on-site critical staff.			
10) Identify key customers with specific needs including first responders and hospitals.			
11) Identify critical inputs necessary to maintain safe water, i.e. chlorine, treatment chemicals.			
12) Delineate accountability and responsibility, capabilities, and resources for key employees engaged in planning and executing specific components of the operational plan. Assure that the plan includes timelines, deliverables, and performance measures.			
13) Formalize agreements with neighboring systems and address communication, mutual aid, and other needs.			
II. Develop Policies	**Completed**	**In Progress**	**Not Started**
1) Develop/update staff travel policy, including possible provisions for quarantine after returning from an area where an outbreak has occurred. This would apply to work and non-work related travel.			
2) Develop/update meeting policy.			
3) Develop a visitor's policy including a sign-in process that is to be implemented in the event of an employee health incident or threat.			
4) Consult with health authorities to update confidentiality policies to manage staff that potentially has been exposed, to allow effective exposure tracking to be			

completed.			
5) Develop/update telecommuting policy for office staff.			
6) Develop/update policies for employee compensation and sick leave absences unique to a pandemic.			
7) Develop/update workforce deployment policies regarding teams and crews working together and the potential need to keep employees separate.			
III. Conduct Training, Drills and Exercises	**Completed**	**In Progress**	**Not Started**
1) Periodically test and verify preparedness plans and procedures via a simulation exercise, tabletop exercise or process walk through.			
2) Test the IT infrastructure to verify its capability to perform under pandemic conditions (more employees working from home, increased teleconferencing and videoconferencing).			
3) Train and prepare ancillary workforce, i.e. contractors, employees in other job titles/descriptions, retirees.			
IV. Provide for Protective Equipment and Prepare Facilities	**Completed**	**In Progress**	**Not Started**
1) Contract with a company that will clean/disinfect computer equipment, common areas, work stations, etc.			
2) Provide each workstation with a disinfecting agent in a spray bottle, a package of paper towels, and a package of latex gloves.			
3) Determine what personal protective equipment will be effective and consider acquiring sufficient quantities (masks, gloves and gowns). Availability of critical personal protective equipment may approach zero during the onset of influenza pandemic. Some masks deliver better speech clarity than others. Some masks are designed to protect the person			

wearing the mask; other masks protect exposure of others from the person wearing the mask.			
4) If on-site cafeteria, stock up on water, beverages, and food, especially items that require heating.			
5) If appropriate, isolate the building, post signs stating temporary quarantine at all exits, and restrict electronic card access to critical staff.			
V. Prepare Response Actions	**Completed**	**In Progress**	**Not Started**
1) By Employees			
a) When an employee has contracted or suspects that they have contracted a virus or have been exposed to a virus, the employee is to seek medical attention and advise his/her supervisor.			
b) Supervisor contacts the company medical or occupational health nurse to follow up on the employees.			
c) Implement a process such that all employees/visitors to critical facilities are subject to an appropriate screening questionnaire to aid in identifying whether or not they are a potential risk, (i.e. have you visited a high risk location in the past week?). Post screening questionnaire(s) at all entrances.			
d) If appropriate, contract a cleaning service/agency and request the disinfection of the affected employees workstation and shared work areas as well as all shared equipment and facilities (including washrooms, kitchen areas and meeting rooms). Assess the need for separation of staff.			
e) Close non-critical common areas, such as exercise room, or even cafeteria. If the pandemic has resulted in a “lock down” in critical operating functions (control rooms), determine how employees will be accommodated.			
f) Assess the need to direct staff to maintain an appropriate distance from each other.			

g) Assess the need for complete separation of staff including the activation of any backup facilities.			
h) Assess the need to vacate non-critical staff from the site.			
i) Provide regular communication to all staff of the latest medical advisories and recommend adherence to all suggested actions.			
j) Provide on-site critical operations staff with personal protective equipment.			
k) Notify all staff on site to leave their full name, employee ID, and after-hours contact number(s), including numbers where they may be potentially located, such as parents, other family etc. Instruct all employees when they will be allowed to return to work, i.e. the following business day, not until notified etc.			
l) Have visitors provide their home and site/company as well as an after-hours contact number(s) for follow-up.			
2) By Medical Resource			
a) Liaise with senior management			
b) Provide regular communication to all staff on the latest health advisories and recommendation adherence to all suggested actions.			
c) Provide regular communication to all staff on any additional pandemic specific requirements or information.			
d) Advise that the antibacterial waterless hand cleaner, antibacterial cleansers, and/or wipes will be placed at key communal areas (washrooms, kitchens, and workstations).			
e) Advise any exposed employee to contact their doctor and to adhere to the advice given.			
f) Advise any exposed employee to contact their supervisor immediately.			
g) Advise the exposed employee not to return to work until directed to do so by their supervisor and to follow policies in place.			
h) Request exposed employees to keep			

supervisors informed of their condition.			
VI. Maintain Awareness and Communication Channels	**Completed**	**In Progress**	**Not Started**
1) Medical resource should monitor for health threats via official bulletins or web sites.			
2) Provide employees, labor organizations, staff and decision makers with the most up-to-date information available by documenting specific characteristics of the contagion, such as the following:			
a) Mechanisms(s), speed, and ease of transmission by the contagion is spread, and mode(s) of transmission, such as touch, airborne, etc.			
b) Time the contagion remains active on surfaces such as door handles.			
c) Incubation period, the time to exhibit symptoms, and maximum contagious period.			
d) Expectations of employees, supervisors and managers to help reduce the risk of spreading the disease.			
3) Initiate a business continuity planning process to establish accountabilities, and identify the criticality of operations including mutual interdependencies, the loss of which would have a direct and serious detrimental impact on the public.			
4) Identify those functions critical to continued operations, and identify the people needed to fill those positions. Pre-screen critical staff to ensure their willingness to receive an antiviral vaccine given the side effects that may occur. Involve human resources staff as well as established mechanisms such as joint health and safety committees early.			
5) Communicate early and regularly with staff, and include recommendations to minimize potential transfer of infectious agents within company facilities, so that these measures can be practiced and internalized.			
6) Collaborate with the local public			

health unit or department on the enumeration of antiviral shot recipients for staff performing critical functions in the event of an influenza outbreak.			
7) Collaborate with local and/or state public health agencies and/or emergency responders to participate in their planning processes, share your pandemic plans, and understand their capabilities.			
8) Communicate with local and/or state public health agencies and/or emergency responders about the assets and/or services your facility could contribute to the community.			

Below are websites that may proves useful in keeping up to date on this issue:

http://www.pandemicflu.gov
http://www.who.int/csr/disease/avian_influenza/en
http://www.cdc.gov/flu/avian/index.htm