

Package ‘CrossVA’

September 4, 2017

Type Package

Title Verbal Autopsy Data Transform for Use with Various Coding Algorithms

Version 0.9.1

Description Enables transformation of Verbal Autopsy data collected with the WHO 2016 questionnaire (Revision 1.4.1) for automated coding of Cause of Death using different computer algorithms. Currently supports user-supplied mappings, and provides unvalidated, experimental-stage mapping definitions to transform to InterVA4, Tariff 2, and InSilicoVA. This package is made available by WHO, in collaboration with Swiss Tropical and Public Health Institute.

License GPL-2

Depends R (>= 3.2.0)

LazyData TRUE

RoxygenNote 6.0.1

Imports lubridate

NeedsCompilation no

Author Nicolas Maire [aut, cre]

Maintainer Nicolas Maire <nicolas.maire@unibas.ch>

Repository CRAN

Date/Publication 2017-09-04 15:54:08 UTC

R topics documented:

map_records	2
map_records_insilicova	3
map_records_interva4	4
map_records_tariff2	4

Index	6
--------------	----------

map_records	<i>Map VA records to coding algorithm.</i>
-------------	--

Description

map_records transform data collected with the WHO VA instrument to serve different algorithms for coding cause of death.

Usage

```
map_records(records, mapping, csv_outfile = "")
```

Arguments

records	A dataframe, obtained from reading an ODKBriefcase export of records collected with the WHO questionnaire.
mapping	Name of an algorithm to map to (one of "interva4", "insilicova", or "tariff2"), or name of a mapping file.
csv_outfile	Path to a file to write transformed data to. Defaults to empty string, in which case no file is written.

Value

A dataframe, with the VA records mapped to the variables required by a coding algorithm, as specified in the mapping file.

Examples

```
record_f_name <- system.file('sample', 'who_va_output.csv', package = 'CrossVA')
records <- read.csv(record_f_name)
output_data <- map_records(records, 'insilicova')
output_f_name <- "output_for_insilicova.csv"
write.table(
  output_data,
  output_f_name,
  row.names = FALSE,
  na = "",
  qmethod = "escape",
  sep = ", "
)
mapping_file <- system.file('mapping', 'interva4_mapping.txt', package = 'CrossVA')
output_data <- map_records(records, mapping_file)
output_f_name <- "output_for_interva4.csv"
write.table(
  output_data,
  output_f_name,
  row.names = FALSE,
```

```
na = "",
qmethod = "escape",
sep = ",",
)
```

map_records_insicova

Map VA records to InsilicoVA.

Description

map_records transform data collected with the WHO VA instrument for coding with the InsilicoVA algorithm.

Usage

```
map_records_insicova(records, csv_outfile = "")
```

Arguments

records	A dataframe, obtained from reading an ODKBriefcase export of records collected with the WHO questionnaire.
csv_outfile	Path to a file to write transformed data to. Defaults to empty string, in which case no file is written.

Value

A dataframe, with the VA records mapped to the variables required by InsilicoVA.

References

Tyler H. McCormick, Zehang R. Li, Clara Calvert, Amelia C. Crampin, Kathleen Kahn and Samuel J. Clark (2014). Probabilistic cause-of-death assignment using verbal autopsies, Journal of the American Statistical Association, to appear

Examples

```
## Not run:
records <- read.csv('who_va_output.csv')
output_data <- map_records_tariff2(records)

## End(Not run)
```

map_records_interva4 *Map VA records to InterVA4.*

Description

map_records transform data collected with the WHO VA instrument for coding with the InterVA4 algorithm.

Usage

```
map_records_interva4(records, csv_outfile = "")
```

Arguments

records	A dataframe, obtained from reading an ODKBriefcase export of records collected with the WHO questionnaire.
csv_outfile	Path to a file to write transformed data to. Defaults to empty string, in which case no file is written.

Value

A dataframe, with the VA records mapped to the variables required by InterVA4.

References

<http://www.interva.net/>

Examples

```
## Not run:
record_f_name <- system.file('sample', 'who_va_output.csv', package = 'CrossVA')
records <- read.csv(record_f_name)
output_data <- map_records_interva4(records)

## End(Not run)
```

map_records_tariff2 *Map VA records to Tariff 2.*

Description

map_records transform data collected with the WHO VA instrument for coding with the Tariff 2 algorithm.

Usage

```
map_records_tariff2(records, csv_outfile = "")
```

Arguments

records	A dataframe, obtained from reading an ODKBriefcase export of records collected with the WHO questionnaire.
csv_outfile	Path to a file to write transformed data to. Defaults to empty string, in which case no file is written.

Value

A dataframe, with the VA records mapped to the variables required by Tariff 2.

References

James, S. L., Flaxman, A. D., Murray, C. J., & Population Health Metrics Research Consortium. (2011). *Performance of the Tariff Method: validation of a simple additive algorithm for analysis of verbal autopsies*. *Population Health Metrics*, 9(1), 1-16.

Examples

```
## Not run:  
records <- read.csv('who_va_output.csv')  
output_data <- map_records_tariff2(records)  
  
## End(Not run)
```

Index

map_records, [2](#)
map_records_insilicova, [3](#)
map_records_interva4, [4](#)
map_records_tariff2, [4](#)