



# WELCOME BOEING LEADERSHIP SERIES - TRAVEL CONFIDENTLY



**Brazilian-American**  
Chamber of Commerce of Florida  
EST. 1981



———— 2021 ————

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# International policy coordination: road to recovery

**Oracio Márquez**

Regional Director, Member and External Relations

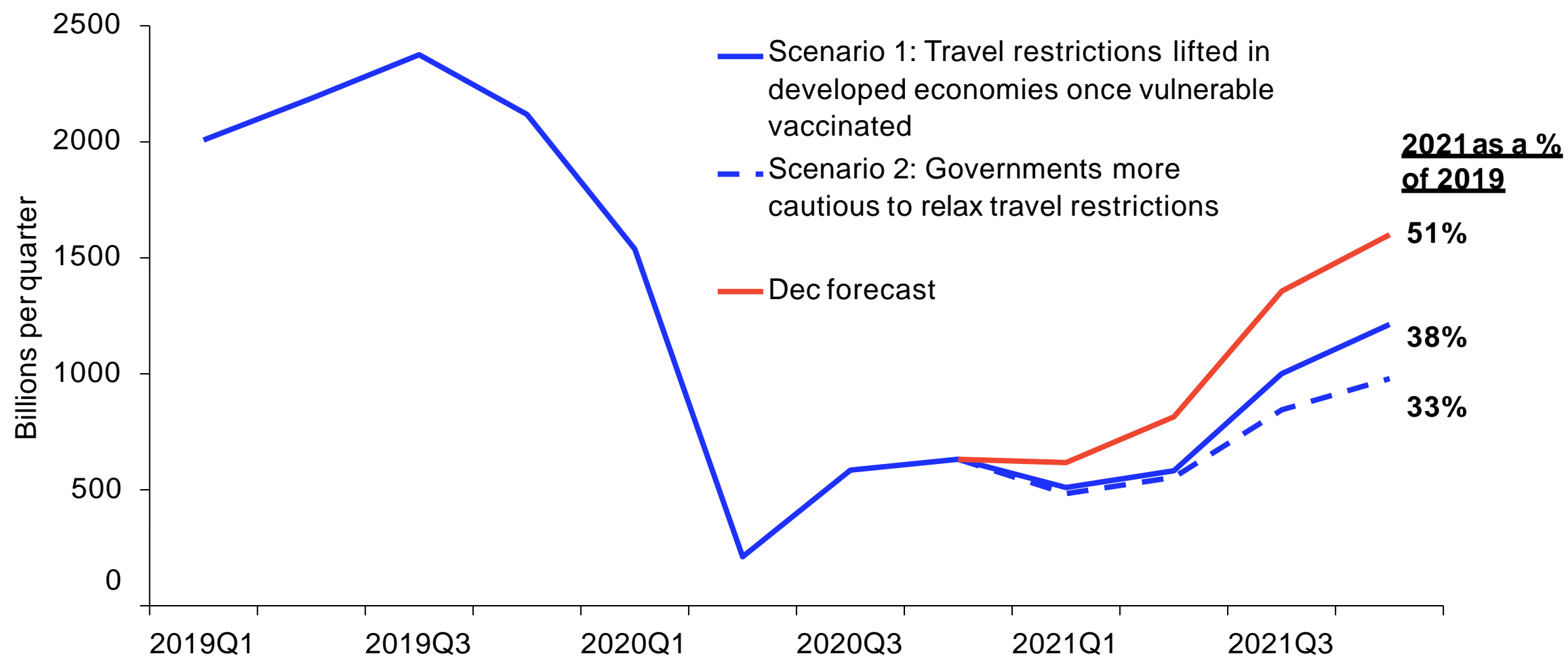
March 11, 2021



# 2021 H1 will be weaker than expected in December

There is also a risk to H2 from policy response to new virus variants

Global RPKs, billions per quarter





# Impact of COVID-19 on air connectivity in the Americas

North America

Air connectivity before COVID 19

5,450  
city pairs

April 2019



Air connectivity decimated  
by COVID 19

3,490  
city pairs

April 2020

Latin America & Caribbean

Air connectivity gaps even  
before COVID 19

1,780  
city pairs

April 2019



Air connectivity decimated  
by COVID 19

680  
city pairs

April 2020

# Impact on jobs and GDP in the Americas

North America

2019: Pre-COVID



**8.8 Million**

Jobs supported by air transport



**US\$1.1** trillion

GDP supported by air transport

**-49%**

**-50%**

2020: COVID Impact



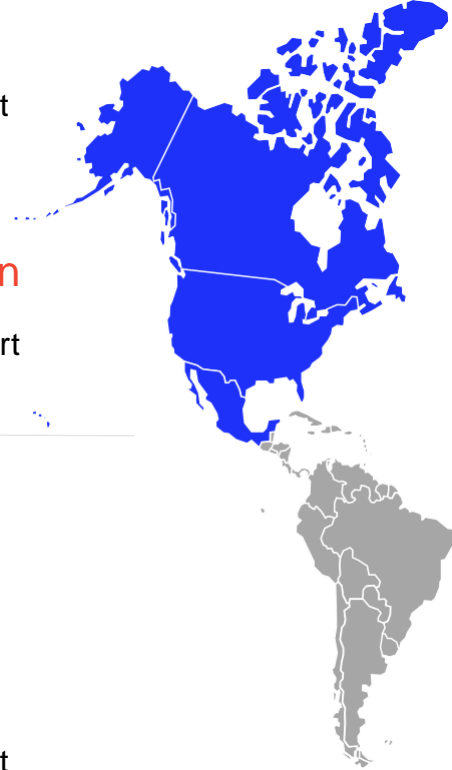
**4.5 Million**

Jobs supported by air transport



**US\$553** billion

GDP supported by air transport



Latin America & Caribbean

2019: Pre-COVID



**7.6 Million**

Jobs supported by air transport



**US\$187** billion

GDP supported by air transport

**-52%**

**-50%**

2020: COVID Impact



**3.7 Million**

Jobs supported by air transport



**US\$93** billion

GDP supported by air transport

# COVID impact in Brazil (December 2020)

## 2019: Pre-COVID



**839,000**

Jobs supported by air transport



**US\$18.8** billion

GDP supported by air transport

## 2020: COVID Impact



**337,450**

Jobs supported by air transport



**US\$6.9** billion

GDP supported by air transport

**-60%**

**-63%**

Airline revenues were estimated to drop by USD-13.6Bn by end of 2020 (-71% vs. 2019)



Despite the catastrophic impact of  
COVID-19 and border closures on travel,  
airlines have made  
**unprecedented efforts**  
to help people  
wherever they can.



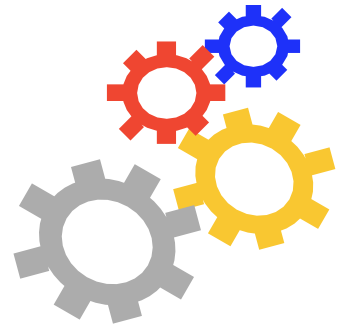
# Short-term Covid Response

- **Systematic testing** and adequate contact tracing is required to keep borders open with no quarantines in place
- **Biosafety measures** coupled with testing remain effective to reduce risk of importation of virus
- **Standardized global approach to health credentials:** [IATA Travel Pass](#)  
– intergovernmental recognition of test and vaccine certificates
- **Financial relief** by States to ensure viability of the operation despite airlines continuous cash burn, including access to credit lines, routes incentives and travel vouchers.
- **Country vaccination roll-out plans** and consideration of aviation workers as essential



# IATA Travel Pass

## Developed for everyone



### Registry of Health Requirements

powered by Timatic

- Enables passengers to find accurate information on travel, testing (and eventually vaccine) requirements for their journey

### Registry of testing/ vaccination centers

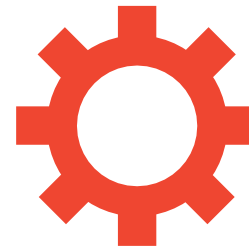
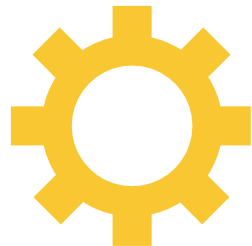
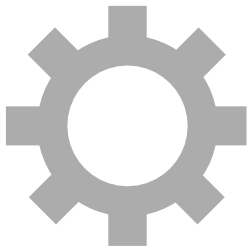
- Enables passengers to find testing centres and labs at their departure location which meet the standards for testing/vaccination requirements of their destination

### Lab App

- Enables authorized labs and test centers to securely send test results or vaccination certificates to passengers

### Contactless Travel App

- Enables passengers to (1) create a 'digital passport', (2) verify their test/vaccination meets the regulations & (3) shares test or vaccination certificates with authorities to facilitate travel.
- Can be used by travelers to manage travel documentation digitally and seamlessly throughout the travel experience.



# Safely reopening borders

- ✦ IATA committed to work with governments to combat COVID-19
- ✦ Work with WHO and ICAO to urgently develop standard testing and vaccines certificates (data elements and digital format)
- ✦ Deploy industry solution (IATA Travel Pass) to manage digital health credentials and ensure interoperability with other industry solutions
- ✦ Develop Guidance to help governments manage and mitigate risks including transition from testing to vaccines and removal of unnecessary biosafety measures.



# Thank you

**Oracio Márquez**

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# Confident Travel Initiative

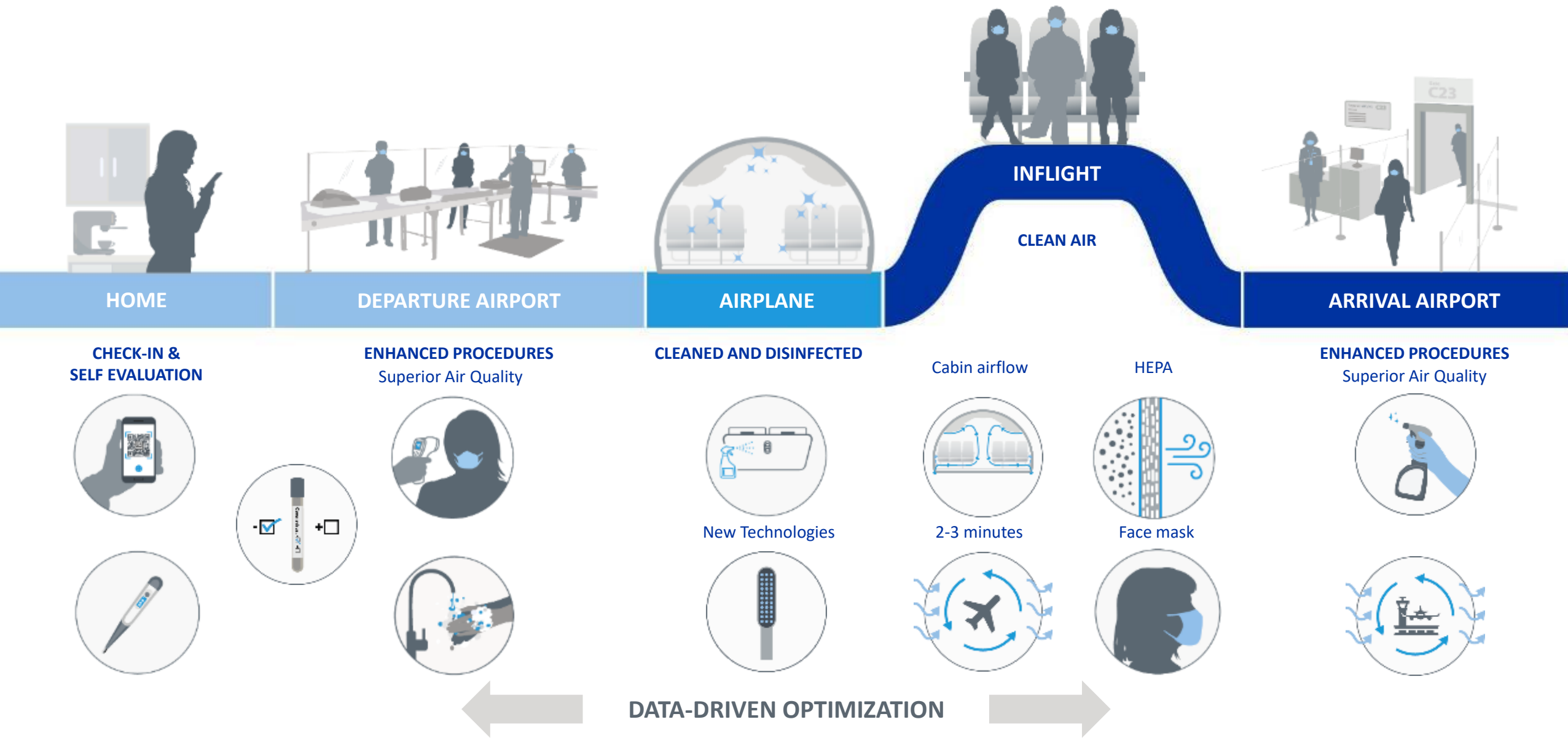
Landon Loomis  
Vice President for Global Policy & Managing Director Brazil  
The Boeing Company

March 11, 2021





# A Multi-layered Approach to Protect the Air Travel Journey



# Boeing partners in flight



AIRBUS



There are very few reports of transmission in the air travel journey

## 2020 Travel

A light blue world map is centered in the background of the slide. The map shows the outlines of the continents in a slightly darker shade of blue. Overlaid on the map are large text elements in blue and pink.

**30.4M**  
GLOBAL  
FLIGHTS

**2.1B**  
GLOBAL  
PASSENGERS

**Less than 60**  
**KNOWN TRANSMISSIONS**  
**DURING AIR TRAVEL\***

# Boeing's Clean Airplane Program: *Helping airlines protect passengers from viruses*



**CHEMICAL DISINFECTANTS**  
*20 tested, 9 Boeing approved  
disinfectants*



**ELECTROSTATIC SPRAYERS**  
*Efficient application for hard  
to reach areas*



**CABIN AIRFLOW**  
*Complete air exchange  
every 2-3 minutes*



**HIGH EFFICIENCY PARTICULATE  
AIR (HEPA)**  
*99.9+% effective at removing  
particulates*



**UV TECHNOLOGY**  
*For use in flight deck today,  
cabin is under study*

## TODAY'S SOLUTIONS



**ANTIMICROBIAL COATINGS**  
*Developing our own, validating  
others' for a long lasting solution*

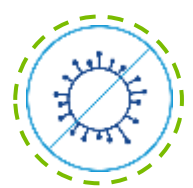


**THERMAL DISINFECTION**  
*Eliminating viruses with heat*



**IONIZATION TECHNOLOGY**  
*Electrically charging the air to  
make it even cleaner*

## TOMORROW'S POTENTIAL SOLUTIONS



**BOEING ANTI-VIRAL  
COATING**  
*Breakthrough anti-microbial  
with high kill rate, long life*



**UV BUILT INTO THE  
AIRPLANE**  
*Continuous disinfection through  
the travel journey*

 = UNDER STUDY

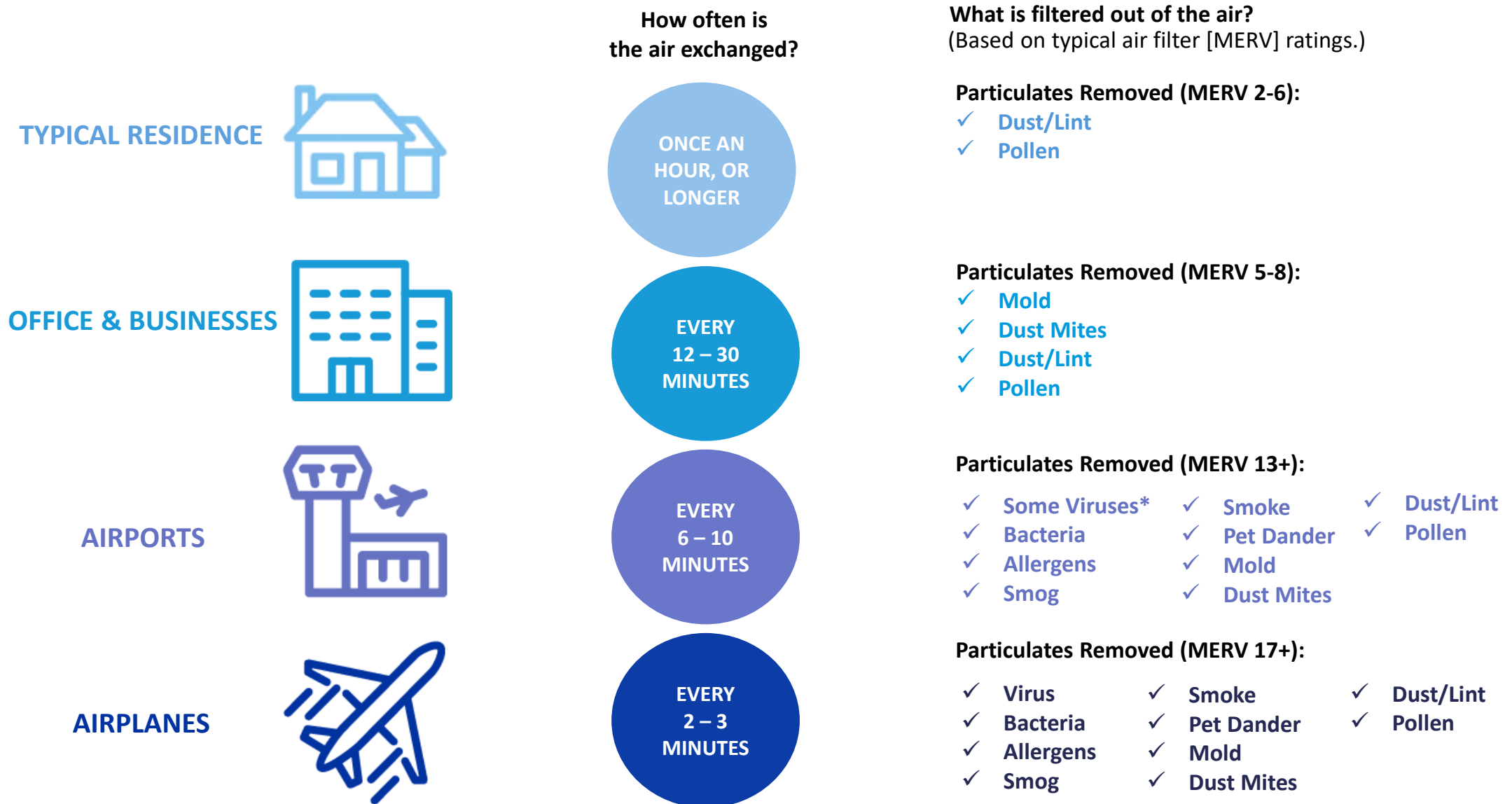


# Cabin environment creates equivalent of >2 m (7 ft) *distance* between every passenger on full flight



1. Cabin air flows primarily from ceiling to floor
2. The circular air pattern limits particle movement
3. Airflow pulls cough particles down
4. The seat position acts as a barrier and minimizes particle spread
5. Airborne particles flow out through the floor grilles
6. HEPA filters traps more than 99.9% particles — including spores, bacteria, viruses
7. New fresh, filtered air constantly fills the cabin 20-30 times per hour

# The air quality in airplanes is excellent



\*Airport filter efficiency ratings varies by airport and do not capture all types of viruses

# Summary



- The risk of contracting COVID-19 during air travel is extremely low compared to typical daily activities
- The design of the cabin and airflow system creates the equivalent of more than 7 feet (2 meters) of space between every passenger even on a full flight
- Boeing and the University of Arizona conducted live virus testing to determine that current cleaning solutions effectively destroy the virus that causes COVID-19
- We are all part of the solution

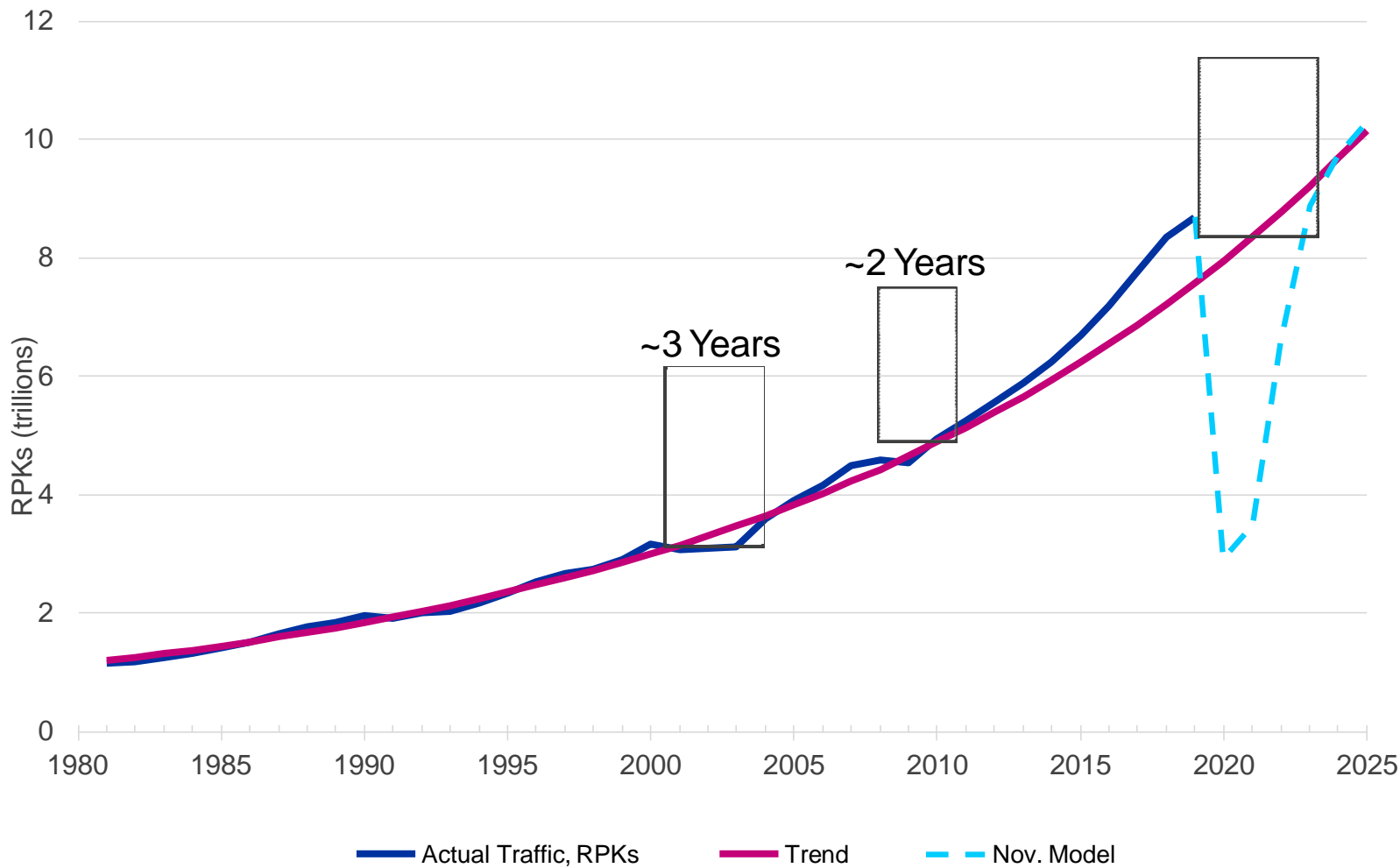




## Latin America and the Caribbean Market Outlook 2020-2039



# Aviation proven resilient over and overagain



Fundamentals of air travel demand return market to trend growth

# Latin America 20-year forecast: continued long-term growth



**Economic  
growth (GDP)**

**2.2%**



**Airline traffic  
growth (RPK)**

**5.1%**



**Airline fleet  
growth**

**3.5%**

# Bottom Line



**Latin America and the Caribbean will need 2,610 new airplanes over the next 20 years**

**Aviation has proven to be resilient over time**

**The current downturn will lead to an accelerated replacement cycle**

**Versatile fleets that improve efficiency and sustainability are key to the future**







# **Clean Commitment Updated from American Airlines**

# COVID-19 US Testing requirements

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- ✧ As of Jan. 26, the U.S. government requires all passengers two years of age and older traveling to the United States from any international location to test negative for COVID-19 within three calendar days of departure.
- ✧ This testing requirement will provide yet another layer of protection in the travel journey.





# Our Clean Commitment



## Trust



Travel Advisory Panel with infectious disease experts from Vanderbilt University Medical Center



Starting to treat our aircrafts with SurfaceWise®2, a breakthrough protection for killing of coronaviruses



First airline to seek accreditation for our aircraft and lounges

## Peace of Mind



Enhanced Cleaning and Protocols



Mask Requirement



Symptom Checklist

## Control



Customer Notifications and Flexibility



Hand Sanitizer Collaboration



Touchless Kiosks





# Leading the Industry: SurfaceWise®2

American was the **first U.S. airline** to deploy SurfaceWise®2, the **first and only** EPA-approved antiviral protectant that's **proven to kill coronaviruses** on surfaces **even after new germs are deposited**.



1

SurfaceWise®2 is applied to high touch surfaces via electrostatic spraying throughout the aircraft.



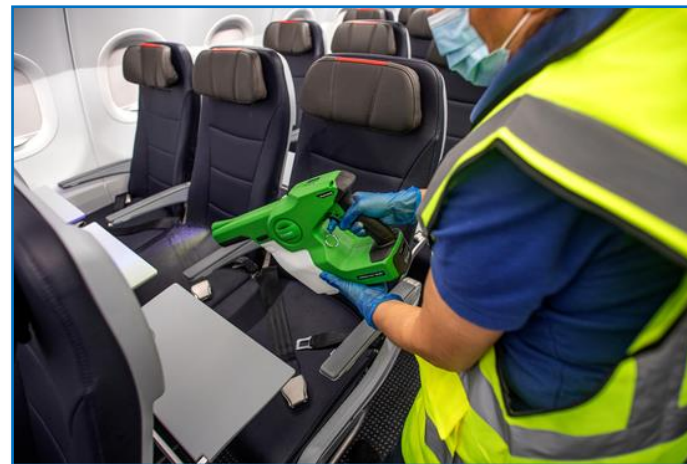
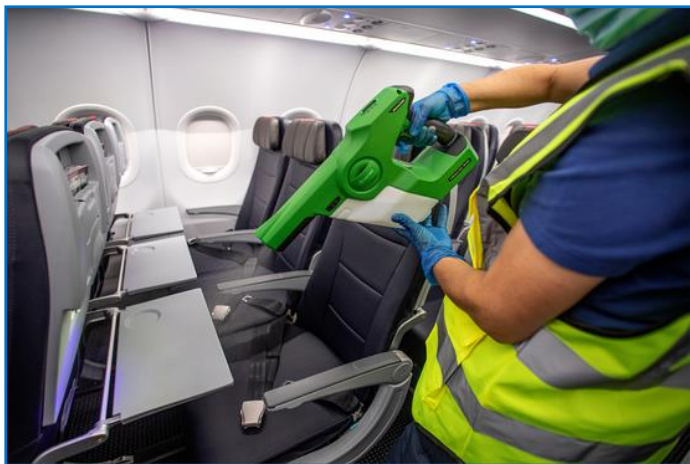
2

As coronaviruses come in contact with the antiviral coating the cleaning agent physically breaks down the virus.



3

The SurfaceWise®2 barrier provides sustained protection and begins killing new viruses on contact.





# GBAC STAR Accreditation from the Global Biorisk Advisory Council

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- First airline to achieve GBAC STAR™ accreditation
- Establish and maintain a cleaning, disinfection, and infectious disease prevention programs
- Ensures the proper cleaning protocols, disinfection techniques, and work practices are in place
- Works with highly informed cleaning professionals who are trained for outbreak and infectious disease preparation and response.

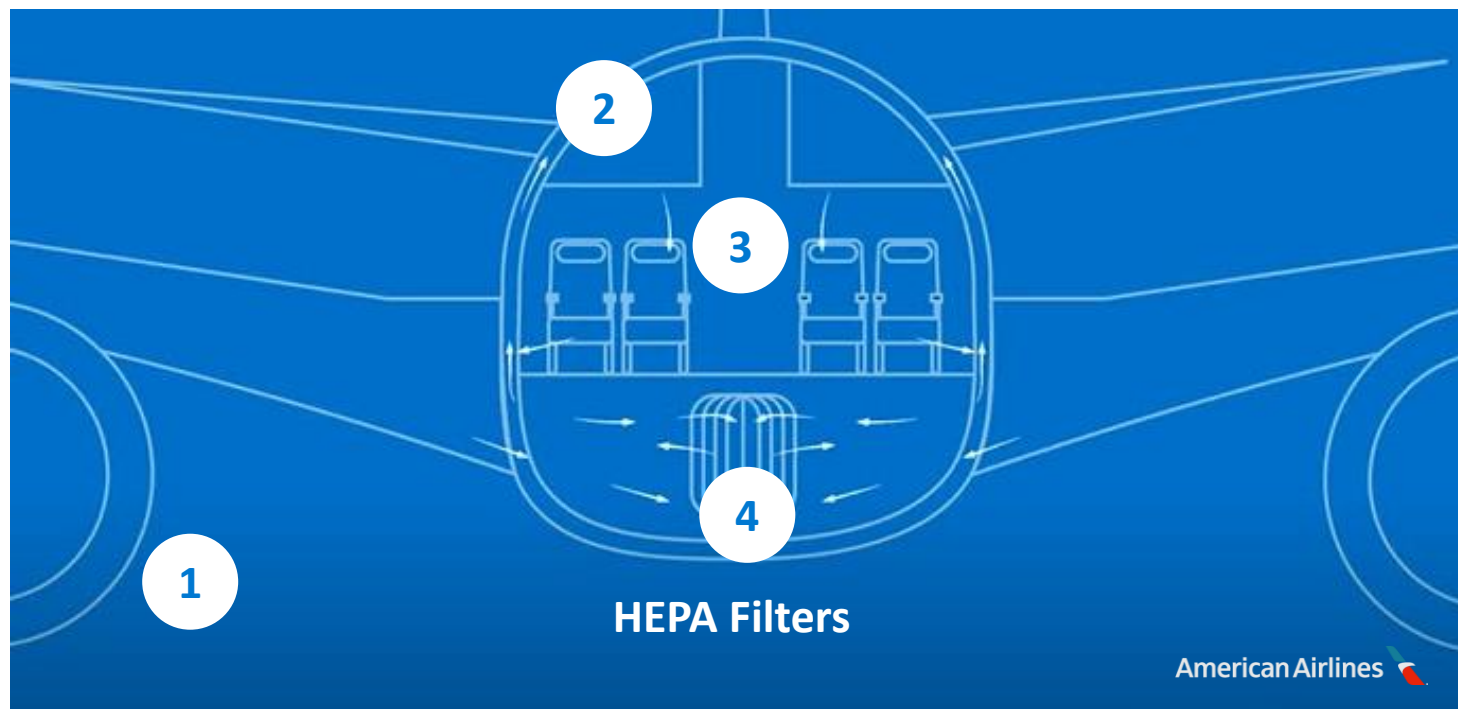




# HEPA Filters

## A breath of clean air in flight

- 1 Fresh air enters the plane through the engines
- 2 Air supplied from overhead outlets. Air is exchanged **every 2 to 4 minutes**
- 3 Air flows primarily from **CEILING TO FLOOR**, not front to back, to minimize spread of contaminants

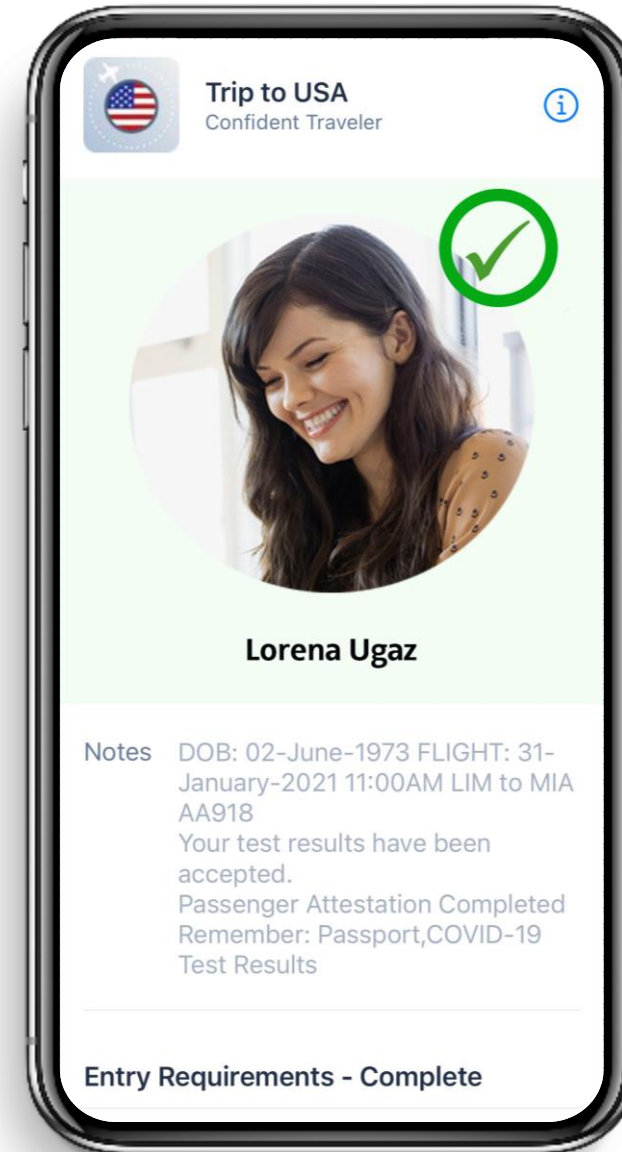


- 4 Air passes through **HIGH EFFICIENCY PARTICULATE AIR (HEPA)** filters which are **99.9%+** effective at trapping viruses and bacteria



# Mobile Digital Health Passport - VeriFLY

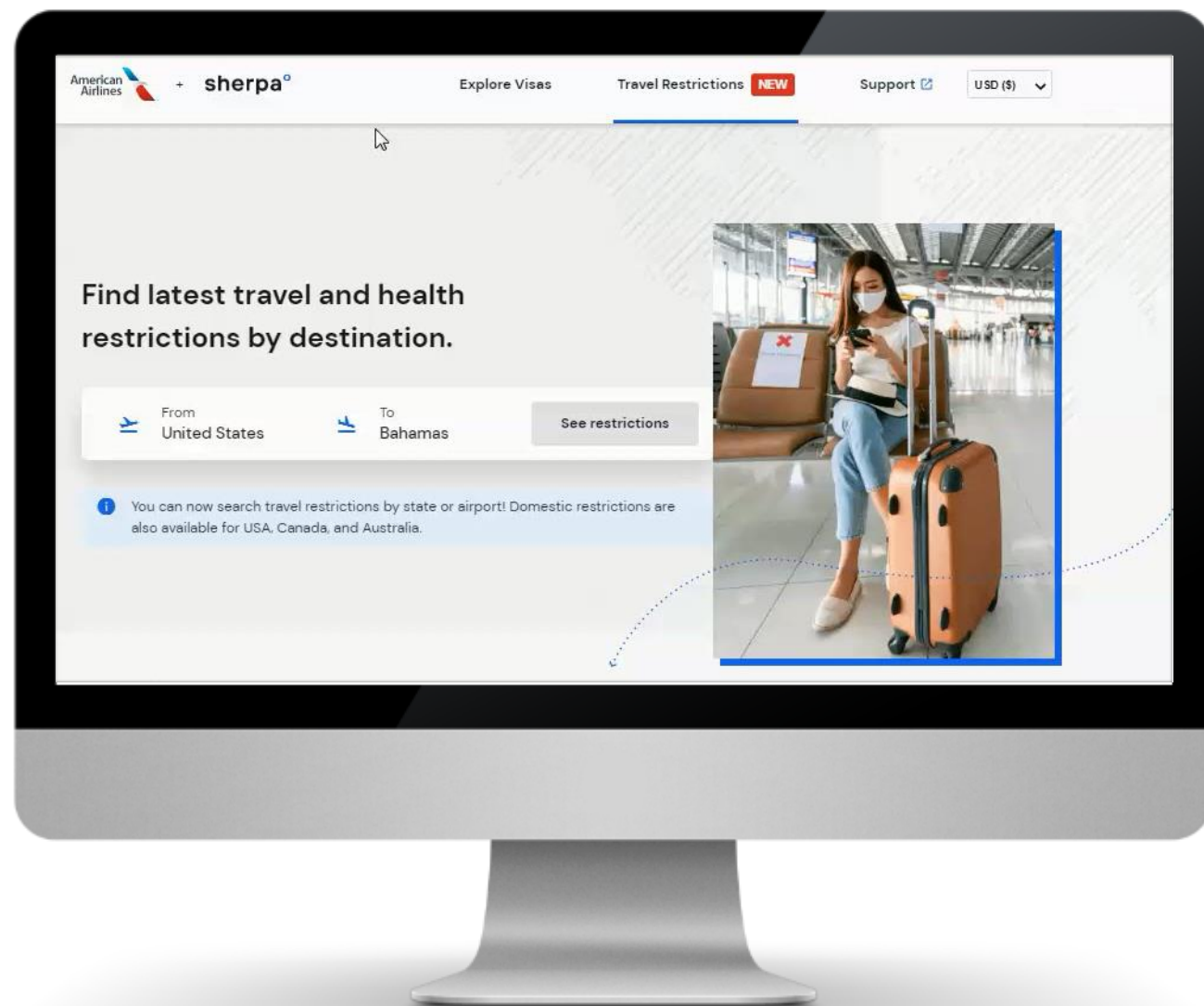
- Digital health passport solution for verification of travel requirements (including test results) both upon departure and arrival.
- VeriFLY uses a traceable testing solution to track and validate test results.
- App displays whether a customer meets or fails the testing and pre-arrival requirements for a destination.
- Available for travel to: United States, Brazil, Canada, Chile, Colombia, El Salvador, Guatemala, Honduras, Jamaica, United Kingdom



# Travel restriction informational tool

- Review travel restrictions on-demand
- For domestic and international travel
- Updated frequently to make sure you get the latest requirements

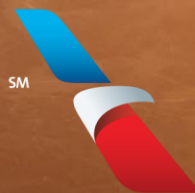
<http://www.aa.com/travelrestrictions>







You are why we fly<sup>SM</sup>



# Questions?







### A multilayered approach

Three separate layers of defense to safeguard your health.

Go



### Creating healthy airflow

More than 99.9% of viruses removed by filters similar to those used in hospitals.

Go



### Developing new technologies

Ultraviolet light is just one of the new tools we're testing.

Go



### Research white papers

**NEW** Role of Persistent Disinfectants in Reducing Disease Transmission from Contaminated Surfaces

Go

+ SHARE

## To know more travel confidently, please visit:

As air travel resumes and restrictions ease around the globe, your health and safety are our top priority. Boeing is working across the industry to enhance health safeguards and develop new solutions.

<https://www.boeing.com/confident-travel/>



### Confident Travel Commitment

Boeing and industry partners are enhancing health safeguar...

