Product Dashboard: Vision, Roadmap, & Projects

Our Product Vision & Top 3 Strategic Directions

We work together in a global fight to improve health care. Tech is one tool we use to bring better care to patients, the providers who care for them, and the organizations who steward health resources. This means the tech we develop together must have Great Tooling + Great Documentation to unlock scale to: Ensure patients get the right, timely, and appropriate care; Provide health workers with timely, accurate, and complete information; and, Give organizations data to improve the efficiency and quality of care delivery.

To achieve this vision, we need Strategic Directions to guide us now and in the future 5 years. Our top 3 Strategic Directions are:

This Product Dashboard is a dynamic, changing space that is open to feedback. The intent is a home-base where anyone, especially day-to-day implementers interested in the OMRS roadmap, can see at a glance some key initiatives going on around the OpenMRS community: what’s happening, who’s putting resources in, what needs more support, and where there are specific opportunities to contribute support/investment.

Short Link to this page: om.rs/productdashboard

We are working on a clearer process for this. For now: project contributors are encouraged to update this page, though responsibility for ensuring this is a fair, up-to-date reflection of current community work rests with the OMRS Director of Product. Reach out to Grace Potma; we’d love to hear from you and better understand your initiative so we can broadcast your amazing work! We also regularly review this page in the OMRS Technical Action and Strategy & Operations Committees, to help everyone be on a similar page about key work moving our community forward closer to our strategic priorities.

- Our Product Vision & Top 3 Strategic Directions
- Product Roadmap
  - CARE: Pt Care & User Experience (via O3 - better data quality through better Point-of-Care UX)
  - CONFIGURATION (& Deployment):
  - COMMUNICATION:
    - Data Exchange
    - Maintenance & Core Support

Product Roadmap

All of these items are:

- being conducted in a public community process, with involvement & investment from 2+ Organizations
- being shared with /omrs/5 facilitators, and are receiving some degree of dedicated support from OpenMRS Inc
- likely to provide wide community value (i.e. fit under the definition of "Shared Assets" for community)

To suggest an item for the Community Product Roadmap, simply contact Director of Product Grace Potma (grace@openmrs.org) - we'd love to hear about your priorities and current focus areas.

<table>
<thead>
<tr>
<th>CARE: Pt Care &amp; User Experience (via O3 - better data quality through better Point-of-Care UX)</th>
<th>Done</th>
<th>Recent Work Completed</th>
<th>Now</th>
<th>What We’re Working on Today (Active Design or Development)</th>
<th>Next</th>
<th>Next Priorities*</th>
</tr>
</thead>
<tbody>
<tr>
<td>PILOT</td>
<td>KenyEMR with O3 Appointments + Queues: ~Nov 9 2022, 2 small sites</td>
<td>PALLADIUM</td>
<td></td>
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</tr>
<tr>
<td>PILOT</td>
<td>ICAP-Ethiopia: OHRI/3.0 Clinical Testing Go-Live, 2 small HIV sites (Q3 2022)</td>
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<tr>
<td>O3 Lab Orders, Lab Order Templates</td>
<td>ITECH</td>
<td>UCSF-TAP</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Status:</td>
<td>IN DESIGN</td>
<td></td>
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<tr>
<td>iFrame the O3 EMR</td>
<td>Ability to show and use the O3 EMR within an iframe / in another system, eg Moodle. Timeline: ~Q2 2023</td>
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<tr>
<td>Implement Patient Flags, &amp; Tasks</td>
<td>Initial designs here; we would like to get these done. First legos to support decision support. Prelim work by Palladium. Contact: JJ. Timeline: ~Q4 2022</td>
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</tbody>
</table>

Skip to: CARE Skip to: CONFIG (Deployment) Skip to: COMMUNICATION (Data Exchange) Skip to: MAINTENANCE
<table>
<thead>
<tr>
<th>Feature</th>
<th>Organization(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Configurable Lab Results table view</td>
<td>AMPATH, MEKOM</td>
</tr>
<tr>
<td>Configurable extension to show labs of interest in a table (timeline)</td>
<td></td>
</tr>
<tr>
<td>view. (e.g. &quot;Just HIV-Related Labs&quot;)</td>
<td></td>
</tr>
<tr>
<td>First Form-Embeddable Widget: Conditions, Address Hierarchy</td>
<td>ICAP-ETHIOPIA, UCSF-TAP</td>
</tr>
<tr>
<td>Basic HTML Form Entry (HFE) Form Support in 3.x</td>
<td>MEKOM, ICRC (+ input from PIH)</td>
</tr>
<tr>
<td>Workflow to allow users to open HFE forms within a 3.x workflow.</td>
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<tr>
<td>3.x Address Hierarchy Component</td>
<td>ICAP-ETHIOPIA, UCSF-TAP</td>
</tr>
<tr>
<td>Clinical Views</td>
<td>AMPATH, PIH</td>
</tr>
<tr>
<td>Ability to add specialized program- or condition-specific views. Ideally, ability to update config easily to add more - e.g. represent clinical view w/ JSON structure.</td>
<td>AMPATH, PIH</td>
</tr>
<tr>
<td>i18n Date Picker: Ethiopian Calendar + more</td>
<td>ICAP-ETHIOPIA, UCSF-TAP</td>
</tr>
<tr>
<td>Field Discovery: UX and Product field research</td>
<td>AMPATH, UCSF, PIH</td>
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<tr>
<td>In-person shadowing and interviewing end-users at large to small sites, including ecosystem of lab/pharm/billing where relevant</td>
<td>AMPATH, UCSF, PIH</td>
</tr>
<tr>
<td>Point of Care:</td>
<td>AMPATH (6 sites)</td>
</tr>
<tr>
<td>Retrospective Data Entry:</td>
<td>PALLADIUM (2 sites)</td>
</tr>
<tr>
<td>AMPATH 3.x Pilot (Kenya): 3.0 Go-Live with Clinician Workflows at large HIV Outpatient Clinic (Started Feb 2022)</td>
<td>LIVE!, PILOT, AMPATH</td>
</tr>
<tr>
<td>Queues &amp; Clinic Dashboards</td>
<td></td>
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<tr>
<td>A 'snapshot' of active visits and patient priority levels. Goal is to improve clinic workflows / service delivery queues, and team communication, starting with Outpatient clinic workflows.</td>
<td></td>
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<tr>
<td>AMPATH, MEKOM</td>
<td></td>
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<tr>
<td>Merging the O3 Monorepos for better DevX</td>
<td>OPEN</td>
</tr>
<tr>
<td>Offline EMR Use (No Internet/Power Loss)</td>
<td>OPEN</td>
</tr>
<tr>
<td>In-form Appointment Date Checker</td>
<td></td>
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<tr>
<td>Endpoint convention in OMRS to connect (e.g. &quot;on this day, how many appointments already booked?&quot;)</td>
<td></td>
</tr>
<tr>
<td>Drugs Orders / e-Prescribing</td>
<td></td>
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<tr>
<td>Status: IN DEV</td>
<td></td>
</tr>
<tr>
<td>OHRI MNCH &amp; PMTCT Package</td>
<td>AMPATH, MEKOM, PIH</td>
</tr>
<tr>
<td>MNCH Clinic Dashboard; MNCH Chart Summary (mother + child); Sample ANC forms; Sample reports; MNCH Business Rules for forms, reports, flags and alerts.</td>
<td>AMPATH, MEKOM, PIH</td>
</tr>
<tr>
<td>ANC SMART Guidelines: Decision Support UI and Engine for O3</td>
<td>FELLOWS, AMPATH, MEKOM, PIH</td>
</tr>
<tr>
<td>O3 Release &amp; Dockerization Improvements</td>
<td>AMPATH, UCSF-NAMIBIA</td>
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<tr>
<td>Status: IN DEP</td>
<td></td>
</tr>
<tr>
<td>Orgs: MEKOM</td>
<td></td>
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<tr>
<td>Embedding Allergies/Conditions etc in Form Workflows</td>
<td></td>
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<tr>
<td>Status: NOT STARTED</td>
<td></td>
</tr>
<tr>
<td>Orgs: MEKOM, ICRC</td>
<td></td>
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<tr>
<td>Registration App Re-Do</td>
<td>AMPATH, UCSF, PIH</td>
</tr>
<tr>
<td>Reg page is one of first apps new users/devs look at, and it's not meeting requirements or code expectations. Need to re-design, re-architect, &amp; confirm requirements - eg to prevent pt duplicates, handle site- or org-specific field requirements &amp; allow enable-whens, accept mini-apps like address hierarchy, handle National ID or Insurance system integration...</td>
<td>AMPATH, UCSF, PIH</td>
</tr>
<tr>
<td>Status: NOT STARTED</td>
<td></td>
</tr>
<tr>
<td>Lead: OHRI/UCSF</td>
<td>AMPATH, UCSF, PIH</td>
</tr>
<tr>
<td>Use case &amp; design input from: TBC (new)</td>
<td>AMPATH, UCSF, PIH</td>
</tr>
</tbody>
</table>
Theming 3.x!

PIH | AMPATH

(Some input from UCSF)

Status: DONE

Ampath 3.x Live Test (Kenya): End to End Testing with Outpatient HIV Clinicians

AMPATH (Q 4)

Status: DONE

Generic Encounter Widget

Reuseable version of a common widget, powered by config that's easily editable (e.g. if you want to change columns & data shown in a table)

PIH | OHRI/UCSF

Status: DONE

3.0.0 Demo Launch

Q3 Goal = end to end outpatient workflow launched online for public use & experimentation. Includes:

- Offline Mode for Mobile/Community Health Workers: view patient charts offline
- Lab Results with charts & interactive viewing
- Drug Ordering
- Patient Lists (create lists and add patients to lists)
- Full featured outpatient chart (e.g. Medication History, Immunizations, past Visit Notes view, and more)

AMPATH | MEKOM | PH | BROWN

Status: DONE

Appointment Management

For Facilities: Configure what appointments are provided, and how they can schedule pts. stats, lists.

For Providers: Create, edit, update, scheduling decision support, cancel. Handling Mother-Child / multiple appointments smoothly.

Status: DONE

Interactive Forms: Embedding Orders, Conditions...

e.g. Starting an Order within a Form Workflow. Forms/notes become the centering piece for teams - we need to figure out how to represent not just data collection, but also embed widgets into the process (so that user doesn't have to click around the EMR to find the information they need while also trying to do a form).

AMPATH | UCSF-TAP

Interested: Mekom, ICRC (in H2)

Status: NOT STARTED

Rules Engine

(e.g. for Workflow State management; Clinical Decision Support)

Interested: Ampath, ICRC, Mekom

Status: NOT STARTED

O3 Design Patterns Project

Expand the design assets & components currently in our Zeplin Styleguide into a more easily accessible, robust set of guidance that can be directly followed by designers and developers working on 3.x-related features.

AMPATH | OHR/UCSF

Status: IN DESIGN

Auto save a Form Draft

Interested: ________

Status: NOT STARTED

Print

Ability to print things from the EMR, e.g. HIV Clinical Summary

Status: NOT STARTED

Patient Lists: Automated (Cohort Builder)

(1) Query for patients who meet a certain criteria, and (2) automated adding/removing of patients from this list (so it's automatically maintained).

E.g. "show me all Patients who missed med pick up..."

E.g. "show me all Patients who missed their appointment..."

+ Actions on that list (e.g. change patient status)

(Interested: Ampath, UCSF)

Status: NOT STARTED

Referrals

3.x UI to send and receive referrals.

Status: IN DESIGN
Adopted Carbon Design
Updated 3.x Frontend to use 3rd party design system. Result: Faster design & development outputs.

Share Frontend Widgets with Plug-and-Play Architecture
Microfrontend framework completed; enables implementers to re-use others' frontend features.

3.x Guide for Developers
Step by step guide to the new Design System & Microfrontend architecture. Will help Devs implement 3.x for their org, or contribute to Squad.

Group Sessions / Group Visit Management
3.x feature for Group Sessions, starting with Mental Health group sessions. Aka Bulk Data Entry, Line List style, Tabular data entry view.

Offline Mode for CHWs / Outreach
Registration, Forms ready for field use offline

Medication Dispensing
2.x & 3.x UI to enable Pharmacists to mark drugs and fully or partially dispensed.

NCD Use Cases & Design Research
User Research, Designs, & Testing to validate and prepare EMR for NCD care context. E.g. NCD-specific widgets and sections of Patient Chart, NCD Peer Support.
### 3.x Performance Enhancements

- **MEKOM**
- **ICRC**

**Status:**
- **IN DEV**
- **SEEKING**

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<table>
<thead>
<tr>
<th>CONFIGURATION</th>
<th>Iniz support for OCL &amp; Dictionary Manager work</th>
<th>Reactify &amp; Carbonize O3 Form Builder</th>
<th>Form Engine Harmonization: Angular /OHRI Shared React form engine</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>FELLOWS</strong> <strong>MEKOM</strong> <strong>PHI</strong></td>
<td><strong>GSOC</strong> <strong>UCSF-TAP</strong></td>
<td>Update comparison doc; add fx to OHRI form engine; align on 1. RelApp currently rendering forms using the Ampath form engine</td>
</tr>
<tr>
<td>Faster Deployment</td>
<td><strong>Copy &amp; Customize a CIEL Concept</strong></td>
<td><strong>Community Feature Release Pipeline</strong></td>
<td><strong>Input from: UCSF, MSF</strong></td>
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<tr>
<td></td>
<td>Able to re-use a CIEL (or other curated) concept instead of re-creating it manually: copy it and make the non-breaking changes you needed (e.g. change answers, add translations, etc).</td>
<td><strong>PILOT</strong></td>
<td><strong>UCSF-TAP</strong></td>
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<tr>
<td></td>
<td><strong>FELLOWS</strong> <strong>BROWN</strong></td>
<td><strong>PILOT</strong></td>
<td><strong>UCSF-TAP</strong></td>
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<tr>
<td></td>
<td><strong>OCL Module: Multi-language support</strong></td>
<td><strong>Using OCL/Dictionary Manager to manage all PIH concepts</strong></td>
<td><strong>Use mappings in a form instead of the concept UUIDs</strong></td>
</tr>
<tr>
<td></td>
<td>Updating translations for concept updates or new subscriptions that have many languages.</td>
<td><strong>PIH</strong> <strong>REGENSTRIEF</strong></td>
<td><strong>Goal: Demo a form that’s defined and rendered through mappings (not UUIDs). Eg if a country maps to OHRI concepts Need ability to map</strong></td>
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<tr>
<td></td>
<td><strong>FELLOWS</strong> <strong>BROWN</strong></td>
<td><strong>PILOT</strong></td>
<td><strong>UCSF-TAP</strong></td>
</tr>
<tr>
<td></td>
<td><strong>Dictionary Manager webapp</strong> (aka OCL for OpenMRS)</td>
<td><strong>Status:</strong> <strong>FINAL UAT</strong></td>
<td><strong>Using OCL/Dictionary Manager to manage all UgandaEMR concepts</strong></td>
</tr>
<tr>
<td></td>
<td>MVP live for production use. See: Intro video; and demo video.</td>
<td><strong>PILOT</strong></td>
<td><strong>UCSF-TAP</strong></td>
</tr>
<tr>
<td></td>
<td><strong>FELLOWS</strong> <strong>OCL</strong> <strong>MSF</strong> <strong>PHI</strong> <strong>REGENSTRIEF</strong> <strong>BROWN</strong></td>
<td><strong>PILOT</strong></td>
<td><strong>PILOT</strong></td>
</tr>
<tr>
<td></td>
<td><strong>3.x OpenMRS Forms: Form Management for Non-Tech folks</strong></td>
<td><strong>3.x Form Builder: UgandaEMR pilot</strong></td>
<td><strong>Iniz support for Reports</strong></td>
</tr>
<tr>
<td></td>
<td>A new Form Builder &amp; Form Engine for OpenMRS, using open source code used by OpenMRS implementer for 5+ years. Allow non-coders to set up clinical forms.</td>
<td><strong>METS</strong> <strong>REGENSTRIEF</strong></td>
<td><strong>Interested: PIH</strong> <strong>OPEN</strong></td>
</tr>
<tr>
<td></td>
<td><strong>MEKOM</strong> <strong>AMPATH</strong> <strong>PALLADIUM</strong></td>
<td><strong>METS</strong></td>
<td><strong>METS</strong></td>
</tr>
</tbody>
</table>
**Lighter Deployment**
Simpler deployment packaging (3.x RefApp will use a much lighter-weight set of modules)

**OCL Module Improvements**
- Bug fixes related to error messages

**Designs for Implementer Tool: EMR Setup UI for Non-Tech folks**
Designs to enable: Non-tech users can set up a 3.x EMR in a friendly, no-code UI, similar to designing a website.

**EMR Packages: Tech Definition & Schema**
A way to add content (forms, concepts, custom widgets etc) to easily add new program areas to your EMR (e.g. Maternity Package)

**OCL OpenMRS Import feature**
An answer to “How do I get my legacy metadata into OCL?”

**OCL Module: Diff Check workflow**
“Here’s what will change” UX/UI when subscribing.

**OCL Module: Automated tests for different data types**

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**COMMUNICATION:**

**Data Exchange**
**FHIR Gaps Review**
Using 3.x RefApp, check for areas where REST API is being used where FHIR either could be used or needs support (Done, Doc Here)

**FHIR Module Upgrade**
Added support for Immunizations.
Note: The FHIR Module already enables the export of OpenMRS data into FHIR format, to help integrate with other systems use FHIR.

**DHIS2 Connector Module**
Posts aggregate data from OpenMRS to DHIS2, and gives implementers a User Interface for an easier-to-set-up OMRS to DHIS2 pipeline, that doesn’t need manual code fixes every time there’s a change to reporting indicators. Fixed so this can work in production systems, added automatic data sending, and added support for custom period types.

**Scale-ready ETL Pipeline to FHIR-based tools:** Apath pilot of Analytics Engine.

**Mapping OpenMRS Order statuses to FHIR**
Send a case report from OMRS system to a central repo.

**Send data to Central Repository for Case Based Surveillance**
Send a case report from OMRS system to a central repo.

**(Jembi for mediators)**

**Lab Viral Load Data Exchange**
Based off of FHIR IG. Proof of concept completed. More to be done for full data exchange of lab request and case report.

**(Jembi for mediators)**

**Odoo integration for Physical Rehabilitation**
e.g. Creation of prosthesis and financial / patient billing

**Odoo for Pharmacy**

**Odoo integration for Billing**

**Odoo integration for Bed Management**

**FHIR Implementation Guide (IG) - Supporting OHIE Facility Registry IG**
Goal: Finish & genericize the ITECH FHIR IGs built for Labs, Lab Workflows, and Facility Registries

**Identity & Facility Management**
Get iSantePlus Client Registry & Facility Registry workflows set up with FHIR in iSantePlus working in OMRS-core (using FHIR-based workflows)
Lab Exchange
Get iSantePlus lab exchange module to work in OMRS-core (connects to id & facility mgmt to i.d. right pt and right facility) (using FHIR-based workflows)

Maintenance & Core Support
(Make it possible for implementers to build their features)

DB Sync

Dockerizing development and deployment of OpenMRS
Best practices for OMRS development and deployment. Key to enabling Packages vision and CI.

Support Referral Orders

Access Control List support
API to get obs for Concept Trees
E.g. for Lab Filters/hierarchies. Method to get set of obs based on a concept tree.

*Actively being used in the new Lab Trees feature!*

Data Model to support Service Delivery Queues
Support for dynamic vs static lists of patients.

Order Templates
Order Template Modelling E.g. Common Rx's

Platform 2.5 Release
- Support for Tomcat 7-9.
- Make Orders, Allergies, Diagnoses, and PatientState form recordable and encounter-able.
- Administration via REST.
- User settings: store larger strings in DB.
- Groundwork for future ReferralOrders support.

Audit Log for Views & Updates
We have no auditing around views. Updates: if a form is filled out multiple times, we'd only have information on the first time and the most recent update. Large project. (eg auditing work stagnant) There are workarounds, eg Statistics Module, or by configuring the server to log URLs requests (Tomcat or the entry proxy)

Order Sets
Support for Sets of anything that's order-able (e.g. COVID assessment set can contain Meds, Labs, Referrals...)