



ICAO

INTERNATIONAL CIVIL AVIATION ORGANIZATION

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RECONNECTING **THE** WORLD

ICAO Annex 9 New chapter 10

Health related provisions



Horizontal Issues

- ☐ Communicable disease outbreak aviation plan

Chapter 10 Health-related provisions

- ☐ International health regulations and related measures
- ☐ Inspection of health related documentation
- ☐ Prevention and mitigation of communicable diseases



National aviation plan addressing communicable diseases

□ Std. 8.17:

- States are obliged to establish a plan to prepare national aviation for an outbreak of a communicable disease posing a public health risk or PHEIC, in order to:
 - Respond to potential health risks spread through air transport
 - Protect population health and aviation interests of countries
- ICAO guidance material to help States developed in collaboration with WHO, IATA and ACI
- *ICAO Manual on COVID-19 Cross-border Risk Management*

National aviation plan addressing communicable diseases

□ Std. 8.17.1:

- Ensures that individual airport operators' aerodrome public health plans are integrated into their aerodrome emergency plans
- National public health emergency plans describe measures to adopted at State level
- Aerodrome public health emergency plans deal with preparedness and response to at airport level
- There is need to coordinate response measures, in order to avoid confusion, inconsistencies and duplication of resources



Vaccination certificates

WHO International Certificate of Vaccination and Prophylaxis

- States may require visitors to provide evidence of vaccination to prevent the international spread of diseases
- WHO IHR (2005) Annex 7, specifically lists yellow fever for which proof of vaccination may be required for passengers as a condition of entry to a State.

**International Certificate of
Vaccination or Prophylaxis**

International Health Regulations (2005)

**Certificat international de
vaccination ou de prophylaxie**

Règlement sanitaire international (2005)

Issued to / Délivré à

Passport number or travel document number
Numéro du passeport ou du document de voyage



Vaccination certificates

WHO International Certificate of Vaccination and Prophylaxis

☐ **Std. 10.1:**

- States are obliged to accept the WHO International Certificate of Vaccination or Prophylaxis for proof of vaccination against yellow fever
- This measure greatly enhances the ability of States and airlines to verify the existence of the proof of vaccination.
- WHO certificate is also used to present proof of vaccination against other diseases not specific to Standard 10.1, such as dengue, hepatitis A/B or polio



WHO International Certificate of Vaccination and Prophylaxis

☐ **Std. 10.2:**

- Requires States to ensure that vaccinators use the Model International Certificate of Vaccination or Prophylaxis in order to increase uniform acceptance
- States should help to procure and distribute the blank documents to vaccination centers and health care facilities

Vaccination certificates

ICAO digital vaccination certificate with VDS-NC

☐ **Std. 10.2.1:**

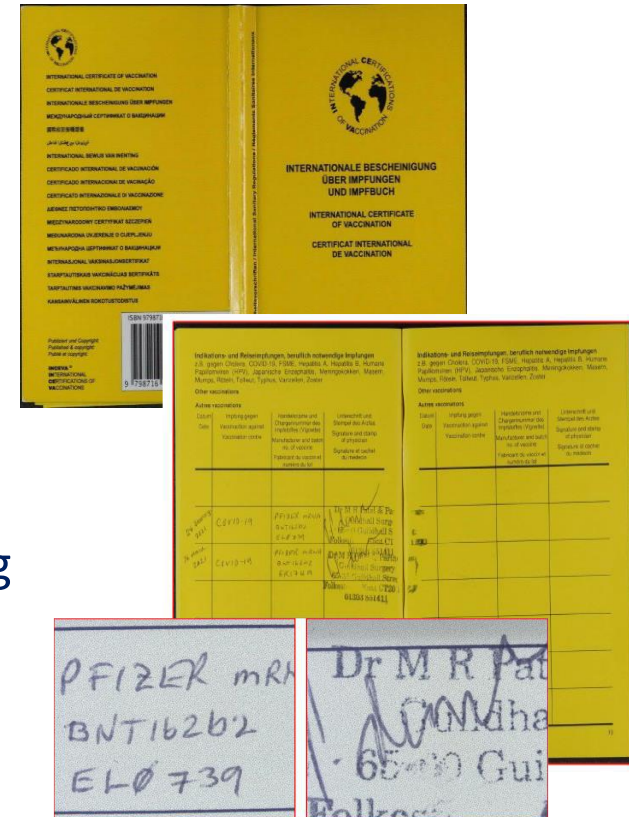
- States should support digital issuance of vaccination certificates in line with WHO recommendations and interoperable with ICAO VDS-NC
- ICAO's specification and guidance for VDS-NC can also be applied to other certificates, e.g. testing, recovery.
- ICAO specifications make inspection of certificates for States easier because verifying barcodes of health proofs can be integrated into existing border control or immigration systems

What problems are we addressing?

Health proofs as target of fraud

- Counterfeit vaccination certificates and COVID-test reports a mass phenomenon
- Blank “yellow books” with complete vaccination entries are sold for 80–150 €
- WHO booklet never intended to be a secure travel document, no security features
- VDS-NC is designed as accompanying document carrying digitally signed health information – making fraud easily detectable

Case example: Blank fraudulent yellow book sent from London to Frankfurt carrying vaccination entries, May 2021 (Source: BPOL FRA)



Example 1 – Australia

- Certificate meets the global standard specified by ICAO & endorsed by WHO
- Uses VDS-NC technology with a 2D barcode that is secure as an eMRTD chip and can be authenticated in the same way (import of root certificate)
- Barcode can be read at borders globally and by travel apps managed by States, Aircraft Operators and other solutions deployed in travel continuum



The image shows a sample of an Australian International COVID-19 Vaccination Certificate. At the top is the Australian Government crest and the text "Australian Government" and "International COVID-19 Vaccination Certificate". Below this, it says "Proof of Vaccination", "Issued by AUS", "Version 1", and "UVCI VB000990038". A large 2D barcode is on the left, with the text "Protect the QR code from marks and damage." below it. To the right of the barcode, the holder's details are listed: Name of the holder: CITIZEN, JANE CATHERINE; Date of birth: 1977-05-16; Sex: F; Passport number: PF0911009. Below this is a "Visible Digital Seal (VDS-NC)" section with a note: "Authorities can verify that this document is true and unaltered with a QR reader that checks against Australia's ePassport Country Signing Certificate Authority public key." A table titled "VACCINATION EVENT" lists two events: one on 2021-06-18 with dose number 1, administered by Community Health, and another on 2021-07-01 with dose number 2, administered by a General Practitioner. At the bottom, there is a small disclaimer about the Visible Digital Seal and UVCI codes.

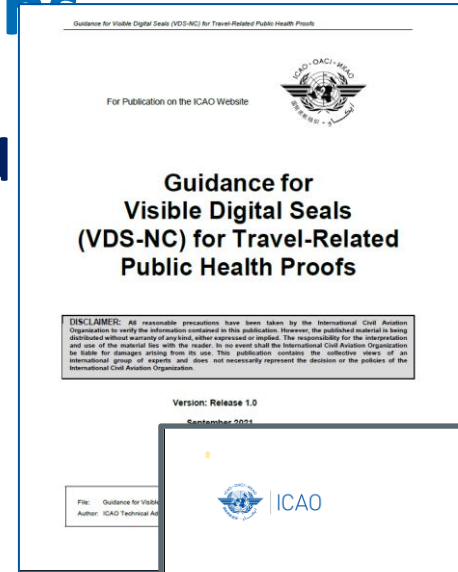
VACCINATION EVENT		Vaccine brand:	Disease or agent targeted:	
Vaccine or prophylaxis:		PFizer	RAB1.9 (COVID-19)	
XM86M6 (COVID-19)		Country of vaccination:	Administering centre:	Vaccine batch number:
Date of vaccination:	Dose number:			
2021-06-18	1	AUS	Community Health	EP2163
2021-07-01	2	AUS	General Practitioner	ER7448

This document bears a Visible Digital Seal for a Non-Constrained Environment (VDS-NC), as specified by the International Civil Aviation Organization. UVCI means 'Unique Vaccination Certificate Identifier', XM86M6 and RAD1.9 are World Health Organization codes for COVID-19.

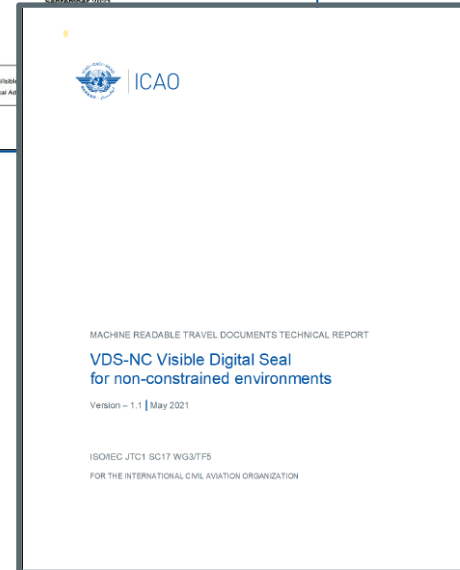
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VDS-NC Guidance and Specifications

- **ICAO Guidance for VDS-NC for Travel Related Public Health Proofs**
 - ➔ Referenced by ICAO CART III // Recommendation 17
- **ICAO Technical Report for VDS for Non-Constrained Environments (VDS-NC)**
 - ➔ Endorsed by the ICAO Air Transport Committee
 - ➔ Specifies data sets and technical aspects related to digital signature



PPT 9.11



Health entry requirements

Making information available to States

☐ **Std. 10.3:**

- Seeks to ensure that passengers are made aware of the vaccination requirements of destination States
- Requires all States to make arrangements so that relevant public authorities and aircraft operators can disseminate this information in a timely manner
- Such information should be readily available from the websites of relevant States authorities and aircraft operators

Health entry requirements

Effective communication

☐ **Std. 10.11:**

- Public health requirements are dynamic and developed on a risk-based approach and cannot be enshrined in legislation
- States are obliged to communicate clearly and effectively to about their public health related entry requirements within a reasonable timeframe
- Need to consider the entry requirements of all public authorities of that State and be communicated via an established channel

Inspection of health-related documentation

Two types of documentation

- 1. *Standardized health documents.*** Documents standardized by the WHO under the International Health Regulations (IHR) (2005).
- 2. *Health-related documentation.*** Documentary evidence required by Contracting States, including those standardized by the WHO IHR (2005), to indicate that passengers and crew members have fulfilled the requirements for preventing and mitigating the spread of communicable diseases for the purposes of transiting or entering a Contracting State.



Cooperation between States and aircraft operators

□ Std. 10.4:

- This standard requires States to assist aircraft operators in the pre-departure checking of standardized health documents in order to deter fraud and abuse when such documents are presented by passengers
- Includes digitalized solutions

Inspection of health-related documentation

Cooperation between States and aircraft operators

□ RP 10.5:

- States requiring health-related documentation as an entry or transit requirement should encourage aircraft operators to have pre-departure verification procedures in place:
 1. Evaluation of standardized health documentation to assess validity
 2. Verifying that passengers and crew are in possession (sighting) of *non-standardized* health documentation

Inspection of health-related documentation

Necessary checks and non-fining

☐ **Std. 10.8:**

- In the case that passengers are deemed inadmissible in transit or on arrival, States shall not fine aircraft operators if the operator can demonstrate that they have performed necessary checks in conducting the aforementioned pre-departure verification procedures

Inspection of health-related documentation

Digital health platforms & notification of approval to travel

□ RP 10.6:

- Many States have adopted digital health platforms where health related information – standardized or non-standardized – can be lodged by passengers in advance of travel
- This RP encourages States to provide a platform for passengers to submit documents and the State to evaluate the information prior to travel and issue notifications of approval to travel
- Reduces physical interactions with the passenger within the airport premises



Digital health platforms & notification of approval to travel

RP 10.7 (Batch API mode)

- Aircraft operators should perform pre-departure checks on the travel approval notification (usually a barcode)
- Often not standardized making pre-travel verification by airlines difficult
- Standardizing the notification is beneficial for airlines and States, prevents fraud and supports automated verification and identity binding

Inspection of health-related documentation

Notification of approval to travel

- Standardizing this notification with interoperable barcodes can be done by implementing ICAO Digital Travel Authorization (DTA)
- The ICAO VDS-NC barcode can be used

Digital Travel Authorization	Issued by UTO	Version 1	DTA Number: N156702B
PERSONAL INFORMATION			
Name of the Holder:	Date of Birth:	Nationality:	Sex:
Anna Maria Eriksson	1952-03-11	USA	F
Passport Number: L8988901C			
DIGITAL TRAVEL AUTHORIZATION			
Place of Issue:	Valid From:	Valid Until:	
Peacetown	2021-06-06	2026-06-06	
Duration of Stay:	Number of Entries:	Type/Class/Category:	
5 years, 0 months, 0 days	Multiple	Tourist	
Additional Information: Employment Prohibited			
			

Inspection of health-related documentation

Automated checks

□ RP 10.9:

- Advises contactless procedures by States, such as digital health platforms and digital applications
- State should automate checks upon arrival, for example through the automated verification of a barcode
- Ideally, check is integrated into existing procedures for identity verification and immigration, thereby not adding an additional layer of inspection



Inspection of health-related documentation

Digital health platforms & leveraging interactive API

□ Note to RP 10.7 (interactive API mode)

- States using iAPI should integrate their digital health platforms into their API Single Window architecture
- In this scenario, the notification of health approval does not need to be verified by the aircraft operator
- States return CUSRES messages informing airlines whether a passenger fulfils health requirements in advance
- Health requirements are a part of pre-travel verification



Mitigation measures

On-arrival measures

□ RP 10.10:

- Upon arrival a COVID-19 test certificate may have expired and a passenger may become inadmissible on health grounds
- States should consider measures on arrival to mitigate consequences faced by passengers
- Measures such as testing, vaccination, revaccination and quarantine could be employed
- Health risks of returning an infected passenger should also be considered when employing mitigation measures



Multilayered risk-based approach

□ RP 10.12:

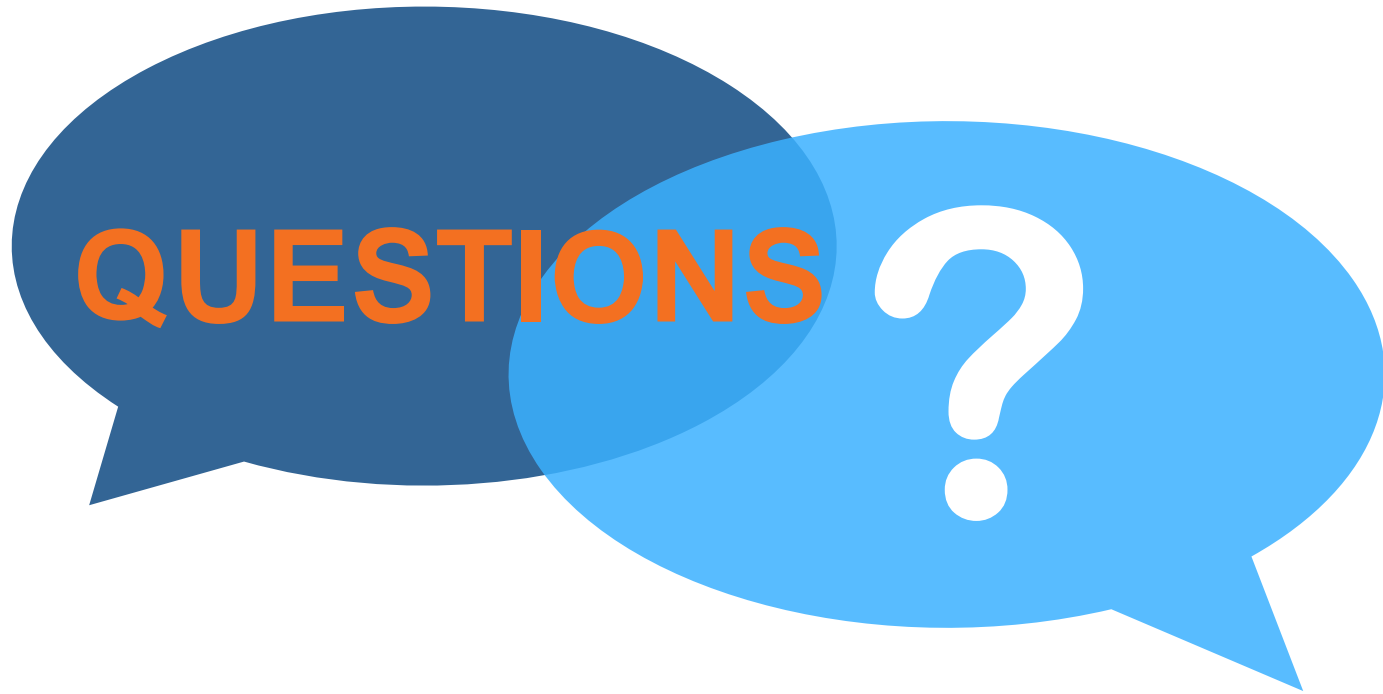
- Risk-based approach provides substantial facilitation benefits
- States should consider a multi-layered risk based approach regarding health measures (test, vaccination requirements)
- State Measures must be evidence-based, efficient and not place undue burden on airports, airlines or passengers
- More information is contained in the ICAO *Manual on COVID-19 Cross-border Risk Management, 3rd Edition* (Doc 10152)

Mitigation measures

Prioritization of aviation workers for health measures

□ RP 10.13:

- Encourages States to prioritize essential aviation workers for mitigation measures such as vaccination and prophylaxis in accordance with the WHO recommendations
- Helps to ensure continued availability of air transportation during public health risks or public health emergencies of international concern





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Thank You