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Development of ICAO Guidelines: Scenario Based Approach

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In preparing for a Public Health Emergency (of International Concern) and to mitigate its consequences.....

Layered Defense approach
International: WHO / ICAO / IATA / ACI / others

Regional: Regional offices of WHO, ICAO etc. Other Regional Organizations eg. APSED

State level planning: usually led by Public Health

POE: CAA, Airport, Airlines, Public Health other stakeholders
Layered Defence

International Mitigation

• Containment
• Mitigation
• ? Exit Screening
• ? Entry Screening

WHO ICAO (CAPSCA)

“Affected” State

Other UN Orgs / Agencies

ACI / IATA/Other Orgs
Layered Defence

Regional / State / Administration Level Measures
Layered Defence

State Public Health Emergency Plan
Preparedness Planning for a Public Health Emergency

Scenario Planning & Guidelines Development
1. Departing Passengers

(a) Point of ticket enquiry / trip planning

- Web based
- Phone booking
- Travel agents
- Airline

Advisory Message: According to Phase of Epidemic/ Pandemic (WHO)
In Phase III and below:

*Educate and Prepare the public:

"Do Not Travel If You Have A Communicable Disease"

*Prime the Travel Industry

Sample Message:

Passengers are advised not to travel if they are ill or suspect that they may have a communicable disease. You may not be allowed to board the flight if it is suspected that you have a communicable disease. If in doubt contact your doctor for advise.
Should I take the flight?
Sample Message: Screening for avian flu is in place at XXX airport. Passengers with symptoms of flu will not be allowed to enter the airport and will not be checked in or allowed to board any flight. If in doubt please contact your doctor before proceeding with your travel plans.

**If you have been in ...........(name of place with outbreak) in the last (?week) please seek your doctor’s advise before making any travel plans.
•(b) Travel plans made / Ticket Purchased

• Arrival at airport: **Phase Dependant**

  i) **Before entry to airport:** (Depending on Phase)

  • Appropriate Advisory Signs/Display boards/Messages

  • ? Screening prior to entry to airport (if outbreak has occurred in State) -- ? Questionnaire for symptoms and if coming from outbreak area.

  ? Feasible?

  ? Responsibility?

  Positive

  No Entry. Refer to secondary screening

  Negative

  Proceed to Check-in

  PPE for staff & suspect passengers
ii) **At Check-in:**

- Appropriate Advisory Signs/Display boards/ Voice Messages over airport Public Address system

**If Screening has not been done:**

- Screening prior to entry to airside (if outbreak has occurred in State)

  - Questionnaire:
    - for symptoms and
    - if coming from outbreak area.
What is the role of temperature screening in relation to the clinical features of disease?

- Incubation period of X days
- Infectious XX days before onset of symptoms

Situation may change as more epidemiological data is accumulated.

Key Role For **WHO** & **CDC** ------ to screen or not to screen
? To Screen

? Or Not To Screen
Public Health Measures Available (Theoretically)
- at the international border -

1. Travel and screening (prevention, detection)
   - Health advice and alerts to travellers
   - Health declaration form
   - Temperature screening
   - On-board identification of suspected travellers
   - International travel advisory, restriction, border closure?

2. Management of symptomatic & exposed travellers
   - Symptomatic travellers (isolation & treatment…)
   - Exposed travellers (quarantine?…)
• Public health measures in response to pandemic influenza

• Options for public health intervention at international points of entry (POE)
Decision for option: Key considerations

- International border health measures should be implemented under the framework of the new International Health Regulations
- Decision on public health measures based on assessed risks
- Public health measures should be evidence-based whenever possible
- Countries should balance the benefits against the costs and potential consequences
- Desirability of harmonization of interventions at international POE
- Planning, coordination and communication is essential
## Comparative risk of outbreaks

<table>
<thead>
<tr>
<th>Severity of Disease (Morbidity &amp; Mortality)</th>
<th>Transmissibility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>Low</td>
</tr>
<tr>
<td>High</td>
<td>High</td>
</tr>
</tbody>
</table>

- **High Transmissibility, High Severity**
  - H5N1
  - SARS
  - 1918 Pandemic

- **Low Transmissibility, Low Severity**
  - Pandemic (H1N1) 2009
  - Seasonal Flu
Possible strategies based on risk category

<table>
<thead>
<tr>
<th>Severity of Disease (Morbidity &amp; Mortality)</th>
<th>Transmissibility</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>Aiming at preventing disease importation and containing the virus</td>
<td>High: Aiming at reducing transmission and mitigating impact with focus on vulnerable population</td>
</tr>
<tr>
<td>High</td>
<td>Aiming at rapid containment at the early stage, and mitigating the impacts, if containment not possible</td>
<td></td>
</tr>
<tr>
<td>Low</td>
<td>Routine public health measures without additional aggressive interventions</td>
<td></td>
</tr>
</tbody>
</table>
Matching cost and consequences of interventions with risk level (example)

<table>
<thead>
<tr>
<th>Level of Risk</th>
<th>Costs and Consequences</th>
</tr>
</thead>
<tbody>
<tr>
<td>SARS</td>
<td>E.g. Health alert or advice</td>
</tr>
<tr>
<td>Seasonal Influenza</td>
<td>E.g. Temperature</td>
</tr>
<tr>
<td>New H1N1 ???</td>
<td>E.g. Border closure</td>
</tr>
<tr>
<td>1918 pandemic virus or worse</td>
<td></td>
</tr>
</tbody>
</table>

More acceptable interventions

Less acceptable interventions

Cost and Consequences
Options for Interventions: Decision Matrix

<table>
<thead>
<tr>
<th>Options</th>
<th>Benefits</th>
<th>Limitations &amp; consequence</th>
<th>Decision (Yes/No/wait)</th>
</tr>
</thead>
</table>
| Temperature screening | ● Increase public awareness  
● May be reassuring to the public  
● Serve as “sentinel” points to detect some travelled cases  
● Deterrence to travel | ● Lack of evidence to show effectiveness  
● Modelling suggests limited impacts on reducing risks  
● Thermal scanning alone will not prevent virus entry  
● Unlikely to be cost-effective  
● Resource intensive  
● May give a false sense of security | ? |

Comments & guidance:
Response to Pandemic (H1N1) 2009

• WHO recommended that all countries intensify surveillance for unusual outbreaks of influenza-like illness and severe pneumonia

• WHO also recommended
  – not to close borders AND restrict international travel
  – It was considered prudent for people who are ill to delay international travel and for people developing symptoms following international travel to seek medical attention
PREVENT / MITIGATE "EXPORT" & "IMPORT" OF CASES / SUSPECT CASES

*Departure Screening* or *Arrival Screening*
2. Aircraft Departs

Phase Dependant

Suspect case picked up soon after departure

Possible Scenarios:

- Has to return to departure airport
- Has to return to alternate airport
- Has to be diverted to another airport
- Continue to destination airport

_Treat As For Arriving Aircraft With Suspect Case On Board_
3. Transit Passengers

Need for screening

If screened at departure \[\rightarrow\] No Need

Within Transit Area? Need For:

Appropriate Advisory Signs / Display boards / Voice Messages over Airport Public Address system
4. Arriving Passengers

Phase III & Below

? Need For Precautionary Messages

Eg.; Advise on areas where communicable disease (avian flu) outbreaks have occurred; avoidance of contact with poultry / birds; avoid rural areas etc..

? Target Passengers:

• For all passengers
• Only those arriving from outbreak areas

? How

• In aircraft
• On arrival

• In Flight Magazine
• Pamphlets
• Cards
Phase IV and Above

? Screening Methods

? Only Aircraft Arriving From Outbreak Areas
? All Aircraft

• Questionnaire
• Temperature Screening

Is Screening Effective And The Cost Justified?
5. In-Flight Suspect Case/s of Avian Flu

Measures to be taken in the aircraft by Crew for

• Themselves
• Suspect passenger/s
• Other Passengers

• PPE for Crew and Passengers
• Segregation of Suspect Pax

Timely Information To Airport Where Flight Is Expected To Land
6. Arriving Aircraft With Suspect Case/s On Board

- Measures for suspect case/s
- Measures for other passengers
- Measures for Crew
- Disinfection of aircraft
- Baggage
- Ramp workers
- Others

- Segregation from suspect case
- Advisory information
- Possible Quarantine

National Health Authority

- Secondary Screening
- Designated Ambulance/s
- Designated Hospital/s


7. Airport Workers & Airline Workers

- Protection of airport workers
- Preventive strategies for airport workers
  - What happens when airport worker/s fall ill with prevailing PHE
  - Contingency plans

- Education & Basic Hygiene Measures
  - “Front Line” staff -- for priority in vaccination programs
  - Screening measures prior to reporting for work

Phase Dependant
8. Any place for guidelines on closure of an airport

Closure of an airport should not be considered except as a last resort in extreme situations

Within or in close proximity to area of outbreak

Role of ICAO and other international bodies

Ref. IHR and ICAO Annex 9
9. Any Place For Closure Of Airspace

Role of WHO/ICAO and other international bodies

Contracting states should **NOT** close their airspace to aircraft when they become aware or have reason to suspect that the aircraft has suspect case/s of communicable disease on board

Ref. ICAO Annex 9

IHR articles 28.1 & 28.2
10. ? Denial to land in the event of suspect case/s on board

Role of WHO/ICAO and other international bodies

Contracting states should **NOT** deny an aircraft from landing merely because the aircraft may have one or more suspect cases of communicable disease on board. If an airport does not have the facilities to handle such a situation, its contingency plan should allow for diversion of the aircraft to an airport that has the relevant facilities.
11. Communications

- Point/s of contact
- Methods
- Ease
- Speed

Contracting States

Public Health Authority / Airports & Airlines

ICAO → WHO → CDC → IATA → ACI
12. Stockpiling of anti-viral drugs

& Other preventive measures eg. Flu vaccination

Catering to airline crew and airport workers --- ? Need for Guidance to National Authorities

If anti-viral drugs are being stockpiled by contracting states, airline and airport workers, as well as air traffic controllers should be given the appropriate priority in the distribution plan. The meeting supports other recommended preventive measures put in place by state public health authorities such as vaccination.
13. Contact Tracing

Need for minimum contact information required for contact tracing?

Harmonised Contact Tracing Form/Card

• Name
• Contact Address - In country of origin
  - At destination
• Contact Telephone Number

Role of WHO / ICAO / IATA Other international bodies
Passenger Locator Card/Form-WHO/ICAO/IATA

PUBLIC HEALTH PASSENGER LOCATOR CARD

Public Health Passenger Locator Card to be completed when public health authorities suspect the presence of a communicable disease. The information you provide will assist the public health authorities to manage the public health event by enabling them to trace passengers who may have been exposed to communicable disease. The information is intended to be held by the public health authorities in accordance with applicable law and to be used only for public health purposes.

Flight Information
1. Airline and Flight Number
2. Date of arrival
3. Seat Number where you actually sat on the aircraft

Personal Information
4. Name
   a. Family Name
   b. Given Name(s)
5. Address and phone number where you can be contacted during your stay or, if visiting many places, your cell phone and initial address
   a. Street Name and Number
   b. City
   c. State/Province
   d. Country
   e. ZIP/Postal Code
   f. Telephone Number (including country code) or mobile phone number
6. Contact information for the person who will best know where you are for the next 31 days, in case of emergency or to provide critical health information to you.
   a. Name
      i. Family Name
      ii. Given Name(s)
   b. Telephone Number
   c. Address
      i. Street Name and Number
      ii. City
      iii. State/Province
      iv. Country
      v. ZIP/Postal Code
   d. E-mail address

7. Are you traveling with anyone else? YES/NO
   a. If so, who? (name of individual(s) or Group)

Public Health Passenger Locator Card to be completed when public health authorities suspect the presence of a communicable disease. The information you provide will assist the public health authorities to manage the public health event by enabling them to trace passengers who may have been exposed to communicable disease. The information is intended to be held by the public health authorities in accordance with applicable law and to be used only for public health purposes.
14. Personal Protective Equipment

* Guidance for airport workers and airline crew
* Advise to passengers
  • Need for standardization
  • Cater to mode of spread; Who needs to wear; What needs to be worn

PPE appropriate to the phase of the communicable disease, the mode of spread and the nature of duties being performed by aviation personnel, should be worn.

For many communicable diseases, disposal gloves and good hand hygiene (at times in combination with surgical masks) are usually sufficient unless otherwise specified by the national public health authority.
15. Any Additional Triggers for the Aviation Industry

To implement screening and other measures

Aside from WHO Phase changes
16. Any Other Issues
Working Group: Development of Guidelines
CAPSCA Guidelines Development

- WHO Pandemic Preparedness Guidelines
- ICAO Annex 9 Annexes 6, 11, 14
- ACI, IATA, CDC & Other expert agencies
- IHRs
- WHO Rapid Containment Strategy
- States

National Public Health

Aviation Public Health Emergency Preparedness Plan

Emergency Preparedness Plan

Joint WHO-ICAO-IATA-ACI Guidelines
Key Issues

Communication
Collaboration
Cooperation
Coordination

At ALL Levels
Questions?

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