Vaccination

Technical Specification

for Extended Attributes

at Point Of Care to NHS Digital

Current version: v0.2 draft

Version date: 20/01/2021

Contents

[Document Management 3](#_Toc62032319)

[Revision History 3](#_Toc62032320)

[Reviewers / Key Stakeholders 3](#_Toc62032321)

[Document Author 4](#_Toc62032322)

[Approved by 4](#_Toc62032323)

[1. Purpose of Document 5](#_Toc62032324)

[2. Introduction 5](#_Toc62032325)

[3. Data File Format 5](#_Toc62032326)

[3.1 Filename Format 5](#_Toc62032327)

[3.2 File Header 6](#_Toc62032328)

[3.3 File Footer 6](#_Toc62032329)

[3.4 Field Delimiter 6](#_Toc62032330)

[3.5 Record Delimiter 7](#_Toc62032331)

[3.6 Character values 7](#_Toc62032332)

[3.7 Date Time Formats 7](#_Toc62032333)

[4. Data File Definition 8](#_Toc62032334)

[4.1 Question Data Items 8](#_Toc62032335)

[4.2 Appendix – Data Standards 10](#_Toc62032336)

# Document Management

## Revision History

|  |  |  |
| --- | --- | --- |
| Version | Date | Summary of Changes |
| 0.1 | 19Jan21 | Initial draft |
| 0.2 | 20Jan21 | Updated following review from Shail Ravjibhai and Graham Dodsworth |

## Reviewers / Key Stakeholders

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

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# 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 immunisation programme 2020 to 2021 requires IT system providers to support the seasonal flu effort by providing NHS Digital with a new feed of data to support take-up of the flu vaccine. The data will ultimately feed a call/recall facility and will only be maintained for the duration of the seasonal flu period to facilitate call/recall as and when a Covid-19 vaccination become available.

# 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\_Atrributes**”
* 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\_Atrributes\_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\_Atrributes\_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\_Atrributes\_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-da25263f901e  2) Example of a “single instance for all customers” Supplier system  ACME-vacc123456  3) Example of “per customer instance” Supplier system  ACME-CUSTOMER1-vacc123456  ACME-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>/vacc  2) Example of “per customer instance” Supplier system  <https://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 000-999 | M | A globally unique identifier for the attribute being evaluated. Possible values for this are provided in the functional specification. |
| 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  *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 |
| 7 | RECORDED\_DATE | String | YYYYDDMM  e.g. 20201801 | M | The date which the extended attribute event was submitted |

## Appendix – Data Standards

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| --- | --- |
| 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 File

