

# The Future is Now: Enabling Greater Post-Acute Care Interoperability

## Background

### Why? Post Acute Care (PAC) Needs

After a hospitalization, CMS found 45% of Medicare beneficiaries required PAC services. Home Health Agencies (HHAs) and Skilled Nursing Facilities (SNFs) were the most utilized services.

### PACIO Project

Established February 2019, the PACIO Project is a collaborative effort between industry, government and other stakeholders, with the goal of establishing a framework for the development HL7® FHIR® implementation guides to facilitate health information exchange.

### CMS Data Element Library (DEL)

The DEL is a centralized resource for CMS assessment data elements (e.g., questions and response options), and their related mappings to nationally accepted health IT standards.



<http://pacioproject.org>

<https://del.cms.gov>

**Summary:** Description of progress in the United States towards interoperability from the CMS sponsored PACIO Project for clinical concepts impacting Post-Acute Care (PAC) and other settings. Concepts include mental/cognitive status, functional status (including speech-language-cognitive communication-swallowing-hearing), advance care planning, and identification of reassessment timepoints to group information during data exchange.

Clarice Grote, MS, OTR/L<sup>1</sup>, Jessica Skopac, PhD, JD, MA<sup>2</sup>, Dave Hill<sup>2</sup>, Roberta Brooks, MA, CCC-SLP<sup>3</sup>, Lorraine Wickiser, BA, RN, BSN, CPC-A<sup>4</sup>, Ashleigh Pristas MS, CCC-SLP, PNAP<sup>5</sup>, Michele Simler MS, CCC-SLP, FNAP<sup>6</sup>, Inoka Tennakoon, MS, CCC-SLP<sup>7</sup>, Joanne Wisely, MA, CCC-SLP, ACE, FNAP<sup>8</sup>, Tina Wilkins<sup>2</sup>, Brian Meshell<sup>2</sup>, Uba Backonja, PhD, MS, RN<sup>2</sup>, Howard Capon, MPH, NRP<sup>2</sup>  
<sup>1</sup> AOTA, Bethesda, MD & Amplify OT, Durham, NC; <sup>2</sup>The MITRE Corporation, McLean, VA; <sup>3</sup>Moss Rehab Hospital, Elkins Park, PA; <sup>4</sup>Centers for Medicare & Medicaid Services, Baltimore, MD; <sup>5</sup>Restore Therapy Services, Pelham, Alabama; <sup>6</sup>Athletico, Oak Brook, Illinois; <sup>7</sup>ASHA, Rockville, MD; <sup>8</sup>Widener University, Chester, PA

## Our Approach

### Data Exchange Using FHIR Standard

Develop FHIR® Implementation Guides and Reference Implementations validated by the HL7® Community that EHR vendors will build into their system

Provide a standardized method of exchanging health information across healthcare settings

**F – Fast (to design & implement)**  
**H – Healthcare**  
**I – Interoperability**  
**R – Resources (building blocks)**

### CMS PAC Assessments: Submitted Electronically

- LCDS, RAI-MDS, OASIS, IRF-PAI, HIS, FASI
- Starting point for data content to be exchanged

### PACIO Meetings

Platform for members to provide input into the use cases, data models and development of the FHIR framework

### Connectathons

Opportunity for vendors to test the client and/or server and provide feedback

Participants take the role of server or client depending on the organization they represent

Connectathon is like a “test kitchen” where the Implementation Guide is a “recipe” that can be tested and refined by participants

### Balloting

Proposing a standard that is validated and accepted by HL7 community

To participate in a ballot, the group must strengthen their case by participating in Connectathons

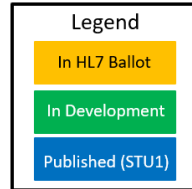
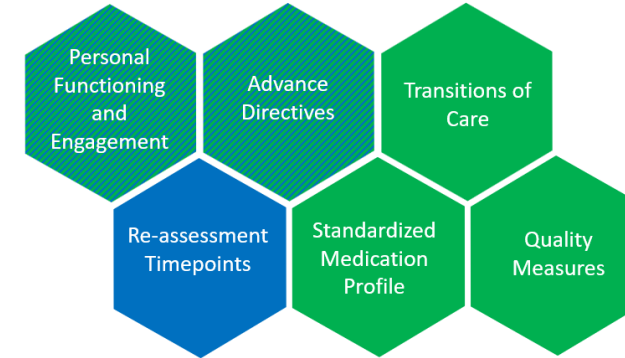
### Adoption

EHR Vendors adopt the IG

Adoption of the framework across the healthcare spectrum

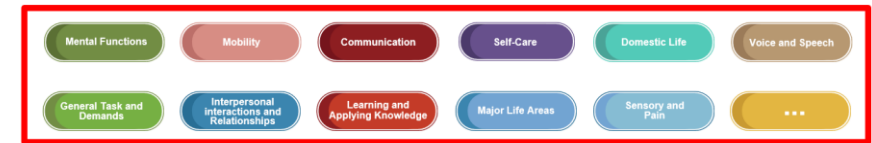
## Challenges

### Define Use Cases



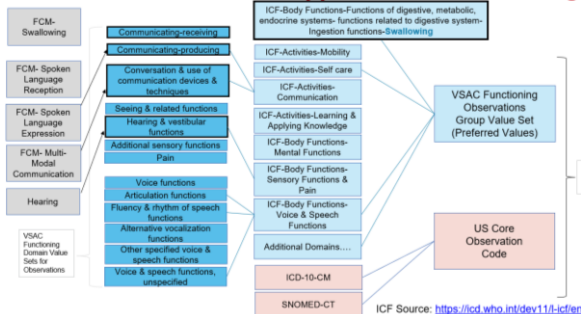
### Determine Framework to Ground Content Domains

- Leverage Gravity Project’s approach identifying specific domains to organize information exchange in PACIO’s FHIR Implementation Guides (IGs)
- Domains grounded by the [International Classification of Functioning, Disability and Health](#) (ICF)



## Findings & Implications

### Draft Domain Value Set Approach for Functioning

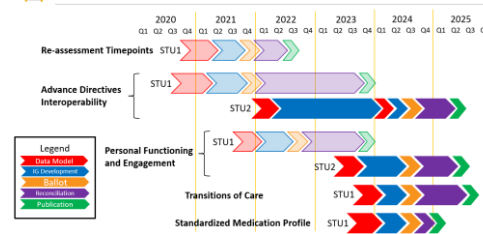


### Exemplar: May 2022 HL7 Connectathon PACIO Integration Track

- 23+ participants created, exchanged, and queried information between disparate health IT systems, in a consumable format to facilitate patient directed, securely delivered sharing between clinicians, patients, caregivers, and family.
- Demonstrated 9 FHIR® IGs working together to allow data to follow a patient and be available for use at all points of care.

## What’s Next?

### PACIO Use Cases and Timelines



**Share** PACIO experience and promote adoption of FHIR® standard  
**Explore** impact of consolidation of meaning across LOINC codes (in DEL) for similar clinical concepts  
**Demonstrate** through Proof of Concepts (POC) working with implementers through real data/real patient pilots

### Long term challenges and opportunities:

- Healthcare ecosystem will need workflows and support for reconciling data from various contributors to determine the “source of truth”
- Cross-collaboration and cross-pollination across the health eco-system

## Resources

Project website  
<http://pacioproject.org/>

Email: [info@PACIOproject.org](mailto:info@PACIOproject.org)

HL7 Confluence Page:  
<https://confluence.hl7.org/display/PC/PACIO+Project>

GitHub: <https://github.com/paciowg>

YouTube:  
[https://www.youtube.com/channel/UCclftkAo\\_58B5-qf2luybyg](https://www.youtube.com/channel/UCclftkAo_58B5-qf2luybyg)

