

# Biosecurity for Air Transport

## A roadmap to restarting aviation

Nick Careen  
Senior VP Airport, Passenger,  
Cargo and Security



**This document represents the airline industry's effort to identify a roadmap to resuming operations, based on our longstanding commitment to safety as our highest priority. Its success depends on a partnership approach among the key participants in the travel chain.**



2 Biosecurity for Air Transport

## Challenge

To restart aviation, protecting health and safety **ensuring it is not a meaningful vector** for the spread of COVID-19 and to **restore public confidence** in air travel

**This means temporary and significant change for how we travel**

19 May 2020



Almost every challenge in aviation requires a team effort to solve it. Today we face the biggest challenge in commercial aviation's history: Restarting an industry that largely has ceased to operate across borders, while ensuring that it is not a meaningful vector for the spread of COVID-19.

Meeting this challenge will mean making significant changes across air travel experience: pre-flight, at the departure airport, onboard, and post-flight.

- It will require governments to assume broad new responsibilities in terms of assessing and identifying traveler health risks, as governments did for security after 9.11;
- Airlines and airports will need to introduce and adapt processes and procedures to minimize contagion risk in the airport and aircraft environments;
- Passengers will need to be empowered to take more control of their travel journey, including responsibly assessing their own level of health risk before a journey.

## Goal

**To restore air connectivity**  
and to do it with an  
**internationally-consistent,**  
**mutually-accepted, and**  
**harmonized way**

Success will depend on  
government and industry  
collaboration

3 Biosecurity for Air Transport

19 May 2020



Collaboration is vital:

- Governments will need to work together to implement internationally consistent, mutually accepted measures that are essential to restoring air connectivity and passenger confidence in air travel;
- Governments and industry will need to work together, particularly to ensure the practicable development and implementation of operational measures.

# A matter of urgency

## Aviation:

- Drives economies (\$2.7 trillion of GDP)
- Creates employment (65.5 million jobs)
- Enables trade (delivering 35% of goods by value)
- Facilitates healthcare and emergency aid
- Connects people, businesses and economies

## **Aviation will be a vital driver of the world's economic recovery**

4

Biosecurity for Air Transport

19 May 2020



Successfully restarting air passenger travel while restoring confidence in the safety of air travel are vital pre-requisites to enabling the global economy to recover from COVID-19.

In normal times, aviation delivers \$2.7 trillion in global GDP contribution. Every one of the 25 million employees in the airline industry helps to support up to 24 other jobs in the broader economy.

More than a third of global trade by value moves by air.

Today, airlines are providing irreplaceable services in the fight against COVID-19 by transporting critical medical supplies—including Personal Protective Equipment (PPE)—and pharmaceuticals.

When the crisis ends, aviation needs to be ready for another role—helping to restore battered economies and lift people's spirits through the power of travel.

We hope this roadmap is a useful tool in that effort.

## Roadmap logic

A layered approach of **outcome-based** measures, supported by **scientific evidence**

**Risks that need to be mitigated**  **Best solutions to do this**

There is no single, prescriptive solution

5 Biosecurity for Air Transport

19 May 2020



The recommendations presented here are outcome-based, not prescriptive.

They draw on the current understanding of how COVID-19 is most commonly transmitted, and therefore what are the risks needing to be mitigated and what are the best solutions to do this effectively.

Because presently there is no silver bullet solution, we recommend a layered approach for the initial restart, as is already done with safety and security.

We should avoid unnecessary redundancies of measures and ineffective remedies. As improved risk mitigation methods become available, more burdensome and less effective measures should be replaced.

We believe that the roadmap outlines a risk-based approach that assures that aviation continues to be the safest form of long distance travel the world has known, and that it does not become a meaningful vector for the transmission of COVID-19.

# Guiding principles

1. Measures should be introduced **as far upstream as possible** in the travel process
  - a. to minimize risk of contagion in the airport environment
  - b. ensure that passengers arrive at the airport ready to travel
2. Collaboration between **governments and industry** is vital — a single roadmap of measures should be adopted globally
3. Measures should only last for **as long as required** with a clear exit strategy
4. Existing **roles and responsibilities** of governments, airlines and airports should remain the same

6

Biosecurity for Air Transport

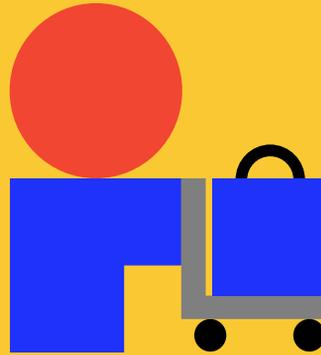
19 May 2020



This roadmap is guided by the following principles:

- All measures should be outcome based, supported by scientific evidence and a robust fact-based risk assessment;
- Health screening measures should be introduced as far upstream as possible. This will minimize risk of contagion in the airport environment and assure that most passengers arrive at the airport ready to travel;
- Any measures that need to be applied during the travel process should be applied prior to departure rather than on arrival;
- And to re-emphasize: Collaboration is vital;
  - Among governments to implement internationally consistent, mutually accepted measures is essential to restoring air connectivity and passenger confidence in air travel;
  - Between governments and industry, particularly to ensure the practicable development and implementation of operational measures.
- Measures should only be in place for as long as deemed necessary; all measures should be re-evaluated under a fixed schedule. When more effective and less disruptive measures become available, they should be implemented at the earliest opportunity and defunct measures removed.
- Existing roles and responsibilities of governments, airlines and airports should be respected in implementing the response to COVID-19.

The passenger  
experience:  
**Temporary  
biosecurity  
measures**



# Temporary multi-layered biosecurity measures to protect health and safety, and ensure that air travel is not a meaningful vector for the spread of COVID-19



Because there is no “silver bullet” solution, IATA recommends a temporary multi-layered approach during the re-start for the health and safety of passengers and crew; and to ensure that air travel is not a vector for COVID-19 transmission.

## Pre-flight

Collecting more **detailed passenger contact information in advance of travel** for contact tracing purposes

- In electronic form
- Through government internet portals for ease of data capture on a variety of devices

9

Biosecurity for Air Transport

19 May 2020



We foresee the need to collect more detailed passenger contact information which can be used for tracing purposes.

Where possible, the data should be collected in electronic form, and in advance of the passenger arriving at the airport including through eVisa and electronic travel authorization platforms.

IATA strongly recommends that states set up government internet portals in order to collect the required passenger data. Using internet-based technology would allow the use of a wide range of devices for the data capture (computers, laptops, tablets, mobile phones, etc.).

## Check-in

- More passenger processes to be **done in advance from home**
  - Bag tags
  - Boarding pass
  - Personal data entry

10 Biosecurity for Air Transport



19 May 2020

Passengers should complete as much of the check-in process as possible before arriving at the airport.

This will minimize the time spent at the airport.

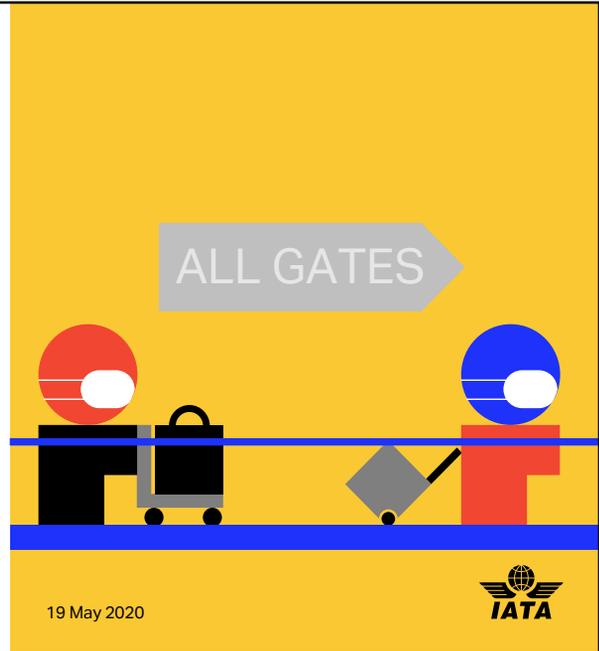
Therefore, governments should remove regulatory obstacles to enabling such things as mobile or home-printed boarding passes and electronic or home-printed bag tags and personal data capture online.

## Departure airport

- Terminal access minimized
- Temperature screening at entry points
- Physical distancing, aligned with local rules
- Masks or PPE for passengers and staff
- Touchpoint sanitization

**When proven: COVID-19 testing / electronic Immunity Passports could replace some measures**

11 Biosecurity for Air Transport



Airport terminal access should be restricted to workers, travelers and accompanying persons in situations such as for passengers with disabilities, reduced mobility or unaccompanied minors.

Temperature screening should be implemented at entry points to the terminal building and be as efficient as possible. The screening must be carried out by professionally trained staff who can decide if a passenger is fit to fly or not. In addition, the screening staff need to have all the required equipment at their disposal.

Physical distancing needs to be implemented according to the local rules and regulations. As a minimum, IATA recommends ranges from 1-2 meters (3-6 feet). In conjunction with the local airport authority, the passenger flow through the terminal: check-in, immigration, security, departure lounge and boarding – needs to be modified to ensure physical distancing. Airports Council International (ACI) has published examples of this.

While the guidance of the local health authorities on the use of masks and Personal Protective Equipment (PPE) needs to be followed, IATA recommends the use of face coverings for passengers along with suitable PPE for airline and airport staff.

In observance of local rules and regulations, airlines, airports and governments need to cooperate to ensure that equipment and infrastructures are sanitized and hydroalcoholic gel is easily made available.

The frequency of the sanitizing should be established, communicated, and appropriate resources need to be put in place to enforce it.

This applies to such items as carts, trolleys, e-gates, self-service kiosks, fingerprint readers, wheelchairs, trays, used medical masks disposal containers, on-board equipment, etc.

An effective COVID-19 test with fast results that could be applied on entry to the terminal would enable the airport environment to be considered as 'sterile'. Therefore, this is a measure that needs to be incorporated into the passenger process as soon as an effective test, validated by the medical community, has been developed. However, this is not the case today.

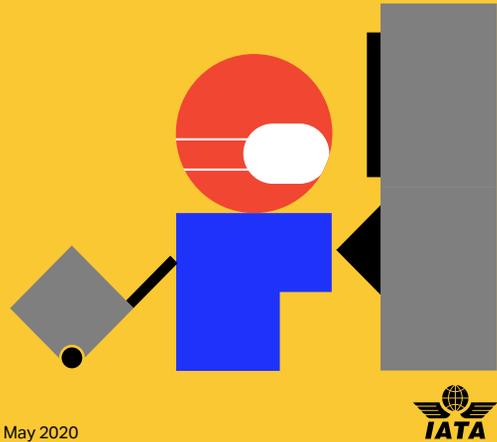
In principle, we believe that immunity passports could play an important role in further facilitating the restart of air travel. However, the medical evidence regarding immunity from COVID-19 is still inconclusive, so immunity passports are not currently supported. At such time as the medical evidence supports the possibility of an immunity passport, we believe it is essential that a recognized global standard be introduced, and that corresponding documents be made available electronically.

## Airport processes

- Processes that must take place at the airport should be **self-service, touchless and biometric** as much as possible
- Airlines to promote **self-bag drop** to minimize passenger & staff interactions

12 Biosecurity for Air Transport

19 May 2020



Physical distancing should be implemented both at counters and self-service kiosks.

At airports, self-service options should be made available and utilized as much as possible to limit contact at all passenger touchpoints. A general move towards greater use of touchless technology and biometrics should also be pursued.

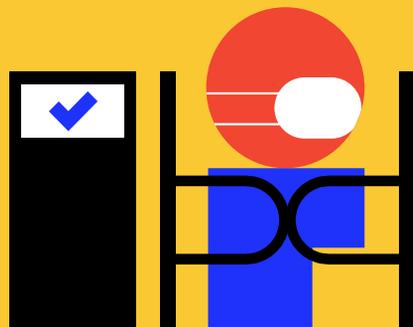
Where baggage self-service devices are in use, airlines should proactively guide passengers to self-bag drop options to minimize the interactions (physical handover of baggage) between passengers and check-in agents.

## Boarding

- **More orderly** to ensure social distancing
- Airports and governments will need to help **facilitate the boarding process**
- More **self-scanning and biometrics** to minimize interactions
- Carry-on baggage should be limited to enable a smooth boarding process

13 Biosecurity for Air Transport

19 May 2020



An orderly boarding process will be necessary to ensure physical distancing, especially once load-factors start increasing. Here good cooperation between the airline, airport and government is vital.

Airlines will need to revise their current boarding process to ensure physical distancing.

Airports will need to assist in redesigning gate areas and governments will need to adapt any applicable local rules and regulations.

The increased used of automation, such as self-scanning and biometrics should be facilitated.

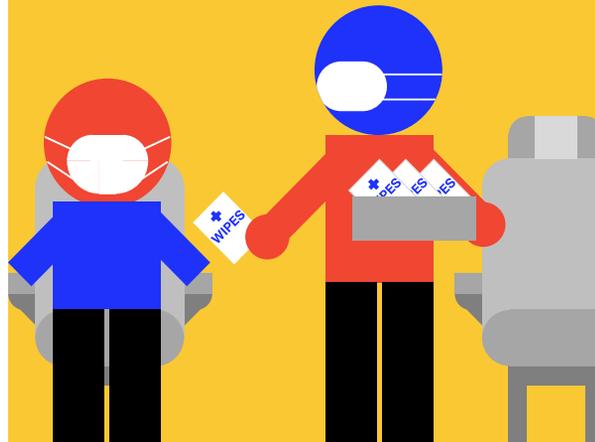
Especially during the early stages of the restart phase, carry-on baggage should be limited to facilitate a smooth boarding process with physical distancing.

## Inflight

Seat orientation, masks, vertical cabin air flow, and the use of HEPA air filters **may explain why transmission on board appears to be very low**

- Comprehensive guidance on **cabin cleaning and crew operations** is already published
- **Face coverings/masks** and freely available **sanitizing wipes** should be used

14 Biosecurity for Air Transport



19 May 2020

Based on information we have analyzed, the risk of transmission of COVID-19 from one passenger to another passenger on board is very low.

Possible reasons are that customers sit facing forward and not toward each other, seat backs provide a barrier, the use of HEPA filters and the direction of the air flow on board (from ceiling to floor), and the limited movement onboard aircraft once seated add to the onboard protection.

As an added protection against possible in-flight transmission, IATA recommends the use of face coverings by travelers in situations where physical distancing cannot be maintained, including in flight.

For these reasons, physical distancing on board (e.g. through blocked seats) is not necessary.

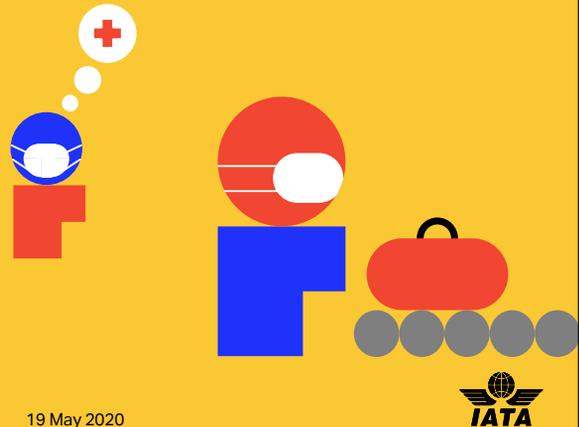
Comprehensive guidelines have been developed for cabin crew that includes the management of a suspected case of communicable disease on board, for which WHO also has aligned guidance. This includes advice for simplified service and pre-packaged catering.

For added passenger comfort, sanitization wipes could be provided to customers to clean the spaces around them, and procedures to limit movement onboard implemented.

Revised guidelines for aircraft cleaning have been published by IATA, Centers for Disease Control and Prevention and EASA.

## Arrival Airport

- **Temperature screening and trained staff** on arrival
- **Faster baggage claim process:**
  - maximizing all available baggage belts
  - minimizing contact and maintaining social distancing during inspections



15 Biosecurity for Air Transport

19 May 2020

If required by local regulation, non-intrusive mass temperature screening equipment needs to be used and the screening should be conducted with appropriate social distancing and as efficiently as possible by appropriately trained staff who can safely deal with the possibility of an ill passenger.

All parties at the airport should cooperate to ensure that passengers are clearly informed of the measures that are in place and give clear instructions on what they need to do if they develop symptoms of COVID-19 after arrival.

All efforts need to be made to provide a speedy baggage claim process and ensure that passengers are not made to wait for excessive amounts of time in the baggage claim area. For example, all available belts should be made use of, in order to allow physical distancing.

It will also be important that Governments ensure that the customs clearance process is a speedy as possible and that appropriate measures are taken in case of physical baggage inspections to ensure physical distancing.

## Border & Customs

- **Electronic declarations** with mobile devices
- Simplified control formalities to enable **contactless options**
- Immigration halls **optimized for social distancing**

16 Biosecurity for Air Transport



Where declarations are required on arrival, governments should consider electronic options (mobile applications and QR codes) to minimize human-to-human contact.

For customs processes, where possible green/red lanes for self-declarations are recommended.

Appropriate sanitary measures must be taken at secondary screening points to protect passengers and staff.

It is suggested that governments should simplify border control formalities, by enabling contactless processes (e.g. relating to the reading of passport chips, facial recognition etc.), setting up special lanes, and training their agents to detect signs of unwell passengers.

Possible redesign of immigration halls needs to be coordinated between the airport, airlines and the government..

## In transit

- Security and health screening should avoid redundant checks by taking advantage of **"one-stop-security" arrangements**
  - mutual recognition of screening measures taken at the originating airport

**If checks are required, departure process recommendations on social distancing and sanitary requirements should be followed**

17 Biosecurity for Air Transport

19 May 2020



Any security and health screening requirement for transferring passengers should take maximum advantage of "one-stop-security arrangements"—avoid duplicating checks done on departure.

This relies on mutual recognition of screening measures at the originating airport and eliminates re-screening in the transfer process, thus removing a queuing point in the journey.

Where this is not possible for all transfer traffic, consideration should be given to specific arrangements among trusted partners.

Where transfer security screening is required, it should follow appropriate social distancing and sanitary requirements as previously described in the departure process.

Where health screening, including temperature checks, may be required, the recommendations for the arrival process should be followed.

Temporary multi-layered biosecurity measures to protect health and safety, and ensure that air travel is not a meaningful vector for the spread of COVID-19



This temporary multi-layered approach during the re-start aims to protect the health and safety of passengers and crew; and to ensure that air travel is not a vector for COVID-19 transmission.

# Conclusion

No single measure today can mitigate all the biosecurity risks of travel

**This range of measures will provide a layered solution in the immediate term**

- They are achievable
- They already exist

When proven and available, additional measures like COVID-19 testing and electronic immunity passports can be incorporated

19 Biosecurity for Air Transport

19 May 2020



There is currently no single measure that can mitigate all the bio-safety risks of restarting air travel.

Implementing the above-mentioned range of measures that are already possible is the most effective way of balancing risk mitigation with the need to unlock economies and to enable travel in the immediate term.

As further progress is achieved in terms of additional measures such as effective COVID-19 and immunity testing, new measures can be incorporated into the passenger process to further mitigate the risks and further build confidence in air travel.

This will take us further on the journey towards a resumption of 'normal' operations.