## Short Description
Continue the testing and use of the Data Exchange for Quality Measures (DEQM IG) for gaps in care reporting use cases using FHIR-based eCQMs. Testing the use of the member attribution for gaps in care.

## Long Description
The Connectathon will exercise the Risk Based Contract Member Attribution List FHIR IG and validate:

- Specific APIs proposed
- Specific Operations proposed
- Specific Data Structures proposed for representing the Member Attribution List. (Data Structures include Resources, profiles, valuesets, extensions)
- Continue testing the gaps in care profiles and `$care-gaps` operation specified in the September 2020 Ballot DEQM IG (with gaps in care content)
- Continue testing gaps in care use cases focusing on an interactive and end-to-end scenario and closely coordinate with the Clinical Reasoning Track
  - Run `$care-gaps` using the colorectal cancer screening FHIR-based measure written with CQL (CMS130v7: Colorectal Cancer Screening)
  - Use `$submit-data` or `$collect-data` to close some gaps identified in the gaps in care report
  - Re-run `$care-gaps` for an updated gaps in care report to see that gaps were closed
  - Report Summary measure report
- Test the use of `populationReference` extension to support associating a specific evaluatedResource to a population
- Test the use of DaVinci Risk Based Contracts Member Attribution (ATR) List IG to attribute members when create a gap in care report
- Test the use of bulk data

## Type
Test an Implementation Guide

## Submitting Work Group/Project/Accelerator/Affiliate/Implementer Group
Financial Management

## Track Lead(s)
Nagesh Bashyam, David Degandi, Anna Taylor

## Track Lead Email(s)
- Nagesh Bashyam (nagesh.bashyam@drajer.com)
- David Degandi (Degandi@cambiahealth.com)
- Anna Taylor (ataylor@org)
- CMS DPC Team

## Track Kick Off
May 4, 2022 9:00 AM CT (10:00 AM ET)

## Related Tracks
Clinical Reasoning

## FHIR Version
R4

## Specification(s) this track uses
- Da Vinci Risk Based Contracts Member Attribution (ATR) List IG (CI Build)
- FHIR Resources and Operations:
  - Group Add Operation: [http://build.fhir.org/ig/HL7/davinci-atr/OperationDefinition-member-add.html](http://build.fhir.org/ig/HL7/davinci-atr/OperationDefinition-member-add.html)
  - Group Remove Operation: [http://build.fhir.org/ig/HL7/davinci-atr/OperationDefinition-member-remove.html](http://build.fhir.org/ig/HL7/davinci-atr/OperationDefinition-member-remove.html)
<table>
<thead>
<tr>
<th>Artifacts of focus</th>
<th><a href="http://build.fhir.org/ig/HL7/davinci-atr/OperationDefinition-member-remove.html">http://build.fhir.org/ig/HL7/davinci-atr/OperationDefinition-member-remove.html</a></th>
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| Expected participants | Participants list for the current track is still developing and we will update as the list is finalized. The previous participant list is enclosed.  
- Drajer LLC  
- CMS DPC Team |
| Zulip stream | [https://chat.fhir.org/#narrow/stream/214784-Da-Vinci.20ATR](https://chat.fhir.org/#narrow/stream/214784-Da-Vinci.20ATR) |
| Track Kick Off Call | please review the Phase 2 work - 5-minute overview recording here and let us know if you plan to participate (add your name to the expected participants list above or let us know on the zulip stream for an orientation.) |

### Track Details

**Producer Role (Server)**

- System that will be responsible for creating the Member Attribution List
- Server has to support the following resources:
  - Patient
  - Practitioner
  - PractitionerRole
  - Coverage
  - Organization
  - Group
  - RelatedPerson (Optional)
- APIs that would be required:
  - Group/$export with the above resource types being extracted. (Phase 1, already balloted, tested and published)
  - Search/Read on Group resource (Phase 1 of the IG, already balloted, tested and published)
  - POST on GROUP (Creation of a Group for Phase 2 - getting ready for ballot)
  - POST on PATIENT (Creation of a Group for Phase 2 - getting ready for ballot)
  - POST on ORGANIZATION (Creation of a Group for Phase 2 - getting ready for ballot)
  - POST on PRACTITIONER (Creation of a Group for Phase 2 - getting ready for ballot)
  - Group/[id]/$add-member operation (Modifying Group for Phase 2)
  - Group/[id]/$remove-member operation (Modifying Group for Phase 2)
- Effort Required: Few months if starting from scratch.

**Consumer Role (Client)**

- System that will be responsible for consuming the Member Attribution List.
- APIs that would be required:
  - Ability to Search/Read on the Group resource (Phase 1, already balloted, tested and published)
  - Invoke Bulk API for Group/$export (Phase 1, already balloted, tested and published)
  - Consume the data that is received and at least analyze the data. (Phase 1, already balloted, tested and published)
  - POST resources to create GROUPS, PATIENTS, PRACTITIONER, ORGANIZATION
  - Support invocation of Group/[id]/$member-add operation (Modifying Group for Phase 2)
  - Support invocation of Group/[id]/$member-remove operation (Modifying Group for Phase 2)
- Effort Required: Few weeks if starting from scratch.

**Scenarios**

**Scenario 1: Consumer (Provider Organization) discovers the applicable Group Resource in Producers (Payer Organization) system**

- **(Part of Phase 1 Implementations)**

Ability for a Provider organization to discover the Group Resource representing the Member Attribution List that is applicable to their specific organization.

For example, Multicare would like to know which Group Resource in Cambi’a System is applicable for their organization using the Contract Identifier or Settlement Entity Name

Pre-condition:

- One of the following queries will be executed
  - Provider Organization knows the Settlement Entity Name or Contract Identifier

API:

```
GET <Server Base URL>/Group?identifier=http://example.org/groups|12345
```

Success Criteria:

- Receive Group Resource from the API call.
Scenario 2: Consumer (Provider Organization) Requests the Member Attribution List from the Producer (Payer Organization)

- (Part of Phase 1 Implementations)

Ability for a Provider organization to request the full Member Attribution List that is applicable to their specific organization. Note: The request has to be accepted by the Payer and eventually a Member Attribution List would be made available. This is an asynchronous request following Bulk Data IG specifications.

For example, Multicare would like to request the Member Attribution List from Cambia for a specific contract.

Pre-condition:

- Provider Organization knows the specific Group Resource for the specific contract that represents the Member Attribution List.
- The Group Id of the specific Group Resource that is applicable and was retrieved as part of Scenario 1

API

GET or POST <Server Base URL>/Group/[Group id]/$export?_type=Patient,Practitioner,PractitionerRole, Organization,Location,Coverage,RelatedPerson

Success Criteria:

- Request is accepted by the Payer and a Content Location is received as part of the Response.

Scenario 3: Consumer polls the Content Location for Request Completion and Member Attribution List data location.

- (Part of Phase 1 Implementations)

Ability for a Provider organization to poll the Content Location received as part of Scenario 2 to determine completion status of the Member Attribution List Request issued in Scenario 2 and once completed identify the location of the files that represent the Member Attribution List.

For example, Multicare would poll the content location received as part of the response in Scenario 2.

Pre-condition:

- Provider Organization has requested the Member Attribution List which was accepted by the Payer.
- Provider Organization has the URL for the Content Location where the request status can be polled.

API

GET <Content Location from Scenario 2 response>

Success Criteria:

- Completion Status indicated by 200 HTTP code and the Response Body containing the URLs for the files representing the Member Attribution List.
- There needs to be at least one URL for each of the resource types specified using the _type parameter in the Scenario 2. (Patient, Practitioner, PractitionerRole, Organization, Location, Coverage, RelatedPerson)

Scenario 4: Consumer retrieves the files representing the Member Attribution List

- (Part of Phase 1 Implementations)

Ability for a Provider organization to retrieve each of the files that represent the Member Attribution List.

For example, Multicare retrieves each of the NDJSON files representing the Member Attribution List.

Pre-condition:

- Provider Organization has the URLs to retrieve the files representing the Member Attribution List from the response indicating that the export request was completed.

API

GET <File URL for each Resource identified in Scenario 3 completion response>

Success Criteria:
Retrieve the NDJSON files for each of the following resources:
- Patient, Practitioner, PractitionerRole, Organization, Location, Coverage, RelatedPerson

Scenario 5: Consumer creates PATIENT, PRACTITIONER and ORGANIZATION resources

- (Part of Phase 2 Implementations)

Ability for a Provider organization to create Patient, Practitioner and Organization resources to be used in the Group.

For example, a Provider organization planning to use CMS DPC system would create these resources before creating the Group.

Pre-condition:
- Provider Organization has the URLs
- Provider Organization has a treatment relationship with the Patient.

API

POST <BaseURL>/[Patient|Practitioner|Organization]

Success Criteria:
- Verify that the resources have been created.

Scenario 6: Consumer creates Group resource

- (Part of Phase 2 Implementations)

Ability for a Provider organization to create Group resource.

For example, a Provider organization planning to use CMS DPC system would create a Group resource.

Pre-condition:
- Provider Organization has the URLs
- Provider Organization has a treatment relationship with the Patient.

API

POST <BaseURL>/[Group]

Success Criteria:
- Verify that the resources have been created.

Scenario 7: Consumer modifies Group resource

- (Part of Phase 2 Implementations)

Ability for a Provider organization to add members to the Group resource.

For example, a Provider organization planning to use CMS DPC system would create a Group resource and add members to the Group with whom they have a treatment relationship.

Pre-condition:
- Provider Organization has the URLs
- Provider Organization has a treatment relationship with the Patient.

API

POST <BaseURL>/Group/[id]/$member-add

Success Criteria:
- Verify that the members have been added to the Group by retrieving the Group.
Ability for a Provider organization to remove members from the Group resource.

For example, a Provider organization planning to use CMS DPC system would create a Group resource and add members to the Group with whom they have a treatment relationship, when the treatment relationship no longer exists the Provider Organization may remove the members from the Group.

Pre-condition:
- Provider Organization has the URLs
- Provider Organization has a treatment relationship with the Patient.

API

POST <BaseURL>/Group/[id]/$member-remove

Success Criteria:
- Verify that the members have been removed from the Group by retrieving the Group.

TestScript(s)
- Touchstone - DaVinci Member Attribution 4.0.1

Security and Privacy Considerations
- SMART on FHIR Backend Services Authorization is specified by the IG. However it is not required for Connectathon purposes this time around since this is the first time this IG is being tested.