International Health Regulations (2005)

A global legal framework for public health security

IHR (2005) came into force on 15 June 2007*

Legally binding for the world’s countries that have agreed to follow the same rules to secure international health.

Courtesy WHO
Purpose of the IHR (2005)

“To prevent, protect against, control and provide a public health response to the international spread of disease in ways that are commensurate with and restricted to public health risks, and which avoid unnecessary interference with international traffic and trade” – Article 2

Courtesy WHO
Convention on
International Civil Aviation
Convention relative à
l'aviation civile internationale
Convenio sobre
Aviación Civil Internacional
Конвенция о международной гражданской авиации
Basis for Action - health

Article 14, International Convention on Civil Aviation:

‘Each contracting State agrees to take effective measures to prevent the spread by means of air navigation of cholera, typhus (epidemic), smallpox, yellow fever, plague, and such other communicable diseases as the contracting States shall from time to time decide to designate….'
Basis for Action - health

Article 14, International Convention on Civil Aviation:

....and to that end contracting States will keep in close consultation with the agencies concerned with international regulations relating to sanitary measures applicable to aircraft.’
18 ICAO Annexes contain ‘SARPs’ (Standards and Recommended Practices)

- Annex 1 Personnel Licensing
- Annex 2 Rules of the Air
- Annex 3 Meteorological Service for International Air Navigation
- Annex 4 Aeronautical Charts
- Annex 5 Units of Measurement to be Used in Air and Ground Operations
- **Annex 6 Operation of Aircraft** *
- Annex 7 Aircraft Nationality and Registration Marks
- Annex 8 Airworthiness of Aircraft
- **Annex 9 Facilitation** *
- Annex 10 Aeronautical Telecommunications
- **Annex 11 Air Traffic Services**
  - Procedures for Air Navigation Services – Air Traffic Management (PANS-ATM) *
- Annex 12 Search and Rescue
- Annex 13 Aircraft Accident and Incident Investigation
- **Annex 14 Aerodromes** *
- Annex 15 Aeronautical Information Services
- Annex 16 Environmental Protection
- Annex 17 Security: Safeguarding International Civil Aviation Against Acts of Unlawful Interference
- **Annex 18 The Safe Transport of Dangerous Goods by Air**
- **Annex 19 Safety Management System**
What can you expect when a State is declared as an affected area

With a public health emergency possibly of international concern (PHEIC)

Not necessarily an infectious disease
People rushing out of an affected area

Can anything be done at this juncture at the departure airport for departing passengers
What would be expected of:
1. The State Public Health Authority
2. The Civil Aviation Authority
3. The Airport
4. The Airlines operating at the Airport
5. The other Stakeholders at the Airport

What if a passenger falls ill at the Airport (with a suspicion of having contracted the infectious disease)?

Responsibilities of various Stakeholders?

Why the state of panic?
Full flights

What measures can be implemented if a passenger falls ill
Role of the Airline?

Cabin attendants

Pilot –in-Command of the flight

Cleaning of the aircraft

Dealing with Biohazards

Dealing with suspect case in flight

Dealing with other passengers

Keeping the Airline alive.

What does this remind you of?
Purpose of the IHR (2005)

“To prevent, protect against, control and provide a public health response to the international spread of disease in ways that are commensurate with and restricted to public health risks, and which avoid unnecessary interference with international traffic and trade” – Article 2

Courtesy WHO
Reflected in the arrival scene ... coming away from an affected area

Possibility of implementing measures at arrival airport?
What would be expected of:
1. The State Public Health Authority
2. The Civil Aviation Authority
3. The Airport
4. The Airlines operating at the Airport
5. The other Stakeholders at the Airport

What if a passenger falls ill at the Airport (with a suspicion of having contracted the infectious disease)?

Responsibilities of various Stakeholders?
....and then

Deserted Airports
Empty aircraft
2003: SARS

ISSUES:

- Panic reactions
- No preparedness plans
- No Harmonization
Singapore hosts an ICAO meeting ---- “Anti-SARS” measures developed for the aviation sector.

Restore confidence in the travelling public

? Pre-empting the IHR ?
WHO holds global meeting: Timing & severity of next pandemic cannot be predicted

Take threat seriously

Take appropriate actions & mobilize resources
2005: Expectations

Spread to rest of world

Start of Pandemic

H5N1
ICAO: For The Aviation Sector:
Proactive approach to develop Aviation Pandemic Preparedness Plan

Singapore hosts meetings at Changi Airport 2006:
Output – “Preparedness Planning Guidelines (Aviation Aspects) for a Communicable Disease of Public Health Concern” – Applicable to any communicable disease (not just avian influenza)
To carry project forwards --- Harmonizing global aviation sector’s preparedness

Cooperative Arrangement for the Prevention of Spread of Communicable disease through Air travel

1. Implementation of ICAO Guidelines (State, Airport & Airline Guidelines)
2. Evaluation of international airports
3. Training of personnel

Launched Sept. 2006: Singapore Aviation Academy Seminar / Workshop / Table top exercise
2005: Expectations

Start of Pandemic

Spread to rest of world

H5N1
There is no evidence of increased illness in the pig population
CAPSCA Guidelines Development

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

IHRs

WHO Rapid Containment Strategy

Joint WHO-ICAO-IATA-ACI Guidelines

National Pandemic

Aviation Pandemic Preparedness Plan

Preparedness Plan

PANDEMIC PREPAREDNESS
Distilled into.....

State Guidelines : ICAO

Airline Guidelines : IATA

Airport Guidelines : ACI
New SARPs in force
From Nov 2007 & 2009...

Annex 6
Annex 9
Annex 11
Annex 14
PANS -ATM

IHR implementation
1. CAPSCA – Asia Pacific

2. CAPSCA – Africa

3. CAPSCA - Americas

4. CAPSCA Europe

5. CAPSCA – Middle East
CAPSCA
Asia Pacific
In conjunction with the 4th SCM:

Seminar / Workshop on Business Continuity Planning for Pandemic Preparedness
Kuala Lumpur, Malaysia, 25 – 26 May 2010

- Airports
- Airlines
- ANS providers

Draw attention to specific aspects of PHE in BCP
Launched Nov. 2007
Seminar/Workshop in Gabon

Mar 2008: Training W/shops & Table top Exercises: South Africa & Senegal

Feb 2009: Lagos & Abuja airports in Nigeria evaluated; 1st SCM held

October 2009: Cape Town and Johannesburg (South Africa) Evaluated. 1st RAMT held.


Feb 28 – Mar 4 2011 – Bamako, Mali: Strengthening Preparedness / RAMPHT / Assistance visit to Bamako airport

October 2011 – Abuja, Nigeria: 2nd Global Coordination Meeting and 2nd SCM / RAMPHT meeting

2012 – Nairobi, Kenya
CAPSCA Americas:

Launched in Mar/April 2009: Lima, Peru

1st SCM – June 2009, Mexico

1st RAMT – December 2009 together with Evaluations of Lima and Cuzco airports (Peru)

2nd SCM – Dallas, June 2010 With walk thru of Dallas Fort Worth airport

2nd RAMT and evaluations of Toronto and Montreal airports in November 2010

3rd SCM/RAMPHT/Training Seminar: May 2011, Bogota, Colombia

3rd Global CAPSCA / 4th CAPSCA Americas meeting – 2012; Santiago, Chile

Almost all States in the Americas are members of CAPSCA

Assistance visits are being carried out rapidly
CAPSCA Europe

At the ICAO Regional Office Paris: Sept, 2011

Next Meeting --- Frankfurt, Germany; 2012
1st Global CAPSCA Meeting  
October 2010  
Singapore Aviation Academy

2nd Global CAPSCA Meeting  
October 2011  
Abuja Nigeria

3rd Global CAPSCA Meeting  
September 2012  
Santiago, Chile

4th Global CAPSCA  
2013  
? Europe / Middle East
2009 "Swine flu" → Influenza A(H1N1)

Lessons Learnt (Did we over-react?)

Activities to act on lessons learnt
WHO-ASEAN Meeting on Public Health Measures at International Points of Entry
INFORMAL CONSULTATION ON THE DEVELOPMENT OF TECHNICAL GUIDANCE FOR PUBLIC HEALTH EMERGENCY PLANNING AT DESIGNATED POINTS OF ENTRY
Outcome:

Guidance for Public Health Emergency Contingency Planning at Designated Points of Entry

Requirement under the International Health Regulations (2005)
International Civil Aviation Organization: CAPSCA

Template for a National Aviation Public Health Emergency Preparedness Plan
WHO technical advice for case management of Influenza A(H1N1) in air transport
Developed in cooperation with
The International Civil Aviation Organization
And The International Air Transport Association 13 May 2009

Health Declaration Form

Public Health Passenger Locator Card

Guide to Hygiene and Sanitation in Aviation

International Health Regulations (2005) Assessment tool for core capacity requirements at designated airports, ports and ground crossings

CAPSCA Checklist
### 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>

- H5N1
- SARS
- 1918 Pandemic
- Pandemic (H1N1) 2009
- Seasonal Flu

### Disease Comparison

- **H5N1**: Low transmissibility, high severity
- **SARS**: High transmissibility, medium severity
- **1918 Pandemic**: High transmissibility, high severity
- **Seasonal Flu**: Low transmissibility, low severity
### Possible strategies based on risk category

<table>
<thead>
<tr>
<th>Severity of Disease (Morbidity &amp; Mortality)</th>
<th>Transmissibility</th>
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</thead>
<tbody>
<tr>
<td>Low</td>
<td>Low</td>
<td>High</td>
</tr>
<tr>
<td>High</td>
<td>Aiming at preventing disease importation and containing the virus</td>
<td>Aiming at rapid containment at the early stage, and mitigating the impacts, if containment not possible</td>
</tr>
<tr>
<td>Low</td>
<td>Routine public health measures without additional aggressive interventions</td>
<td>Aiming at reducing transmission and mitigating impact with focus on vulnerable population</td>
</tr>
</tbody>
</table>
CAPSCA: A37-WP/58

Technical Commission
Agenda Item 42:
(Cooperative Arrangement for the Prevention of Spread of Communicable Disease through Air Travel (CAPSCA))

WP/58 Title:
Improved management of communicable disease in the aviation sector through multi-sector collaboration

Result: Resolution 42/1: Prevention of spread of communicable disease through air travel
CAPSCA WP Resolution

The Assembly:

1. Urges Contracting and States Regional Safety Oversight Organizations to ensure that the public health sector and the aviation sector collaborate to develop a national preparedness plan for aviation which addresses public health emergencies of international concern and which is integrated with the general national preparedness plan;

2. Urges Contracting States to develop a national preparedness plan for aviation that is in compliance with the World Health Organization International Health Regulations (2005) and which are based on scientific principles and on the guidelines from ICAO and the World Health Organization;

3. Urges Contracting States, and Regional Safety Oversight Organizations as appropriate, to establish requirements for the involvement of stakeholders such as airport operators, aircraft operators and air navigation service providers in the development of a national preparedness plan for aviation; and,

4. Urges Contracting States to join and participate in the Cooperative Arrangement for the Prevention of Spread of Communicable Disease through Air Travel (CAPSCA) project, where available, to ensure that its goals are achieved, unless equivalent measures are already in place.
Other Public Health Emergencies?

Fukushima Dai-ichi Nuclear Plant 12 March 2011
ICAO Transport Task Force

Weekly teleconference

ICAO  
IAEA  
IMO  
WHO  
WMO  
UNWTO  
ILO

IATA  
ACI

Dr. Anthony Evans
Concern about levels in food and water
What is going to hit us next?

Pandemic H?N?, Nuclear?
CHOLERA OUTBREAK

HAITI

Golfe de la Gonâve

Artibonite Department

Centre Department

DOMINICAN REPUBLIC

SAINT-MARC

PORT-AU-PRINCE

Expert: UN Brought Cholera to Haiti
Dec 8, 2010 1:40 AM CST

Woman in hospital bed

Children in hospital bed
Now Sprouts Probably Not to Blame for E. Coli

Jun 6, 2011 10:40 AM CDT

Germany on E. Coli Source: It Was the Bean Sprouts

Jun 10, 2011 6:25 AM CDT
QUARANTINE

SCARLET FEVER

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__________________________
Health Officer.
The next pandemic, NBC emergency?

- Causative organism...... H?N?, Variant ?, ?, Others
- When
- How widespread
- Where will it start

- Aviation sector is likely to be severely impacted
- Preparedness planning is our only protection
- A harmonized preparedness plan will inspire confidence in the travelling public
Questions?

Jarnail Singh

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