Guidelines on Influenza A (H1N1) Pandemic Preparedness for Business Continuity in Non-Health Sectors

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<table>
<thead>
<tr>
<th>S.No.</th>
<th>Title</th>
<th>Page no.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Glossary</td>
<td>2</td>
</tr>
<tr>
<td>2.</td>
<td>Introduction</td>
<td>3</td>
</tr>
<tr>
<td>4.</td>
<td>Recommendations for Supply of Food &amp; Essential Commodities</td>
<td>8</td>
</tr>
<tr>
<td>5.</td>
<td>Recommendations for Law and Order</td>
<td>10</td>
</tr>
<tr>
<td>6.</td>
<td>Recommendations for Water Supply</td>
<td>12</td>
</tr>
<tr>
<td>7.</td>
<td>Recommendations for Transportation – Surface Transport/Shipping</td>
<td>14</td>
</tr>
<tr>
<td>8.</td>
<td>Recommendations for Transportation – Civil Aviation</td>
<td>16</td>
</tr>
<tr>
<td>9.</td>
<td>Recommendations for Railways</td>
<td>18</td>
</tr>
<tr>
<td>10.</td>
<td>Recommendations for Information and Communication</td>
<td>20</td>
</tr>
<tr>
<td>11.</td>
<td>Recommendations for Power Sector</td>
<td>22</td>
</tr>
<tr>
<td>12.</td>
<td>Recommendations for Commerce and Industry</td>
<td>24</td>
</tr>
<tr>
<td>13.</td>
<td>Recommendations for Rural Sector</td>
<td>26</td>
</tr>
<tr>
<td>14.</td>
<td>Recommendations for Finance Sector</td>
<td>28</td>
</tr>
<tr>
<td>15.</td>
<td>Recommendations for Defence</td>
<td>30</td>
</tr>
</tbody>
</table>
1. Glossary:

Pandemic
Refers to a state where an infectious disease spreads through a large population across a wide geographical region which may be a continent or even worldwide.

Outbreak
It refers to a sudden increase in health emergency in a local area, community, country or few countries yet not meets standards of pandemic laid down by WHO.

Essential Service Providers
Departments, organisations, institutes, establishments, companies, individuals involved in providing basic need for survival e.g., agriculture sector & food supply, water purification & water supply, health care, transportation, finance, power and telecommunication etc.

Security Services / Personnel
Defence, Police and other law enforcing forces, hired security personnel at various business enterprises and public sector are critical masses for maintaining of essential services.

Other Allied and Support Services
Information technology, special care services in place to take care of old, displaced and vulnerable groups and any service, the failure of which is critical to security and/ or provisions of essential service.

Workplace Resilience
It is the ability of workplace to recover quickly from critical and non critical infrastructural/organizational change during or after disaster or a pandemic.

Critical Site
The working or functionary unit of any organization, ministry / department without which its functionality will no longer be operational is called as critical site.

Personnel Resilience
It is the ability of person to recover quickly from illness, change, or disaster or pandemic.

PPE
Personal Protective Equipment (PPE) refers to protective clothing, helmets, goggles, or other garment which is designed to protect the wearer's body or clothing from injury by electrical hazards, heat, chemicals, and infection, for job-related occupational safety and health purposes.

Tamiflu and Relenza
Tamiflu (Oseltamivir) and Relenza (Zanamivir) are antiviral drugs that are used in the treatment and prophylaxis of Influenza A virus.

Business continuity/ recovery plans
Business continuity planning (BCP) is the creation and validation of a practiced logistical plan for how an organization will recover and restore partially or completely interrupted critical (urgent) functions within a predetermined time after a disaster or extended disruption. The logistical plan is called a business continuity plan. BCP may be a part of an organizational learning effort that helps reduce operational risk associated with lax information management controls. This process may be integrated with improving information security and corporate reputation risk management practices.
2. Introduction

The world is getting affected by emergence of Influenza A (H1N1) virus that might have originated either in swine and then shifted from swine to humans or due to a super-infection in humans by an unknown variant with variable genetic mix. As on 18th May, 2009, 40 countries are affected with officially reported 8829 cases (74 deaths) with Mexico – 3103 affected (68 deaths), US 4714 affected (4 deaths), Canada 496 (1 deaths) and Costa Rica - 9 cases (1 death) respectively. Nearly 1/3rd of world population is expected to be affected. One confirmed case has been officially reported from India.

2.1 About Virus and its Effects:

A genetically reassorted endemic strain of human, avian flu and swine flu, with an inherent ability to mutate continuously has developed a subtype [Influenza A (H1N1) virus] and is causing present flu in humans. The generic symptoms include fever, cough, sore throat, body ache, headache, chills and fatigue. The 2009 outbreak has shown an increased percentage of patients reporting specifically diarrhoea and vomiting. Influenza viruses bind through hemagglutinin onto sialic acid sugars on the surfaces of epithelial cells; typically in the nose, throat and lungs of mammals and intestines of birds. The above mentioned symptoms are not specific only to influenza A (H1N1) infection and therefore it is essential to do confirmation by laboratory testing of nasopharyngeal samples (nose and throat swabs).

2.2 Present Drugs of Choice:

The health agencies recommend Oseltamivir (Tamiflu *) to both prevent and treat influenza A and B virus infection in people with one year of age and older while Zanamivir (Relenza *) will be used to treat influenza A and B virus infection in people with 7 years and older and to prevent influenza A and B virus infection in people with 5 years and older age. All these treatment efforts will be undertaken within 48hrs of appearance of symptoms. Thus, stockpiling of these drugs is necessary.

2.3 Problem of Drug Resistance:

The mutational behavior of H1N1 is a major future challenge for pharmacotherapy. It has been observed that people use these anti viral drugs even for normal seasonal flu, which may be the reason for development of resistance with time. It is therefore important to ensure that these drugs are made available on medical prescriptions only and at selected government outlets. Government of India has also imposed a complete ban on sale of Tamiflu through retail outlets. Another approach is to develop novel vaccines against the H1N1 virus to prevent further spread of virus.

2.4 Pandemic Alert 5:

WHO is the nodal global agency for the management of a pandemic. It has defined the phases with respect to spread of the disease to different countries under different WHO zones. It has issued phase 5 pandemic alert against H1N1 viral infection on 29th April, 2009 for which detection and identification, laboratory confirmation (non-confirmed, though suspected ones, need to be traced); isolated and then quarantined; immediate reporting to WHO and regional networks, initiate treatment; high alert at source place are necessary containment measures to be undertaken based on risk assessed.
2.5 Impending Alert 6:

The higher phase (Pandemic Alert 6) may also be issued by WHO, and accordingly all the member states will respond to that alert. Getting the experience from past flu pandemic in 1918-19, it could be anticipated that at any time, the situation may shift to phase 6. As the severity enhances, the number of affected personnel gradually decrease the working strength causing direct impact on economy. The decrease in work functionaries is proportional to loss of essential functions which leads to a vicious cycle of social disruption. It includes both health and non health emergency functionaries.

In view of this, necessary business continuity planning of essential service providers needs to be undertaken on priority utilising this latency period between two consecutive waves of pandemic and present gap between phase 5 and 6 of first wave. Therefore, necessary plans are prepared by the nodal ministry/department concerned on following subjects:

a) Crisis Management Health Plan.

b) Business Continuity Plan for Non-Health Sectors.

The present document deals with business continuity preparedness planning by non-health sectors. The business continuity planning is interlinked and is required to be build up with following assumptions in mind:

1. Expected absenteeism may go up to 70%.
2. The gap between the phase 5 and 6 needs to be utilised for business continuity planning.
3. Based on earlier experience of 1918-19 Flu pandemic, it is well understood that pandemics generally comes in different waves; the first wave (existing period of phase 5) will be taken as an opportunity to build capacities during the latency period (between two consecutive waves) so as to mitigate the impact in next wave. This period might also be used to upgrade the present plan.
4. Every service provider needs to be assured that other services in their optimal set up are available.
5. Financial institutions remain operational.
6. Decision makers will follow chain of command to ensure continuity and to avoid delays and associated panic.
7. Ensure availability of essential products.

2.6 The important non-health services identified in National Workshop on Pandemic Preparedness Beyond Health held on 21-22 April, 2008 include:

I. Supply of food and essential commodities
II. Water Resources
III. Law and order
IV. Transportation—Surface Transport & Shipping
V. Transportation—Civil Aviation
VI. Transportation—Railways
VII. Information and Communication
VIII. Power
IX. Commerce and Industry
X. Rural Sector
II. Defence

III. All the other ministries also need to develop their business continuity operational plans taking this document as underlying base.

These services are interlinked for business continuity of essential functions across the country. These departments are required to work in coordination and synergy to achieve the goal of business continuity. The present document provides the template for development of various business continuity plans at central, state and district level by nodal departments concerned.

2.7 Institutionalised Framework for Maintenance of Operations:

I. At Central level, Ministry of Health and Family Welfare (MoH&FW) is the nodal ministry with their Crisis Management Group as the focal point, which in turn, reports to National Crisis Management Committee (NCMC) and National Disaster Management Authority (NDMA). The Inter Ministerial Task Force (IMTF) has been constituted under the chairmanship of Health Secretary which is reviewing the status at regular intervals.

II. At State level, the State Crisis Management Group under their chairman ship of Chief Secretary with Principle Secretary or Secretary, Health as convener, constituting all the departments concerned with provisions of essential services. It also includes the representatives of Central Government dealing with essential services as mentioned in the present document. The State Crisis Group will meet daily and control rooms will operate on 24 X 7 basis. The State Crisis Management Group will send daily reports to MoH&FW, which in turn will send a consolidated report to NCMC and NDMA respectively.

III. At District level, the District Crisis Management Group will be focal functionary under the chairman ship of District Collector/Deputy Commissioner / District Magistrate, District Medical & Health Officer as convener with all the district officers heading the departments dealing with essential services. It also includes the representatives of Central Government dealing with essential services as mentioned in the present document. The District Crisis Management Group will meet and send daily reports to State Crisis Management Group.

2.8 Awareness Generation Programmes at all Levels:

States will conduct sensitization programmes, workshops, table tops and mock exercise for pandemic awareness generation. The mock exercises will help in filling up of the gaps identified in the plans and better understanding of the said guidelines.

2.9 Coordination/ Reporting Mechanism

2.9.1 Central Level Operations

a. Information from all critical sites will be received by the Nodal Officer of respective ministry / department and/or Crisis Management Group.

b. The information will be analysed critically and checked whether it has compiled all the vital issues mentioned above and eventually a weekly status report of essential service provisions will be prepared.
c. The report will enumerate the following:
   i. Various limitations to both manpower and resources and recommendation to utilise optimal contingencies to meet the enhanced demands.
   ii. Future actions which will be undertaken to meet the demands (specifying cooperation/actions of any linked department/ministry, if required).

d. These reports will be sent to MoH&FW, NCMC, NDMA and all the line departments concerned.

e. Based on the analysis of reports from various essential service providers, NCMC will decide the future course of action by pooling in of resources to meet the identified contingencies.

f. All the departments concerned will conduct table top exercises to test their SOPs/plans for management of pandemic and continuity of operations.

g. The Inter Ministerial Task Force (IMTF) on Avian Influenza and Pandemic Influenza has been setup for Inter-Ministerial coordination amongst Government Ministries/Departments/Agencies on matters pertaining to Avian Influenza and Pandemic Influenza.

2.9.2 State / District Level Operations

a. Information from all critical sites will be received by the nodal officer of district Crisis Management Group followed by analysis of the factual information and an action taken report (inclusive of future requirements) will be sent to state crisis management group.

b. The information will be analysed critically and checked whether it has compiled all the vital issues mentioned above along with any relevant information pertaining to local factors and eventually a weekly status report of essential service provisions will be prepared.

c. The report will enumerate the following:
   i. Various limitations to both manpower and resources and recommendation to utilise optimal contingencies to meet the enhanced demands;
   ii. Future actions which will be undertaken to meet the demands (specifying cooperation/actions of any linked department/ministry, if required).

d. These reports will also be sent to MoH&FW, NCMC, NDMA and all the line departments concerned at central level.

e. Based on the analysis of various state reports, NCMC will decide the future course of action by pooling in of resources to meet the identified contingencies at state/district level.
The present document has been developed by NDMA in consultation with MoH&FW, and Ministry of Home Affairs based on the following documents:

a) National Disaster Management Guidelines - Management of Biological Disasters

b) Proceedings of National Workshop on "Pandemic Preparedness Beyond Health" conducted on 21-22 April, 2008 by NDMA, United Nations Disaster Management Team, India, Pandemic Influenza Contingency Team, Geneva and Regional Planning Officer, OCHA Regional Office for Asia

c) Pandemic Influenza Preparedness and Response - A WHO Guidance; April 2009

3. Basic Features of Business Continuity Planning - Workplace Resilience and Personnel Resilience

3.1 Ensuring Work Place Resilience

Mechanism of monitoring any sick person and providing necessary medical attention / help by a trained team within the organisation (avoiding cross contamination) and immediately shifting to earmarked medical facility for follow up.

I. Protocols on group distancing
   a. Protocols on seating inside the office to ensure a distance of minimum one meter from next employee.
   b. Closure of common areas, meeting rooms, cafeteria etc.
   c. Instead of group meets, information needs to be exchanged through video conferencing, on-line information exchange and e-mailing etc.

II. Protocols on wash rooms such as sensor activated or foot operated washes with "U" shaped entry / exit without doors based on need assessment.

III. Identifying/ equipping employee quarantine room in each location.

IV. Centralised Air-conditioning to be avoided.

V. Protocols on "Deep" or thorough cleaning of workplace during working and non working hours.

VI. Protocols for authorised permission to access earmarked critical locations on need basis by maintenance of essential service / personnel.

VII. Dissemination of Dos' and Don'ts to workforce.

3.2 Ensuring Personnel Resilience

I. Identification of critical skills followed by selection of employees with those skills.

II. Procure supply of Personal Protective Equipment (PPE) for critical staff.

III. Protocols on group distancing for vehicle pick and drop for employees.

IV. Protocols on self evaluation mechanism for employees to determine infection risk, and additional screening at point of entry into office premises.

V. Methodology for identification of Backup Resources and succession planning for critical resources with requisite training.

VI. Work from home strategy, thereby reducing the number of workforce at office premises.
## Information and Communication

<table>
<thead>
<tr>
<th>Nodal Ministry/Department</th>
<th>Line Ministries/Departments/Linked Ministries/Departments</th>
<th>Action points to develop plans and SOPs for ensuring continuity of operations and to maintain the essential services in place</th>
</tr>
</thead>
</table>
| Ministry of Information and communication technology | 1) Ministry of Finance  
2) Ministry of Home  
3) Ministry of Defence-Strategic operations and contingency support  
4) Others as identified by nodal ministry/department | (A) Ensuring continuity of operations  
1) Identification of the critical sites and maintenance of optimal connectivity using ICT (Information, Communication and Telephony) tools from controlling unit.  
2) It is a sector which has a number of service providers, which themselves act as full fledged organizations and also huge infrastructure to support the connectivity and remains operational 24 X 7.  
3) The failure of this critical sector will eventually halt the complete economic process.  
4) All the service providers need to work in harmony such that a fair price system will be developed across the networks to provide sustained connectivity by pooling their resources.  
5) The business continuity planning for all the interconnected organization needs to be developed for maintenance of all critical operations  
6) Each critical site has a defined number of personnel doing assigned roles. It is pertinent to identify critical functions to operate the functions of nodal ministry/department  
7) Shutting down of non critical sites and surplus manpower will be diverted as per requirement.  
8) Defining chain of command to take decisions on absenteeism (management with selective staff).  
9) Identification of work areas and personnel concerned with essential activities and develop a mechanism of replacement/rotation to maintain the morale of total workforce  
10) Build required redundancy in transport mechanism to avoid complete dependence on the other sector  
11) SOPs for group activity for various actions to be undertaken by any group within critical sites requiring effective management in limited resources. |
12) Necessary directions will be given to maintain the buffer stocks and all procurement of essential commodities will follow the principle of Very essential for survival, less essential but usable for long term storage followed by least essential.

13) Standards of PPE will be laid down and proactive measures will be taken for mass distribution in highly affected areas in impending Phase VI.

14) Dissemination of Dos' and Don'ts to workforce

(B) The above guidelines must be read in conjunction with guidelines on Ensuring Work Place Resilience and Personnel Resilience. Please see section 3; page no 7.