# **Data Models for Vaccination[[1]](#footnote-1) Certificates**

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **[WHO21]** | **[EU21a]** | | **[EC21]** | **[IL]** | **[LSP21][[2]](#footnote-2)** | **Good Health Pass** | **other** | **…** |
| **Header** |  | Care | Travel |  |  | **x[[3]](#footnote-3)** |  |  |  |
| Name | **x** | x | x | x | x | **x[[4]](#footnote-4)** |  |  |  |
| Date of birth | **x** | x | x | x | x | **x** |  |  |  |
| Unique identifier | **x** | x | x |  | x[[5]](#footnote-5) | **-** |  |  |  |
| Sex | **x** | x | x |  | - | **-** |  |  |  |
| **Vaccination Event** |  | x | x |  |  | **x** |  |  |  |
| Vaccine or Prophylaxis | **x** | x | x | x | x | **x** |  |  |  |
| Vaccine brand | **x** | x | x | x | x | **x** |  |  |  |
| Vaccine manufacturer | **x** | x[[6]](#footnote-6) | x | x | x | **-** |  |  |  |
| Vaccine market  authorization holder | **x** |  | **x** |  |  |  |
| Vaccine batch number | **x** | x | - |  | x | **x** |  |  |  |
| Date of vaccination | **x** | x | x | x | x | **x** |  |  |  |
| Dose number | **x** | - | - | x | - | **x[[7]](#footnote-7)** |  |  |  |
| Country of vaccination | **x** | x | x |  | x | **x** |  |  |  |
| Administering centre | **x** | x | - |  | x | **x** |  |  |  |
| Signature of health  worker | **x** |  |  |  | x |  |  |  |  |
| Health worker  identification | **x** | x | - |  | - | **x** |  |  |  |
| Disease or agent targeted | **x** | x[[8]](#footnote-8) | x | x | x | **x** |  |  |  |
| Due date of next dose | **x** | x | - |  |  | **x** |  |  |  |
| **Vaccine Certificate Metadata** |  |  |  |  |  |  |  |  |  |
| Certificate issuer | **to be provided in release candidate 2** | x | x | x | x | **Linked Data Signature according to [LoSp20] (Section 7.1)** |  |  |  |
| Certificate identifier | x | x | x | x |  |  |  |
| Certificate valid from | x | x |  |  |  |  |  |
| Certificate valid until | x | x |  |  |  |  |  |
| Certificate schema version | x | - |  |  |  |  |  |

## **References**

[EC21] European Commission: *Proposal for a Regulaiton of the European Parliament and the Council on a framework for the issuance, verification and acceptance of interoperable certificates on vaccination, testing and recovery to facilitate free movement during the COVID-19 pandemic (Digital Green Certificate)*, 2021/0068 (COD), 2021, <https://ec.europa.eu/info/sites/info/files/en_green_certif_just_reg130_final.pdf>

[EU21a] EU eHealth Network: *Guidelines on proof of vaccination for medical purposes – basic interoperability elements*, Release 2, 2021-03-12, <https://ec.europa.eu/health/sites/health/files/ehealth/docs/vaccination-proof_interoperability-guidelines_en.pdf>

[IL] Israeli Ministry of Health: *Vaccination Certificate, Green Pass and Certificate of Recovery*, <https://corona.health.gov.il/en/green-pass/> and <https://github.com/MohGovIL/Ramzor>

[LoSp20] D. Longley, M. Sporny: *Linked Data Proofs 1.0*, Draft Community Group Report 29 December 2020, <https://w3c-ccg.github.io/ld-proofs/>

[LSP21] T. Looker, O. Steele, M. Prorock: *Vaccination Certificate Vocabulary*, v0.1, W3C undefined, 29 March 2021, <https://w3c-ccg.github.io/vaccination-vocab/>, 2021

[WHO21] WHO: *Interim guidance for developing a Smart Vaccination Certificate*, March 19th 2021, <https://www.who.int/publications/m/item/interim-guidance-for-developing-a-smart-vaccination-certificate>, 2021

1. It seems to be worth noting, that that certificates of testing and recovery can easily be derived from the certificates of vaccination as outlined in [EC21]. [↑](#footnote-ref-1)
2. [IL] has additional fields for localised “Given Name”, “Family Name” and “Vaccination Organization Name” and, similar to [EC21], defines three certificate types (1=GreenPass, 2=Vaccination, 3=Recovery). [↑](#footnote-ref-2)
3. [LSP21] defines element “Vaccine Recipient” in its Section 5.2 instead of “Header”. [↑](#footnote-ref-3)
4. [LSP21] as two elements “Family Name” in its Section 5.2.2 and “Given Name” in its Section 5.2.3. [↑](#footnote-ref-4)
5. [IL] has two different elements “idl” (Citizen ID) and “idp” (Passport Number) instead of a single “Unique identifier”. [↑](#footnote-ref-5)
6. [EU21a] combines “Vaccine marketing authorization holder” and “Vaccine manufacturer” into a single element. [↑](#footnote-ref-6)
7. [LSP21] has in its Section 5.1.1 the element “Order” in the vaccination course. [↑](#footnote-ref-7)
8. Disease is first element of section “Vaccination Event” in [EU21a]. [↑](#footnote-ref-8)