Package 'contactdata'

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Title Social Contact Matrices for 177 Countries

Version 1.1.0

Description Data package for the supplementary data in Prem et al. (2017) <doi:10.1371/journal.pcbi.1005697> and Prem et al. <doi:10.1371/journal.pcbi.1009098>. Provides easy access to contact data for 177 countries, for use in epidemiological, demographic or social sciences research.

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Depends R (>= 3.5.0)

Suggests countrycode, ggplot2, knitr, rmarkdown, spelling, testthat(>= 3.0.0), covr

URL https://hugogruson.fr/contactdata/, https://github.com/bisaloo/contactdata

BugReports https://github.com/bisaloo/contactdata/issues

Encoding UTF-8

Language en-GB

RoxygenNote 7.3.2

VignetteBuilder knitr

Config/testthat/edition 3

NeedsCompilation no

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Repository CRAN

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Contents

`age_df_countries` *Get a data.frame (in long format) of population by age for multiple countries*

Description

Get a data.frame (in long format) of population by age for multiple countries

Usage

```
age_df_countries(countries)
```

Arguments

`countries`	A character string or a vector of character containing the names of the countries for which to return contact data

Value

A data.frame (in long format) with 3 columns:

- `country`: the country name
- `age`: the age group
- `population`: the number of people in this age group

References

https://www.census.gov/programs-surveys/international-programs/about/idb.html

Examples

```
age_df_countries(c("Austria", "Belgium"))
```

`contact_df_countries` *Get a data.frame (in long format) of contact data for multiple countries*

Description

Get a data.frame (in long format) of contact data for multiple countries

Usage

```
contact_df_countries(countries, ...)
```

Arguments

`countries`	A character string or a vector of character containing the names of the countries for which to return contact data
`...`	Arguments passed to `contact_matrix()`

Value

A data.frame (in long format) with 4 columns:

- `country`: the country name
- `age_from`: the age group of individual
- `age_to`: the age group of contact
- `contact`: the intensity of contact

References

Kiesha Prem, Alex R. Cook, Mark Jit, *Projecting social contact matrices in 152 countries using contact surveys and demographic data*, PLoS Comp. Biol. (2017), doi:10.1371/journal.pcbi.1005697

Kiesha Prem, Kevin van Zandvoort, Petra Klepac, Rosalind M. Eggo, Nicholas G. Davies, CMMID COVID-19 Working Group, Alex R. Cook, Mark Jit, *Projecting contact matrices in 177 geographical regions: An update and comparison with empirical data for the COVID-19 era*, PLoS Comp. Biol. (2021), doi:10.1371/journal.pcbi.1009098.

Examples

```
contact_df_countries(c("Austria", "Belgium"), location = "all")
```

`contact_matrix` *Get contact data matrix for a specific country*

Description

Get contact data matrix for a specific country

Usage

```
contact_matrix(
  country,
  location = c("all", "home", "school", "work", "other"),
  geographic_setting = c("all", "rural", "urban"),
  data_source = c("2020", "2017")
)
```

Arguments

`country`	Character. The name of the country for which you want contact data.
`location`	Character. One of "all" (default), "home", "school", "work" or "other".
`geographic_setting`	Character. One of "all" (default), "rural", "urban"
`data_source`	Character. Either "202O" (default) or "2017"

Value

A square (16 by 16) matrix containing the contact data between the different age classes for a given country.

References

Kiesha Prem, Alex R. Cook, Mark Jit, *Projecting social contact matrices in 152 countries using contact surveys and demographic data*, PLoS Comp. Biol. (2017), doi:10.1371/journal.pcbi.1005697

Kiesha Prem, Kevin van Zandvoort, Petra Klepac, Rosalind M. Eggo, Nicholas G. Davies, CMMID COVID-19 Working Group, Alex R. Cook, Mark Jit, *Projecting contact matrices in 177 geographical regions: An update and comparison with empirical data for the COVID-19 era*, PLoS Comp. Biol. (2021), doi:10.1371/journal.pcbi.1009098.

Examples

```
contact_matrix("France", location = "all")

contact_matrix("Belgium", location = "school")
```

`list_countries` *Get the list of countries included in the dataset*

Description

Get the list of countries included in the dataset

Usage

```
list_countries(
  geographic_setting = c("all", "rural", "urban"),
  data_source = c("2020", "2017")
)
```

Arguments

`geographic_setting`	Character. One of "all" (default), "rural", "urban"
`data_source`	Character. Either "202O" (default) or "2017"

Value

A character vector with the name of all countries included in the dataset

Note

This package uses the nomenclature from the **countrycode** package. If your names differ from the names used here, you should use **countrycode** as well to update them.

References

Kiesha Prem, Alex R. Cook, Mark Jit, *Projecting social contact matrices in 152 countries using contact surveys and demographic data*, PLoS Comp. Biol. (2017), doi:10.1371/journal.pcbi.1005697

Kiesha Prem, Kevin van Zandvoort, Petra Klepac, Rosalind M. Eggo, Nicholas G. Davies, CMMID COVID-19 Working Group, Alex R. Cook, Mark Jit, *Projecting contact matrices in 177 geographical regions: An update and comparison with empirical data for the COVID-19 era*, PLoS Comp. Biol. (2021), doi:10.1371/journal.pcbi.1009098.

Examples

```
list_countries()
```

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