Vaccination

Technical Specification

for Extended Attributes

at Point Of Care to NHS Digital

Current Version: v1.2 Approved

Version Date: 12/02/2021

Contents

[Document Management 3](#_Toc63853175)

[Revision History 3](#_Toc63853176)

[Reviewers / Key Stakeholders 3](#_Toc63853177)

[Document Author 3](#_Toc63853178)

[Approved by 4](#_Toc63853179)

[1. Purpose of Document 5](#_Toc63853180)

[2. Introduction 5](#_Toc63853181)

[3. Data File Format 5](#_Toc63853182)

[3.1 Filename Format 6](#_Toc63853183)

[3.2 File Header 6](#_Toc63853184)

[3.3 File Footer 6](#_Toc63853185)

[3.4 Field Delimiter 7](#_Toc63853186)

[3.5 Record Delimiter 7](#_Toc63853187)

[3.6 Character values 7](#_Toc63853188)

[3.7 Date Time Formats 7](#_Toc63853189)

[4. Data File Definition 8](#_Toc63853190)

[4.1 Question Data Items 8](#_Toc63853191)

[4.2 Appendix – Data Standards 10](#_Toc63853192)

[4.3 Appendix – Example Data File 10](#_Toc63853193)

# Document Management

## Revision History

|  |  |  |
| --- | --- | --- |
| Version | Date | Summary of Changes |
| 0.1 | 19Jan21 | Initial draft |
| 0.2 | 21Jan21 | Updated after review with Graham Dodsworth |
| 0.3 | 22Jan21 | Updated example CSV and clarified introduction |
| 1.0 | 03Feb21 | Document set to Approved |
| 1.1 | 10Feb21 | Example csv updated to reflect changes applied to Functional Specification  |
| 1.2 | 12Feb21 | Updated RECORDED\_DATE date format to match YYYYMMDD convention |

## Reviewers / Key Stakeholders

This document has been/must be reviewed by the following people – key Stakeholders highlighted

|  |  |  |  |
| --- | --- | --- | --- |
| Reviewer name | Title / Responsibility / Company | Reviewed date | Reviewed version |
| Paul Ellingham | NHS Digital - DSP | 19/01/2021 | 0.1 |
| Graham Dodsworth | NHS Digital – Solution Architect | 21/01/2021 | 0.2 |
| Shail Ravjibhai | NHS Digital Lead Business Analyst | 21/01/2021 | 0.2 |
| Shahzad Ali | Clinical Lead, NHS Digital |  |  |
| Chris Dickson | Clinical Lead, NHS Digital | 21/01/2021 | 0.2 |
| Sebastian Tallents | PA Consulting | 21/01/2021 | 0.2 |
| Roger Carter | Product Owner, NHS Digital |  |  |
| Camille Tsang  | Public Health England |  |  |
| Stuart Crook | Solicitor (External Legal Support) Information Law Legal Team |  |  |

## Document Author

This document was authored by the following:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Signature | Title | Date  | Version |
| John McBride |  | Technical Architect – NHS Digital | 19/01/2021 | 0.1 |
| John McBride |  | Technical Architect – NHS Digital | 21/01/2021 | 0.2 |
| John McBride |  | Technical Architect – NHS Digital | 22/01/2021 | 0.3 |
| John McBride |  | Technical Architect – NHS Digital | 03/02/2021 | 1.0 |
| Shail Ravjibhai |  | NHS Digital Lead Business Analyst | 10/02/2021 | 1.1 |
| John McBride |  | Technical Architect – NHS Digital | 12/02/2021 | 1.2 |

## Approved by

This document must be approved by the following people:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Name | Signature | Title | Date  | Version |
| Adrian Stanbury |  | Tech and Data Lead | 10/02/2021 | 1.1 |
| Richard McEwan |  | Lead Technical Architect | 10/02/2021 | 1.1 |
| Shahzad Ali |  | Clinical Lead | 10/02/2021 | 1.1 |

# Purpose of Document

This document defines a file extract specification for provision of **extended data attributes** captured at the point of care of vaccination delivery. This is **additional to** the existing vaccination information specified in the technical spec “NHS Digital daily clinical vaccination extract technical specification v3.0 APPROVED”.

The intention is that this specification is healthcare setting agnostic, so can be used to support flow of **additional reporting** information relating to vaccination activity across Community Pharmacy, GP, Health and Justice (MOJ) healthcare settings and mass vaccination sites & mobile hubs for example.

This technical specification describes a file format, which supports attribute-value pairs in a “tall thin” data structure, to ensure that it is extensible to future requirements.

The document is intended to be used by both:

1. Developers in organizations supplying vaccination information to NHS Digital, as part of the extract creation process
2. Developers in NHS Digital, as input into the downstream design of the ingestion process, once the extract has landed within the NHS Digital boundary

Any changes or enhancements to the specification is subject to Change Control.

Design considerations as to file transfer mechanism (e.g. MESH) are not in scope of this document.

# Introduction

The national flu and COVID immunisation programme 2020 to 2021 requires IT system providers to support the effort by providing NHS Digital with a new feed of data for COVID (and potentially in future other) Vaccines to support take-up of the COVID vaccines. The data will ultimately feed a call/recall, operational reporting facilities and other secondary uses such as public health surveillance of vaccine uptake and effectiveness.

The extended attributes captured by this specification will solely be used for secondary use such as reporting purposes. Employment related information may be used for call and recall purposes and selection. In all cases the information will be shared with Foundry via existing data sharing capabilities.

The information (e.g. ethnicity) will not be subjected to any data cleansing activity or merging with existing data information. Furthermore, there is currently no intention to disseminate this information for ingestion into exiting Medical Records e.g. GP Clinical records, Point of Care (PoC) solutions, Summary Care Record (SCR), etc. unless there is an explicit business requirement at a future date to do so.

# Data File Format

This section defines the required format of the file extract that organizations (System Suppliers) will provide to NHS Digital.

## Filename Format

The filenames of the exported data files **must** be formatted by concatenating the following together with the underscore character as the delimiter:

* The data file type fixed as “**Vaccination\_Extended\_Attributes**”
* The major and minor specification version of the file
* The sending organisation code as agreed with NHS Digital
* The timestamp of the export in format YYYYMMDDThhmmsszz
	+ YYYY = Year
	+ MM = Month (01-12)
	+ DD = Date (01-31)
	+ T = fixed value of “T”
	+ hh = Hours (00-23)
	+ mm = Minutes (00-59)
	+ ss = Seconds (00-59)
	+ time zone offset = 00 for GMT, 01 for BST

The file extension will be “.csv”

For example:

The filenaming convention of this technical specification v1.0 (approved) version of this document, containing coronavirus vaccination QA response data:

Vaccination\_Extended\_Attributes\_v1\_0\_ABC123\_20201014T10081501.csv

A future hypothetical minor version update to this technical specification, e.g. v1.1 (approved) would be named e.g. as follows:

Vaccination\_Extended\_Attributes\_v1\_1\_ABC123\_20201014T10081501.csv

A future hypothetical major version update to this technical specification, e.g. v2.0 (approved) would be named e.g. as follows:

Vaccination\_Extended\_Attributes\_v2\_0\_ABC123\_20201014T10081501.csv

## File Header

Each data file **must** contain a header row containing the field names delimited by a pipe character. The field names must be the same as those specified in the next section.

File Header:

VACCINATION\_UNIQUE\_ID|VACCINATION\_UNIQUE\_ID\_URI|ACTION\_FLAG| ATTRIBUTE\_ID|ATTRIBUTE\_DISPLAYED\_TEXT|ATTRIBUTE\_VALUE|RECORDED\_DATE

## File Footer

A file footer must **not** be submitted

## Field Delimiter

Each field in the data files **must** be enclosed within double quotes and delimited by a pipe character “|”. Pipe characters cannot appear within a data field.

Where this is no value (null) present, this will be represented as two consecutive delimiter characters (i.e. with no space character used), e.g. in the following, fields 2 and 8 have missing (null) values:

“The”||”Brown”|”Fox”|”Jumped”|”Over”|”The”||”Dog”

## Record Delimiter

Each record (i.e. row) in the data files **must** be terminated by the CR and LF characters.

## Character values

**String values**

Strings should contain printable alphanumeric characters only

**Escape characters**

All double quote characters within the data MUST be escaped with the backslash “\” character

## Date Time Formats

To avoid misunderstanding, where date time fields are used within the file, the following format should be used (characters such as : + - should not be included)

YYYYMMDDThhmmsszz

* The to values to be used are as follows:
	+ YYYY = Year
	+ MM = Month (01-12)
	+ DD = Date (01-31)
	+ T = fixed value of “T”
	+ hh = Hours (00-23)
	+ mm = Minutes (00-59)
	+ ss = Seconds (00-59)
	+ time zone offset = 00 for GMT, 01 for BST

# Data File Definition

Mandatory (M) – field **must** be populated

Required (R) – field **must** be populated, but **only where data is available** and **guidance notes below instruct it**

Optional (O) – Supplier may choose to include this, where data is available

Note: Only factually correct information must be submitted

## Question Data Items

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Pos | Field Name | Data Type | Length / format / values | M/R/O | Notes |
| 1 | VACCINATION\_UNIQUE\_ID | String | e.g.1) UUID example:e045626e-4dc5-4df3-bc35-da25263f901e2) Example of a “single instance for all customers” Supplier systemACME-vacc1234563) Example of “per customer instance” Supplier systemACME-CUSTOMER1-vacc123456ACME-CUSTOMER2-vacc123456 | M | **Foreign key**, which refers to the unique identifier for the vaccination record, with which these screening question responses are associated. |
| 2 | VACCINATION\_UNIQUE\_ID\_URI | String | e.g. 1) Example of a “single instance for all customers” Supplier system<https://supplierABC/identifiers>/vacc2) Example of “per customer instance” Supplier systemhttps://supplierABC/ODSCode\_ NKO41/identifiers/vacc | M | **Foreign key**, which refers to the URI for the system that has allocated the vaccination identifier. |
| 3 | ACTION\_FLAG | String | new / update / delete | M | Indication if the record is new, or has been re-submitted following an update or delete to one previously provided |
| 4 | ATTRIBUTE\_ID | String | 3-digit integer from 001-999 | M | A unique identifier for the attribute being evaluated. Possible values for this are provided in the functional specification. The string provided must be 3 characters long, with leading zeros provided where applicable e.g. 001, 002, 003, etc. “NHS Digital Functional Spec for Additional PoC Data Capture v1.0 APPROVED” |
| 5 | ATTRIBUTE\_DISPLAYED\_TEXT | String | A copy of the actual attribute text which is shown on screen to the Healthcare professional | M | A de-normalised copy of the attribute text used in the vaccination event, for example “Is patient a Health Care Professional?” For audit purposes. |
| 6 | ATTRIBUTE\_VALUE | String | See relevant functional specification for acceptable values“NHS Digital Functional Spec for Additional PoC Data Capture v1.0 APPROVED”*See appendix for data standards* | M | A value indicating the response given by the patient to the question. Allowable values determined by the functional specification “NHS Digital Functional Spec for Additional PoC Data Capture v1.0 APPROVED” |
| 7 | RECORDED\_DATE | String | YYYYMMDD | M | Date which the extended attribute event occurred |

## Appendix – Data Standards

|  |  |
| --- | --- |
| Data Type | Specification For Expected Answer Types |
| Ethnic Category | https://datadictionary.nhs.uk/attributes/ethnic\_category\_code\_2001.html |
| Yes/No | TRUE|FALSE |
| Yes/No/Not Specified | TRUE|FALSE|NOT\_SPECIFIED |
|  |  |

## Appendix – Example Data File

