# Package 'ROhdsiWebApi'

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```
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Title R package to allow interactivity with a WebApi instance
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License Apache License 2.0
Depends R (>= 3.1.0),
Imports checkmate,
     dplyr,
     httr (>= 1.3.1),
     jsonlite,
     lubridate,
     openxlsx (>= 4.0.17),
     ParallelLogger,
     purrr,
     readr,
     RJSONIO,
     scales,
     SqlRender,
     stringr,
     tibble,
     tidyr,
     rlang
Suggests testthat,
     knitr,
     rmarkdown
URL https://github.com/OHDSI/ROhdsiWebApi
BugReports https://github.com/OHDSI/ROhdsiWebApi/issues
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```

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 ${\tt cancelCharacterizationGeneration}$ 

Cancel generation of Characterization id.

#### **Description**

Cancel generation of Characterization id.

### Usage

cancelCharacterizationGeneration(characterizationId, baseUrl, sourceKey)

# Arguments

characterizationId

An integer id representing the id that uniquely identifies a Characterization def-

inition in a WebApi instance.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

sourceKey The source key for a CDM instance in WebAPI, as defined in the Configuration

page

#### **Details**

Cancel the generation of Characterization id in the WebApi.

### Value

A tibble with job status information.

# **Examples**

cancelCohortGeneration

Cancel generation of Cohort id.

### **Description**

Cancel generation of Cohort id.

```
cancelCohortGeneration(cohortId, baseUrl, sourceKey)
```

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#### **Arguments**

cohortId An integer id representing the id that uniquely identifies a Cohort definition in a

WebApi instance.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

sourceKey The source key for a CDM instance in WebAPI, as defined in the Configuration

page

### **Details**

Cancel the generation of Cohort id in the WebApi.

#### Value

A tibble with job status information.

### **Examples**

cancelGeneration

Invoke generation.

# Description

Invoke generation.

#### Usage

```
cancelGeneration(id, baseUrl, sourceKey, category)
```

### **Arguments**

id An integer id representing the id that uniquely identifies a definition for the

category in a WebApi instance.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

sourceKey The source key for a CDM instance in WebAPI, as defined in the Configuration

page

category These are the categories in WebApi. The valid string options are 'conceptSet',

'cohort', 'characterization', 'pathway, 'incidenceRate', 'estimation', 'predic-

tion'.

#### **Details**

Invoke generation (execution) information.

#### Value

Error message if invoke failed.

### **Examples**

```
## Not run:
cancelGeneration(id = 13242, category = "cohort", baseUrl = "http://server.org:80/WebAPI")
## End(Not run)
```

 ${\tt cancelIncidenceRateGeneration}$ 

Cancel generation of IncidenceRate id.

# Description

Cancel generation of IncidenceRate id.

### Usage

```
cancelIncidenceRateGeneration(incidenceRateId, baseUrl, sourceKey)
```

# **Arguments**

incidenceRateId

An integer id representing the id that uniquely identifies a IncidenceRate defini-

tion in a WebApi instance.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

sourceKey The source key for a CDM instance in WebAPI, as defined in the Configuration

page

#### **Details**

Cancel the generation of IncidenceRate id in the WebApi.

# Value

A tibble with job status information.

cancelPathwayGeneration

Cancel generation of Pathway id.

# Description

Cancel generation of Pathway id.

#### Usage

```
cancelPathwayGeneration(pathwayId, baseUrl, sourceKey)
```

# Arguments

pathwayId An integer id representing the id that uniquely identifies a Pathway definition in

a WebApi instance.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

sourceKey The source key for a CDM instance in WebAPI, as defined in the Configuration

page

#### **Details**

Cancel the generation of Pathway id in the WebApi.

#### Value

A tibble with job status information.

### **Examples**

convertConceptSetDefinitionToTable

Convert a concept set definition to a table

# Description

Convert a concept set definition to a table

```
convert Concept Set Definition To Table (concept Set Definition) \\
```

### **Arguments**

conceptSetDefinition

A concept set definition, for example as obtained through the getConceptSetDefinition function, or taken from a cohort definition.

#### Value

Takes a R (list) representation of the Concept Set expression and returns a table (dataframe) representing the concept set expression. This is useful to create publication friendly output of the concept set expression.

### **Examples**

createConceptSetWorkbook

Save a set of concept sets expressions, included concepts, and mapped concepts into a workbook

# **Description**

Save a set of concept sets expressions, included concepts, and mapped concepts into a workbook

### Usage

```
createConceptSetWorkbook(
  conceptSetIds,
  fileName,
  baseUrl,
  included = FALSE,
  mapped = FALSE
)
```

### Arguments

conceptSetIds A vector of concept set IDs.

fileName The name of the XLSX workbook file.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

included Should included concepts be included in the workbook?

Mapped Should mapped concepts be included in the workbook?

# Value

A xlsx workbook that includes a list of all concept set IDs and names and a worksheet for the concepts in each set. Options to include an included concepts and mapped concepts worksheet for each concept set are available.

deleteCharacterizationDefinition

Delete Characterization id definition.

### **Description**

Delete Characterization id definition.

#### Usage

deleteCharacterizationDefinition(characterizationId, baseUrl)

#### **Arguments**

characterizationId

An integer id representing the id that uniquely identifies a Characterization definition in a WebApi instance.

baseUrl

The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI". Note, there is no trailing '/' is used, you may receive an error.

### **Details**

Delete the Characterization definition from WebAPI for a given Characterization id

#### Value

None, unless error.

deleteCohortDefinition

Delete Cohort id definition.

### **Description**

Delete Cohort id definition.

#### Usage

```
deleteCohortDefinition(cohortId, baseUrl)
```

# Arguments

cohortId An integer id representing the id that uniquely identifies a Cohort definition in a

WebApi instance.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

#### **Details**

Delete the Cohort definition from WebAPI for a given Cohort id

#### Value

None, unless error.

# Examples

```
## Not run:
deleteCohortDefinition(cohortId = 13242, baseUrl = "http://server.org:80/WebAPI")
## End(Not run)
```

 ${\tt deleteConceptSetDefinition}$ 

Delete ConceptSet id definition.

# **Description**

Delete ConceptSet id definition.

```
deleteConceptSetDefinition(conceptSetId, baseUrl)
```

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#### **Arguments**

conceptSetId An integer id representing the id that uniquely identifies a ConceptSet definition

in a WebApi instance.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

#### **Details**

Delete the ConceptSet definition from WebAPI for a given ConceptSet id

#### Value

None, unless error.

#### **Examples**

```
## Not run:
deleteConceptSetDefinition(conceptSetId = 13242, baseUrl = "http://server.org:80/WebAPI")
## End(Not run)
```

deleteDefinition

Delete a definition id of a chosen category.

# **Description**

Delete a definition id of a chosen category.

### Usage

```
deleteDefinition(id, baseUrl, category)
```

### **Arguments**

id An integer id representing the id that uniquely identifies a definition for the

category in a WebApi instance.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

category These are the categories in WebApi. The valid string options are 'conceptSet',

'cohort', 'characterization', 'pathway, 'incidenceRate', 'estimation', 'predic-

tion'.

### **Details**

Delete the definition for an id of chosen category in WebApi.

### Value

An R object representing the

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### **Examples**

```
## Not run:
deleteDefinition(id = 13242, baseUrl = "http://server.org:80/WebAPI", category = "cohort")
## End(Not run)
```

deleteEstimationDefinition

Delete Estimation id definition.

# Description

Delete Estimation id definition.

### Usage

```
deleteEstimationDefinition(estimationId, baseUrl)
```

# Arguments

estimationId An integer id representing the id that uniquely identifies a Estimation definition

in a WebApi instance.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

### **Details**

Delete the Estimation definition from WebAPI for a given Estimation id

### Value

None, unless error.

```
## Not run:
deleteEstimationDefinition(estimationId = 13242, baseUrl = "http://server.org:80/WebAPI")
## End(Not run)
```

 ${\tt deleteIncidenceRateDefinition}$ 

Delete IncidenceRate id definition.

# **Description**

Delete IncidenceRate id definition.

### Usage

deleteIncidenceRateDefinition(incidenceRateId, baseUrl)

### **Arguments**

incidenceRateId

An integer id representing the id that uniquely identifies a IncidenceRate defini-

tion in a WebApi instance.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

### **Details**

Delete the IncidenceRate definition from WebAPI for a given IncidenceRate id

#### Value

None, unless error.

# **Examples**

```
## Not run:
deleteIncidenceRateDefinition(incidenceRateId = 13242, baseUrl = "http://server.org:80/WebAPI")
## End(Not run)
```

deletePathwayDefinition

Delete Pathway id definition.

# Description

Delete Pathway id definition.

# Usage

deletePathwayDefinition(pathwayId, baseUrl)

### **Arguments**

pathwayId An integer id representing the id that uniquely identifies a Pathway definition in

a WebApi instance.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

#### **Details**

Delete the Pathway definition from WebAPI for a given Pathway id

#### Value

None, unless error.

### **Examples**

```
## Not run:
deletePathwayDefinition(pathwayId = 13242, baseUrl = "http://server.org:80/WebAPI")
## End(Not run)
```

deletePredictionDefinition

Delete Prediction id definition.

# Description

Delete Prediction id definition.

### Usage

```
deletePredictionDefinition(predictionId, baseUrl)
```

### **Arguments**

predictionId An integer id representing the id that uniquely identifies a Prediction definition

in a WebApi instance.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

### **Details**

Delete the Prediction definition from WebAPI for a given Prediction id

### Value

None, unless error.

### **Examples**

```
## Not run:
deletePredictionDefinition(predictionId = 13242, baseUrl = "http://server.org:80/WebAPI")
## End(Not run)
```

detectCharacterizationsByName

Detect the presence of string matched Characterization definitions.

### **Description**

Detect the presence of string matched Characterization definitions.

# Usage

```
detectCharacterizationsByName(pattern, negate = FALSE, baseUrl)
```

### **Arguments**

pattern A pattern to look for. See str\_detect for details.

negate If TRUE, return non-matching elements. See str\_detect for details.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

#### **Details**

Detect string matched Characterization definition names from the WebApi, and retrieve metadata definitions.

# Value

 $FALSE\ if\ no\ matches.\ If\ matched\ -\ output\ from\ getCharacterizationDefinitionsMetaData$ 

 ${\tt detectCohortsByName}$ 

Detect the presence of string matched Cohort definitions.

# Description

Detect the presence of string matched Cohort definitions.

# Usage

```
detectCohortsByName(pattern, negate = FALSE, baseUrl)
```

#### **Arguments**

pattern A pattern to look for. See str\_detect for details.

negate If TRUE, return non-matching elements. See str\_detect for details.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

#### **Details**

Detect string matched Cohort definition names from the WebApi, and retrieve metadata definitions.

#### Value

FALSE if no matches. If matched - output from getCohortDefinitionsMetaData

# **Examples**

 ${\tt detectConceptSetsByName}$ 

Detect the presence of string matched ConceptSet definitions.

### Description

Detect the presence of string matched ConceptSet definitions.

```
detectConceptSetsByName(pattern, negate = FALSE, baseUrl)
```

### Arguments

pattern A pattern to look for. See str\_detect for details.

negate If TRUE, return non-matching elements. See str\_detect for details.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

#### **Details**

Detect string matched ConceptSet definition names from the WebApi, and retrieve metadata definitions.

#### Value

FALSE if no matches. If matched - output from getConceptSetDefinitionsMetaData

### **Examples**

detectEstimationsByName

Detect the presence of string matched Estimation definitions.

# Description

Detect the presence of string matched Estimation definitions.

### Usage

```
detectEstimationsByName(pattern, negate = FALSE, baseUrl)
```

### **Arguments**

pattern A pattern to look for. See str\_detect for details.

negate If TRUE, return non-matching elements. See str\_detect for details.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

#### **Details**

Detect string matched Estimation definition names from the WebApi, and retrieve metadata definitions.

#### Value

FALSE if no matches. If matched - output from getEstimationDefinitionsMetaData

### **Examples**

detectIncidenceRatesByName

Detect the presence of string matched IncidenceRate definitions.

# Description

Detect the presence of string matched IncidenceRate definitions.

### Usage

```
detectIncidenceRatesByName(pattern, negate = FALSE, baseUrl)
```

### **Arguments**

pattern A pattern to look for. See str\_detect for details.

negate If TRUE, return non-matching elements. See str\_detect for details.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

#### **Details**

Detect string matched IncidenceRate definition names from the WebApi, and retrieve metadata definitions.

#### Value

FALSE if no matches. If matched - output from getIncidenceRateDefinitionsMetaData

### **Description**

Detect the presence of string matched Pathway definitions.

### Usage

```
detectPathwaysByName(pattern, negate = FALSE, baseUrl)
```

### **Arguments**

pattern A pattern to look for. See str\_detect for details.

negate If TRUE, return non-matching elements. See str\_detect for details.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

#### **Details**

Detect string matched Pathway definition names from the WebApi, and retrieve metadata definitions.

### Value

FALSE if no matches. If matched - output from getPathwayDefinitionsMetaData

# **Examples**

detectPredictionsByName

Detect the presence of string matched Prediction definitions.

### **Description**

Detect the presence of string matched Prediction definitions.

```
detectPredictionsByName(pattern, negate = FALSE, baseUrl)
```

### Arguments

pattern A pattern to look for. See str\_detect for details.

negate If TRUE, return non-matching elements. See str\_detect for details.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

#### **Details**

Detect string matched Prediction definition names from the WebApi, and retrieve metadata definitions.

#### Value

FALSE if no matches. If matched - output from getPredictionDefinitionsMetaData

### **Examples**

existsCharacterizationName

Check if Characterization definition name exists.

### **Description**

Check if Characterization definition name exists.

### Usage

```
existsCharacterizationName(characterizationName, baseUrl)
```

### **Arguments**

characterizationName

A string name for the Characterization to be checked.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

#### **Details**

Check if a string name already exists in the WebApi as a Characterization definition name.

### Value

If found, the function will return a tibble with details of the specification. If not found, FALSE will be returned.

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### **Examples**

 ${\tt existsCohortName}$ 

Check if Cohort definition name exists.

# Description

Check if Cohort definition name exists.

# Usage

```
existsCohortName(cohortName, baseUrl)
```

### **Arguments**

cohortName A string name for the Cohort to be checked.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

### **Details**

Check if a string name already exists in the WebApi as a Cohort definition name.

### Value

If found, the function will return a tibble with details of the specification. If not found, FALSE will be returned.

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existsConceptSetName Check if ConceptSet definition name exists.

### **Description**

Check if ConceptSet definition name exists.

#### Usage

```
existsConceptSetName(conceptSetName, baseUrl)
```

#### **Arguments**

conceptSetName A string name for the ConceptSet to be checked.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

#### **Details**

Check if a string name already exists in the WebApi as a ConceptSet definition name.

#### Value

If found, the function will return a tibble with details of the specification. If not found, FALSE will be returned.

### **Examples**

existsEstimationName  $C_{i}$ 

Check if Estimation definition name exists.

### **Description**

Check if Estimation definition name exists.

### Usage

```
existsEstimationName(estimationName, baseUrl)
```

# Arguments

estimationName A string name for the Estimation to be checked.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

existsIncidenceRateName 23

#### **Details**

Check if a string name already exists in the WebApi as a Estimation definition name.

#### Value

If found, the function will return a tibble with details of the specification. If not found, FALSE will be returned.

# **Examples**

existsIncidenceRateName

Check if IncidenceRate definition name exists.

### **Description**

Check if IncidenceRate definition name exists.

### Usage

```
existsIncidenceRateName(incidenceRateName, baseUrl)
```

## Arguments

incidenceRateName

A string name for the IncidenceRate to be checked.

baseUrl

The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI". Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

### **Details**

Check if a string name already exists in the WebApi as a IncidenceRate definition name.

# Value

If found, the function will return a tibble with details of the specification. If not found, FALSE will be returned.

24 existsPredictionName

existsPathwayName

Check if Pathway definition name exists.

### **Description**

Check if Pathway definition name exists.

### Usage

```
existsPathwayName(pathwayName, baseUrl)
```

#### **Arguments**

pathwayName A string name for the Pathway to be checked.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

#### **Details**

Check if a string name already exists in the WebApi as a Pathway definition name.

#### Value

If found, the function will return a tibble with details of the specification. If not found, FALSE will be returned.

### **Examples**

existsPredictionName

Check if Prediction definition name exists.

### **Description**

Check if Prediction definition name exists.

### Usage

```
existsPredictionName(predictionName, baseUrl)
```

# Arguments

predictionName A string name for the Prediction to be checked.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

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#### **Details**

Check if a string name already exists in the WebApi as a Prediction definition name.

#### Value

If found, the function will return a tibble with details of the specification. If not found, FALSE will be returned.

# Examples

 ${\tt getCdmSources}$ 

Get the data sources in the WebAPI instance

# Description

Get the data sources in the WebAPI instance

# Usage

```
getCdmSources(baseUrl)
```

# Arguments

baseUrl

The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI". Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

# **Details**

Obtains the data sources configured in the WebAPI instance.

#### Value

A data frame.

```
{\tt getCharacterizationDefinition}
```

Get Characterization id definition.

# Description

Get Characterization id definition.

#### Usage

```
getCharacterizationDefinition(characterizationId, baseUrl)
```

### **Arguments**

characterizationId

An integer id representing the id that uniquely identifies a Characterization def-

inition in a WebApi instance.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

### **Details**

Obtain the Characterization definition from WebAPI for a given Characterization id

#### Value

An R object representing the Characterization definition

### **Examples**

 ${\tt getCharacterizationDefinitionsMetaData}$ 

Get the meta data for Characterization definitions.

### **Description**

Get the meta data for Characterization definitions.

```
{\tt getCharacterizationDefinitionsMetaData(baseUrl)}
```

### Arguments

baseUrl

The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI". Note, there is no trailing '/' is used, you may receive an error.

#### **Details**

Get the meta data of WebApi specifications such as id, name, created/modified details, hash object, etc. from WebApi for Characterization. This function is useful to retrieve the current Characterization specifications.

#### Value

A tibble of specification metadata for Characterization. Note: modifiedDate and createdDate are returned as text/character.

### **Examples**

```
## Not run:
getCharacterizationDefinitionsMetaData(baseUrl = "http://server.org:80/WebAPI")
## End(Not run)
```

getCharacterizationGenerationInformation

Get generation information for Characterization id.

# **Description**

Get generation information for Characterization id.

#### Usage

getCharacterizationGenerationInformation(characterizationId, baseUrl)

### **Arguments**

characterizationId

An integer id representing the id that uniquely identifies a Characterization definition in a WebApi instance.

baseUrl

The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI". Note, there is no trailing '/' is used, you may receive an error.

### **Details**

Get generation (execution) information about Characterization for a characterizationId.

### Value

An R object representing the Characterization definition

### **Examples**

 ${\tt getCharacterizationResults}$ 

Get results for a Characterization Id.

# Description

Get results for a Characterization Id.

# Usage

```
getCharacterizationResults(characterizationId, baseUrl)
```

### **Arguments**

characterizationId

An integer id representing the id that uniquely identifies a characterization analysis definition in a WebApi instance.

baseUrl

The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI". Note, there is no trailing '/' is used, you may receive an error.

#### **Details**

Get the results for Characterization id.

#### Value

An R object with results.

```
## Not run:
getCharacterizationResults(characterizationId = 342, baseUrl = "http://server.org:80/WebAPI")
## End(Not run)
```

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getCohortDefinition Get Cohort id definition.

# Description

Get Cohort id definition.

### Usage

```
getCohortDefinition(cohortId, baseUrl)
```

### **Arguments**

cohortId An integer id representing the id that uniquely identifies a Cohort definition in a

WebApi instance.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

#### **Details**

Obtain the Cohort definition from WebAPI for a given Cohort id

### Value

An R object representing the Cohort definition

# **Examples**

```
## Not run:
getCohortDefinition(cohortId = 13242, baseUrl = "http://server.org:80/WebAPI")
## End(Not run)
```

 ${\tt getCohortDefinitionExpression}$ 

(Deprecated) Get a cohort definition expression

### **Description**

(Deprecated) Get a cohort definition expression

### Usage

```
getCohortDefinitionExpression(cohortId, baseUrl)
```

### **Arguments**

cohortId An integer id representing the id that uniquely identifies a cohort definition in a

WebApi instance.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

#### **Details**

(Deprecated) Obtain the JSON expression from WebAPI for a given cohort id

#### Value

A JSON list object representing the cohort definition This function has been deprecated. As an alternative please use the following steps as in the example below: 1) cohortDefinition <- getCohortDefinition(baseUrl = baseUrl, cohortId = 15873) 2) validJsonExpression <- RJSONIO::toJSON(cohortDefinition\$expression\$) save validJsonExpression object as .txt"

### **Examples**

```
## Not run:
# This will obtain a cohort definition's JSON expression:
getCohortDefinitionExpression(cohortId = 282, baseUrl = "http://server.org:80/WebAPI")
## End(Not run)
```

getCohortDefinitionName

(Deprecated) Get a cohort definition's name from WebAPI

### Description

(Deprecated) Get a cohort definition's name from WebAPI

### Usage

```
getCohortDefinitionName(baseUrl, cohortId, formatName = FALSE)
```

### Arguments

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

cohortId An integer id representing the id that uniquely identifies a cohort definition in a

WebApi instance.

formatName Should the name be formatted to remove prefixes and underscores?

#### **Details**

(Deprecated) Obtains the name of a cohort. This function has been deprecated. As an alternative please use getCohortDefinition

#### Value

The name of the cohort.

getCohortDefinitionsMetaData

Get the meta data for Cohort definitions.

# Description

Get the meta data for Cohort definitions.

### Usage

```
getCohortDefinitionsMetaData(baseUrl)
```

### **Arguments**

baseUrl

The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI". Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

### **Details**

Get the meta data of WebApi specifications such as id, name, created/modified details, hash object, etc. from WebApi for Cohort. This function is useful to retrieve the current Cohort specifications.

#### Value

A tibble of specification metadata for Cohort. Note: modifiedDate and createdDate are returned as text/character.

### **Examples**

```
## Not run:
getCohortDefinitionsMetaData(baseUrl = "http://server.org:80/WebAPI")
## End(Not run)
```

getCohortDefinitionSql

Get a cohort definition's SQL from WebAPI

# Description

Get a cohort definition's SQL from WebAPI

```
getCohortDefinitionSql(cohortId, baseUrl, generateStats = TRUE)
```

### Arguments

cohortId An integer id representing the id that uniquely identifies a cohort definition in a

WebApi instance.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

generateStats Should the SQL include the code for generating inclusion rule statistics? Note

that if TRUE, several additional tables are expected to exists as described in the

details. By default this is TRUE.

#### **Details**

Obtains the template SQL of a cohort. When using generateStats = TRUE, the following tables are required to exist when executing the SQL: cohort\_inclusion, cohort\_inclusion\_result, cohort\_inclusion\_stats, and cohort\_summary\_stats. Also note that the cohort\_inclusion table should be populated with the names of the rules prior to executing the cohort definition SQL.

#### Value

The templated SQL to generate the cohort

getCohortGenerationInformation

Get generation information for Cohort id.

### Description

Get generation information for Cohort id.

### Usage

getCohortGenerationInformation(cohortId, baseUrl)

### **Arguments**

cohortId An integer id representing the id that uniquely identifies a Cohort definition in a

WebApi instance.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

#### **Details**

Get generation (execution) information about Cohort for a cohortId.

### Value

An R object representing the Cohort definition

```
## Not run:
getCohortGenerationInformation(cohortId = 13242, baseUrl = "http://server.org:80/WebAPI")
## End(Not run)
```

 ${\tt getCohortInclusionRulesAndCounts}$ 

Get cohort inclusion rules and person counts

### **Description**

Get cohort inclusion rules and person counts

### Usage

getCohortInclusionRulesAndCounts(baseUrl, cohortId, sourceKey)

#### **Arguments**

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

cohortId An integer id representing the id that uniquely identifies a cohort definition in a

WebApi instance.

sourceKey The source key for a CDM instance in WebAPI, as defined in the Configuration

page

#### **Details**

Obtains the inclusion rules from a cohort definition and summarizes the person counts per rule

getCohortResults Get results for a Cohort Id.

#### **Description**

Get results for a Cohort Id.

#### Usage

getCohortResults(cohortId, baseUrl)

### **Arguments**

cohortId An integer id representing the id that uniquely identifies a cohort definition in a

WebApi instance.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

### **Details**

Get the results for Cohort id.

#### Value

An R object with results.

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### **Examples**

```
## Not run:
getCohortResults(cohortId = 342, baseUrl = "http://server.org:80/WebAPI")
## End(Not run)
```

getCohortSql

Get SQL query for Cohort definition.

### **Description**

Get SQL query for Cohort definition.

# Usage

```
getCohortSql(cohortDefinition, baseUrl)
```

# **Arguments**

cohortDefinition

An R list object (not JSON) representing the Cohort definition. It is the output R expression object of list object from CohortDefinition

baseUrl

The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI". Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

### **Details**

Given a valid Cohort definition R-object (not JSON) this function will return the parametrized SQL in OHDSI SQL dialect. This SQL then may be used along with OHDSI R-package 'SQLRender' to render/translate to target SQL dialect and parameters rendered.

# Value

An R object containing the SQL for Cohort definition.

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getConcepts

Get concepts

### **Description**

Get concepts

# Usage

```
getConcepts(
  conceptIds,
  baseUrl,
  vocabularySourceKey = NULL,
  snakeCaseToCamelCase = TRUE
)
```

# Arguments

conceptIds A vector of concept IDs.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

vocabularySourceKey

The source key of the Vocabulary. By default, the priority Vocabulary is used.

snakeCaseToCamelCase

Should the column names of the result be converted to camelCase?

### Value

A tibble containing information on the concepts.

# **Examples**

```
## Not run:
conceptSet <- getConceptSet(conceptSetId = 282, baseUrl = "http://server.org:80/WebAPI")
conceptIds <- resolveConceptSet(conceptSet = conceptSet, baseUrl = "http://server.org:80/WebAPI")
concepts <- getConcepts(conceptIds = conceptIds, baseUrl = "http://server.org:80/WebAPI")
## End(Not run)</pre>
```

 ${\tt getConceptSetDefinition}$ 

Get ConceptSet id definition.

### **Description**

Get ConceptSet id definition.

#### **Usage**

```
getConceptSetDefinition(conceptSetId, baseUrl)
```

#### **Arguments**

An integer id representing the id that uniquely identifies a ConceptSet definition conceptSetId

in a WebApi instance.

The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI". baseUrl

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

#### **Details**

Obtain the ConceptSet definition from WebAPI for a given ConceptSet id

#### Value

An R object representing the ConceptSet definition

## **Examples**

```
## Not run:
getConceptSetDefinition(conceptSetId = 13242, baseUrl = "http://server.org:80/WebAPI")
## End(Not run)
```

getConceptSetDefinitionsMetaData

Get the meta data for ConceptSet definitions.

# **Description**

Get the meta data for ConceptSet definitions.

# Usage

```
getConceptSetDefinitionsMetaData(baseUrl)
```

#### **Arguments**

baseUrl

The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI". Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

#### **Details**

Get the meta data of WebApi specifications such as id, name, created/modified details, hash object, etc. from WebApi for ConceptSet. This function is useful to retrieve the current ConceptSet specifications.

### Value

A tibble of specification metadata for ConceptSet. Note: modifiedDate and createdDate are returned as text/character.

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## **Examples**

```
## Not run:
getConceptSetDefinitionsMetaData(baseUrl = "http://server.org:80/WebAPI")
## End(Not run)
```

getDefinition

Get the definition for an id of chosen category in WebApi.

#### **Description**

Get the definition for an id of chosen category in WebApi.

#### Usage

```
getDefinition(id, category, baseUrl)
```

## **Arguments**

id An integer id representing the id that uniquely identifies a definition for the

category in a WebApi instance.

category These are the categories in WebApi. The valid string options are 'conceptSet',

'cohort', 'characterization', 'pathway, 'incidenceRate', 'estimation', 'predic-

tion'.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

## **Details**

Get the definition for an id of chosen category in WebApi. The return object will be a R representation of the definition, that may be reconverted to JSON.

## Value

An R object representing the definition

```
## Not run:
getDefinition(id = 13242, category = "cohort", baseUrl = "http://server.org:80/WebAPI")
## End(Not run)
```

```
getDefinitionsMetadata
```

Retrieve the meta data for WebApi definitions of a certain category

## **Description**

Retrieve the meta data for WebApi definitions of a certain category

## Usage

```
getDefinitionsMetadata(baseUrl, category)
```

## **Arguments**

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

category These are the categories in WebApi. The valid string options are 'conceptSet',

'cohort', 'characterization', 'pathway, 'incidenceRate', 'estimation', 'predic-

tion'.

#### **Details**

Obtains the meta data of WebApi specifications such as id, name, created/modified details, hash object, etc for a certain category. The following function categories are supported. Concept-set, Cohort-definition, Cohort-characterization, Pathway-analysis, Incidence rate (ir), estimation and prediction. This function is useful to retrieve the current specifications.

#### Value

A tibble of specification metadata.

## **Examples**

```
## Not run:
getDefinitionsMetadata(baseUrl = "http://server.org:80/WebAPI")
## End(Not run)
```

 ${\tt getEstimationDefinition}$ 

Get Estimation id definition.

## **Description**

Get Estimation id definition.

#### Usage

```
getEstimationDefinition(estimationId, baseUrl)
```

#### **Arguments**

estimationId An integer id representing the id that uniquely identifies a Estimation definition

in a WebApi instance.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

#### **Details**

Obtain the Estimation definition from WebAPI for a given Estimation id

#### Value

An R object representing the Estimation definition

#### **Examples**

```
## Not run:
getEstimationDefinition(estimationId = 13242, baseUrl = "http://server.org:80/WebAPI")
## End(Not run)
```

getEstimationDefinitionsMetaData

Get the meta data for Estimation definitions.

## **Description**

Get the meta data for Estimation definitions.

#### Usage

```
getEstimationDefinitionsMetaData(baseUrl)
```

# Arguments

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

## **Details**

Get the meta data of WebApi specifications such as id, name, created/modified details, hash object, etc. from WebApi for Estimation. This function is useful to retrieve the current Estimation specifications.

#### Value

A tibble of specification metadata for Estimation. Note: modifiedDate and createdDate are returned as text/character.

## **Examples**

```
## Not run:
getEstimationDefinitionsMetaData(baseUrl = "http://server.org:80/WebAPI")
## End(Not run)
```

getGenerationInformation

Get generation information.

# Description

Get generation information.

# Usage

```
getGenerationInformation(id, category, baseUrl)
```

# **Arguments**

id An integer id representing the id that uniquely identifies a definition for the

category in a WebApi instance.

category The category of expression in WebApi. Only the following strings are accepted:

'cohort', 'characterization', 'pathway', 'incidenceRate'.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

#### **Details**

Get generation (execution) information.

#### Value

An R object with the generation information.

getIncidenceRateDefinition

Get IncidenceRate id definition.

## **Description**

Get IncidenceRate id definition.

## Usage

```
getIncidenceRateDefinition(incidenceRateId, baseUrl)
```

## **Arguments**

incidenceRateId

An integer id representing the id that uniquely identifies a IncidenceRate defini-

tion in a WebApi instance.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

#### Details

Obtain the IncidenceRate definition from WebAPI for a given IncidenceRate id

#### Value

An R object representing the IncidenceRate definition

## **Examples**

```
## Not run:
getIncidenceRateDefinition(incidenceRateId = 13242, baseUrl = "http://server.org:80/WebAPI")
## End(Not run)
```

 ${\tt getIncidenceRateDefinitionsMetaData}$ 

Get the meta data for IncidenceRate definitions.

#### **Description**

Get the meta data for IncidenceRate definitions.

#### Usage

```
getIncidenceRateDefinitionsMetaData(baseUrl)
```

# Arguments

baseUrl

The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI". Note, there is no trailing '/' is used, you may receive an error.

#### **Details**

Get the meta data of WebApi specifications such as id, name, created/modified details, hash object, etc. from WebApi for IncidenceRate. This function is useful to retrieve the current IncidenceRate specifications.

#### Value

A tibble of specification metadata for IncidenceRate. Note: modifiedDate and createdDate are returned as text/character.

## **Examples**

```
## Not run:
 getIncidenceRateDefinitionsMetaData(baseUrl = "http://server.org:80/WebAPI")
 ## End(Not run)
getIncidenceRateGenerationInformation
```

Get generation information for IncidenceRate id.

#### **Description**

Get generation information for IncidenceRate id.

#### Usage

```
getIncidenceRateGenerationInformation(incidenceRateId, baseUrl)
```

## **Arguments**

incidenceRateId

An integer id representing the id that uniquely identifies a IncidenceRate defini-

tion in a WebApi instance.

The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI". baseUrl

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

## **Details**

Get generation (execution) information about IncidenceRate for a incidenceRateId.

#### Value

An R object representing the IncidenceRate definition

```
getIncidenceRateGenerationInformation(incidenceRateId = 13242,
                                      baseUrl = "http://server.org:80/WebAPI")
## End(Not run)
```

```
getIncidenceRateResults
```

Get results for a IncidenceRate Id.

## **Description**

Get results for a IncidenceRate Id.

#### Usage

```
getIncidenceRateResults(incidenceRateId, baseUrl)
```

## **Arguments**

 ${\tt incidenceRateId}$ 

An integer id representing the id that uniquely identifies a incidence rate analysis

definition in a WebApi instance.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

#### **Details**

Get the results for IncidenceRate id.

## Value

An R object with results.

# **Examples**

```
## Not run:
getIncidenceRateResults(incidenceRateId = 342, baseUrl = "http://server.org:80/WebAPI")
## End(Not run)
```

getIncidenceRateSql

Get SQL query for IncidenceRate definition.

## Description

Get SQL query for IncidenceRate definition.

# Usage

```
getIncidenceRateSql(incidenceRateDefinition, baseUrl)
```

#### **Arguments**

incidenceRateDefinition

An R list object (not JSON) representing the IncidenceRate definition. It is the output R expression object of list object from IncidenceRateDefinition

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

#### **Details**

Given a valid IncidenceRate definition R-object (not JSON) this function will return the parametrized SQL in OHDSI SQL dialect. This SQL then may be used along with OHDSI R-package 'SQLRender' to render/translate to target SQL dialect and parameters rendered.

#### Value

An R object containing the SQL for IncidenceRate definition.

## **Examples**

getPathwayDefinition Get Pathway id definition.

## **Description**

Get Pathway id definition.

#### Usage

```
getPathwayDefinition(pathwayId, baseUrl)
```

#### **Arguments**

pathwayId An integer id representing the id that uniquely identifies a Pathway definition in

a WebApi instance.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

#### **Details**

Obtain the Pathway definition from WebAPI for a given Pathway id

#### Value

An R object representing the Pathway definition

## **Examples**

```
## Not run:
getPathwayDefinition(pathwayId = 13242, baseUrl = "http://server.org:80/WebAPI")
## End(Not run)
```

getPathwayDefinitionsMetaData

Get the meta data for Pathway definitions.

# Description

Get the meta data for Pathway definitions.

## Usage

```
getPathwayDefinitionsMetaData(baseUrl)
```

# Arguments

baseUrl

The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI". Note, there is no trailing '/' is used, you may receive an error.

## **Details**

Get the meta data of WebApi specifications such as id, name, created/modified details, hash object, etc. from WebApi for Pathway. This function is useful to retrieve the current Pathway specifications.

# Value

A tibble of specification metadata for Pathway. Note: modifiedDate and createdDate are returned as text/character.

```
## Not run:
getPathwayDefinitionsMetaData(baseUrl = "http://server.org:80/WebAPI")
## End(Not run)
```

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```
getPathwayGenerationInformation
```

Get generation information for Pathway id.

## **Description**

Get generation information for Pathway id.

#### Usage

```
getPathwayGenerationInformation(pathwayId, baseUrl)
```

#### **Arguments**

pathwayId An integer id representing the id that uniquely identifies a Pathway definition in

a WebApi instance.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

## **Details**

Get generation (execution) information about Pathway for a pathwayId.

#### Value

An R object representing the Pathway definition

## **Examples**

```
## Not run:
getPathwayGenerationInformation(pathwayId = 13242, baseUrl = "http://server.org:80/WebAPI")
## End(Not run)
```

getPathwayResults

Get results for a Pathway Id.

## **Description**

Get results for a Pathway Id.

## Usage

```
getPathwayResults(pathwayId, baseUrl)
```

## Arguments

pathwayId An integer id representing the id that uniquely identifies a pathway analysis

definition in a WebApi instance.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

getPersonProfile 47

#### **Details**

Get the results for Pathway id.

#### Value

An R object with results.

## **Examples**

```
## Not run:
getPathwayResults(pathwayId = 342, baseUrl = "http://server.org:80/WebAPI")
## End(Not run)
```

getPersonProfile

Get person profile data

## **Description**

Get person profile data

#### Usage

```
getPersonProfile(baseUrl, sourceKey, personId, indexCohortId = NULL)
```

## **Arguments**

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

sourceKey The source key for a CDM instance in WebAPI, as defined in the Configuration

page

personId The personId of the person whose profile is being reviewed

indexCohortId <OPTIONAL> Do you want to use a particular cohortId as the index cohort? If

left NULL, the WebApi will identify the earliest cohort for the person by cohort start date and use it as the index cohort. WebApi uses the cohort start date of the index cohort to calculate the person's index age (ageAtIndex). WebApi will also return the relative position, in days, for each event compared to the index cohorts start date. These relative positions are useful to study the relationship of

various events with respect to the index cohort start date.

#### **Details**

Get a R object with person profile data. This function may be used for visualizing a patients profile in tables or visualization.

## Value

A list of tibble data frame objects corresponding to cohorts, observationPeriod, records and person.

## **Examples**

getPredictionDefinition

Get Prediction id definition.

# Description

Get Prediction id definition.

## Usage

```
getPredictionDefinition(predictionId, baseUrl)
```

## **Arguments**

predictionId An integer id representing the id that uniquely identifies a Prediction definition

in a WebApi instance.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

#### **Details**

Obtain the Prediction definition from WebAPI for a given Prediction id

#### Value

An R object representing the Prediction definition

```
## Not run:
getPredictionDefinition(predictionId = 13242, baseUrl = "http://server.org:80/WebAPI")
## End(Not run)
```

 ${\tt getPredictionDefinitionsMetaData}$ 

Get the meta data for Prediction definitions.

## **Description**

Get the meta data for Prediction definitions.

#### Usage

getPredictionDefinitionsMetaData(baseUrl)

## **Arguments**

baseUrl

The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI". Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

#### **Details**

Get the meta data of WebApi specifications such as id, name, created/modified details, hash object, etc. from WebApi for Prediction. This function is useful to retrieve the current Prediction specifications.

## Value

A tibble of specification metadata for Prediction. Note: modifiedDate and createdDate are returned as text/character.

## **Examples**

```
## Not run:
getPredictionDefinitionsMetaData(baseUrl = "http://server.org:80/WebAPI")
## End(Not run)
```

 ${\tt getPriorityVocabularyKey}$ 

Get Priority Vocabulary Source Key

#### **Description**

Get Priority Vocabulary Source Key

## Usage

getPriorityVocabularyKey(baseUrl)

#### **Arguments**

baseUrl

The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI". Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

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#### **Details**

Obtains the source key of the default OMOP Vocabulary in WebApi.

## Value

A string.

getResults

Get generation results

## **Description**

Get generation results

## Usage

```
getResults(id, baseUrl, category)
```

#### **Arguments**

id An integer id representing the id that uniquely identifies a definition for the

category in a WebApi instance.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

category These are the categories in WebApi. The valid string options are 'conceptSet',

'cohort', 'characterization', 'pathway, 'incidenceRate', 'estimation', 'predic-

tion'.

## **Details**

Get the results objects from WebApi for a definition of a certain category in WebApi.

#### Value

Returns the result objects for a given id and category from the WebApi.

```
## Not run:
getResults(id = 282, category = "cohort", baseUrl = "http://server.org:80/WebAPI")
## End(Not run)
```

getSourceConcepts 51

getSourceConcepts

Get source concepts that map to standard concepts

## **Description**

Get source concepts that map to standard concepts

#### Usage

```
getSourceConcepts(
  conceptIds,
  baseUrl,
  vocabularySourceKey = NULL,
  snakeCaseToCamelCase = TRUE
)
```

## Arguments

conceptIds A list of concept IDs referring to standard concepts.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

vocabularySourceKey

The source key of the Vocabulary. By default, the priority Vocabulary is used.

snakeCaseToCamelCase

Should the column names of the result be converted to camelCase?

## Value

A tibble containing information on the source concepts.

getWebApiVersion

Get the WebAPI version number

## **Description**

Get the WebAPI version number

## Usage

```
getWebApiVersion(baseUrl)
```

#### **Arguments**

baseUrl

The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI". Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

#### **Details**

Obtains the WebAPI version number.

#### Value

A string.

insertCohortDefinitionInPackage

Load a cohort definition and insert it into this package

# Description

Load a cohort definition and insert it into this package

## Usage

```
insertCohortDefinitionInPackage(
  cohortId,
  name = NULL,
  jsonFolder = "inst/cohorts",
  sqlFolder = "inst/sql/sql_server",
  baseUrl
)
```

## **Arguments**

cohortId An integer id representing the id that uniquely identifies a cohort definition in a

WebApi instance.

name The name that will be used for the json and SQL files. If not provided, the name

in cohort will be used, but this may not lead to valid file names.

jsonFolder Path to the folder where the JSON representation will be saved. sqlFolder Path to the folder where the SQL representation will be saved.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

#### **Details**

Load a cohort definition from a WebApi instance and insert it into this package. This will fetch the json object and store it in a folder (defaults to 'the inst/cohorts' folder), and fetch the template SQL and store it in another folder (defaults to the 'inst/sql/sql\_server' folder). Both folders will be created if they don't exist. When using generateStats = TRUE, the following tables are required to exist when executing the SQL: cohort\_inclusion, cohort\_inclusion\_result, cohort\_inclusion\_stats, and cohort\_summary\_stats. Also note that the cohort\_inclusion table should be populated with the names of the rules prior to executing the cohort definition SQL. Note: generate inclusion statistics are created for all by default.

# **Examples**

 $insert {\tt CohortDefinitionSetInPackage}$ 

Insert a set of cohort definitions into package

#### **Description**

Insert a set of cohort definitions into package

#### Usage

```
insertCohortDefinitionSetInPackage(
  fileName = "inst/settings/CohortsToCreate.csv",
  baseUrl,
  jsonFolder = "inst/cohorts",
  sqlFolder = "inst/sql/sql_server",
  rFileName = "R/CreateCohorts.R",
  insertTableSql = TRUE,
  insertCohortCreationR = TRUE,
  packageName
)
```

## Arguments

fileName	Name of a CSV file specifying the cohorts to insert. See details for the expected file format.
baseUrl	The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI". Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.
jsonFolder	Path to the folder where the JSON representations will be saved.
sqlFolder	Path to the folder where the SQL representations will be saved.

rFileName Name of R file to generate when insertCohortCreationR = TRUE.

insertTableSql Should the SQL for creating the cohort table be inserted into the package as

well? This file will be called CreateCohortTable.sql.

insertCohortCreationR

Insert R code that will create the cohort table and instantiate the cohorts? This

will create a file called R/CreateCohorts.R containing a function called .createCohorts.

packageName The name of the package (only needed when inserting the R code as well).

#### **Details**

The CSV file should have at least the following fields:

atlasId The cohort ID in ATLAS.

**cohortId** The cohort ID that will be used when instantiating the cohort (can be different from atlasId).

**name** The name to be used for the cohort. This name will be used to generate file names, so please use letters and numbers only (no spaces).

invokeCharacterizationGeneration

Invoke generation of Characterization id.

## **Description**

Invoke generation of Characterization id.

#### Usage

invokeCharacterizationGeneration(characterizationId, baseUrl, sourceKey)

#### **Arguments**

characterizationId

An integer id representing the id that uniquely identifies a Characterization def-

inition in a WebApi instance.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

sourceKey The source key for a CDM instance in WebAPI, as defined in the Configuration

page

#### **Details**

Invoke the generation of Characterization id in the WebApi.

## Value

A tibble with job status information.

invokeCohortGeneration 55

## **Examples**

invokeCohortGeneration

Invoke generation of Cohort id.

# **Description**

Invoke generation of Cohort id.

## Usage

```
invokeCohortGeneration(cohortId, baseUrl, sourceKey)
```

## **Arguments**

cohortId An integer id representing the id that uniquely identifies a Cohort definition in a

WebApi instance.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

sourceKey The source key for a CDM instance in WebAPI, as defined in the Configuration

page

#### **Details**

Invoke the generation of Cohort id in the WebApi.

## Value

A tibble with job status information.

invokeGeneration Invo	oke generation.
-----------------------	-----------------

# Description

Invoke generation.

# Usage

```
invokeGeneration(id, baseUrl, sourceKey, category)
```

# Arguments

id	An integer id representing the id that uniquely identifies a definition for the category in a WebApi instance.
baseUrl	The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI". Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.
sourceKey	The source key for a CDM instance in WebAPI, as defined in the Configuration page
category	These are the categories in WebApi. The valid string options are 'conceptSet', 'cohort', 'characterization', 'pathway, 'incidenceRate', 'estimation', 'prediction'.

## **Details**

Invoke generation (execution) information.

#### Value

Error message if invoke failed.

# **Examples**

```
## Not run:
invokeGeneration(id = 13242, category = "cohort", baseUrl = "http://server.org:80/WebAPI")
## End(Not run)
```

invoke Incidence Rate Generation

Invoke generation of IncidenceRate id.

# **Description**

Invoke generation of IncidenceRate id.

# Usage

invokeIncidenceRateGeneration(incidenceRateId, baseUrl, sourceKey)

#### **Arguments**

incidenceRateId

An integer id representing the id that uniquely identifies a IncidenceRate defini-

tion in a WebApi instance.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

sourceKey The source key for a CDM instance in WebAPI, as defined in the Configuration

page

#### **Details**

Invoke the generation of IncidenceRate id in the WebApi.

#### Value

A tibble with job status information.

## **Examples**

invokePathwayGeneration

Invoke generation of Pathway id.

## **Description**

Invoke generation of Pathway id.

#### Usage

invokePathwayGeneration(pathwayId, baseUrl, sourceKey)

## **Arguments**

pathwayId An integer id representing the id that uniquely identifies a Pathway definition in

a WebApi instance.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

sourceKey The source key for a CDM instance in WebAPI, as defined in the Configuration

page

# Details

Invoke the generation of Pathway id in the WebApi.

58 is Valid Characterization Id

#### Value

A tibble with job status information.

## **Examples**

isValidCharacterizationId

is Characterization id a valid definition in the WebApi.

# Description

is Characterization id a valid definition in the WebApi.

## Usage

```
isValidCharacterizationId(characterizationIds, baseUrl)
```

## **Arguments**

characterizationIds

A list of integer id(s) of the Characterization to be tested for validity.

baseUr1

The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI". Note, there is no trailing '/' is used, you may receive an error.

#### **Details**

Checks if a set of id for a Characterization is valid. The following checks are performed. 1) checks if all the ids exists in the WebApi i.e. valid.

## Value

A logical vector indicating if an ID is valid.

is ValidCohortId 59

isValidCohortId

is Cohort id a valid definition in the WebApi.

#### **Description**

is Cohort id a valid definition in the WebApi.

#### Usage

```
isValidCohortId(cohortIds, baseUrl)
```

#### **Arguments**

cohortIds A list of integer id(s) of the Cohort to be tested for validity.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

#### **Details**

Checks if a set of id for a Cohort is valid. The following checks are performed. 1) checks if all the ids exists in the WebApi i.e. valid.

#### Value

A logical vector indicating if an ID is valid.

## **Examples**

```
## Not run:
isValidCohortId(cohortIds = c(13242, 3423, 34), baseUrl = "http://server.org:80/WebAPI")
## End(Not run)
```

is Valid Concept Set Id

is ConceptSet id a valid definition in the WebApi.

# Description

is ConceptSet id a valid definition in the WebApi.

# Usage

```
isValidConceptSetId(conceptSetIds, baseUrl)
```

# Arguments

conceptSetIds A list of integer id(s) of the ConceptSet to be tested for validity.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

60 is ValidEstimationId

#### **Details**

Checks if a set of id for a ConceptSet is valid. The following checks are performed. 1) checks if all the ids exists in the WebApi i.e. valid.

#### Value

A logical vector indicating if an ID is valid.

#### **Examples**

```
## Not run:
isValidConceptSetId(conceptSetIds = c(13242, 3423, 34), baseUrl = "http://server.org:80/WebAPI")
## End(Not run)
```

isValidEstimationId

is Estimation id a valid definition in the WebApi.

#### **Description**

is Estimation id a valid definition in the WebApi.

## Usage

```
isValidEstimationId(estimationIds, baseUrl)
```

## **Arguments**

estimationIds A list of integer id(s) of the Estimation to be tested for validity.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

#### **Details**

Checks if a set of id for a Estimation is valid. The following checks are performed. 1) checks if all the ids exists in the WebApi i.e. valid.

#### Value

A logical vector indicating if an ID is valid.

```
## Not run:
isValidEstimationId(estimationIds = c(13242, 3423, 34), baseUrl = "http://server.org:80/WebAPI")
## End(Not run)
```

is ValidId 61

		Ιd

Check if a webApi id is valid.

#### **Description**

Check if a webApi id is valid.

#### Usage

```
isValidId(ids, baseUrl, category)
```

## **Arguments**

ids A list of integer id(s) of the category to be tested for validity.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

category These are the categories in WebApi. The valid string options are 'conceptSet',

'cohort', 'characterization', 'pathway, 'incidenceRate', 'estimation', 'predic-

tion'.

## **Details**

Checks if a set of id for a category is valid, i.e. checks if all the ids exists in the WebApi i.e. valid.

# Value

A logical vector indicating if an ID is valid.

# **Examples**

```
## Not run:
isValidId(ids = c(13242, 3423, 34), baseUrl = "http://server.org:80/WebAPI", category = "cohort")
## End(Not run)
```

isValidIncidenceRateId

is IncidenceRate id a valid definition in the WebApi.

# Description

is IncidenceRate id a valid definition in the WebApi.

# Usage

```
isValidIncidenceRateId(incidenceRateIds, baseUrl)
```

62 is ValidPathwayId

#### **Arguments**

incidenceRateIds

A list of integer id(s) of the IncidenceRate to be tested for validity.

baseUrl

The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI". Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

#### **Details**

Checks if a set of id for a IncidenceRate is valid. The following checks are performed. 1) checks if all the ids exists in the WebApi i.e. valid.

#### Value

A logical vector indicating if an ID is valid.

#### **Examples**

isValidPathwayId

is Pathway id a valid definition in the WebApi.

# Description

is Pathway id a valid definition in the WebApi.

# Usage

```
isValidPathwayId(pathwayIds, baseUrl)
```

# Arguments

pathwayIds A list of integer id(s) of the Pathway to be tested for validity.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

#### **Details**

Checks if a set of id for a Pathway is valid. The following checks are performed. 1) checks if all the ids exists in the WebApi i.e. valid.

## Value

A logical vector indicating if an ID is valid.

is ValidPredictionId 63

## **Examples**

```
## Not run:
isValidPathwayId(pathwayIds = c(13242, 3423, 34), baseUrl = "http://server.org:80/WebAPI")
## End(Not run)
```

isValidPredictionId

is Prediction id a valid definition in the WebApi.

# Description

is Prediction id a valid definition in the WebApi.

## Usage

```
isValidPredictionId(predictionIds, baseUrl)
```

## **Arguments**

predictionIds A list of integer id(s) of the Prediction to be tested for validity.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

## **Details**

Checks if a set of id for a Prediction is valid. The following checks are performed. 1) checks if all the ids exists in the WebApi i.e. valid.

## Value

A logical vector indicating if an ID is valid.

```
## Not run:
isValidPredictionId(predictionIds = c(13242, 3423, 34), baseUrl = "http://server.org:80/WebAPI")
## End(Not run)
```

isValidSourceKey

Check if source key is valid.

## **Description**

Check if source key is valid.

## Usage

```
isValidSourceKey(sourceKeys, baseUrl)
```

## **Arguments**

sourceKeys The source key(s) for a CDM instance in WebAPI, as defined in the Configura-

tion page.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

## **Details**

Checks if a set of sourceKey(s) are valid, i.e. checks if all the sourceKey(s) exists in the WebApi i.e. valid.

# Value

A logical vector indicating if an ID is valid.

# **Examples**

 $\verb"postCharacterizationDefinition"$ 

Post Characterization definition.

## **Description**

Post Characterization definition.

# Usage

```
postCharacterizationDefinition(name, CharacterizationDefinition, baseUrl)
```

postCohortDefinition 65

#### **Arguments**

name A valid name for the definition. WebApi will use this name (if valid) as the

name of the definition. WebApi checks for validity, such as uniqueness, absence

of unacceptable character etc. An error might be thrown.

CharacterizationDefinition

An R list object containing the expression for the specification. This will be converted to JSON expression by function and posted into the WebApi. Note: only limited checks are performed in R to check the validity of this expression.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

#### **Details**

Post Characterization definition to WebAPI

#### Value

This function will return a dataframe object with one row describing the posted WebApi expression and its details. If unsuccessful a STOP message will be shown.

## **Examples**

postCohortDefinition Post Cohort definition.

## Description

Post Cohort definition.

#### Usage

```
postCohortDefinition(name, CohortDefinition, baseUrl)
```

#### **Arguments**

name A valid name for the definition. WebApi will use this name (if valid) as the

name of the definition. WebApi checks for validity, such as uniqueness, absence

of unacceptable character etc. An error might be thrown.

CohortDefinition

An R list object containing the expression for the specification. This will be converted to JSON expression by function and posted into the WebApi. Note: only limited checks are performed in R to check the validity of this expression.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

#### **Details**

Post Cohort definition to WebAPI

#### Value

This function will return a dataframe object with one row describing the posted WebApi expression and its details. If unsuccessful a STOP message will be shown.

# **Examples**

## **Description**

Post ConceptSet definition.

## Usage

```
postConceptSetDefinition(name, ConceptSetDefinition, baseUrl)
```

# **Arguments**

name A valid name for the definition. WebApi will use this name (if valid) as the

name of the definition. WebApi checks for validity, such as uniqueness, absence

of unacceptable character etc. An error might be thrown.

ConceptSetDefinition

An R list object containing the expression for the specification. This will be converted to JSON expression by function and posted into the WebApi. Note: only limited checks are performed in R to check the validity of this expression.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

# **Details**

Post ConceptSet definition to WebAPI

#### Value

This function will return a dataframe object with one row describing the posted WebApi expression and its details. If unsuccessful a STOP message will be shown.

postDefinition 67

#### **Examples**

postDefinition

Post a definition into WebApi

#### **Description**

Post a definition into WebApi

#### Usage

```
postDefinition(baseUrl, name, category, definition)
```

## **Arguments**

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

name A valid name for the definition. WebApi will use this name (if valid) as the

name of the definition. WebApi checks for validity, such as uniqueness, absence

of unacceptable character etc. An error might be thrown.

category These are the categories in WebApi. The valid string options are 'conceptSet',

'cohort', 'characterization', 'pathway, 'incidenceRate', 'estimation', 'predic-

tion'.

definition An R list object containing the expression for the specification. This will be

converted to JSON expression by function and posted into the WebApi. Note: only limited checks are performed in R to check the validity of this expression.

#### **Details**

Post a definition into WebAPI. Currently only cohort and concept-set are supported.

#### Value

This function will return a dataframe object with one row describing the posted WebApi expression and its details. If unsuccessful a STOP message will be shown.

postEstimationDefinition

Post Estimation definition.

#### **Description**

Post Estimation definition.

# Usage

```
postEstimationDefinition(name, EstimationDefinition, baseUrl)
```

#### **Arguments**

name

A valid name for the definition. WebApi will use this name (if valid) as the name of the definition. WebApi checks for validity, such as uniqueness, absence of unacceptable character etc. An error might be thrown.

EstimationDefinition

An R list object containing the expression for the specification. This will be converted to JSON expression by function and posted into the WebApi. Note: only limited checks are performed in R to check the validity of this expression.

baseUrl

The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI". Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

# **Details**

Post Estimation definition to WebAPI

## Value

This function will return a dataframe object with one row describing the posted WebApi expression and its details. If unsuccessful a STOP message will be shown.

postIncidenceRateDefinition

Post IncidenceRate definition.

#### **Description**

Post IncidenceRate definition.

# Usage

```
postIncidenceRateDefinition(name, IncidenceRateDefinition, baseUrl)
```

#### **Arguments**

name A valid name for the definition. WebApi will use this name (if valid) as the

name of the definition. WebApi checks for validity, such as uniqueness, absence

of unacceptable character etc. An error might be thrown.

IncidenceRateDefinition

An R list object containing the expression for the specification. This will be converted to JSON expression by function and posted into the WebApi. Note: only limited checks are performed in R to check the validity of this expression.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

# **Details**

Post IncidenceRate definition to WebAPI

## Value

This function will return a dataframe object with one row describing the posted WebApi expression and its details. If unsuccessful a STOP message will be shown.

postPathwayDefinition Post Pathway definition.

## **Description**

Post Pathway definition.

## Usage

```
postPathwayDefinition(name, PathwayDefinition, baseUrl)
```

## **Arguments**

name A valid name for the definition. WebApi will use this name (if valid) as the

name of the definition. WebApi checks for validity, such as uniqueness, absence

of unacceptable character etc. An error might be thrown.

PathwayDefinition

An R list object containing the expression for the specification. This will be converted to JSON expression by function and posted into the WebApi. Note: only limited checks are performed in R to check the validity of this expression.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

#### **Details**

Post Pathway definition to WebAPI

#### Value

This function will return a dataframe object with one row describing the posted WebApi expression and its details. If unsuccessful a STOP message will be shown.

#### postPredictionDefinition

Post Prediction definition.

#### **Description**

Post Prediction definition.

## Usage

```
postPredictionDefinition(name, PredictionDefinition, baseUrl)
```

#### **Arguments**

name

A valid name for the definition. WebApi will use this name (if valid) as the name of the definition. WebApi checks for validity, such as uniqueness, absence of unacceptable character etc. An error might be thrown.

PredictionDefinition

An R list object containing the expression for the specification. This will be converted to JSON expression by function and posted into the WebApi. Note: only limited checks are performed in R to check the validity of this expression.

baseUrl

The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI". Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

# **Details**

Post Prediction definition to WebAPI

## Value

This function will return a dataframe object with one row describing the posted WebApi expression and its details. If unsuccessful a STOP message will be shown.

72 resolveConceptSet

resolveConceptSet

Resolve a concept set to the included standard concept IDs

## **Description**

Resolve a concept set to the included standard concept IDs

#### Usage

```
resolveConceptSet(conceptSetDefinition, baseUrl, vocabularySourceKey = NULL)
```

#### **Arguments**

conceptSetDefinition

 $A\ concept\ set\ definition, for\ example\ as\ obtained\ through\ the\ {\tt getConceptSetDefinition}$ 

function, or taken from a cohort definition.

baseUrl The base URL for the WebApi instance, for example: "http://server.org:80/WebAPI".

Note, there is no trailing '/'. If trailing '/' is used, you may receive an error.

vocabularySourceKey

The source key of the Vocabulary. By default, the priority Vocabulary is used.

#### **Details**

Resolve a concept set to the included standard concept IDs

## Value

A vector of standard concept ids.

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