2022-05 PACIO Integration of Post-Acute Care IGs

- Short Description
- Long Description
- Type
- Submitting Work Group/Project/Accelerator/Affiliate/Implementer Group
- Track Lead(s)
- Track Lead Email(s)
- Related Tracks
- FHIR Version
- Specification(s) this track uses
- Artifacts of focus
- Expected participants
- Zulip stream
- Track Kick Off Call
- Track Details

Short Description
The PACIO project seeks to demonstrate many FHIR IGs related to post-acute care working together to allow this data to follow the patient and be available for use at all points of care.

Long Description
Three objectives:
1. Focus on integration with other Implementation Guides
   - Re-assessment Timepoints (STU1)
   - Advance Directives (STU1)
   - Multiple Chronic Conditions (MCC) eCarePlan (AHRQ)
   - Electronic Long-Term Services and Support (eLTSS)
   - Gravity SDOH (STU2)
   - Standard Personal Health Record (MITRE)
   - Electronic Clinical Quality Measure (eCQM) calculations (Clinical Reasoning Track)
2. Continue to expand upon the SPLASCH use case. Exchange data beyond spoken language expression/comprehension, swallowing
3. Validate system integration using a new IG framework for Cognitive Status, Functional Status, and potentially SPLASCH

Type
Test an Implementation Guide

Submitting Work Group/Project/Accelerator/Affiliate/Implementer Group
PACIO with sponsoring workgroups Patient Care, Community-Based Care and Privacy, and Patient Empowerment.

Track Lead(s)
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Related Tracks
2022-05 Care Planning

FHIR Version
FHIR R4

Specification(s) this track uses
- PACIO SPLASCH (https://paciowg.github.io/splasch-ig/)
- PACIO Functional Status (http://build.fhir.org/g4HL7/fhir-pacio-functional-status/)
- PACIO Cognitive Status (https://build.fhir.org/g4HL7/fhir-pacio-cognitive-status/)
- PACIO Advance Directives (http://build.fhir.org/g4HL7/fhir-pacio-ad/)
- PACIO Re-Assessment Timepoints (http://build.fhir.org/g4HL7/fhir-pacio-rt/)
- Pseudo DEL (Update in progress)
- Prototype quality assessment system (Update in progress)
- eLTSS Care Plan (http://hl7.org/fhir/ig/eLTSS)
- Gravity SDOH Clinical Care (http://build.fhir.org/g4HL7/fhir-sdoh-clinicalcare/)
- Patient Data Receipt (https://open-health-manager.github.io/patient-data-receipt-ig/)

Artifacts of focus

Expected participants
- MITRE
- Patient Centric Solutions
- ADVault
- Others under discussion

Zulip stream
https://chat.fhir.org/#narrow/stream/208867-Post-Acute-Care

Track Kick Off Call
When: Wednesday April 27, 2022 1:30pm - 2:30pm ET (During the PACIO Weekly Meeting)
Where: https://mitre.zoomgov.com/j/1609856747 or Dial in - 1 669 254 5252 Meeting ID: 160 985 6747
Materials: Recording:

Track Details
For this track, we will be following Betsy Johnson through her care journey and using it to demonstrate how data relevant to post-acute care can flow between systems, inform her care, and keep her family up-to-date.

Track Scenario:
### Scene 1: Home - TX

**Description:** Betsy is able to care for herself in her home with assistance from Long-term Services and Support. Her hearing has been getting worse over the past few months, so she is evaluated for hearing aids.

**Time Period:** Late 2020

**Key Integration Demonstrations:**
- Transfer of hearing data using the SPLASH CHG
- Push of data to a health manager

**Scene steps:**
- Betsy experiences a stroke and is taken to the hospital. Hospital staff pull Betsy's current information from her Health Manager.
- Betsy receives care, she is evaluated and treated and relevant information is captured in the hospital documentation systems.
- Betsy has stabilized and is being discharged to a skilled nursing facility.

### Scene 2: Hospital - TX

**Description:** Betsy is taken to the hospital after she experiences right side weakness and slurred speech where she is treated for a stroke.

**Time Period:** Early- April 2021

**Key Integration Demonstrations:**
- Access previously collected data from health manager
- Use of prior functioning information to inform ongoing care
- Transfer of hearing aid data using the functional status, cognitive status, and SPLASH CHG
- Push of data collected in an acute setting to a health manager

**Scene steps:**
- Betsy transfers to a skilled nursing facility, where nursing performs intake including pulling Betsy's current information from her Health Manager.
- SDFH staff perform periodic evaluations and required assessments (PPS, OASIS admission, 60 and 120 day followups, discharge). Betsy’s PCP wants to keep track of her progress. He is able to use the structure provided by the Re-Assessment Timepoints to find the most current information about Betsy.
- Betsy has been discharged and is being discharged to her home where she will continue to receive care from a home health agency.

### Scene 3: Skilled Nursing Facility - TX

**Description:** Betsy is taken to the hospital after she experiences right side weakness and slurred speech where she is treated for a stroke.

**Time Period:** Late 2020

**Key Integration Demonstrations:**
- Access previously collected data from health manager
- Push of data collected in an acute setting to a health manager

**Scene steps:**
- Betsy transfers to a skilled nursing facility, where nursing performs intake including pulling Betsy's current information from her Health Manager.
- SDFH staff perform periodic evaluations and required assessments (PPS, OASIS admission, 60 and 120 day followups, discharge).
- Betsy’s PCP wants to keep track of her progress. He is able to use the structure provided by the Re-Assessment Timepoints to find the most current information about Betsy. Betsy has been discharged and is being discharged to her home where she will continue to receive care from a home health agency.

### Scene 4: Home Health Agency - TX

**Description:** Betsy receives long-term care in a nursing home care to continue her stroke recovery.

**Time Period:** Late-February 2021 through Early-April 2021

**Key Integration Demonstrations:**
- Access previously collected data from health manager
- Push of data collected in an acute setting to a health manager

**Scene steps:**
- Betsy transfers to a skilled nursing facility, where nursing performs intake including pulling Betsy's current information from her Health Manager.
- SDFH staff perform periodic evaluations and required assessments (PPS, OASIS admission, 60 and 120 day followups, discharge). Betsy’s PCP wants to keep track of her progress. He is able to use the structure provided by the Re-Assessment Timepoints to find the most current information about Betsy. Betsy has been discharged and is being discharged to her home where she will continue to receive care from a home health agency.

### Scene 5: Home - MI

**Description:** Betsy and her family for an extended holiday now that she has completed her stroke recovery. While there, she decides to update her advance directive.

**Time Period:** Mid-November 2021

**Key Integration Demonstrations:**
- Access of care data by family members
- Transfer of data using the Advance Directives IG
- Advance directives updates and access by family members

**Scene steps:**
- Betsy decides to change her First Alternate HCA after reflecting on her stroke care and new diabetes plan with the social worker who administers a survey to assess Betsy's transportation needs and starts a referral process that gets Betsy the help she needs.
- Betsy and her PCP review her prior care plan, current A1c values, and new challenges and restrictions following her stroke. Updates are made to her MOC care plan to reflect the new plan.
- Betsy has completed her stroke treatment and is being discharged from the SNF. Betsy and her Social Worker discuss her transportation needs. They agree that she can continue to get to the hospital she needs to stay in her home. She reviews her stroke care and new diabetes plan with the social worker who updates her aLTSS care plan.

### Scene 6: Hospital - MI

**Description:** While in Michigan, she Betsy and is taken to the hospital.

**Time Period:** Early-December 2021

**Key Integration Demonstrations:**
- Information sharing and accessibility not restricted by location and data on crisis data
- Use of prior functioning information to inform ongoing care
- Access of care data by family members

**Scene steps:**
- Betsy has a fall and is taken to the hospital. Hospital staff pull Betsy's current information from her Health Manager and is able to see that she had a recent stroke, which informs her care, and also her updated advance directive details.
- Hospital staff documents details of Betsy’s treatment. After a few days, Betsy is discharged and is discharged back to Charle's home in Texas. Betsy's PCP wants to keep track of her progress. He is able to use the structure provided by the Re-Assessment Timepoints to find the most current information about Betsy.

### System Roles and Data Flow:

- **System Roles:**
  - Home Health Agency
  - Skilled Nursing Facility
  - Hospital
  - Home Health Agency

- **Data Flow:**
  - Initial data loaded into Betsy’s Health Manager, including current medications, problems, and allergies, advance directive details, diabetes care plan, as TSS care plan, prior cognitive - functional - language level.
  - Hearing evaluation performed and data captured by audiologist and hearing aids prescribed.
  - Betsy’s PCP wants to keep track of her progress. He is able to use the structure provided by the Re-Assessment Timepoints to find the most current information about Betsy. Betsy has been discharged and is being discharged to her home where she will continue to receive care from a home health agency.
<table>
<thead>
<tr>
<th>Role</th>
<th>Description</th>
<th>Data Capture, Use, or Both</th>
<th>Relevant IGs</th>
<th>Scenario (s)</th>
<th>Implementers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health Manager</td>
<td>Patient-owned central repository for their health data</td>
<td>Central Repo</td>
<td>Patient Data Receipt</td>
<td>All</td>
<td>MITRE Open Health Manager</td>
</tr>
<tr>
<td>Clinician Viewer</td>
<td>Clinician-facing portal supporting the display of relevant information about the patient's care, including any or all of:</td>
<td>Use</td>
<td>PACIO ADI, eLTSS, MCC, Functional Status, Cognitive Status, SPLASCH observations, Re-Assessment Timepoints, SDOH data</td>
<td>Potentially Many</td>
<td>Patient Centric Solutions</td>
</tr>
<tr>
<td></td>
<td>- Advance Directives</td>
<td></td>
<td></td>
<td></td>
<td>?? MMC Application ??</td>
</tr>
<tr>
<td></td>
<td>- Care Plans (eLTSS, MCC)</td>
<td></td>
<td></td>
<td></td>
<td>?? Gravity Client ??</td>
</tr>
<tr>
<td></td>
<td>- Functional, cognitive, and SPLASCH observations</td>
<td></td>
<td></td>
<td></td>
<td>?? Pseudo EHR ??</td>
</tr>
<tr>
<td>Patient Viewer (Read Only)</td>
<td>Patient- and Family-facing app supporting the display of relevant information about the patient's health, including any or all of:</td>
<td>Use</td>
<td>PACIO ADI, eLTSS, MCC, Functional Status, Cognitive Status, SPLASCH observations, Re-Assessment Timepoints, SDOH data</td>
<td>Potentially Many</td>
<td>Patient Centric Solutions</td>
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<td></td>
<td>?? Pseudo EHR ??</td>
</tr>
<tr>
<td>LTSS EHR</td>
<td>Portal allowing a social worker to document long-term services and support care plans and interventions</td>
<td>Both</td>
<td>PACIO ADI, eLTSS, MCC, Functional Status, Cognitive Status, SPLASCH observations, Re-Assessment Timepoints, SDOH data</td>
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<td>?? Altarum ??</td>
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<td>?? Carerecurs (backup) ??</td>
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<td>?? MITRE Pseudo EHR (backup)</td>
</tr>
<tr>
<td>MCC Care Plan Input</td>
<td>Care plan data</td>
<td>Capture</td>
<td>MCC Care Plan</td>
<td>4C</td>
<td>manual data fed in</td>
</tr>
<tr>
<td>Advance Directives CDA generation</td>
<td>process for generating Advance directive data as CDAs</td>
<td>Capture</td>
<td>CDA-based Advance Directives</td>
<td>5</td>
<td>ADVault (My Directives)</td>
</tr>
<tr>
<td>Advance Directives Server</td>
<td>Server accepting Advance Directives as CDAs (PCAP), turning into FHIR, and then push to Health Manager</td>
<td>Capture</td>
<td>PACIO ADI, optional Patient Data Receipt</td>
<td>5</td>
<td>ADVault</td>
</tr>
<tr>
<td>SDOH Client</td>
<td>User-facing client capable of capturing and displaying social determinants of health data. Captured data sent to Health Manager for storage.</td>
<td>Both</td>
<td>Gravity SDOH Clinical Care</td>
<td>4B</td>
<td>Gravity Clients</td>
</tr>
<tr>
<td>DEL Server</td>
<td>Server providing FHIR-based access to the public CMS Data Element Library data</td>
<td>NA</td>
<td>Pseudo DEL</td>
<td>2, 3</td>
<td>MITRE Pseudo DEL</td>
</tr>
<tr>
<td>Assessment Application</td>
<td>Clinician-facing client allowing users to select and complete CMS-mandated assessments by pulling details from the Pseudo DEL</td>
<td>Capture</td>
<td>Pseudo DEL, Structured Data Capture, Cognitive Status, Functional Status</td>
<td>2, 3</td>
<td>MITRE Assessment App</td>
</tr>
<tr>
<td>Hospital EHR</td>
<td>Client/Server storing and allowing interaction with observations and other data related to treatment in acute settings</td>
<td>Both</td>
<td>Cognitive Status, Functional Status, SPLASCH, Re-Assessment Timepoints, Patient Data Receipt</td>
<td>2, 6</td>
<td>MITRE Pseudo EHR</td>
</tr>
<tr>
<td>EHR Type</td>
<td>Description</td>
<td>Data Elements</td>
<td>Timepoints</td>
<td>Notes</td>
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<tr>
<td>SNF EHR</td>
<td>Client/Server storing and allowing interaction with observations and other data related to treatment in post-acute settings, such as skilled nursing facilities</td>
<td>Both</td>
<td>Cognitive Status, Functional Status, SPLASH, Re-Assessment Timepoints, Patient Data Receipt</td>
<td>3 MTRE Pseudo EHR</td>
<td></td>
</tr>
<tr>
<td>HHA EHR</td>
<td>Client/Server storing and allowing interaction with observations and other data related to treatment in home health settings</td>
<td>Both</td>
<td>Cognitive Status, Functional Status, SPLASH, Re-Assessment Timepoints, Patient Data Receipt</td>
<td>4 MTRE Pseudo EHR</td>
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<tr>
<td>eCQM Server</td>
<td>Evaluates care gaps</td>
<td>DQM</td>
<td>4A Clinical Reasoning track</td>
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</tbody>
</table>