```r
#Causal Impact package example using Trump-preterm analysis

#Install packages
library(tidyverse)
library(CausalImpact)

#Read in data (change to your path name)
dat <- read.csv("/Users/alison/Dropbox/Teaching/SPER Workshop/Latina
example/trump_example.csv")

#Only going to use two variables: one outcome, one covariate
#Y variable is number of Hispanic preterm births
#X variable is number of white preterm births

xdat <- dplyr::select(dat, c("hisp_preterm","white_preterm"))

#simple plot of data
matplot(xdat, type = "l")


#Sequence number 107 corresponds to November 2016
#Assign pre and post periods
pre.period <- c(1, 106)
post.period <- c(107, 120)

#Run model with monthly seasonal component
impact <- CausalImpact(xdat, pre.period, post.period,
model.args=list(nseasons=12))

#Plot results
plot(impact)

summary(impact)
summary(impact, "report")

#Extract point estimates and 95% CIs
impact$series[107:120,"point.effect"]
impact$series[107:120,"point.effect.lower"]
impact$series[107:120,"point.effect.upper"]
```