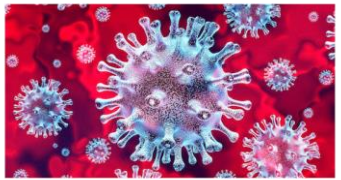
ICAO SAFETY

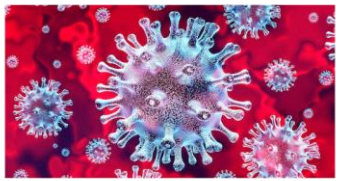
Consequences of COVID-19 for the aviation industry and for aviation personnel in particular: the global perspective

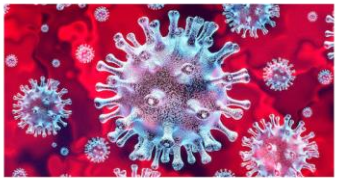
Ansa Jordaan, Chief Aviation Medicine

Overview

- Consequences on the aviation industry
- Consequences on aviation personnel
- Implementation of measures by States
- Next steps





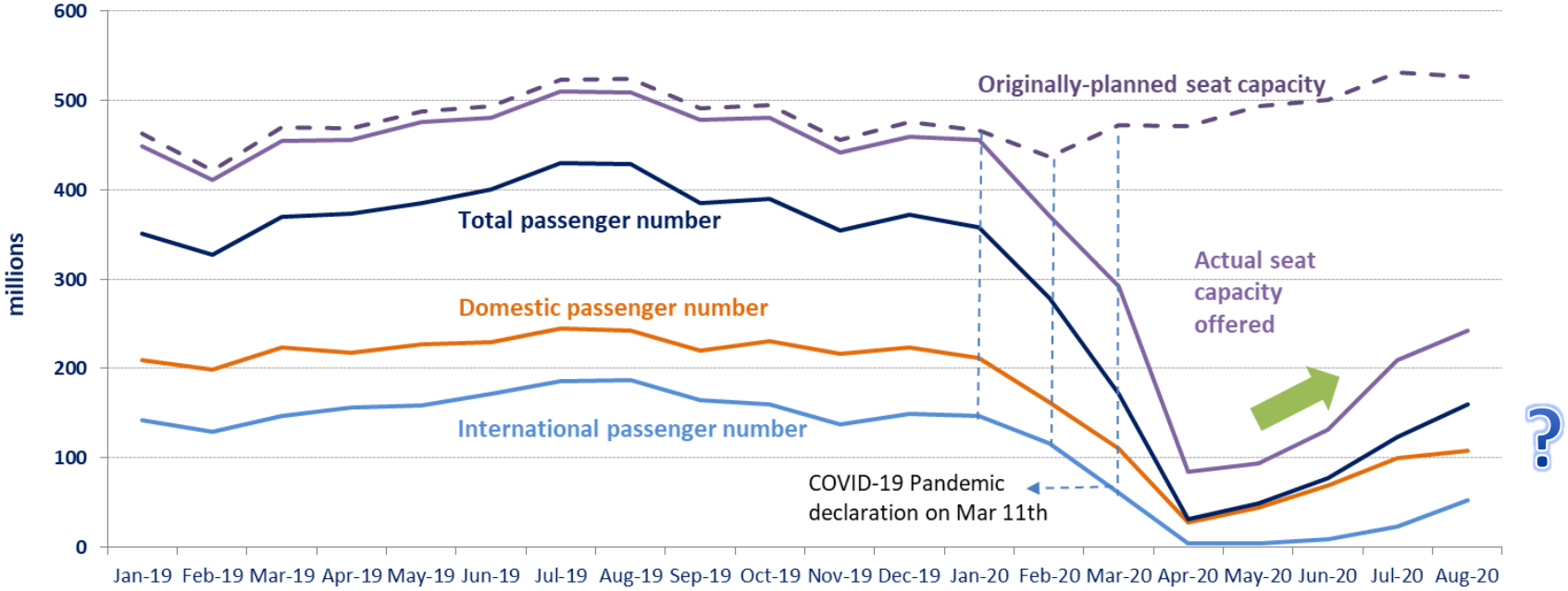


Aviation industry consequences

Economic

Drastic capacity cut along with dramatic drop in demand

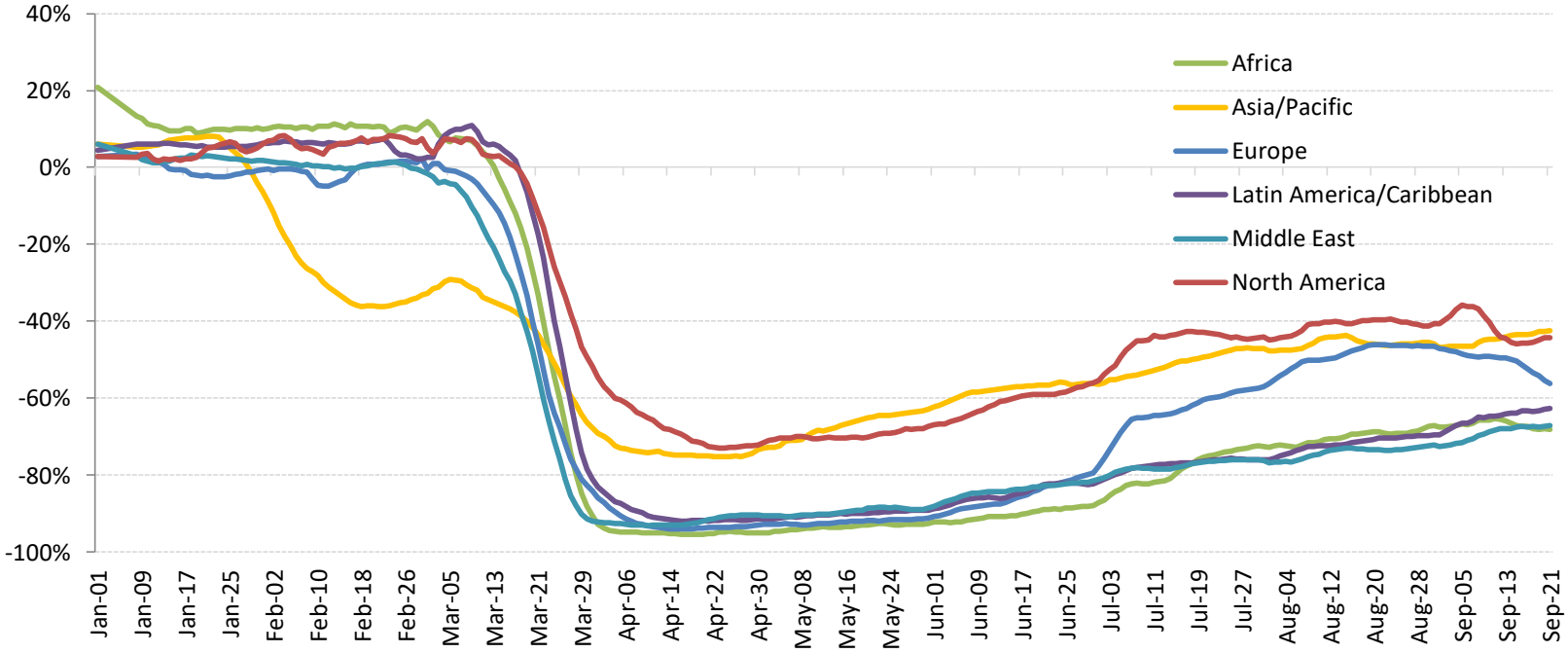
Comparison of passenger numbers and capacity (Domestic travel is leading the recovery)



Economic

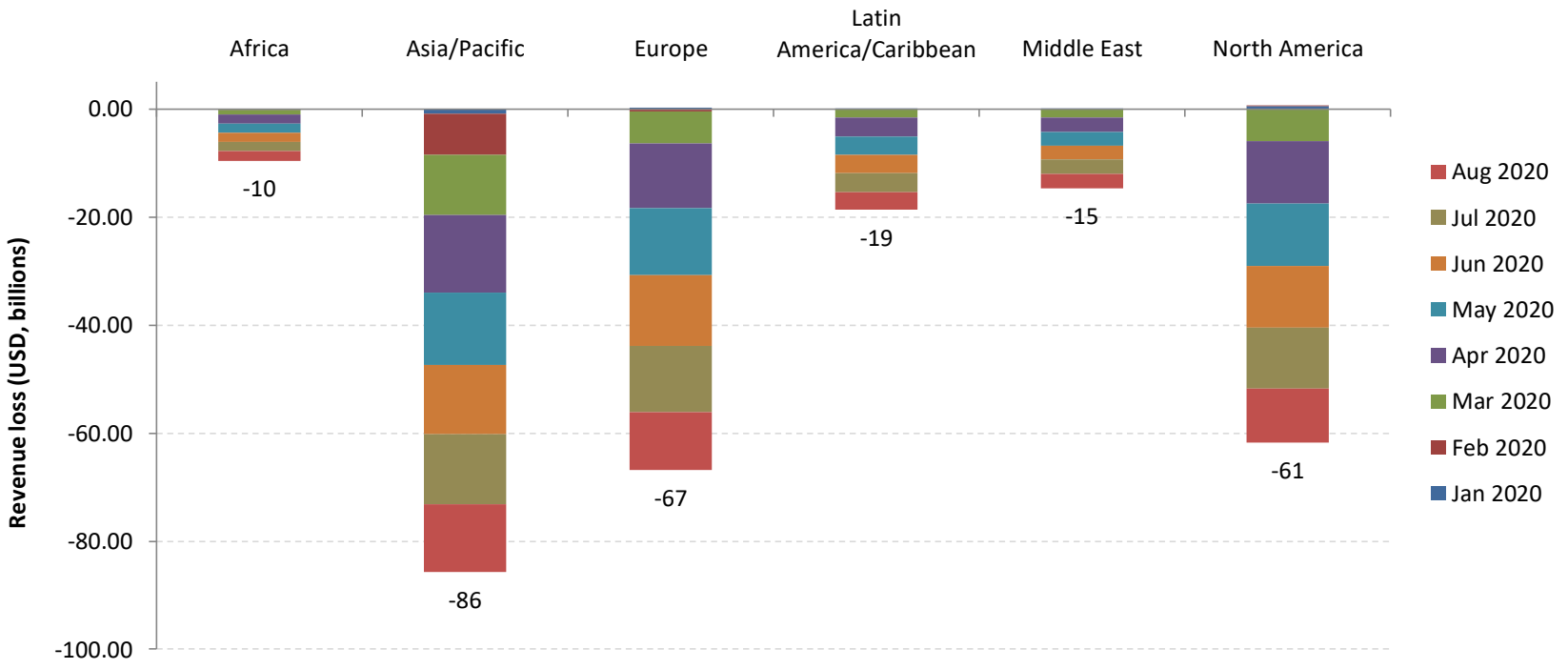
Regional difference in resilience and speed of recovery

Comparison of total seat capacity by region (7-day average, YoY compared to 2019)



Economic

Approximately USD 256 billion passenger revenue loss from Jan to Aug 2020



Note: Compared to Baseline (business as usual, originally-planned)

Economic

Estimated results in brief: International and domestic

International passenger traffic for 2020 compared to Baseline

- Overall reduction ranging from **62% to 66% of seats offered by airlines**
- Overall reduction of **1,375 to 1,447 million passengers**
- Approx. **USD 249 to 262 billion potential loss** of gross operating revenues of airlines

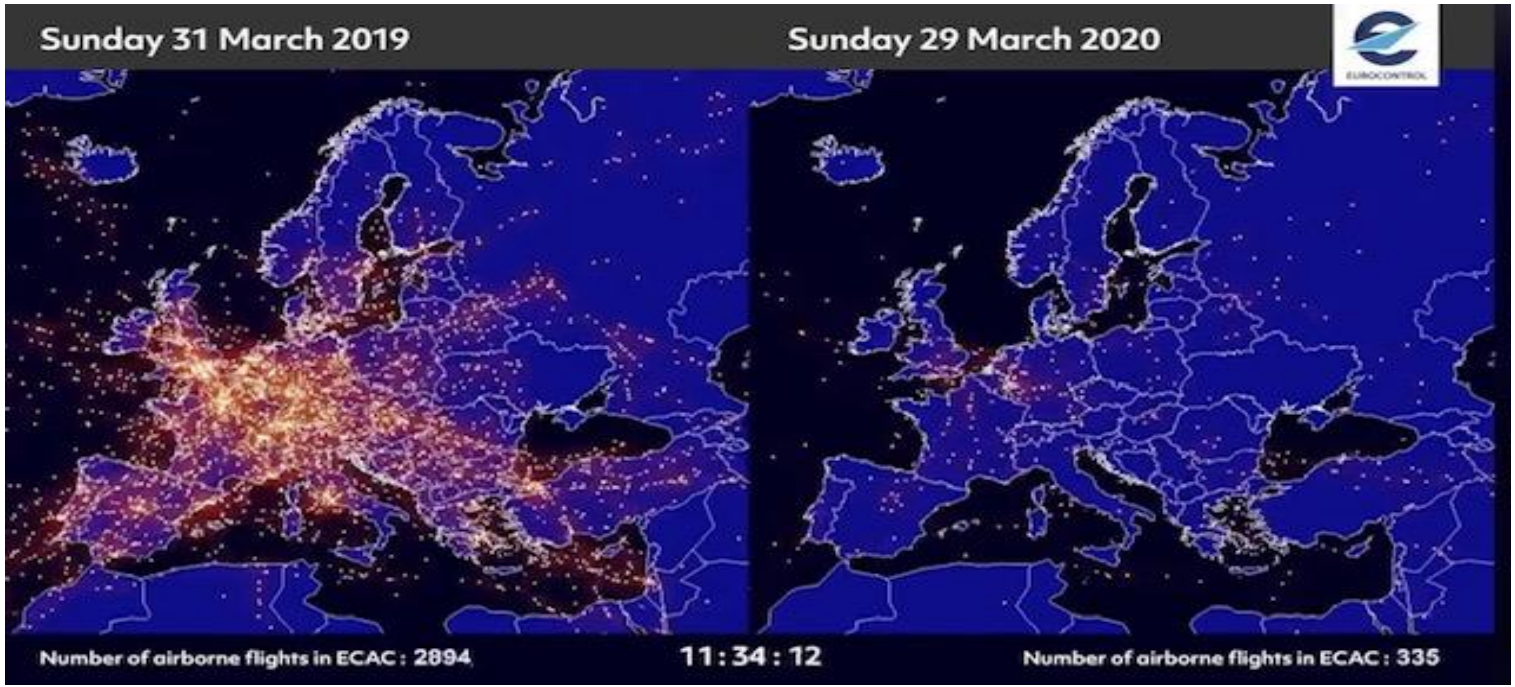
Domestic passenger traffic for 2020 compared to Baseline

- Overall reduction ranging from **40% to 41% of seats offered by airlines**
- Overall reduction of **1,413 to 1,485 million passengers**
- Approx. **USD 126 to 133 billion potential loss** of gross operating revenues of airlines

Compared to Baseline	Seat capacity (%)			Passenger number (million)			Passenger revenue (USD, billion)		
	Total	International	Domestic	Total	International	Domestic	Total	International	Domestic
1Q 2020	-18%	-20%	-17%	-287	-111	-176	-35	-20	-15
2Q 2020	-79%	-92%	-69%	-1,044	-488	-556	-136	-86	-50
3Q 2020	-56% to -56%	-74% to -75%	-42% to -42%	-870 to -878	-469 to -472	-401 to -406	-121 to -122	-84 to -85	-36 to -37
4Q 2020	-42% to -50%	-57% to -71%	-31% to -37%	-587 to -722	-306 to -375	-281 to -347	-83 to -102	-59 to -71	-25 to -31
Total 2020	**-49% to -51%**	**-62% to -66%**	**-40% to -41%**	**-2,788 to -2,931**	**-1,375 to -1,447**	**-1,413 to -1,485**	**-375 to -395**	**-249 to -262**	**-126 to -133**
1Q 2021	-26% to -45%	-36% to -62%	-18% to -33%	-393 to -635	-212 to -325	-181 to -310	-57 to -90	-41 to -62	-16 to -28

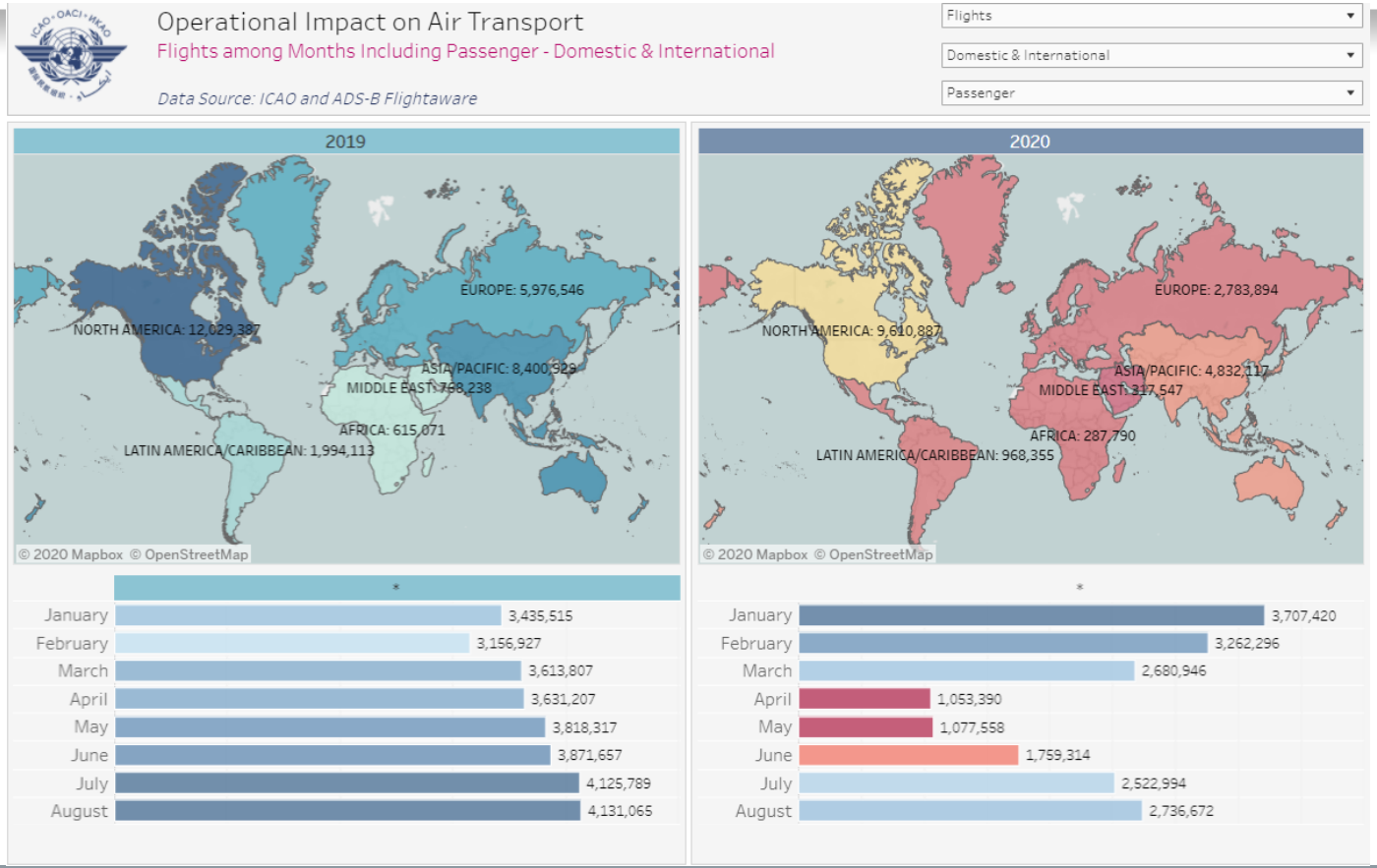
Operational

Flight Activity Pre Covid-19 Social Distancing par les Avions



Operational

https://data.icao.int/coVID-19/operational.htm



Operational

https://www.icao.int/safety/Pages/COVID-19-Airport-Status.aspx

Global COVID-19 Airport Status

Last updated: 2020-10-14

This app displays COVID-19 related information per State as available through the **NOTAM service.**
The numbers under each state and international airport like 200 (-25%) indicate the **departures observed in the last 7 days (sliding week).** The percentage indicates **week over week (w/w)** change of those departures, if available. The source for the departures is ADSB. Click on the traffic data label for an airport or a state to see its total daily departures (all kinds of traffic) from international aerodromes over time since october 2019.
The information in this app is updated automatically on a daily basis.
The COVID-19 cases per day are integrated for information only and are sourced from the European Centre for Disease Prevention and Control (ECDC).
Click here for other COVID-19 operational information.
The COVID-19 NOTAMS can be accessed via APIs through our ICAO API Data Service.
The full State-level data behind the app is shared for analysis purposed via https://s3.amazonaws.com/crric/covidtraffic.csv (CSV, 1.6MB, 20k+ rows) . The data is updated daily, but is lagging by 3 days in order to allow adequate synchronisation with the various sources. The data schema is explained here.

Select a Region:

World

Asia Pacific | East and South Africa | Europe and North Atlantic | Middle East | North America and the Carribean | South America

West and Central Africa

Belgium

645 (-3.15%)

Brussels (EBBR) **Restricted**

428 (-4.25%)

- *COVID-19: REF AIP EBBR AD 2.21 2.3 POWER SUPPLY. THE USE OF APU DURING TURNAROUND TO PROVIDE AIR CONDITIONING IS ALLOWED AT COMPANY DISCRETION FOR SANITARY REASONS CREATED: 30 Sep 2020 11:51:00 SOURCE: EUECYIYN*
- *COVID-19: BRUSSELS ARO/NOF LTD. FPL AND NOTAM PROCESSING MAY BE DELAYED CREATED: 30 Sep 2020 08:18:00 SOURCE: EUECYIYN*
- *COVID-19: SUSPECT COVID19 CASES ON BOARD OF ARR FLT MUST BE REPORTED VIA COMPANY GND OPS TO EBBR AIRSIDE INSPECTION +3227536900 NO LATER THAN 60 MIN PRIOR TO ARR. FAILURE TO COMPLY MAY RESULT IN ARR DLA - PASSENGERS SHALL FILL IN ELECTRONIC PASSENGER LOCATOR FORM (PLF) , AVBL AT HTTPS://TRAVEL.INFO-CORONAVIRUS.BE/ . PASSENGERS TECHNICALLY UNABLE TO USE ELECTRONIC PLF SHALL USE PAPER FORM AVBL AT HTTPS://DOFI.IBZ.BE/SITES/DVZOE/FR/DOCUMENTS/BELGIUM(UNDERSCORE)PASSE NGERLOCATORFORM.PDF . -AIRLINES SHALL REFUSE BOARDING TO PASSENGERS THAT CANNOT SHOW PROOF OF ELECTRONIC PLF SUBMISSION OR PROVIDE PAPER FORM. -AIRLINES SHALL COLLECT PAPER FORMS FOR INTRA-SCHENGEN FLT AND PROVIDE THEM TO SANIPORT SVC IMMEDIATELY AFTER ARR. -PAPER FORMS OF EXTRA-SCHENGEN FLT WILL BE COLLECTED AT BORDER CONTROL. CREATED: 31 Aug 2020 08:42:00 SOURCE: EUECYIYN*

Show/hide all other international airports 5

Safety

Safety Management Products

- ICAO Safety Management Manual
- ICAO SMI Website (icao.int/smi)
- Integrated Safety Trend Analysis and Reporting System (iSTARS)
- Safety Management Training
- Safety Management Workshops

Facilitation/ Public Health

Passenger

- Education
- Behaviour
- Transport to airport

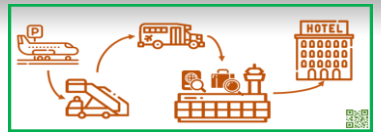
✓ Communication
✓ Health Declaration

? Testing

Crew

✓ Training
✓ Behaviour
✓ Reporting for duty
✓ Health Declaration
✓ Flight crew segregation
✓ Fast track
✓ Health monitoring
✓ Manage ill crew
✓ Layover

? Testing
? Isolation
? Quarantine



Departure airport ***

- Epidemiology data
- Transmission pattern

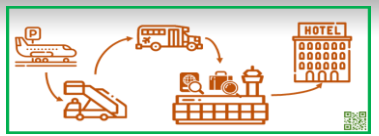
✓ **Bilateral agreement**

✓ Airport access
✓ Ventilation/ AC
✓ Physical Distancing
✓ Use of masks/ PPE
✓ Cleaning/ Disinfection
✓ Control sheet
✓ Contactless processes
✓ Manage ill passenger
✓ Cargo handling
✓ Boarding
✓ Exit Screening – visual
✓ Temperature screening
✓ **Airport accreditation**

? Testing

In-flight

✓ Ventilation
✓ HEPA
✓ Aircraft design
✓ Boarding
✓ Seat assignment
✓ Baggage
✓ Distancing
✓ Use of masks/ PPE
✓ Disinfection
✓ Hand sanitizer
✓ Passenger Interaction
✓ Lavatory
✓ UPK
✓ Medical Kit
✓ Manage ill passenger
✓ **Air Operator Assessment**



Arrival airport ***

✓ **Acceptable risk**
✓ Airport parking
✓ PHA boarding procedures
✓ Separate pathways
✓ Transit
✓ Airport Access
✓ Ventilation/ AC
✓ Physical Distancing
✓ Use of masks/ PPE
✓ Cleaning/ Disinfection
✓ Contactless procedures
✓ Managing ill passenger
✓ Cargo handling
✓ Entry Screening – visual
✓ Temperature screening
✓ **Airport accreditation**

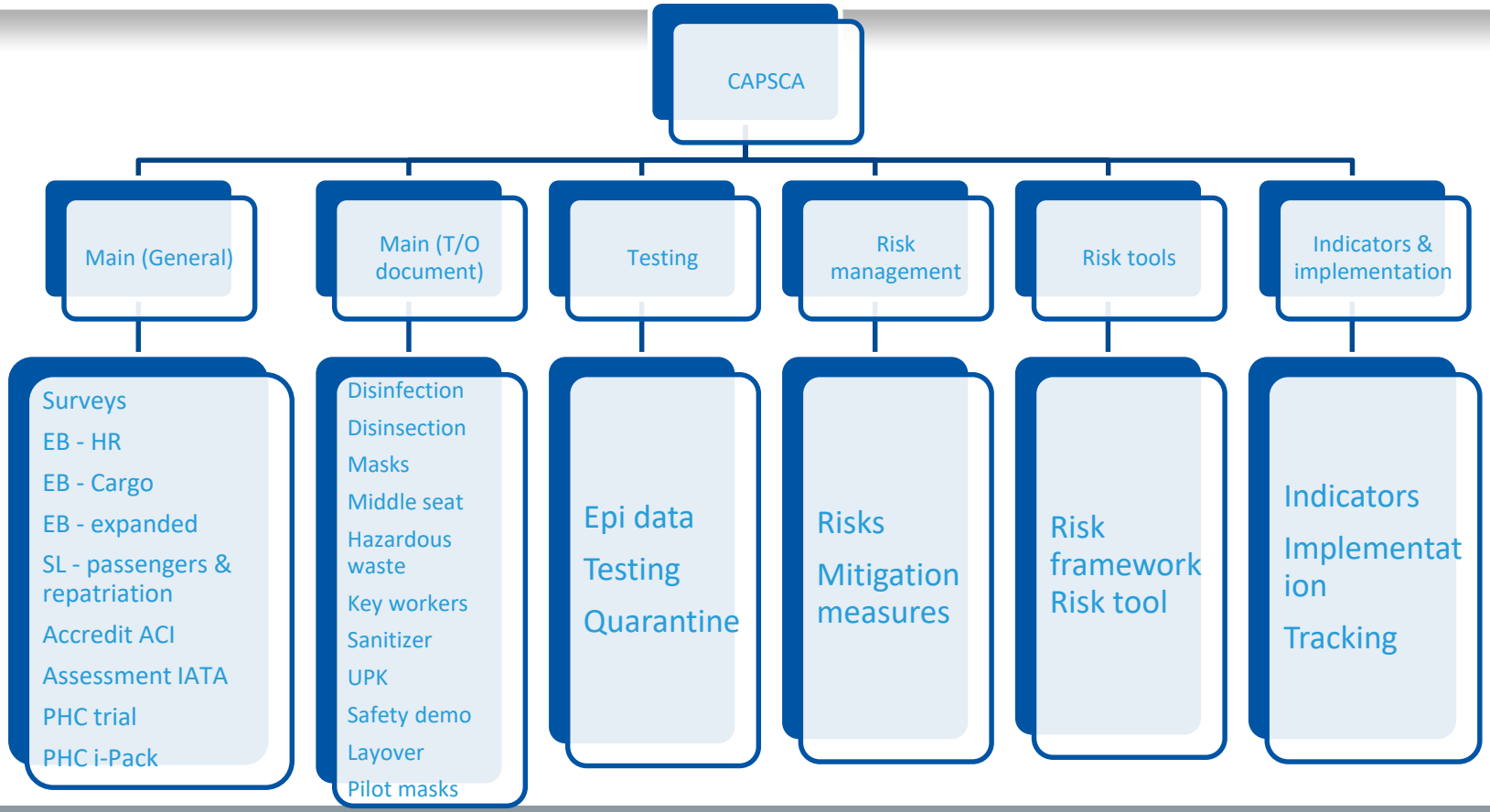
? Testing

Public Health

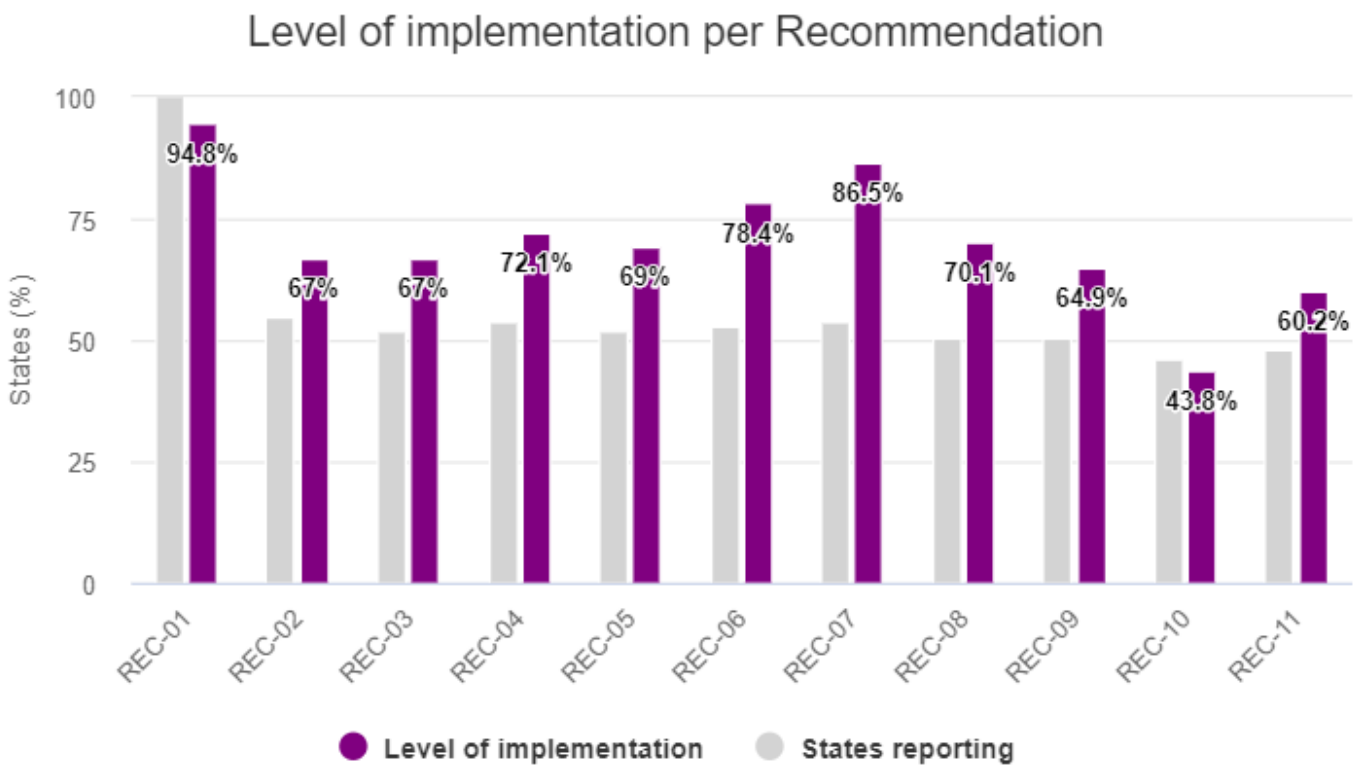
- Secondary assessment
- Self-monitoring
- Contact Tracing

? Isolation
? Quarantine

Facilitation/ Public Health



Implementation Levels



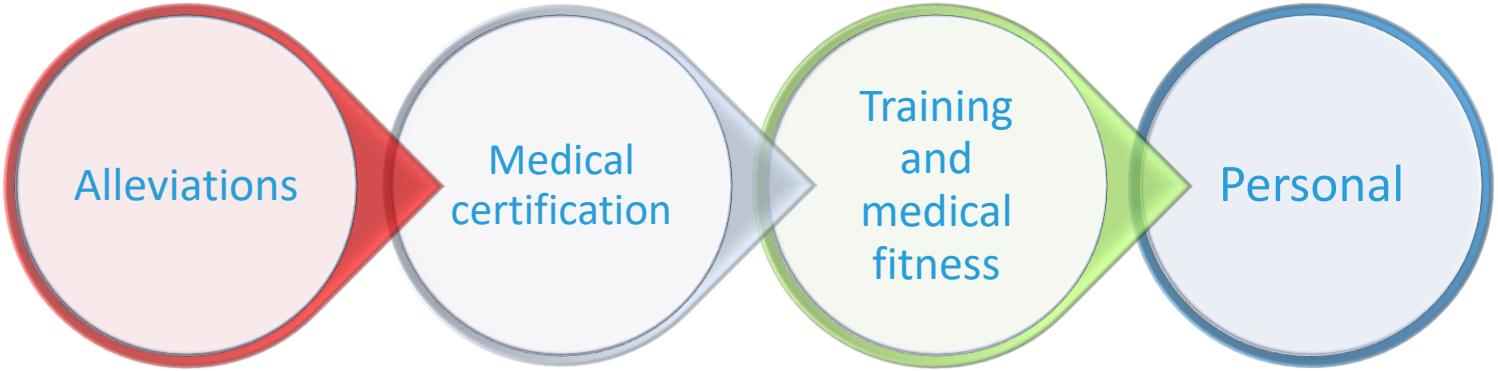
Top 5 Measures (most adopted)

98.59%	**Public Education** States and stakeholders must work together to distribute accurate information quickly. Information must be as clear, simple and consistent as possible across the entire passenger travel experience.
98.59%	**Physical Distancing** To the extent feasible, people should be able to maintain social distancing consistent with World Health Organization (WHO) or applicable State health guidelines. Where this distancing is not feasible (for example in aircraft cabins), adequate risk-based measures should be used.
98.59%	**Routine Sanitation** All areas with potential for human contact and transmission should be cleaned and disinfected as prescribed by public health authorities with frequency based on operational risk assessment.
98.59%	**Face Covering and Mask** Face coverings should be worn, consistent with applicable public health guidelines. The type of face covering (non-medical or medical) should be selected based on the level of risk and the availability of masks while taking into consideration the potential risks and disadvantages of using masks. Medical face masks must be prioritized for use as personal protective equipment by healthcare workers and symptomatic persons suspected of being infected with COVID-19. In all instances, best practices should be followed about when and how to wear, remove, replace, and dispose of them, as well as hand hygiene after removal.
97.47%	**Signalization and barriers** Signage, floor markings and announcements via Public Address system to encourage physical distancing. Retractable stanchions and floor signage in the queuing area and transparent barriers in front of staff.

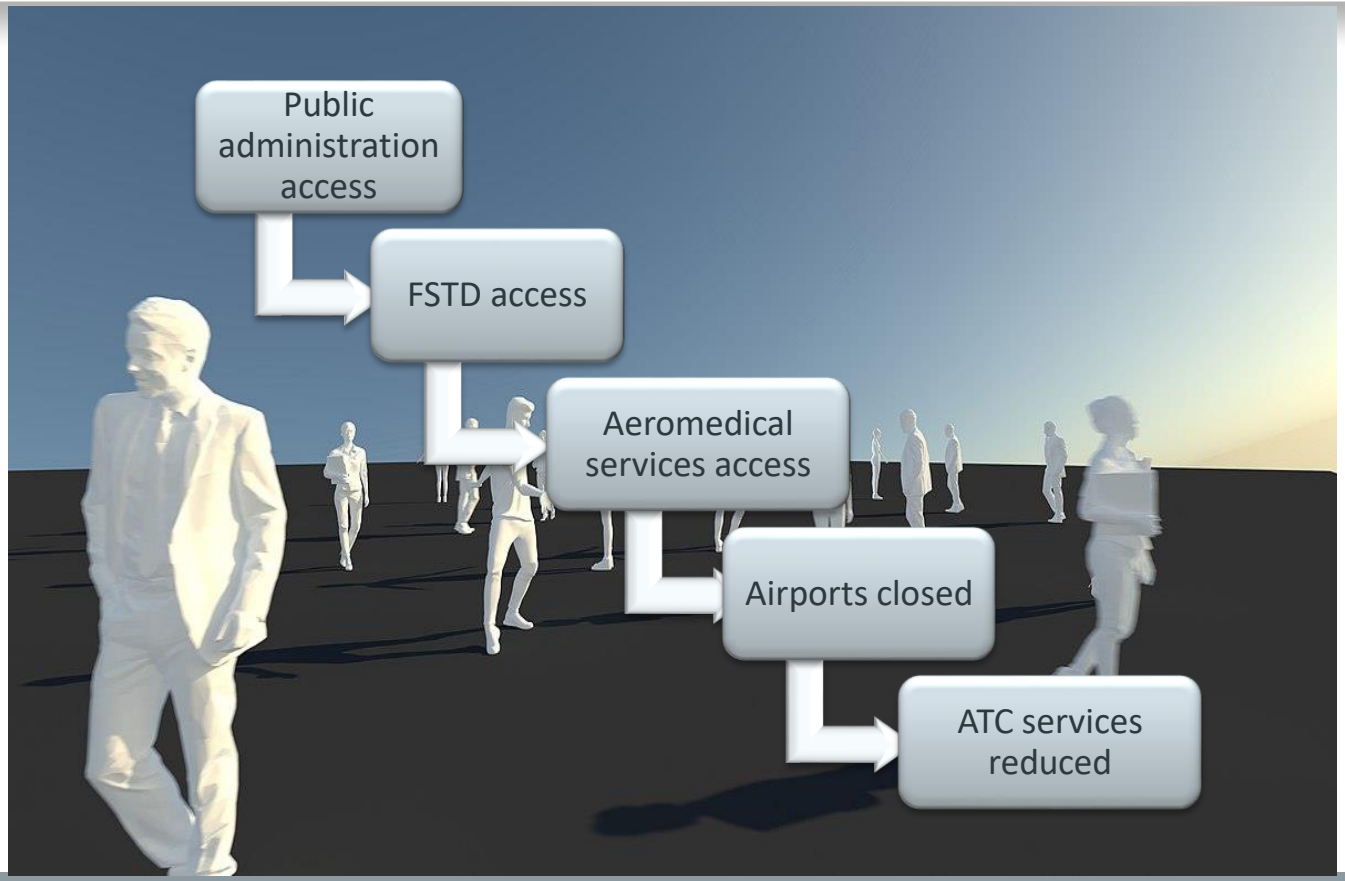
Top 5 Measures (least adopted)

57.35%	**Power** In colder climates, it is imperative that power is maintained in all outdoor based equipment such as jetways and Pre-Conditioned air units.
48.61%	**Self-boarding technologies** Where possible, implementation of self-boarding technologies at the gate should be considered including units using automatic doors, integrated boarding pass readers, LCD displays for passenger instructions and a device for printing seat assignment changes. Increase use of self-scanning of documents when identification is needed.
48.1%	**Advanced technology** Self-sanitizing technology may be considered for integration within kiosks touch screens, to allow for the disinfection of the screen between each use. Whenever possible, use contactless processes and technology, including contactless biometrics such as facial or iris recognition to reduce the need for contact with travel documents between staff and passengers.
46.38%	**Baggage delivery services** The use of baggage delivery services, where the passenger's baggage can be delivered directly to their hotel or home, should be encouraged.
43.66%	**Transfer** Develop "one-stop" health screening arrangements using existing one-stop security arrangement as a model. In this model, passengers and property are not rescreened at transfer locations based on mutual recognition of security measures between the States in the travel itinerary. A similar arrangement for health screening procedures may prevent new queuing points at passenger transfer locations. Where transfer security screening is needed, it should follow appropriate sanitary requirements as previously described in the departure process.

Aviation personnel consequences



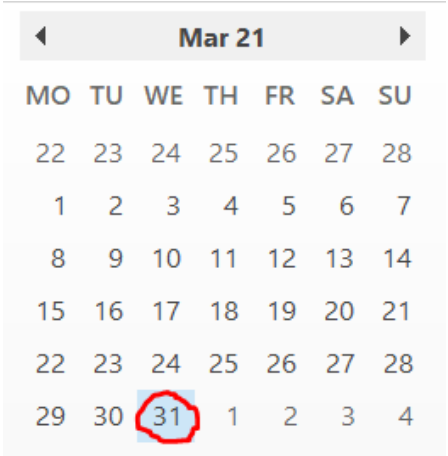
Aviation personnel consequences



Alleviations

- **Exemptions in place for the validity of:**
  - Licences
  - Medical certificates
  - Language proficiency
  - Recurrent training
  - Recency
- **Job security**
  - Downgrading
  - Fleet change
  - Line pilot – instructor
  - Change in operations

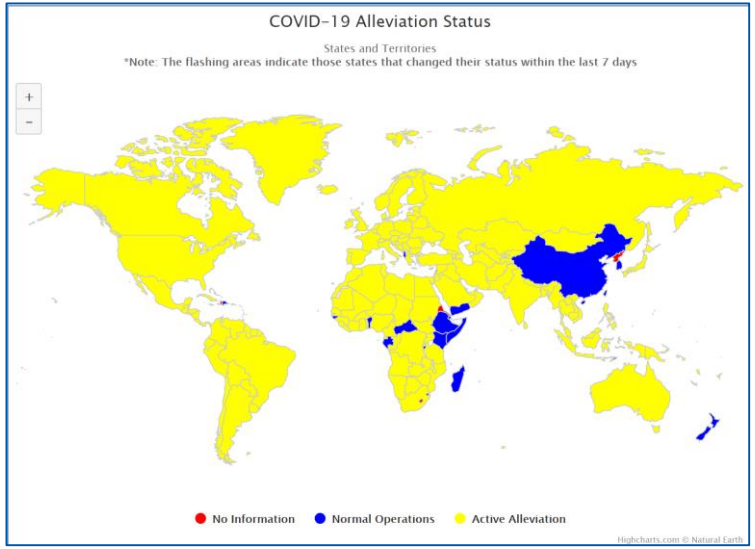
End date 31 March 2021



Alleviations

- Harmonized process for exemptions
  - Flow chart
  - Quick Reference Guides (QRGs)
  - CCRD* publication for recognition

  *COVID-19 Contingency Related Differences



- Practical application
  - States apply exemptions and notify them
  - States accept exemptions from others
  - Organisations apply mitigation measures
  - Individual licence holders show high level of personal responsibility

Alleviations (IATA web site)

COVID-19 Contingency Related Differences

Provision

Select Provision Number

1.2.4.4.1

Provision Text

The period of validity of a Medical Assessment may be extended, at the discretion of the Licensing Authority, up to 45 days.

Note.— It is advisable to let the calendar day on which the Medical Assessment expires remain constant year after year by allowing the expiry date of the current Medical Assessment to be the beginning of the new validity period under the proviso that the medical examination takes place

Number of State Responses: **154**

Last Updated: 5/29/2020..

Select State Name: All

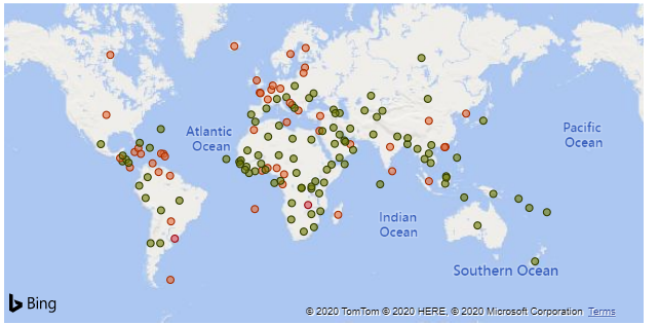
Select ICAO Regional Office: All

Select IATA Region: All

State Overview

Hold down the Ctrl key to select multiple options in the drop-down menu

Recognition ● No ● See Description ● Yes



State Report

State Name	Details of Difference	Rational	Recognition of other State Differences
Andorra	As Andorra is not delivering Licenses, this statement is not applicable		Andorra accepts relevant differences filed by other States.
Belgium			
Cameroon	No Difference		Cameroon recognizes differences of other States provided that the effective implementation of the safety oversight system is deemed

Source: ICAO, Report on COVID-19 Contingency Related Differences (CCRD). Full text available at https://www.icao.int/safety/COVID-19OPS/Pages/ccrd.aspx. All rights reserved. Reproduced by permission.

Medical certification

- Public health corridor to apply to pilots as key workers
- Medical certification group in ICAO
  - Updating QRG
  - Guidance material – risk based approach
  - Tools to assist with implementation and monitoring

Quick Reference Guidance (QRG)

Alleviation Title	**Medical Assessment - Certificate Validity Extension**
Version	**1.0**
Publication Date	**22 April 2020**
Relevant Standard(s)	Annex 1 1.2.4.4.1 The period of validity of a Medical Assessment may be extended, at the discretion of the Licensing Authority, up to 45 days. *Note.— It is advisable to let the calendar day on which the Medical Assessment expires remain constant year after year by allowing the expiry date of the current Medical Assessment to be the beginning of the new validity period under the proviso that the medical examination takes place during the period of validity of the current Medical Assessment but no more than 45 days before it expires.* 1.2.5.2 Except as provided in 1.2.5.2.1, 1.2.5.2.2, 1.2.5.2.3, 1.2.5.2.4, 1.2.5.2.5 and 1.2.5.2.6, a Medical Assessment issued in accordance with 1.2.4.7 and 1.2.4.8 shall be valid from the date of the medical examination for a period not greater than: – 60 months for the private pilot licence — aeroplane, airship, helicopter and powered-lift; – 12 months for the commercial pilot licence — aeroplane, airship, helicopter and powered-lift; – 12 months for the multi-crew pilot licence — aeroplane;... – 12 months for the airline transport pilot licence — aeroplane, helicopter and powered-lift; – 60 months for the glider pilot licence; – 60 months for the free balloon pilot licence; – 12 months for the flight navigator licence; – 12 months for the flight engineer licence; – 48 months for the air traffic controller licence; and *Note 1.— The periods of validity listed above may be extended by up to 45 days in accordance with 1.2.4.3.1.* *Note 2.— When calculated in accordance with 1.2.5.2 and its sub-paragraphs, the period of validity will, for the last month counted, include the day that has the same calendar number as the date of the medical examination or, if that month has no day with that number, the last day of that month.*

Training & medical fitness

Human performance

“Rusty pilots” & skills degrading

FSTDs
PHC for flight simulator training

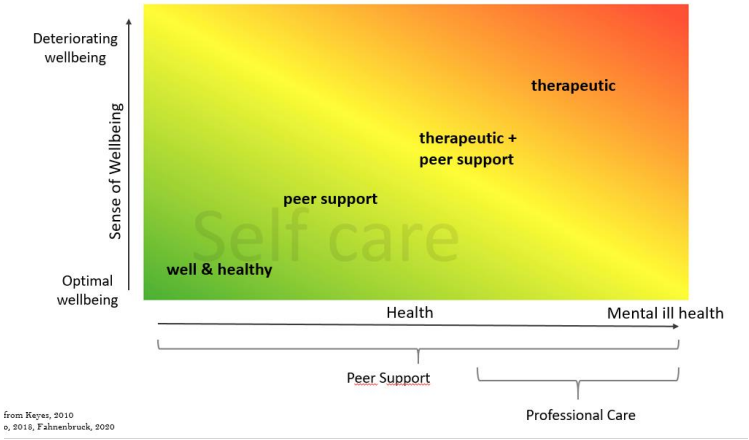
Medical fitness and COVID-19

Personal well-being

- Impact of COVID-19 on mental health and well-being
- Rationale:
  - Focus attention on the effects of COVID-19 on psychological well-being
  - Provide support to aviation personnel – involving all aviation stakeholders at various levels
  - Provide guidance material that goes beyond support, but addresses possible safety implications due to medical fitness to fly

Personal well-being

- State letter with key principles
- Appendix: peer support
- Additional guidance material
- Later neurological/ neuro-cognitive/ psychiatric implications on medical fitness



Personal well-being

1. Practice self-care in all dimensions including healthy nutrition, regular exercise, obtaining sufficient sleep, reducing stressors, engaging in healthy behaviours and regular interactions with a personal support network.

1. Seek support pro-actively to maintain well-being and encourage fellow employees to seek support as needed.

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Asia and Pacific (APAC) Sub-office Beijing
Asia and Pacific (APAC) Office Bangkok
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