

April 7, 2016

Hospital Report Manager and eNotifications

OntarioMD
EMR Every Step Conference



- **Presenter:**
 - Matt Leduc, Manager, HRM and EMR Connectivity Solutions, OntarioMD
- **Relationships with commercial interests:**
 - No relationship with commercial interests

Disclosure of Commercial Support

- This program has not received financial support or in-kind support from any commercial organization
- **Potential for conflict(s) of interest:**
 - Matt Leduc has not received payment or funding from any organization supporting this program AND/OR organization whose product(s) are being discussed in this program.

Mitigating Potential Bias

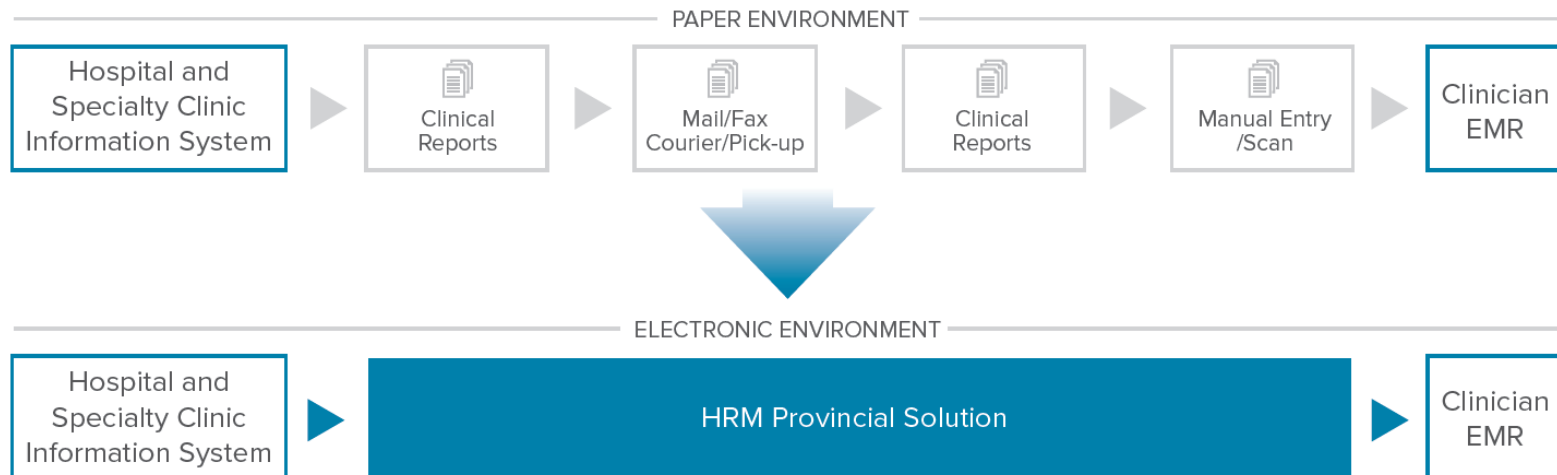
- The presenters have no potential sources of bias.

Clinical Report Distribution with/without Hospital Report Manager

The clinical information system sends a patient report to the Hospital Report Manager using HL7.

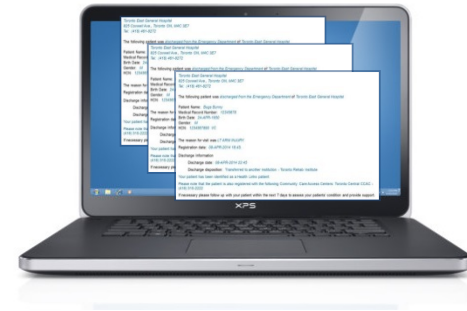
Hospital Report Manager converts the patient report into the EMR standard message format, encrypts and stores the report in a secure folder for pick-up by the intended OntarioMD-certified EMR.

The clinician's OntarioMD-certified EMR picks up the report, which is posted to clinician's inbox in the EMR for review and sign-off.



Hospital Report Manager

- The provincial solution for report delivery
- Converts reports into the standard EMR message format
- Medical Record and Diagnostic Imaging reports sent electronically from hospitals and specialty clinics into a patient's record in their clinician's OntarioMD-certified EMR
- Reports arrive securely, directly into the EMR within minutes instead of within days or weeks by paper
- Only one interface required for the sending facility instead of multiple interfaces to individual EMRs/practices
- Only one interface required for the EMR instead of multiple interfaces to individual hospitals and speciality clinics
- Hospital Report Manager (HRM) was selected as the **2015 recipient of the Innovation in the Adoption of Health Informatics Award.**



What Physicians Are Saying About HRM



“The practice has become very well organized and the patient care has improved significantly.”



“[Thank you] whoever created this. It's incredible!”



“[HRM is] smooth, seamless, timely, efficient, enjoyable, and reassuring.”

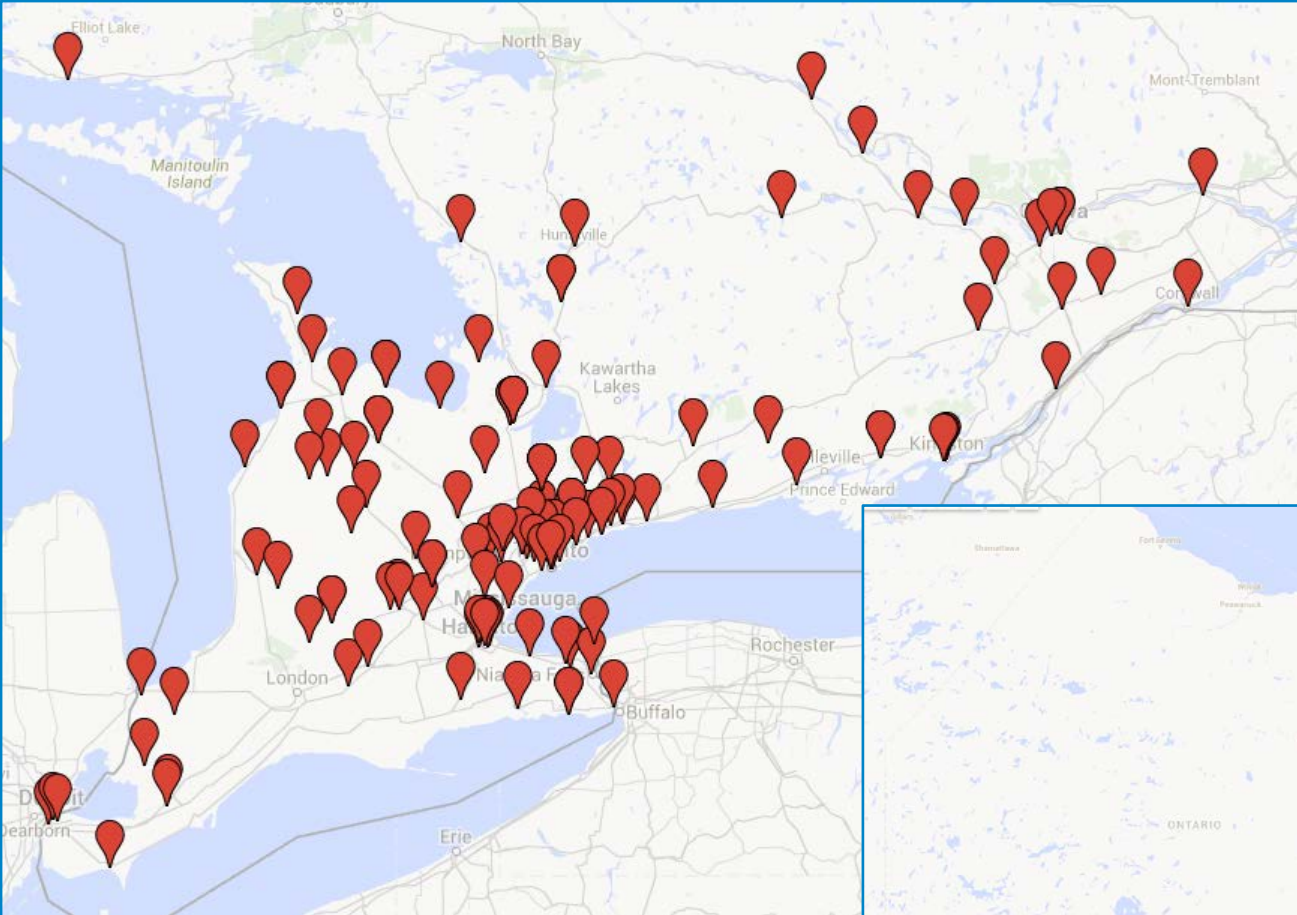


“Reduced clerical work. HRM improves focus on patient care, improves continuity of care from hospital to community as [to] what has been done and plans to move forward can be made very rapidly.”



“...the speed of receipt of discharge summaries is the single most valuable aspect of HRM and essential to safe and effective post discharge practice.”

HRM Hospitals and Speciality Clinics



Updated April 5, 2016

Snapshot of HRM in April 2016

Connected to HRM



122 Hospitals

26 Specialty Clinics



6 M+ reports sent
*(that's higher than the
CN Tower in stacked
paper)*



Connected to HRM



**4,812 Physicians with
EMRs**

**405 Nurse Practitioners
with EMRs**

HRM: The Patient Perspective

- **Better continuity of care** – patients receive follow-up care sooner from their family physician after a hospital visit
- **Treatment plans are more informed** by improved communication between the hospital or specialty clinic and the community-based physician
- **No need for the patient to remember or bring information from the hospital / specialty clinic**



HRM: The Physician and Nurse Practitioner Perspective

- **Better continuity of care** – faster follow-up care for patients after hospitalization
- **Treatment plans are more informed** by improved communication from the hospital or specialty clinic
- **Seamless integration with the EMR**, enriching the EMR with more patient information to help identify trends that may require intervention
- Staff can use the **time saved** from handling paper reports to provide more service to patients
- Administrative **cost savings**
- Ability to **search text-based reports**
- **Strengthens privacy and security** of patient information through audit trails



HRM: The Hospital and Speciality Clinic Perspective

- **Quick win** – deployment can be completed in a few months
- **Efficient** – transcribed reports sent electronically to EMRs
- **Only one interface** required instead of multiple interfaces to different practices
- **Value for money** – time and effort invested result in administrative savings and reduced risk
- **Better privacy and security** of patient information
- **Better communication between the hospitals / specialty clinics and the community-based family physician** results in better continuity of care, more informed clinicians, faster treatment for patients and potentially fewer hospital readmissions
- **Many different types of reports** delivered and more to come – eNotifications, OTN Telehomecare reports, etc.



Clinical Reports Sent Through HRM

The HRM solution supports Medical Record (MR) reports and Diagnostic Imaging (DI) reports in text-based and PDF formats.

Medical Records

- Operative Report
- Consultation Notes
- Discharge Summaries
- Emergency Room Reports
- eNotifications
- OTN Telehomecare reports



Diagnostic Imaging (without images)

- Bone Mineral Density Transcription
- Mammogram
- CT Transcription
- Radiology Transcription

Over 100 report types are sent through HRM. Visit the [OntarioMD Sending Facilities page](#) for more information

What Else Can HRM Do?

eNotifications to Primary Care available through HRM

- **Near real-time electronic notifications or messages** sent to the family physician's EMR to inform the physician that the patient was:
 - Discharged from the hospital's Emergency Department, or
 - Admitted as an in-patient, or
 - Discharged as an in-patient
- Medical Report / Diagnostic Imaging report arrives after the eNotification

Toronto East General Hospital
825 Coxwell Ave., Toronto ON, M4C 3E7
Tel: (416) 461-8272

The following patient was discharged from the Emergency Department of Toronto East General Hospital

Patient Name: Bugs Bunny
Medical Record Number: 12345678
Birth Date: 24-APR-1950
Gender: M
HCN: 1234567890 VC

The reason for visit was LT ARM INJURY.

Registration date: 08-APR-2014 18:45.

Discharge Information

Discharge date: 08-APR-2014 22:45

Discharge disposition: Transferred to another institution - Toronto Rehab Institute

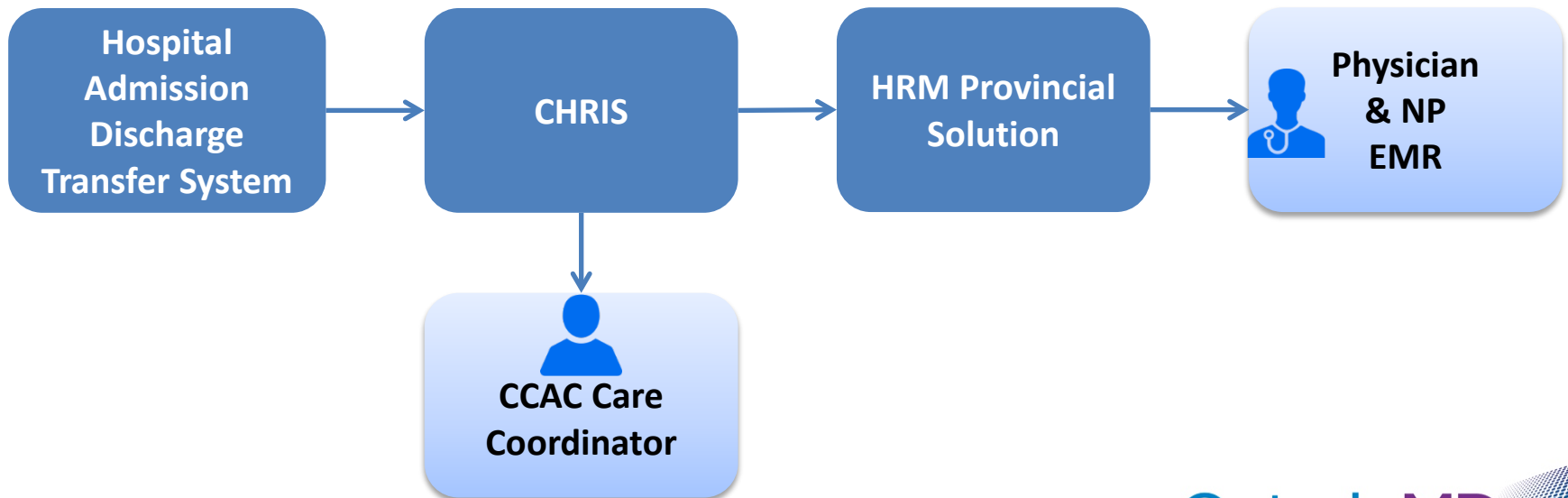
Your patient has been identified as a Health Links patient.

Please note that the patient is also registered with the following Community Care Access Centers: Toronto Central CCAC - (416) 310-2222

How eNotification Works

eNotifications are sent to:

- **CCAC Care Coordinators** – through CHRIS (Client Health and Related Information System)
- **Primary Care Providers** – through HRM and OntarioMD-certified EMRs



eNotifications Deliver Clinical Value and Drives Follow-up

100% of the notifications sent from TEGH to the SETFHT's EMR were reviewed by the family physician within 7 days, and a follow-up action was determined for the patient (Q1 – 2014/15)

Using the Ministry definition for follow-up, **54%** of these notifications resulted in follow-up compared to an annual rate of **37%** in 2013

57% of the notifications were for patients who were determined to be complex using the Ministry definition

No training required; Seamlessly integrated into the EMR and the physician's workflow

eNotifications has been recognized by **Accreditation Canada** as a **Leading Practice**.

Expansion of eNotifications Began in November 2015



**24 Hospital Sites
in LHINs 1, 2, 7, 12 and 13**

**85,000 eNotifications
sent**

**1,670+ HRM Users have
received eNotifications**

Clinicians in each of LHINs 1 – 13 have received eNotifications

LHIN	# Clinicians* Receiving eNotifications
01 - Erie St. Clair	80
02 - South West	30
03 - Waterloo Wellington	37
04 - Hamilton Niagara	24
05 - Central West	88
06 - Mississauga Halton	192
07 - Toronto Central	349
08 - Central	358
09 - Central East	171
10 - South East	46
11 - Champlain	19
12 - North Simcoe Muskoka	268
13 - North East	3

**Clinician count does not equal eNotifications recipients due to some NP recipients being excluded from analysis.*

Sample eNotification: Discharge from Emergency Department

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What Physicians Are Saying About eNotifications



“Fast results including imaging, consults, discharge summaries, [and] correspondence [about] unexpected patient admissions.”



“I have a report within minutes of patient being discharged from hospital. I know what to follow-up and who is responsible. It is legible.”



“Faster access to discharge reports keeps me informed of what is happening to patients when they come in for follow up.”



“The best for me is the speed of having reports available. When kids come in for follow up, I know the expected discharge plan [and] can make sure the parents are on the same plan.”

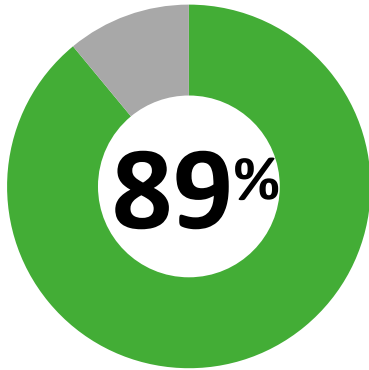


“Prompt results, in line with expectation of seeing patients within 7 days of discharge.”

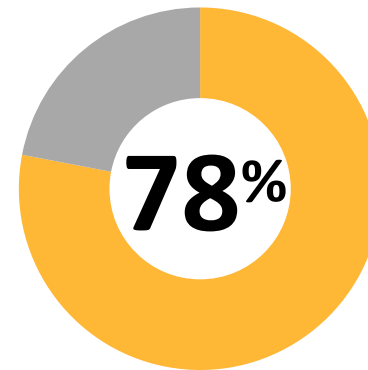


“Patient care and patient safety is improved because I know when [my patients] have been discharged, what meds they were discharged on, and my CCAC care coordinator can get involved.”

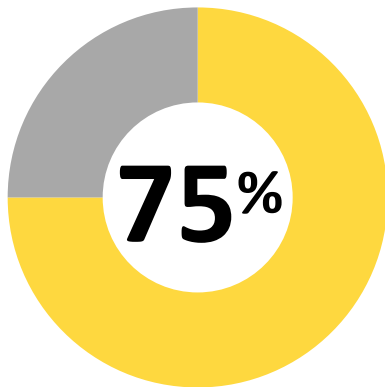
HRM User Survey – Physicians, NPs and Clinic Managers



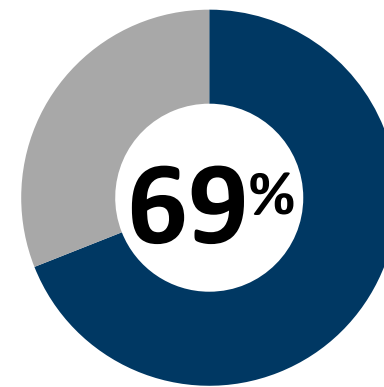
agree that **the timeliness of receiving reports** into their EMR has improved with HRM



agree that **HRM functionality is easy to use**

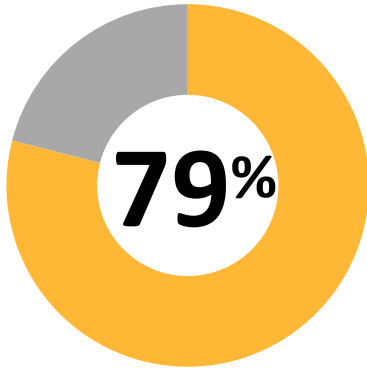


reported that **eNotifications allow for follow up with patients sooner** after their hospital visits.

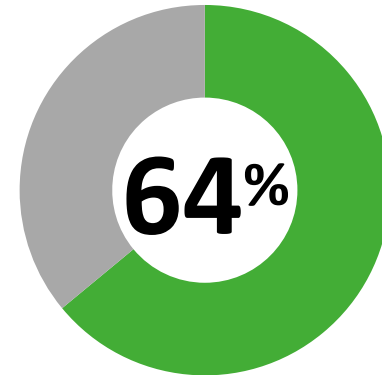


agreed that, with HRM, **follow-ups with patients** by clinicians and their staff are **being done in a timelier manner**

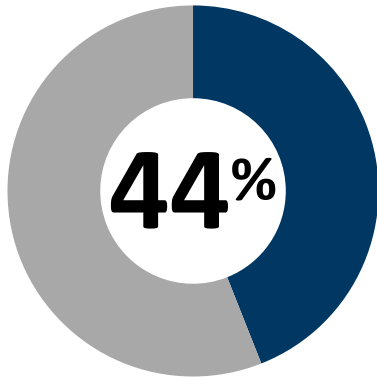
HRM User Survey - Hospitals and Specialty Clinics



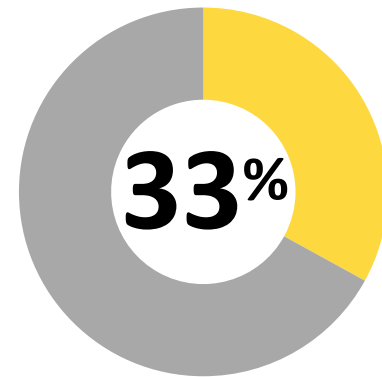
reported that **HRM saves on costs of printing and mailing/faxing reports**



found their facility's **time spent on printing, mailing and/or faxing has been reduced with HRM**



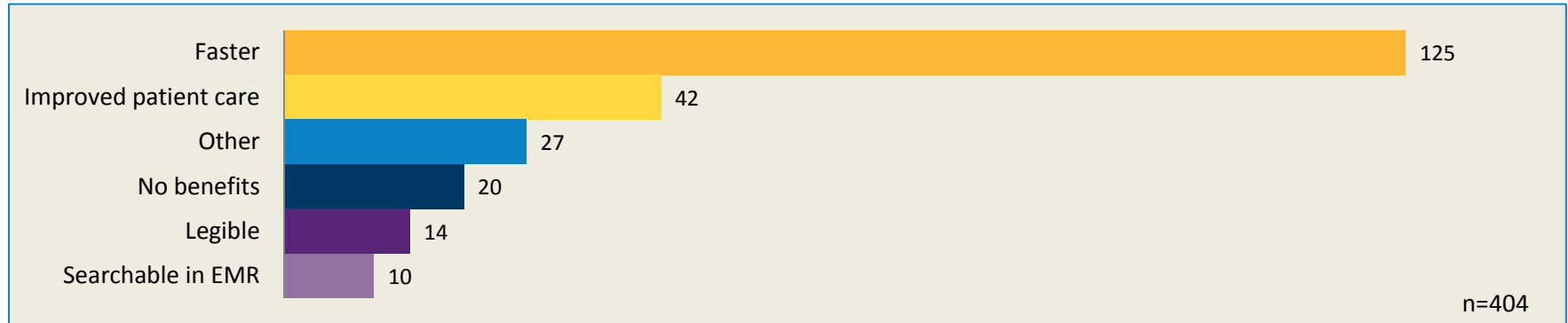
indicated that **privacy incidents have been reduced with HRM**



indicated that **faxing errors were reduced with HRM. One site indicated that HRM reduced over 100 faxing errors/month.**

Benefits of HRM, and Commonly Requested Enhancements

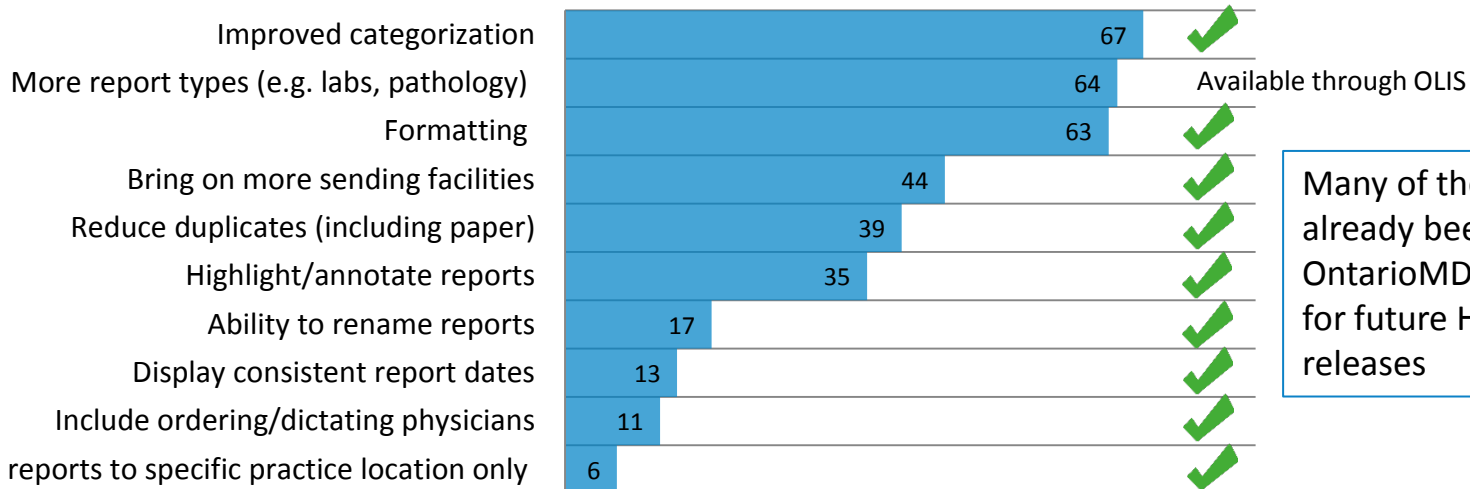
Benefits of HRM (optional free-text question)



Top Ten Enhancement Requests

Number of Requests

On Roadmap?



Many of the requests have already been identified by OntarioMD and are planned for future HRM product releases

Stakeholders Have Asked



HRM has the potential to allow information to be delivered from any point-of-service system to an OntarioMD-certified EMR.

Key enhancements in planning stages include:

- Application-level security: connectivity for specialty clinics that are not on eHealth Ontario's MPN to send reports through HRM
- Enhanced matching capability to intelligently target the most appropriate EMR instance(s) for report delivery
- Expanded delivery capability for new types of reports and sending organizations (e.g., LTC admissions, Panorama)

Potential future functionality:

- EMR to EMR secure information exchange through HRM among physicians (e.g., reports, patient summaries)
- Primary Care, specialist and hospital reporting to Public Health Units
- Midwives, PHUs and Pharmacists: Can I get on HRM to receive information from hospitals and speciality clinics?

Thank you!



The views expressed in this publication are the views of OntarioMD and do not necessarily reflect those of the Province.