

# Usage of cube DEMO

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*2016-02-03*

## Contents

|   |          |
|---|----------|
| <b>Introduction</b>   | <b>1</b> |
| <b>Create DEMO sample table from CSV file</b>                   | <b>1</b> |
| Execute the DEMO* SPARQL queries . . . . .                      | 2        |
| This works do not change . . . . .                              | 25       |
| Getting triples with information of object if literal . . . . . | 26       |

## Introduction

This is not a good example yet. TODO(mja): fix it.

## Create DEMO sample table from CSV file

This script creates the result and codelist for a simple DEMO table.

```
devtools::load_all(pkg="../..")
```

```
## Loading rrdfqbcindex
```

```
library(rrdfqbcrnd0)
library(rrdfqb)

cubeVocabularyFn<- system.file("extdata/cube-vocabulary-rdf","cube.ttl", package="rrdfqb")
dataCubeFile<- system.file("extdata/sample-rdf", "DC-DEMO-sample.ttl", package="rrdfqbcrndex")

store <- new.rdf() # Initialize

cat("Loading cube specfication from ", cubeVocabularyFn, "\n")
```

```
## Loading cube specfication from /home/ma/R/x86_64-redhat-linux-gnu-library/3.2/rrdfqb/extdata/cube-v
```

```
tmp<- load.rdf(cubeVocabularyFn, format="TURTLE", appendTo= store)

cat("Loading cube from ", dataCubeFile, "\n")
```

```
## Loading cube from /home/ma/projects/R-projects/rrdfqbcrnd0/rrdfqbcrndex/inst/extdata/sample-rdf/DC-I
```

```
tmp<- load.rdf(dataCubeFile, format="TURTLE", appendTo= store)

summarize.rdf(store)
```

```
## [1] "Number of triples: 3385"
```

## Execute the DEMO\* SPARQL queries

```
rqFiles<- system.file("extdata/sample-rdf", list.files(system.file("extdata/sample-rdf", package="rrdf

for (rqFile in rqFiles) {
  cat("File ", rqFile, "\n")
  rq<- paste0(readLines(rqFile),collapse="\n")
  res<- data.frame(sparql.rdf(store, rq),stringsAsFactors=FALSE)
  print(nrow(res))
  if (nrow(res)>0) {
    print(knitr::kable(res))
  }
}
```

```
## File /home/ma/projects/R-projects/rrdfqbcrnd0/rrdfqbcrndex/inst/extdata/sample-rdf/DEMOattributes.r
## [1] 6
##
##
## p
## -----
## crnd-attribute:cellpartno
## crnd-attribute:measurefmt
## crnd-attribute:colno
## crnd-attribute:denominator
## crnd-attribute:unit
## crnd-attribute:rowno
## File /home/ma/projects/R-projects/rrdfqbcrnd0/rrdfqbcrndex/inst/extdata/sample-rdf/DEMOcodelist.rq
## [1] 392
##
##
## codeList      codelevel      codelist      prefLabel
## -----
## code:ethnic   code:factor-quantity   code:factor   quantity
## code:ethnic   code:procedure-max     code:procedure max
## code:ethnic   code:procedure-q3      code:procedure q3
## code:ethnic   code:sex-F             code:sex       F
## code:ethnic   code:sex-F             code:sex       F
## code:ethnic   code:agegr1-_65        code:agegr1    <65
## code:ethnic   code:factor-proportion code:factor     proportion
## code:ethnic   code:agegr1-_80        code:agegr1    >80
## code:ethnic   code:race-_ALL_        code:race      _ALL_
## code:ethnic   code:procedure-mean    code:procedure mean
## code:ethnic   code:trt01a-_ALL_      code:trt01a    _ALL_
## code:ethnic   code:sex-M             code:sex       M
## code:ethnic   code:sex-M             code:sex       M
```

|                |   |                |   |
|----------------|---|----------------|---|
| ## code:ethnic | code:ethnic-HISPANIC_OR_LATINO                      | code:ethnic    | HISPANIC OR LATINO                        |
| ## code:ethnic | code:race-NATIVE_HAWAIIAN_OR_OTHER_PACIFIC_ISLANDER | code:race      | NATIVE HAWAIIAN OR OTHER PACIFIC ISLANDER |
| ## code:ethnic | code:race-NATIVE_HAWAIIAN_OR_OTHER_PACIFIC_ISLANDER | code:race      | NATIVE HAWAIIAN OR OTHER PACIFIC ISLANDER |
| ## code:ethnic | code:ethnic-NOT_HISPANIC_OR_LATINO                  | code:ethnic    | NOT HISPANIC OR LATINO                    |
| ## code:ethnic | code:procedure-median                               | code:procedure | median                                    |
| ## code:ethnic | code:ethnic-_NONMISS_                               | code:ethnic    | _NONMISS_                                 |
| ## code:ethnic | code:ethnic-_NONMISS_                               | code:ethnic    | _NONMISS_                                 |
| ## code:ethnic | code:procedure-q1                                   | code:procedure | q1  |
| ## code:ethnic | code:trt01a-Xanomeline_High_Dose                    | code:trt01a    | Xanomeline High Dose                      |
| ## code:ethnic | code:agegr1-_ALL_                                   | code:agegr1    | _ALL_                                     |
| ## code:ethnic | code:agegr1-_ALL_                                   | code:agegr1    | _ALL_                                     |
| ## code:ethnic | code:sex-UN   | code:sex       | UN  |
| ## code:ethnic | code:sex-UN   | code:sex       | UN  |
| ## code:ethnic | code:sex-_ALL_                                      | code:sex       | _ALL_                                     |
| ## code:ethnic | code:race-ASIAN                                     | code:race      | ASIAN                                     |
| ## code:ethnic | code:race-ASIAN                                     | code:race      | ASIAN                                     |
| ## code:ethnic | code:race-WHITE                                     | code:race      | WHITE                                     |
| ## code:ethnic | code:race-WHITE                                     | code:race      | WHITE                                     |
| ## code:ethnic | code:trt01a-_NONMISS_                               | code:trt01a    | _NONMISS_                                 |
| ## code:ethnic | code:sex-_NONMISS_                                  | code:sex       | _NONMISS_                                 |
| ## code:ethnic | code:factor-age                                     | code:factor    | age                                       |
| ## code:ethnic | code:ethnic-_ALL_                                   | code:ethnic    | _ALL_                                     |
| ## code:ethnic | code:ethnic-_ALL_                                   | code:ethnic    | _ALL_                                     |
| ## code:ethnic | code:procedure-n                                    | code:procedure | n   |
| ## code:ethnic | code:race-AMERICAN_INDIAN_OR_ALASKA_NATIVE          | code:race      | AMERICAN INDIAN OR ALASKA NATIVE          |
| ## code:ethnic | code:race-AMERICAN_INDIAN_OR_ALASKA_NATIVE          | code:race      | AMERICAN INDIAN OR ALASKA NATIVE          |
| ## code:ethnic | code:trt01a-Placebo                                 | code:trt01a    | Placebo                                   |
| ## code:ethnic | code:factor-weighttbl                               | code:factor    | weighttbl                                 |
| ## code:ethnic | code:trt01a-Xanomeline_Low_Dose                     | code:trt01a    | Xanomeline Low Dose                       |
| ## code:ethnic | code:factor-_ALL_                                   | code:factor    | _ALL_                                     |
| ## code:ethnic | code:procedure-percent                              | code:procedure | percent                                   |
| ## code:ethnic | code:agegr1-65-80                                   | code:agegr1    | 65-80                                     |
| ## code:ethnic | code:procedure-min                                  | code:procedure | min                                       |
| ## code:ethnic | code:race-_NONMISS_                                 | code:race      | _NONMISS_                                 |
| ## code:ethnic | code:agegr1-_NONMISS_                               | code:agegr1    | _NONMISS_                                 |
| ## code:ethnic | code:agegr1-_NONMISS_                               | code:agegr1    | _NONMISS_                                 |
| ## code:ethnic | code:race-BLACK_OR_AFRICAN_AMERICAN                 | code:race      | BLACK OR AFRICAN AMERICAN                 |
| ## code:ethnic | code:race-BLACK_OR_AFRICAN_AMERICAN                 | code:race      | BLACK OR AFRICAN AMERICAN                 |
| ## code:ethnic | code:factor-_NONMISS_                               | code:factor    | _NONMISS_                                 |
| ## code:ethnic | code:sex-U  | code:sex       | U   |
| ## code:ethnic | code:sex-U  | code:sex       | U   |
| ## code:ethnic | code:procedure-count                                | code:procedure | count                                     |
| ## code:ethnic | code:procedure-std                                  | code:procedure | std                                       |
| ## code:agegr1 | code:factor-quantity                                | code:factor    | quantity                                  |
| ## code:agegr1 | code:procedure-max                                  | code:procedure | max                                       |
| ## code:agegr1 | code:procedure-q3                                   | code:procedure | q3  |
| ## code:agegr1 | code:sex-F  | code:sex       | F   |
| ## code:agegr1 | code:sex-F  | code:sex       | F   |
| ## code:agegr1 | code:agegr1-_65                                     | code:agegr1    | <65                                       |
| ## code:agegr1 | code:factor-proportion                              | code:factor    | proportion                                |
| ## code:agegr1 | code:agegr1-_80                                     | code:agegr1    | >80                                       |
| ## code:agegr1 | code:race-_ALL_                                     | code:race      | _ALL_                                     |
| ## code:agegr1 | code:procedure-mean                                 | code:procedure | mean                                      |
| ## code:agegr1 | code:trt01a-_ALL_                                   | code:trt01a    | _ALL_                                     |

|                   |   |                |               |
|-------------------|---|----------------|---------------|
| ## code:agegr1    | code:sex-M  | code:sex       | M             |
| ## code:agegr1    | code:sex-M  | code:sex       | M             |
| ## code:agegr1    | code:ethnic-HISPANIC_OR_LATINO                      | code:ethnic    | HISPANIC OR I |
| ## code:agegr1    | code:race-NATIVE_HAWAIIAN_OR_OTHER_PACIFIC_ISLANDER | code:race      | NATIVE HAWAI  |
| ## code:agegr1    | code:race-NATIVE_HAWAIIAN_OR_OTHER_PACIFIC_ISLANDER | code:race      | NATIVE HAWAI  |
| ## code:agegr1    | code:ethnic-NOT_HISPANIC_OR_LATINO                  | code:ethnic    | NOT HISPANIC  |
| ## code:agegr1    | code:procedure-median                               | code:procedure | median        |
| ## code:agegr1    | code:ethnic-_NONMISS_                               | code:ethnic    | _NONMISS_     |
| ## code:agegr1    | code:ethnic-_NONMISS_                               | code:ethnic    | _NONMISS_     |
| ## code:agegr1    | code:procedure-q1                                   | code:procedure | q1            |
| ## code:agegr1    | code:trt01a-Xanomeline_High_Dose                    | code:trt01a    | Xanomeline H  |
| ## code:agegr1    | code:agegr1-_ALL_                                   | code:agegr1    | _ALL_         |
| ## code:agegr1    | code:agegr1-_ALL_                                   | code:agegr1    | _ALL_         |
| ## code:agegr1    | code:sex-UN   | code:sex       | UN            |
| ## code:agegr1    | code:sex-UN   | code:sex       | UN            |
| ## code:agegr1    | code:sex-_ALL_                                      | code:sex       | _ALL_         |
| ## code:agegr1    | code:race-ASIAN                                     | code:race      | ASIAN         |
| ## code:agegr1    | code:race-ASIAN                                     | code:race      | ASIAN         |
| ## code:agegr1    | code:race-WHITE                                     | code:race      | WHITE         |
| ## code:agegr1    | code:race-WHITE                                     | code:race      | WHITE         |
| ## code:agegr1    | code:trt01a-_NONMISS_                               | code:trt01a    | _NONMISS_     |
| ## code:agegr1    | code:sex-_NONMISS_                                  | code:sex       | _NONMISS_     |
| ## code:agegr1    | code:factor-age                                     | code:factor    | age           |
| ## code:agegr1    | code:ethnic-_ALL_                                   | code:ethnic    | _ALL_         |
| ## code:agegr1    | code:ethnic-_ALL_                                   | code:ethnic    | _ALL_         |
| ## code:agegr1    | code:procedure-n                                    | code:procedure | n             |
| ## code:agegr1    | code:race-AMERICAN_INDIAN_OR_ALASKA_NATIVE          | code:race      | AMERICAN IND  |
| ## code:agegr1    | code:race-AMERICAN_INDIAN_OR_ALASKA_NATIVE          | code:race      | AMERICAN IND  |
| ## code:agegr1    | code:trt01a-Placebo                                 | code:trt01a    | Placebo       |
| ## code:agegr1    | code:factor-weightbl                                | code:factor    | weightbl      |
| ## code:agegr1    | code:trt01a-Xanomeline_Low_Dose                     | code:trt01a    | Xanomeline L  |
| ## code:agegr1    | code:factor-_ALL_                                   | code:factor    | _ALL_         |
| ## code:agegr1    | code:procedure-percent                              | code:procedure | percent       |
| ## code:agegr1    | code:agegr1-65-80                                   | code:agegr1    | 65-80         |
| ## code:agegr1    | code:procedure-min                                  | code:procedure | min           |
| ## code:agegr1    | code:race-_NONMISS_                                 | code:race      | _NONMISS_     |
| ## code:agegr1    | code:agegr1-_NONMISS_                               | code:agegr1    | _NONMISS_     |
| ## code:agegr1    | code:agegr1-_NONMISS_                               | code:agegr1    | _NONMISS_     |
| ## code:agegr1    | code:race-BLACK_OR_AFRICAN_AMERICAN                 | code:race      | BLACK OR AFR  |
| ## code:agegr1    | code:race-BLACK_OR_AFRICAN_AMERICAN                 | code:race      | BLACK OR AFR  |
| ## code:agegr1    | code:factor-_NONMISS_                               | code:factor    | _NONMISS_     |
| ## code:agegr1    | code:sex-U  | code:sex       | U             |
| ## code:agegr1    | code:sex-U  | code:sex       | U             |
| ## code:agegr1    | code:procedure-count                                | code:procedure | count         |
| ## code:agegr1    | code:procedure-std                                  | code:procedure | std           |
| ## code:procedure | code:factor-quantity                                | code:factor    | quantity      |
| ## code:procedure | code:procedure-max                                  | code:procedure | max           |
| ## code:procedure | code:procedure-q3                                   | code:procedure | q3            |
| ## code:procedure | code:sex-F  | code:sex       | F             |
| ## code:procedure | code:sex-F  | code:sex       | F             |
| ## code:procedure | code:agegr1-_65                                     | code:agegr1    | <65           |
| ## code:procedure | code:factor-proportion                              | code:factor    | proportion    |
| ## code:procedure | code:agegr1-_80                                     | code:agegr1    | >80           |
| ## code:procedure | code:race-_ALL_                                     | code:race      | _ALL_         |

|                   |   |                |               |
|-------------------|---|----------------|---------------|
| ## code:procedure | code:procedure-mean                                 | code:procedure | mean          |
| ## code:procedure | code:trt01a-_ALL_                                   | code:trt01a    | _ALL_         |
| ## code:procedure | code:sex-M  | code:sex       | M             |
| ## code:procedure | code:sex-M  | code:sex       | M             |
| ## code:procedure | code:ethnic-HISPANIC_OR_LATINO                      | code:ethnic    | HISPANIC OR I |
| ## code:procedure | code:race-NATIVE_HAWAIIAN_OR_OTHER_PACIFIC_ISLANDER | code:race      | NATIVE HAWAI  |
| ## code:procedure | code:race-NATIVE_HAWAIIAN_OR_OTHER_PACIFIC_ISLANDER | code:race      | NATIVE HAWAI  |
| ## code:procedure | code:ethnic-NOT_HISPANIC_OR_LATINO                  | code:ethnic    | NOT HISPANIC  |
| ## code:procedure | code:procedure-median                               | code:procedure | median        |
| ## code:procedure | code:ethnic-_NONMISS_                               | code:ethnic    | _NONMISS_     |
| ## code:procedure | code:ethnic-_NONMISS_                               | code:ethnic    | _NONMISS_     |
| ## code:procedure | code:procedure-q1                                   | code:procedure | q1            |
| ## code:procedure | code:trt01a-Xanomeline_High_Dose                    | code:trt01a    | Xanomeline H  |
| ## code:procedure | code:agegr1-_ALL_                                   | code:agegr1    | _ALL_         |
| ## code:procedure | code:agegr1-_ALL_                                   | code:agegr1    | _ALL_         |
| ## code:procedure | code:sex-UN   | code:sex       | UN            |
| ## code:procedure | code:sex-UN   | code:sex       | UN            |
| ## code:procedure | code:sex-_ALL_                                      | code:sex       | _ALL_         |
| ## code:procedure | code:race-ASIAN                                     | code:race      | ASIAN         |
| ## code:procedure | code:race-ASIAN                                     | code:race      | ASIAN         |
| ## code:procedure | code:race-WHITE                                     | code:race      | WHITE         |
| ## code:procedure | code:race-WHITE                                     | code:race      | WHITE         |
| ## code:procedure | code:trt01a-_NONMISS_                               | code:trt01a    | _NONMISS_     |
| ## code:procedure | code:sex-_NONMISS_                                  | code:sex       | _NONMISS_     |
| ## code:procedure | code:factor-age                                     | code:factor    | age           |
| ## code:procedure | code:ethnic-_ALL_                                   | code:ethnic    | _ALL_         |
| ## code:procedure | code:ethnic-_ALL_                                   | code:ethnic    | _ALL_         |
| ## code:procedure | code:procedure-n                                    | code:procedure | n             |
| ## code:procedure | code:race-AMERICAN_INDIAN_OR_ALASKA_NATIVE          | code:race      | AMERICAN IND  |
| ## code:procedure | code:race-AMERICAN_INDIAN_OR_ALASKA_NATIVE          | code:race      | AMERICAN IND  |
| ## code:procedure | code:trt01a-Placebo                                 | code:trt01a    | Placebo       |
| ## code:procedure | code:factor-weightbl                                | code:factor    | weightbl      |
| ## code:procedure | code:trt01a-Xanomeline_Low_Dose                     | code:trt01a    | Xanomeline L  |
| ## code:procedure | code:factor-_ALL_                                   | code:factor    | _ALL_         |
| ## code:procedure | code:procedure-percent                              | code:procedure | percent       |
| ## code:procedure | code:agegr1-65-80                                   | code:agegr1    | 65-80         |
| ## code:procedure | code:procedure-min                                  | code:procedure | min           |
| ## code:procedure | code:race-_NONMISS_                                 | code:race      | _NONMISS_     |
| ## code:procedure | code:agegr1-_NONMISS_                               | code:agegr1    | _NONMISS_     |
| ## code:procedure | code:agegr1-_NONMISS_                               | code:agegr1    | _NONMISS_     |
| ## code:procedure | code:race-BLACK_OR_AFRICAN_AMERICAN                 | code:race      | BLACK OR AFR  |
| ## code:procedure | code:race-BLACK_OR_AFRICAN_AMERICAN                 | code:race      | BLACK OR AFR  |
| ## code:procedure | code:factor-_NONMISS_                               | code:factor    | _NONMISS_     |
| ## code:procedure | code:sex-U  | code:sex       | U             |
| ## code:procedure | code:sex-U  | code:sex       | U             |
| ## code:procedure | code:procedure-count                                | code:procedure | count         |
| ## code:procedure | code:procedure-std                                  | code:procedure | std           |
| ## code:factor    | code:factor-quantity                                | code:factor    | quantity      |
| ## code:factor    | code:procedure-max                                  | code:procedure | max           |
| ## code:factor    | code:procedure-q3                                   | code:procedure | q3            |
| ## code:factor    | code:sex-F  | code:sex       | F             |
| ## code:factor    | code:sex-F  | code:sex       | F             |
| ## code:factor    | code:agegr1-_65                                     | code:agegr1    | <65           |
| ## code:factor    | code:factor-proportion                              | code:factor    | proportion    |

|                |   |                |   |
|----------------|---|----------------|---|
| ## code:factor | code:agegr1-_80                                     | code:agegr1    | >80                                       |
| ## code:factor | code:race-_ALL_                                     | code:race      | _ALL_                                     |
| ## code:factor | code:procedure-mean                                 | code:procedure | mean                                      |
| ## code:factor | code:trt01a-_ALL_                                   | code:trt01a    | _ALL_                                     |
| ## code:factor | code:sex-M  | code:sex       | M   |
| ## code:factor | code:sex-M  | code:sex       | M   |
| ## code:factor | code:ethnic-HISPANIC_OR_LATINO                      | code:ethnic    | HISPANIC OR LATINO                        |
| ## code:factor | code:race-NATIVE_HAWAIIAN_OR_OTHER_PACIFIC_ISLANDER | code:race      | NATIVE HAWAIIAN OR OTHER PACIFIC ISLANDER |
| ## code:factor | code:race-NATIVE_HAWAIIAN_OR_OTHER_PACIFIC_ISLANDER | code:race      | NATIVE HAWAIIAN OR OTHER PACIFIC ISLANDER |
| ## code:factor | code:ethnic-NOT_HISPANIC_OR_LATINO                  | code:ethnic    | NOT HISPANIC OR LATINO                    |
| ## code:factor | code:procedure-median                               | code:procedure | median                                    |
| ## code:factor | code:ethnic-_NONMISS_                               | code:ethnic    | _NONMISS_                                 |
| ## code:factor | code:ethnic-_NONMISS_                               | code:ethnic    | _NONMISS_                                 |
| ## code:factor | code:procedure-q1                                   | code:procedure | q1  |
| ## code:factor | code:trt01a-Xanomeline_High_Dose                    | code:trt01a    | Xanomeline High Dose                      |
| ## code:factor | code:agegr1-_ALL_                                   | code:agegr1    | _ALL_                                     |
| ## code:factor | code:agegr1-_ALL_                                   | code:agegr1    | _ALL_                                     |
| ## code:factor | code:sex-UN   | code:sex       | UN  |
| ## code:factor | code:sex-UN   | code:sex       | UN  |
| ## code:factor | code:sex-_ALL_                                      | code:sex       | _ALL_                                     |
| ## code:factor | code:race-ASIAN                                     | code:race      | ASIAN                                     |
| ## code:factor | code:race-ASIAN                                     | code:race      | ASIAN                                     |
| ## code:factor | code:race-WHITE                                     | code:race      | WHITE                                     |
| ## code:factor | code:race-WHITE                                     | code:race      | WHITE                                     |
| ## code:factor | code:trt01a-_NONMISS_                               | code:trt01a    | _NONMISS_                                 |
| ## code:factor | code:sex-_NONMISS_                                  | code:sex       | _NONMISS_                                 |
| ## code:factor | code:factor-age                                     | code:factor    | age                                       |
| ## code:factor | code:ethnic-_ALL_                                   | code:ethnic    | _ALL_                                     |
| ## code:factor | code:ethnic-_ALL_                                   | code:ethnic    | _ALL_                                     |
| ## code:factor | code:procedure-n                                    | code:procedure | n   |
| ## code:factor | code:race-AMERICAN_INDIAN_OR_ALASKA_NATIVE          | code:race      | AMERICAN INDIAN OR ALASKA NATIVE          |
| ## code:factor | code:race-AMERICAN_INDIAN_OR_ALASKA_NATIVE          | code:race      | AMERICAN INDIAN OR ALASKA NATIVE          |
| ## code:factor | code:trt01a-Placebo                                 | code:trt01a    | Placebo                                   |
| ## code:factor | code:factor-weighttbl                               | code:factor    | weighttbl                                 |
| ## code:factor | code:trt01a-Xanomeline_Low_Dose                     | code:trt01a    | Xanomeline Low Dose                       |
| ## code:factor | code:factor-_ALL_                                   | code:factor    | _ALL_                                     |
| ## code:factor | code:procedure-percent                              | code:procedure | percent                                   |
| ## code:factor | code:agegr1-65-80                                   | code:agegr1    | 65-80                                     |
| ## code:factor | code:procedure-min                                  | code:procedure | min                                       |
| ## code:factor | code:race-_NONMISS_                                 | code:race      | _NONMISS_                                 |
| ## code:factor | code:agegr1-_NONMISS_                               | code:agegr1    | _NONMISS_                                 |
| ## code:factor | code:agegr1-_NONMISS_                               | code:agegr1    | _NONMISS_                                 |
| ## code:factor | code:race-BLACK_OR_AFRICAN_AMERICAN                 | code:race      | BLACK OR AFRICAN AMERICAN                 |
| ## code:factor | code:race-BLACK_OR_AFRICAN_AMERICAN                 | code:race      | BLACK OR AFRICAN AMERICAN                 |
| ## code:factor | code:factor-_NONMISS_                               | code:factor    | _NONMISS_                                 |
| ## code:factor | code:sex-U  | code:sex       | U   |
| ## code:factor | code:sex-U  | code:sex       | U   |
| ## code:factor | code:procedure-count                                | code:procedure | count                                     |
| ## code:factor | code:procedure-std                                  | code:procedure | std                                       |
| ## code:trt01a | code:factor-quantity                                | code:factor    | quantity                                  |
| ## code:trt01a | code:procedure-max                                  | code:procedure | max                                       |
| ## code:trt01a | code:procedure-q3                                   | code:procedure | q3  |
| ## code:trt01a | code:sex-F  | code:sex       | F   |
| ## code:trt01a | code:sex-F  | code:sex       | F   |

|                |   |                |   |
|----------------|---|----------------|---|
| ## code:trt01a | code:agegr1-_65                                     | code:agegr1    | <65                                       |
| ## code:trt01a | code:factor-proportion                              | code:factor    | proportion                                |
| ## code:trt01a | code:agegr1-_80                                     | code:agegr1    | >80                                       |
| ## code:trt01a | code:race-_ALL_                                     | code:race      | _ALL_                                     |
| ## code:trt01a | code:procedure-mean                                 | code:procedure | mean                                      |
| ## code:trt01a | code:trt01a-_ALL_                                   | code:trt01a    | _ALL_                                     |
| ## code:trt01a | code:sex-M  | code:sex       | M   |
| ## code:trt01a | code:sex-M  | code:sex       | M   |
| ## code:trt01a | code:ethnic-HISPANIC_OR_LATINO                      | code:ethnic    | HISPANIC OR LATINO                        |
| ## code:trt01a | code:race-NATIVE_HAWAIIAN_OR_OTHER_PACIFIC_ISLANDER | code:race      | NATIVE HAWAIIAN OR OTHER PACIFIC ISLANDER |
| ## code:trt01a | code:race-NATIVE_HAWAIIAN_OR_OTHER_PACIFIC_ISLANDER | code:race      | NATIVE HAWAIIAN OR OTHER PACIFIC ISLANDER |
| ## code:trt01a | code:ethnic-NOT_HISPANIC_OR_LATINO                  | code:ethnic    | NOT HISPANIC OR LATINO                    |
| ## code:trt01a | code:procedure-median                               | code:procedure | median                                    |
| ## code:trt01a | code:ethnic-_NONMISS_                               | code:ethnic    | _NONMISS_                                 |
| ## code:trt01a | code:ethnic-_NONMISS_                               | code:ethnic    | _NONMISS_                                 |
| ## code:trt01a | code:procedure-q1                                   | code:procedure | q1  |
| ## code:trt01a | code:trt01a-Xanomeline_High_Dose                    | code:trt01a    | Xanomeline High Dose                      |
| ## code:trt01a | code:agegr1-_ALL_                                   | code:agegr1    | _ALL_                                     |
| ## code:trt01a | code:agegr1-_ALL_                                   | code:agegr1    | _ALL_                                     |
| ## code:trt01a | code:sex-UN   | code:sex       | UN  |
| ## code:trt01a | code:sex-UN   | code:sex       | UN  |
| ## code:trt01a | code:sex-_ALL_                                      | code:sex       | _ALL_                                     |
| ## code:trt01a | code:race-ASIAN                                     | code:race      | ASIAN                                     |
| ## code:trt01a | code:race-ASIAN                                     | code:race      | ASIAN                                     |
| ## code:trt01a | code:race-WHITE                                     | code:race      | WHITE                                     |
| ## code:trt01a | code:race-WHITE                                     | code:race      | WHITE                                     |
| ## code:trt01a | code:trt01a-_NONMISS_                               | code:trt01a    | _NONMISS_                                 |
| ## code:trt01a | code:sex-_NONMISS_                                  | code:sex       | _NONMISS_                                 |
| ## code:trt01a | code:factor-age                                     | code:factor    | age                                       |
| ## code:trt01a | code:ethnic-_ALL_                                   | code:ethnic    | _ALL_                                     |
| ## code:trt01a | code:ethnic-_ALL_                                   | code:ethnic    | _ALL_                                     |
| ## code:trt01a | code:procedure-n                                    | code:procedure | n   |
| ## code:trt01a | code:race-AMERICAN_INDIAN_OR_ALASKA_NATIVE          | code:race      | AMERICAN INDIAN OR ALASKA NATIVE          |
| ## code:trt01a | code:race-AMERICAN_INDIAN_OR_ALASKA_NATIVE          | code:race      | AMERICAN INDIAN OR ALASKA NATIVE          |
| ## code:trt01a | code:trt01a-Placebo                                 | code:trt01a    | Placebo                                   |
| ## code:trt01a | code:factor-weighttbl                               | code:factor    | weighttbl                                 |
| ## code:trt01a | code:trt01a-Xanomeline_Low_Dose                     | code:trt01a    | Xanomeline Low Dose                       |
| ## code:trt01a | code:factor-_ALL_                                   | code:factor    | _ALL_                                     |
| ## code:trt01a | code:procedure-percent                              | code:procedure | percent                                   |
| ## code:trt01a | code:agegr1-65-80                                   | code:agegr1    | 65-80                                     |
| ## code:trt01a | code:procedure-min                                  | code:procedure | min                                       |
| ## code:trt01a | code:race-_NONMISS_                                 | code:race      | _NONMISS_                                 |
| ## code:trt01a | code:agegr1-_NONMISS_                               | code:agegr1    | _NONMISS_                                 |
| ## code:trt01a | code:agegr1-_NONMISS_                               | code:agegr1    | _NONMISS_                                 |
| ## code:trt01a | code:race-BLACK_OR_AFRICAN_AMERICAN                 | code:race      | BLACK OR AFRICAN AMERICAN                 |
| ## code:trt01a | code:race-BLACK_OR_AFRICAN_AMERICAN                 | code:race      | BLACK OR AFRICAN AMERICAN                 |
| ## code:trt01a | code:factor-_NONMISS_                               | code:factor    | _NONMISS_                                 |
| ## code:trt01a | code:sex-U  | code:sex       | U   |
| ## code:trt01a | code:sex-U  | code:sex       | U   |
| ## code:trt01a | code:procedure-count                                | code:procedure | count                                     |
| ## code:trt01a | code:procedure-std                                  | code:procedure | std                                       |
| ## code:sex    | code:factor-quantity                                | code:factor    | quantity                                  |
| ## code:sex    | code:procedure-max                                  | code:procedure | max                                       |
| ## code:sex    | code:procedure-q3                                   | code:procedure | q3  |

|              |   |                |   |
|--------------|---|----------------|---|
| ## code:sex  | code:sex-F  | code:sex       | F   |
| ## code:sex  | code:sex-F  | code:sex       | F   |
| ## code:sex  | code:agegr1-_65                                     | code:agegr1    | <65                                       |
| ## code:sex  | code:factor-proportion                              | code:factor    | proportion                                |
| ## code:sex  | code:agegr1-_80                                     | code:agegr1    | >80                                       |
| ## code:sex  | code:race-_ALL_                                     | code:race      | _ALL_                                     |
| ## code:sex  | code:procedure-mean                                 | code:procedure | mean                                      |
| ## code:sex  | code:trt01a-_ALL_                                   | code:trt01a    | _ALL_                                     |
| ## code:sex  | code:sex-M  | code:sex       | M   |
| ## code:sex  | code:sex-M  | code:sex       | M   |
| ## code:sex  | code:ethnic-HISPANIC_OR_LATINO                      | code:ethnic    | HISPANIC OR LATINO                        |
| ## code:sex  | code:race-NATIVE_HAWAIIAN_OR_OTHER_PACIFIC_ISLANDER | code:race      | NATIVE HAWAIIAN OR OTHER PACIFIC ISLANDER |
| ## code:sex  | code:race-NATIVE_HAWAIIAN_OR_OTHER_PACIFIC_ISLANDER | code:race      | NATIVE HAWAIIAN OR OTHER PACIFIC ISLANDER |
| ## code:sex  | code:ethnic-NOT_HISPANIC_OR_LATINO                  | code:ethnic    | NOT HISPANIC OR LATINO                    |
| ## code:sex  | code:procedure-median                               | code:procedure | median                                    |
| ## code:sex  | code:ethnic-_NONMISS_                               | code:ethnic    | _NONMISS_                                 |
| ## code:sex  | code:ethnic-_NONMISS_                               | code:ethnic    | _NONMISS_                                 |
| ## code:sex  | code:procedure-q1                                   | code:procedure | q1  |
| ## code:sex  | code:trt01a-Xanomeline_High_Dose                    | code:trt01a    | Xanomeline High Dose                      |
| ## code:sex  | code:agegr1-_ALL_                                   | code:agegr1    | _ALL_                                     |
| ## code:sex  | code:agegr1-_ALL_                                   | code:agegr1    | _ALL_                                     |
| ## code:sex  | code:sex-UN   | code:sex       | UN  |
| ## code:sex  | code:sex-UN   | code:sex       | UN  |
| ## code:sex  | code:sex-_ALL_                                      | code:sex       | _ALL_                                     |
| ## code:sex  | code:race-ASIAN                                     | code:race      | ASIAN                                     |
| ## code:sex  | code:race-ASIAN                                     | code:race      | ASIAN                                     |
| ## code:sex  | code:race-WHITE                                     | code:race      | WHITE                                     |
| ## code:sex  | code:race-WHITE                                     | code:race      | WHITE                                     |
| ## code:sex  | code:trt01a-_NONMISS_                               | code:trt01a    | _NONMISS_                                 |
| ## code:sex  | code:sex-_NONMISS_                                  | code:sex       | _NONMISS_                                 |
| ## code:sex  | code:factor-age                                     | code:factor    | age                                       |
| ## code:sex  | code:ethnic-_ALL_                                   | code:ethnic    | _ALL_                                     |
| ## code:sex  | code:ethnic-_ALL_                                   | code:ethnic    | _ALL_                                     |
| ## code:sex  | code:procedure-n                                    | code:procedure | n   |
| ## code:sex  | code:race-AMERICAN_INDIAN_OR_ALASKA_NATIVE          | code:race      | AMERICAN INDIAN OR ALASKA NATIVE          |
| ## code:sex  | code:race-AMERICAN_INDIAN_OR_ALASKA_NATIVE          | code:race      | AMERICAN INDIAN OR ALASKA NATIVE          |
| ## code:sex  | code:trt01a-Placebo                                 | code:trt01a    | Placebo                                   |
| ## code:sex  | code:factor-weightbl                                | code:factor    | weightbl                                  |
| ## code:sex  | code:trt01a-Xanomeline_Low_Dose                     | code:trt01a    | Xanomeline Low Dose                       |
| ## code:sex  | code:factor-_ALL_                                   | code:factor    | _ALL_                                     |
| ## code:sex  | code:procedure-percent                              | code:procedure | percent                                   |
| ## code:sex  | code:agegr1-65-80                                   | code:agegr1    | 65-80                                     |
| ## code:sex  | code:procedure-min                                  | code:procedure | min                                       |
| ## code:sex  | code:race-_NONMISS_                                 | code:race      | _NONMISS_                                 |
| ## code:sex  | code:agegr1-_NONMISS_                               | code:agegr1    | _NONMISS_                                 |
| ## code:sex  | code:agegr1-_NONMISS_                               | code:agegr1    | _NONMISS_                                 |
| ## code:sex  | code:race-BLACK_OR_AFRICAN_AMERICAN                 | code:race      | BLACK OR AFRICAN AMERICAN                 |
| ## code:sex  | code:race-BLACK_OR_AFRICAN_AMERICAN                 | code:race      | BLACK OR AFRICAN AMERICAN                 |
| ## code:sex  | code:factor-_NONMISS_                               | code:factor    | _NONMISS_                                 |
| ## code:sex  | code:sex-U  | code:sex       | U   |
| ## code:sex  | code:sex-U  | code:sex       | U   |
| ## code:sex  | code:procedure-count                                | code:procedure | count                                     |
| ## code:sex  | code:procedure-std                                  | code:procedure | std                                       |
| ## code:race | code:factor-quantity                                | code:factor    | quantity                                  |



|              |   |                |   |
|--------------|---|----------------|---|
| ## code:race | code:procedure-max                                  | code:procedure | max                                       |
| ## code:race | code:procedure-q3                                   | code:procedure | q3  |
| ## code:race | code:sex-F  | code:sex       | F   |
| ## code:race | code:sex-F  | code:sex       | F   |
| ## code:race | code:agegr1-_65                                     | code:agegr1    | <65                                       |
| ## code:race | code:factor-proportion                              | code:factor    | proportion                                |
| ## code:race | code:agegr1-_80                                     | code:agegr1    | >80                                       |
| ## code:race | code:race-_ALL_                                     | code:race      | _ALL_                                     |
| ## code:race | code:procedure-mean                                 | code:procedure | mean                                      |
| ## code:race | code:trt01a-_ALL_                                   | code:trt01a    | _ALL_                                     |
| ## code:race | code:sex-M  | code:sex       | M   |
| ## code:race | code:sex-M  | code:sex       | M   |
| ## code:race | code:ethnic-HISPANIC_OR_LATINO                      | code:ethnic    | HISPANIC OR LATINO                        |
| ## code:race | code:race-NATIVE_HAWAIIAN_OR_OTHER_PACIFIC_ISLANDER | code:race      | NATIVE HAWAIIAN OR OTHER PACIFIC ISLANDER |
| ## code:race | code:race-NATIVE_HAWAIIAN_OR_OTHER_PACIFIC_ISLANDER | code:race      | NATIVE HAWAIIAN OR OTHER PACIFIC ISLANDER |
| ## code:race | code:ethnic-NOT_HISPANIC_OR_LATINO                  | code:ethnic    | NOT HISPANIC OR LATINO                    |
| ## code:race | code:procedure-median                               | code:procedure | median                                    |
| ## code:race | code:ethnic-_NONMISS_                               | code:ethnic    | _NONMISS_                                 |
| ## code:race | code:ethnic-_NONMISS_                               | code:ethnic    | _NONMISS_                                 |
| ## code:race | code:procedure-q1                                   | code:procedure | q1  |
| ## code:race | code:trt01a-Xanomeline_High_Dose                    | code:trt01a    | Xanomeline High Dose                      |
| ## code:race | code:agegr1-_ALL_                                   | code:agegr1    | _ALL_                                     |
| ## code:race | code:agegr1-_ALL_                                   | code:agegr1    | _ALL_                                     |
| ## code:race | code:sex-UN   | code:sex       | UN  |
| ## code:race | code:sex-UN   | code:sex       | UN  |
| ## code:race | code:sex-_ALL_                                      | code:sex       | _ALL_                                     |
| ## code:race | code:race-ASIAN                                     | code:race      | ASIAN                                     |
| ## code:race | code:race-ASIAN                                     | code:race      | ASIAN                                     |
| ## code:race | code:race-WHITE                                     | code:race      | WHITE                                     |
| ## code:race | code:race-WHITE                                     | code:race      | WHITE                                     |
| ## code:race | code:trt01a-_NONMISS_                               | code:trt01a    | _NONMISS_                                 |
| ## code:race | code:sex-_NONMISS_                                  | code:sex       | _NONMISS_                                 |
| ## code:race | code:factor-age                                     | code:factor    | age                                       |
| ## code:race | code:ethnic-_ALL_                                   | code:ethnic    | _ALL_                                     |
| ## code:race | code:ethnic-_ALL_                                   | code:ethnic    | _ALL_                                     |
| ## code:race | code:procedure-n                                    | code:procedure | n   |
| ## code:race | code:race-AMERICAN_INDIAN_OR_ALASKA_NATIVE          | code:race      | AMERICAN INDIAN OR ALASKA NATIVE          |
| ## code:race | code:race-AMERICAN_INDIAN_OR_ALASKA_NATIVE          | code:race      | AMERICAN INDIAN OR ALASKA NATIVE          |
| ## code:race | code:trt01a-Placebo                                 | code:trt01a    | Placebo                                   |
| ## code:race | code:factor-weightbl                                | code:factor    | weightbl                                  |
| ## code:race | code:trt01a-Xanomeline_Low_Dose                     | code:trt01a    | Xanomeline Low Dose                       |
| ## code:race | code:factor-_ALL_                                   | code:factor    | _ALL_                                     |
| ## code:race | code:procedure-percent                              | code:procedure | percent                                   |
| ## code:race | code:agegr1-65-80                                   | code:agegr1    | 65-80                                     |
| ## code:race | code:procedure-min                                  | code:procedure | min                                       |
| ## code:race | code:race-_NONMISS_                                 | code:race      | _NONMISS_                                 |
| ## code:race | code:agegr1-_NONMISS_                               | code:agegr1    | _NONMISS_                                 |
| ## code:race | code:agegr1-_NONMISS_                               | code:agegr1    | _NONMISS_                                 |
| ## code:race | code:race-BLACK_OR_AFRICAN_AMERICAN                 | code:race      | BLACK OR AFRICAN AMERICAN                 |
| ## code:race | code:race-BLACK_OR_AFRICAN_AMERICAN                 | code:race      | BLACK OR AFRICAN AMERICAN                 |
| ## code:race | code:factor-_NONMISS_                               | code:factor    | _NONMISS_                                 |
| ## code:race | code:sex-U  | code:sex       | U   |
| ## code:race | code:sex-U  | code:sex       | U   |
| ## code:race | code:procedure-count                                | code:procedure | count                                     |

```

## code:race          code:procedure-std          code:procedure  std
## File /home/ma/projects/R-projects/rrdfqbcrnd0/rrdfqbcrndex/inst/extdata/sample-rdf/DEM0dimensions.r
## [1] 7
##
##
## p
## -----
## crnd-dimension:ethnic
## crnd-dimension:race
## crnd-dimension:procedure
## crnd-dimension:agegr1
## crnd-dimension:factor
## crnd-dimension:trt01a
## crnd-dimension:sex
## File /home/ma/projects/R-projects/rrdfqbcrnd0/rrdfqbcrndex/inst/extdata/sample-rdf/DEM0factor-codel
## [1] 53
##
##
## s          p          o
## -----
## code:factor-weightbl      skos:topConceptOf      code:factor
## code:factor-weightbl      skos:prefLabel         weightbl
## code:factor-weightbl      skos:inScheme          code:factor
## code:factor-weightbl      rrdfqbcrnd0:R-selectionvalue weightbl
## code:factor-weightbl      rrdfqbcrnd0:R-selectionoperator ==
## code:factor-weightbl      rrdfqbcrnd0:DataSetRefD2RQ rrdfqbcrnd0:ADSL_WEIGHTBL
## code:factor-weightbl      rdfs:comment           Coded values from data source. No reconcili
## code:factor-weightbl      rdf:type               skos:Concept
## code:factor-weightbl      rdf:type               code:Factor
## code:factor-age           skos:topConceptOf      code:factor
## code:factor-age           skos:prefLabel         age
## code:factor-age           skos:inScheme          code:factor
## code:factor-age           rrdfqbcrnd0:R-selectionvalue age
## code:factor-age           rrdfqbcrnd0:R-selectionoperator ==
## code:factor-age           rrdfqbcrnd0:DataSetRefD2RQ rrdfqbcrnd0:ADSL_AGE
## code:factor-age           rdfs:comment           Coded values from data source. No reconcili
## code:factor-age           rdf:type               skos:Concept
## code:factor-age           rdf:type               code:Factor
## code:factor-_ALL_         skos:topConceptOf      code:factor
## code:factor-_ALL_         skos:prefLabel         _ALL_
## code:factor-_ALL_         skos:inScheme          code:factor
## code:factor-_ALL_         rdfs:comment           NON-CDISC: Represents all codelist categor
## code:factor-_ALL_         rdf:type               skos:Concept
## code:factor-_ALL_         rdf:type               code:Factor
## code:factor-quantity      skos:topConceptOf      code:factor
## code:factor-quantity      skos:prefLabel         quantity
## code:factor-quantity      skos:inScheme          code:factor
## code:factor-quantity      rrdfqbcrnd0:R-selectionvalue quantity
## code:factor-quantity      rrdfqbcrnd0:R-selectionoperator ==
## code:factor-quantity      rdfs:comment           Coded values from data source. No reconcili
## code:factor-quantity      rdf:type               skos:Concept
## code:factor-quantity      rdf:type               code:Factor
## code:factor-_NONMISS_     skos:topConceptOf      code:factor
## code:factor-_NONMISS_     skos:prefLabel         _NONMISS_

```

```

## code:factor-_NONMISS_      skos:inScheme      code:factor
## code:factor-_NONMISS_      rrdfqbcrnd0:R-selectionfunction  is.na
## code:factor-_NONMISS_      rdfs:comment      NON-CDISC: Represents the non-missing code
## code:factor-_NONMISS_      rdf:type      skos:Concept
## code:factor-_NONMISS_      rdf:type      code:Factor
## code:factor-proportion      skos:topConceptOf      code:factor
## code:factor-proportion      skos:prefLabel      proportion
## code:factor-proportion      skos:inScheme      code:factor
## code:factor-proportion      rrdfqbcrnd0:R-selectionvalue      proportion
## code:factor-proportion      rrdfqbcrnd0:R-selectionoperator      ==
## code:factor-proportion      rdfs:comment      Coded values from data source. No reconciliation
## code:factor-proportion      rdf:type      skos:Concept
## code:factor-proportion      rdf:type      code:Factor
## code:factor-proportion      rdf:type      rdfs:Resource
## code:factor-_NONMISS_      rdf:type      rdfs:Resource
## code:factor-quantity      rdf:type      rdfs:Resource
## code:factor-_ALL_      rdf:type      rdfs:Resource
## code:factor-age      rdf:type      rdfs:Resource
## code:factor-weightbl      rdf:type      rdfs:Resource
## File /home/ma/projects/R-projects/rrdfqbcrnd0/rrdfqbcrndex/inst/extdata/sample-rdf/DEMOfactor.rq
## [1] 6
##
##
## factor      prefLabel      DataSetRefD2RQ      Rselectionvalue
## -----
## code:factor-_ALL_      _ALL_      NA      NA
## code:factor-proportion      proportion      NA      proportion
## code:factor-weightbl      weightbl      rrdfqbcrnd0:ADSL_WEIGHTBL      weightbl
## code:factor-_NONMISS_      _NONMISS_      NA      NA
## code:factor-quantity      quantity      NA      quantity
## code:factor-age      age      rrdfqbcrnd0:ADSL_AGE      age
## File /home/ma/projects/R-projects/rrdfqbcrnd0/rrdfqbcrndex/inst/extdata/sample-rdf/DEMOobservations.rq
## [1] 2
##
##
## obs      D2RQPropertyBridge      Rselectionvalue
## -----
## ds:obs007      http://www.example.org/datasets/vocab/ADSL_SEX      F
## ds:obs007      http://www.example.org/datasets/vocab/ADSL_TRT01A      Placebo
## File /home/ma/projects/R-projects/rrdfqbcrnd0/rrdfqbcrndex/inst/extdata/sample-rdf/DEMOobservations.rq
## [1] 0
## File /home/ma/projects/R-projects/rrdfqbcrnd0/rrdfqbcrndex/inst/extdata/sample-rdf/DEMOobservations.rq
## [1] 3
##
##
## obs      rrdfqbcrnd0Rcolumnname      Rselectionoperator      Rselectionvalue
## -----
## ds:obs027      trt01a      ==      Xanomeline High Dose
## ds:obs056      trt01a      ==      Xanomeline Low Dose
## ds:obs056      agegr1      ==      65-80
## File /home/ma/projects/R-projects/rrdfqbcrnd0/rrdfqbcrndex/inst/extdata/sample-rdf/DEMOobservations.rq
## [1] 588
##
##

```

12

[illegible]

14

15

[illegible]



[illegible]

18

[illegible]

[illegible]

21

[illegible]

| ## s                     | p                               | o                                      |
|--------------------------|---------------------------------|--|
| ## -----                 | -----                           | -----                                  |
| ## code:procedure-min    | skos:topConceptOf               | code:procedure                         |
| ## code:procedure-min    | skos:prefLabel                  | min                                    |
| ## code:procedure-min    | skos:inScheme                   | code:procedure                         |
| ## code:procedure-min    | rrdfqbcrnd0:RdescStatDefFun     | function (x) { min(x, na.rm = TRUE)    |
| ## code:procedure-min    | rrdfqbcrnd0:R-selectionvalue    | min                                    |
| ## code:procedure-min    | rrdfqbcrnd0:R-selectionoperator | ==                                     |
| ## code:procedure-min    | rdfs:comment                    | Descriptive statistics min             |
| ## code:procedure-min    | rdf:type                        | skos:Concept                           |
| ## code:procedure-min    | rdf:type                        | code:Procedure                         |
| ## code:procedure-std    | skos:topConceptOf               | code:procedure                         |
| ## code:procedure-std    | skos:prefLabel                  | std                                    |
| ## code:procedure-std    | skos:inScheme                   | code:procedure                         |
| ## code:procedure-std    | rrdfqbcrnd0:RdescStatDefFun     | function (x) { sd(x, na.rm = TRUE) }   |
| ## code:procedure-std    | rrdfqbcrnd0:R-selectionvalue    | std                                    |
| ## code:procedure-std    | rrdfqbcrnd0:R-selectionoperator | ==                                     |
| ## code:procedure-std    | rdfs:comment                    | Descriptive statistics std             |
| ## code:procedure-std    | rdf:type                        | skos:Concept                           |
| ## code:procedure-std    | rdf:type                        | code:Procedure                         |
| ## code:procedure-q3     | skos:topConceptOf               | code:procedure                         |
| ## code:procedure-q3     | skos:prefLabel                  | q3                                     |
| ## code:procedure-q3     | skos:inScheme                   | code:procedure                         |
| ## code:procedure-q3     | rrdfqbcrnd0:RdescStatDefFun     | function (x) { quantile(x, probs = c   |
| ## code:procedure-q3     | rrdfqbcrnd0:R-selectionvalue    | q3                                     |
| ## code:procedure-q3     | rrdfqbcrnd0:R-selectionoperator | ==                                     |
| ## code:procedure-q3     | rdfs:comment                    | Descriptive statistics q3              |
| ## code:procedure-q3     | rdf:type                        | skos:Concept                           |
| ## code:procedure-q3     | rdf:type                        | code:Procedure                         |
| ## code:procedure-median | skos:topConceptOf               | code:procedure                         |
| ## code:procedure-median | skos:prefLabel                  | median                                 |
| ## code:procedure-median | skos:inScheme                   | code:procedure                         |
| ## code:procedure-median | rrdfqbcrnd0:RdescStatDefFun     | function (x) { median(x, na.rm = TRUE) |
| ## code:procedure-median | rrdfqbcrnd0:R-selectionvalue    | median                                 |
| ## code:procedure-median | rrdfqbcrnd0:R-selectionoperator | ==                                     |
| ## code:procedure-median | rdfs:comment                    | Descriptive statistics median          |
| ## code:procedure-median | rdf:type                        | skos:Concept                           |
| ## code:procedure-median | rdf:type                        | code:Procedure                         |
| ## code:procedure-count  | skos:topConceptOf               | code:procedure                         |
| ## code:procedure-count  | skos:prefLabel                  | count                                  |
| ## code:procedure-count  | skos:inScheme                   | code:procedure                         |
| ## code:procedure-count  | rrdfqbcrnd0:RdescStatDefFun     | function (x) { length(x) }             |
| ## code:procedure-count  | rrdfqbcrnd0:R-selectionvalue    | count                                  |
| ## code:procedure-count  | rrdfqbcrnd0:R-selectionoperator | ==                                     |
| ## code:procedure-count  | rdfs:comment                    | Descriptive statistics count           |
| ## code:procedure-count  | rdf:type                        | skos:Concept                           |
| ## code:procedure-count  | rdf:type                        | code:Procedure                         |
| ## code:procedure-max    | skos:topConceptOf               | code:procedure                         |
| ## code:procedure-max    | skos:prefLabel                  | max                                    |
| ## code:procedure-max    | skos:inScheme                   | code:procedure                         |
| ## code:procedure-max    | rrdfqbcrnd0:RdescStatDefFun     | function (x) { max(x, na.rm = TRUE) }  |
| ## code:procedure-max    | rrdfqbcrnd0:R-selectionvalue    | max                                    |
| ## code:procedure-max    | rrdfqbcrnd0:R-selectionoperator | ==                                     |
| ## code:procedure-max    | rdfs:comment                    | Descriptive statistics max             |

```

## code:procedure-max      rdf:type      skos:Concept
## code:procedure-max      rdf:type      code:Procedure
## code:procedure-mean     skos:topConceptOf  code:procedure
## code:procedure-mean     skos:prefLabel    mean
## code:procedure-mean     skos:inScheme     code:procedure
## code:procedure-mean     rrdfqbcrnd0:RdescStatDefFun  function (x) {      mean(x, na.rm = TRUE)
## code:procedure-mean     rrdfqbcrnd0:R-selectionvalue  mean
## code:procedure-mean     rrdfqbcrnd0:R-selectionoperator ==
## code:procedure-mean     rdfs:comment      Descriptive statistics mean
## code:procedure-mean     rdf:type          skos:Concept
## code:procedure-mean     rdf:type          code:Procedure
## code:procedure-q1       skos:topConceptOf  code:procedure
## code:procedure-q1       skos:prefLabel    q1
## code:procedure-q1       skos:inScheme     code:procedure
## code:procedure-q1       rrdfqbcrnd0:RdescStatDefFun  function (x) {      quantile(x, probs = c
## code:procedure-q1       rrdfqbcrnd0:R-selectionvalue  q1
## code:procedure-q1       rrdfqbcrnd0:R-selectionoperator ==
## code:procedure-q1       rdfs:comment      Descriptive statistics q1
## code:procedure-q1       rdf:type          skos:Concept
## code:procedure-q1       rdf:type          code:Procedure
## code:procedure-q1       code:procedure
## code:procedure-n        skos:topConceptOf  n
## code:procedure-n        skos:prefLabel    n
## code:procedure-n        skos:inScheme     code:procedure
## code:procedure-n        rrdfqbcrnd0:RdescStatDefFun  function (x) {      length(x[!is.na(x)])
## code:procedure-n        rrdfqbcrnd0:R-selectionvalue  n
## code:procedure-n        rrdfqbcrnd0:R-selectionoperator ==
## code:procedure-n        rdfs:comment      Descriptive statistics n
## code:procedure-n        rdf:type          skos:Concept
## code:procedure-n        rdf:type          code:Procedure
## code:procedure-n        code:procedure
## code:procedure-percent  skos:topConceptOf  percent
## code:procedure-percent  skos:prefLabel    percent
## code:procedure-percent  skos:inScheme     code:procedure
## code:procedure-percent  rrdfqbcrnd0:RdescStatDefFun  function (x) {      -1 }
## code:procedure-percent  rrdfqbcrnd0:R-selectionvalue  percent
## code:procedure-percent  rrdfqbcrnd0:R-selectionoperator ==
## code:procedure-percent  rdfs:comment      Descriptive statistics percent
## code:procedure-percent  rdf:type          skos:Concept
## code:procedure-percent  rdf:type          code:Procedure
## code:procedure-q3       rdfs:Resource
## code:procedure-mean     rdfs:Resource
## code:procedure-q1       rdfs:Resource
## code:procedure-std      rdfs:Resource
## code:procedure-count    rdfs:Resource
## code:procedure-median   rdfs:Resource
## code:procedure-percent  rdfs:Resource
## code:procedure-min      rdfs:Resource
## code:procedure-max      rdfs:Resource
## code:procedure-n        rdfs:Resource
## File /home/ma/projects/R-projects/rrdfqbcrnd0/rrdfqbcrndex/inst/extdata/sample-rdf/DEMOprocedure-me
## [1] 10
##
##
## s      p      o
## -----

```



```

## code:procedure-median      skos:topConceptOf      code:procedure
## code:procedure-median      skos:prefLabel          median
## code:procedure-median      skos:inScheme           code:procedure
## code:procedure-median      rrdqbcrrnd0:RdescStatDefFun  function (x) {      median(x, na.rm = TRUE)
## code:procedure-median      rrdqbcrrnd0:R-selectionvalue  median
## code:procedure-median      rrdqbcrrnd0:R-selectionoperator ==
## code:procedure-median      rdfs:comment            Descriptive statistics median
## code:procedure-median      rdf:type                skos:Concept
## code:procedure-median      rdf:type                code:Procedure
## code:procedure-median      rdf:type                rdfs:Resource
## File /home/ma/projects/R-projects/rrdqbcrrnd0/rrdqbcrrndex/inst/extdata/sample-rdf/DEMOprocedure.rq
## [1] 10
##
##
## procedure      prefLabel      functiondef
## -----
## code:procedure-max      max      function (x) {      max(x, na.rm = TRUE) }
## code:procedure-std      std      function (x) {      sd(x, na.rm = TRUE) }
## code:procedure-mean      mean      function (x) {      mean(x, na.rm = TRUE) }
## code:procedure-min      min      function (x) {      min(x, na.rm = TRUE) }
## code:procedure-percent      percent      function (x) {      -1 }
## code:procedure-count      count      function (x) {      length(x) }
## code:procedure-q3      q3      function (x) {      quantile(x, probs = c(0.75), na.rm = TRUE) }
## code:procedure-n      n      function (x) {      length(x[!is.na(x)]) }
## code:procedure-median      median      function (x) {      median(x, na.rm = TRUE) }
## code:procedure-q1      q1      function (x) {      quantile(x, probs = c(0.25), na.rm = TRUE) }

```

This works do not change

```

dsdName<- GetDsdNameFromCube( store )
domainName<- GetDomainNameFromCube( store )
cat("dsdName ", dsdName, ", domainName ", domainName, "\n" )

```

```
## dsdName dsd-DEMO , domainName DEMO
```

```

forsparqlprefix<- GetForSparqlPrefix( domainName )
cat(forsparqlprefix,"\n")

```

```

## prefix rdf: <http://www.w3.org/1999/02/22-rdf-syntax-ns#>
## prefix skos: <http://www.w3.org/2004/02/skos/core#>
## prefix prov: <http://www.w3.org/ns/prov#>
## prefix rdfs: <http://www.w3.org/2000/01/rdf-schema#>
## prefix dcat: <http://www.w3.org/ns/dcat#>
## prefix owl: <http://www.w3.org/2002/07/owl#>
## prefix xsd: <http://www.w3.org/2001/XMLSchema#>
## prefix qb: <http://purl.org/linked-data/cube#>
## prefix pav: <http://purl.org/pav>
## prefix dct: <http://purl.org/dc/terms/>
## prefix mms: <http://rdf.cdsc.org/mms#>
## prefix cts: <http://rdf.cdsc.org/ct/schema#>
## prefix qb: <http://purl.org/linked-data/cube#>

```

```
## prefix rrdfqbcrnd0: <http://www.example.org/rrdfqbcrnd0/>
## prefix code: <http://www.example.org/dc/code/>
## prefix dccc: <http://www.example.org/dc/demo/dccc/>
## prefix ds: <http://www.example.org/dc/demo/ds/>
## prefix crnd-dimension: <http://www.example.org/dc/dimension#>
## prefix crnd-attribute: <http://www.example.org/dc/attribute#>
## prefix crnd-measure: <http://www.example.org/dc/measure#>
##
```

```
rq<- paste( forsparqlprefix,
,
select *
where {
?s a qb:Observation ;
?p ?o ;
.
[] qb:dimension ?p .
values (?s) {
(ds:obs114)
}
}
# limit 30
,
"\n"
)

cube.observations<- sparql.rdf(store, rq)
knitr::kable(cube.observations)
```

| s         | p                        | o                                |
|-----------|--------------------------|----------------------------------|
| ds:obs114 | crnd-dimension:factor    | code:factor-weightbl             |
| ds:obs114 | crnd-dimension:trt01a    | code:trt01a-Xanomeline_High_Dose |
| ds:obs114 | crnd-dimension:sex       | code:sex- <i>ALL</i>             |
| ds:obs114 | crnd-dimension:ethnic    | code:ethnic- <i>ALL</i>          |
| ds:obs114 | crnd-dimension:procedure | code:procedure-min               |
| ds:obs114 | crnd-dimension:race      | code:race- <i>ALL</i>            |
| ds:obs114 | crnd-dimension:agegr1    | code:agegr1- <i>ALL</i>          |

## Getting triples with information of object if literal

```
cons.rq<- paste( forsparqlprefix,
,
construct { ?s ?p ?o }
where {
?s ?p ?o .
BIND( datatype(?o) as ?datatype )
BIND( isLiteral(?o) as ?isLiteral )
BIND( lang(?o) as ?lang )
values (?s) {
(ds:obs114)
```

```

}
}
',
"\n"
)

save.rdf(construct.rdf( store, cons.rq) , file.path(tempdir(), "rapperin.ttl"), "TURTLE")

```

```
## [1] "/tmp/RtmpRvLtKi/rapperin.ttl"
```

To see dot code generated by rapper:

```
rapper -i turtle -o dot /tmp/Rtmpcccgdg/rapperin.ttl
```

To display the dot code

```
rapper -i turtle -o dot /tmp/Rtmpcccgdg/rapperin.ttl | dot -x -Tpdf -ograph.pdf
```

See also (<http://www.bioconductor.org/packages/release/bioc/vignettes/Rgraphviz/inst/doc/Rgraphviz.pdf>) for Rgraphviz package - may be used to display graphs.

ToDo(MJA): move this to another package - is more an example of R code for making Rgraphvis statement

```

rq<-  paste( forsparqlprefix,
',
select *
where {
?s ?p ?o .
BIND( datatype(?o) as ?datatype )
BIND( isLiteral(?o) as ?isLiteral )
BIND( lang(?o) as ?lang )
values (?s) {
(ds:obs114)
}
}
',
"\n"
)

res<- sparql.rdf(store, rq)
knitr::kable(res)

dimnames(res)

allIRI<- c( res[,1],res[,2])
uallIRI<- unique(allIRI)
L<- list()
for (i in 1:length(uallIRI) ) {
L[[ uallIRI[i] ]] <- paste( "L", i, sep="" )
}

```

```
rowcols<- cbind( as.matrix(apply(res[,1:2],c(1,2),function(x) as.character(L[[x]] )),as.matrix(res[,3]),
cat(paste(rowcols, sep=" ", "\n")
```

### Check the statistics

ToDo(MJA): move this to another package - maybe the check package

```
stmtSQL<- GetSQLFromCube(store)
cat(stmtSQL$summStatSQL)
```