

Vaccination

Invitations Reporting Technical Data Feed Specification from NHS England to AGEM and Foundry

Current version: v2.1 Draft

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Document Management

Revision History

Version	Date	Summary of Changes
0.1	03/04/2024	Initial draft version created from “AGEM to Foundry Technical Data Feed” specification. Reviewers have reviewed changes made to section 4 of version 1.7 of that document
2.0	17/04/2024	Set to approved version 2.0 as per Product Owner approval of prior collated document. This version sets out the invitation feed in a standalone specification.
2.1	09/05/2024	Updated to include clarification of AGEM and Foundry feeds as provided by Angela Blakeney, including amended document title and changes to the following sections: 1. Purpose of Document 2. Data File Format 2.1 File Header 3.1 File Contents (data item 4 only)

Reviewed By

Redaction Rationale – The information below has been redacted as this includes personal information, this has been completed in line with Section 40 (2) of the Freedom of Information Act 2000.

This document has been reviewed by the following people:

Name	Title	Date	Version
[REDACTED]	Data Processing Service Lead, NHS England	19/03/2024	0.1
[REDACTED]	Solution Architect, Vaccination Digital Services, NHS England	18/03/2024	0.1
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Approved By

Redaction Rationale – The information below has been redacted as this includes personal information, this has been completed in line with Section 40 (2) of the Freedom of Information Act 2000.

This document has been approved by the following people:

Name	Title	Date	Version
[REDACTED]	Select and Invite Product Owner, Vaccination Digital Services, NHS England	27/03/2024	2.0
[REDACTED]	Lead Business Analyst, Vaccination Digital Services, NHS England	08/05/2024	2.1

1. Purpose of Document

This document defines a file extract specification for provision of vaccination invitation data to Arden and Greater East Midlands (AGEM) Commissioning Support Unit. AGEM will process the information for onward transmission to Foundry Federated Data Platform (FDP) to facilitate secondary use reporting requirements. At present this applies to vaccinations for COVID-19, Seasonal Flu and MMR.

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

The document is intended to be used by:

- a) Developers in NHS England, for generating the outbound extract,
- b) Developers in recipient organisations to consume the information contained within the extract.

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

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

The process by which AGEM pseudonymises the information for onward transmission is additionally not in scope.

1.1 Summary

The invitation export will contain a list of all eligible individuals who have been sent an invite or reminder. It will contain details of what date the invite/reminder was sent to the communications provider, and which cohort the individual was in.

The field INVITATION_ID should be used to identify the record for delta processing.

Invitations have a lifecycle ranging from creation through to a completion (failed, read, issued). This file will contain only those invitations that have reached a completed status.

As such where deltas are sent, any updated or deleted records are likely to be corrections rather than changes in status.

Where invitation processing resulted in filtered and/or suppressed records, these will not be sent to AGEM for reporting.

2. Data File Format

This section defines the required format of the file extract that NHS England will provide to AGEM, who will pseudonymise the data prior to being flowed to Foundry FDP.

2.1 File Header

Each data file will 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 format for the Invitation Export to AGEM is as follows:

```
INVITATION_ID|BATCH_ID|ACTION_FLAG|NHS_NUMBER|INVITE_DATE|INVITE_TYPE|INVITE_STATUS|ROUTING_PLAN_ID|SUCCESSFUL_ROUTING|FAILED_ROUTING|CAMPAIGN_TYPE|COHORT_DESCRIPTION|INVITATION_LANGUAGE|INVITATION_ADJUSTMENT
```

File format for the Invitation Export from AGEM to Foundry FDP is as follows:

```
INVITATION_ID|BATCH_ID|ACTION_FLAG|PSEUDONYMISE_NHS_NUMBER|INVITE_DATE|INVITE_TYPE|INVITE_STATUS|ROUTING_PLAN_ID|SUCCESSFUL_ROUTING|FAILED_ROUTING|CAMPAIGN_TYPE|COHORT_DESCRIPTION|INVITATION_LANGUAGE|INVITATION_ADJUSTMENT
```

2.2 File Footer

A file footer will not be submitted.

2.3 Field Delimiter

Each field in the data files will be enclosed within double quotes and delimited by a pipe character "|". Pipe characters will not be included within a data field. Any files with pipe characters within a data field will be rejected.

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"
```

2.4 Record Delimiter

Each record (i.e. row) in the data files will be terminated by the Line Feed (LF) character.

2.5 Character Values

String values

Strings will contain printable characters only

Escape characters

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

Carriage returns/Line feeds

Carriage returns or line feeds will not be contained within data fields

3. Invitation Export

3.1 File Contents

Item Number	Field Name	Data Type	Length / Format / Value	Description
1	INVITATION_ID	String	e.g. Prefixed UUID example: N:e045626e-4dc5-4df3-bc35-da25263f901e	A value to uniquely identify an invitation. Those issued by NHS England as national invitations will be prefixed by 'N:'.
2	BATCH_ID	String	e.g. Prefixed UUID example: N:a4435626e-4dc5-4df3-bc35-da999123ac45	A value to uniquely identify a batch of invitations. Those issued by NHS England as national invitations will be prefixed by 'N:'. This will allow a group of invitations to be identified as such (below date level)
3	ACTION_FLAG	String	<ul style="list-style-type: none">• ADD• UPD• DEL	An action code to denote whether the record is to be added (ADD), updated (UPD) or deleted (DEL).

4	NHS_NUMBER (PSEUDONYMISED_NHS_NUMBER for AGEM to Foundry FDP flow)	String	Max 10	<p>Will be used to uniquely identify the patient prior to pseudonymisation:</p> <p>10-digit number without spaces e.g. 9123456789</p> <p>Pseudonymised NHS Number will be used to link patient data within Foundry FDP:</p> <p>10-digit number without spaces e.g. 9123456789</p>
5	INVITE_DATE	Date	YYYYMMDD	This is the date the invite was sent to the communication provider.
6	INVITE_TYPE	String	<p>One of the following:</p> <ul style="list-style-type: none"> • Invite • Reminder 	This reflects the batch purpose rather than the nature of a particular communication for a particular individual. In other words, if the batch is a reminder batch, but a invitation goes to a person that has only just joined the cohort – this value will still be Reminder.
7	INVITE_STATUS	String	<p>One of the following:</p> <ul style="list-style-type: none"> • Created • Failed • Filtered • Issued • Processing • Read • Rejected • Requested • Suppressed 	<p>As of v2.0, only the following items will be sent:</p> <ul style="list-style-type: none"> • Failed • Issued • Read • Rejected <p>N.B “Read” only applies to NHS App messages</p>

8	ROUTING_PLAN_ID	String	<p>For example:</p> <p>VACCS0026_MMR_N AT_U16_V1</p> <p>VACCS0035_MMR_A LL_O16_AUDIO_V1</p>	<p>This will represent the routing plan (or plans) that were produced for an invitation</p> <p>Where multiple values are present, they will be comma delimited within the quotes. For example, VACCS0026_MMR_NAT_U16_V1,VACCS0035_MMR_ALL_O16_AUDIO_V1</p>
9	SUCCESSFUL_ROUTING	String	<p>One or more of the following:</p> <ul style="list-style-type: none"> • LETTER • EMAIL • SMS • NHSAPP 	<p>Where multiple values are present, they will be comma delimited within the quotes. For example, EMAIL,SMS</p>
10	FAILED_ROUTING	String	<p>One or more of the following:</p> <ul style="list-style-type: none"> • LETTER • EMAIL • SMS • NHSAPP 	<p>Where multiple values are present, they will be comma delimited within the quotes. For example, EMAIL,SMS</p>
11	CAMPAIGN_TYPE	String	<ul style="list-style-type: none"> • FLU • COVID • MMR • COVID_FLU 	<p>Text description of the target of the campaign.</p>
12	COHORT_DESCRIPTION	String	<p>Free Text</p>	<p>Text description of the cohort in the context of which this invitation was created. This will contain a string value of the description for example:</p>

			Max 100	<ul style="list-style-type: none"> • flu_morbid_obesity • flu_chronic_respiratory_disease • flu_chronic_heart_disease • flu_chronic_liver_disease <p>N.B. Where an individual is present in more than one cohort, the value provided here will be the one that caused the individual to be included for invitation. In other words, that which has been given the highest priority within each campaign.</p>
13	INVITATION_LANGUAGE	String	One or more ISO 639-1 language codes e.g. <ul style="list-style-type: none"> • fr • bn • ka 	<p>Where multiple values are present, they will be comma delimited within the quotes. For example, en,fr</p> <p>NOTE – Initially, these values will not be passed (the column will be blank) as these values are not yet provided by NHS Notify</p>
14	INVITATION_ADJUSTMENT	String	One or more of the following <ul style="list-style-type: none"> • BR • LP • BSL • AUD • ER 	<p>Where multiple values are present, they will be comma delimited within the quotes. For example, BR,LP</p> <p>BR – Braille</p> <p>LP – Large Print</p> <p>BSL- British Sign Language</p> <p>AUD – Audio Format</p> <p>ER – Easy Read (easily digestible/simplified text)</p>

				NOTE – Initially, these values will not be passed (the column will be blank) as these values are not yet provided by NHS Notify
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3.2 Naming Convention

The file produced will be provided in the following convention:

AGEM_FOUNDRY_[Vaccination Type]_InvitationsExport_[YYYYMMDD]_[HHMM].csv

For example: AGEM_FOUNDRY_MMR_InvitationsExport_20240311_1001.csv

The file is timestamped to indicate the date it was produced.

(Note: Please also note that the version number within files will be pegged to the major version of this data specification. For example, where versions 1.1, 1.2 and 1.3 have been published subsequent to a v1.0, the file name will continue to contain “v1.0”. However, where a version 2.0 is published, the filename will change to reflect v2.0.)