



INTERNATIONAL CIVIL AVIATION ORGANIZATION
FIFTH MEETING OF DIRECTORS GENERAL OF CIVIL AVIATION (DGCA/5)
OF ESAF AND WACAF STATES
(Dakar, Senegal, 4 November 2013)

Agenda Item 6: Technical Cooperation Activities

**COLLABORATIVE ARRANGEMENT FOR THE PREVENTION AND MANAGEMENT OF
PUBLIC HEALTH EVENTS IN CIVIL AVIATION (CAPSCA)**

(Presented by the Secretariat)

Summary
This Paper informs on the implementation of the Collaborative Arrangement for the Prevention and Management of Public Health Events in Civil Aviation (CAPSCA).
REFERENCES <ul style="list-style-type: none">- International Health Regulations (IHR) 2005- Article 14 of the Convention on International Civil Aviation- Annexes 6, 9, 11, 14, PANS-ATM (Doc 4444) and Technical Instructions for the Safe Transport of Dangerous Goods by Air (Doc 9284)- Assembly Resolution A37-13- www.capsca.org
Strategic Objectives: <i>This information paper is related to all Strategic Objectives.</i>

1. INTRODUCTION

1.1 Although public health events are primarily managed by the health sector, because numbers affected can be large, a small reduction in risk from effective management in the aviation sector can have a significant impact on health. In a pandemic that kills 100,000, a contribution to risk reduction by the aviation sector of just one per cent would potentially save 1,000 lives - comparable to fatalities from a large aircraft accident. Public health events may also cause severe economic consequences.

1.2 *The Collaborative Arrangement for the Prevention and Management of Public Health Events in Civil Aviation (CAPSCA)* programme provides regional meetings, training events and assistance visits to international airports/States which strengthen public health preparedness plans at global, regional, national and operational levels. To achieve this, ICAO collaborates with the World Health Organization, Airports Council International, the International Air Transport Association and other stakeholders. Since the last Assembly, which encouraged States to join CAPSCA, the programme has been extended to Europe and the Middle East and is now active in all ICAO regions.

1.3 Funding of CAPSCA has been primarily from the United Nations Central Fund for Influenza Action, which is now closed. Without CAPSCA, adverse health and economic effects may be increased due to sub-optimal responses by the aviation sector to international public health events.

2. HISTORICAL FACTS

2.1 The following table presents public health event outbreaks classified as worldwide or regional, which are believed to have been transmitted to some extent by air travel. The economic effects are also considerable, with the Severe Acute Respiratory Syndrome (SARS) estimated to have resulted in losses of USD \$30-50 billion in China, Singapore and Canada.

Post-1950 Major International Public Health Events

Death toll	Years	Name
2,000,000	1957–1958	Asian Flu
1,000,000	1968–1969	Hong Kong Flu
775	2002–2003	SARS
371	2005 - present	(H5N1) Flu
931	2009–2010	West African Meningitis
18,156	2009–2010	(H1N1) Flu

2.2 The above table lists some individual communicable disease outbreaks during the last 55 years that have involved international spread, including influenza pandemics. Other outbreaks, that have not yet spread internationally e.g. avian influenza A(H7N9) are also of concern. The cholera outbreak in Haiti is an example of importation of disease through international air travel, believed to have been caused by an infectious international aid worker. Aviation has contributed to the extent of spread or the speed of dissemination of the diseases indicated, although the exact degree is uncertain. However, the likelihood of air travel being the primary means of disseminating disease has significantly increased in the last century, particularly during the past 60 years since the development of commercial jet aircraft made long distance travel more accessible and affordable to ever-increasing numbers of travellers. The “*global village*” concept brings with it health risks previously not experienced.

2.3 There are over 2.5 billion flights taken each year by scheduled operations alone, creating an increased likelihood of spread of disease by air travel as populations become increasingly mobile. However, the pace of growth of air travel is not currently being matched by the development of public health services. Human population growth and urbanization increase opportunities for promulgation of disease as human interactions become more common. Climate change also provides new opportunities for diseases to spread as the climate becomes more amenable for certain insects e.g. West Nile Virus in North America, chikungunya in Italy in 2007 and dengue in Madeira in 2012. Mass gatherings appear to be increasing in number and bring increased health risks as people converge on one place after international travel, and then travel home. An estimated 100 million pilgrims attended the 2013 Hajj.

2.4 In general terms, because the numbers affected and potentially affected are so great – tens of thousands, even millions, of persons – a small change in risk can have big effects in outcome. A reduction in mortality of even 1% because of good management in the aviation sector e.g. traveller screening, identification and management of on board cases, appropriate notification to the Public Health Authority at destination and efficient communication procedures to inform travellers of what to do if they become ill, would reduce the fatality rate by 1000 in an outbreak that kills 100,000, and proportionally more in more severe outbreaks. Lives saved by health related action taken in the aviation sector are comparable to the numbers of fatalities from aircraft accidents, and could be far greater.

2.5 There are also flight safety risks associated with an outbreak or pandemic, as staff stay away from work, procedures need to be modified and experience levels of operators are reduced, not to mention the financial effects directly affecting the industry, and indirectly the economies that rely on aviation for income generation. Air passenger numbers to Hong Kong and Mexico fell by 80% and 40%, respectively, at the onset of SARS and the Influenza A(H1N1) pandemic. Economic and social benefits could derive from mitigations being in place.

2.6 The United Nations (UN) Central Fund for Influenza Action (CFIA) funding grant for CAPSCA expired at the end of 2012. States have concluded that the programme should continue. The project activities include meetings, training, assistance visits, guidance material and advice to provide States the latest information and guidance required to implement the ICAO public health related SARPs contained in Annexes 6, 9, 11, 14, the PANS-ATM(Doc. 4444) and the Technical Instructions for the Safe Transport of Dangerous Goods by Air(Doc 9284), and help States prepare for the ICAO Universal Safety Oversight Audit Programme (USOAP) audit protocol questions on public health emergency preparedness introduced from 2013. This is in support of ICAO Business Plan Strategic Objective Programme A6 - Regional Safety-related Activities.

3. THE BENEFICIARIES OF THE CAPSCA PROGRAMME

3.1 The target beneficiaries for CAPSCA are personnel of Public Health Authorities, Civil Aviation Authorities, Airports, Airlines, Air Navigation Service Providers, Emergency Response Agencies, and Tourism Authorities of States and representatives of related international organizations.

3.2 The CAPSCA programme provides an opportunity for public health personnel to work directly with aviation personnel to develop effective public health preparedness plans for aviation.

3.3 The benefits of CAPSCA to States include:

- a) Multi-sector collaboration within State, between States and between international organizations;
- b) Improved communication, coordination, cooperation and collaboration between all stakeholders;
- c) synergistic and harmonized development of guidance by international organizations, especially between ICAO, World Health Organization (WHO), International Air Transport Association (IATA) and Airports Council International (ACI);
- d) Improved public health emergency prevention and response in aviation;
- e) Reduced impact of public health emergencies on population health through reduced, delayed and/or mitigated health effects;
- f) Mitigation of economic and social effects caused by public health events. A faster return to normal operations when the health threat subsides; and
- g) Improved management of risk perception for the general public, air travellers, service providers and aviation personnel.

3.4 The key achievements of CAPSCA include:

- a) Five separate but harmonized regional projects – CAPSCA Europe and CAPSCA Middle East projects have been established since the 37th Assembly, making CAPSCA a global programme;
- b) CAPSCA regional projects being joined by 93 Member States and Territories;
- c) Airport assistance visits to States/international airports being completed in 54 States/Territories;
- d) Training for 20 technical advisors, provided to CAPSCA projects by States;
- e) Many partner organizations (United Nations agencies and aviation industry trade associations) participating in CAPSCA activities;
- f) WHO collaboration with ICAO on meetings, training and assistance visits;
- g) Expanding CAPSCA’s scope beyond communicable disease (subject to future funding);
- h) CAPSCA assistance visit guidelines, a checklist and a report template;
- i) A template for development of a National Aviation Plan for a Public Health Emergency;
- j) New additional WHO, ACI and IATA Guidelines (e.g. business continuity); and
- k) Development of the CAPSCA web site (www.capsca.org).

3.5 Next CAPSCA Africa Meeting

The next meeting of CAPSCA Africa (CAPSCA/AFRCA/4) is scheduled to be held from 04 to 06 November 2013 in Ouagadougou, Burkina Faso. The previous meetings were held in South Africa, Nigeria and Kenya respectively.

4. DISCUSSION

4.1 During the last seven years, SARPs and Procedures relating to public health emergency preparedness planning and response in aviation have been developed in:

- Annex 6 — Operation of Aircraft
- Annex 9 — Facilitation
- Annex 11 — Air Traffic Services
- Annex 14 — Aerodromes
- Doc 9284, Technical Instructions for the Safe Transport of Dangerous Goods by Air
- Doc 4444, Procedures for Air Navigation Services — Air Traffic Management (PANS-ATM)

4.2 From 2013, the Universal Safety Oversight Audit Programme (USOAP) Continuous Monitoring Approach (CMA) will include questions on SARPs related to preparedness planning. However, many in the aviation sector are not yet aware of the significance of such changes.

4.3 The Fukushima accident in 2011 demonstrated the advantages of an established multi-sector network, ready to respond to public health emergencies. Although developed to address the threats from communicable disease, the CAPSCA network was helpful in quickly bringing together a number of major international stakeholders. Supplemented by those with particular knowledge of the nuclear industry or special interest in the Fukushima accident, a transport task force was established. The task force, led by ICAO and involving seven UN specialized agencies and two international aviation organizations, provided guidance to States and aircraft operators. Three news releases were issued by ICAO on behalf of the task force that helped reassure passengers and crew concerning the low risk of travel to and from Japan, which in turn helped minimize disruption to air transport.

4.4 The nuclear accident in Japan demonstrated that not only public health events involving communicable disease can adversely affect air transport operations. The scope and name of the CAPSCA programme was therefore amended to take this into account. On 1 January 2013 the Cooperative Arrangement for the Prevention of Spread of Communicable Disease through Air Travel became the A38-WP/35 TE/1 *Collaborative Arrangement for the Prevention and Management of Public Health Events in Civil Aviation* with the same acronym, CAPSCA. Assuming funding is available, the programme will continue to be extended to address all types of public health events, biological, nuclear and chemical, including terrorist related incidents.

4.5 The cost of the CAPSCA programme is modest, approximately \$25,000 per region per year if assistance visits to individual States/airports are not funded by the project, and \$50,000 per year if they are. During 2006 to 2012, CAPSCA activities, including assistance visits, were funded primarily by the Central Fund for Influenza Action (CFIA), a fund administered by the UN Development Programme (UNDP). This fund is now closed and so other sources of income are being sought. Assistance visits to States and airports currently need to be financed on a cost-recovery basis, while meetings and training are being funded by the host States and ICAO. CAPSCA activities, especially assistance visits, are likely to diminish without additional funding to replace that from the CFIA.

5. CONCLUSION

5.1 Air transport is an important factor by which pandemics are initially disseminated. Furthermore, aviation is adversely and severely affected by such events, as are the economies of States and businesses that rely on it. Without CAPSCA, expected adverse health and economic effects may be amplified due to suboptimal responses by the aviation sector to international public health events.

5.2 Preparedness planning in the aviation sector requires multi-sector/multi-stakeholder collaboration, especially between the public health and aviation sectors. This can be a challenge as it involves overcoming sectorial barriers. CAPSCA has been shown to efficiently facilitate such collaboration.

5.3 The CAPSCA programme offers a relatively inexpensive opportunity for ICAO to maintain influence with other major stakeholders, especially with the WHO. By continuing and expanding activity in this field, public health authorities are more likely to fully include aviation aspects when developing their general preparedness plans and to participate in development of aviation specific plans, for example, airport emergency plans for public health events.

5.4 States and international organizations are invited to contribute voluntary funds to ICAO for continued implementation and growth of the CAPSCA programme.