heat_cardiovas

Puvvula

8/12/2021

```
knitr::opts_chunk$set(echo = TRUE)

library(tidyverse)
```

```
## -- Attaching packages --------------------------------------- tidyverse 1.3.1 --

## v ggplot2 3.3.5     v purrr   0.3.4
## v tibble  3.1.2     v dplyr   1.0.7
## v tidyr   1.1.3     v stringr 1.4.0
## v readr   1.4.0     v forcats 0.5.1

## -- Conflicts ------------------------------------------ tidyverse_conflicts() --
## x dplyr::filter() masks stats::filter()
## x dplyr::lag()    masks stats::lag()
```

```
library(lubridate)
```

```
##
## Attaching package: 'lubridate'

## The following objects are masked from 'package:base':
##
##     date, intersect, setdiff, union
```

```
library(broom)

#health data 2016-mid 2020
card<- read_csv("/work/jessebell/puvvula/htn_az_grp_fin.csv")
```

```
##
## -- Column specification --------------------------------------------------------
## cols(
##   date = col_character(),
##   age_grp = col_character(),
##   gender = col_character(),
##   card_cnt = col_double()
## )
```

```
card$date<-as.Date(card$date, format = "%m/%d/%Y")
card$year<- as.factor(format(card$date, "%Y"))

#daily temperature and relative humidity 2008-2017
temp<- read_csv("/work/jessebell/puvvula/daily_temp_babak.csv")
```

```
##
## -- Column specification --------------------------------------------------------
## cols(
##   date = col_character(),
##   DailyAverageDewPointTemperature = col_double(),
##   DailyAverageRelativeHumidity = col_double(),
##   DailyMaximumDryBulbTemperature = col_double(),
##   DailyMinimumDryBulbTemperature = col_double(),
##   DailyAverageDryBulbTemperature = col_double()
## )
```

```
temp$date<-as.Date(temp$date, format = "%m/%d/%Y")
temp$year<- as.factor(format(temp$date, "%Y"))

#filter year 2016 and 2017 to match with health data
temp_card<- card %>% filter(year %in% c("2016", "2017")) #health subset
temp_dat<- temp %>% filter(year %in% c("2016", "2017")) #temperature subset

#join health and temperature data
dat<- left_join(temp_card, temp_dat, by=c("date"))

#filter summer season
dat$month<- as.factor(month(dat$date)) #created month variable
dat_sum<-dat %>% filter(month %in% c("5","6","7","8","9"))


#Model
```