An Overview of the ONC/PCOR Project: Patient Matching, Aggregating, and Linking (PMAL)

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November 30, 2017

PMAL Project Purpose

Multi-faceted approach to addressing the obstacles of linking patient data across research, claims, and clinical data sets to support a PCOR data infrastructure that enables standardization and sharing of patient data across organizations

TOPIC AREAS

1. Patient Matching
2. Privacy and Security Application Programming Interface (API)
3. Directory Services
4. Population Health (PopHealth) PMAL Tools
5. Distributed Ledger Technology (Blockchain)

1. Patient Match

Multiple pilots staged to address data quality, patient match rates, and promote attribute standardization for interoperability

COMPONENTS

- Data Maturity and Gold Standard Data Set
- Improve Data Quality at Registration
- Patient Match Algorithm Challenge
- Patient Match Adjudication Tool
- Patient Record Merge Tool

FOLLOW ON ACTIVITIES

- Share and coordinate reports, journal articles and lessons learned with similar PCORI and industry efforts

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2. Privacy and Security Profiles for Open APIs

Develop Security Profiles to promote the use of Open

APIs **COMPONENTS**

- Health Relationship Trust (HEART) Profiles
- Open Source Tools and Resources
- Move Health Data Forward Challenge

OPPORTUNITIES FOR COLLABORATION

- Leverage the work for other PCOR projects
- Coordinate with other Federal agencies (NIST, GSA, CMS, VA)
- Share the work with the HL7 , OpenID Foundation, Kantara   and other Standards Development Organizations (SDOs)

3. Directory Services

Explore current capabilities to uniquely identify a provider.

COMPONENTS

- Healthcare Provider Directory Workshop held April 2016

- Continue to work with industry to consider ways to incorporate National Plan & Provider Enumeration System (NPPES)

FOLLOW ON ACTIVITIES

- Work with the private and public sectors to identify gaps and drive provider directories forward.

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4. PopHealth

Extended API Security and Patient Matching to PopHealth Quality Measures Application.

COMPONENTS

- Enables Patient Matching services

- Incorporate Claims Data

- Common Secure API Access to all resources

- Proving the Potential: A Health Data and Standards Code-A-Thon April 24-25 2017

FOLLOW ON ACTIVITIES

- Leverage the work for other PCOR projects

- Promote use of PopHealth tool resources

5. Distributed Ledger Technology (aka Blockchain)

Explore use of Distributed Ledger Technology for Healthcare and/or Health Related Research.

COMPONENTS

- White Papers

- Educational Workshop with NIST Sept 2016

- Blockchain in Healthcare Code-A-Thon March 14-15

FOLLOW ON ACTIVITIES

- Engage with industry and research community to follow developments

- Share Lessons Learned with Federal Partners

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Publicly available Resources

- Patient Match Merge Tool

  » Description of PM Services:
    https://github.com/mitre/ptmatch/blob/master/api/swagger.yaml

  » http://mitre.github.io/test-harness-interface/

- FHIR based Electronic Quality Measures (eCQM)

  » Description of eCQM Services:
    https://github.com/mitre/ecqm/blob/master/api/swagger.yaml

  » fhir-patient-api - https://github.com/mitre/fhir-patient-api

  » node-qme - https://github.com/mitre/node-qme

  » node-cqm-engine - https://github.com/mitre/node-cqm-engine

  » the ecqm server - https://github.com/mitre/ecqm

  » ecqm-frontend - https://github.com/mitre/ecqm-frontend

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- Open API

    » HEART WG: http://openid.net/wg/heart

    » HEART Security Profiles : https://openid.bitbucket.io/HEART/

    » OpenID Connect Reference Implementation: https://github.com/mitreid-connect/OpenID-Connect-Java-Spring-Server/

- Provider Directory Related Tools

    » https://github.com/TransparentHealth/hhs_oauth_server

    » https://github.com/HHSIDEAlab/provider-data-tools

    » https://github.com/TransparentHealth/python-poetri

- Blockchain White Papers and related resources

    » http://healthit.gov/blockchain

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