



# **Early Steps Data System (ESDS)**

## **System Design – EHR/EMR Design Specification (Enrollment Data)**

COQAK B.1.a.2)c)2

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## Signature and Acceptance Page

I have reviewed the EHR/EMR (Enrollment) Design Specifications and supporting documentation and agree that the content of the document is accurate and clearly describes the EHR/EMR Enrollment Design.

Signature: \_\_\_\_\_ Date: 09/12/2024  
Print Name: Maryanne Marchese  
Title: ESDS Project Manager  
Agency: Florida Department of Health, Division of Children's Medical Services  
Role: ESDS Project Manager

Signature: \_\_\_\_\_ Date: 09/12/2024  
Print Name: Dusty Stern  
Title: Chief, Early Steps and Newborn Screening  
Agency: Florida Department of Health, Division of Children's Medical Services  
Role: ESDS Project Sponsor

Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Print Name: Jennifer Canfield  
Title: Program Analyst II  
Agency: Florida Department of Health, Division of Children's Medical Services  
Role: ESDS Project Contract Manager

Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Print Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Agency: \_\_\_\_\_  
Role: SSG Project Manager

Signature: \_\_\_\_\_ Date: \_\_\_\_\_  
Print Name: \_\_\_\_\_  
Title: \_\_\_\_\_  
Agency: \_\_\_\_\_  
Role: SSG Engagement Lead

## Preface

Uploading Early Steps enrollment data from an Electronic Health Record (EHR) or Electronic Medical Record (EMR) system to the Early Steps Data System (ESDS) is essential for ensuring the accuracy and efficiency of early steps services. This process is guided by the Early Steps Data Systems (ESDS) Enrollment Data Specifications, which clarify and specify the data content required for uploading transactions into the ESDS application.

Transactions based on this guide, used in tandem with the EHR/EMR data dictionary and data schema as well as with Early Steps state policies, ensure compliance with both the data syntax and content requirements specified by the relevant guidelines. This guide is intended to convey information within the framework of the established Part C data standards and policies adopted for early steps programs. The specification is not intended to describe information that exceeds the requirements or usages of data expressed in these standards. By following these guidelines, healthcare providers can ensure that enrollment data is accurately captured and integrated into the ESDS, enhancing the coordination and delivery of early steps services.

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## 1. Introduction

### 1.1. Purpose and Scope

The intended audience of this document includes any provider organization or Local Early Steps (LES) office that plans to upload early steps enrollment data generated from Electronic Health Records (EHR) or Electronic Medical Records (EMR) systems into the Early Steps Data System (ESDS). This enrollment data must be structured according to the specified data standards to ensure seamless integration and accurate data capture.

This guide is intended to be used in conjunction with established XML protocol, Early Steps policies, and the EHR/EMR data schema and EMR data dictionary, not to replace them. Additionally, this guide is intended to convey information that is within the framework and structure of these standards, ensuring compliance without contradicting or exceeding the established requirements. The guide provides detailed instructions and best practices for preparing and uploading enrollment data, thereby facilitating the efficient and accurate integration of early steps information into the ESDS.

### 1.2. Overview

The ESDS EHR/EMR File Upload Specifications includes information required to provide and maintain enrollment data within ESDS. The information is organized in the sections listed below:

- Connectivity
- Certification and Testing
- Contact Information
- Schema and Transaction Requirements

### 1.3. Glossary

The ESDS Glossary of terms lists standard definitions for terms used within the ESDS system. The ESDS Glossary of Terms can be found in the Functional Specifications > Reference Materials folder ([References, Glossary and Contact Information.docx](#)).

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## 1.4. Reference

For more information regarding uploading data from an EHR/EMR, please refer to the EMR Data Dictionary.

## 1.5. Assumptions

Key assumptions related to the uploading of enrollment data from an EHR/EMR are:

- User who is uploading the file has a valid login to the ESDS with a role assigned to them that allows them to import EHR/EMR files. See the Security Roles Matrix for role(s) that are allowed to import EHR/EMR files.
  - The data for each enrollment in the import file is sent in the order specified in the data schema.
- The import file contains all the information you would like to send and is complete before uploading it into ESDS. Any import containing information that is already contained in the child's record in ESDS may change data that already exists in the child's record. Dedup and merge logic will apply. Specific entity dedup and merge logic is **pending**.

## 2. Getting Started

### 2.1. Exchanging Transactions With ESDS

ESDS expects EHR/EMR enrollment data inbound files to be uploaded by direct submitters. Individuals who are submitting data on behalf of their LES or provider group / agency must be an active ESDS user with the appropriate role that has permission to upload data from an EMR. The data in these files will go directly into the ESDS application.

After logging into ESDS, users navigate to the EMR Dashboard which handles EHR/EMR data file uploads. The application provides an upload button interface for selecting the file from the local device and initiating the upload. Users upload the EHR/EMR enrollment data file in the XML supported format based on the application's existing data model which the EMR data dictionary reflects.

No supporting documents (binary files in data model) are allowed in this process. 5,000 enrollments per file is the upper limit.

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## 2.2. Trading Partner Onboarding and Registration

This section is pending.

## 2.3. Trading Partner Testing and Certification Process

All trading partners who wish to submit EHR/EMR enrollment data files to ESDS via the user interface must complete testing to ensure it is working correctly before any production transactions can be processed. Additional certification process details are pending.

# 3. Testing With the Group Agency/LES

## 3.1. Testing Overview

ESDS requires testing for all providers and LESs submitting EHR/EMR data files for the first time before actual submission to the production environment.

To help EHR/EMR data file testers w achieve a successful test, please follow the appropriate format specifications (listed in this guide) and submission directions. To receive approval to move from test to production, a minimum 95% “correct rate” for the test file submitted must be achieved.

## 3.2. Testing Procedures

Coordinate with ESDS Support to initiate testing. The enrollment data in your test file should simulate enrollment data from a normal business process. Test method and steps are pending.

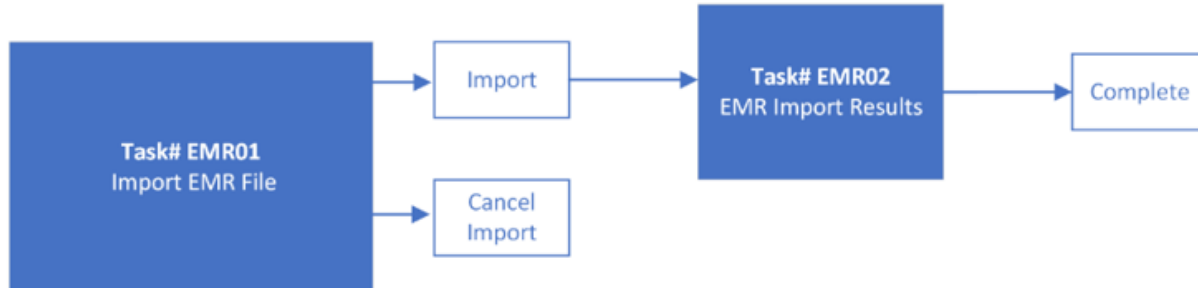
## 3.3. Approval

Once the testing phase is complete, and it can be confirmed that all relevant scenarios are able to be processed successfully and accurately in the certification environment, your production account will be transitioned to allow uploading of EHR/EMR enrollment data files. A production approval notice will be sent to your account's primary contact email address when your latest test iteration has achieved the minimum test threshold. Approval specifics are pending.



## 4. Connectivity With the Group Agency / LES

### 4.1. Process flows. Upload of an EHR/EMR Enrollment Data File



### 4.2. Transmission Administrative Process

#### 4.1.1 Transmission Administrative Process Features

ESDS supports data from multiple enrollments within the same file, but all enrollments must be associated to the organization of the logged in user.

Any organization transmitting data from their EMR must ensure that their submissions fall into one of the following categories:

- All Enrollment Data (includes all entities in the EMR Data Dictionary) - These can only be updated via EMR; however, contact notes may be performed in the ESDS system via the ad-hoc contact notes task
  - Only Contact Notes (includes child, enrollment, service log, and progress note entities in the EMR Data Dictionary)
  - Only Contact Notes + Discharge (includes child, enrollment, service log, and progress note entities in the EMR Data Dictionary)
- Only Referrals + Contact Notes (includes child, enrollment, referral service log, and progress note entities in the EMR Data Dictionary)

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### 4.3. Security Protocols

ESDS web portal employs the latest versions of the SSL/TLS (Transport Layer Security) protocols. TLS 1.3, the most recent and secure version, is used to establish encrypted links between our servers and users' browsers. This ensures that all data uploaded over the internet remains encrypted.

### 4.4. File Naming Conventions

There are no restrictions on the file name.

### 4.5. EHR/EMR Submission Timeframes

It is recommended that EHR/EMR enrollment data is uploaded daily.

## 5. Contact Information

### 5.1. ESDS Customer Service and Technical Assistance

For technical questions or help related to any of the transactions, acknowledgments, or reports related to your enrollment data submissions, please contact ESDS Support at **TBD**. EMR support contact details **pending**.

### 5.2. Provider Services

Provider Support Services should be contacted at **TBD** if you have questions regarding enrollment data submissions that do not pertain to ESDS. Additional information is **pending**.

## 6. Schema Component Details

### 6.1. Inbound Schema

The inbound schema file can be found here: [Inbound EMR Message Schema.xsd](#)

### 6.2. Outbound Schema

The outbound schema file can be found here: [Outbound EMR Message Schema.xsd](#)

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## 7. Enrollment Transaction Specific Requirements

For entity relationships, field validations and requirements see here: [EMR Data Dictionary.xlsx](#)

## 8. EHR/EMR Enrollment Data File Upload - Specific Requirements

Child and Enrollment Data is always required.

Each entity that is sent will be evaluated sequentially and independently. If one or more entities fail because pre-requisites were not met, required fields were not provided, or invalid values were included, then ESDS will not process that entity. ESDS will move on to the next entity to try to process it. Any entity that meets all the pre-requisites, required field logic, and valid formats will be processed. The user would be required to reupload the entity that failed plus any pre-requisites related to the failed entities and other entities that could not process because of the failed entity.

For example, if the EMR file contains a new enrollment record, they would send Child, Enrollment, Referral, Guardian, First Contacts, Eligibility Determination, IFSP, etc. If everything is processed up until the Eligibility Determination, then the user would need to update the issues with Eligibility Determination and then resend (at a minimum), child and enrollment entities because those are always required, plus Eligibility Determination, and IFSP (because IFSP could not process without the Eligibility Determination processing). The user would not need to resend the other entities (like referral, first contacts, guardians, etc.). If a user chooses to, they can resend the full record which would also be acceptable.

Upon successful import of a new Child (child and enrollment entities), an ESDS ID is generated. This ESDS ID is included in the response file available to the user who uploaded the file.

Anytime updates for an existing enrollment is being sent, the ESDS ID must be included in the file. It is recommended that only new or updated information is sent. Including enrollments without new or updated information could affect processing performance.

If upon receiving the initial enrollment, ESDS identifies another open enrollment for the child during the same time period, the new/duplicate enrollment will be rejected. This rejection message will be included in the response file available to the user who uploaded the file. Similarly, if updates for an enrollment are sent but the ESDS ID is not included, then the updates for the enrollment will be rejected indicating that there is already an enrollment open and that the ESDS ID must be included if the updates are for that enrollment.

## 9. Notifications and Status Updates.

### 9.1. Initial EHR/EMR File Data Validation

Upon successfully importing a file, there will be a downloadable file generated and available within the application that contains the enrollment number for children included in the imported file. This file is available in both XML and CSV format.

If the file cannot process due to not meeting the XML format requirements, then a status of Failed will be reported on the EMR dashboard for the user.

### 9.2. Error Handling and Reporting

When the file has been imported, ESDS will create an Import Results task within the EI EMR Import case. If the file was able to be processed, ESDS will also create an EMR Import Results task within the EI EMR Import case.

In the EMR Import Results task, there are two response files available for you to use:

- The CSV Response file provides a summary of the error messages and which child they pertain to. It will also tell you how many imports were successful and how many need to be reviewed. You can open this file in Excel or in a notepad application. Error messages, if any, will be present in the 'Message' column.
- The XML Response File can be used to review the details of any error messages you may have received if you need more information. From the EMR Import Results task, choose the XML results file. Within the XML response file, there will be a summary of the import results (how many enrollments were processed, successfully processed, partially processed with errors, partially processed with warnings, or rejected, and how many enrollments were created or updated). Further details can be found below the summary section of the response file.

If any enrollments were processed with warnings or errors, these messages should be reviewed. If any enrollments were rejected or partially processed, the data in the EMR source system shall be updated and then the XML file should be regenerated and reuploaded. Partially processed records include files where one or more entities failed processing. You will need to fix the information in your EMR system, re-generate the XML file, and re-upload it to ESDS.

## 10. Appendices

### 10.1. Sample files are located here:

- [Inbound EMR Message Sample All Entities.xml](#)
- [Inbound EMR Message Sample Contact Notes.xml](#)
- [Inbound EMR Message Sample Referral.xml](#)
- [Outbound EMR Message Sample.xml](#)

### 10.2. Implementation Checklist

- Organization has made a determination of which combination of entities the organization plans to upload via EHR. (All Entities || Contact Notes || Discharge & Contact Notes || Referral & Contact Notes)
- The organization's anticipated file readiness timeline - indicating when they will be ready to begin testing and when they expect to complete testing to be ready for EHR Go-Live.
  - The list of personnel who will be completing testing and will need access to the test environment. In addition to this, there will need to be both a lead organization contact as well as a lead technical contact.

### 10.3. Supporting Documentation

- [EMR Data Dictionary.xlsx](#)
- [Inbound EMR Message Sample All Entities.xml](#)
- [Inbound EMR Message Sample Contact Notes.xml](#)
- [Inbound EMR Message Sample Referral.xml](#)
- [Inbound EMR Message Schema.xsd](#)
- [Outbound EMR Message Sample.xml](#)
- [Outbound EMR Message Schema.xsd](#)

## 10.4. Frequently Asked Questions

### **How many files are being sent?**

Any number of child records can be sent as part of a single EMR import file.

### **Is it required to have the xml declaration/namespace rows at the top of the XML file for ESDS?**

Of the top 3 lines listed in the sample XML file, only the tag including the xmlns attributes is required.

### **Some of the specs on the sample XML file didn't match what we were looking for.**

The Sample XML Input file is intended to be an example of all the entities that you can upload via EHR Import. However, since this is a sample, please refer to the XML Schema for the full breakdown of how each entity should be sent and the fields that can be included. While you develop your file, it is important to make sure that your file aligns with the XML schema above all else. The Sample XML file and EMR Data Dictionary will help support your understanding of the schema and required fields.

### **How does ESDS handle being sent duplicate information?**

ESDS has de-duplication logic built in to avoid duplicate records for entities. However, there are risks to importing duplicate data. It is important to check the information already existing in ESDS before importing your EMR file. ESDS will overwrite the existing information in the child's enrollment if the data is different. For example, if the enrollment in ESDS has an intake date of 1/2/2021 and a new date of 2/1/2021 is imported, the new date of 2/1/2021 will be populated as the date of intake. Specific entity dedup and merge logic is pending.