

THE COVID-19 DISASTER MANAGEMENT CYCLE: LESSONS LEARNED FROM AN AVIATION GROUP PERSPECTIVE



CAPSCA-AP/16
15 November 2023

Mohammad Razin Kamarulzaman
MBBCh (NUI) MAvMed (Otago) Dip AvMed (UK)
Head Group Safety and Security

- Introduction
- COVID-19 Disaster Management Cycle
- Impact & Lessons Learned
- Moving Forward



INTRODUCTION – MALAYSIA AVIATION GROUP 2023



94

Passenger
Aircrafts



3

Freighter
Aircrafts



430

Flights/day



1,300

Pilots



3000

Cabin Crew



300/700

LAE & Tech



35k

Passengers/day



13k

Bags/day



Airline
Businesses

malaysia
airlines

MASwings

firefly

amal

Loyalty &
Travel Solutions

Enrich

MHolidays

Journify

firefly
Holiday

Aviation
Services

AeroDarat

maskargo

mabacademy

mabengineering



22

Countries



70

Destinations

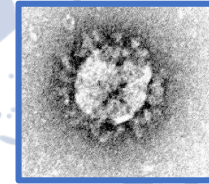
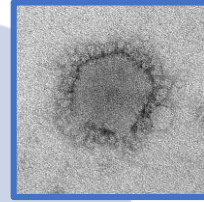


RECENT CORONAVIRUS OUTBREAKS

MERS-CoV

Bats – Camel

- Sep 2012 –
- 936 deaths, 2,605 cases
- 35% Case Fatality
- ME, Korea, Malaysia

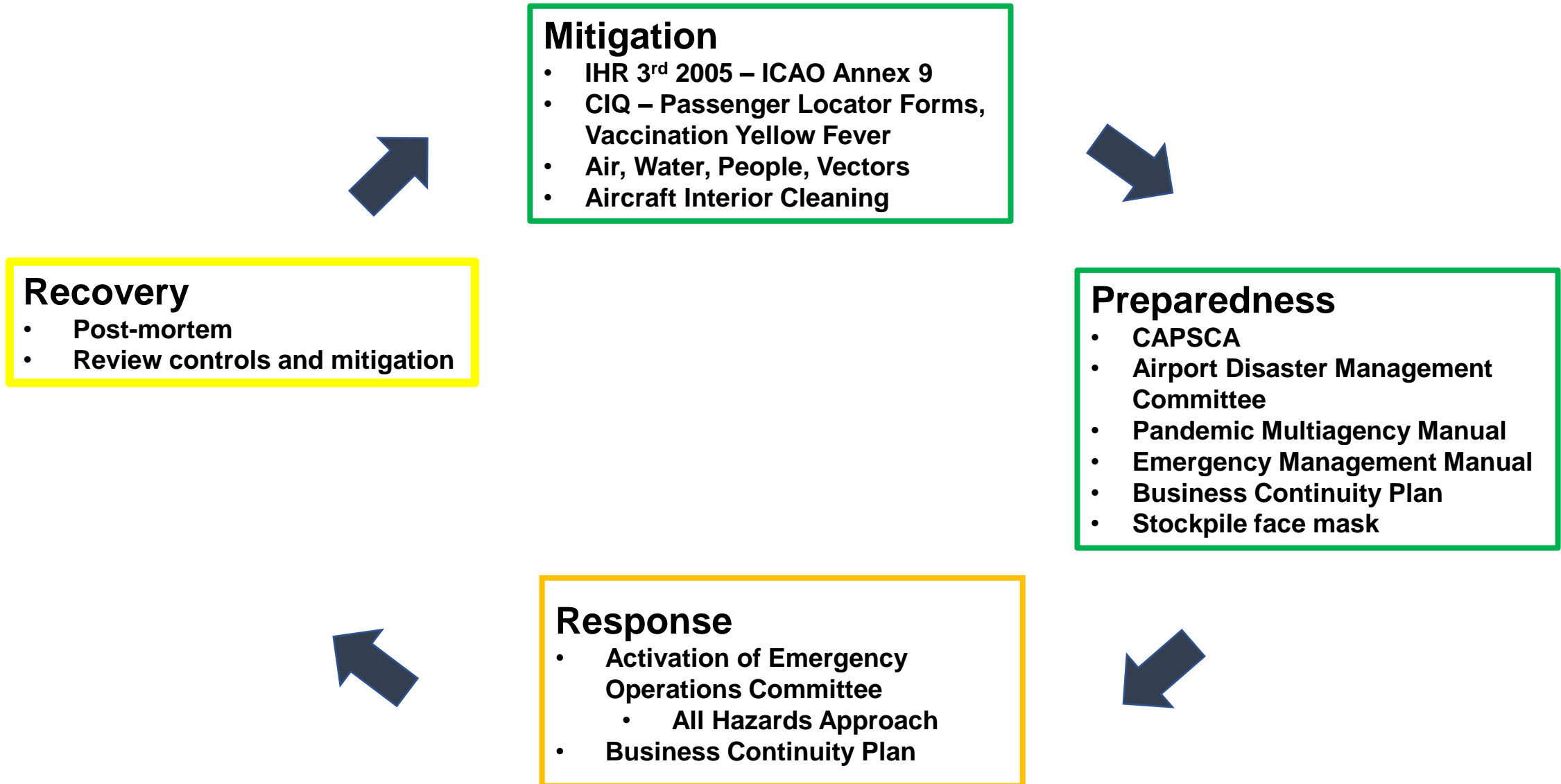


SARS

Bats – Civet Cat

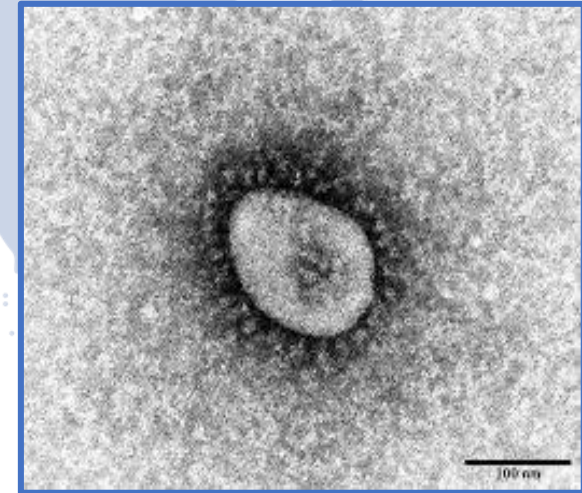
- Nov 2002 – Jul 2003
- 774 deaths, 8098 cases
- 9% Case Fatality
- 37 Countries

DISASTER MANAGEMENT CYCLE



COVID – 19 TIMELINE

- **31 Dec 2019 – first case reported**
- 07 Jan 2020 – NCov -19 virus identified
- 10 Jan 2020 - NCov-19 genomics shared to vaccine scientist
- 27 Jan 2020 – MAG introduces face mask to Cabin Crew
- **30 Jan 2020 – WHO declares PHEIC**
- 30 Jan 2020 – MAG declares Code Yellow
- **11 Feb 2020 – COVID-19 named**
- **11 Mar 2020 – WHO declares Pandemic**
- 16 Mar 2020 – MAG declares Code Amber
- 18 Mar 2020 – 1st Malaysian Lockdown
- 24 Apr 2020 – 1st Case in MAG
- **Oct 2020 – Vaccine announced in US/UK**
- 05 Oct 2020 – 1st MAG death
- 18 Feb 2021 – Vaccine launched in Malaysia
- Mar 2021 – Delta variant detected in Malaysia
- May 2021 – Delta variant surge
- 05 Jul 2021 – 1st Vaccine for Airline Workers
- 10 Nov 2021 – 100% vaccine among MAG active crew
- Nov 2021 – Omicron virus in Malaysia
- Feb 2022 – Gradual reopening of borders
- Apr 2022 – Full reopening of borders
- Sep 2022 – Face mask optional for passenger
- **05 May 2023 – WHO announces end of PHEIC**
- 28 Jul 2023 – Malaysia ends most measures
- 15 Sep 2023 – MAG crew removes face mask

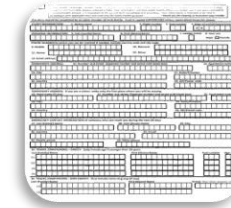


IMPACT AND LESSONS LEARNED



Mitigation

- IHR 3rd 2005 – ICAO Annex 9
- CIQ – **Passenger Locator Forms**, **Vaccination Yellow Fever**
- **Air**, **Water**, **People**, **Vectors**
- **Aircraft Interior Cleaning**



Preparedness

- CAPSCA
- Airport Disaster Management Committee
- **Pandemic Multiagency Manual**
- **Emergency Management Manual**
- **Business Continuity Plan**
- **Stockpile face mask**

Recovery

- Re-start preparation after 2.5 years
- Airlines vaccination July 2021 - 99% Nov 2021
- Gradual border reopening Feb 2022
- Full border reopening April 2022
- Mask optional pax Sep 2022
- Mask off crew Sep 2023
- Post-Mortem Dec 2023

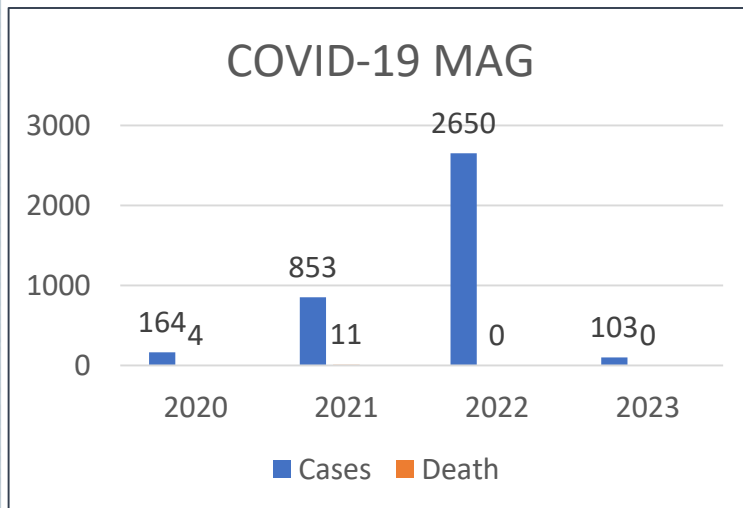


Response

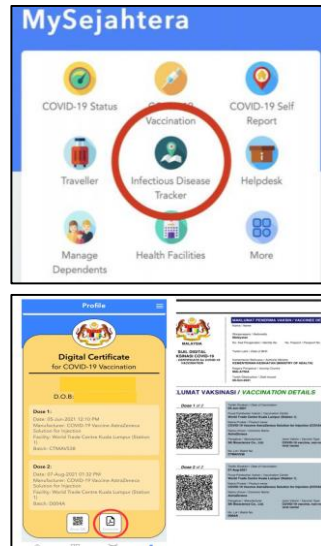
- Activation of Emergency Operations Committee
- Business Continuity Plan
- **Member States – Non-Standard CIQ**
- **Policies and SOPs – ever-changing**
- **Mental Health – emerging risk**
- **Decontamination – overkill**
- **Vaccination – many issues**
- ICAO-AP ACCRPG
- ICAO-CART TOGD
- ICAO Doc 10125



	5.1M	37K	90%
	3.7K	15	99%



MOVING FORWARD



Recovery Post-Mortem

Evidence Based Practice
ARTIFICIAL INTELLIGENCE



Mitigation

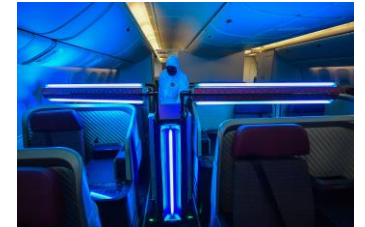
- **Evidenced Based Practice**
- **IHR 3rd 2005 – ICAO Annex 9 Revisions**
- **CIQ – Standard Digital Forms, Vaccination(s)**
- **Air, Water, People, Vectors – Wastewater surveillance**
- **Workforce – RESILIENCE, reduce co-morbid**
- **Aircraft Technology – Air Circulation (Props), UV, Coating**
- **Building Technology**
- **ARTIFICIAL INTELLIGENCE**

Root Cause???

- **Natural – Animal husbandry**
- **Lab Leak – Lab control**
- **Weapon – Biological Weapon Convention**
- **ARTIFICIAL INTELLIGENCE**

Response

Evidence Based Practice
ARTIFICIAL INTELLIGENCE



Preparedness

- **Evidenced Based Practice**
- **CAPSCA**
- **Airport Disaster Management Committee**
- **Pandemic Multiagency Manual**
- **Emergency Management Manual**
- **Business Continuity Plan**
- **Stockpile face mask**
- **Vaccine Research**
- **Education and Awareness**
- **Communication Strategy**
- **ARTIFICIAL INTELLIGENCE**

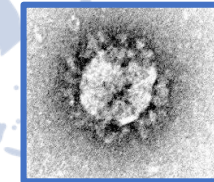
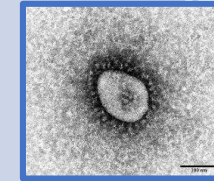
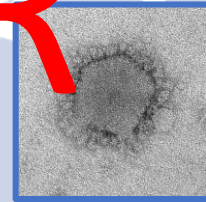


ARE WE READY FOR THE NEXT ONE?

MERS-CoV

Bats - Camel

- Sep 2012 –
- 956 deaths, 2,505 cases
- 35% Case Fatality
- ME, Korea, Malaysia



COVID-19

Bats? - ?

- Dec 2019 –
- 6.9M deaths, 771M cases
- 1 % Case Fatality
- Global

SARS

Bats - Civet

- Nov 2002 – Jul 2003
- 774 deaths, 8098 cases
- 9% Case Fatality
- 37 Countries

Thank you.
Terima kasih.

