Human Cases of Swine Flu (Influenza A H1N1) Confirmed in Nepal

Dr. Durga Datt Joshi
Executive Chairman, NZFHRC
Introduction

- Swine flu is a viral zoonotic respiratory disease found in pigs and it is caused by the type A influenza virus that transmits to humans.
- World Health Organization (WHO) warned different countries that the virus had the potential to become a pandemic, labeling the current outbreak "a public health emergency of international concern."
- During the year 1918 Swine influenza (SI) was first observed at the time of the pandemic in humans and since that time subtypes H1N1 and H3N2 have been widely reported in pigs, frequently associated with respiratory disease.
Swine flu is a respiratory disease which infects pigs but also people, typically those who have been in contact with pigs.

**Symptoms in humans**
People-to-people transmission is through coughing, sneezing

**The virus**
Influenza A subtypes: H1N1, H1N2, H3N1, H3N2, H2N3

New "reassortant" virus forms when genes from different viruses begin to mix

When flu spreads person-to-person, rather than from animals to humans, it can continue to mutate, making it harder to treat or fight off

**Incubation time 5-10 days**

There are no vaccines that contain current swine flu virus causing illness in humans

**Precautions advised**
- Very frequent hand washing
- Stay at home if you are sick
- Cover your mouth when coughing and sneezing
- Avoid touching your eyes and nose

Source: World Health Organization

Source: The Kathmandu Post, August 15, 2009
• FAO underlines the great value of the influenza veterinary laboratory network called OFFLU.

• The most notorious flu pandemic is thought to have killed at least 40 million people worldwide in 1918-19. Two other, less deadly flu pandemics struck in 1957 and 1968.
खोटाइको दिनका बजारमा बंगुर पाड़ा खरिद बिक्री गरिदै। एक हजारदेखि १५ सय रुपैँ सह पनि बंगुर पाड़ा बिक्रीबाट किसानले मनाये फाइदा लिने गरेका छन्।

तिब्बि: उमेत राई/ नयाँ पत्रिका

Source: Naya Patrika, May 4, 2009 Photo by: Umet Rai
In children, emergency warning signs that need urgent medical attention include:

- Fast breathing or trouble breathing
- Bluish or gray skin color
- Not drinking enough fluids
- Severe or persistent vomiting
- Not waking up or not interacting
- Being so irritable that the child does not want to be held
- Flu-like symptoms improve but then return with fever and worse cough

In adults, emergency warning signs that need urgent medical attention include:

- Difficulty breathing or shortness of breath
- Pain or pressure in the chest or abdomen
- Sudden dizziness
- Confusion
- Severe or persistent vomiting
- Flu-like symptoms improve but then return with fever and worse cough

Source: pandemicflu.gov
Nepal has remained largely untouched for human death cases so far by swine flu despite the heavy toll it has been taken in India, where close to 200 people have already died.

So far, in Nepal only 88 people have contracted the virus here.

Of these, two were foreign tourists and rest 86 were Nepali workers returning from abroad as well as children.

There are more than 35,000 people having symptoms of flu like visited to different hospitals of the country for the diagnosis of swine flu so far.
In India, there were more than 200 swine flu cases.

Source: The Time of India October 2009 photo by Rupall Mukherjee/TNN
NEPAL WAKES UP TO THE THREAT

Source: The Kathmandu Post, April, 30, 2009
These numbers may understate the flu's true prevalence since the spot checks conducted at Tribhuvan International Airport, where the government has a health desk to scan new arrivals for symptoms of the flu are inadequate.

"It's almost impossible to screen everyone that comes across the border.

There are currently 50 checkpoints along the border, 18 of which see a lot of traffic, but seven of these are ill-equipped.

Besides these border checkpoints and the airport health desk, Nepal's preparations include 40 rapid response teams across the country, a number of surveillance teams.
• WHO has declared the event as Public Health Emergency of International Concern under [International Health Regulation (2005)].
• WHO Director-General Margaret Chan noted the virus had "quickly demonstrated its capacity to spread easily from one person to another, to spread widely within an affected country and to spread rapidly to additional countries."
• The WHO has declared the swine flu death number worldwide is 7,826 November 28, 2009.
HIGH ALERT: Following the government’s announcement of high alert against swine flu, general public in Kathmandu valley seem to be taking precautionary measures by wearing masks. (Photo: Ramesh/TRN)

Source: The Rising Nepal, July 1, 2009 (Photo by Ramesh/TRN)
Swine flu
As of May 20th 2009

Confirmed cases 10,243
Confirmed deaths 80

Source: WHO
Risk of Spread

- Extreme risk
- High risk
- Medium risk
- Low risk

maplecroft
New Influenza A (H1N1),
Number of laboratory confirmed cases as reported to WHO

Status as of 03 June 2009 06:00 GMT

The boundaries and names shown and the designations used on this map do not imply the expression of any opinion whatsoever on the part of the World Health Organization concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries. Dotted lines on maps represent approximate border lines for which there may not yet be full agreement.

Total
19,273 cases
117 deaths

Chinese Taipei has reported 14 confirmed cases of influenza A (H1N1) with 0 deaths. Cases from Chinese Taipei are included in the cumulative totals.

Data Source: World Health Organization
Map Production: Public Health Information and Geographic Information Systems (GIS)
World Health Organization

©WHO 2009. All rights reserved

Map produced 03 June 2009 07:28 GMT
Objectives

• To carry out swine flu surveillance study among all people traveling from abroad at the Tribhuvan International Airport (TIA) Kathmandu as well as main border health check posts with India and People Republic of China.
Methodology

- After the onset of swine outbreak in India the government of Nepal established seven swine flu screening desks at Nepal-India border checkpoints and one at TIA.
- The government has maintained Rapid Response Team at 75 places across the country. Since June 29, the day when the first case of Influenza AH1N1 was found in Nepal, government of Nepal the Ministry of Health and Population has developed a response plan with the technical support of World Health Organization.
- It has deployed surveillance systems across the country.
Government of Nepal
Ministry of Health and Population
New A (H1N1) Screening Card

Do you have?

Fever Yes □ No □ AND
Cough Yes □ No □ OR
Sore Throat Yes □ No □ OR
Shortness of Breathe Yes □ No □

If you develop the above symptoms in the next 7 days, kindly contact the following number for further details.
01-4255796

Name: _______________________________________Passport No.: ___________ (Country: _____________)
Flight No.: _______________ Seat No.: _______________
Contact Address in Nepal: ______________________________________________
Contact Number in Nepal: _____________________________________________
Clinical examination of all the passenger at the Kathmandu airport by medical team.
Swine flu transmission route to Nepal

Source: Himal News Paper Weekly, 1-16 September, 2009
Swine Flu Diagnostic Facility in Nepal

- There is only one laboratory doing diagnostic in Nepal that is National Public Health Laboratory (NPHL) which is located in Kathmandu.
- The Molecular test or the Polymerase Chain Reaction (PCR) is the only test available for the confirmation of the virus, but it is conducted only at NPHL in view of the high cost and lengthy process.
- Although now more than 35 districts and more than 40,000 people have seen flu like outbreaks reported recorded.
Results
# Table no. 1: Swine flu affected district of Nepal.

<table>
<thead>
<tr>
<th>S. N.</th>
<th>Name of Districts</th>
<th>Total flu like cases reported</th>
<th>Laboratory confirmed cases</th>
<th>S. N.</th>
<th>Name of Districts</th>
<th>Total flu like cases reported</th>
<th>Laboratory confirmed cases</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Kathmandu</td>
<td>9500</td>
<td>42</td>
<td>12</td>
<td>Baglung</td>
<td>2500</td>
<td>2</td>
</tr>
<tr>
<td>2</td>
<td>Lalitpur</td>
<td>1000</td>
<td>2</td>
<td>13</td>
<td>Myagdi</td>
<td>1500</td>
<td>2</td>
</tr>
<tr>
<td>3</td>
<td>Bhaktapur</td>
<td>1000</td>
<td>1</td>
<td>14</td>
<td>Syangja</td>
<td>500</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>Kaski</td>
<td>4500</td>
<td>15</td>
<td>15</td>
<td>Argakhachi</td>
<td>200</td>
<td>2</td>
</tr>
<tr>
<td>5</td>
<td>Tanahua</td>
<td>3000</td>
<td>1</td>
<td>16</td>
<td>Surkhet</td>
<td>300</td>
<td>2</td>
</tr>
<tr>
<td>6</td>
<td>Chitwan</td>
<td>1500</td>
<td>2</td>
<td>17</td>
<td>Kailali</td>
<td>150</td>
<td>3</td>
</tr>
<tr>
<td>7</td>
<td>Dhanusha</td>
<td>1200</td>
<td>1</td>
<td>18</td>
<td>Kanchanpur</td>
<td>300</td>
<td>2</td>
</tr>
<tr>
<td>8</td>
<td>Rupandehi</td>
<td>500</td>
<td>2</td>
<td>19</td>
<td>Sunsari</td>
<td>300</td>
<td>0</td>
</tr>
<tr>
<td>9</td>
<td>Banke</td>
<td>600</td>
<td>3</td>
<td>20</td>
<td>Morang</td>
<td>550</td>
<td>0</td>
</tr>
<tr>
<td>10</td>
<td>Bardiya</td>
<td>1200</td>
<td>0</td>
<td>21</td>
<td>Jhapa</td>
<td>400</td>
<td>0</td>
</tr>
<tr>
<td>11</td>
<td>Parbat</td>
<td>3700</td>
<td>5</td>
<td>22</td>
<td>Doti</td>
<td>300</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td>27700</td>
<td>74</td>
<td>23</td>
<td>Dailekha</td>
<td>300</td>
<td>0</td>
</tr>
<tr>
<td>Grand Total</td>
<td>27700+7300</td>
<td>74+14</td>
<td>Total</td>
<td>7300</td>
<td>14</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Swine flu confirmed cases in Nepal
Graph no. 1: Laboratory confirmed human cases of swine flu in different districts of Nepal.
Mass awareness programme is launched throughout the Nepal all professional specially children are asked to wear mask.
WHO has said that the first batch of vaccines for AH1N1 is still a month away but even after the first batch is produced, countries need to wait for some more time to get the vaccine in sufficient volume.

Vaccine facts:

- First batch to be out in September/October
- Countries have to wait longer
- Single dose can treat patient
- Influenza vaccine that is inhaled being developed
The H1N1 (swine flu) vaccination being administered at the University College London hospital. A nationwide vaccination programme to counter the H1N1 virus kicked off on Wednesday, beginning with frontline health workers and those in at-risk groups.
Discussion

WHO has guided to the member countries about anti-swine flu drive for winter

Things to do to avoid Swine Flu
- Wash hands frequently
- Keep your distance (stay at least 1 meter away from others who are coughing or sneezing)
- Cough or sneezes with tissue, cloth, masks
- Separate sick people (keep them away from others)
- Use of protective masks for ill or high-risk group
- Avoid crowds

Criteria for hospitalization
- Signs of severe illness including
- Shortness of breath
- Difficulty breathing
- Weakness/inability to stand
- Unconsciousness
- Inability to drink fluids with dehydration
- High fever
Conclusion

How to shield oneself from flu has been recommended by the government especially to the children

- Always wash your hand
- Use mask if you have to go near flu patients
- Keep a meter's distance from the patients
- Stay away from patients except in emergency
- Avoid crowed
- Cover your nose and mouth while sneezing
- Avoid rubbing your hand on your eyes, nose and mouth
Conclusion

How to check contagion one there is flu like symptoms occur in the locality take following precautions.

– Do not go away from home
– Stay in isolation
– Take liquid diet
– Go to hospital in severe cases
– Wash hands and used hanky and clothes frequently
H5N1 ALARM: Local residents vie for masks being distributed by a social organisation in Nepalgunj on Saturday. Swine flu panic gripping Indian cities has prompted Banke to sound a swine flu alert.

Source: The Kathmandu Post August 16, 2009
Acknowledgement

- I would like to thank all the media, newspaper like Kantipur, Kathmandu Post, Gorkhapatra, Rising Nepal, Himalayan Times, Nepal Weekly newspaper and Himal Half monthly newspaper for publishing the news on swine flu.

- I am most thanks to all the staff of NZFHRC for their hard field work and help in report writing.

- I am grateful to DDJ Research Foundation, Chagal, Kathmandu, Nepal for the financial support.
Thank You
Namaste