

Package ‘covid19sf’

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Title The Covid19 San Francisco Dataset

Version 0.1.0

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Description

Provides a verity of summary tables of the Covid19 cases in San Francisco. Data source: San Francisco, Department of Public Health - Population Health Division <<https://datasf.org/opendata/>>.

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Encoding UTF-8

LazyData true

Depends R (>= 2.10)

Imports devtools, dplyr, lubridate, magrittr, mapview, plotly, sf

Suggests testthat, knitr, rmarkdown

RoxygenNote 7.1.1

VignetteBuilder knitr

URL <https://github.com/RamiKrispin/covid19sf>

BugReports <https://github.com/RamiKrispin/covid19sf/issues>

NeedsCompilation no

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Repository CRAN

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covid19sf_age	<i>San Francisco COVID-19 Cases Summarized by Age Group</i>
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Description

This dataset represents the COVID-19 positive confirmed cases by age group. Demographic and transmission data are based on information reported from case interviews, laboratories, and providers. This data may not be immediately available for recently reported cases and data will change to reflect as information becomes available. Cumulative counts of 5 or fewer are excluded from the dataset. More information about the data available [here](#)

Usage

```
covid19sf_age
```

Format

An object class data.frame with 5 variables

specimen_collection_date date which case was recorded in YYYY-MM-DD format.

age_group case age group c("under 18", "18-30", "31-40", "41-50", "51-60", "71-80")

new_confirmed_cases Daily new confirmed cases

cumulative_confirmed_cases Cumulative numero of confirmed cases

last_updated The table last update time in POSIX format

Details

The dataset contains the daily summary of covid19 cases in San Francisco by age group

Source

San Francisco, Department of Public Health - Population Health Division through San Francisco Opne Data protal [website](#).

Examples

```
data(covid19sf_age)
```

```
head(covid19sf_age)
```

`covid19sf_demo`*San Francisco COVID-19 Cases Summarized by Date, Transmission and Case Disposition*

Description

This dataset represents the COVID-19 positive confirmed cases by race and ethnicity. Demographic data are based on information reported from case interviews, laboratories, and providers. This data may not be immediately available for recently reported cases and data will change to reflect as information becomes available. Cumulative counts of 5 or fewer are excluded from the dataset. More information about the data available [here](#)

Usage

`covid19sf_demo`

Format

An object class `data.frame` with 5 variables

specimen_collection_date Date which case was recorded in YYYY-MM-DD format.

race_ethnicity The cases race/ethnicity

new_confirmed_cases Daily new confirmed cases

cumulative_confirmed_cases Cumulative confirmed cases

last_updated The table last update time in POSIX format

Details

The dataset contains the daily summary of covid19 cases in San Francisco by race/ethnicity group

Source

San Francisco, Department of Public Health - Population Health Division through San Francisco Opne Data protal [website](#).

Examples

```
data(covid19sf_demo)
```

```
head(covid19sf_demo)
```

`covid19sf_gender`*San Francisco COVID-19 Cases Summarized by Gender*

Description

This dataset represents the COVID-19 positive confirmed cases by gender. Demographic and transmission data are based on information reported from case interviews, laboratories, and providers. This data may not be immediately available for recently reported cases and data will change to reflect as information becomes available. Cumulative counts of 5 or fewer are excluded from the dataset. More information about the data available [here](#)

Usage

```
covid19sf_gender
```

Format

An object class `data.frame` with 5 variables

specimen_collection_date Date which case was recorded in YYYY-MM-DD format.

gender The cases gender c("Female", "Male", "Trans Female", "Unknown")

new_confirmed_cases Total cases confirmed cases per date and gender category

cumulative_confirmed_cases Cumulative confirmed cases by category

last_updated The table last update time in POSIX format

Details

The dataset contains the daily summary of covid19 cases in San Francisco by gender

Source

San Francisco, Department of Public Health - Population Health Division through San Francisco Open Data portal [website](#).

Examples

```
data(covid19sf_gender)
```

```
head(covid19sf_gender)
```

covid19sf_geo	<i>San Francisco COVID-19 Cases and Deaths Summarized by Geography</i>
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Description

Medical provider confirmed COVID-19 cases and confirmed COVID-19 related deaths in San Francisco, CA aggregated by several different geographic areas and normalized by 2018 American Community Survey (ACS) 5-year estimates for population data to calculate rate per 10,000 residents. More information about the data available [here](#)

Usage

```
covid19sf_geo
```

Format

An object class sf and data.frame with 8 variables.

area_type Area type, c("ZCTA", "Analysis Neighborhood", "Census Tract", "Citywide")

id area id

count The count of cases in the area

rate The rate of cases in the area, calculated as $(\text{count}/\text{acs_population}) * 10000$ which is a rate per 10,000 residents

deaths The number of cases in the area

acs_population The population from the latest 5-year estimates from the American Community Survey (2014-2018)

last_updated Last update of the data in POSIXc format)

geometry The area polygon data)

Details

The dataset contains a summary of covid19 cases in San Francisco by geographic area

Source

San Francisco, Department of Public Health - Population Health Division through San Francisco Open Data portal [website](#).

Examples

```
data(covid19sf_geo)
```

```
head(covid19sf_geo)
```

```
library(sf)
```

```

# Plotting SF Covid19 counts using base plot function
# Plotting by zip code
plot(covid19sf_geo[which(covid19sf_geo$area_type == "ZCTA"),
      c("count", "geometry")],
      main = "Covid19 Cases by ZIP Code")
# Plotting by neighborhood
plot(covid19sf_geo[which(covid19sf_geo$area_type ==
      "Analysis Neighborhood"),
      c("count", "geometry")],
      main = "Covid19 Cases by Neighborhood")
#Plotting by census tract
plot(covid19sf_geo[which(covid19sf_geo$area_type == "Census Tract"),
      c("count", "geometry")],
      main = "Covid19 Cases by Census Tract")
plot(covid19sf_geo[which(covid19sf_geo$area_type == "Census Tract"),
      c("rate", "geometry")],
      main = "Covid19 Cases Rate per 10,000 by Census Tract")

```

covid19sf_homeless *San Francisco COVID-19 Cases Summarized by Homelessness Status*

Description

This dataset represents the COVID-19 positive confirmed cases by homelessness. Demographic and transmission data are based on information reported from case interviews, laboratories, and providers. This data may not be immediately available for recently reported cases and data will change to reflect as information becomes available. Cumulative counts of 5 or fewer are excluded from the dataset. More information about the data available [here](#)

Usage

```
covid19sf_homeless
```

Format

An object class data.frame with 5 variables

specimen_collection_date Date which case was recorded in YYYY-MM-DD format.

homelessness_status The homelessness status, a single category variable c("Homeless")

new_confirmed_cases Total cases confirmed cases per date

cumulative_confirmed_cases Cumulative confirmed cases

last_updated The table last update time in POSIX format

Details

The dataset contains the daily summary of covid19 cases in San Francisco by homelessness status

Source

San Francisco, Department of Public Health - Population Health Division through San Francisco Open Data portal [website](#).

Examples

```
data(covid19sf_homeless)
```

```
head(covid19sf_homeless)
```

covid19sf_hospital *San Francisco COVID-19 Hospital Capacity*

Description

Data on daily hospital bed use and available capacity at San Francisco acute care hospitals from April 2020 onward. Long Term Care facilities (like Laguna Honda and Kentfield) are not included in this data as acute care patients cannot be admitted to these facilities. More information about the data available [here](#)

Usage

```
covid19sf_hospital
```

Format

An object class `data.frame` with 5 variables

hospital The hospital name, currently a single categorical variable, `c("All SF Acute Hospitals")`

date Date which the data was recorded in YYYY-MM-DD format

bed_type The bed type, `c("Intensive Care Surge", "Acute Care", "Acute Care Surge", "Intensive Care")`

status The bed category status, `c("Available", "COVID-19 (Confirmed & Suspected)", "Other Patients")`

count The bed count

Details

The dataset contains a summary of San Francisco hospital bed status

Source

San Francisco, Department of Public Health - Population Health Division through San Francisco Open Data portal [website](#).

Examples

```
data(covid19sf_hospital)
```

```
head(covid19sf_hospital)
```

```
covid19sf_hospitalizations
```

San Francisco COVID-19 Hospitalizations

Description

Count of COVID+ patients admitted to the hospital. Patients who are hospitalized and test positive for COVID-19 may be admitted to an acute care bed (a regular hospital bed), or an intensive care unit (ICU) bed. This data shows the daily total count of COVID+ patients in these two bed types, and the data reflects totals from all San Francisco Hospitals. More information about the data available [here](#)

Usage

```
covid19sf_hospitalizations
```

Format

An object class data.frame with 5 variables

reportdate date which case was recorded in YYYY-MM-DD format.

hospital The hospital which patients were admitted, currently it labeled under "All SF Hospitals"

dphcategory The type of hospitalization bed, either an acute care bed (a regular hospital bed), or an intensive care unit (ICU) bed

covidstatus The patient diagnostic, either PUI (Patient Under Investigation) or COVID+ (positive case)

patientcount Daily cases count

Details

Each record represents how many people were hospitalized on the date recorded in either an ICU bed or acute care bed (shown as Med/Surg under DPHCategory field)

Source

San Francisco, Department of Public Health - Population Health Division through San Francisco Opne Data protal [website](#).

Examples

```
data(covid19sf_hospitalizations)
```

```
head(covid19sf_hospitalizations)
```

covid19sf_housing *San Francisco COVID-19 Alternative Housing Sites*

Description

This dataset includes aggregate data on the type, status, population served, and individuals placed at each alternative housing site under contract with HSA. More information about the data available [here](#)

Usage

```
covid19sf_housing
```

Format

An object class data.frame with 8 variables

site_id Site ID

status The site status, c("Active", "In Preparation")

facility_type The facility type, c("Hotel", "Safe Sleep", "Congregate", "RV")

site_type The site type, c("SIP: COVID-Negative/Unknown", "I/Q", "SS: COVID-Negative/Unknown", "SIP: Post-COVID")

units_occupied Number of units occupied per site

total_units Total number of units available

population_covid_status The population covid status, c("COVID Negative/Unknown", "COVID Positive", "Post-COVID")

date_updated Date which data was updated in YYYY-MM-DD format)

Details

The dataset contains a summary of covid19 housing site in San Francisco by site, facility and covid19 status

Source

San Francisco, Department of Public Health - Population Health Division through San Francisco Opne Data protal [website](#).

Examples

```
data(covid19sf_housing)
```

```
head(covid19sf_housing)
```

covid19sf_refresh	<i>Refreshing the covid19sf Package Datasets</i>
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Description

The function enables to keep the package datasets with most recent data available on the package main repository. The main repository is refreshed on a daily basis.

Usage

```
covid19sf_refresh(force = FALSE)
```

Arguments

force	A boolean, if set to TRUE will update the package if new data is available automatically
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covid19sf_summary	<i>San Francisco COVID-19 Cases Summarized by Date, Transmission and Case Disposition</i>
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Description

This dataset represents the COVID-19 positive confirmed cases and deaths by day and transmission type. The transmission data are based on information reported from case interviews, laboratories, and providers. This data may not be immediately available for recently reported cases and data will change to reflect as information becomes available. More information about the data available [here](#)

Usage

```
covid19sf_summary
```

Format

An object class data.frame with 5 variables

specimen_collection_date Date which case was recorded in YYYY-MM-DD format.

case_disposition The case disposition c("Confirmed", "Death")

transmission_category The case transmission category c("Community", "From Contact", "Unknown")

case_count Daily cases count

last_updated The table last update time in POSIX format

Details

The dataset contains the daily summary of covid19 cases in San Francisco by transmission and case disposition

Source

San Francisco, Department of Public Health - Population Health Division through San Francisco Open Data portal [website](#).

Examples

```
data(covid19sf_summary)

head(covid19sf_summary)

# Case disposition summary
table(covid19sf_summary$case_disposition)

# Transmission category
table(covid19sf_summary$transmission_category)

# Summary of case disposition and transmission category
table(covid19sf_summary$case_disposition,
      covid19sf_summary$transmission_category)
```

covid19sf_tests

San Francisco COVID-19 Tests

Description

Case information on COVID-19 Laboratory testing. This data includes a daily count of test results reported, and how many of those were positive, negative, and indeterminate. Reported tests include tests with a positive, negative or indeterminate result. Indeterminate results, which could not conclusively determine whether COVID-19 virus was present, are not included in the calculation of percent positive. Testing for the novel coronavirus is available through commercial, clinical, and hospital laboratories, as well as the SFDPH Public Health Laboratory. More information about the data available [here](#)

Usage

```
covid19sf_tests
```

Format

An object class data.frame with 7 variables

specimen_collection_date date which case was recorded in YYYY-MM-DD format.

tests Daily tests count
pos Number of positive cases
pct Percentage of positive cases
neg Number of negative cases
indeterminate Number of indeterminate cases
last_updated The table last update time in POSIX format

Details

A daily COVID-19 testing results report

Source

San Francisco, Department of Public Health - Population Health Division through San Francisco Open Data portal [website](#).

Examples

```
data(covid19sf_tests)
head(covid19sf_tests)
```

covid19sf_test_loc	<i>San Francisco COVID-19 Testing Locations</i>
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Description

A list of testing locations including address and coordinates for mapping. More information about the data available [here](#)

Usage

```
covid19sf_test_loc
```

Format

An object class sf and data.frame with 17 variables

id Location ID
medical_home Medical home
name The medical name
address The medical address
phone_number The medical phone number
phone_number_formatted The medical phone number formatted
testing_hours The medical testing hours

popup_or_permanent The medical testing type, c("Permanent", "Pop-Up")
location_type The medical location type, c("Private", "Public")
eligibility Eligibility information for accessing testing at this location
cta_text The call to action used for the web map
cta_link The call to action link for the button on the web map
sample_collection_method The method for collecting samples at the lab
lap The lab name
latitude The medical latitude point
longitude The medical longitude point
geometry The medical geometry details

Details

The dataset contains the San Francisco testing location information

Source

San Francisco, Department of Public Health - Population Health Division through San Francisco Open Data portal [website](#).

Examples

```
data(covid19sf_test_loc)
```

```
head(covid19sf_test_loc)
```

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