Downloading US NHANES 2003-2004 and 2013-2014 data

Water and Health Laboratory - Cyprus University of Technology

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# Downloading 2003-2004 data

theme\_xpt <- c(  
 # demographics  
 "DEMO\_C.XPT",  
 # dietary  
 "DR1TOT\_C.XPT",  
 # smoking data (household smoking)  
 "SMQFAM\_C.XPT",  
 # diabetes data  
 "DIQ\_C.XPT",  
 # Body Measurement data  
 "BMX\_C.XPT",  
 # physical activity data  
 "PAQ\_C.XPT",  
 ## Laboratory  
 # Load 2003-2004 Albumin data  
 "L16\_C.XPT",  
 # Standard Biochemistry data  
 "L40\_C.XPT",  
 # Completele Blood Count data  
 "L25\_C.XPT",  
 # Cotinine data  
 "L06COT\_C.XPT",  
 # Glycohemoglobin data  
 "L10\_C.XPT",  
 # environmental phenols data  
 "L24EPH\_C.XPT",  
 # Load phtalates urine data  
 "L24PH\_C.XPT",  
 # Load arsenic data  
 "L06UAS\_C.XPT",  
 #Load cadmium ,lead and mercury data  
 "L06BMT\_C.XPT",  
 # Load iodine data  
 "L06UIO\_C.XPT",  
 #Load mercury data  
 "L06UHG\_C.XPT",  
 #Load perchlorate data  
 "L04PER\_C.XPT",  
 # Load Polyaromatic Hydrocarbons (PAHs)  
 "L31PAH\_C.XPT",  
 # Load Polyfluoroalkyl Chemicals data  
 "L24PFC\_C.XPT"  
)

df\_2003\_2004 <- as.data.frame(theme\_xpt) %>%  
 mutate(complete\_urls = paste0("https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/", theme\_xpt)) %>%  
 mutate(rds\_name = paste0(str\_replace\_all(theme\_xpt, "\\.XPT", "\\.rds"))) %>%  
 mutate(htm\_files = paste0("https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/", str\_replace\_all(theme\_xpt, "\\.XPT", "\\.htm")))  
  
xpt\_files <- df\_2003\_2004$complete\_urls  
  
vars\_summary\_all <- data.frame()  
  
ifelse(!dir.exists("rawdata/S2003\_2004\_rds/"),  
 dir.create("rawdata/S2003\_2004\_rds/", recursive = TRUE), FALSE  
)

## [1] TRUE

for (i in 1:length(xpt\_files)) {  
 tictoc::tic()  
 data\_url\_string <- df\_2003\_2004[i, "complete\_urls"]  
  
 print("-----------------------------")  
 print(paste0("Download: ", i))  
 print(data\_url\_string)  
  
  
  
 temp\_data <- read\_xpt(url(data\_url\_string)) %>%  
 clean\_names(case = "snake")  
  
 saveRDS(temp\_data, file = paste0("rawdata/S2003\_2004\_rds/", df\_2003\_2004[i, "rds\_name"]))  
 rm(temp\_data, data\_url\_string)  
  
 htm\_url\_string <- df\_2003\_2004[i, "htm\_files"]  
 print(paste0("Downloading from: :", htm\_url\_string))  
  
 download.file(  
 url = htm\_url\_string,  
 destfile = paste0(  
 "rawdata/S2003\_2004\_rds/",  
 str\_replace\_all(htm\_url\_string, "https\\:\\/\\/wwwn\\.cdc.gov\\/Nchs\\/Nhanes\\/2003-2004\\/", "")  
 )  
 )  
  
  
 vars\_summary <- readHTMLList(readLines(htm\_url\_string), trim = T, header = T)[2] %>%  
 as.data.frame() %>%  
 separate(col = 1, sep = " - ", into = c("var\_name", "summary")) %>%   
 mutate(theme=theme\_xpt[i]) ## adding information on the theme to use in renaming the variables in the next scripts  
  
 vars\_summary\_all <- bind\_rows(vars\_summary\_all, vars\_summary)  
  
 rm(htm\_url\_string, vars\_summary)  
  
 cat("\nMoving on to the next download")  
 cat("\n-----------------------------\n")  
  
 tictoc::toc()  
}

## [1] "-----------------------------"  
## [1] "Download: 1"  
## [1] "https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/DEMO\_C.XPT"  
## [1] "Downloading from: :https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/DEMO\_C.htm"

## Warning in readLines(htm\_url\_string): incomplete final line found on  
## 'https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/DEMO\_C.htm'

## Warning: Expected 2 pieces. Additional pieces discarded in 10 rows [6,  
## 7, 8, 9, 10, 12, 15, 16, 17, 24].

##   
## Moving on to the next download  
## -----------------------------  
## 10.99 sec elapsed  
## [1] "-----------------------------"  
## [1] "Download: 2"  
## [1] "https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/DR1TOT\_C.XPT"  
## [1] "Downloading from: :https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/DR1TOT\_C.htm"

## Warning in readLines(htm\_url\_string): incomplete final line found on  
## 'https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/DR1TOT\_C.htm'

##   
## Moving on to the next download  
## -----------------------------  
## 26.85 sec elapsed  
## [1] "-----------------------------"  
## [1] "Download: 3"  
## [1] "https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/SMQFAM\_C.XPT"  
## [1] "Downloading from: :https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/SMQFAM\_C.htm"

## Warning in readLines(htm\_url\_string): incomplete final line found on  
## 'https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/SMQFAM\_C.htm'

##   
## Moving on to the next download  
## -----------------------------  
## 2.05 sec elapsed  
## [1] "-----------------------------"  
## [1] "Download: 4"  
## [1] "https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/DIQ\_C.XPT"  
## [1] "Downloading from: :https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/DIQ\_C.htm"

## Warning in readLines(htm\_url\_string): incomplete final line found on  
## 'https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/DIQ\_C.htm'

## Warning: Expected 2 pieces. Additional pieces discarded in 1 rows  
## [17].

##   
## Moving on to the next download  
## -----------------------------  
## 3.05 sec elapsed  
## [1] "-----------------------------"  
## [1] "Download: 5"  
## [1] "https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/BMX\_C.XPT"  
## [1] "Downloading from: :https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/BMX\_C.htm"

## Warning in readLines(htm\_url\_string): incomplete final line found on  
## 'https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/BMX\_C.htm'

##   
## Moving on to the next download  
## -----------------------------  
## 5.87 sec elapsed  
## [1] "-----------------------------"  
## [1] "Download: 6"  
## [1] "https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/PAQ\_C.XPT"  
## [1] "Downloading from: :https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/PAQ\_C.htm"

## Warning in readLines(htm\_url\_string): incomplete final line found on  
## 'https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/PAQ\_C.htm'

## Warning: Expected 2 pieces. Additional pieces discarded in 1 rows  
## [14].

##   
## Moving on to the next download  
## -----------------------------  
## 4.55 sec elapsed  
## [1] "-----------------------------"  
## [1] "Download: 7"  
## [1] "https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/L16\_C.XPT"  
## [1] "Downloading from: :https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/L16\_C.htm"

## Warning in readLines(htm\_url\_string): incomplete final line found on  
## 'https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/L16\_C.htm'

##   
## Moving on to the next download  
## -----------------------------  
## 1.31 sec elapsed  
## [1] "-----------------------------"  
## [1] "Download: 8"  
## [1] "https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/L40\_C.XPT"  
## [1] "Downloading from: :https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/L40\_C.htm"

## Warning in readLines(htm\_url\_string): incomplete final line found on  
## 'https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/L40\_C.htm'

##   
## Moving on to the next download  
## -----------------------------  
## 4.86 sec elapsed  
## [1] "-----------------------------"  
## [1] "Download: 9"  
## [1] "https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/L25\_C.XPT"  
## [1] "Downloading from: :https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/L25\_C.htm"

## Warning in readLines(htm\_url\_string): incomplete final line found on  
## 'https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/L25\_C.htm'

##   
## Moving on to the next download  
## -----------------------------  
## 3.64 sec elapsed  
## [1] "-----------------------------"  
## [1] "Download: 10"  
## [1] "https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/L06COT\_C.XPT"  
## [1] "Downloading from: :https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/L06COT\_C.htm"

## Warning in readLines(htm\_url\_string): incomplete final line found on  
## 'https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/L06COT\_C.htm'

##   
## Moving on to the next download  
## -----------------------------  
## 0.91 sec elapsed  
## [1] "-----------------------------"  
## [1] "Download: 11"  
## [1] "https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/L10\_C.XPT"  
## [1] "Downloading from: :https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/L10\_C.htm"

## Warning in readLines(htm\_url\_string): incomplete final line found on  
## 'https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/L10\_C.htm'

##   
## Moving on to the next download  
## -----------------------------  
## 0.8 sec elapsed  
## [1] "-----------------------------"  
## [1] "Download: 12"  
## [1] "https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/L24EPH\_C.XPT"  
## [1] "Downloading from: :https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/L24EPH\_C.htm"

## Warning in readLines(htm\_url\_string): incomplete final line found on  
## 'https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/L24EPH\_C.htm'

##   
## Moving on to the next download  
## -----------------------------  
## 0.93 sec elapsed  
## [1] "-----------------------------"  
## [1] "Download: 13"  
## [1] "https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/L24PH\_C.XPT"  
## [1] "Downloading from: :https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/L24PH\_C.htm"

## Warning in readLines(htm\_url\_string): incomplete final line found on  
## 'https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/L24PH\_C.htm'

##   
## Moving on to the next download  
## -----------------------------  
## 1.85 sec elapsed  
## [1] "-----------------------------"  
## [1] "Download: 14"  
## [1] "https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/L06UAS\_C.XPT"  
## [1] "Downloading from: :https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/L06UAS\_C.htm"

## Warning in readLines(htm\_url\_string): incomplete final line found on  
## 'https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/L06UAS\_C.htm'

##   
## Moving on to the next download  
## -----------------------------  
## 1.31 sec elapsed  
## [1] "-----------------------------"  
## [1] "Download: 15"  
## [1] "https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/L06BMT\_C.XPT"  
## [1] "Downloading from: :https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/L06BMT\_C.htm"

## Warning in readLines(htm\_url\_string): incomplete final line found on  
## 'https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/L06BMT\_C.htm'

##   
## Moving on to the next download  
## -----------------------------  
## 1.92 sec elapsed  
## [1] "-----------------------------"  
## [1] "Download: 16"  
## [1] "https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/L06UIO\_C.XPT"  
## [1] "Downloading from: :https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/L06UIO\_C.htm"

## Warning in readLines(htm\_url\_string): incomplete final line found on  
## 'https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/L06UIO\_C.htm'

##   
## Moving on to the next download  
## -----------------------------  
## 0.8 sec elapsed  
## [1] "-----------------------------"  
## [1] "Download: 17"  
## [1] "https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/L06UHG\_C.XPT"  
## [1] "Downloading from: :https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/L06UHG\_C.htm"

## Warning in readLines(htm\_url\_string): incomplete final line found on  
## 'https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/L06UHG\_C.htm'

##   
## Moving on to the next download  
## -----------------------------  
## 0.81 sec elapsed  
## [1] "-----------------------------"  
## [1] "Download: 18"  
## [1] "https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/L04PER\_C.XPT"  
## [1] "Downloading from: :https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/L04PER\_C.htm"

## Warning in readLines(htm\_url\_string): incomplete final line found on  
## 'https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/L04PER\_C.htm'

##   
## Moving on to the next download  
## -----------------------------  
## 0.81 sec elapsed  
## [1] "-----------------------------"  
## [1] "Download: 19"  
## [1] "https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/L31PAH\_C.XPT"  
## [1] "Downloading from: :https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/L31PAH\_C.htm"

## Warning in readLines(htm\_url\_string): incomplete final line found on  
## 'https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/L31PAH\_C.htm'

##   
## Moving on to the next download  
## -----------------------------  
## 1.46 sec elapsed  
## [1] "-----------------------------"  
## [1] "Download: 20"  
## [1] "https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/L24PFC\_C.XPT"  
## [1] "Downloading from: :https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/L24PFC\_C.htm"

## Warning in readLines(htm\_url\_string): incomplete final line found on  
## 'https://wwwn.cdc.gov/Nchs/Nhanes/2003-2004/L24PFC\_C.htm'

##   
## Moving on to the next download  
## -----------------------------  
## 1.61 sec elapsed

ifelse(!dir.exists("produceddata/"),  
 dir.create("produceddata/", recursive = TRUE), FALSE  
)

## [1] TRUE

saveRDS(vars\_summary\_all, "produceddata/vars\_summary\_all\_2003v1.rds")

# Downloading 2013-2014 data

theme\_xpt\_1314 <- c(  
 # demographics  
 "DEMO\_H.XPT",  
 # dietary  
 "DR1TOT\_H.XPT",  
 # smoking data (household somking)  
 "SMQFAM\_H.XPT",  
 # diabetes data  
 "DIQ\_H.XPT",  
 # Body Measurement data  
 "BMX\_H.XPT",  
 # physical activity data  
 "PAQ\_H.XPT",  
 ## Laboratory  
 # Load 2013-2014 Albumin data  
 "ALB\_CR\_H.XPT",  
 # Standard Biochemistry data  
 "BIOPRO\_H.XPT",  
 # Completele Blood Count data  
 "CBC\_H.XPT",  
 # Cotinine data  
 "COT\_H.XPT",  
 # glycohemoglobin data  
 "GHB\_H.XPT",  
 # environmental phenols data  
 "EPHPP\_H.XPT",  
 # Load phtalates urine data  
 "PHTHTE\_H.XPT",  
 # Load arsenic data  
 "UTAS\_H.XPT",  
 #Load cadmium and lead data  
 "PBCD\_H.XPT",  
 # Load iodine data  
 "UIO\_H.XPT",  
 #Load mercury data  
 "UHG\_H.XPT",  
 #Load non-dioxin data  
 "PCBPOL\_H.XPT",  
 #Load perchlorate data  
 "PERNT\_H.XPT",  
 # Load Polyaromatic Hydrocarbons (PAHs)  
 "PAH\_H.XPT",  
 # Load Polyfluoroalkyl Chemicals data  
 "PFAS\_H.XPT"  
)

df\_2013\_2014 <- as.data.frame(theme\_xpt\_1314) %>%  
 mutate(complete\_urls = paste0("https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/", theme\_xpt\_1314)) %>%  
 mutate(rds\_name = paste0(str\_replace\_all(theme\_xpt\_1314, "\\.XPT", "\\.rds"))) %>%  
 mutate(htm\_files = paste0("https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/", str\_replace\_all(theme\_xpt\_1314, "\\.XPT", "\\.htm")))  
  
xpt\_files\_1314 <- df\_2013\_2014$complete\_urls  
  
vars\_summary\_all\_1314 <- data.frame()  
  
ifelse(!dir.exists("rawdata/S2013\_2014\_rds/"),  
 dir.create("rawdata/S2013\_2014\_rds/", recursive = TRUE), FALSE  
)

## [1] TRUE

for (i in 1:length(xpt\_files\_1314)) {  
 tictoc::tic()  
 data\_url\_string <- df\_2013\_2014[i, "complete\_urls"]  
  
 print("-----------------------------")  
 print(paste0("Download: ", i))  
 print(data\_url\_string)  
  
  
  
 temp\_data <- read\_xpt(url(data\_url\_string)) %>%  
 clean\_names(case = "snake")  
  
 saveRDS(temp\_data, file = paste0("rawdata/S2013\_2014\_rds/", df\_2013\_2014[i, "rds\_name"]))  
 rm(temp\_data, data\_url\_string)  
  
 htm\_url\_string <- df\_2013\_2014[i, "htm\_files"]  
 print(paste0("Downloading from: :", htm\_url\_string))  
  
 download.file(  
 url = htm\_url\_string,  
 destfile = paste0(  
 "rawdata/S2013\_2014\_rds/",  
 str\_replace\_all(htm\_url\_string, "https\\:\\/\\/wwwn\\.cdc.gov\\/Nchs\\/Nhanes\\/2013-2014\\/", "")  
 )  
 )  
  
  
 vars\_summary <- readHTMLList(readLines(htm\_url\_string), trim = T, header = T)[2] %>%  
 as.data.frame() %>%  
 separate(col = 1, sep = " - ", into = c("var\_name", "summary")) %>%   
 mutate(theme=theme\_xpt\_1314[i])  
  
 vars\_summary\_all\_1314 <- bind\_rows(vars\_summary\_all\_1314, vars\_summary)  
  
 rm(htm\_url\_string, vars\_summary)  
  
 cat("\nMoving on to the next download")  
 cat("\n-----------------------------\n")  
  
 tictoc::toc()  
}

## [1] "-----------------------------"  
## [1] "Download: 1"  
## [1] "https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/DEMO\_H.XPT"  
## [1] "Downloading from: :https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/DEMO\_H.htm"

## Warning in readLines(htm\_url\_string): incomplete final line found on  
## 'https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/DEMO\_H.htm'

## Warning: Expected 2 pieces. Additional pieces discarded in 4 rows [6,  
## 10, 16, 17].

##   
## Moving on to the next download  
## -----------------------------  
## 8.43 sec elapsed  
## [1] "-----------------------------"  
## [1] "Download: 2"  
## [1] "https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/DR1TOT\_H.XPT"  
## [1] "Downloading from: :https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/DR1TOT\_H.htm"

## Warning in readLines(htm\_url\_string): incomplete final line found on  
## 'https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/DR1TOT\_H.htm'

##   
## Moving on to the next download  
## -----------------------------  
## 29.92 sec elapsed  
## [1] "-----------------------------"  
## [1] "Download: 3"  
## [1] "https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/SMQFAM\_H.XPT"  
## [1] "Downloading from: :https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/SMQFAM\_H.htm"

## Warning in readLines(htm\_url\_string): incomplete final line found on  
## 'https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/SMQFAM\_H.htm'

##   
## Moving on to the next download  
## -----------------------------  
## 1.31 sec elapsed  
## [1] "-----------------------------"  
## [1] "Download: 4"  
## [1] "https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/DIQ\_H.XPT"  
## [1] "Downloading from: :https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/DIQ\_H.htm"

## Warning in readLines(htm\_url\_string): incomplete final line found on  
## 'https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/DIQ\_H.htm'

##   
## Moving on to the next download  
## -----------------------------  
## 10.05 sec elapsed  
## [1] "-----------------------------"  
## [1] "Download: 5"  
## [1] "https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/BMX\_H.XPT"  
## [1] "Downloading from: :https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/BMX\_H.htm"

## Warning in readLines(htm\_url\_string): incomplete final line found on  
## 'https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/BMX\_H.htm'

## Warning: Expected 2 pieces. Additional pieces discarded in 1 rows  
## [12].

##   
## Moving on to the next download  
## -----------------------------  
## 5.03 sec elapsed  
## [1] "-----------------------------"  
## [1] "Download: 6"  
## [1] "https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/PAQ\_H.XPT"  
## [1] "Downloading from: :https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/PAQ\_H.htm"  
##   
## Moving on to the next download  
## -----------------------------  
## 16.53 sec elapsed  
## [1] "-----------------------------"  
## [1] "Download: 7"  
## [1] "https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/ALB\_CR\_H.XPT"  
## [1] "Downloading from: :https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/ALB\_CR\_H.htm"  
##   
## Moving on to the next download  
## -----------------------------  
## 1.58 sec elapsed  
## [1] "-----------------------------"  
## [1] "Download: 8"  
## [1] "https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/BIOPRO\_H.XPT"  
## [1] "Downloading from: :https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/BIOPRO\_H.htm"

## Warning in readLines(htm\_url\_string): incomplete final line found on  
## 'https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/BIOPRO\_H.htm'

##   
## Moving on to the next download  
## -----------------------------  
## 5.04 sec elapsed  
## [1] "-----------------------------"  
## [1] "Download: 9"  
## [1] "https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/CBC\_H.XPT"  
## [1] "Downloading from: :https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/CBC\_H.htm"

## Warning in readLines(htm\_url\_string): incomplete final line found on  
## 'https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/CBC\_H.htm'

##   
## Moving on to the next download  
## -----------------------------  
## 3.65 sec elapsed  
## [1] "-----------------------------"  
## [1] "Download: 10"  
## [1] "https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/COT\_H.XPT"  
## [1] "Downloading from: :https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/COT\_H.htm"

## Warning in readLines(htm\_url\_string): incomplete final line found on  
## 'https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/COT\_H.htm'

##   
## Moving on to the next download  
## -----------------------------  
## 1.29 sec elapsed  
## [1] "-----------------------------"  
## [1] "Download: 11"  
## [1] "https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/GHB\_H.XPT"  
## [1] "Downloading from: :https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/GHB\_H.htm"

## Warning in readLines(htm\_url\_string): incomplete final line found on  
## 'https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/GHB\_H.htm'

##   
## Moving on to the next download  
## -----------------------------  
## 0.81 sec elapsed  
## [1] "-----------------------------"  
## [1] "Download: 12"  
## [1] "https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/EPHPP\_H.XPT"  
## [1] "Downloading from: :https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/EPHPP\_H.htm"

## Warning in readLines(htm\_url\_string): incomplete final line found on  
## 'https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/EPHPP\_H.htm'

##   
## Moving on to the next download  
## -----------------------------  
## 3.19 sec elapsed  
## [1] "-----------------------------"  
## [1] "Download: 13"  
## [1] "https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/PHTHTE\_H.XPT"  
## [1] "Downloading from: :https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/PHTHTE\_H.htm"

## Warning in readLines(htm\_url\_string): incomplete final line found on  
## 'https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/PHTHTE\_H.htm'

##   
## Moving on to the next download  
## -----------------------------  
## 1.99 sec elapsed  
## [1] "-----------------------------"  
## [1] "Download: 14"  
## [1] "https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/UTAS\_H.XPT"  
## [1] "Downloading from: :https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/UTAS\_H.htm"

## Warning in readLines(htm\_url\_string): incomplete final line found on  
## 'https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/UTAS\_H.htm'

##   
## Moving on to the next download  
## -----------------------------  
## 0.81 sec elapsed  
## [1] "-----------------------------"  
## [1] "Download: 15"  
## [1] "https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/PBCD\_H.XPT"  
## [1] "Downloading from: :https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/PBCD\_H.htm"  
##   
## Moving on to the next download  
## -----------------------------  
## 2.05 sec elapsed  
## [1] "-----------------------------"  
## [1] "Download: 16"  
## [1] "https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/UIO\_H.XPT"  
## [1] "Downloading from: :https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/UIO\_H.htm"

## Warning in readLines(htm\_url\_string): incomplete final line found on  
## 'https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/UIO\_H.htm'

##   
## Moving on to the next download  
## -----------------------------  
## 0.81 sec elapsed  
## [1] "-----------------------------"  
## [1] "Download: 17"  
## [1] "https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/UHG\_H.XPT"  
## [1] "Downloading from: :https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/UHG\_H.htm"

## Warning in readLines(htm\_url\_string): incomplete final line found on  
## 'https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/UHG\_H.htm'

##   
## Moving on to the next download  
## -----------------------------  
## 0.81 sec elapsed  
## [1] "-----------------------------"  
## [1] "Download: 18"  
## [1] "https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/PCBPOL\_H.XPT"  
## [1] "Downloading from: :https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/PCBPOL\_H.htm"

## Warning in readLines(htm\_url\_string): incomplete final line found on  
## 'https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/PCBPOL\_H.htm'

##   
## Moving on to the next download  
## -----------------------------  
## 2.55 sec elapsed  
## [1] "-----------------------------"  
## [1] "Download: 19"  
## [1] "https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/PERNT\_H.XPT"  
## [1] "Downloading from: :https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/PERNT\_H.htm"

## Warning in readLines(htm\_url\_string): incomplete final line found on  
## 'https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/PERNT\_H.htm'

##   
## Moving on to the next download  
## -----------------------------  
## 1.17 sec elapsed  
## [1] "-----------------------------"  
## [1] "Download: 20"  
## [1] "https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/PAH\_H.XPT"  
## [1] "Downloading from: :https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/PAH\_H.htm"

## Warning in readLines(htm\_url\_string): incomplete final line found on  
## 'https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/PAH\_H.htm'

##   
## Moving on to the next download  
## -----------------------------  
## 1.41 sec elapsed  
## [1] "-----------------------------"  
## [1] "Download: 21"  
## [1] "https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/PFAS\_H.XPT"  
## [1] "Downloading from: :https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/PFAS\_H.htm"

## Warning in readLines(htm\_url\_string): incomplete final line found on  
## 'https://wwwn.cdc.gov/Nchs/Nhanes/2013-2014/PFAS\_H.htm'

##   
## Moving on to the next download  
## -----------------------------  
## 1.21 sec elapsed

ifelse(!dir.exists("produceddata/"),  
 dir.create("produceddata/", recursive = TRUE), FALSE  
)

## [1] FALSE

saveRDS(vars\_summary\_all\_1314, "produceddata/vars\_summary\_all\_2013v1.rds")

# Session information

sessionInfo()

## R version 4.1.2 (2021-11-01)  
## Platform: x86\_64-w64-mingw32/x64 (64-bit)  
## Running under: Windows 10 x64 (build 19043)  
##   
## Matrix products: default  
##   
## locale:  
## [1] LC\_COLLATE=English\_United Kingdom.1252   
## [2] LC\_CTYPE=English\_United Kingdom.1252   
## [3] LC\_MONETARY=English\_United Kingdom.1252  
## [4] LC\_NUMERIC=C   
## [5] LC\_TIME=English\_United Kingdom.1252   
##   
## attached base packages:  
## [1] stats graphics grDevices utils datasets methods   
## [7] base   
##   
## other attached packages:  
## [1] tictoc\_1.0.1 XML\_3.99-0.9 janitor\_2.1.0 forcats\_0.5.1   
## [5] stringr\_1.4.0 dplyr\_1.0.8 purrr\_0.3.4 readr\_2.1.2   
## [9] tidyr\_1.2.0 tibble\_3.1.6 ggplot2\_3.3.5 tidyverse\_1.3.1  
## [13] haven\_2.4.3   
##   
## loaded via a namespace (and not attached):  
## [1] httr\_1.4.2 jsonlite\_1.8.0 splines\_4.1.2   
## [4] modelr\_0.1.8 datawizard\_0.3.0 assertthat\_0.2.1   
## [7] cellranger\_1.1.0 yaml\_2.3.5 bayestestR\_0.11.5   
## [10] pillar\_1.7.0 backports\_1.4.1 lattice\_0.20-45   
## [13] glue\_1.6.2 digest\_0.6.29 snakecase\_0.11.0   
## [16] rvest\_1.0.2 minqa\_1.2.4 colorspace\_2.0-3   
## [19] sandwich\_3.0-1 htmltools\_0.5.2 Matrix\_1.4-0   
## [22] plyr\_1.8.6 pkgconfig\_2.0.3 broom\_0.7.12   
## [25] sjPlot\_2.8.10 xtable\_1.8-4 mvtnorm\_1.1-3   
## [28] scales\_1.1.1 tzdb\_0.2.0 lme4\_1.1-28   
## [31] emmeans\_1.7.2 generics\_0.1.2 sjlabelled\_1.1.8   
## [34] ellipsis\_0.3.2 withr\_2.5.0 TH.data\_1.1-0   
## [37] cli\_3.2.0 readxl\_1.3.1 survival\_3.3-1   
## [40] magrittr\_2.0.2 crayon\_1.5.0 effectsize\_0.6.0.1  
## [43] estimability\_1.3 evaluate\_0.15 fs\_1.5.2   
## [46] fansi\_1.0.2 nlme\_3.1-155 MASS\_7.3-55   
## [49] xml2\_1.3.3 tools\_4.1.2 hms\_1.1.1   
## [52] lifecycle\_1.0.1 multcomp\_1.4-18 reprex\_2.0.1   
## [55] munsell\_0.5.0 ggeffects\_1.1.1 compiler\_4.1.2   
## [58] rlang\_1.0.2 grid\_4.1.2 nloptr\_2.0.0   
## [61] rstudioapi\_0.13 parameters\_0.17.0 rmarkdown\_2.13   
## [64] boot\_1.3-28 gtable\_0.3.0 codetools\_0.2-18   
## [67] sjstats\_0.18.1 DBI\_1.1.2 sjmisc\_2.8.9   
## [70] R6\_2.5.1 zoo\_1.8-9 lubridate\_1.8.0   
## [73] knitr\_1.37 performance\_0.8.0 fastmap\_1.1.0   
## [76] utf8\_1.2.2 insight\_0.16.0 stringi\_1.7.6   
## [79] Rcpp\_1.0.8.2 vctrs\_0.3.8 dbplyr\_2.1.1   
## [82] tidyselect\_1.1.2 xfun\_0.30 coda\_0.19-4