

# Influenza A(H1N1) and the aviation sector

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# Plan

- Pandemic planning in aviation
  - Chicago Convention
- Current H1N1 situation
- Central role of WHO
- UN communication
- ICAO provisions
- Airport screening
- Cabin ventilation
- Airport operations

# Article 14, Convention on International Civil Aviation (Chicago Convention – 1944)

- ‘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...**’



2003: SARS

2005 – Avian influenza

2009

Influenza A(H1N1)

# Central role of WHO

# Pandemic alert phase 5

(phase - signifies spread of disease, not severity)

- Phase 5
  - The same identified virus has caused sustained community level outbreaks in at least two countries in one WHO region
- Phase 6
  - .... Sustained community level outbreaks in at least one other country in another region

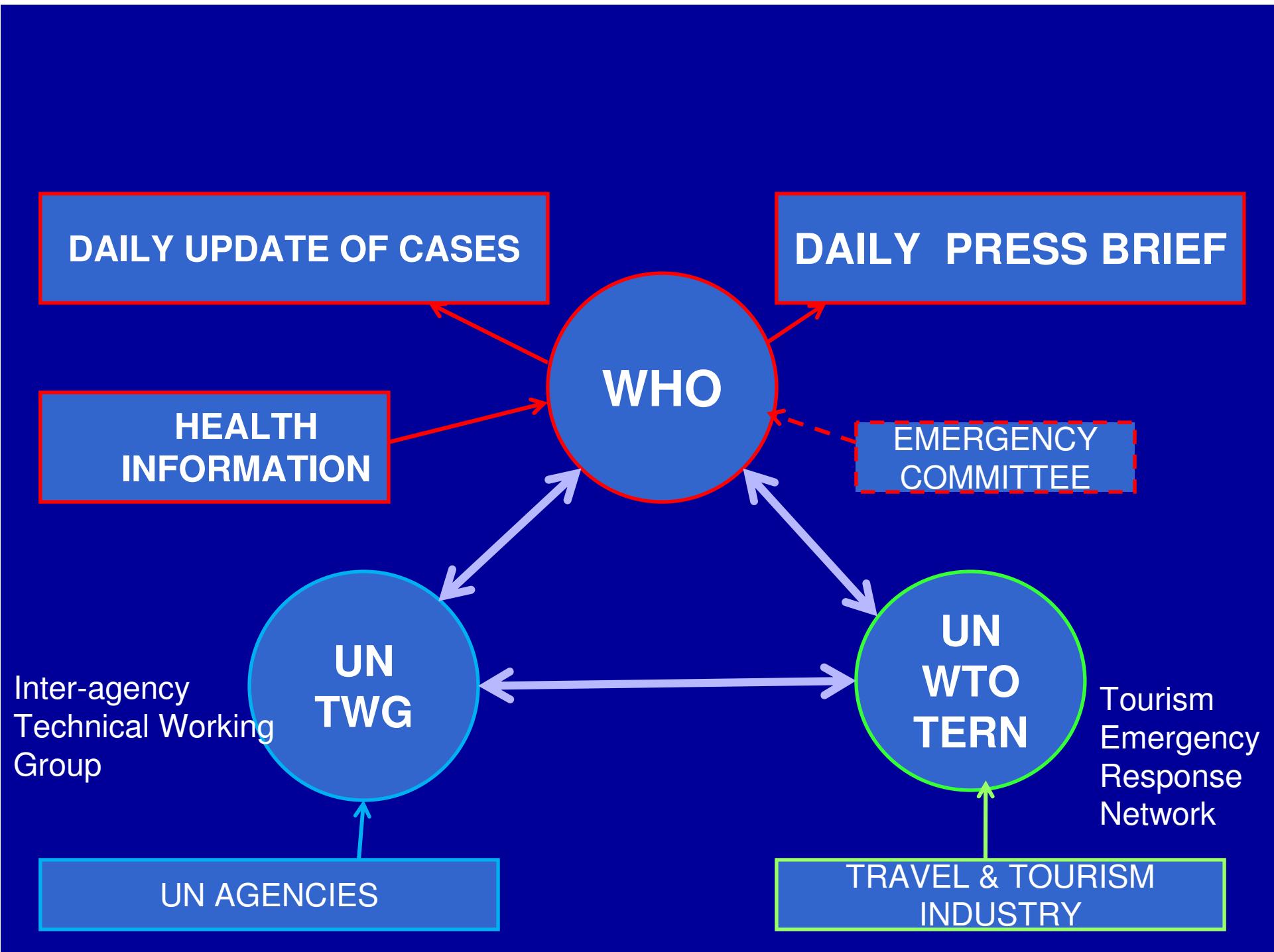
# World Health Organization

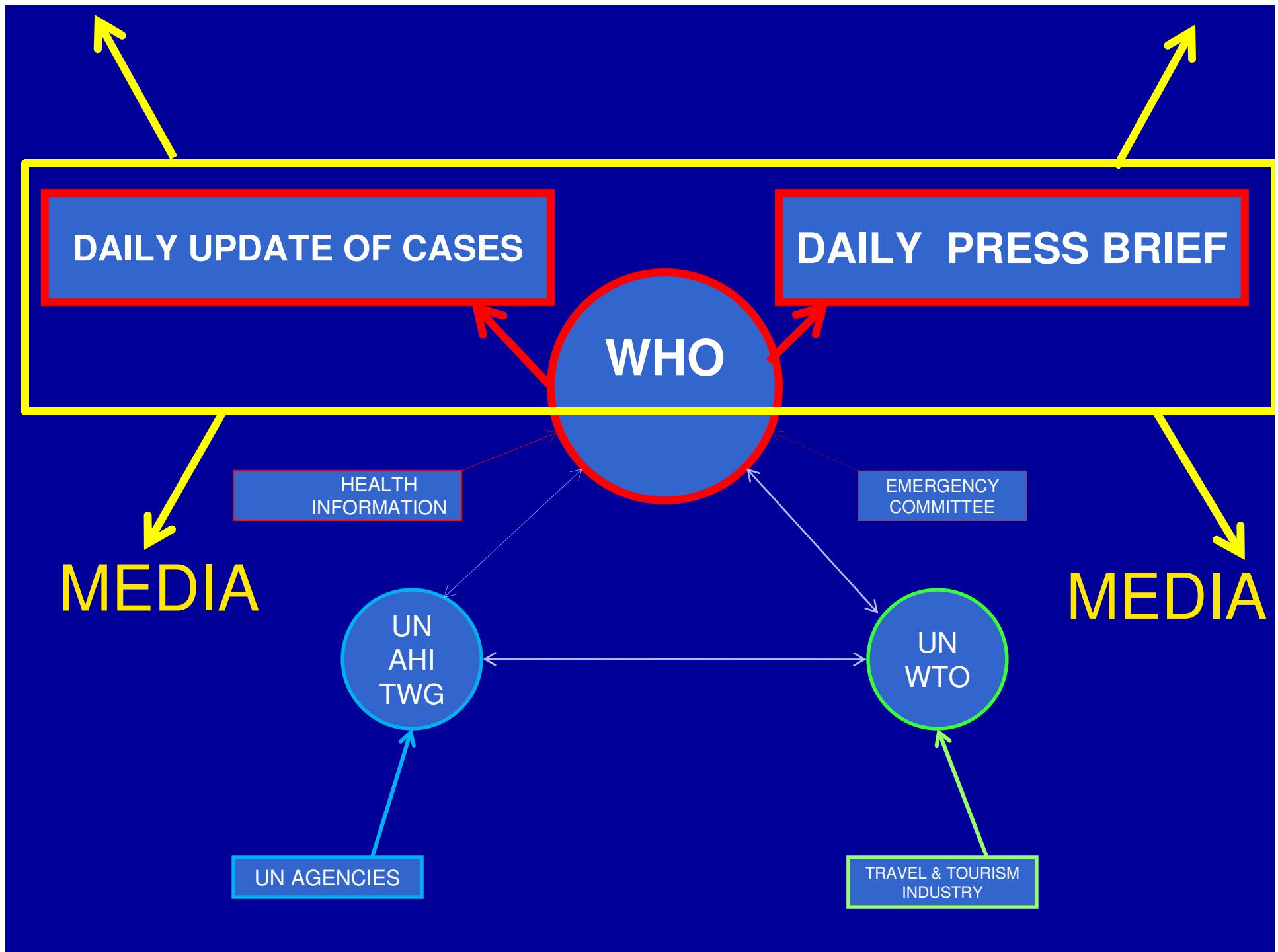
- No travel restrictions advised
  - Disease has already spread
- At present, illness is mild in most cases
- Can be treated by oseltamivir (Tamiflu)

# World Health Organization

- Simple, practical measures:
  - Frequent handwashing (sanitizer if handwashing not possible)
  - Social distancing/illness distancing
    - Do not travel/go to work with flu-like symptoms
    - Returning travellers who fall ill – seek medical care
  - Cough etiquette (use a tissue, dispose of tissue, wash hands)

# Communication

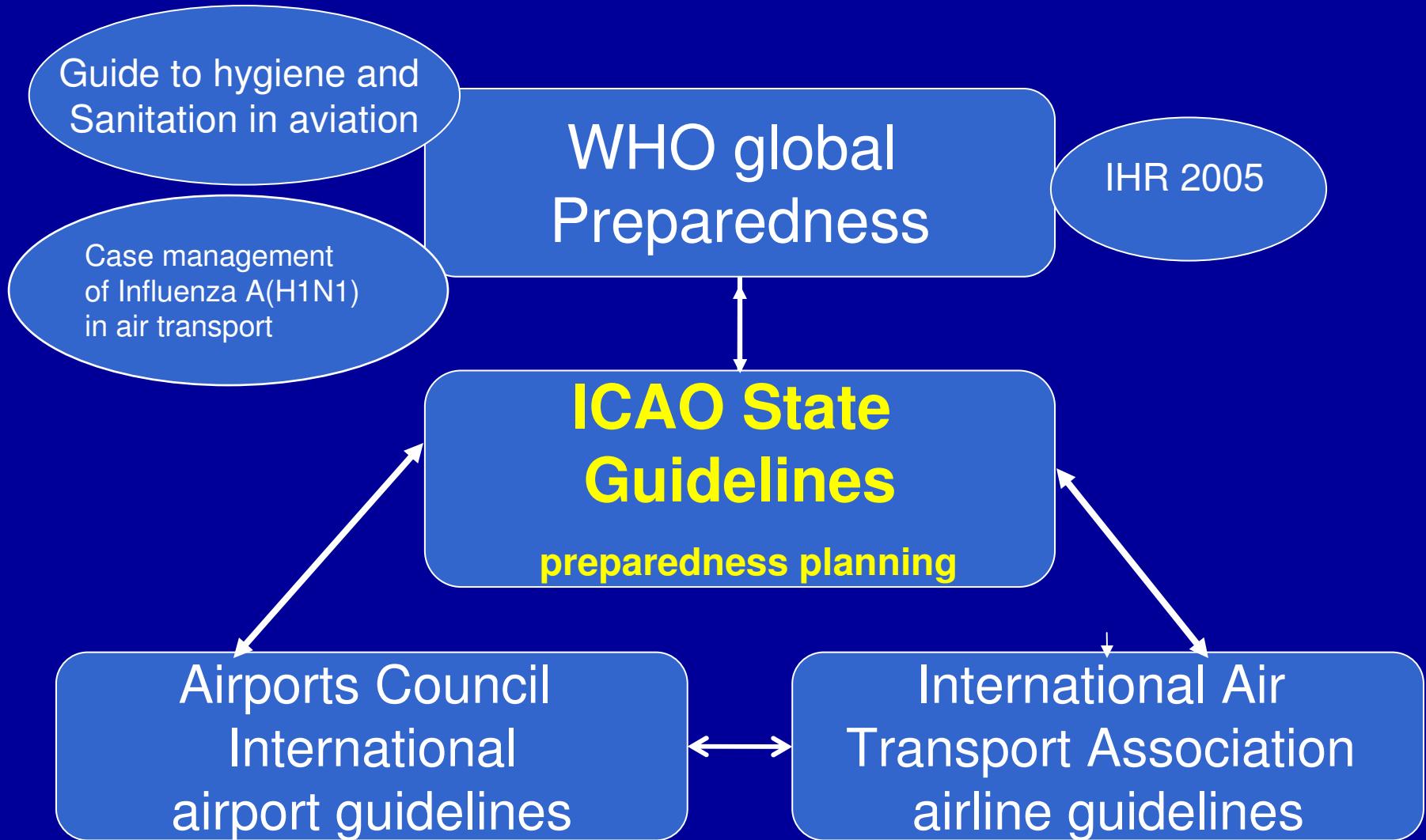




# Main role of ICAO

- Implementation of appropriate, harmonized preparedness plans by stakeholders in the aviation sector
- Support WHO in implementation of health measures in aviation

# Aviation related actions



# Changes to ICAO provisions

2007

- States to have a pandemic preparedness plan for aviation - integrated into national plan
- Cabin crew advice on how to identify a suspected case (changes to aircraft declaration)
- Passenger locator card for contact tracing agreed by WHO (collaboration with IATA)

2009

- ‘Universal precaution kit’ for managing on board communicable disease
- Pilot in command to notify air traffic control of a suspected case

# Identification of case of communicable disease by cabin crew

## APPENDIX 1. GENERAL DECLARATION

**Fever (38 °C/100 °F or greater) plus one or more of the following signs or symptoms:**

- **Appearing obviously unwell**
  - **Persistent coughing**
  - **Impaired breathing**
  - **Persistent diarrhoea**
  - **Persistent vomiting**
  - **Skin rash**
  - **Bruising or bleeding without previous injury**
  - **Confusion of recent onset**

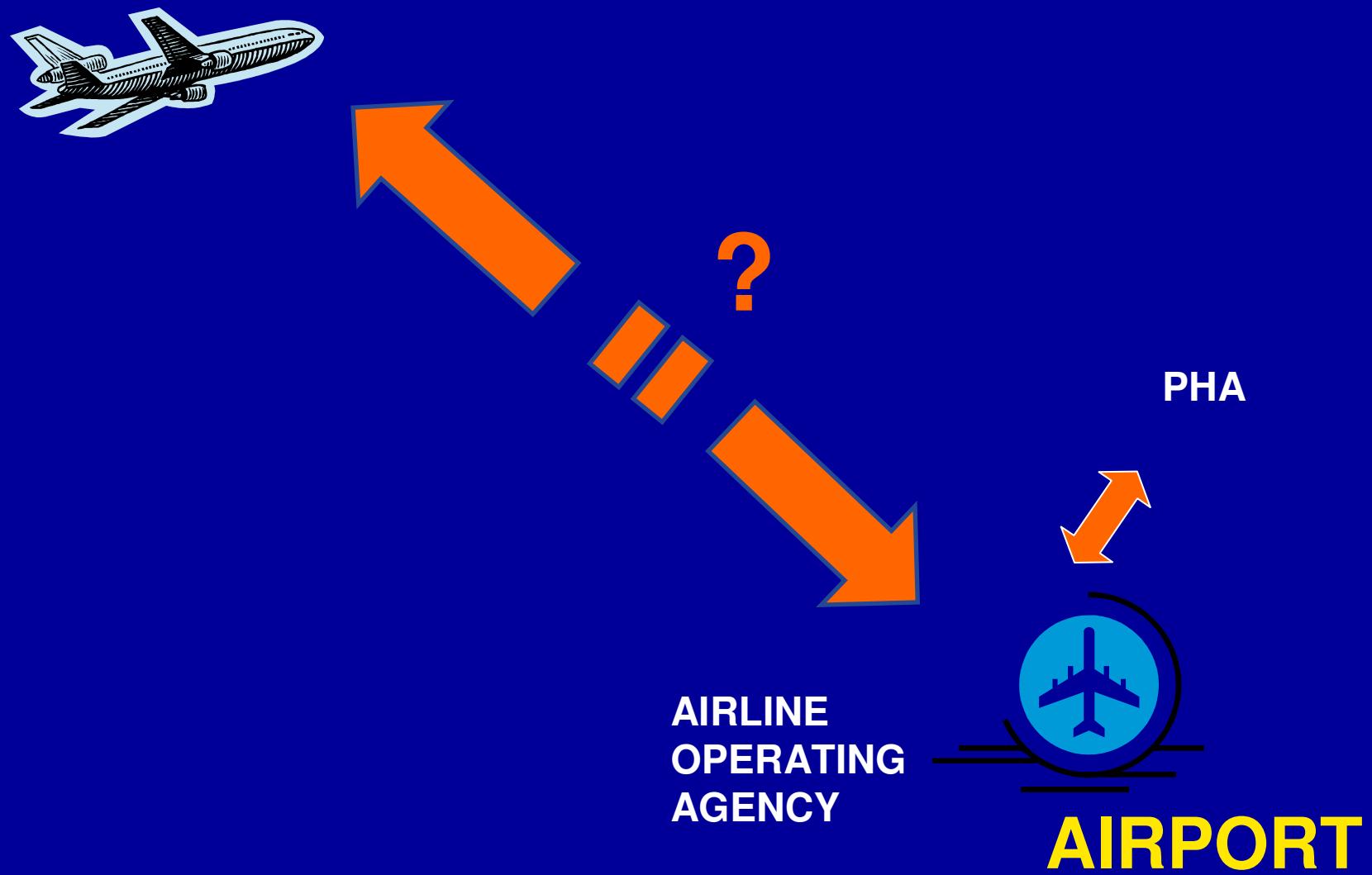
# On board medical supplies

- Inclusion of a ‘universal precaution kit’
  - Managing on board communicable disease event
  - Personal protective equipment
  - Absorbent powder
  - Germicidal disinfectant
  - Biohazard disposal bag etc.
- Inclusion of thermometer in first aid kit

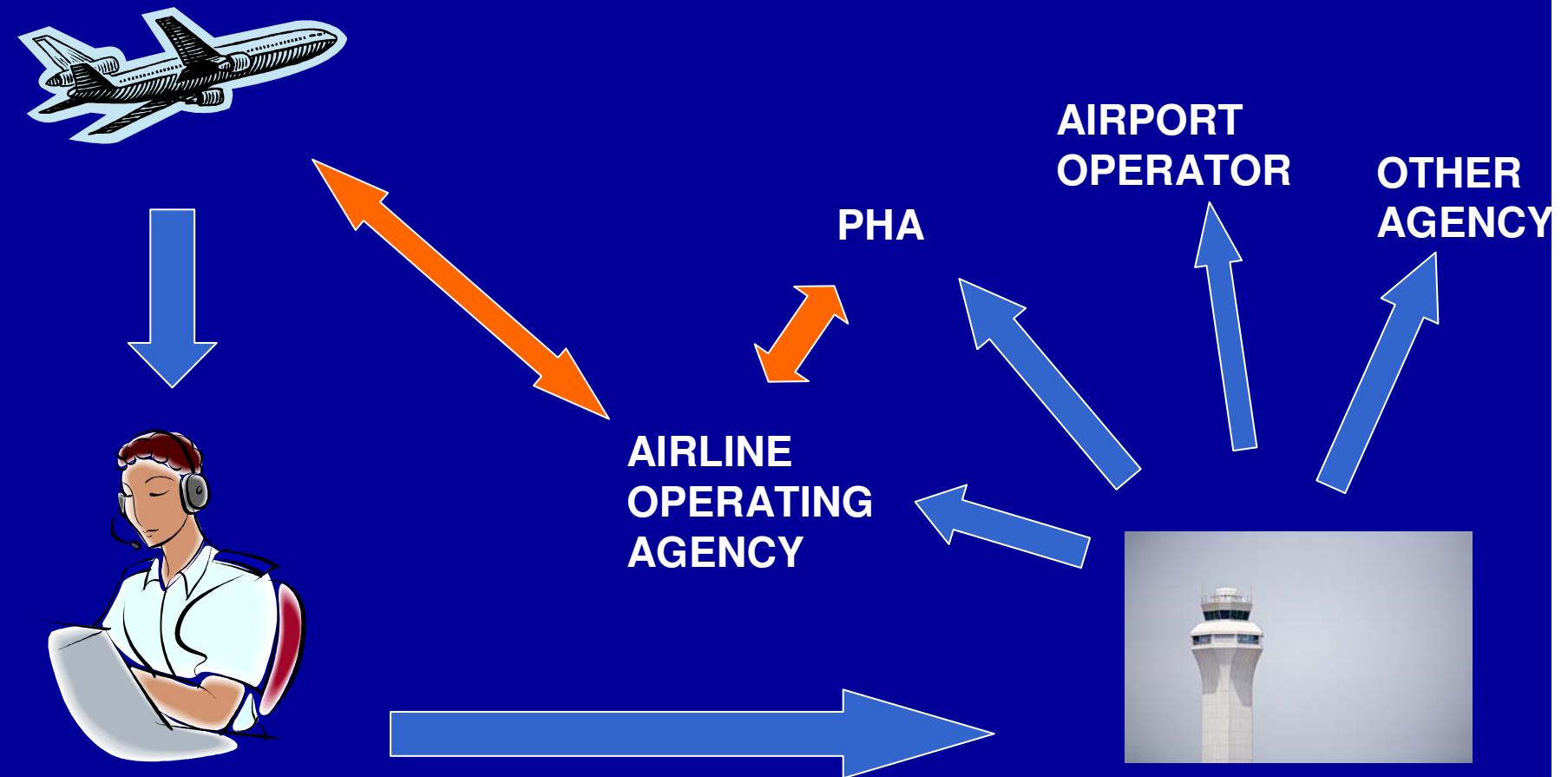
# Procedures for Air Navigation Services – Air Traffic Management

- procedure for utilising Air Traffic Control for notifying destination of communicable disease

# CURRENT SITUATION: AIRLINE NOTIFICATION OF EVENT



# ATC NOTIFICATION OF EVENT



En route ATC

Aerodrome tower

# Public Health Passenger Locator Card

PUBLIC HEALTH PASSENGER LOCATOR CARD			
<p>Public Health Passenger Locator Card to be completed when recommended by the World Health Organization or 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 collected will be held by the public health authorities in accordance with applicable law and will be used only for public health purposes.</p>			
<b>Flight Information</b>			
1. Airline and Flight Number	2. Date of arrival	3. Seat Number where you actually sat on the aircraft	
Airline	Flight Number	DD	MM
		YYYY	
<b>Personal Information</b>			
4. Name			
Family Name	Given Name(s)		
Your Current Home Address (including country)			
Street Name and Number	City	State/Province	
Country	ZIP/Postal Code		
Your Contact Phone Number (Residential or Business or Mobile)			
Country code	Area Code	Phone Number	E-mail address
Passport or Travel Document Number			
Issuing Country/Organization			
<b>Contact Information</b>			
5. Address and phone number where you can be contacted during your stay or, if visiting many places, your cell phone and initial address			
Street Name and Number	City	State/Province	
Country	ZIP/Postal Code		
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. Please provide the name of a close personal contact or a work contact. This must NOT be you.			
a. Name			
Family Name	Given Name(s)		
b. Telephone Number			
Country code	Area Code	Phone Number	E-mail address
c. Address			
Street Name and Number	City	State/Province	
Country	ZIP/Postal Code		
7. Are you traveling with anyone else? YES/NO Circle appropriate response If so, who? (name of individual(s) or group)			

**For contact tracing of travellers who have been in contact with a suspected or known cases of H1N1 – on WHO/ICAO/IATA website**

**Use in conjunction with health declaration card (IATA website)**

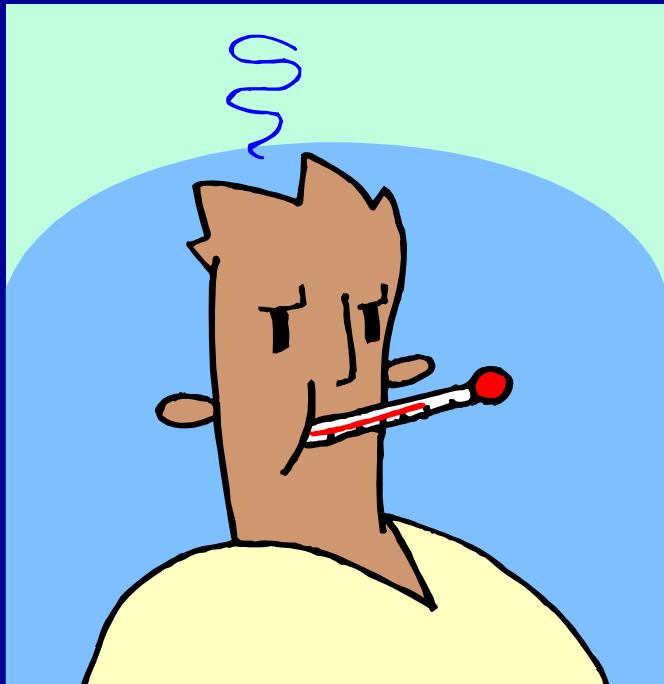
# Health declaration card

- Developed by IATA – to assist harmonization
  - Specifically for use in H1N1

# Airport screening

- Health declaration card
- Temperature
  - Infra-red imaging
  - Temperature probe
- Screening not recommended by WHO for H1N1
  - But could be regarded as disease surveillance tool
- Not likely to be too disruptive
  - Significant disruption under IHR = delay of >24 hours

# Temperature screening



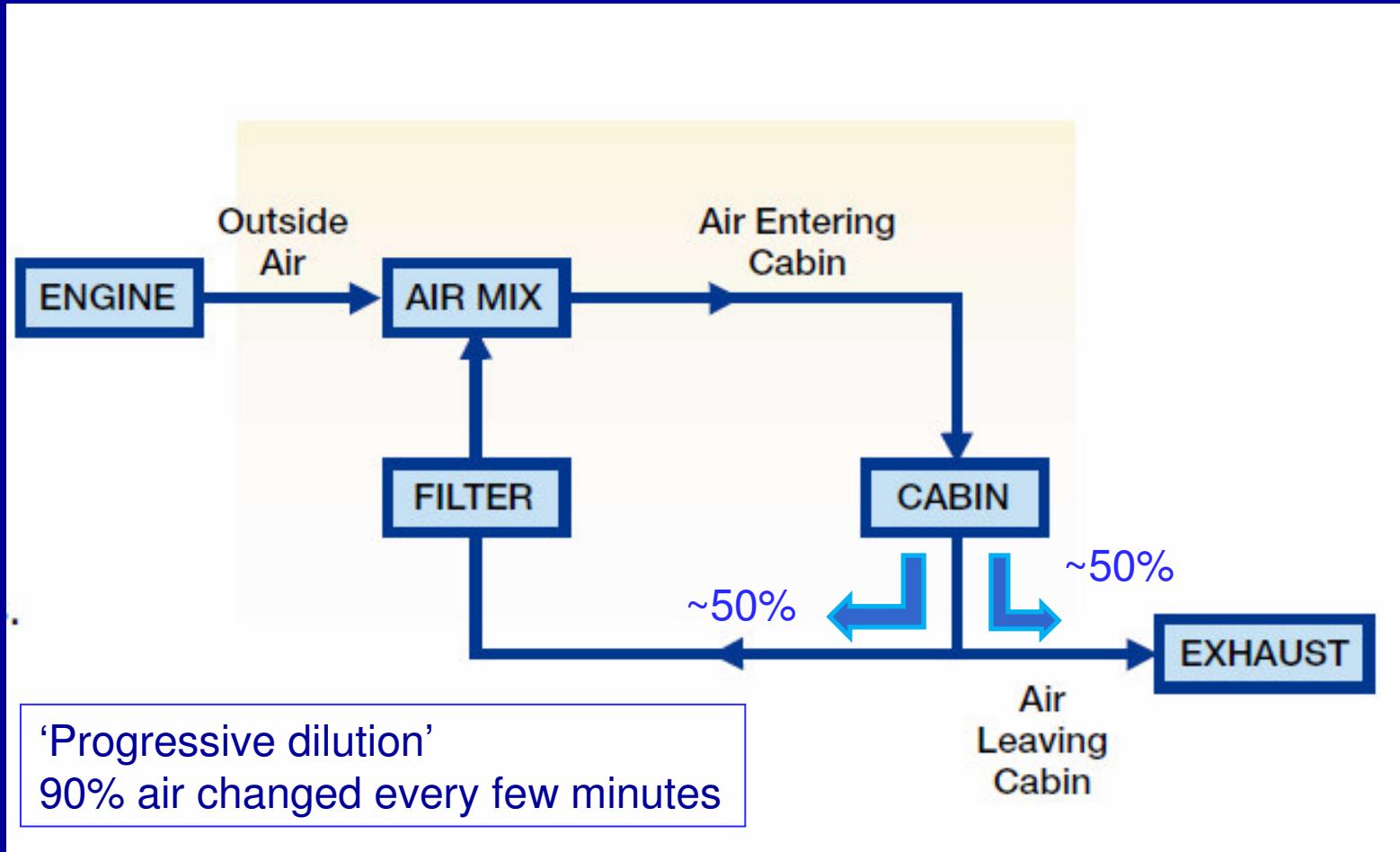
- Identifies travellers with fever
- Possible to be infectious without fever
- Not all H1N1 cases have a fever
- ? Deterrent effect to travellers

# Screening - summary

- May identify some travellers at risk
- Not likely to have any significant effect on preventing spread of H1 N1
- May have a reassuring effect – the government is ‘doing something’
- May deter unwell potential travellers from travelling
- For consideration by governments - but not currently recommended by WHO

# Cabin Ventilation

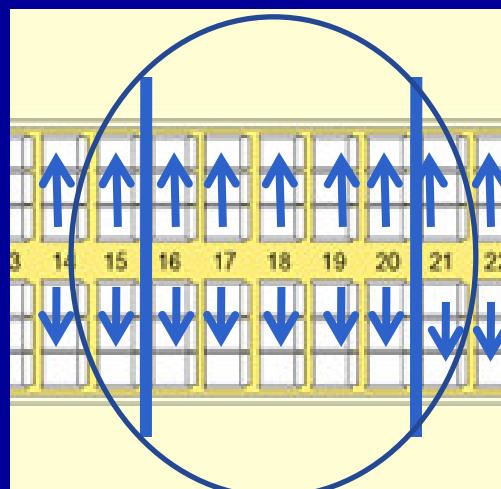
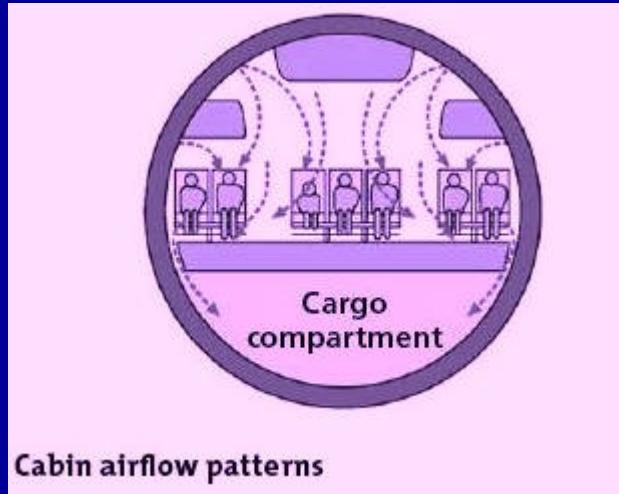
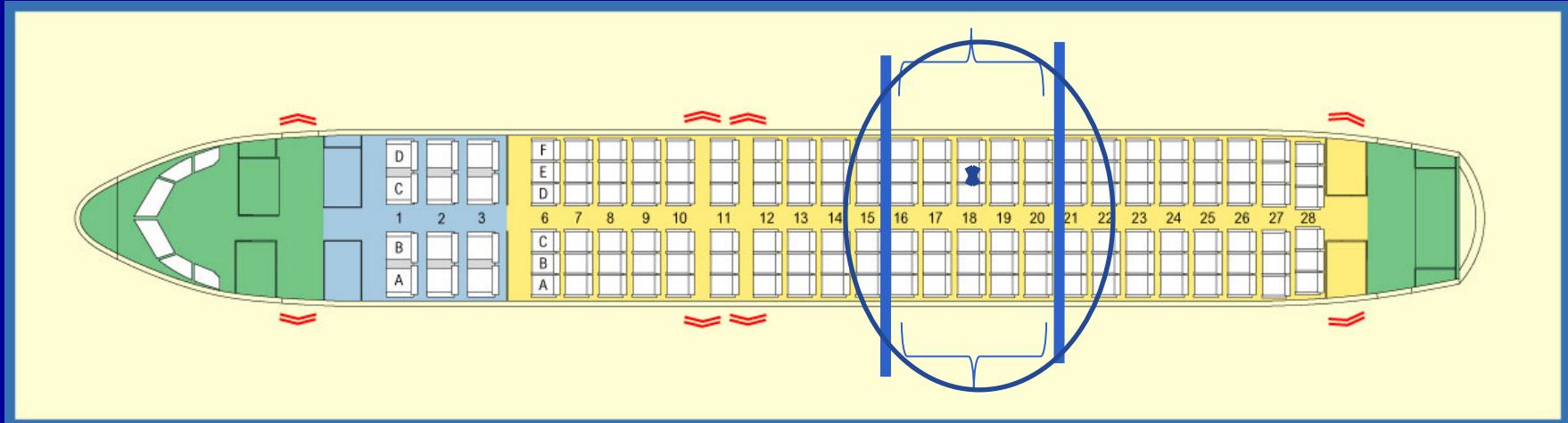
# Air recirculation – through high efficiency particulate air (HEPA) filters > 99% efficient



Courtesy: Pall Corporation

# “Close contact”

## Same row, 2 rows ahead and behind



Airflow – across cabin, not longitudinal

# Airport operational issues

- Maintaining flight operations when numbers of staff are reduced: up to 40% for 8 weeks
  - Air traffic controllers, pilots, cabin crew
  - IT support, ground transportation
  - Power supply

# CAPSCA project

- “Cooperative Arrangement for the Prevention of Spread of Communicable disease through Air travel”
- Commenced 2006 in Asia Pacific
- Now also in Africa and Americas
- Goals
  - Training
  - Development of guidance material
  - Airport evaluations

# “Cooperative”

- Main partners
  - World Health Organization, International Air Transport Association, Airports Council International
- Other contributors
  - UN Office for the Coordination of Humanitarian Affairs, World Food Programme, International Organization for Migration, UN World Tourism Organization, European Civil Aviation Conference, US Centers for Disease Control and Prevention ....and others

Successful preparedness  
planning requires effective  
inter-organization  
collaboration

# Some findings from airport evaluations

- Designated aircraft parking area –not necessarily located distant from terminal
- Passenger baggage from affected area – does not need to be disinfected
- Arriving passengers should be handled as close to routine as possible
- Need clear lines of responsibility and communication
- All stakeholders need to be involved

# Key messages

- Simple preventative measures are effective – handwashing, cough etiquette, illness distancing
- Risk of developing a serious illness is low:
  - and can be treated with oseltamivir (Tamiflu)
- International communication between main players is good-lessons have been learned from SARS
- Communication between public health and aviation sector at national level is vital
- ICAO in collaboration with its partners have developed guidance material for aviation preparedness-widely available
- Evolution of H1N1 cannot be predicted

“Plan for the worst,  
hope for the best”

# Useful websites

- ICAO  
<http://www.icao.int/icao/en/med/guidelines.htm>
- WHO  
[http://www.who.int/ehr/travel/A\(H1N1\)\\_air\\_transport\\_guidance.pdf](http://www.who.int/ehr/travel/A(H1N1)_air_transport_guidance.pdf)  
[http://www.who.int/water\\_sanitation\\_health/hygiene/ships/guide\\_hygiene\\_sanitation\\_aviation\\_3\\_edition.pdf](http://www.who.int/water_sanitation_health/hygiene/ships/guide_hygiene_sanitation_aviation_3_edition.pdf)
- United Nations  
<http://www.un-influenza.org/>
- UN World Tourism Organization  
<http://www.sos.travel/>
- US Centers for Disease Control and Prevention  
<http://www.cdc.gov/>
- International Air Transport Association  
<http://www.iata.org/index.htm>
- Airports Council International  
[http://www.airports.org/cda/aci\\_common/display/main/aci\\_content07.jsp?zn=aci&cp=1\\_665\\_2\\_\\_](http://www.airports.org/cda/aci_common/display/main/aci_content07.jsp?zn=aci&cp=1_665_2__)

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