

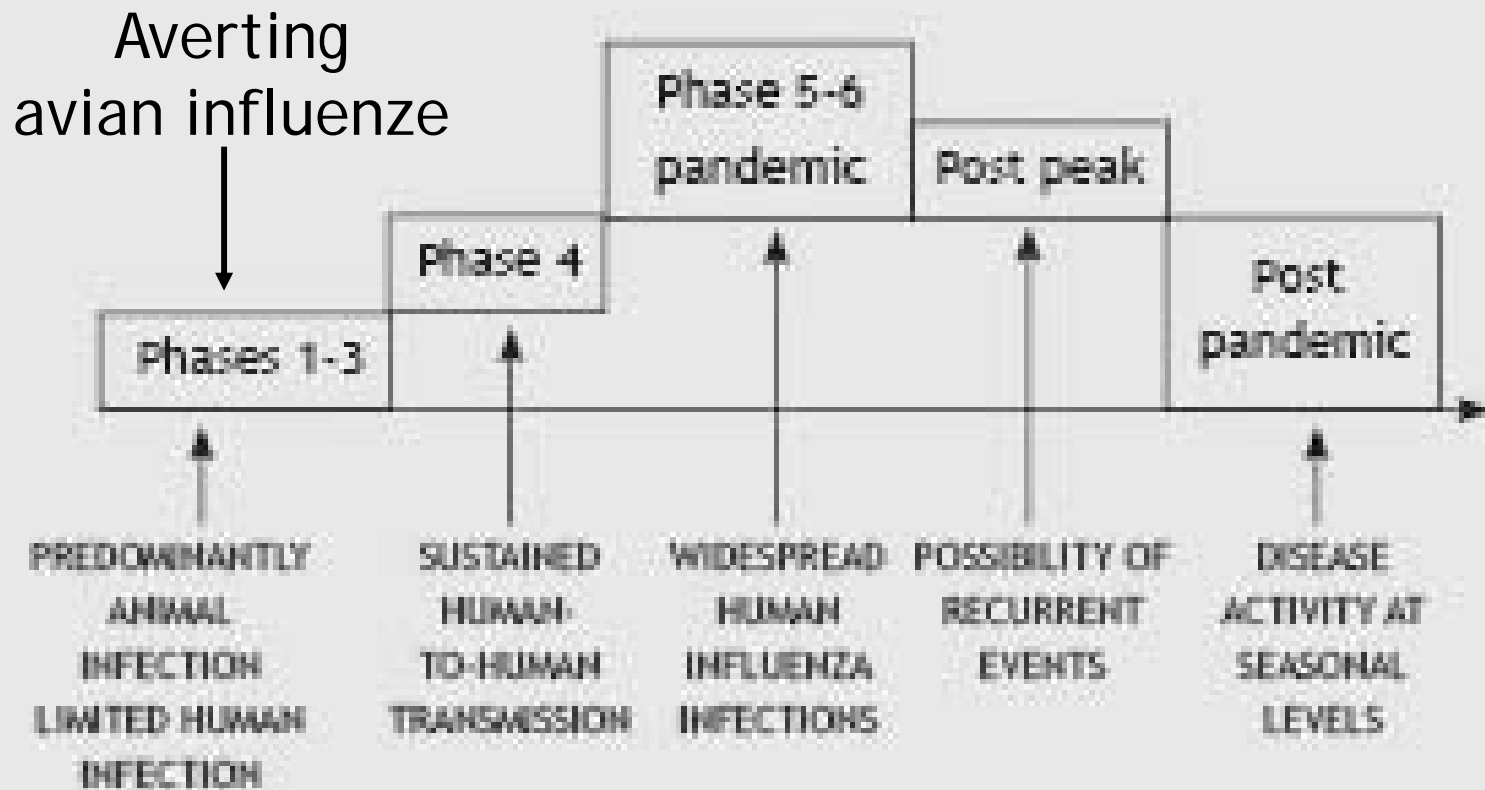
# Health Sector Operational Plan for Managing Human Cases of Avian Influenza

# Approach

- Phase-wise approach
  - Prevention and Management of human cases of avian influenza (Phase-3)
  - Managing a cluster of human cases (Phase 4)
  - Managing pandemic—Large number of human cases of influenza caused by a novel virus (Phase 5 & 6)

# Phase—wise intervention

## WHO Phasing of Pandemic Influenza



# Institutional Framework

## Stakeholders

- ❑ MOHFW/DGHS/EMR
- ❑ DAH/MHA/Civil Aviation/MOEF/MIB
- ❑ National Institute of Communicable Diseases (NICD)
- ❑ Indian Council of Medical Research (ICMR)
- ❑ State Health Department
- ❑ State Animal Husbandry Department
- ❑ District Health/Animal Health Authorities

# Central Rapid Response Team (RRT) Roles

- ❑ Meet state/district officials/briefing
- ❑ Do micro-planning and assist the district authorities for the micro plan implementing
- ❑ Daily supervision of surveillance operations/bridge the knowledge gap of the surveillance teams
- ❑ Monitoring of the health status of the cullers
- ❑ Review persons under investigation/suspect cases based on WHO case definition
- ❑ Collect clinical samples and arrange for their transportation to identified laboratories

# RRT Roles

- ❑ Clinical management of the suspect cases in identified hospitals
- ❑ Daily reporting to EMR division and NICD
- ❑ Decide on the exit from the surveillance activities
- ❑ Decide on the need for continuing “seek treatment campaign” in areas under surveillance

# Micro Plan Essentially Covers

It would essentially mean:

- ❑ Planning for active house to house surveillance in 0-10 km zone
- ❑ Detect early, possible cases for investigation and suspect case as per standard case definition and their clinical management
- ❑ Ensure standard infection control practices; health monitoring of the high risk group such as cullers
- ❑ Provision of chemoprophylaxis to high risk groups
- ❑ Ensuring logistic support and
- ❑ Raising awareness in the community through mass media and interpersonal communication strategies

# Micro Plan

- ❑ Do mapping of the infected zone (0-3 Km) and Surveillance zone (3-10 Km) in consultation with the district authorities
- ❑ Do situational analysis of the demographic differentials
- ❑ Estimate the number of health manpower required for the surveillance activities (one health worker to cover 100 households; one supervisor to cover 10 health workers and one medical officer to cover three supervisors)
- ❑ Assess the health facilities that could be modified into isolation ward and made operational



# Micro Plan

- ❑ Identify area for daily briefing and debriefing of the health workers
- ❑ Identify a central area for quarantine of the surveillance workers (including their boarding/lodging arrangements)
- ❑ Arrange sensitization workshops (separately) for the surveillance workers and the supervisory doctors
- ❑ Make arrangements for detailed medical examination of the veterinary staff identified for the culling operations
- ❑ This includes selection of 5-10 doctors exclusively for daily administration of oseltamivir, recording side effects, if any, and to attend to medical problems, if any

# Micro Plan

- ❑ Ensure adequate stock of oseltamivir and PPE are available or otherwise requisitioned from the centre
- ❑ At every stage of human to bird contact/suspected human-to-human contact, ensure that standard infection control practices are followed
- ❑ Select from available IEC materials those best suited for the local print and visual media

# Event Based Active Surveillance

- ❑ Designate geographic areas to each health worker
- ❑ Plan the mobilisation of the surveillance workers
- ❑ Identity duty passes/badges for each worker would be made
- ❑ All necessary proformas for data collection, collation and analysis would be finalised by RRT in consultation with CMO
- ❑ A day prior to the beginning of the containment operations, all the surveillance staff would gather at the area identified for daily briefing and would be sensitised on the surveillance operations by Rapid Response Team (RRT)

# Event Based Active Surveillance

- ❑ In the morning, the health workers, their supervisors and medical officers would gather at the pre-determined place for the daily briefing
- ❑ After the briefing meeting they would proceed to the field in the identified vehicles
- ❑ The surveillance workers would be dropped at predetermined spots and would be picked up in the late afternoon from those spots after completion of house to house visits

# Event Based Active Surveillance

- ❑ The surveillance worker would visit the houses earmarked for him/her, interview the family and record the findings
- ❑ Record all fever cases with respiratory tract infection with/without breathing difficulty
- ❑ If the case has history of contact with infected poultry, the surveillance worker would inform the supervisor/medical officer
- ❑ If in the view of the medical officer, the case needs to be further investigated, the RRT would be informed

# Event Based Active Surveillance

- ❑ The data from the field are collated in the evening, which should include:
  - Number of households and population covered
  - Number of cases of respiratory tract infection detected
  - History of contact with infected poultry
  - Number of possible persons under investigation etc.
- ❑ The data would be managed by a team of health officials from the DHO/CMO office
- ❑ Daily update would be communicated to state health authority, Director Emergency Medical Relief (EMR)/Avian Influenza Ministry Cell (AIMC), NICD, MOHFW
- ❑ The active surveillance would continue for 10 days after the last culling operations

# Protecting Personnel at Work

- ❑ All the cullers would undergo detailed medical examination a day prior to the culling operations
- ❑ One medical Officer would on an average examine 30 veterinary staff
- ❑ For such purpose, the veterinary department would provide the list of identified cullers, supervisory staff and workers involved in sanitization (with complete details including address and contact numbers etc.) to the RRT
- ❑ After medical examination they would be administered the 1<sup>st</sup> dose of oseltamivir

# Protecting Personnel at Work

- ❑ From the day culling begins, the cullers/veterinary staff would be administered oseltamivir in the morning under direct observation
- ❑ The medical officers would record side effects, if any, in the prescribed proforma
- ❑ These medical officers would also attend to medical problems, if any, presented by the cullers/veterinary staff
- ❑ The initial medical examination and further monitoring would be within the area where the veterinary staff is quarantined

# Protecting Personnel at Work

- ❑ Any dropouts from the culling operations on subsequent dates would also need to be quarantined and continued on oseltamivir
- ❑ Monitoring of the health status and administration of oseltamivir would continue 10 days after the last culling operation
- ❑ Similarly, the staff involved in the sanitisation operations would also undergo the same protocol

# Clinical Management

- ❑ Inspection by RRT of the health facilities available in and around the affected area
- ❑ The effort would be to strengthen the existing facilities by creating an isolation ward and critical care unit
- ❑ If such facilities are not available in government sector, then private hospitals would be earmarked for such purpose. District collector would issue necessary orders for the same
- ❑ Access to this facility would be restricted, if possible through double door entry
- ❑ There would be minimum of 10 isolation beds and 3-4 critical care beds with ventilators, monitors, pulse oximeters

# Clinical Management

- ❑ If the identified hospital requires ventilators etc., the same would be mobilised from the central/state stock
- ❑ The hospital authorities would identify physician/respiratory physician and anesthetist, duty doctors, nurses and paramedical staff for posting to the isolation facility
- ❑ If requisite manpower is not available in that area, CMO would issue temporary posting orders for personnel from outside the area
- ❑ The isolation facility would have adequate stock of oseltamvir and PPE

# Clinical Management

- ❑ The RRT would sensitise the medical team on case definition, clinical features, treatment protocol, use of PPE and infection control practices and hospital waste management to be followed in hospital settings
- ❑ Arrange for transportation of suspected case to identified hospital. Follow standard infection control practices during transportation
- ❑ After the patient is admitted to the hospital, the patient cabin of the ambulance and reusable patient-care equipment should be sanitised using phenolic disinfectants or quaternary ammonia compounds or sodium hypochlorite

# Clinical Management

- ❑ Obtain clinical specimens such as nasopharyngeal swab, throat swab, nasal swab, wash or aspirate, and tracheal aspirate (for intubated patients)
- ❑ Store specimens at 4°C in viral transport media until transported for testing
- ❑ Initiate antiviral treatment, oseltamivir is the drug of choice
- ❑ To be effective, administration of antiviral drugs should be as early as possible (within 48 hours)

# Infection Control Practices

- ❑ Initiate infection control precautions promptly when avian influenza infection is suspected
- ❑ Standard contact and droplet precautions should be the minimum level of precautions to be used in all healthcare facilities
- ❑ Respiratory etiquette should be followed by all patients with cough to prevent the transmission of the pathogens
- ❑ Perform hand hygiene before and after any patient contact and after contact with contaminated items
- ❑ HCWs who collect or transport clinical specimens should adhere to recommended infection control precautions in order to minimise the possibility of exposure to infection

# Infection Control Practices

- ❑ Standard precautions are to be followed while transporting patient to a healthcare facility
- ❑ Aerosol-generation procedures should be performed with full PPE (including N95 masks)
- ❑ If splashing with blood or other body fluids is anticipated, a waterproof apron should be worn
- ❑ All waste from avian influenza patients generated in isolation room/area should be considered as clinical infectious waste
- ❑ Avian influenza virus can survive in the environment for variable periods of time (hours to days). Cleaning followed by disinfection should be done for contaminated surfaces and equipments

# Risk Communication

- ❑ The messages should stress the importance of:
  - hand hygiene
  - staying away from poultry especially for children
  - securing poultry in a cage away from human dwellings
- ❑ Communication would also centre on community's responsibility to notify suspected bird deaths and the need for consumption of well cooked poultry products and avoiding consumption of sick birds
- ❑ In the affected area these messages can be communicated through local TV channels or through miking
- ❑ The health workers during house to house visit would undertake inter personal communication with the house holds for covering the risk
- ❑ The material available could be translated to local dialect for visual and print media

# Command and Control

- ❑ Control room 24x7
- ❑ Identified nodal officer
- ❑ Well informed
- ❑ One month
- ❑ At all levels

# Media Management

- ❑ At the national level, press conference would be held jointly by Secretary (Ministry of Agriculture) and Secretary (H&FW) or any other officer delegated by him/her would address the media
- ❑ At the national level, the press release would also be put in the public domain through the web page
- ❑ At the state level the official nominated by the Chief Secretary would address the media
- ❑ At the operational area, the district collector would address the media

**Thank you**