# How Melbournians walk during COVID-19

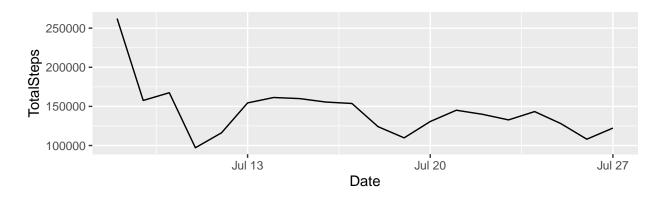
### Panagiotis Stylianos

### 2020-07-28

**Introduction** In this document we examine the walking frequency of Melburnians during the July lockdown.

The data are provided in the rwalkr package.

### Plot of Total Steps per Day



#### Table of five most active sensors

| ## | # | A tibble: 5 x 3                       |             |             |
|----|---|---------------------------------------|-------------|-------------|
| ## |   | Sensor                                | TotalSteps  | Proportion  |
| ## |   | <chr></chr>                           | <int></int> | <dbl></dbl> |
| ## | 1 | Flinders St-Elizabeth St (East)       | 228584      | 7.97        |
| ## | 2 | 380 Elizabeth St                      | 165729      | 5.78        |
| ## | 3 | Flinders La-Swanston St (West)        | 160331      | 5.59        |
| ## | 4 | Town Hall (West)                      | 119530      | 4.17        |
| ## | 5 | Melbourne Central-Elizabeth St (East) | 118594      | 4.13        |

## Formula for proportion $y_i = x_i / \sum_{i=1}^{30240} x_i$

where  $x_i$  is the total steps monitored by this sensor,  $sum_{i=1}^{30240}x_i$  is the total steps monitored by all sensors. and  $y_i$  is the proportion that each sensor contributed to the dataset.

### Table of Packages and functions used in the report

| Library | Functions                                    |
|---------|--|
| base    | as.Date(), Sys.Date(), sum()                 |
| dplyr   | group_by(), summarise(), mutate(), arrange() |
| ggplot2 | $ggplot(), aes(), geom\_line()$              |
| rwalkr  | melb_walk()                                  |