Package: covid19.nhs.data (via r-universe)

July 19, 2024

Title NHS Trust Level COVID-19 Data Aggregated to a Range of Spatial
Scales

Version 0.1.0

Description Facilitates access to data on NHS trust level COVID-19
data aggregated to a range of spatial scales.

Language en-GB

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URL https://epiforecasts.io/covid19.nhs.data,

https://github.com/epiforecasts/covid19.nhs.data

BugReports https://github.com/epiforecasts/covid19.nhs.data/issues

Depends R (>= 2.10)

Encoding UTF-8

LazyData true

Roxygen list(markdown = TRUE)

RoxygenNote 7.1.2

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tidyr, ggplot2, utils, sf

Suggests janitor, here, knitr, spelling, usethis, rmarkdown, readr,
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Repository https://epiforecasts.r-universe.dev

RemoteUrl https://github.com/epiforecasts/covid19.nhs.data

RemoteRef HEAD

RemoteSha 58576e74d54d6fcb5309bf106f7ead29929ae3a1

Contents

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download_trust_data   *Download English Hospital Trust Admissions Data*

Description

Downloads English hospital admissions data by Trust. Data is released each Thursday. See here for details: https://www.england.nhs.uk/statistics/statistical-work-areas/covid-19-hospital-activity/

Usage

```
download_trust_data(release_date = Sys.Date())
```

Arguments

release_date   Date, release date of data to download. Will automatically find the Thursday prior to the date specified.

Value

A data.frame of hospital admissions by trust.

---

england_ltla_shape *LTLA Shapefile for England*

Description

LTLA Shapefile for England

Usage

```
england_ltla_shape
```

Format

An object of class `sf` (inherits from `tbl_df`, `tbl`, `data.frame`) with 314 rows and 11 columns.

---

england_utla_shape *UTLA Shapefile for England*

Description

UTLA Shapefile for England

Usage

```
england_utla_shape
```

Format

An object of class `sf` (inherits from `tbl_df`, `tbl`, `data.frame`) with 151 rows and 11 columns.

---

get_admissions *Get Hospital Admissions*

Description

Downloads hospital admissions by Hospital trust using `download_trust_data` and then optionally aggregates to either LTLA or UTLA level. This can be done either with the built in mapping or a user supplied mapping.

Usage

```
get_admissions(
  keep_vars = "new_adm",
  level = "trust",
  release_date = Sys.Date(),
  mapping,
  geo_names
)
```

Arguments

keep_vars	Character string, defaulting to "new_adm" (first-time COVID-19 hospital admissions). Defines which variables to keep from the raw data. Other supported options are: "all_adm" (for all COVID-19 hospital admissions), and "all_bed" (for all COVID-19 beds occupied). Multiple values allowed.
level	Character string, defaulting to "trust". Defines the level of aggregation at which to return the data. Other supported options are "utla" for UTLA level admissions or "ltla" for LTLA level admissions.
release_date	Date, release date of data to download. Will automatically find the Thursday prior to the date specified.
mapping	A data.frame containing geo_code, trust_code, p_geo and p_trust.
geo_names	A data.frame containing geo_code and geo_name. Used to assign meaningful to geographies.

Value

A data.frame of daily admissions and/or bed occupancy data, reported at the Trust, LTLA or UTLA level. Note that new admissions ("new_adm") are called "admissions" in the data.frame to be consistent with a previous version of this function.

---

get_names   *Link Mapping to Trust and Geography Names*

Description

Link Mapping to Trust and Geography Names

Usage

```
get_names(mapping, geo_names)
```

Arguments

mapping	A data.frame containing geo_code, trust_code, p_geo and p_trust.
geo_names	A data.frame containing geo_code and geo_name. Used to assign meaningful to geographies.

Value

A data.frame containing a UTLA to trust level admissions map combined meaningful names.

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load_mapping	*Load local authority to Trust mappings*

Description

Load LTLA- or UTLA-Trust mappings from two data sources: HES (Hospital Episodes Statistics) until September 2020, and linked COVID-19 cases and admissions June 2020 - May 2021. Replaces previous datasets trust_ltla_mapping and trust_utla_mapping (the HES mappings).

Usage

```
load_mapping(scale, source)
```

Arguments

scale	Character string defining the geographical scale. Supported options are "ltla" (lower-tier local authority) and "utla" (upper-tier local authority).
source	Character string defining the souce of the mapping. supported options are "link" (linked COVID-19 cases and admissions) and "sus" (Secondary Uses Service, originally the only mapping available).

Value

A data.frame with the following columns: geo_code (9-digit LTLA or UTLA ID); trust_code; n (the number of reported admissions); p_geo (the proportion of all admissions from a LTLA/UTLA that go to a given Trust); p_trust (the proportion of all admissions to a Trust that come from a given LTLA/UTLA); source ("SUS" or "Link"); and level ("ltla" or "utla").

---

ltla_names	*Linking File Between LTLA Codes and Names*

Description

Linking File Between LTLA Codes and Names

Usage

```
ltla_names
```

Format

An object of class tbl_df (inherits from tbl, data.frame) with 340 rows and 2 columns.

---

map_admissions   *Map Admissions*

Description

Map NHS Hospital aggregated admissions. By default this maps the latest data provided.

Usage

```
map_admissions(admissions, shapefile, date, scale_fill)
```

Arguments

admissions	A data.frame of admissions data as produced by `get_dadmissions`. Must contain the following variables: `geo_code`, `date`, and `admissions`
shapefile	A shapefile defaults to `england_utla_shape` if not supplied.
date	A date variable (or vector) indicating when to plot data for. If set to `NULL` then no date filter is applied
scale_fill	A ggplot2 `scale_fill` used to define the fill colours used in the map. The default is: `scale_fill_viridis_c(option = "viridis", direction = -1, na.value = "grey80")`.

Value

A map of Covid-19 admissions in England

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summarise_mapping   *Summarise Trust Mapping*

Description

Summarise the Trust mapping (currently only supports the UTLA mapping) both graphically and in a table.

Usage

```
summarise_mapping(
  trust = NULL,
  geography = NULL,
  mapping,
  shapefile,
  geo_names
)
```

Arguments

`trust`	A character string indicating a trust of interest.
`geography`	A character string indicating the geography of interest. Only used if `trust` is not specified. Related to the mapping used so for `trust_utla_mapping` refers to a UTLA.
`mapping`	A data.frame containing geo_code, trust_code, p_geo and p_trust.
`shapefile`	A shapefile defaults to `england_utla_shape` if not supplied.
`geo_names`	A data.frame containing `geo_code` and `geo_name`. Used to assign meaningful to geographies.

Value

A table and optional map summarising the admissions mapping.

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trust_mergers *List of Trust Mergers*

Description

List of Trust Mergers

Usage

```
trust_mergers
```

Format

An object of class `spec_tbl_df` (inherits from `tbl_df`, `tbl`, `data.frame`) with 11 rows and 3 columns.

---

trust_names *Linking File Between NHS Trust Codes and Names*

Description

Linking File Between NHS Trust Codes and Names

Usage

```
trust_names
```

Format

An object of class `tbl_df` (inherits from `tbl`, `data.frame`) with 228 rows and 2 columns.

utla_names   *Linking File Between UTLA Codes and Names*

Description

Linking File Between UTLA Codes and Names

Usage

```
utla_names
```

Format

An object of class `tbl_df` (inherits from `tbl`, `data.frame`) with 174 rows and 2 columns.

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