

# EMR Health Report Manager (HRM)

## Business View

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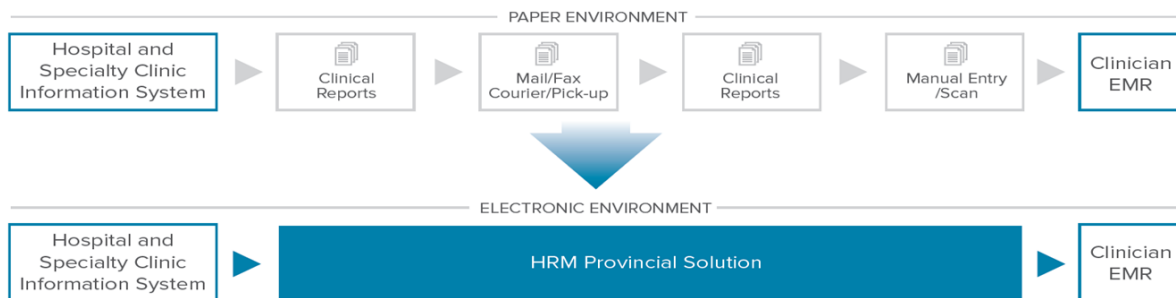
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# 1. INTRODUCTION

## 1.1 HRM Overview

One of the value-added services for clinicians who have adopted an EMR Offering is the capability to receive patient data electronically collected outside their practices.

Hospitals and Independent Health Facilities (IHF) have traditionally sent reports to clinicians by producing a paper document and sending via mail, fax, courier or holding it for pick-up by physicians at the sending facility (either a hospital or IHF). HRM enables primary care physicians, specialists and nurse practitioners using an OntarioMD-certified EMR Offering to receive hospital / IHF reports electronically. HRM sends Medical Record (MR) and Diagnostic Imaging (DI) reports electronically from hospitals or IHFs directly into a patient's chart within their physician's EMR. A conceptual diagram of the way HRM works is provided below.



## 1.2 Key Benefits

Benefits of HRM to clinicians and patients:

- Improves the continuity of patient care from sending facilities to community-based clinicians who can follow up with patients more quickly as they receive reports sooner
- Delivers electronic, text-based reports directly to the clinician's EMR Offering, instead of scanning paper reports into images before they can go into the patient's comprehensive record in the EMR
- Provides clinicians with a more complete picture of the patient's health and helps the EMR Offering identify trends that may require intervention.
- Facilitates more informed clinical decisions and expedites the creation and communication of treatment plans
- Enables clinicians to easily search for a specific sending facility report electronically
- Allows clinicians to search within the electronic, text-based reports for specific patient information
- Allows the entire clinical team to access sending facility results through the EMR
- Generates administrative and operational savings by reducing the manual processes (printing, filing, scanning) associated with paper reports

Benefits of HRM to Hospitals and IHFs:

- Requires a single interface to the HRM instead of multiple proprietary interfaces to clinician EMRs
- Generates administrative and operational savings by reducing manual processes associated with report distribution (e.g., printing, filing, mailing)
- Provides a secure alternative to manual report distribution
- Audit records available reflecting when reports are retrieved by the clinician's EMR
- Strengthens the privacy and security of patient information through audit trails

## 1.3 Related Documents and References

The following documents comprise this specification.

DOCUMENT NAME	PURPOSE
EMR HRM – Business View	Provides the business context of HRM
EMR HRM – Requirements	Defines functional and non-functional requirements for EMR Offerings to consume health reports expressed in XML from HRM
EMR HRM – Data Dictionary	Defines the data elements, their attributes, and corresponding code sets
HRM XML Schema Definition	Defines the structure of the XML instances provided by HRM
HRM XML Schema Data Types	Defines the datatypes inherited by HRM XML Schema Definition

For more general information related to HRM, visit <https://www.ontariomd.ca/products-and-services/health-report-manager>.

## 2. SYSTEM VIEW

### 2.1 The HRM Provincial Solution

Conceptually, data contributors (hospitals and IHFs) connect to HRM and use this channel to send reports to data consumers (primary care physicians, specialists and nurse practitioners) using a certified EMR Offering as illustrated in Figure 2 – Conceptual Overview of the HRM Provincial Solution.

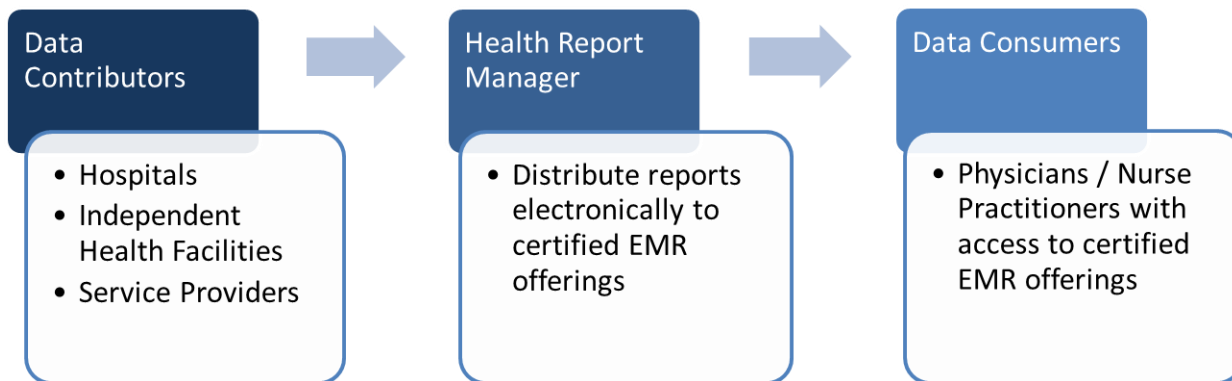


Figure 1 - Conceptual Overview of the HRM Provincial Solution

Figure 2 below provides a more detailed view of how HRM receives reports from hospitals/IHFs, and how it distributes them to the correct recipients/data consumers.

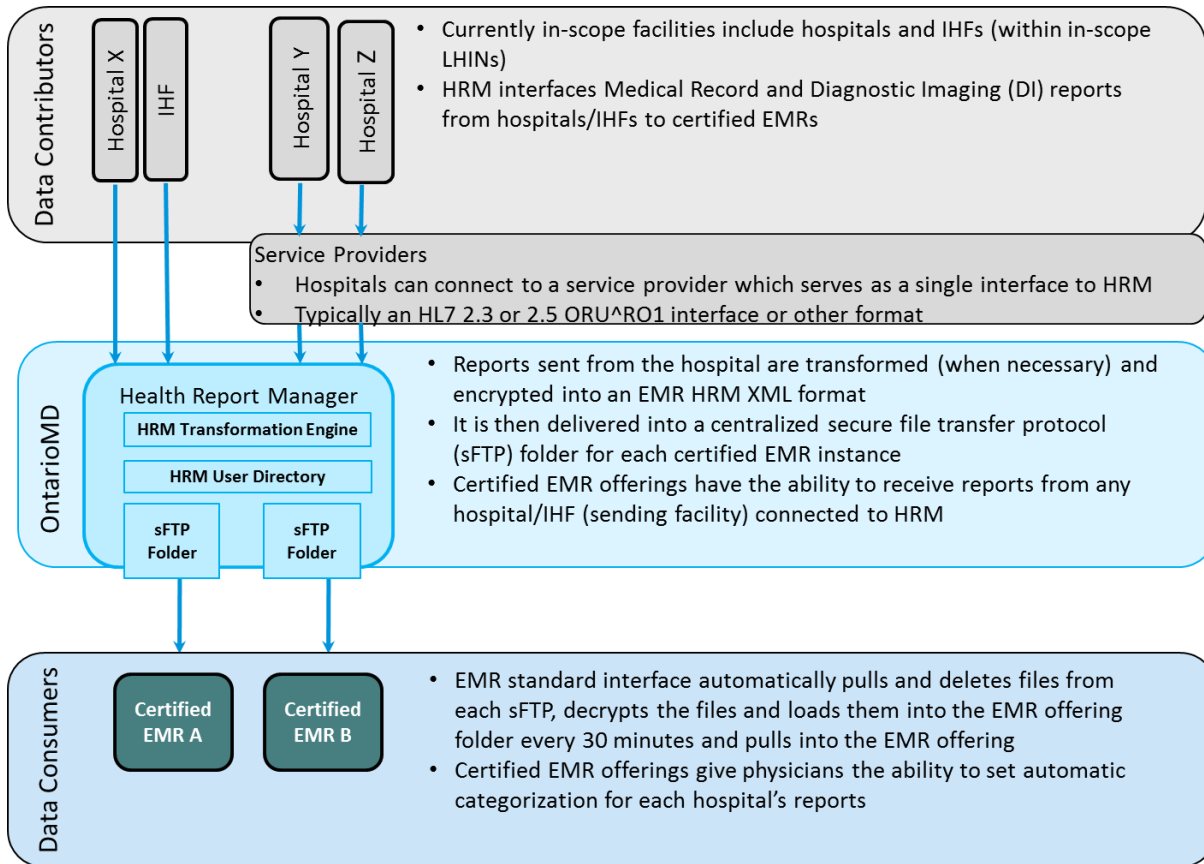


Figure 2 - High-level functionality of the HRM Provincial Solution

Data contributors send reports using an interface to HRM. HRM transforms the Medical Record (MR) and Diagnostic Imaging (DI) reports into OntarioMD's EMR HRM XML format and places them in an sFTP (secure file transfer protocol) folder from which the physician's EMR Offering retrieves them securely.

## 2.2 Scope of EMR HRM Specification

This specification is one of several EMR Specifications that define functional and non-functional requirements for an EMR Offering. Each specification focuses on a particular component, functionality or interoperability and will be updated over time as new requirements and enhancements are introduced.

The EMR HRM Specification:

1. Defines requirements to be implemented into the EMR Offerings in order to:
  - a. interface with the HRM system and:
    - i. manage polling of designated sFTP folder (automatically and on-demand) for incoming HRM reports
    - ii. retrieve HRM reports in a consistent format compliant with the HRM XSD Schema
    - iii. retrieve HRM reports from the designated sFTP folder
    - iv. remove the HRM reports from the designated sFTP folder after HRM reports have been successfully uploaded into the EMR system
  - b. process HRM reports and:
    - i. manage duplicate reports
    - ii. display reports in the patient chart
    - iii. distribute reports to the “provider recipient” inbox
    - iv. manage un-matched reports
    - v. manage errors
  - c. maintain a log of activities involving HRM reports
2. Defines the HRM data set elements
3. Defines the business rules/restrictions and data conversions that apply to HRM elements
4. Defines the data type and the length of the XML data elements
5. Includes HRM XSD Schema:
  - a. report\_manager.xsd
  - b. report\_manager\_dt.xsd

## 2.3 Actors and Workflow Description for HRM-EMR

The diagram that appears on the following page illustrates:

- How the EMR users interact with the EMR Offering, HRM system to retrieve HRM reports
- How the HRM reports are processed by the EMR Offering
- Who the actors are
  - EMR Offering
  - HRM System
  - EMR Provider Recipient
  - EMR Authorized User

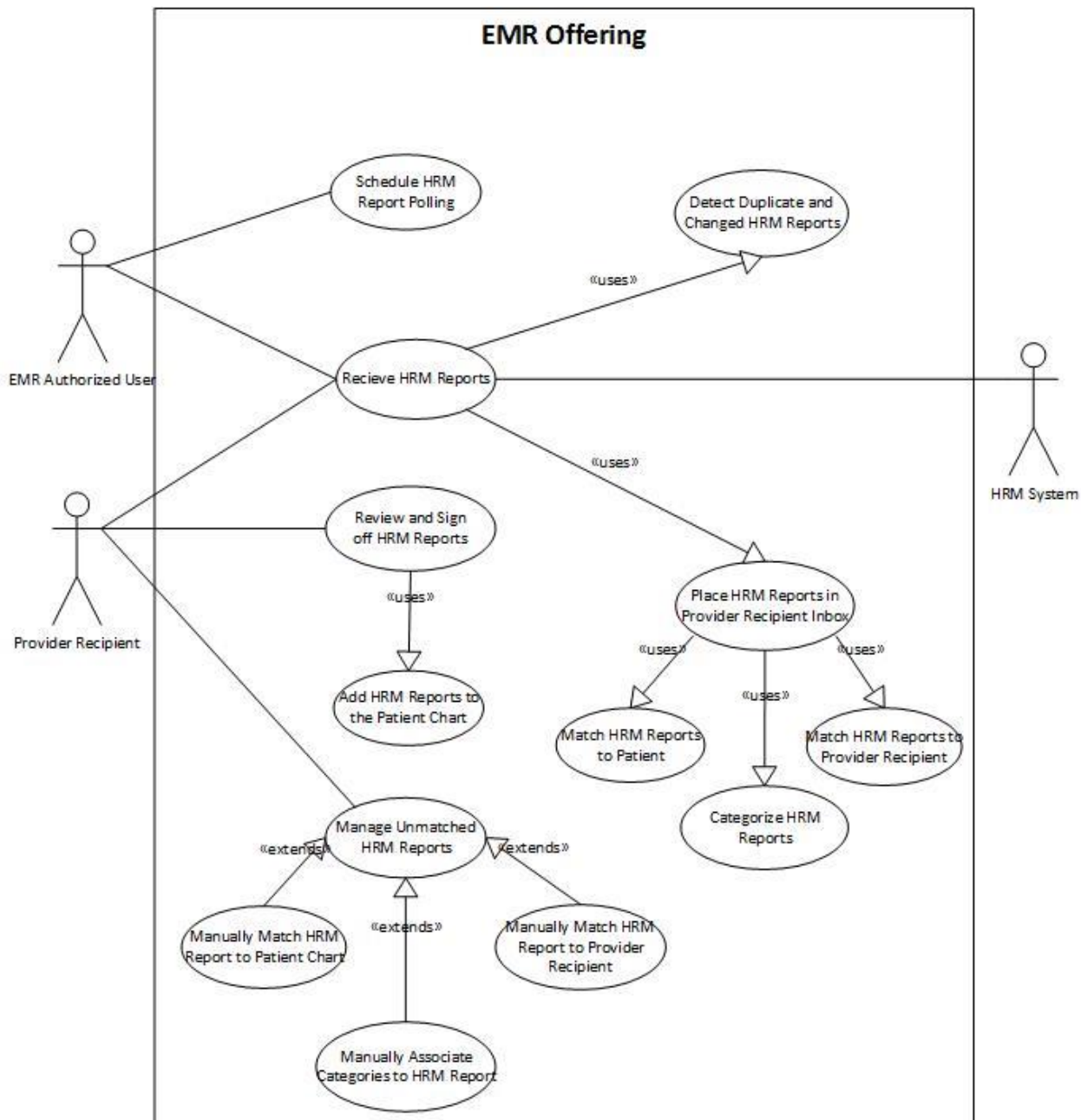


Figure 3 - EMR HRM Business Use Case



### 3. APPENDIX A: GLOSSARY OF KEY TERMS AND DEFINITIONS

#### 3.1 Acronyms and Abbreviations

This table identifies definitions for terms used within or that are relevant to this document.

ACRONYM	DEFINITION
CRT	Cardio-Respiratory Report
DI	Diagnostic Imaging
EMR	Electronic Medical Record
HRM	Health Report Manager
IHF	Independent Health Facility
MR	Medical Record
sFTP	Secure File Transfer Protocol
XML	Extensible Markup Language