Covid-19 Vaccination

Technical Specification for Hourly Data Feed to Foundry

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# Document Management

## Revision History

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| Version | Date | Summary of Changes |
| 0.1 | 26/01/2021 | Initial draft |
| 1.0 | 27/01/2021 | Updated after reviewing with Julian Followell |
| 1.01 | 28/01/2021 | Updated after reviewing with David and Alexander |
|  |  |  |
|  |  |  |

## 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 |
| Ayub Bhayat | Head of Data, Development & Integration | 28/01/2021 |  |
| Julian Followell | Point of Care Solution Architect | 27/01/2021 | 1.01 |
| Jason Stewart Clark  | Architecture, Flu & COVID Vaccination Programme | 27/01/2021 | 1.01 |
| David Skelland | Technical Architect | 28/01/2021 | 1.01 |
| Alexander Holt | Technical Lead | 28/01/2021 | 1.01 |

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| Ahmadur Rahman |  | Data Architect – NHS Digital | 27/01/2021 | 1.0 |
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| David Skelland |  | Technical Architect  | 28/01/2021 | 1.01 |
| Alexander Holt |  | Technical Lead | 28/01/2021 | 1.01 |

# Purpose of Document

This document defines a file extract specification for the provision of Covid-19 vaccination information to Foundry.

The intention is that this specification is healthcare setting agnostic, so can be used to support the flow of information relating to vaccination activity across all Point Of Care (PoC) systems used in Community Pharmacy, GP, Health and Justice (MOJ) healthcare settings and Coronavirus mass vaccination sites & mobile hubs for example.

Each of the data items required is detailed together with details on how the data should be formatted.

The document is intended to be used by both:

1. Developers in organisations supplying vaccination information to Foundry, 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 the scope of this document.

# Introduction

The Covid-19 vaccine immunisation programme requires PoC IT systems providers to transfer immunisation data captured at the point of vaccination events to the Foundry for reporting & analysis.

# File Transfer Process:

The PoC provider will transfer a CSV file which is delimited using “¬” (not sign), once per hour. The file is a consolidated copy and combined data from all the sites. The PoC provider will drop the file into an Azure storage account.

# Data File Format

This section defines the required format of the file extract that organisations (System Suppliers) will provide to Foundry.

## Filename Format

The Hourly files sent to Azure should take a file name change:

from “InterimVaccinations\_v1\_0\_8J1100001\_20201216T00000200.csv”

from “InterimVaccinations\_v1\_n\_0\_8J1100001\_20201216T00000200.csv” where the added n represents the instance number 1 or 2 etc.

***This section needs to be verified with the Foundry team.***

“InterimVaccinations\_” Fixed string

“v1\_”                                     Major version number of this file definition

“n\_”                                       Where “n” represents the number of the Pinnacle Instance being used.
“0\_”                                       The minor version of this file definition
“8J1100001\_”                     Org code of the Sending organisation = Pinnacle  *(not the vaccinating org, it’s the code for the solution sending it, not sure where this is defined)*
“20201216T00000200”   DateTime Stamp for the file creation time
“.csv”                                    file extension

*Note: The file naming convention has been adopted to support multiple instances of the Pinnacle.*

## File Header

Each data file **must** contain a header row containing the field names delimited by a “¬” (not sign). The field names must be the same as those specified in the next section.

AGE¬GENDER¬STAFF\_ORGANISATION\_CODE¬STAFF\_ORGANISATION¬VACCINATING\_ORG\_CODE¬VACCINATING\_ORG¬VACCINE\_DOSE¬VACCINE\_GIVEN¬VACCINE\_DATE\_EVENT¬SERVICE\_TYPE¬VACCINATED¬CONSENTED¬NOT\_VACCINATED\_REASON¬ADVERSE\_REACTIONS¬TOTAL\_RECORDS

For example:

"18"¬"2"¬¬¬"C4V4B"¬"SPRING HALL GROUP PRACTICE"¬"1"¬"COVID-19 mRNA Vaccine BNT162b2 30micrograms/0.3ml dose concentrate for suspension for injection multidose vials (Pfizer-BioNTech) (Pfizer-BioNTech) 5 dose"¬"20201215T00000000"¬¬"Yes"¬"Yes"¬¬"0"¬"1"

## File Footer

A file footer must **not** be submitted

## Field Delimiter

The file should be formatted according to the below criteria:

* the delimiter used is  “¬”( not sign)
* End of Line is “\n”
* Fields are delimited in ALL non-empty cases with double quotes
* Fields containing double quotes are escaped as double-double quotes
* empty fields have no double quotes

## 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**

Fields containing double quotes are escaped as double-double quotes

## 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

## Vaccination Data Items

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Pos | Field Name | Data Type | Length / format / values | Definition | M/R/O | Notes |
| 1 | UNIQUE\_ID | Varchar | 50 | Point of care system unique ID | M |  |
| 2 | ACTION\_FLAG | Varchar  | 3 | This is an action flag to process delta data. 1. Add means this is a new record (ADD)
2. Delete means that the records have been deleted (DEL)
3. Update means that changes have been made to the record. (UPD)
 |  | The flag has to be one of these three options. |
| 3 | AGE | Int |  | Calculated based on DOB | M |  |
| 4 | GENDER | Varchar | 50 | Captured from System | M |  |
| 5 | STAFF\_ORGANISATION\_CODE | varchar | 20 | Organisation Code of member of Staff Vaccinated | R | ODS code of the employing organisation. So it could be GP practice/ hospital trust code/PCN/CCG or any organisation code.  |
| 6 | STAFF\_ORGANISATION | varchar | 250 | Organisation Name of member of Staff Vaccinated | R |  |
| 7 | VACCINATING\_ORG\_CODE | varchar | 20 | Organisation Code of Vaccination Organisation | M | ODS site code of the organisation that is vaccinating e.g. it could be a hospital hub code/Vaccination site code (on Pinnacle)/ Vaccination centre code (on Pinnacle & NIVS)  |
| 8 | VACCINE\_DOSE  | Varchar (MAX) |  |  | R | If a vaccine is given, then this data is mandatory  |
| 9 | VACCINE\_GIVEN | Varchar (MAX) |  | Vaccination Name | R | Full name of the Vaccine |
| 10 | VACCINE\_DATE\_EVENT | datetime2 |  | Date of the vaccination event | M | Use same format as in the Daily files (yyyymmddT00000000) |
| 11 | SERVICE\_TYPE | Varchar (MAX) |  | Definition Field | M |  |
| 12 | VACCINATED | Varchar | 3 | Yes / No | M | This vaccination does successfully given |
| 13 | CONSENTED | Varchar | 3 | Yes / No | M | The patient consented to receive a vaccine |
| 14 | NOT\_VACCINATED\_REASON | Varchar (MAX) |  | Example Text - SARS-CoV-2 immunisation course contraindicated | R | Reason for not giving a vaccination.  |
| 15 | ADVERSE\_REACTIONS | int |  |  | M | Count of Adverse Reactions Recorded |

## Additional Data Requirement

***Requirement 1 - Hourly Data***

The hourly data received into Foundry is for activity relating to the records created on the current day only. We want this same feed to include records that have been **amended or deleted** within the hour.

Changes required to facilitate the requirement is:

Current filter: Date of vaccination entry is = today regardless of vaccination date

**New filter: Date of vaccination entry/amendment/deletion is = today regardless of vaccination date,**

We required non-agreegated data set based on the unique ID and Action Flag described above in section 5.1.

# Appendix B – Coronavirus

 Please see below a simple file (the file naming is not correct, use a text editor to open the file.),

