



FollowMyHealth®

EHI Export Data Guide

Version 2.0

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Revision History

The following revisions have been made to this document.

Revision History

Issue Date	Rev	Description of Change	Initiated By
11/29/2023	1.0	Document Creation	S. Tremper
02/28/2024	2.0	<p>Under About this guide:</p> <ul style="list-style-type: none">• Clarified information about performing EHI Export from the patient's FMH account.• Updated the latest version reference to V2.• Clarified the note regarding the responsibility of the client, patient, or authorized individual performing the EHI export to protect the patient's health information. <p>Added a new topic, Filtering data included in the export.</p> <p>Under Observations, added "Wellness > Measurements".</p> <p>Under Document Reference, removed the Note regarding the document GUID appearing in the file name after the file extension.</p> <p>Under Patient, added mention of the standard FHIR extension for Gender Identity.</p>	S. Tremper



Revision History

Preliminary considerations

About this guide

Read this guide if you requested patient data from a practice that uses FollowMyHealth®, and the practice fulfilled your request with files generated from the FollowMyHealth Electronic Health Information (EHI) Export tool or if the patient or the patient's authorized individual performed an EHI export from within the patient's account in the FollowMyHealth Personal Health Record. This guide provides information on the data included in the export documentation and the format of the data.

There might be multiple versions of this EHI Export Data Guide available. Be sure to use the latest version of the guide corresponding to when the EHI Export is performed. All versions of this guide are available at the following location under the “EHI Export Documentation” menu option:

<https://veradigm.com/legal/onc-reg-compliance/>.

The output of the EHI Export tool includes a JSON formatted file, which includes a link to the appropriate version of this EHI Export documentation. This link is found near the top of the JSON file in the “link” section under “relation”:“service-doc”, similar to the following example.



```
{
  "resourceType": "Bundle",
  "type": "collection",
  "link": [
    {
      "relation": "service-doc",
      "url": "https://fhir.followmyhealth.com/documentation/EHIExportDocumentation/v1"
    }
  ],
}
```

Note in this example the version referenced at the end of the URL: “.../v1”. This will be incremented each time the guide is updated.

As of this writing, the latest version of the guide is:

<https://fhir.followmyhealth.com/documentation/EHIExportDocumentation/v2>

Note: Protecting the patient’s health data is the responsibility of all entities involved in the transmission and downloading of their data. Once the file is retrieved and downloaded, it is the responsibility of the client, the patient, or the patient's authorized individual performing the download to follow all applicable HIPAA and Security and Privacy rules to protect the patient’s data.

Extracting the .zip files

Because the FollowMyHealth EHI Export tool packages data for each patient in a single .zip file, you should receive at least one .zip file from the practice.

To unzip the file, use a third-party file archiver program , such as WinZip, WinRAR, or 7zip to extract the contents.

The contents of the .zip file for each patient include a JSON file containing all of the patient data, plus other documents and images associated with the patient. The .zip file and the JSON file are named with the patient's unique FMH ID.

Here is an example of the .zip file contents. Note the JSON file is included, along with additional documents and images associated with the patient.

Name	Date modified	Type	Size
Completed Goal Summary_ Maintain a bl...	11/20/2023 1:48 PM	File folder	
Completed Goal Summary_ Maintain a bl...	11/20/2023 1:39 PM	File folder	
a5c9702f-375f-4481-ad89-acad014a2e36-...	11/20/2023 1:48 PM	JSON File	244 KB
Authorization Between Clc720 Patient1 a...	11/20/2023 1:48 PM	Text Document	3 KB
BlackJardogs	11/20/2023 1:48 PM	PNG File	490 KB
BoA Steps Dashboard	11/20/2023 1:48 PM	Chrome HTML Do...	374 KB
CaldwellFamily	11/20/2023 1:48 PM	JPG File	2,157 KB
C-CDA Discharge Summary V2.xml	11/20/2023 1:48 PM	Text Document	29 KB
CCDA_Ambulatory_1_1.xml	11/20/2023 1:48 PM	Text Document	19 KB
Clinical Summary (v16.0)	11/20/2023 1:39 PM	Chrome HTML Do...	7 KB
Clinical Summary Document	11/20/2023 1:48 PM	Text Document	33 KB
Completed Goal Summary_ Lose 1 pound	11/20/2023 1:48 PM	Text Document	20 KB
Completed Goal Summary_ Lose 5 pounds	11/20/2023 1:48 PM	Text Document	4 KB
Completed Goal Summary_ Take 10,000 s...	11/20/2023 1:48 PM	Text Document	3 KB
Completed Goal Summary_ Take your we...	11/20/2023 1:48 PM	Text Document	3 KB
Completed Goal Summary_ Test your blo...	11/20/2023 1:48 PM	Text Document	4 KB
Completed Goal Summary_ Track how yo...	11/20/2023 1:39 PM	Text Document	11 KB
download	11/20/2023 1:48 PM	JFIF File	5 KB
Goal Release of Information Authorization	11/20/2023 1:48 PM	Text Document	1 KB
Office Visit	11/20/2023 1:48 PM	Text Document	3 KB
Patient Education	11/20/2023 1:39 PM	Chrome HTML Do...	9 KB
Request for Access FMH-QAR-Pro720	11/20/2023 1:39 PM	Text Document	4 KB
scanned_0	11/20/2023 1:39 PM	JPG File	352 KB
Telehealth Terms of Service FMH-QAR-Pr...	11/20/2023 1:48 PM	Text Document	24 KB

Filtering data included in the export

The exporting of electronic health information may be performed by a patient or their authorized individual, or by a representative from the client organization on behalf of a patient. The Electronic Health Information exported from FollowMyHealth by the client from within the Dashboard, or by directly calling the FMH FHIR API Service, will be limited to the data originating from the client’s source electronic health record.



Electronic Health Information exported from FollowMyHealth by the patient or their authorized individual from the patient's account in the Personal Health Record will include all data stored in FollowMyHealth from all sources.

Export Format

FollowMyHealth outputs a single .zip file for each patient which contains a **FHIR R4 Bundle** in **JSON** format, as well as the raw documents and images associated with the patient. This is not an implementation of **SMART/HL7 Bulk Data Access (Flat FHIR)**. FollowMyHealth is not currently using any FHIR **Profile**, such as US Core in this implementation. In some cases the internal FollowMyHealth data structures might not map well into existing FHIR resource types or value sets. In these cases, **extensions** are used to capture the data.

Common Fields

ID

The FollowMyHealth GUID (Globally Unique Identifier) for the object.

Identifier

The collection of IDs from the source (the EHR application) for the object.

Meta > LastUpdated

Last time the object was modified.

Note

Used to store plaintext fields on a FollowMyHealth object. If the object has a **Comments** field, this is what will be used.

General Exceptions

As FollowMyHealth is a Personal Health Record (PHR), and not an electronic health record (EHR) application, the data that is stored is a best effort to capture everything in the source EHR application, Practice Management (PM) system, and so on.

Exception: FHIR expects the **Display** value to match the official display values for the code system. FollowMyHealth uses the name stored on the item instead, which might or might not match the official code system display value.

Following is an example where this exception occurs in the **Condition** resource:

```
Code: J18.9  
Code system: ICD-10 CM  
Display: pneumonia
```

FHIR expects the description to be displayed as `pneumonia, unspecified organism`, but FMH displays the description (`pneumonia`) received from the source system.

Data Exceptions

Any data that is visible in the FollowMyHealth account but not exported will be found under a **Data Exceptions** section. This data is excluded since it is not stored in FollowMyHealth. These are items that are sourced from a third party or directly from the source system (such as an EHR application) during login or page navigation.

Extensions

In some cases the internal FollowMyHealth data structures might not map well into existing FHIR resource types or value sets, or there might not be an existing field in the FHIR resource to capture FollowMyHealth data. In these cases, **extensions** are used to capture and present the data in the JSON output file. Further information regarding extensions are discussed under the resource types for which they are being used.

Supported Resources for EHI Export

FollowMyHealth supports the following list of resources for EHI Export.

Account

Link for more information: <https://hl7.org/fhir/R4/account.html>

Where this information is found in FollowMyHealth Personal Health Record:

- **My Account** dropdown > **Billing**
- **Home** > **Billing** widget

Allergy Intolerance

Link for more information: <https://hl7.org/fhir/R4/allergyintolerance.html>

Where this information is found in FollowMyHealth Personal Health Record:

- **My Health** > **Allergies**

Extensions: An extension is used to capture the status stored by FollowMyHealth, which includes two types that are not supported by FHIR: **Denied** and **Unknown**.

Note: There is a known exception with this extension where it is placed in **Entry** instead of **ClinicalStatus** as defined by the AllergyIntoleranceExtension.

- AllergyIntoleranceExtension:
https://fhir.followmyhealth.com/api/AllergyIntoleranceExtension?_format=application/json
- AllergyStatusType (code system):
https://fhir.followmyhealth.com/api/AllergyStatusType/codesystem?_format=application/json
- AllergyStatusType (value set):
https://fhir.followmyhealth.com/api/AllergyStatusType/valueset?_format=application/json

Appointment

Link for more information: <https://hl7.org/fhir/R4/appointment.html>

Where this information is found in FollowMyHealth Personal Health Record:

- **Home > Appointments** widget

Some FollowMyHealth Appointment statuses did not map perfectly to FHIR. Below is a list of the imperfect mappings:

- Scheduled/Rescheduled = Booked
- Deleted = Cancelled
- CheckedOut = Fulfilled

FollowMyHealth appointments do not have the concept of participant status, but it is required by FHIR. Instead the overall appointment status is mapped to participant status:

- Scheduled/Arrived/Rescheduled/CheckedOut = Accepted
- NoShow/Cancelled = Declined
- Deleted = NeedsAction

Bundle

Link for more information: <https://hl7.org/fhir/R4/bundle.html>

- Used as a container for all the other FHIR types.

Communication

Link for more information: <https://hl7.org/fhir/R4/communication.html>

Where this information is found in FollowMyHealth Personal Health Record:

- Messages

Attachments are included in the .zip folder along with the main JSON file. The main JSON file includes a reference to the names of the specific attachments under the **Payload** field for each Communication.

|| **Note:** **Payload** is a collection, which will always have at least one item, the body of the message. If there are attachments accompanying the

message content, they are referenced as additional items in the Payload collection.

Condition

Link for more information: <https://hl7.org/fhir/R4/condition.html>

Where this information is found in FollowMyHealth Personal Health Record:

- **My Health > Conditions > Health Conditions**
- **My Health > Conditions > Personal Health Conditions**

FHIR does not have a status for **Denied**. Instead, per the FHIR R4 spec, when a Condition is Denied, an explanatory Note is added.

Diagnostic Report

Link for more information: <https://hl7.org/fhir/R4/diagnosticreport.html>

Where this information is found in FollowMyHealth Personal Health Record:

- **My Health > Results**

DiagnosticReport is used for an order of Results (stored in Observations).

Extensions: FHIR has no concept of **CollectedOnDate** or **OrderDate**, so extensions are used for those fields.

- CollectedOnDate:
https://fhir.followmyhealth.com/api/ObservationExtension/CollectedOnDate?_format=application/json
- OrderedOnDate:
https://fhir.followmyhealth.com/api/ObservationExtension/OrderedOnDate?_format=application/json

Document Reference

Link for more information: <https://hl7.org/fhir/R4/documentreference.html>

Where this information is found in FollowMyHealth Personal Health Record:

- **My Health > Documents.**

This includes things such as scanned images, CCDAs, and any Form Builder forms filled out by the patient.

All items under **Documents** are included in the exported .zip folder. The **URL** field is used to store the relative file path to the document in the .zip folder.

Scanned Documents (a type of document on the **Documents** tab) are exported page by page. Each page will be in a separate file with the naming convention:

```
<name of the document>_<FollowMyHealth GUID>_<page number>
```

with <page number> starting at 1. These are generally a series of images.

All documents have their FollowMyHealth GUID added to their URL in the export since a patient can have more than one document with the same name.

Sometimes FollowMyHealth might have a document or individual page reference but no content. If content for a document or page cannot be found, a file is exported as a .txt file with the same name, with “Content not available” as the body instead.

Encounter

Link for more information: <https://hl7.org/fhir/R4/encounter.html>

Where this information is found in FollowMyHealth Personal Health Record:

- This item is not visible in the PHR.

Status is always set to **Unknown**. FollowMyHealth does not have the concept of Status for Encounters.

Family Member History

Link for more information: <https://hl7.org/fhir/R4/familymemberhistory.html>

Where this information is found in FollowMyHealth Personal Health Record:

- **My Health > Conditions > Family Health Conditions**

FollowMyHealth supports a relationship type “all family”, which is not supported by the code system used by FHIR. When that is the case the **Relationship** field will be output with just the **Display** field set to “all family”.

Extensions: FollowMyHealth’s Status for Family Health Conditions does not map to FHIR’s for FamilyMemberHistory, so instead the Status is always set to **Completed**, and the **FamilyMemberHistoryExtension** is used to capture the **FollowMyHealthStatus** instead.

- FamilyMemberHistoryExtension:
https://fhir.followmyhealth.com/api/FamilyMemberHistoryExtension?_format=application/json
- HealthConditionStatusType (code system):
https://fhir.followmyhealth.com/api/HealthConditionStatusType/codesystem?_format=application/json
- HealthConditionStatusType (value set):
https://fhir.followmyhealth.com/api/HealthConditionStatusType/valueset?_format=application/json

Immunization

Link for more information: <https://hl7.org/fhir/R4/immunization.html>

Where this information is found in FollowMyHealth Personal Health Record:

- **My Health > Immunizations**

Some FMH statuses for Immunizations do not have a perfect mapping to FHIR's required value set (<https://hl7.org/fhir/R4/valueset-immunization-status.html>). In these cases, status is mapped to the closest option with the FMH status value added to the **StatusReason** field. Below is a list of the imperfect mappings.

- OnHold = NotDone
- Declined = NotDone
- Unknown = NotDone

The FMH **ReasonDeclined** field is added to the **Note** collection.

When the date stored by FollowMyHealth is the Min or Max it means FollowMyHealth does not have a real value. When this happens, an **OccurrenceString** is filled out instead of an **OccurrenceDateTime** with "Date Unavailable".

Invoice

Link for more information: <https://hl7.org/fhir/R4/invoice.html>

Where this information is found in FollowMyHealth Personal Health Record:

- **My Account** dropdown > **Billing**
- **Home** > **Billing** widget

Data Exceptions:

- SSO billing group (PayMyDoctor) is excluded, as FMH does not store any billing information for that group.

Medication

Link for more information: <https://hl7.org/fhir/R4/medication.html>

Where this information is found in FollowMyHealth Personal Health Record:

- **My Health > Medications.**
Prescriptions are included in this section as well.

When a medication or prescription does not have a site or route, their dosage is not exported. Directions, which are part of the dosage, in such a scenario are then added to the **Note** collection. The plaintext **Provider** field is added to the **Note** collection if filled out.

Medication Request

Link for more information: <https://hl7.org/fhir/R4/medicationrequest.html>

Where this information is found in FollowMyHealth Personal Health Record:

- **My Health > Medications.**

These plaintext fields were added to the **Note** field:

- Directions
- Provider

Observation

Link for more information: <https://hl7.org/fhir/R4/observation.html>

Where this information is found in FollowMyHealth Personal Health Record:

- **My Health > Results**
- **My Health > Vitals**
This includes all cards on the **Vitals** page:
 - Blood Pressure
 - Body Mass Index (BMI)
 - Body Surface Area
 - Head Circumference
 - Heart Rate

- Height
 - Other Vitals
 - Oxygen Saturation
 - Respiration Rate
 - Temperature
 - Visual Acuity
 - Weight
- **Wellness > Measurements**
This includes the following items under the **Measurements** dropdown:
 - Mood
 - Steps

For Results, FHIR has no Interpretation value for Unknown or Not Set; instead the field is left out when FollowMyHealth stores one of those values to convey that there is no Interpretation.

Extensions: For Results, FHIR has no concept of a plaintext value for the provider, which FollowMyHealth can have if the Result is patient entered. The **PatientAddedProviderName** extension is used to capture this information.

- PatientAddedProviderName:
https://fhir.followmyhealth.com/api/ObservationExtension/PatientAddedProviderName?_format=application/json

Patient

Link for more information: <https://hl7.org/fhir/R4/patient.html>

Extensions: FHIR R4 uses profiles to support the concepts of Race and Ethnicity for patients. The US Core Profile extensions are used to map the values for race and ethnicity as stored in FollowMyHealth.

- US Core Race Extension:
<http://hl7.org/fhir/us/core/StructureDefinition/us-core-race>
- US Core Ethnicity Extension:
<http://hl7.org/fhir/us/core/StructureDefinition/us-core-ethnicity>

In addition, the following standard FHIR extension is used to map values for Gender Identity:

<https://hl7.org/fhir/R4/extension-patient-genderidentity.html>

Practitioner

Link for more information: <https://hl7.org/fhir/R4/practitioner.html>

Where this information is found in FollowMyHealth Personal Health Record:

- **My Account** dropdown > **Connections**

Procedure

Link for more information: <https://hl7.org/fhir/R4/procedure.html>

Where this information is found in FollowMyHealth Personal Health Record:

- **My Health > Conditions > Surgical History**

Extensions: FollowMyHealth has a different concept of Procedure status than what FHIR expects. If the Status in FollowMyHealth is **EnteredInError**, then the FHIR status of **EnteredInError** is returned (see note). Otherwise the **Status** returns as **Unknown**, and the status as documented in FollowMyHealth is displayed using the **ProcedureExtension**.

- ProcedureExtension: https://fhir.followmyhealth.com/api/ProcedureExtension?_format=application/json
- ProcedureStatusType (code system):
https://fhir.followmyhealth.com/api/ProcedureStatusType/codesystem?_format=application/json
- ProcedureStatusType (value set):
https://fhir.followmyhealth.com/api/ProcedureStatusType/valueset?_format=application/json

Note: FollowMyHealth allows a patient to enter a procedure in the **My Health > Conditions** section of the Personal Health Record as a condition type of “Surgical History”, and then at a later date the patient can edit the procedure and change the status to “EnteredInError”.