CohortSummary FHIR Resource Proposal

Owning work group name

Clinical Decision Support

Committee Approval Date:
Initial PSS for EBMonFHIR project: June 22, 2018 Resource Approval by CDS WG: May 7, 2019

Contributing or Reviewing Work Groups
Clinical Quality Information Biomedical Research and Regulation

FHIR Resource Development Project Insight ID

1422

Scope of coverage
The scope of the CohortSummary resource is to describe the statistics about a group of entities, including associations of measured variables within the cohort.

Common types of statistics that will be reported includes means, medians, and proportions. Association statistics (such as correlation coefficient) will also be supported to report evidence about associations between observations.

Expressing summary characteristics for cohorts and evidence reports regarding associations is done throughout reporting of biomedical research, systematic reviews, and clinical reference across all disciplines.

RIM scope

Resource appropriateness
Across the evidence-based medicine community (hundreds of thousands of people communicating the results of healthcare research through original research and systematic reviews and expressing the findings from a body of evidence), the summary of cohort characteristics and associations of variables is the primary method of expressing quantitative results. Standardization is necessary to support interoperability across the evidence-based medicine domain.

**Expected implementations [edit | edit source]**

Many knowledge producers who express the biomedical research community knowledge will be the implementers using this resource. Examples of these knowledge producers include Agency for Healthcare Research and Quality (AHRQ), Centers for Disease Control and Prevention (CDC), Cochrane, Duodecim Medical Publications Ltd (from the Finnish Medical Society), EBSCO Health, MAGIC (stands for Making GRADE the Irresistible Choice), and numerous guideline development organizations. In addition Johns Hopkins University and other Clinical and Translational Science Awards (CTSA) Program participants of the NIH National Center for Advancing Translational Sciences (NCATS) have been anticipating a "ClinicalProfile" FHIR Resource that will be functionally replaced with the CohortSummary resource.

**Content sources [edit | edit source]**

None expected beyond the standard source specifications. However, the method for expressing citations (e.g. referring to a publication) is not yet defined and may require additional source specifications.

**Example Scenarios [edit | edit source]**

The CohortSummary resource describes:

- descriptions of the population, exposure, and measured variables that are about the statistics for summary reporting of measured variables in the cohort where statistic data type can include classification of the statistic type, sample size for the statistic, quantity of the statistic, a precision estimate (such as a 95% confidence interval), and ratings of the certainty of the statistic descriptions of the source of the effect estimates (e.g. author, citation, type of research)

**Resource Relationships [edit | edit source]**

The CohortSummary Resource will reference Group Resource (to describe intended and actual population cohorts) and EvidenceVariable Resource (to describe exposures and measured variables)

**Resource Boundaries [edit | edit source]**

To be determined if implementers have questions that need explanations to support distinction and clarification. CohortSummary will describe association statistics where multiple measured variables are analyzed with one exposure. A similarly structured resource (ComparativeEvidence) will describe comparative statistics where one measured variable is analyzed with multiple exposures. The ComparativeEvidence and CohortSummary resources are purposefully created as separate resources to simplify the compound nesting relationships of exposures and measured variables for classifying statistics.

**Timelines [edit | edit source]**

First STU Ballot 2019 September

**gForge Users [edit | edit source]**

brynrhodes (github user) KhalidShahin-EBSCO (github user)

**When Resource Proposal Is Complete [edit | edit source]**

When you have completed your proposal, please send an email to FMGcontact@HL7.org

**FMG Notes**