SDOH-CC

Use Case #1
Testing at Connectathon 23, Sydney

MaxMD Demonstration of
Gravity SDOH-CC Capabilities
Actor Roles for Use Case 1

Gravity Project Use Case 1 “Quick Tips” One-Pager

1. Task with SDOH Questionnaire and Patient List
   1.1. Initiate Screening Task
   1.2. Return Screen
   1.3. Update Screening Task

2. Populated Questionnaire Response with consent information

3. Completed Task

PMEHR

4. Communication Request
   4.1. Communication Request

5. Communication with Requested Data or Document

Patient App/Screening App

Initiator

Patient

Initiator

Clinician

Clinical Data Reg/Repo

Initiator

Public Health, Quality Assessor, Researcher, Care Coordinator

SDOH-CC Community Review CI Build V0.0.2
Gravity Project
Use Case 1 – Gather SDOH data during a clinical encounter

Scene 1 – automate the patient screening process
PMEHR actor

Create Screening Task to screen patients
- Pick the Screening Tool to use

Create Questionnaire Task

1. Create task name, select a Questionnaire

Task Name: Sample task to perform screening on a list of patients
Questionnaire: Food Insecurity (Hunger Vital Sign)

Next
Create Screening Task to screen patients
- Select the Task expiration period & Task performer
Create Questionnaire Task

3. Select patients.

<table>
<thead>
<tr>
<th>Name</th>
<th>DOB</th>
<th>Address</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satterfield</td>
<td>2002-11-05</td>
<td>378 Waters Ramp, Bridgewater, Massachusetts 02324</td>
</tr>
<tr>
<td>Mateos, Sofia</td>
<td>1960-02-01</td>
<td>123 Neighborhood Drive, Pittsburgh, Pennsylvania 15235</td>
</tr>
<tr>
<td>Leven, Theodore</td>
<td>1942-03-22</td>
<td>123 State Street, Chicago, Illinois 60601</td>
</tr>
<tr>
<td>Newman, Alice</td>
<td>1970-05-01</td>
<td>1357 Amber Dr, Beaverton, OR 97006</td>
</tr>
<tr>
<td>Bates, Jeremy</td>
<td>1980-08-01</td>
<td>1357 Amber Dr, Beaverton, OR 97006</td>
</tr>
<tr>
<td>Tang, Peng</td>
<td>1980-06-15</td>
<td>2200 Fletcher Ave, Fort Lee, NJ 07024</td>
</tr>
<tr>
<td>Nelson, Lisa</td>
<td>1962-08-28</td>
<td>291 Spring St, New Shoreham, RI 02807</td>
</tr>
</tbody>
</table>

Create Screening Task to screen patients
- Select the list of patients
Screening App actor

Receive and initiate a digital screening Task
- Send screening request to each patient using mobile app

<table>
<thead>
<tr>
<th>Task</th>
<th>Requester Name</th>
<th>Status</th>
<th>Effective Period</th>
<th>CGS Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample task to perform screening on a list of patients</td>
<td>PMEHR Demo</td>
<td>In Progress</td>
<td>Created 2020-02-03 03:56:06</td>
<td>Received 2020-02-02 21:56:06</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Updated 2020-02-03 03:56:08</td>
<td>Created AppForm 2020-02-02 21:56:06 Created AppForm #19</td>
</tr>
<tr>
<td>Questionnaire</td>
<td></td>
<td></td>
<td>Effective Period</td>
<td>SentForm 2020-02-02 21:56:07 Sent Questionnaire to patient: Newman, Alice</td>
</tr>
<tr>
<td>Food Insecurity (Hunger Vital Sign)</td>
<td></td>
<td></td>
<td>2020-02-02 to 2020-02-22</td>
<td>SentForm 2020-02-02 21:56:07 Sent Questionnaire to patient: Bates, Jeremy</td>
</tr>
</tbody>
</table>
Patient App

LOA3
Identity-trusted

DirectTrust
Consumer Address

Consent to share and provide screening responses
- Patient uses mobile app with trusted identity
Screening App actor

Manage data interactions with patients associated with the Task
- Receive patient responses digitally, using standard coded data

### SDC Questionnaire Transactions Logs

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<th>Effective Period</th>
<th>CGS Activities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample task to perform screening on a list of patients</td>
<td>Requester PMEHR</td>
<td>In Progress</td>
<td>Created 2020-02-03 03:56:06</td>
<td>Sent Questionnaire to patient: Nelson, Lisa</td>
</tr>
<tr>
<td>Questionnaire</td>
<td>Requester Demo</td>
<td>In Progress</td>
<td>Updated 2020-02-03 04:02:28</td>
<td>ReceivedResponse 2020-02-02 22:02:27 Patient Nelson, Lisa consented to share his/her screening response and filled out the questionnaire</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Effective Period 2020-02-02 to 2020-02-22</td>
<td>Update 2020-02-02 22:02:28</td>
</tr>
</tbody>
</table>
PMEHR actor

Task initiator receives patient screening info via digital communication - Screening info attaches to patient chart via patient info provided in the request

Eliminate Patient Matching Problems
Gravity Project

Use Case 1 – Gather SDOH data during a clinical encounter

Scene 2 – address SDOH issues using the same workflows used to manage a patient’s medical conditions
Document clinical observations, diagnoses, goals, and interventions
- Record SDOH data using existing clinical workflows

**Vital Signs**
- See the patient’s vital sign measurements during this encounter (include current date for clarity)
- Blood Pressure: Systolic: 113/ Diastolic: 69
- Temperature: 97.3
- Weight: 140 pounds
- Height: 5 feet 5 inches
- BMI: 23.3

**Mental Status**
What is the mental status of the patient?
- Mood and affect are normal.

**Goals**
What are the patient’s or practitioner’s present goals for addressing these problems and concerns?
- Shared Goal resolve nausea
- Shared Goal Normal appetite

**Plan of Treatment**
For each problem or concern being addressed:
- What planned interventions still need to be completed or have been ordered?
- What planned interventions have been removed/completed? (include the reason for not performing the intervention or point to the intervention performed listed below)
- What new planned interventions have been ordered or need to be completed?
- What changes need to be made to the patient’s medication list?
- What goals have previously been set for addressing concerns by the clinician, the patient, or family?

**Past Medical History**
- What is the patient’s past medical history at this point in time?
- Cervical fusion C3-C4 2015
- Appendectomy 1952

**Social History**
- What was the practitioner’s assessment of the general health status of the patient?
- Well-developed, well-nourished Caucasian male in no acute distress
- Hungry, vital signs: 94/55 01/03/2020
- Hungry, vital signs: 3/6/6

**Interventions Performed**
What interventions were performed? (Include interventions performed during this encounter)

None.
Gravity Project
Use Case 1 – Gather SDOH data during a clinical encounter

Scene 3 – allow other systems to request clinical data for secondary uses
Clinical R/R actor

Communication Request

- Request Data to be returned

PMEHR
MaxMD Medical Care Solutions https://ehr-sandbox.directmdemail.com:844:

- What are the A1C results after mm/dd/yyyy for this patient?
- What are the Screening Documents after 02/02/2020 for this patient?
- What are the Screening Response after mm/dd/yyyy for this patient?
- What are the patient's vital sign measurements in reverse chronological order?
- What are the patient's active conditions?
- What is the patient's current smoking status?
- What medications is the patient taking?
- What devices does the patient have?
- What procedures has the patient had?

Send
PMEHR actor

Receive the request via automated FHIR-enabled processes

PMEHR Demo Dashboard - CDEX Tasks

22 Task(s)

<table>
<thead>
<tr>
<th>Task Requestor</th>
<th>Patient</th>
<th>Task Payloads</th>
<th>Result</th>
<th>Status</th>
<th>Created Time</th>
<th>Occurrence</th>
</tr>
</thead>
<tbody>
<tr>
<td>DemoPayer</td>
<td>Lisa</td>
<td>What are the Screening Documents after 2020-02-02 for this patient?</td>
<td></td>
<td>active</td>
<td>02/02</td>
<td>10:29:21</td>
</tr>
</tbody>
</table>

FHIR Endpoint: https://ehr-sandbox.directmdemail.com:8443/fhir/baseR4
### PMEHR actor

Review data before it is returned, or automate the response process

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**OAuth authenticated**

Posted response to requestor’s endpoint: https://payer-sandbox.directmdemail.com:8443/fhir/baseR4

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<tr>
<td>DemoPayer</td>
<td>Lisa</td>
<td>What are the Screening Documents after 2020-02-02 for this patient?</td>
<td>1 query result(s)</td>
<td>completed</td>
<td>02/02</td>
<td>10:29:21</td>
</tr>
<tr>
<td>MaxMDDemoPayerOrganization-eval 2200 Fletcher Ave, Fort Lee, NJ 07024</td>
<td>Nelson</td>
<td></td>
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**FHIR Endpoint:** https://ehr-sandbox.directmdemail.com:8443/fhir/baseR4
Clinical R/R

Clinical data request response received automatically for digital processing

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<th>Task</th>
<th>Provider</th>
<th>Patient</th>
<th>Task Created Time</th>
<th>Documents Ready to Review</th>
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<tr>
<td>CommunicationRequest: Please return the requested data</td>
<td>Good Health</td>
<td>Lisa Nelson</td>
<td>02/02 10:29:21</td>
<td>Response 1 at 02/02 10:30:49</td>
</tr>
</tbody>
</table>

The returned Communication includes the original CommunicationRequest identifier to support automated processing to link the response with the request.
Clinical data request response received automatically for digital processing

### Composition

**Food Insecurity (Hunger Vital Sign)**

Social History
Consent

PMEHR Demo has permission to collect and share the SDOH Screening information gathered by this questionnaire with the organization initiating the screening request. The information may be used for treatment, payment, and operations in support of care being delivered for this patient.

**Food Insecurity - Questionnaire Response**

**Hunger Vital Sign [HVS]**

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<td>Within the past 12Mo we worried whether our food would run out before we got money to buy more</td>
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<td>Within the past 12Mo the food we bought just didn't last and we didn't have money to get more</td>
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Clinical R/R actor

Identical process for request whole documents too!
PMEHR actor

View and sign requested documents prior to returning them, or automate this workflow.