

Aviation Sector Pandemic Disaster Management

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ABSTRACT

The Corona Virus Disease 2019 (COVID-19) pandemic has caused significant global health and economic impact. The aviation and health sectors, through their experience of earlier outbreaks have always had a place in disaster management plans involving the phases of – Mitigation – Preparedness – Response – Recovery. The Mitigation phase includes the practice of airline hygiene guided by the International Health Regulations (IHR) and the International Civil Air Transportation (ICAO) Standards and Recommended Practices (SARPS). The Preparedness phase includes the international, national and local Pandemic Preparedness Plans, the various manuals and standard operating procedures and exercises. To strengthen this further, a Collaborative Arrangement in the Prevention and Management of Public Health Events in Civil Aviation (CAPSCA) has been in existence post Severe Acute Respiratory Syndrome (SARS) outbreak in 2003. The Response phase has seen various responses with lockdowns and quarantine being the prominent feature of this pandemic and the aviation sector increasing its aviation public health preventive and control measures. The Recovery phase is underway at various stages in different countries, with the inconsistencies in requirements by Contracting States making it more challenging than ever for the aviation sector. The ICAO and key stakeholders are making a multi-prong approach to kick-start the recovery of travel, trade, and tourism.

KEYWORDS: Covid-19, Aviation Disaster Management, Aviation Medicine

INTRODUCTION

At the time of writing in November 2020, the World Health Organization (WHO) had reported 61 million confirmed cases and 1.4 million deaths due to COVID-19. From the aviation economics perspective, the IATA has forecasted the aviation industry will suffer a loss of USD 118 billion in 2020. The Air Transport Action Group (ATAG) reports that more than half of the 88 million jobs supported by aviation could be lost temporarily because of the pandemic. If September 11th 2001 was the sentinel event which changed the aviation security landscape, the COVID-19 outbreak declared on December 31st, 2019 would be the equivalent for aviation health.

PANDEMIC DISASTER MANAGEMENT IN THE AVIATION INDUSTRY

The disaster management plan for the aviation sector was in place to ensure various phases of the disaster are managed accordingly. Outbreaks of recent years such as SARS in 2003, Pandemic Influenza in 2009; MERS-CoV in 2012, Ebola in 2014 and Zika in 2016 have tested the aviation sector disaster mechanisms and whatever gaps identified were addressed. The COVID-19 pandemic, however, has posed new challenges and resulted in an unprecedented impact on all sectors.

MITIGATION

From the beginning of commercial air travel, the aviation sector was aware of the potential of spread of diseases through air travel. These lessons were learned from the maritime industry with the concepts of hygiene, sanitation, quarantine, and later vaccines. The Standards and Recommended Practices (SARPs) to meet the IHR requirements are written in the ICAO Annexes.

The ICAO Annex 6 Aircraft Operations spells out the requirement of the First Aid Kit (FAK) and Universal Precaution Kit (UPK) in the aircraft. This is for use by cabin crew should passengers fall ill during normal situations and during outbreaks. The ICAO Annex 9 Facilitation spells out the requirements of IHR on arrival and departure procedures for example health screening procedures, Passenger Locator Cards, Health Alert Cards, aircraft disinfection and aircraft disinsection. The ICAO Annex 11 Air Traffic Services sees the requirement of the Pilot in Command communicating with the Air Traffic Services when there is a possible communicable disease on board. ICAO Annex 14 Aerodromes spells out the requirement of airports for managing passengers with communicable diseases such as health facilities and health screening procedures.

Apart from the above, airlines have always practised high levels of hygiene and sanitation in terms of water quality, in-flight catering services, waste and sewage management. Another important feature of airline hygiene is the design of the cabin air circulation. The flow of cabin air is from top down in a segmented manner. The cabin air is changed once every two minutes with a 50-50 mixture of fresh bleed air and recycled air. The recycled air is passed through High Efficiency Particulate Air Filter (HEPA) before it is reintroduced into the cabin. Studies have shown that the design of the cabin conditioning possibly helps in reducing in-flight droplets transmission risk.

PREPAREDNESS

At the national level, there is a multi-agency arrangement with regards to Pandemic Preparedness Plan. The KLIA Port of Entry (POE) Health Authority had conducted an annual seminar and exercise on Public Health Emergencies of International Concern (PHEIC) in June 2019 to gauge the preparedness of all agencies during an outbreak. At IATA, there is an Airline Health Adviser Committee forming a network for sharing of information.

Learning from the impact of SARS in 2003, ICAO and WHO took an initiative of forming a joint collaboration in handling outbreaks in Civil Aviation – now known as Collaborative Arrangement for Prevention and Management of Public Health Events in Civil Aviation (CAPSCA). The CAPSCA is divided by ICAO regions and is participated by key stakeholders from the aviation and health sectors. It is a platform which provides consultation, information, and training to Contracting States to increase their capability in managing outbreaks in the aviation sector. CAPSCA have been very active during the COVID-19 pandemic, coming out with various recommendations including the concept of Public Health Corridors for Air Travel and the cross-border testing regime using risk management approach.

RESPONSE

At the onset of COVID-19 being declared a PHEIC at the end of January 2020, the Airport Pandemic Disaster Committee was activated. Airlines also activated to a higher operational alert level to monitor and manage the operations. Pre-departure health screening was strictly enforced on crew and passengers. Health questionnaires and temperature checks were conducted. The first aid CPR technique was modified with rescue breaths being omitted from the CPR protocol. Wearing of face masks was imposed on cabin crew and later in April 2020 on passengers.

Risk communication was made to the workforce and passengers on disease transmission, its preventive measures, the availability of medical kits on board, aircraft disinfection and aircraft cabin air circulation. The airline's safety health policy was revised to include COVID-19 health measures and the PHEIC COVID-19 manual was improved. The IATA also did a review of 13 case reports of in-flight transmission from Jan-Jul 2020 involving 1.5 billion passengers with a conclusion of in-flight transmission risk being low.

The airline has also embarked on an Employee Assistance Program (EAP) in providing mental health support to the workforce. The EAP provider is a third-party organization to provide confidentiality and privacy to the staff. Caregivers were also activated to provide welfare support to staff and family members who were admitted to the hospital due to COVID-19. Crew who have been infected by COVID-19 will be re-evaluated before returning to flight or ground duties as per medical guidelines.

RECOVERY

The objective of the recovery phase is to have a harmonized and balanced approach to re-opening of the airspace and cross border travels. Harmonized in the manner that all Contracting States will apply a consistent travel requirement on the passengers and balanced means that the benefits of travel, trade and tourism is balanced by the protection of the health of the global citizens and the healthcare system that supports it.

With this in mind, ICAO formed a COVID-19 Aviation Recovery Task Force (ICAO CART) and came out with a few recommendations and a guidance document known as ICAO CART Take-Off Guidance Document on public health measures for the aviation sector combating COVID-19 in May 2020. It consists of a public health module and four specific modules for airport, aircraft, crew, and cargo consisting 22 areas and 197 recommendations. The Civil Aviation Authority of Malaysia (CAAM) has translated these documents into the CAAM COVID-19 Guidelines for the Aviation Industry in June 2020. ICAO has recently come out with publication on Testing and Cross Border Risk Management Manual.

The IATA and airlines are working hand in hand to prepare for the mass cold-chain transportation of vaccines across the world. Areas of concern are flight safety due to unfamiliar airports, security of destinations, and the preservation of cold chains in the event of delays. The company has also identified and prioritized the list of the workforce who will be given the vaccine once it is made available.

CLOSING

Previous outbreaks had allowed the aviation sector to prepare for pandemics of this nature. The aviation sector has applied the disaster management cycle to cushion the effect of the pandemic. The true extent of the impact of COVID-19 pandemic will only be known in years to come.

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