CAPSCA MID
18 to 20 Nov. 2013

Screening at Points of Entry: Pros & Cons
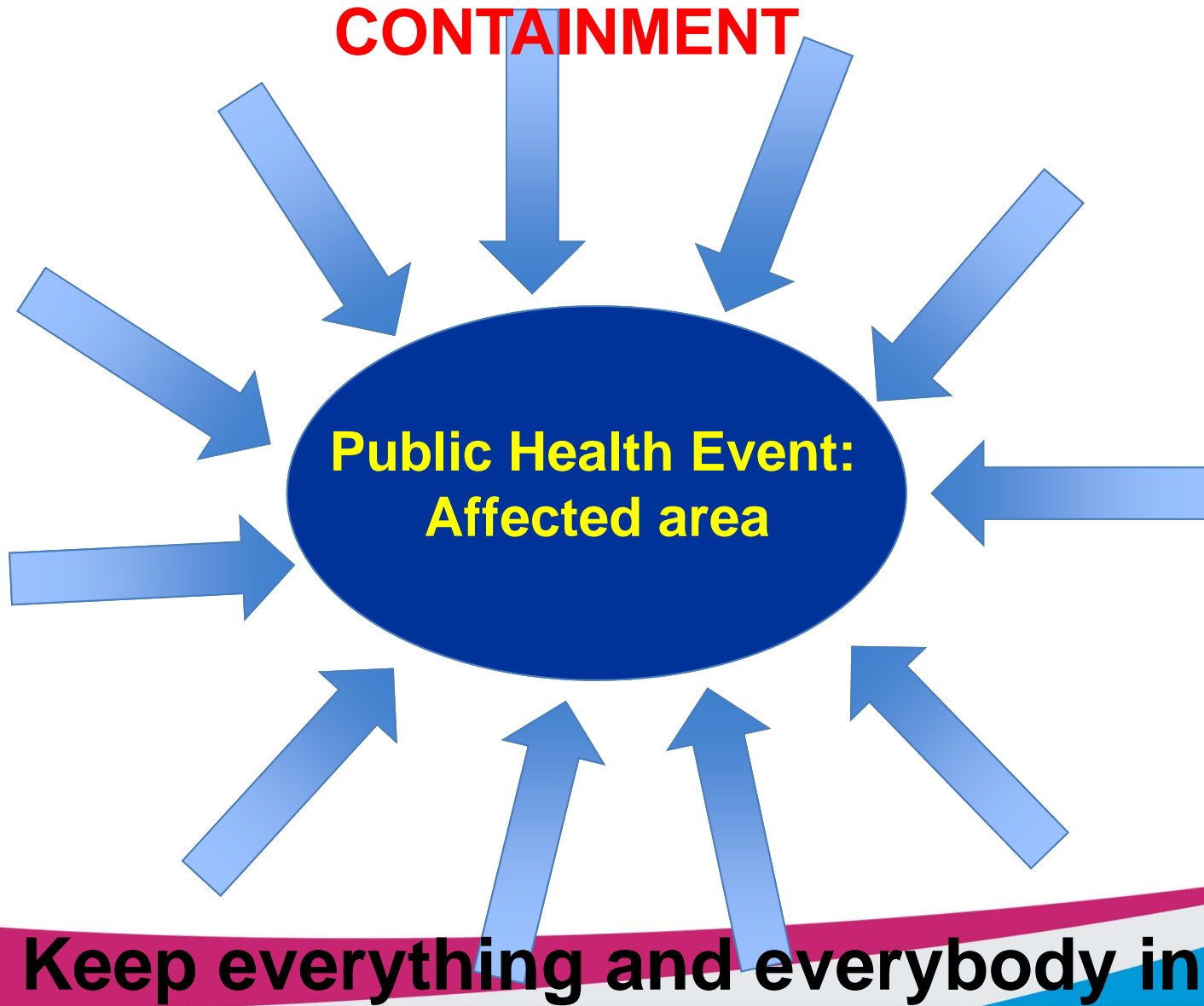
Dr. Jarnail Singh
CAPSCA Technical Advisor / CAAS

CAAS
Civil Aviation Authority of Singapore

Keep everything and everybody in

CONTAINMENT

Public Health Event:
Affected area

Keep everything and everybody in

Keep everything and everybody in

Keep everything and everybody in

Keep everything and everybody in

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2
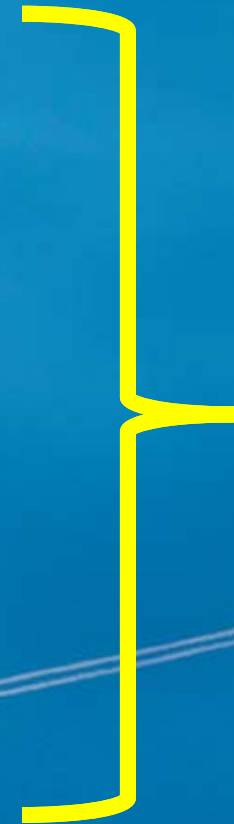
International Health Regulations (2005)

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.

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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

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Doc 7300/9

Convention on International Civil Aviation

Convention relative à l'aviation civile internationale

Convenio sobre Aviación Civil Internacional

Конвенция о международной гражданской авиации

This document supersedes Doc 7300/8.
Le présent document annule et remplace le Doc 7300/8.
Este documento remplaza el Doc 7300/8.
Настоящий документ заменяет Doc 7300/8.

Ninth Edition – Neuvième édition – Novena edición – Издание девятое — 2006

International Civil Aviation Organization
Organisation de l'aviation civile internationale
Organización de Aviación Civil Internacional
Международная организация гражданской авиации

96 'Articles'

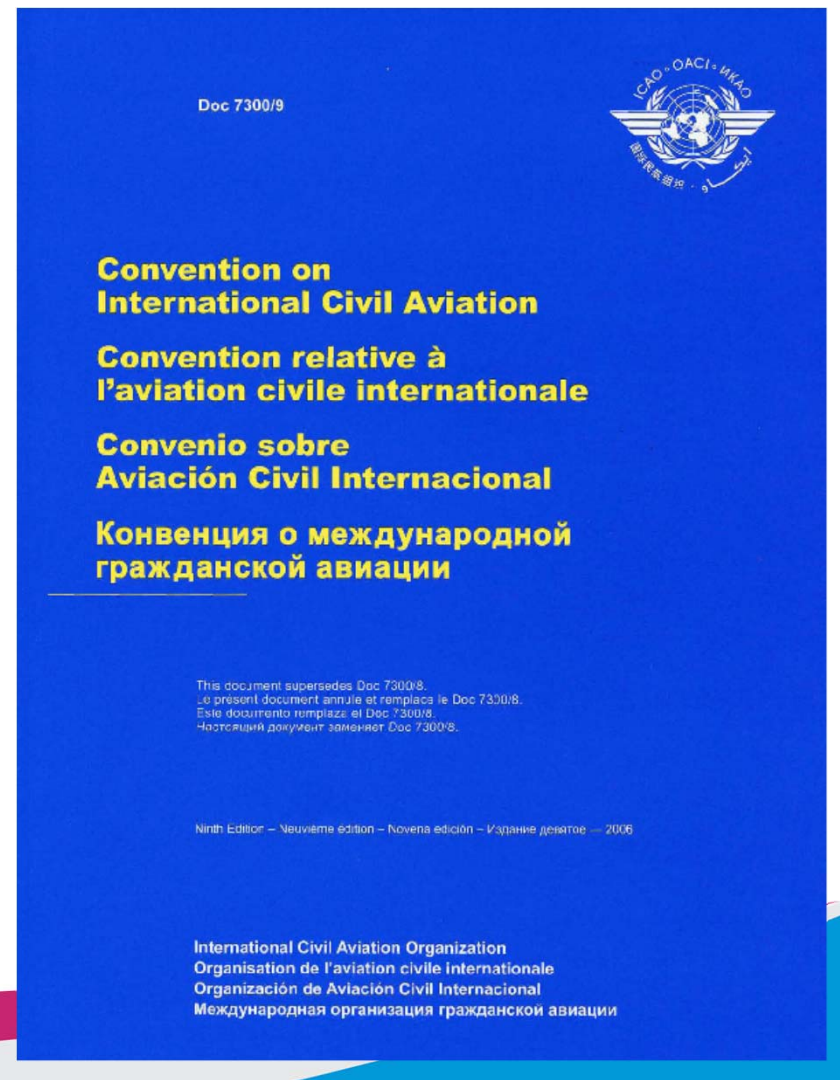Article 14, International Convention on Civil Aviation

Basis for Action - health

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Basis for Action - health

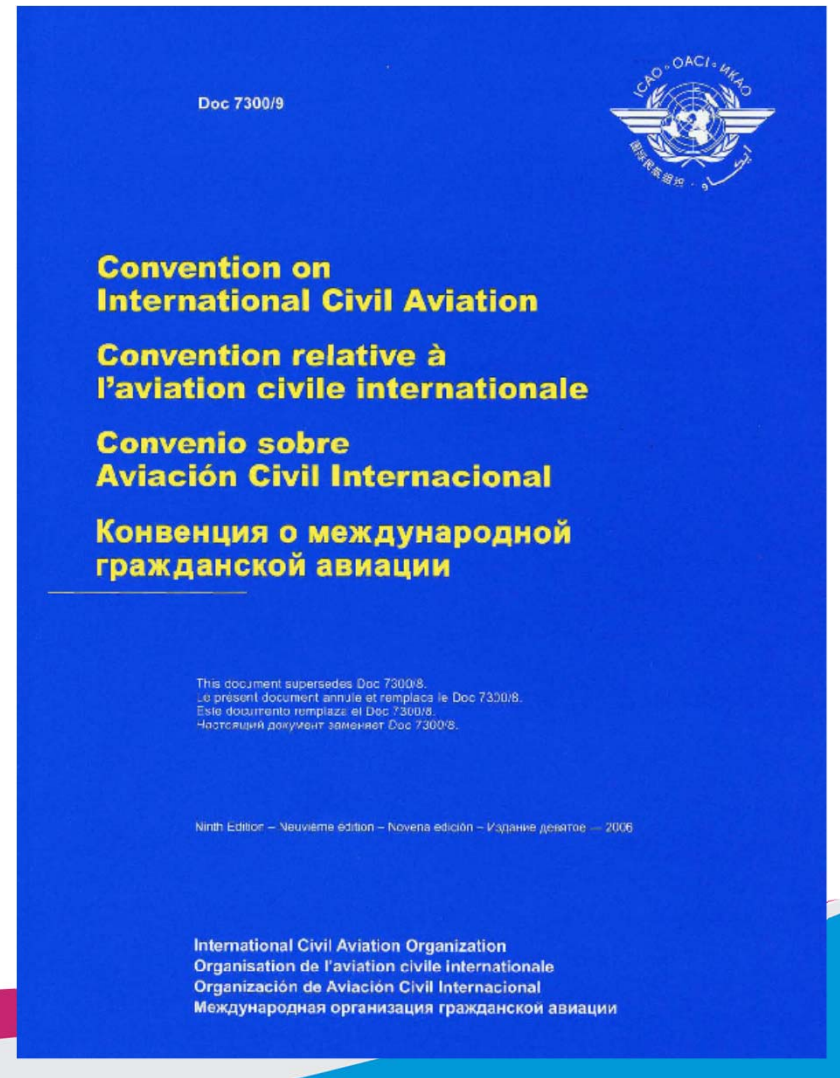## Article 14, International Convention on Civil Aviation:

'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....

Doc 7300/9

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Международная организация гражданской авиации

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.'

Doc 7300/9

Convention on International Civil Aviation

Convention relative à l'aviation civile internationale

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International Civil Aviation Organization
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Organización de Aviación Civil Internacional
Международная организация гражданской авиации

19 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**

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Guidance Material
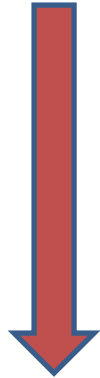
Distilled into…..

State Guidelines : ICAO

Airline Guidelines : IATA

Airport Guidelines : ACI

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New SARPs in force

From Nov 2007 & 2009...

Annex 6
Annex 9
Annex 11
Annex 14
PANS –ATM
Annex 18

• Audit questions

IHR implementation

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Changes to SARPs 2009

- **Annex 6 – Operation of Aircraft**
  - ➤ **On board medical supplies**
  - ➤ **Inclusion of a universal precaution kit**
    - ✓ **Managing on board communicable disease event**

Changes to SARPs   2007

- Annex 9 - Facilitation
  - **States must have a pandemic preparedness plan for aviation**

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Changes to SARPs 2009

- **Annex 11 – Air Traffic Services and PANS-ATM**

  - ➢ **Detailed procedure for utilising ATC for notifying destination of on board public health event**

  - ➢ **Public health emergencies included in contingency planning**

Changes to SARPs 2009

- **Annex 14 – Aerodromes**
  - **Public health emergencies included in aerodrome emergency plan**

Departing Passengers

•(a) Point of ticket enquiry / trip planning

•Web based

•Phone booking

•Travel agents

•Airline

? Responsibility

Advisory Message Not To Travel if ill

*<u>Educate</u> and <u>Prepare</u> the public:

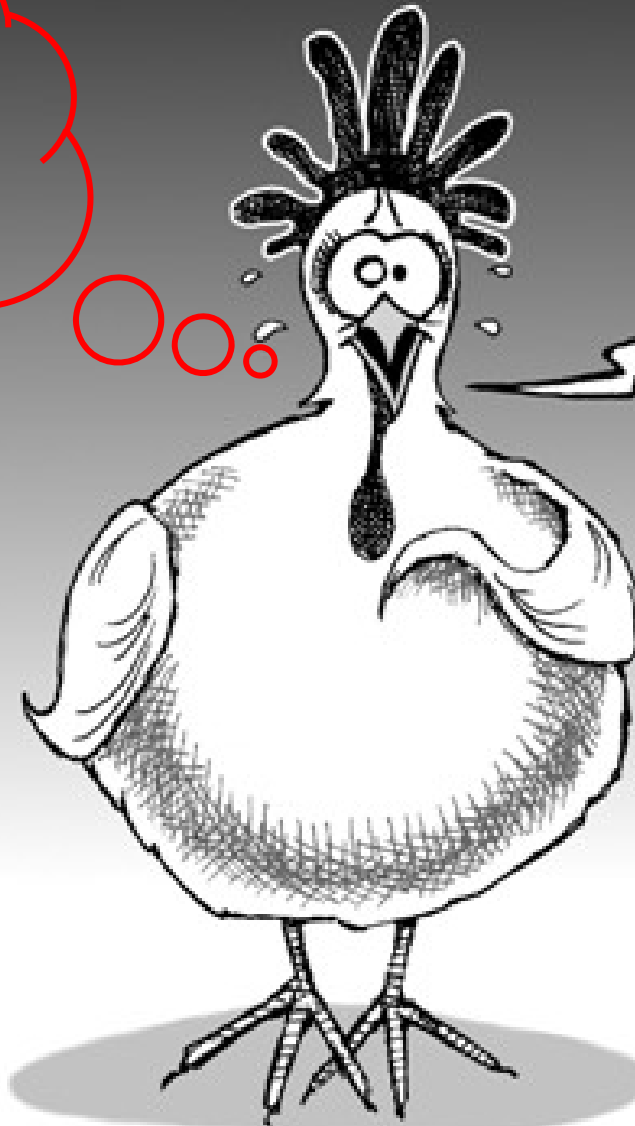**"*Do Not Travel* If You Have A *Communicable Disease*"**

*<u>Prime</u> the <u>Travel Industry</u>

<u>Sample Message</u>:

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.

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Sample Message: Screening for MERS CoV 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) <u>Travel plans made / Ticket Purchased</u>

•Arrival at airport:

    i)   <u>Before entry to airport</u>:

    ii)   Appropriate Advisory Signs/Display boards/Messages

?Feasible?

?Responsibility?

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

Positive

Negative

PPE for staff & suspect passengers

No Entry. Refer to secondary screening

Proceed to Check-in

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ii) <u>At Check-in</u>:

•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.

Appropriate PPE for Check-in staff and suspect passengers

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In Flight Screening ?

Role of cabin crew

Procedure for handling an ill passenger

Role of the Pilot in Command

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Screening at Arrival

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- ❑ **How and where do you do the screening**
  - ✓ **In the aircraft**
  - ✓ **After disembarkation**
- ❑ **Who does the screening**
- ❑ **What do you screen for**
- ❑ **Contact tracing**
- ❑ **What to do with the contacts**

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If you pick up a "positive" during screening – what next?

Secondary screening – where?

Hospital?

Isolation

Quarantine?

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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

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

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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

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? To Screen

? Or Not To Screen

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Options for Interventions at International Points of Entry

Reference:

Suggested framework for assessment and decision making – Responding to Pandemic H1N1 2009: Options for interventions at International Points of Entry : WHO Regional Office for the Western Pacific interim option paper, 20 May 2009

Public Health Measures Available (Theoretically)
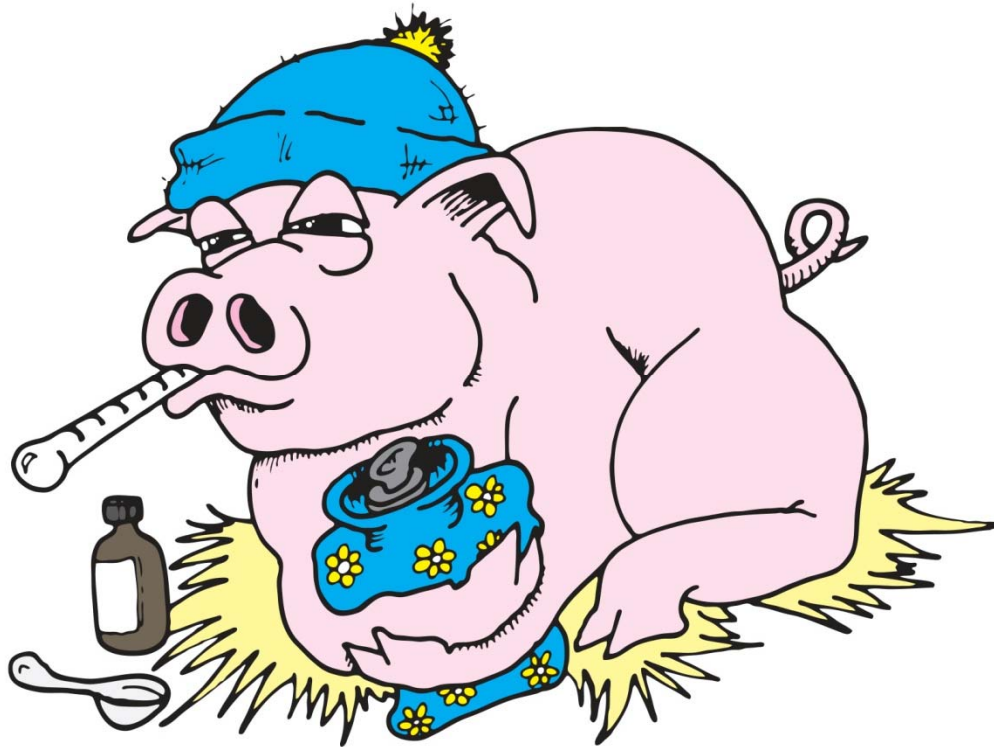## - at an international border -

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?…)

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- Public health measures in response to pandemic influenza

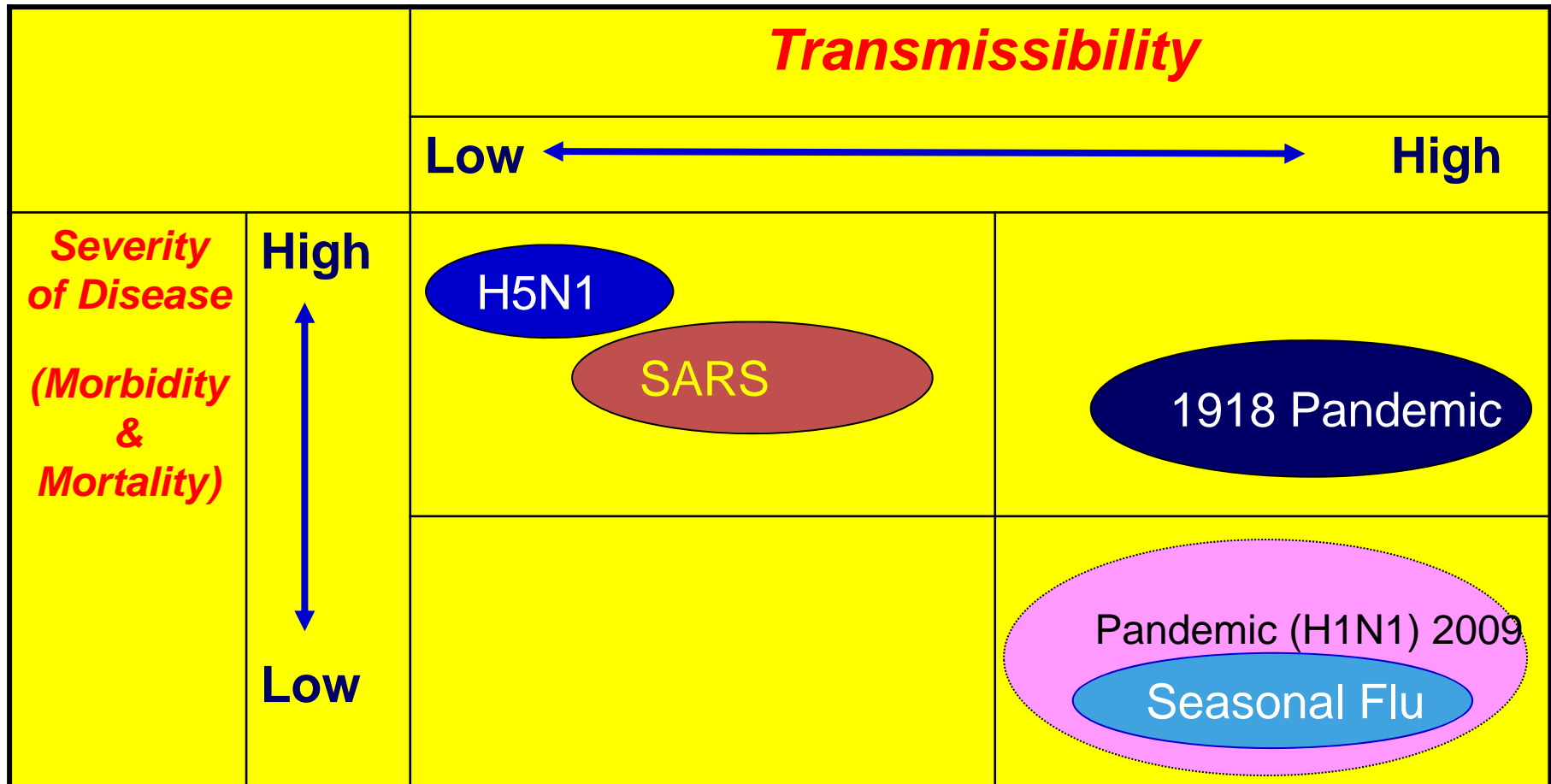- Options for public health intervention at international points of entry (POE)

Options: 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

Possible strategies based on risk category

		Transmissibility	
		Low ←————————————→ **High**	
Severity of Disease (*Morbidity & Mortality*)	**High** ↕ **Low**	➢Aiming at preventing disease importation and containing the virus	➢Aiming at rapid containment at the early stage, and mitigating the impacts, if containment not possible
		➢Routine public health measures without additional aggressive interventions	➢Aiming at reducing transmission and mitigating impact with focus on vulnerable population

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Matching cost and consequences of interventions with risk level (example)
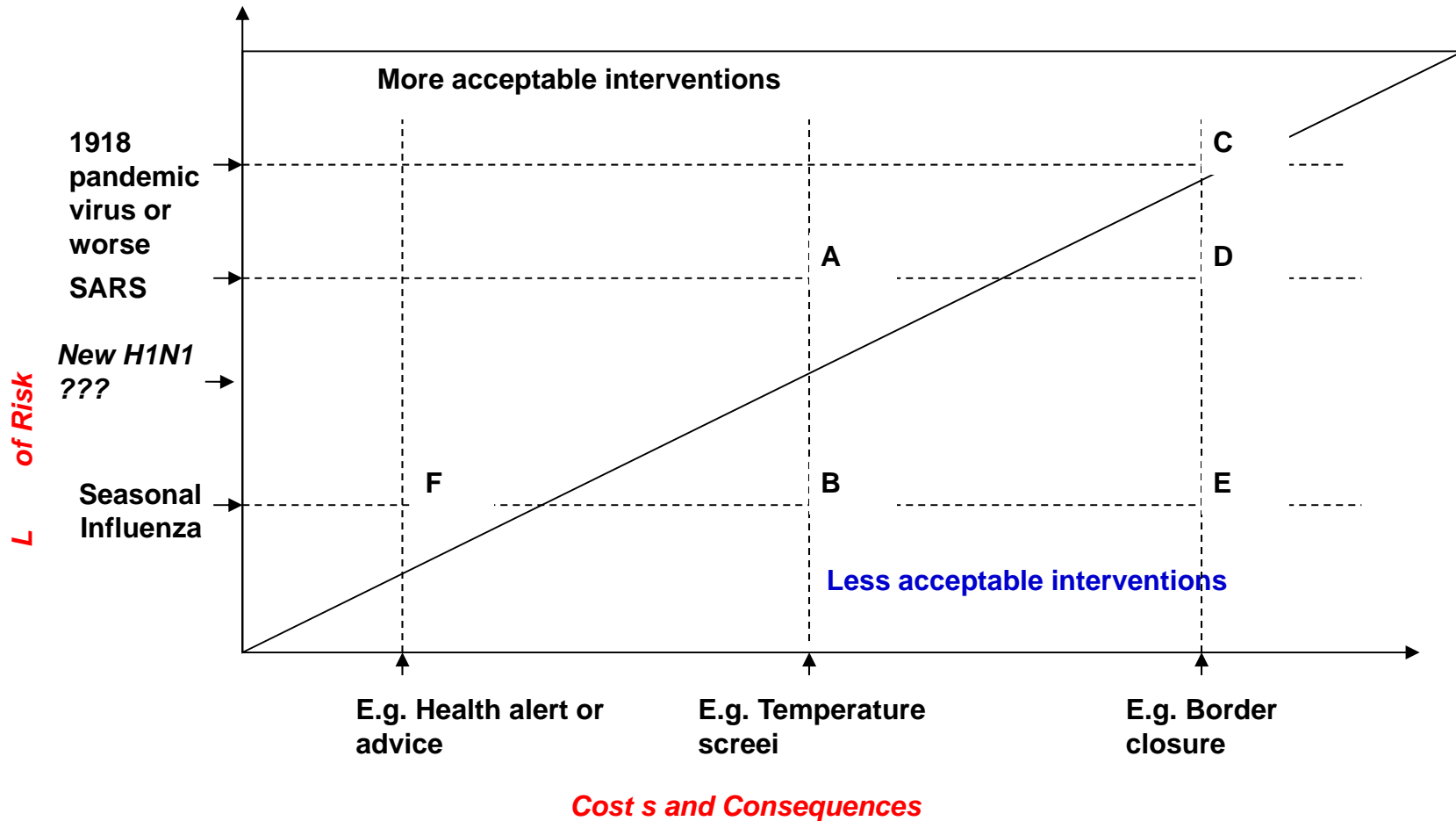
- **The presentation concerning traveller screening on "Biodiaspora" suggested that:**

  - ➢ **Exit screening** at airports with greatest traffic levels is most effective, least disruptive but places further burden on the source country

  - ➢ **Entry screening in cities receiving direct flights** from a source area is a second but less desirable option

  - ➢ **Entry screening in cities <u>not</u> receiving direct flights** from a source area are highly inefficient and can be disruptive.

SOME IMPORTANT ATTRIBUTES OF SCREENING TOOLS

❖ **Sensitivity**
❖ **Specificity**
❖ **Cost effectiveness**

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What is the single most important measure to prevent transmission of infectious disease??

Hand hygiene

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