empirical project 1

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```
pacman::p_load(haven, tidyverse, here, sandwich, stargazer, tables)

healthdata <- read_dta(here(file = "ohp.dta"))
```

```
## Warning: Arguments must be unnamed
```

2.

```
#run a regression to see if variable is statistically different between control and treatment groups
reg_age <- lm(age_inp ~ treatment, data= healthdata)
reg_edu <- lm(edu_inp ~ treatment, data = healthdata)
reg_dep <- lm(dep_dx_pre_lottery ~ treatment, data = healthdata)
reg_dia <- lm(dia_dx_pre_lottery ~ treatment, data = healthdata)
reg_sex <- lm(gender_inp ~ treatment, data = healthdata)
reg_hyp <- lm(hbp_dx_pre_lottery  ~ treatment, data = healthdata)
#robust standard errors
age_se <- sqrt(diag(vcovHC(reg_age, type = "HC3")))
edu_se <- sqrt(diag(vcovHC(reg_edu, type = "HC3")))
dep_se <- sqrt(diag(vcovHC(reg_dep, type = "HC3")))
dia_se <- sqrt(diag(vcovHC(reg_dia, type = "HC3")))
sex_se <- sqrt(diag(vcovHC(reg_sex, type = "HC3")))
hyp_se <- sqrt(diag(vcovHC(reg_hyp, type = "HC3")))


#make stargazer showing results
stargazer(reg_age, reg_edu, reg_sex, reg_dep, reg_dia, reg_hyp, se = list(age_se, edu_se, sex_se, dep_se, dia_se,
hyp_se), covariate.labels = c("Treatment Effect", "Control Mean"), dep.var.labels = c("Age", "Education", "Gende
r", "Depression prior to Lottery", "Diabetes prior to Lottery", "Hypertension prior to Lottery"), title = ("Balan
ce Test between Treatment and Control Groups"),  type = 'html')
```

5.

```
#regression to see how enrolling in medicaid is different between control and treatment group
reg_compliance <- lm(ohp_all_ever_survey ~ treatment, data = healthdata)
compliance_se <- sqrt(diag(vcovHC(reg_compliance, type = "HC3")))

stargazer(reg_compliance, se = list(compliance_se), title = ("Estimation of the Compliance Rate"), covariate.labe
ls =  c("Treatment Effect", "Control Mean"), dep.var.labels = c("Ever on Medicaid"), type = 'html')
```

6.

```
#regressions to see if various health characteristics differ between the control and treatment groups
reg_bp <- lm(bp_sar_inp ~ treatment, data = healthdata)
reg_postdep <- lm(dep_dx_post_lottery ~ treatment, data = healthdata)
reg_postdia <- lm(dia_dx_post_lottery ~ treatment, data = healthdata)
reg_posthyp <- lm(hbp_dx_post_lottery ~ treatment, data = healthdata)
reg_med <- lm(rx_num_mod_inp ~ treatment, data = healthdata)
reg_doc <- lm(doc_num_mod_inp ~ treatment, data = healthdata)

#robust se
bp_se <- sqrt(diag(vcovHC(reg_bp, type = "HC3")))
postdep_se <- sqrt(diag(vcovHC(reg_postdep, type = "HC3")))
postdia_se <- sqrt(diag(vcovHC(reg_postdia, type = "HC3")))
posthyp_se <- sqrt(diag(vcovHC(reg_posthyp, type = "HC3")))
med_se <- sqrt(diag(vcovHC(reg_med, type = "HC3")))
doc_se <- sqrt(diag(vcovHC(reg_doc, type = "HC3")))

#table
stargazer(reg_bp, reg_postdep, reg_postdia, reg_posthyp, reg_med, reg_doc, se = list(bp_se, postdep_se, postdia_s
e, posthyp_se, med_se, doc_se), title = ("Intent to Treat Effect"), covariate.labels = c("Treatment Effect", "Con
trol Group"), dep.var.labels = c("Post Lottery Blood Pressure", "Post Lottery Depression", "Post Lottery Diabete
s", "Post Lottery Hypertension", "Post Lottery Number of Medications", "Post Lottery Number of Doctor Visits"), t
ype = 'html')
```