

```
#####
## ENSANUT and ENPOL cleaning script  ##
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## 12-15-2023                        ##
#####

library(data.table)
library(readxl)
library(fastDummies)
library(janitor)

# Read in data ####
d_util <- fread("../pplmx/00_data/util2021_entrega_w_14_12_2021.csv")
d_hogar <- fread("../pplmx/00_data/hogar_ensanut2021_w_14_12_2021.csv")
d_integrantes <- fread("../pplmx/00_data/integrantes_ensanut2021_w_12_01_2022.csv")
d_adultos <- fread("../pplmx/00_data/ensadul2021_entrega_w_15_12_2021.csv")

names(d_hogar)
d_hogar <- d_hogar[, c(1, 30:236)]
names(d_integrantes)
d_integrantes <- d_integrantes[, c(1:3, 12:243, 248:250)]
names(d_adultos)
d_adultos <- d_adultos[, c(2, 38:690, 701:703)]
names(d_util)
d_util <- d_util[, c(2, 42:43, 46:140)]

d_ensanut <- merge(d_integrantes, d_hogar, by = "FOLIO_I", all.x = TRUE)
d_ensanut <- merge(d_ensanut, d_adultos, by = "FOLIO_INT", all = FALSE) # only merge with interviewed adults? I think
for this particular exercise, yes
d_ensanut <- merge(d_ensanut, d_util, by = "FOLIO_INT", all.x = TRUE)

# Read in data dictionaries ####
# Service users
# cat_util <- read_excel("../pplmx/00_data/util2021_entrega_w_14_12_2021.CatÃ¡logo.xlsx")
# names(cat_util) <- cat_util[1,]
# cat_util <- janitor::clean_names(cat_util)
# cat_util <- cat_util[2:152,]
# View(cat_util)
#
# cat_util_value <- read_excel("../pplmx/00_data/util2021_entrega_w_14_12_2021.CatÃ¡logo.xlsx", sheet = "Valores")
# View(cat_util_value)
# #svy packages
#
# # Household members
# cat_int <- read_excel("../pplmx/00_data/integrantes_ensanut2021_w_12_01_2022.CatÃ¡logo.xlsx")
# names(cat_int) <- cat_int[1,]
# cat_int <- janitor::clean_names(cat_int)
# cat_int <- cat_int[2:252,]
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# View(cat_int)
#
# cat_int_value <- read_excel("../pplmx/00_data/integrantes_ensanut2021_w_12_01_2022.CatÃ¡logo.xlsx", sheet = "Valores")
# View(cat_int_value)
#
# # Households
# cat_hogar <- read_excel("../pplmx/00_data/hogar_ensanut2021_w_14_12_2021.CatÃ¡logo.xlsx")
# names(cat_hogar) <- cat_hogar[1,]
# cat_hogar <- janitor::clean_names(cat_hogar)
# cat_hogar <- cat_hogar[2:248,]
# View(cat_hogar)
#
# cat_hogar_value <- read_excel("../pplmx/00_data/hogar_ensanut2021_w_14_12_2021.CatÃ¡logo.xlsx", sheet = "Valores")
# View(cat_hogar_value)
#
# # Main questionnaire
# cat_adultos <- read_excel("../pplmx/00_data/ensadul2021_entrega_w_15_12_2021.CatÃ¡logo.xlsx")
# names(cat_adultos) <- cat_adultos[1,]
# cat_adultos <- janitor::clean_names(cat_adultos)
# cat_adultos <- cat_adultos[2:705,]
# View(cat_adultos)
#
# cat_adultos_value <- read_excel("../pplmx/00_data/ensadul2021_entrega_w_15_12_2021.CatÃ¡logo.xlsx", sheet = "Valores")
# View(cat_adultos_value)

# Remove all but survey dataset
rm(list=setdiff(ls(), c("d_ensanut")))

# Clean data ####
# Create age groups

d_ensanut$agegroups <- ifelse(d_ensanut$edad >= 20 & d_ensanut$edad <= 29, "20-29",
                             ifelse(d_ensanut$edad >= 30 & d_ensanut$edad <= 39, "30-39",
                                     ifelse(d_ensanut$edad >= 40 & d_ensanut$edad <= 49, "40-49",
                                             ifelse(d_ensanut$edad >= 50 & d_ensanut$edad <= 59, "50-59",
                                                     ifelse(d_ensanut$edad >= 60 & d_ensanut$edad <= 69, "60-69",
                                                             ifelse(d_ensanut$edad >= 70 & d_ensanut$edad <= 79, "70-79",
                                                                     ifelse(d_ensanut$edad >= 80 & d_ensanut$edad < 99,
                                                                           "80+", NA))))))
# This removes one 99-year-old

# Generate new variables

# estrato is metropolitan/urban/rural 3-2-1

## Highest grade level -- see if grades are the same; if not, use levels
## They are not the same; levels must be used
#unique(d_ensanut$h0317g)

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## Adequate shelter
d_ensanut$shelter <- ifelse(d_ensanut$h0101 < 4, "No", "Yes")
# 1 - waste material, 2 - cardboard, 3 - corrugated metal, 4 - asbestos (would cause health problems, but would also
protect from the elements)
# 5 - thatched, 6 - wood or shingles, 7 - clay with beams, 8 - clay shingles, 9 - concrete with beams

## Household drainage
d_ensanut$drain <- ifelse(d_ensanut$h0118 < 5, "Yes", "No")
# 1 - 4 are drainage options, even if outside the public sewer system
# 5 is no drainage

## Flushing toilet
d_ensanut$flush <- ifelse(d_ensanut$h0119 == 1, "Yes", "No")

## Assault
# Recode physical attack variable
d_ensanut$a1201 <- ifelse(d_ensanut$a1201 == 1, 98,
                        ifelse(d_ensanut$a1201 == 2, 99, NA))
# Move all 7s to a1202 variable (only extends to third instance of the A1202 series)
d_ensanut$a1202 <- ifelse(d_ensanut$A1202A == 7, 7,
                        ifelse(d_ensanut$A1202B == 7, 7,
                              ifelse(d_ensanut$A1202C == 7, 7, d_ensanut$A1202A)))
# Fill in missing values from A1202A so we don't have too many missings; we're not interested
# in the individual values besides 7, so for right now it doesn't matter
d_ensanut$a1202[is.na(d_ensanut$a1202)] <- d_ensanut$A1202A[is.na(d_ensanut$a1202)]

# Migrate no's from a1201
d_ensanut$a1202 <- ifelse(is.na(d_ensanut$a1202) & d_ensanut$a1201 == 99, 99,
                        ifelse(!is.na(d_ensanut$a1202), d_ensanut$a1202, NA))

## Sexual assault
d_ensanut$sassault <- ifelse(d_ensanut$a1202 == 7, "Yes", "No")

## COVID treatment
d_ensanut$covid_trt <- ifelse(d_ensanut$h1208 == 1 & d_ensanut$h1211 == 1, "Yes", "No")

## Psych treatment
d_ensanut$psych_trt <- ifelse(d_ensanut$u0102 %in% c(47:51), "Yes", "No")

## Dental treatment
d_ensanut$dental_trt <- ifelse(d_ensanut$u0102 %in% c(7, 31), "Yes", "No")

## Check-ups
d_ensanut$checkup <- ifelse(d_ensanut$u0102 == 30, "Yes", "No")

## Vaccinations
d_ensanut$vax <- ifelse(d_ensanut$u0102 == 28, "Yes", "No")

## Medication availability

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# Not the greatest code, but we won't be using this, anyway
d_ensanut$meds <- ifelse(d_ensanut$U0305A %in% c(1, 3:7, 10:11, 14) |
  d_ensanut$U0305B %in% c(1, 3:7, 10:11, 14) |
  d_ensanut$U0305C %in% c(1, 3:7, 10:11, 14) |
  d_ensanut$U0305D %in% c(1, 3:7, 10:11, 14) |
  d_ensanut$U0305E1 %in% c(1, 3:7, 10:11, 14) |
  d_ensanut$U0305F %in% c(1, 3:7, 10:11, 14) |
  d_ensanut$U0305G %in% c(1, 3:7, 10:11, 14) |
  d_ensanut$U0305H %in% c(1, 3:7, 10:11, 14) |
  d_ensanut$U0305I %in% c(1, 3:7, 10:11, 14) |
  d_ensanut$U0305J %in% c(1, 3:7, 10:11, 14) |
  d_ensanut$U0305K %in% c(1, 3:7, 10:11, 14) |
  d_ensanut$U0305L %in% c(1, 3:7, 10:11, 14) |
  d_ensanut$U0305M %in% c(1, 3:7, 10:11, 14) |
  d_ensanut$U0305N %in% c(1, 3:7, 10:11, 14) |
  d_ensanut$U0305O %in% c(1, 3:7, 10:11, 14), "No", NA)

# Label other variables
# Sex
d_ensanut$sexo <- factor(d_ensanut$sexo, levels = c(1, 2), labels = c("Male", "Female"))

# State of residence and state of birth h0306e
d_ensanut$state_res <- factor(d_ensanut$entidad,
  levels = c(1:32, 99),
  labels = c("Aguascalientes", "Baja California", "Baja California Sur", "Campeche",
    "Coahuila", "Colima", "Chiapas", "Chihuahua",
    "Ciudad de Mexico", "Durango", "Guanajuato", "Guerrero",
    "Hidalgo", "Jalisco", "Estado de Mexico", "Michoacan", "Morelos",
    "Nayarit", "Nuevo Leon", "Oaxaca", "Puebla", "Queretaro",
    "Quintana Roo", "San Luis Potosi", "Sinaloa", "Sonora", "Tabasco",
    "Tamaulipas", "Tlaxcala", "Veracruz", "Yucatan", "Zacatecas", NA))

# State of birth
d_ensanut$state_birth <- factor(d_ensanut$h0306e,
  levels = c(1:32, 99),
  labels = c("Aguascalientes", "Baja California", "Baja California Sur", "Campeche",
    "Coahuila", "Colima", "Chiapas", "Chihuahua",
    "Ciudad de Mexico", "Durango", "Guanajuato", "Guerrero",
    "Hidalgo", "Jalisco", "Estado de Mexico", "Michoacan", "Morelos",
    "Nayarit", "Nuevo Leon", "Oaxaca", "Puebla", "Quer taro",
    "Quintana Roo", "San Luis Potosi", "Sinaloa", "Sonora", "Tabasco",
    "Tamaulipas", "Tlaxcala", "Veracruz", "Yucatan", "Zacatecas", NA))

# Highest level of schooling completed
d_ensanut$school <- ifelse(d_ensanut$h0317a == 0, "None",
  ifelse(d_ensanut$h0317a == 1, "Preschool",
    ifelse(d_ensanut$h0317a == 2, "Elementary school",
      ifelse(d_ensanut$h0317a == 3, "Middle school",
        ifelse(d_ensanut$h0317a == 4, "High school",

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                                                    ifelse(d_ensanut$h0317a %in% c(5:9), "Vocational/Technical",
                                                    ifelse(d_ensanut$h0317a == 10, "Undergraduate",
                                                    ifelse(d_ensanut$h0317a %in% c(11, 12), "Graduate",
NA)))))))))

# Job type -- see h0321 in yes/no
# d_ensanut$job <- ifelse(d_ensanut$h0324 %in% c(1:3, 6), "Employee/worker",
#                          ifelse(d_ensanut$h0324 == c(4:5), "Business owner/manager", "Other"))

# Income
d_ensanut$income <- factor(d_ensanut$h0327,
                          levels = c(6, 1:5, 8:9),
                          labels = c("No income",
                                      "MXN 1 - MXN 5999",
                                      "MXN 6000 - MXN 9999",
                                      "MXN 10000 - MXN 13999",
                                      "MXN 14000 - MXN 21999",
                                      "MXN 22000 or more", NA, NA),
                          ordered = TRUE)

# Water security (was there drinking water?)
d_ensanut$water <- ifelse(d_ensanut$h0808 <= 3, "Yes",
                          ifelse(d_ensanut$h0808 > 3 & d_ensanut$h0808 < 88, "No", NA))

# Bathing access (could you bathe?)
d_ensanut$bathing <- ifelse(d_ensanut$h0807 <= 3, "Yes",
                            ifelse(d_ensanut$h0807 > 3 & d_ensanut$h0807 < 88, "No", NA))

# Current smoker
d_ensanut$smoker <- ifelse(d_ensanut$a1301 <= 2, "Yes",
                           ifelse(d_ensanut$a1301 == 3, "No", NA))

# Current drinker
d_ensanut$drinker <- ifelse(d_ensanut$a1308 <= 2, "Yes",
                            ifelse(d_ensanut$a1308 %in% c(3:6), "No", NA))

# Diabetes (absorbing gestational diabetes)
d_ensanut$diabetes <- ifelse(d_ensanut$a0301 <= 2, "Yes", "No")

# Hypertension (absorbing gestational hypertension)
d_ensanut$ht <- ifelse(d_ensanut$a0401 <= 2, "Yes", "No")

# Motor disability
d_ensanut$motor_disab <- ifelse(d_ensanut$a1405 > 1, "Yes", "No")

# Suicide attempts
d_ensanut$suicide_att <- ifelse(d_ensanut$a1213 <= 2, "Yes", "No")

# Diabetes treatment

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d_ensanut$diabetes_trt <- ifelse(d_ensanut$a0307 <= 3, "Yes", "No")

# Satisfaction
d_ensanut$satisfaction <- ifelse(d_ensanut$u0505 <= 3, "Yes", "No")

# Injury
d_ensanut$injury <- ifelse(d_ensanut$a1202 %in% c(1:6, 76, 77), "Yes", "No")

# Literacy
d_ensanut$literacy <- ifelse(d_ensanut$h0317a < 3 & d_ensanut$h0318 == 2, "No",
                             ifelse(d_ensanut$h0317a >= 3 | d_ensanut$h0318 == 1, "Yes", NA))

label_yesno <- function(vector){
  vector <- gsub("1", "Yes", vector)
  vector <- gsub("2", "No", vector)
  vector <- gsub("0|3|8|9|b", NA, vector) # 3 applies to P2_14_7 only
}

v_yesno <- c("h0115", # handwashing station
            "h0705", # food security
            "h0111", # electricity
            "h0321", # job
            "h1205", # COVID-19 diagnosis
            # "a1401", # visual disability - should be a1403A
            # "a1402", # auditory disability - should be a1404A
            "a1211", # suicidal ideation
            "a0404", # hypertension treatment
            "h0406", # health services available
            "a1001a", # papanicolaou exam
            "a1001c" # breast exam
            )

d_ensanut[, (v_yesno) := lapply(.SD, label_yesno), .SDcols = v_yesno]
d_ensanut[, (v_yesno) := lapply(.SD, factor, levels = c("Yes", "No", NA), ordered = TRUE), .SDcols = v_yesno]

# Transferring "nos" (1) to conditional variable
d_ensanut$a1403a[is.na(d_ensanut$a1403a) & d_ensanut$a1401 == 1] <- 1
d_ensanut$a1404a[is.na(d_ensanut$a1404a) & d_ensanut$a1402 == 1] <- 1

# Recode
d_ensanut$vis_disab <- ifelse(d_ensanut$a1403a > 1, "Yes", "No")
d_ensanut$aud_disab <- ifelse(d_ensanut$a1404a > 1, "Yes", "No")

# No auditory disability because sample groups were all under 20 people and gave some really strange numbers
# View(d_ensanut[a1402 == 1, .(agegroups, sexo, a1402, a1404a, ct = .N), by = .(sexo, agegroups)])
# Meanwhile, the smallest sample group for vision was 69 (80+ Males)

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# Select relevant variables
d_ensanut <- d_ensanut[, .(FOLIO_I, FOLIO_INT, edad, agegroups, sexo, estrato, state_res, state_birth, literacy, school,
  h0321, income, shelter, water, bathing, h0705,
  h0111, h0115, drain, flush, smoker, drinker,
  diabetes, ht, h1205, vis_disab, motor_disab, injury, a1211,
  suicide_att, sassault, diabetes_trt, a0404, covid_trt,
  psych_trt, dental_trt, meds, h0406, checkup, vax, a1001a, a1001c, satisfaction, upm, ponde_f, est_sel)]
v_names <- c("key_inst", "key_indiv", "age", "agegroup", "sexo", "rurality", "state_res", "state_birth", "literacy",
  "school",
  "job", "income", "shelter", "water", "bathing", "food",
  "electricity", "handwashing", "drain", "flush", "smoker", "drinker",
  "diabetes", "ht", "covid", "vis_disab", "motor_disab", "injury", "suicide_id",
  "suicide_att", "sassault", "diabetes_trt", "ht_trt", "covid_trt",
  "psych_trt", "dental_trt", "meds", "med_serv", "checkup", "vax", "pap_exam", "breast_exam", "satisfaction",
  "psu", "weights", "strata")
setnames(d_ensanut, names(d_ensanut), v_names)
d_ensanut$weights_old <- (nrow(d_ensanut)/sum(d_ensanut$weights)) * d_ensanut$weights

# ENPOL ####
rmcols <- c("V1", "EST_DIS", "FAC_PER", "FPC")
d_enpolsoc <- fread("../00_data/ENPOL2021_SOC.csv")
d_enpolsoc[, (rmcols) := NULL]
d_enpol23 <- fread("../00_data/ENPOL2021_2_3.csv")
d_enpol23[, (rmcols) := NULL]
d_enpol6 <- fread("../00_data/ENPOL2021_6.csv")
d_enpol6[, (rmcols) := NULL]
d_enpol7 <- fread("../00_data/ENPOL2021_7.csv")
d_enpol7[, (rmcols) := NULL]
d_enpol10 <- fread("../00_data/ENPOL2021_8_9_10_11.csv")
d_enpol10 <- d_enpol10[, .(ID_PER, CVE_ENT, NOM_ENT, CEN_INT, NOM_INT, COD_RES, SEXO, FUERO, P10_3,
  FPC, FAC_PER, EST_DIS)]

d_enpol <- d_enpolsoc[d_enpol23, on = c("ID_PER", "CVE_ENT", "NOM_ENT", "CEN_INT", "NOM_INT", "COD_RES", "SEXO",
  "FUERO"), nomatch = NULL]
d_enpol <- d_enpol[d_enpol6, on = c("ID_PER", "CVE_ENT", "NOM_ENT", "CEN_INT", "NOM_INT", "COD_RES", "SEXO", "FUERO"),
  nomatch = NULL]
d_enpol <- d_enpol[d_enpol7, on = c("ID_PER", "CVE_ENT", "NOM_ENT", "CEN_INT", "NOM_INT", "COD_RES", "SEXO", "FUERO"),
  nomatch = NULL]
d_enpol <- d_enpol[d_enpol10, on = c("ID_PER", "CVE_ENT", "NOM_ENT", "CEN_INT", "NOM_INT", "COD_RES", "SEXO", "FUERO"),
  nomatch = NULL]
rm(d_enpolsoc, d_enpol23, d_enpol6, d_enpol7, d_enpol10)

deaccent <- function(vector){
  vector <- gsub("\xd3", "O", vector)
  vector <- gsub("\xda", "U", vector)
  vector <- gsub("\xc9", "E", vector)
  vector <- gsub("\xe1", "a", vector)

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vector <- gsub("\xe9", "e", vector)
vector <- gsub("\xf3", "o", vector)
vector <- gsub("\xed", "i", vector)
vector <- gsub("\xd1", "N", vector)
vector <- gsub("\xcd", "I", vector)
}
d_enpol$NOM_ENT <- deaccent(d_enpol$NOM_ENT)
d_enpol$NOM_INT <- deaccent(d_enpol$NOM_INT)
d_enpol$NOM_ENT <- gsub(" de Ignacio de la Llave", "", d_enpol$NOM_ENT)
d_enpol$NOM_ENT <- gsub(" de Zaragoza", "", d_enpol$NOM_ENT)
d_enpol$NOM_ENT <- gsub(" de Ocampo", "", d_enpol$NOM_ENT)

# Variable cleaning
d_enpol <- d_enpol[, P2_10_E := NULL]
# Sex
d_enpol$SEXO <- factor(d_enpol$SEXO, levels = c(1, 2), labels = c("Male", "Female"))
# Jurisdiction
d_enpol$FUERO <- factor(d_enpol$FUERO, levels = c(1,2), labels = c("Federal", "State or Municipal"))
# Create weights

# Condense hepatitis
d_enpol$P1_24A_1 <- gsub("1", "A", d_enpol$P1_24A_1)
d_enpol$P1_24A_2 <- gsub("1", "B", d_enpol$P1_24A_2)
d_enpol$P1_24A_3 <- gsub("1", "C", d_enpol$P1_24A_3)
d_enpol$P1_24A_4 <- gsub("1", "D", d_enpol$P1_24A_4)
d_enpol$P1_24A_5 <- gsub("1", "ToxAi", d_enpol$P1_24A_5)
d_enpol$P1_24A_6 <- ifelse(d_enpol$P1_24A_1 == "A" |
                          d_enpol$P1_24A_2 == "B" |
                          d_enpol$P1_24A_3 == "C" |
                          d_enpol$P1_24A_4 == "D" |
                          d_enpol$P1_24A_5 == "Tox-AI",
                          paste(d_enpol$P1_24A_1,
                                d_enpol$P1_24A_2,
                                d_enpol$P1_24A_3,
                                d_enpol$P1_24A_4,
                                d_enpol$P1_24A_5, sep = "."), NA_character_)
d_enpol$P1_24A_6 <- gsub("[/.*0//.*]+", "", d_enpol$P1_24A_6, perl = TRUE)
d_enpol$P1_24A_6 <- factor(d_enpol$P1_24A_6, levels = c("A", "B", "C", "D", "AB", "AC", "ABC", "BC", "CD", "Tox-AI"))

label_yesno <- function(vector){
  vector <- gsub("1", "Yes", vector)
  vector <- gsub("2", "No", vector)
  vector <- gsub("0|3|8|9|b", NA, vector) # 3 applies to P2_14_7 only
}

v_yesno <- c("P1_16", "P1_17", "P1_24_1", "P1_26_1", "P1_24_2", "P1_26_2", "P1_24_3", "P1_26_3",
            "P1_24_4", "P1_26_4", "P1_24_5", "P1_26_5", "P1_24_6", "P1_26_6",

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"P1_24_7", "P1_26_7", "P1_24_8", "P1_26_8", "P1_24_9", "P1_26_9",
"P1_29", "P1_30", "P1_31_1", "P1_31_2", "P1_31_3", "P1_31_4",
"P1_32", "P1_33_1", "P1_33_2", "P1_34_1", "P1_34_2",
"P1_41_1", "P1_41_2", "P1_41_3", "P1_41_4", "P1_41_5", "P1_41_6", "P1_41_7",
"P1_41_8", "P1_41_9", "P1_41_10", "P1_41_11", "P1_41_12", "P1_41_13", "P1_41_14",
"P1_43_1", "P1_43_2", "P1_43_3", "P1_43_4", "P1_43_5", "P1_43_6", "P1_43_7",
"P1_43_8", "P1_43_9", "P1_43_10", "P1_43_11", "P1_43_12", "P1_43_13", "P1_43_14",
"P1_44_1", "P1_44_2", "P1_44_3", "P1_44_4", "P1_44_5", "P1_44_6", "P1_44_7",
"P1_44_8", "P1_44_9", "P1_44_10", "P1_44_11", "P1_44_12", "P1_44_13", "P1_44_14",
"P1_45", "P1_46", "P1_47", "P1_48", "P2_14_1", "P2_14_2", "P2_14_3", "P2_14_4", "P2_14_5",
"P2_14_6", "P2_14_7", "P2_14_8", "P2_14_9", "P6_4_1", "P6_4_2", "P6_4_2A", "P6_4_3",
"P6_4_4", "P6_4_5", "P6_4_5A", "P6_4_6", "P6_4_6A", "P6_5_1", "P6_5_2", "P6_5_3", "P6_5_4",
"P6_5_5", "P6_6_1", "P6_6_2", "P6_6_3", "P6_7_1", "P6_7_2", "P6_7_3",
"P6_8_1", "P6_8_2", "P6_8_3", "P6_8_4", "P6_8_5", "P6_10_01", "P6_10_02", "P6_10_03",
"P6_10_04", "P6_10_05", "P6_10_06", "P6_10_07", "P6_10_08", "P6_10_08A", "P6_10_09", "P6_10_10",
"P6_12", "P6_14_1", "P6_14_2", "P6_14_3", "P7_5", "P7_33", "P7_39", "P7_40_4", "P7_40_5", "P7_40_6",
"P7_41A1_4", "P7_41A2_4", "P7_41A3_4", "P7_41A4_4", "P7_41A5_4", "P7_41A6_4", "P7_41A7_4",
"R7_41A7_4X", "P7_41A98_4", "P7_41A99_4", "P7_50", "P10_3")

```

```

d_enpol[, (v_yesno) := lapply(.SD, label_yesno), .SDcols = v_yesno]
d_enpol[, (v_yesno) := lapply(.SD, factor, levels = c("Yes", "No", NA), ordered = TRUE), .SDcols = v_yesno]

```

```

label_numeric <- function(vector){
  vector <- gsub("0|98|99|b", NA, vector)
}
v_numeric <- c("P1_3", "P1_18_G", "P1_20", "P1_42_1", "P1_42_2", "P1_42_3", "P1_42_4",
  "P1_42_5", "P1_42_6", "P1_42_7", "P1_42_8", "P1_42_9", "P1_42_10",
  "P1_42_11", "P1_42_12", "P1_42_13", "P1_42_14", "P7_41_4")
d_enpol[, (v_numeric) := lapply(.SD, label_numeric), .SDcols = v_numeric]
d_enpol[, (v_numeric) := lapply(.SD, as.numeric), .SDcols = v_numeric]

```

```

label_beforeafter <- function(vector){
  vector <- gsub("1", "Before", vector)
  vector <- gsub("2", "After", vector)
  vector <- gsub("0|8|9|b", NA, vector)
}
v_beforeafter <- c("P1_25_1", "P1_25_2", "P1_25_3", "P1_25_4", "P1_25_5",
  "P1_25_6", "P1_25_7", "P1_25_8", "P1_25_9")
d_enpol[, (v_beforeafter) := lapply(.SD, label_beforeafter), .SDcols = v_beforeafter]
d_enpol[, (v_beforeafter) := lapply(.SD, factor, levels = c("Before", "After", NA), ordered = TRUE), .SDcols =
v_beforeafter]

```

```

label_medsfrom <- function(vector){
  vector <- gsub("1", "Self", vector)
  vector <- gsub("2", "Family", vector)
  vector <- gsub("3", "Facility", vector)
  vector <- gsub("4", "External organizations", vector)
  vector <- gsub("5", "Other", vector)
  vector <- gsub("0|8|9|b", NA, vector)
}

```

```

}
v_medsfrom <- c("P1_27_1", "P1_27_2", "P1_27_3", "P1_27_4", "P1_27_5",
               "P1_27_6", "P1_27_7", "P1_27_8", "P1_27_9")
d_enpol[, (v_medsfrom) := lapply(.SD, label_medsfrom), .SDcols = v_medsfrom]

label_ynomeds <- function(vector){
  vector <- gsub("1", "No money", vector)
  vector <- gsub("2", "Facility does not give it to me", vector)
  vector <- gsub("3", "Authorities do not let my visitors give it to me", vector)
  vector <- gsub("4", "Finished treatment", vector)
  vector <- gsub("5", "I do not think I need it", vector)
  vector <- gsub("6", "I use home remedies", vector)
  vector <- gsub("7", "Other", vector)
  vector <- gsub("0|8|9|b", NA, vector)
}
v_ynomeds <- c("P1_28_1", "P1_28_2", "P1_28_3", "P1_28_4",
              "P1_28_5", "P1_28_6", "P1_28_7", "P1_28_8", "P1_28_9")
d_enpol[, (v_ynomeds) := lapply(.SD, label_ynomeds), .SDcols = v_ynomeds]

label_satisfaction <- function(vector){
  vector <- gsub("1", "Very satisfied", vector)
  vector <- gsub("2", "Somewhat satisfied", vector)
  vector <- gsub("3", "Somewhat unsatisfied", vector)
  vector <- gsub("4", "Very unsatisfied", vector)
  vector <- gsub("0|8|9|b", NA, vector)
}
v_satisfaction <- c("P1_40", "P6_9_1", "P6_9_2", "P6_9_3", "P6_9_4", "P6_9_5", "P6_11")
d_enpol[, (v_satisfaction) := lapply(.SD, label_satisfaction), .SDcols = v_satisfaction]
d_enpol[, (v_satisfaction) := lapply(.SD, factor, levels = c("Very unsatisfied", "Somewhat unsatisfied", "Somewhat
satisfied", "Very satisfied", NA), ordered = TRUE), .SDcols = v_satisfaction]

d_enpol$P1_3 <- as.numeric(d_enpol$P1_3)
d_enpol$P1_4 <- factor(d_enpol$P1_4,
                     levels = c(1:3, 8, 9),
                     labels = c("Mexico", "United States", "Other", NA, NA))
d_enpol$P1_5 <- factor(d_enpol$P1_5,
                     levels = c(1:32, 99),
                     labels = c("Aguascalientes", "Baja California", "Baja California Sur", "Campeche",
                                "Coahuila", "Colima", "Chiapas", "Chihuahua",
                                "Federal District-Mexico City", "Durango", "Guanajuato", "Guerrero",
                                "Hidalgo", "Jalisco", "Mexico State", "Michoacán", "Morelos",
                                "Nayarit", "Nuevo León", "Oaxaca", "Puebla", "Querétaro",
                                "Quintana Roo", "San Luis Potosí", "Sinaloa", "Sonora", "Tabasco",
                                "Tamaulipas", "Tlaxcala", "Veracruz", "Yucatán", "Zacatecas", NA))
d_enpol$P1_15 <- factor(d_enpol$P1_15,
                      levels = c(1:3, 8, 9),
                      labels = c("Native", "Black", "Neither", NA, NA))
# add "school" and change combine vocational and technical, as well as basic education and middle

```

```

d_enpol$P1_18_N <- factor(d_enpol$P1_18_N,
                        levels = c(0:9, 98, 99),
                        labels = c("None", "Preschool", "Elementary school", "Middle school", "Vocational", "Basic
Education",
                                "High school", "Technical", "Undergraduate", "Graduate", NA, NA),
                        ordered = TRUE)
d_enpol$P1_19 <- factor(d_enpol$P1_19,
                        levels = c(1, 2, 8, 9),
                        labels = c("Before", "During", NA, NA))
d_enpol$P1_22 <- factor(d_enpol$P1_22,
                        levels = c(1:6, 8),
                        labels = c("Man", "Woman", "Transwoman", "Transman", "Other", "Preferred not to say", "Did not
understand"))
d_enpol$P1_23 <- factor(d_enpol$P1_23,
                        levels = c(1:4, 8, 9),
                        labels = c("Bisexual", "Homosexual", "Heterosexual", "Other", NA, NA))
d_enpol$P2_1 <- factor(d_enpol$P2_1,
                        levels = c(1:32, 98, 99),
                        labels = c("Aguascalientes", "Baja California", "Baja California Sur", "Campeche",
                                "Coahuila", "Colima", "Chiapas", "Chihuahua",
                                "Mexico City", "Durango", "Guanajuato", "Guerrero",
                                "Hidalgo", "Jalisco", "Mexico State", "Michoacán", "Morelos",
                                "Nayarit", "Nuevo León", "Oaxaca", "Puebla", "Querétaro",
                                "Quintana Roo", "San Luis Potosí", "Sinaloa", "Sonora", "Tabasco",
                                "Tamaulipas", "Tlaxcala", "Veracruz", "Yucatán", "Zacatecas", "Outside of Mexico",
                                NA))
d_enpol$P2_2 <- factor(d_enpol$P2_2,
                        levels = c(1:10, 98, 99),
                        labels = c("Single-family house", "Apartment", "Room in a residential complex",
                                "Converted servants' quarters", "A non-residential building", "No home lived in
hotel/motel",
                                "No home lived in car", "No home lived on the street",
                                "No home lived in an institution (refuge, group home, asylum)", "Other", NA, NA))
# Adjust to employee/worker, business owner, and other categories
d_enpol$R2_10_X <- factor(d_enpol$R2_10_X,
                        levels = c(1:10, 97, 99),
                        labels = c("Civil servants directors and managers", "Professionals and technicians",
                                "Administrative employees", "Businesspeople salespeople and sales agents",
                                "Personal service and security workers", "Farmers foresters hunters and fishers",
                                "Construction and trade workers", "Machine operators assembly workers and
professional drivers",
                                "Basic activity and support workers", "Illegal occupations", "Not working", NA))
d_enpol$P2_13 <- factor(d_enpol$P2_13,
                        levels = c(1:8, 98, 99),
                        labels = c("Family member", "Selling or making a product for sale", "Offering a service",
                                "Working land (own or others - agriculture, fishing, subsistence farming, family
business)", "Government support", "Illegal activities", "Own savings", "Other activity", NA, NA))
d_enpol$P2_15 <- factor(d_enpol$P2_15,
                        levels = c(1:9),

```

```

        labels = c("Less than MXN 3000", "MXN 3000 to MXN 5500", "MXN 5501 to MXN 7500", "MXN 7501 to
MXN 9000",
                    "MXN 9001 to MXN 11000", "More than MXN 11000", "No income", NA, NA), ordered = TRUE)
d_enpol$P6_13 <- factor(d_enpol$P6_13,
                      levels = c(1:4, 8, 9),
                      labels = c("Once per day", "Twice per day", "Three times per day", "Four times per day", NA,
                                NA), ordered = TRUE)
d_enpol$P7_31 <- factor(d_enpol$P7_31,
                      levels = c(1:3, 8, 9),
                      labels = c("Yes", "No", "No, because of COVID-19", NA,
                                NA))
d_enpol$P7_32 <- factor(d_enpol$P7_32,
                      levels = c(1:4, 8, 9),
                      labels = c("1 to 2 times per month", "3 to 4 times per month", "5 to 6 times per month",
                                "More than 6 times per month", NA,
                                NA), ordered = TRUE)
d_enpol$P7_36 <- factor(d_enpol$P7_36,
                      levels = c(1, 2, 8, 9),
                      labels = c("Safe", "Unsafe", NA, NA))
d_enpol$P7_37 <- factor(d_enpol$P7_37,
                      levels = rev(c(1:4, 8, 9)),
                      labels = rev(c("Very violent", "Somewhat violent", "Somewhat peaceful",
                                    "Very peaceful", NA,
                                    NA)), ordered = TRUE)
d_enpol$P7_38 <- factor(d_enpol$P7_38,
                      levels = rev(c(1:4, 8, 9)),
                      labels = rev(c("Very violent", "Somewhat violent", "Somewhat peaceful",
                                    "Very peaceful", NA,
                                    NA)), ordered = TRUE)

# Create 10-year age groups
d_enpol$grupo_etario <- ifelse(d_enpol$P1_3 >= 18 & d_enpol$P1_3 <= 29, "18-29",
                              ifelse(d_enpol$P1_3 >= 30 & d_enpol$P1_3 <= 39, "30-39",
                                      ifelse(d_enpol$P1_3 >= 40 & d_enpol$P1_3 <= 49, "40-49",
                                              ifelse(d_enpol$P1_3 >= 50 & d_enpol$P1_3 <= 59, "50-59",
                                                      ifelse(d_enpol$P1_3 >= 60 & d_enpol$P1_3 <= 69, "60-69",
                                                              ifelse(d_enpol$P1_3 >= 70 & d_enpol$P1_3 <= 79, "70-79",
                                                                      ifelse(d_enpol$P1_3 >= 80 & d_enpol$P1_3 <= 89, "80-
89",
                                                                                              ifelse(d_enpol$P1_3 >= 90 & d_enpol$P1_3 <= 97,
                                                                                              "90-97", NA)))))))))

# create an empty variable "rurality"
d_enpol$rurality <- rep(NA, length(nrow(d_enpol)))

# Distribution of State/Municipal vs. Federal prisons
length(d_enpol$FUERO[d_enpol$FUERO == "State or Municipal" & !is.na(d_enpol$FUERO)])/nrow(d_enpol)
length(d_enpol$FUERO[d_enpol$FUERO == "Federal" & !is.na(d_enpol$FUERO)])/nrow(d_enpol)
length(d_enpol$FUERO[is.na(d_enpol$FUERO)])/nrow(d_enpol)

```

```

# Limit to 20+
#d_enpol <- d_enpol[P1_3 >= 20,]

# Recode ages
d_enpol$agegroup <- ifelse(d_enpol$P1_3 < 20, "18-19",
                           ifelse(d_enpol$P1_3 >= 20 & d_enpol$P1_3 <= 29, "20-29",
                                   ifelse(d_enpol$P1_3 >= 30 & d_enpol$P1_3 <= 39, "30-39",
                                           ifelse(d_enpol$P1_3 >= 40 & d_enpol$P1_3 <= 49, "40-49",
                                                  ifelse(d_enpol$P1_3 >= 50 & d_enpol$P1_3 <= 59, "50-59",
                                                         ifelse(d_enpol$P1_3 >= 60 & d_enpol$P1_3 <= 69, "60-69",
                                                                ifelse(d_enpol$P1_3 >= 70 & d_enpol$P1_3 <= 79, "70-79",
                                                                     ifelse(d_enpol$P1_3 >= 80 & d_enpol$P1_3 <= 97, "80+",
NA)))))))))

d_enpol$literacy <- ifelse(d_enpol$P1_16 == "Yes" & d_enpol$P1_17 == "Yes", "Yes", "No")

d_enpol$P1_18_N <- as.character(d_enpol$P1_18_N)
d_enpol$school <- ifelse(d_enpol$P1_18_N == "Vocational" | d_enpol$P1_18_N == "Technical" | d_enpol$P1_18_N == "Basic
Education", "Vocational/Technical", d_enpol$P1_18_N)

d_enpol$shelter <- ifelse(d_enpol$P2_2 %in% c("A non-residential building", "No home lived on the street", "No home
lived in a car", "Other"), "No", "Yes")

d_enpol$job <- ifelse(d_enpol$R2_10_X == "Not working" | d_enpol$R2_10_X == "Illegal occupations", "No", "Yes")

d_enpol$P7_40_4[d_enpol$P7_40_4 == "" | is.na(d_enpol$P7_40_4)] <- d_enpol$P7_39[d_enpol$P7_40_4 == "" |
is.na(d_enpol$P7_40_4)]
d_enpol$P7_40_5[d_enpol$P7_40_5 == "" | is.na(d_enpol$P7_40_5)] <- d_enpol$P7_39[d_enpol$P7_40_5 == "" |
is.na(d_enpol$P7_40_5)]
d_enpol$P7_40_6[d_enpol$P7_40_6 == "" | is.na(d_enpol$P7_40_6)] <- d_enpol$P7_39[d_enpol$P7_40_6 == "" |
is.na(d_enpol$P7_40_6)]
d_enpol$sassault <- ifelse(d_enpol$P7_40_5 == "No" & d_enpol$P7_40_6 == "No", "No",
                           ifelse(d_enpol$P7_40_5 == "Yes" | d_enpol$P7_40_6 == "Yes", "Yes", NA))

d_enpol$injury <- d_enpol$P7_40_4

d_enpol$checkup <- ifelse(d_enpol$P1_32 == "Yes" | d_enpol$P1_33_1 == "Yes", "Yes", "No")

d_enpol$covid_trt <- ifelse(d_enpol$P1_26_8 == "Yes" | d_enpol$P1_28_8 == "Finished treatment", "Yes", "No")

d_enpol$food <- ifelse(d_enpol$P6_13 %in% c("Once per day", "Twice per day"), "Yes",
                      ifelse(d_enpol$P6_13 %in% c("Three times per day", "Four times per day"), "No", NA))

d_enpol$bathing <- ifelse(d_enpol$P6_4_5 == "Yes" | d_enpol$P6_4_5A == "Yes", "Yes", "No")

d_enpol$satisfaction <- ifelse(d_enpol$P1_40 %in% c("Very satisfied", "Somewhat satisfied"), "Yes",
                              ifelse(d_enpol$P1_40 %in% c("Somewhat unsatisfied", "Very unsatisfied"), "No", NA))

d_enpol$smoker <- ifelse(d_enpol$P1_41_1 == "No" | d_enpol$P1_43_1 == "No" | d_enpol$P1_44_1 == "No", "No",

```

```

        ifelse(d_enpol$P1_44_1 == "Yes", "Yes", NA))

d_enpol$drinker <- ifelse(d_enpol$P1_41_2 == "No" | d_enpol$P1_43_2 == "No" | d_enpol$P1_44_2 == "No", "No",
        ifelse(d_enpol$P1_44_2 == "Yes", "Yes", NA))

d_enpol$twoyrs <- ifelse(d_enpol$P1_1A <= 4, "No",
        ifelse(d_enpol$P1_1A == 5, "Yes", NA))

d_enpol$oneyear <- ifelse(d_enpol$P1_1A <= 2, "Yes", "No")

# Generate comparative margins between sex-age groups
# table <- table(d_enpol$SEXO[!(d_enpol$agegroup %in% c("18-19", "80+"))],
#               d_enpol$agegroup[!(d_enpol$agegroup %in% c("18-19", "80+"))],
#               d_enpol$oneyear[!(d_enpol$agegroup %in% c("18-19", "80+"))])
# proptable <- prop.table(table, c(1, 2))
# ftable(proptable)
# prop.table(table(d_enpol$SEXO[!(d_enpol$agegroup %in% c("18-19", "80+"))],
#               d_enpol$oneyear[!(d_enpol$agegroup %in% c("18-19", "80+"))]), 1)

# Merge in section 5 to look at crime type
rmcols <- c("V1", "EST_DIS", "FAC_PER", "FPC")
d_enpol5 <- fread("00_data/ENPOL2021_5.csv")
d_enpol5[, (rmcols) := NULL]

d_enpol5[, propertyCrimes := do.call(pmax, c(d_enpol5[, c(31:37, 46)], na.rm = TRUE))]
d_enpol5[, violentCrimes := do.call(pmax, c(d_enpol5[, c(40, 43, 45, 47, 53, 55)], na.rm = TRUE))]
d_enpol5[, murderCrimes := do.call(pmax, c(d_enpol5[, c(41, 42)], na.rm = TRUE))]
d_enpol5[, sexualCrimes := do.call(pmax, c(d_enpol5[, c(48, 51)], na.rm = TRUE))]
d_enpol5[, whtcollarCrimes := do.call(pmax, c(d_enpol5[, c(52, 54, 46)], na.rm = TRUE))]
d_enpol5[, drugCrimes := do.call(pmax, c(d_enpol5[, c(38, 39)], na.rm = TRUE))]
d_enpol5[, organizedCrimes := do.call(pmax, c(d_enpol5[, c(50)], na.rm = TRUE))]
d_enpol5[, otherCrimes := do.call(pmax, c(d_enpol5[, c(44, 56)], na.rm = TRUE))]

d_enpol5 <- d_enpol5[,c(1,16, 238:245)]

d_enpol <- merge(d_enpol, d_enpol5, by = c("ID_PER"), all.x = TRUE)

d_enpol <- d_enpol[, .(CEN_INT, ID_PER, P1_3, agegroup, SEXO, rurality, NOM_ENT, P1_5, literacy, school, job, P2_15,
shelter,
        P6_5_4, bathing, food, P6_4_4, P6_8_4, P6_4_3, P6_8_3, smoker, drinker, P1_24_1,
        P1_24_2, P1_24_8, P1_31_1, P1_31_2, P1_31_3, injury, P1_29, P1_30, sassault, P1_26_1,
        P1_26_2, covid_trt, P6_10_03, P6_10_02, P6_10_04, P6_10_01, checkup, P1_33_2, P1_34_1, P1_34_2,
satisfaction, twoyrs, P5_3, propertyCrimes, violentCrimes, sexualCrimes, whtcollarCrimes, drugCrimes, organizedCrimes,
murderCrimes, otherCrimes, FAC_PER, EST_DIS, FPC, oneyear)]
v_names2 <- c("psu", "key_indiv", "age", "agegroup", "sexo", "rurality", "state_res", "state_birth", "literacy",
"school",
        "job", "income", "shelter", "water", "bathing", "food",
        "electricity", "handwashing", "drain", "flush", "smoker", "drinker",

```

```

      "diabetes", "ht", "covid", "vis_disab", "aud_disab", "motor_disab", "injury", "suicide_id",
      "suicide_att", "sassault", "diabetes_trt", "ht_trt", "covid_trt",
      "psych_trt", "dental_trt", "meds", "med_serv", "checkup", "vax", "pap_exam", "breast_exam", "satisfaction",
      "time_served", "sentenced", "propertyCrimes", "violentCrimes", "sexualCrimes", "whitcollarCrimes", "drugCrimes",
      "organizedCrimes", "murderCrimes", "otherCrimes", "weights", "strata", "fpc", "oneyear")
setnames(d_enpol, names(d_enpol), v_names2)
d_enpol$weights_old <- (nrow(d_enpol)/sum(d_enpol$weights)) * d_enpol$weights

# Create dummies for categorical variables
d_enpol <- dummy_cols(d_enpol, c("school", "agegroup"))
d_enpol[, school_NA := NULL]
d_enpol[, agegroup_NA := NULL]
setnames(d_enpol, names(d_enpol[, c(60:75)]), names(clean_names(d_enpol[, 60:75])))
v_dumcols <- names(d_enpol)[grepl("^school_|agegroup_", names(d_enpol))]
d_enpol[, (v_dumcols) := lapply(.SD, function(x) ifelse(x == 1, "Yes", "No")), .SDcols = v_dumcols]
v_faccols <- names(d_enpol)[c(4:54, 58, 60:75)]
d_enpol[, (v_faccols) := lapply(.SD, factor), .SDcols = v_faccols]

d_ensanut <- dummy_cols(d_ensanut, c("school", "agegroup"))
d_ensanut[, school_NA := NULL]
d_ensanut[, agegroup_NA := NULL]
setnames(d_ensanut, names(d_ensanut[, c(48:62)]), names(clean_names(d_ensanut[, 48:62])))
v_dumcols <- names(d_ensanut)[grepl("^school_|agegroup_", names(d_ensanut))]
d_ensanut[, (v_dumcols) := lapply(.SD, function(x) ifelse(x == 1, "Yes", "No")), .SDcols = v_dumcols]
v_faccols <- names(d_ensanut)[c(4:43, 48:62)]
d_ensanut[, (v_faccols) := lapply(.SD, factor), .SDcols = v_faccols]

```

```
#####  
## Age-adjusted proportions      ##  
## Sarah Hirsch swirsch@stanford.edu ##  
## 12-15-2023                   ##  
#####
```

```
library(survey)  
library(data.table)  
options(scipen = 999)  
options(survey.adjust.domain.lonely=TRUE)  
options(survey.lonely.psu="adjust")
```

```
# Start analysing survey data ####  
d_enpol <- d_enpol[agegroup != "18-19" & agegroup != "80+",]  
d_ensanut <- d_ensanut[agegroup != "80+",]  
svy_enpol <- svydesign(ids=~key_indiv, strata=~strata, fpc=~fpc, data=d_enpol, weights=~weights)  
svy_enpol_nodes <- svydesign(ids=~key_indiv, data=d_enpol)  
svy_ensanut <- svydesign(ids=~key_indiv, strata=~strata, data=d_ensanut, weights=~weights)  
svy_ensanut_nodes <- svydesign(ids=~key_indiv, data=d_ensanut)
```

```
# Factorize variables ####  
svy_enpol <- update(svy_enpol, agegroup = factor(agegroup))  
svy_ensanut <- update(svy_ensanut, agegroup = factor(agegroup))  
svy_enpol <- update(svy_enpol, shelter = factor(shelter))  
svy_ensanut <- update(svy_ensanut, shelter = factor(shelter))  
svy_enpol <- update(svy_enpol, literacy = factor(literacy))  
svy_ensanut <- update(svy_ensanut, literacy = factor(literacy))  
svy_enpol <- update(svy_enpol, job = factor(job))  
svy_ensanut <- update(svy_ensanut, job = factor(job))  
svy_enpol <- update(svy_enpol, state_res = factor(state_res))  
svy_ensanut <- update(svy_ensanut, state_res = factor(state_res))  
svy_enpol <- update(svy_enpol, school = factor(school))  
svy_ensanut <- update(svy_ensanut, school = factor(school))  
svy_enpol_nodes <- update(svy_enpol_nodes, school = factor(school))  
svy_ensanut_nodes <- update(svy_ensanut_nodes, school = factor(school))  
svy_enpol_nodes <- update(svy_enpol_nodes, state_res = factor(state_res))  
svy_ensanut_nodes <- update(svy_ensanut_nodes, state_res = factor(state_res))  
svy_ensanut <- update(svy_ensanut, food = factor(food))  
svy_enpol <- update(svy_enpol, food = factor(food))  
svy_ensanut <- update(svy_ensanut, flush = factor(flush))  
svy_enpol <- update(svy_enpol, flush = factor(flush))  
svy_ensanut <- update(svy_ensanut, drain = factor(drain))  
svy_enpol <- update(svy_enpol, drain = factor(drain))  
svy_ensanut <- update(svy_ensanut, water = factor(water))  
svy_enpol <- update(svy_enpol, water = factor(water))  
svy_ensanut <- update(svy_ensanut, smoker = factor(smoker))  
svy_enpol <- update(svy_enpol, smoker = factor(smoker))  
svy_ensanut <- update(svy_ensanut, drinker = factor(drinker))
```

```

svy_enpol <- update(svy_enpol, drinker = factor(drinker))
svy_ensanut <- update(svy_ensanut, diabetes = factor(diabetes))
svy_enpol <- update(svy_enpol, diabetes = factor(diabetes))
svy_ensanut <- update(svy_ensanut, ht = factor(ht))
svy_enpol <- update(svy_enpol, ht = factor(ht))
svy_ensanut <- update(svy_ensanut, injury = factor(injury))
svy_enpol <- update(svy_enpol, injury = factor(injury))
svy_ensanut <- update(svy_ensanut, suicide_att = factor(suicide_att))
svy_enpol <- update(svy_enpol, suicide_att = factor(suicide_att))
svy_ensanut <- update(svy_ensanut, sassault = factor(sassault))
svy_enpol <- update(svy_enpol, sassault = factor(sassault))
svy_ensanut <- update(svy_ensanut, diabetes_trt = factor(diabetes_trt))
svy_enpol <- update(svy_enpol, diabetes_trt = factor(diabetes_trt))
svy_enpol <- update(svy_enpol, time_served = factor(time_served))
svy_ensanut <- update(svy_ensanut, vis_disab = factor(vis_disab))
svy_enpol <- update(svy_enpol, vis_disab = factor(vis_disab))
svy_ensanut <- update(svy_ensanut, aud_disab = factor(aud_disab))
svy_enpol <- update(svy_enpol, aud_disab = factor(aud_disab))

# Labelling vectors #####
v_names <- c("agegroup", "value", "se", "survey", "variable")
v_ages_enpol <- c("#18-19",
  "20-29", "30-39", "40-49", "50-59", "60-69", "70-79")
v_ages_ensanut <- c("20-29", "30-39", "40-49", "50-59", "60-69", "70-79")
cols <- c("#18-19",
  "20-29", "30-39", "40-49", "50-59", "60-69", "70-79", "Total", "Non-response")
v_namesm <- c("agegroup", "value", "se", "survey", "variable")
v_namesf <- c("agegroup", "value", "se", "survey", "variable")
v_school <- c("Elementary school", "Graduate", "High school", "Middle school", "None", "Preschool", "Undergraduate",
  "Vocational/Technical school")

# Generate tables (method has same output as weighted_tables script) #####
# Suicide attempt
d_suicide_attn <- rbind(
  cbind(
    as.data.table(svyby(~I(suicide_att == "Yes" & !is.na(suicide_att)) & suicide_id == "Yes" & !is.na(suicide_id)),
      by = ~agegroup,
      denominator = ~I(!is.na(suicide_id)),
      design = subset(svy_enpol, sexo == "Male"),
      FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Suicide attempt", length = 6)),
  cbind(
    as.data.table(svyby(~I(suicide_att == "Yes" & !is.na(suicide_att)) & suicide_id == "Yes" & !is.na(suicide_id)),
      by = ~agegroup,
      denominator = ~I(!is.na(suicide_id)),
      design = subset(svy_ensanut, sexo == "Male"),
      FUN = svyratio)),
    survey = rep("ENSANUT", length = 6),

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```

    variable = rep("Suicide attempt", length = 6))
)
setnames(d_suicide_attn, names(d_suicide_attn), v_names)

# Sexual assault
d_sassaultm <- rbind(
  cbind(
    as.data.table(svyby(~I(sassault == "Yes" & !is.na(sassault)),
                     by = ~agegroup,
                     denominator = ~I(!is.na(sassault)),
                     design = subset(svy_enpol, sexo == "Male"),
                     FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Sexual assault", length = 6)),
  cbind(
    as.data.table(svyby(~I(sassault == "Yes" & !is.na(sassault)),
                     by = ~agegroup,
                     denominator = ~I(!is.na(sassault)),
                     design = subset(svy_ensanut, sexo == "Male"),
                     FUN = svyratio)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Sexual assault", length = 6))
)
setnames(d_sassaultm, names(d_sassaultm), v_names)

# Female ###
d_female <- rbind(
  cbind(
    as.data.table(svyby(~I(sexo == "Female" & !is.na(sexo)),
                     by = ~agegroup,
                     denominator = ~I(!is.na(sexo)),
                     design = svy_enpol,
                     FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Female", length = 6)),
  cbind(
    as.data.table(svyby(~I(sexo == "Female" & !is.na(sexo)),
                     by = ~agegroup,
                     denominator = ~I(!is.na(sexo)),
                     design = svy_ensanut,
                     FUN = svyratio)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Female", length = 6))
)
setnames(d_female, names(d_female), v_names)

# Water insecurity
d_waterm <- rbind(
  cbind(

```

```

as.data.table(svyby(~I(water == "No" & !is.na(water)),
  by = ~agegroup,
  denominator = ~I(!is.na(water)),
  design = subset(svy_enpol, sexo == "Male"),
  FUN = svyratio)),
survey = rep("ENPOL", length = 6),
variable = rep("Water insecurity", length = 6)),
cbind(
  as.data.table(svyby(~I(water == "No" & !is.na(water)),
    by = ~agegroup,
    denominator = ~I(!is.na(water)),
    design = subset(svy_ensanut, sexo == "Male"),
    FUN = svyratio)),
  survey = rep("ENSANUT", length = 6),
  variable = rep("Water insecurity", length = 6))
)
setnames(d_waterm, names(d_waterm), v_namesm)

# Food insecurity (are you insecure -- "yes")
d_foodm <- rbind(
  cbind(
    as.data.table(svyby(~I(food == "Yes" & !is.na(food)),
      by = ~agegroup,
      denominator = ~I(!is.na(food)),
      design = subset(svy_enpol, sexo == "Male"),
      FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Food insecurity", length = 6)),
  cbind(
    as.data.table(svyby(~I(food == "Yes" & !is.na(food)),
      by = ~agegroup,
      denominator = ~I(!is.na(food)),
      design = subset(svy_ensanut, sexo == "Male"),
      FUN = svyratio)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Food insecurity", length = 6))
  )
)
setnames(d_foodm, names(d_foodm), v_namesm)

# No electricity
d_elecm <- rbind(
  cbind(
    as.data.table(svyby(~I(electricity == "No" & !is.na(electricity)),
      by = ~agegroup,
      denominator = ~I(!is.na(electricity)),
      design = subset(svy_enpol, sexo == "Male"),
      FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("No electricity", length = 6)),

```

```

cbind(
  as.data.table(svyby(~I(electricity == "No" & !is.na(electricity)),
    by = ~agegroup,
    denominator = ~I(!is.na(electricity)),
    design = subset(svy_ensanut, sexo == "Male"),
    FUN = svyratio)),
  survey = rep("ENSANUT", length = 6),
  variable = rep("No electricity", length = 6))
)
setnames(d_elecm, names(d_elecm), v_namesm)

# No flushing toilet
d_flushm <- rbind(
  cbind(
    as.data.table(svyby(~I(flush == "No" & !is.na(flush)),
      by = ~agegroup,
      denominator = ~I(!is.na(flush)),
      design = subset(svy_enpol, sexo == "Male"),
      FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("No flushing toilet", length = 6)),
  cbind(
    as.data.table(svyby(~I(flush == "No" & !is.na(flush)),
      by = ~agegroup,
      denominator = ~I(!is.na(flush)),
      design = subset(svy_ensanut, sexo == "Male"),
      FUN = svyratio)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("No flushing toilet", length = 6))
)
setnames(d_flushm, names(d_flushm), v_namesm)

# Diabetes diagnosis
d_diabetesm <- rbind(
  cbind(
    as.data.table(svyby(~I(diabetes == "Yes" & !is.na(diabetes)),
      by = ~agegroup,
      denominator = ~I(!is.na(diabetes)),
      design = subset(svy_enpol, sexo == "Male"),
      FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Diabetes diagnosis", length = 6)),
  cbind(
    as.data.table(svyby(~I(diabetes == "Yes" & !is.na(diabetes)),
      by = ~agegroup,
      denominator = ~I(!is.na(diabetes)),
      design = subset(svy_ensanut, sexo == "Male"),
      FUN = svyratio)),
    survey = rep("ENSANUT", length = 6),

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    variable = rep("Diabetes diagnosis", length = 6))
)
setnames(d_diabetesm, names(d_diabetesm), v_names)

# Hypertension diagnosis
d_htm <- rbind(
  cbind(
    as.data.table(svyby(~I(ht == "Yes" & !is.na(ht)),
                      by = ~agegroup,
                      denominator = ~I(!is.na(ht)),
                      design = subset(svy_enpol, sexo == "Male"),
                      FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Hypertension diagnosis", length = 6)),
  cbind(
    as.data.table(svyby(~I(ht == "Yes" & !is.na(ht)),
                      by = ~agegroup,
                      denominator = ~I(!is.na(ht)),
                      design = subset(svy_ensanut, sexo == "Male"),
                      FUN = svyratio)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Hypertension diagnosis", length = 6))
)
setnames(d_htm, names(d_htm), v_names)

# Physical injury from violence
d_injurym <- rbind(
  cbind(
    as.data.table(svyby(~I(injury == "Yes" & !is.na(injury)),
                      by = ~agegroup,
                      denominator = ~I(!is.na(injury)),
                      design = subset(svy_enpol, sexo == "Male"),
                      FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Physical injury from violence", length = 6)),
  cbind(
    as.data.table(svyby(~I(injury == "Yes" & !is.na(injury)),
                      by = ~agegroup,
                      denominator = ~I(!is.na(injury)),
                      design = subset(svy_ensanut, sexo == "Male"),
                      FUN = svyratio)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Physical injury from violence", length = 6))
)
setnames(d_injurym, names(d_injurym), v_names)

# Smoker
d_smokerm <- rbind(
  cbind(

```

```

as.data.table(svyby(~I(smoker == "Yes" & !is.na(smoker)),
  by = ~agegroup,
  denominator = ~I(!is.na(smoker)),
  design = subset(svy_enpol, sexo == "Male"),
  FUN = svyratio)),
survey = rep("ENPOL", length = 6),
variable = rep("Smoker", length = 6)),
cbind(
  as.data.table(svyby(~I(smoker == "Yes" & !is.na(smoker)),
    by = ~agegroup,
    denominator = ~I(!is.na(smoker)),
    design = subset(svy_ensanut, sexo == "Male"),
    FUN = svyratio)),
  survey = rep("ENSANUT", length = 6),
  variable = rep("Smoker", length = 6))
)
setnames(d_smokerm, names(d_smokerm), v_names)

# Drinker
d_drinkerm <- rbind(
  cbind(
    as.data.table(svyby(~I(drinker == "Yes" & !is.na(drinker)),
      by = ~agegroup,
      denominator = ~I(!is.na(drinker)),
      design = subset(svy_enpol, sexo == "Male"),
      FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Drinker", length = 6)),
  cbind(
    as.data.table(svyby(~I(drinker == "Yes" & !is.na(drinker)),
      by = ~agegroup,
      denominator = ~I(!is.na(drinker)),
      design = subset(svy_ensanut, sexo == "Male"),
      FUN = svyratio)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Drinker", length = 6))
  )
setnames(d_drinkerm, names(d_drinkerm), v_names)

# Diabetes treatment
d_diabetes_trtm <- rbind(
  cbind(
    as.data.table(svyby(~I(diabetes_trt == "Yes" & !is.na(diabetes_trt) & diabetes == "Yes" & !is.na(diabetes)),
      by = ~agegroup,
      denominator = ~I(!is.na(diabetes_trt) & diabetes == "Yes" & !is.na(diabetes)),
      design = subset(svy_enpol, sexo == "Male"),
      FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Treated for diabetes", length = 6)),

```

```

cbind(
  as.data.table(svyby(~I(diabetes_trt == "Yes" & !is.na(diabetes_trt) & diabetes == "Yes" & !is.na(diabetes)),
    by = ~agegroup,
    denominator = ~I(!is.na(diabetes_trt) & diabetes == "Yes" & !is.na(diabetes)),
    design = subset(svy_ensanut, sexo == "Male"),
    FUN = svyratio)),
  survey = rep("ENSANUT", length = 6),
  variable = rep("Treated for diabetes", length = 6))
)
setnames(d_diabetes_trtm, names(d_diabetes_trtm), v_names)

# Hypertension treatment
d_ht_trtm <- rbind(
  cbind(
    as.data.table(svyby(~I(ht_trt == "Yes" & !is.na(ht_trt) & ht == "Yes" & !is.na(ht)),
      by = ~agegroup,
      denominator = ~I(!is.na(ht_trt) & ht == "Yes" & !is.na(ht)),
      design = subset(svy_enpol, sexo == "Male"),
      FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Treated for hypertension", length = 6)),
  cbind(
    as.data.table(svyby(~I(ht_trt == "Yes" & !is.na(ht_trt) & ht == "Yes" & !is.na(ht)),
      by = ~agegroup,
      denominator = ~I(!is.na(ht_trt) & ht == "Yes" & !is.na(ht)),
      design = subset(svy_ensanut, sexo == "Male"),
      FUN = svyratio)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Treated for hypertension", length = 6))
)
setnames(d_ht_trtm, names(d_ht_trtm), v_names)

# Visual disability
d_vis_disabm <- rbind(
  cbind(
    as.data.table(svyby(~I(vis_disab == "Yes" & !is.na(vis_disab)),
      by = ~agegroup,
      denominator = ~I(!is.na(vis_disab)),
      design = subset(svy_enpol, sexo == "Male"),
      FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Visual disability", length = 6)),
  cbind(
    as.data.table(svyby(~I(vis_disab == "Yes" & !is.na(vis_disab)),
      by = ~agegroup,
      denominator = ~I(!is.na(vis_disab)),
      design = subset(svy_ensanut, sexo == "Male"),
      FUN = svyratio)),
    survey = rep("ENSANUT", length = 6),

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```

    variable = rep("Visual disability", length = 6))
)
setnames(d_vis_disabm, names(d_vis_disabm), v_names)

# Literacy
d_literacym <- rbind(
  cbind(
    as.data.table(svyby(~I(literacy == "Yes" & !is.na(literacy)),
      by = ~agegroup,
      denominator = ~I(!is.na(literacy)),
      design = subset(svy_enpol, sexo == "Male"),
      FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Literate", length = 6)),
  cbind(
    as.data.table(svyby(~I(literacy == "Yes" & !is.na(literacy)),
      by = ~agegroup,
      denominator = ~I(!is.na(literacy)),
      design = subset(svy_ensanut, sexo == "Male"),
      FUN = svyratio)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Literate", length = 6))
)
setnames(d_literacym, names(d_literacym), v_names)

# School
d_schoolm <- rbind(
  cbind(
    as.data.table(svyby(~school,
      by = ~agegroup,
      design = subset(svy_enpol, sexo == "Male"),
      FUN = svymean,
      na.rm = TRUE)),
    survey = rep("ENPOL", length = 6)),
  cbind(
    as.data.table(svyby(~school,
      by = ~agegroup,
      design = subset(svy_ensanut, sexo == "Male"),
      FUN = svymean,
      na.rm = TRUE)),
    survey = rep("ENSANUT", length = 6))
)

d_schoolm <- melt(d_schoolm,
  measure.vars = patterns("^school", "^se"),
  variable.name = "variable",
  value.name = c("value", "se"))
d_schoolm$variable <- factor(d_schoolm$variable,
  levels = c(1:8),
  labels = v_school)

```

```

d_varsm <- rbind(d_foodm,
                d_elecm,
                d_flushm,
                d_waterm,
                d_diabetesm,
                d_htm,
                d_injurym,
                d_sassaultm,
                d_suicide_attm,
                d_suicide_idm,
                d_smokerm,
                d_drinkerm,
                d_diabetes_trtm,
                d_ht_trtm,
                d_vis_disabm,
                d_literacym,
                d_schoolm)
d_varsm$sex <- "Male"

# Female ####
# Water insecurity
d_waterf <- rbind(
  cbind(
    as.data.table(svyby(~I(water == "No" & !is.na(water)),
                      by = ~agegroup,
                      denominator = ~I(!is.na(water)),
                      design = subset(svy_enpol, sexo == "Female"),
                      FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Water insecurity", length = 6)),
  cbind(
    as.data.table(svyby(~I(water == "No" & !is.na(water)),
                      by = ~agegroup,
                      denominator = ~I(!is.na(water)),
                      design = subset(svy_ensanut, sexo == "Female"),
                      FUN = svyratio)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Water insecurity", length = 6))
)
setnames(d_waterf, names(d_waterf), v_namesf)

# Food insecurity (are you insecure -- "yes")
d_foodf <- rbind(
  cbind(
    as.data.table(svyby(~I(food == "Yes" & !is.na(food)),
                      by = ~agegroup,
                      denominator = ~I(!is.na(food)),
                      design = subset(svy_enpol, sexo == "Female"),

```

```

        FUN = svyratio)),
  survey = rep("ENPOL", length = 6),
  variable = rep("Food insecurity", length = 6)),
cbind(
  as.data.table(svyby(~I(food == "Yes" & !is.na(food)),
    by = ~agegroup,
    denominator = ~I(!is.na(food)),
    design = subset(svy_ensanut, sexo == "Female"),
    FUN = svyratio)),
  survey = rep("ENSANUT", length = 6),
  variable = rep("Food insecurity", length = 6))
)
setnames(d_foodf, names(d_foodf), v_namesf)

# No electricity
d_electf <- rbind(
  cbind(
    as.data.table(svyby(~I(electricity == "No" & !is.na(electricity)),
      by = ~agegroup,
      denominator = ~I(!is.na(electricity)),
      design = subset(svy_enpol, sexo == "Female"),
      FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("No electricity", length = 6)),
  cbind(
    as.data.table(svyby(~I(electricity == "No" & !is.na(electricity)),
      by = ~agegroup,
      denominator = ~I(!is.na(electricity)),
      design = subset(svy_ensanut, sexo == "Female"),
      FUN = svyratio)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("No electricity", length = 6))
  )
)
setnames(d_electf, names(d_electf), v_namesf)

# No flushing toilet
d_flushf <- rbind(
  cbind(
    as.data.table(svyby(~I(flush == "No" & !is.na(flush)),
      by = ~agegroup,
      denominator = ~I(!is.na(flush)),
      design = subset(svy_enpol, sexo == "Female"),
      FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("No flushing toilet", length = 6)),
  cbind(
    as.data.table(svyby(~I(flush == "No" & !is.na(flush)),
      by = ~agegroup,
      denominator = ~I(!is.na(flush)),

```

```

        design = subset(svy_ensanut, sexo == "Female"),
        FUN = svyratio)),
  survey = rep("ENSANUT", length = 6),
  variable = rep("No flushing toilet", length = 6))
)
setnames(d_flushf, names(d_flushf), v_namesf)

# Diabetes diagnosis
d_diabetesf <- rbind(
  cbind(
    as.data.table(svyby(~I(diabetes == "Yes" & !is.na(diabetes)),
      by = ~agegroup,
      denominator = ~I(!is.na(diabetes)),
      design = subset(svy_enpol, sexo == "Female"),
      FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Diabetes diagnosis", length = 6)),
  cbind(
    as.data.table(svyby(~I(diabetes == "Yes" & !is.na(diabetes)),
      by = ~agegroup,
      denominator = ~I(!is.na(diabetes)),
      design = subset(svy_ensanut, sexo == "Female"),
      FUN = svyratio)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Diabetes diagnosis", length = 6))
)
setnames(d_diabetesf, names(d_diabetesf), v_names)

# Hypertension diagnosis
d_h tf <- rbind(
  cbind(
    as.data.table(svyby(~I(ht == "Yes" & !is.na(ht)),
      by = ~agegroup,
      denominator = ~I(!is.na(ht)),
      design = subset(svy_enpol, sexo == "Female"),
      FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Hypertension diagnosis", length = 6)),
  cbind(
    as.data.table(svyby(~I(ht == "Yes" & !is.na(ht)),
      by = ~agegroup,
      denominator = ~I(!is.na(ht)),
      design = subset(svy_ensanut, sexo == "Female"),
      FUN = svyratio)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Hypertension diagnosis", length = 6))
)
setnames(d_h tf, names(d_h tf), v_names)

```

```

# Physical injury from violence
d_injuryf <- rbind(
  cbind(
    as.data.table(svyby(~I(injury == "Yes" & !is.na(injury)),
      by = ~agegroup,
      denominator = ~I(!is.na(injury)),
      design = subset(svy_enpol, sexo == "Female"),
      FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Physical injury from violence", length = 6)),
  cbind(
    as.data.table(svyby(~I(injury == "Yes" & !is.na(injury)),
      by = ~agegroup,
      denominator = ~I(!is.na(injury)),
      design = subset(svy_ensanut, sexo == "Female"),
      FUN = svyratio)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Physical injury from violence", length = 6))
)
setnames(d_injuryf, names(d_injuryf), v_names)

# Suicidal ideation
d_suicide_idf <- rbind(
  cbind(
    as.data.table(svyby(~I(suicide_id == "Yes" & !is.na(suicide_id)),
      by = ~agegroup,
      denominator = ~I(!is.na(suicide_id)),
      design = subset(svy_enpol, sexo == "Female"),
      FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Suicidal ideation", length = 6)),
  cbind(
    as.data.table(svyby(~I(suicide_id == "Yes" & !is.na(suicide_id)),
      by = ~agegroup,
      denominator = ~I(!is.na(suicide_id)),
      design = subset(svy_ensanut, sexo == "Female"),
      FUN = svyratio)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Suicidal ideation", length = 6))
)
setnames(d_suicide_idf, names(d_suicide_idf), v_names)

# Suicide attempt
d_suicide_attf <- rbind(
  cbind(
    as.data.table(svyby(~I(suicide_att == "Yes" & !is.na(suicide_att) & suicide_id == "Yes" & !is.na(suicide_id)),
      by = ~agegroup,
      denominator = ~I(!is.na(suicide_id)),
      design = subset(svy_enpol, sexo == "Female"),

```

```

        FUN = svyratio)),
  survey = rep("ENPOL", length = 6),
  variable = rep("Suicide attempt", length = 6)),
cbind(
  as.data.table(svyby(~I(suicide_att == "Yes" & !is.na(suicide_att) & suicide_id == "Yes" & !is.na(suicide_id)),
    by = ~agegroup,
    denominator = ~I(!is.na(suicide_id)),
    design = subset(svy_ensanut, sexo == "Female"),
    FUN = svyratio)),
  survey = rep("ENSANUT", length = 6),
  variable = rep("Suicide attempt", length = 6))
)
setnames(d_suicide_attf, names(d_suicide_attf), v_names)

# Sexual assault
d_sassaultf <- rbind(
  cbind(
    as.data.table(svyby(~I(sassault == "Yes" & !is.na(sassault)),
      by = ~agegroup,
      denominator = ~I(!is.na(sassault)),
      design = subset(svy_enpol, sexo == "Female"),
      FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Sexual assault", length = 6)),
  cbind(
    as.data.table(svyby(~I(sassault == "Yes" & !is.na(sassault)),
      by = ~agegroup,
      denominator = ~I(!is.na(sassault)),
      design = subset(svy_ensanut, sexo == "Female"),
      FUN = svyratio)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Sexual assault", length = 6))
)
setnames(d_sassaultf, names(d_sassaultf), v_names)

# Smoker
d_smokerf <- rbind(
  cbind(
    as.data.table(svyby(~I(smoker == "Yes" & !is.na(smoker)),
      by = ~agegroup,
      denominator = ~I(!is.na(smoker)),
      design = subset(svy_enpol, sexo == "Female"),
      FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Smoker", length = 6)),
  cbind(
    as.data.table(svyby(~I(smoker == "Yes" & !is.na(smoker)),
      by = ~agegroup,
      denominator = ~I(!is.na(smoker)),

```

```

        design = subset(svy_ensanut, sexo == "Female"),
        FUN = svyratio)),
  survey = rep("ENSANUT", length = 6),
  variable = rep("Smoker", length = 6))
)
setnames(d_smokerf, names(d_smokerf), v_names)

# Drinker
d_drinkerf <- rbind(
  cbind(
    as.data.table(svyby(~I(drinker == "Yes" & !is.na(drinker)),
      by = ~agegroup,
      denominator = ~I(!is.na(drinker)),
      design = subset(svy_enpol, sexo == "Female"),
      FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Drinker", length = 6)),
  cbind(
    as.data.table(svyby(~I(drinker == "Yes" & !is.na(drinker)),
      by = ~agegroup,
      denominator = ~I(!is.na(drinker)),
      design = subset(svy_ensanut, sexo == "Female"),
      FUN = svyratio)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Drinker", length = 6))
)
setnames(d_drinkerf, names(d_drinkerf), v_names)

# Diabetes treatment
d_diabetes_trtf <- rbind(
  cbind(
    as.data.table(svyby(~I(diabetes_trt == "Yes" & !is.na(diabetes_trt) & diabetes == "Yes" & !is.na(diabetes)),
      by = ~agegroup,
      denominator = ~I(!is.na(diabetes_trt) & diabetes == "Yes" & !is.na(diabetes)),
      design = subset(svy_enpol, sexo == "Female"),
      FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Treated for diabetes", length = 6)),
  cbind(
    as.data.table(svyby(~I(diabetes_trt == "Yes" & !is.na(diabetes_trt) & diabetes == "Yes" & !is.na(diabetes)),
      by = ~agegroup,
      denominator = ~I(!is.na(diabetes_trt) & diabetes == "Yes" & !is.na(diabetes)),
      design = subset(svy_ensanut, sexo == "Female"),
      FUN = svyratio)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Treated for diabetes", length = 6))
)
setnames(d_diabetes_trtf, names(d_diabetes_trtf), v_names)

```

```

# Hypertension treatment
d_ht_trtf <- rbind(
  cbind(
    as.data.table(svyby(~I(ht_trt == "Yes" & !is.na(ht_trt) & ht == "Yes" & !is.na(ht)),
      by = ~agegroup,
      denominator = ~I(!is.na(ht_trt) & ht == "Yes" & !is.na(ht)),
      design = subset(svy_enspol, sexo == "Female"),
      FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Treated for hypertension", length = 6)),
  cbind(
    as.data.table(svyby(~I(ht_trt == "Yes" & !is.na(ht_trt) & ht == "Yes" & !is.na(ht)),
      by = ~agegroup,
      denominator = ~I(!is.na(ht_trt) & ht == "Yes" & !is.na(ht)),
      design = subset(svy_ensanut, sexo == "Female"),
      FUN = svyratio)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Treated for hypertension", length = 6))
)
setnames(d_ht_trtf, names(d_ht_trtf), v_names)

d_pap_examf <- rbind(
  cbind(
    as.data.table(svyby(~I(pap_exam == "Yes" & !is.na(pap_exam)),
      by = ~agegroup,
      denominator = ~I(!is.na(pap_exam)),
      design = subset(svy_enspol, sexo == "Female"),
      FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Received a Papanicolaou exam", length = 6)),
  cbind(
    as.data.table(svyby(~I(pap_exam == "Yes" & !is.na(pap_exam)),
      by = ~agegroup,
      denominator = ~I(!is.na(pap_exam)),
      design = subset(svy_ensanut, sexo == "Female"),
      FUN = svyratio)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Received a Papanicolaou exam", length = 6))
)
setnames(d_pap_examf, names(d_pap_examf), v_names)

# Breast exam
d_breast_examf <- rbind(
  cbind(
    as.data.table(svyby(~I(breast_exam == "Yes" & !is.na(breast_exam)),
      by = ~agegroup,
      denominator = ~I(!is.na(breast_exam)),
      design = subset(svy_enspol, sexo == "Female"),
      FUN = svyratio)),

```

```

    survey = rep("ENPOL", length = 6),
    variable = rep("Received a breast exam", length = 6)),
cbind(
  as.data.table(svyby(~I(breast_exam == "Yes" & !is.na(breast_exam)),
    by = ~agegroup,
    denominator = ~I(!is.na(breast_exam)),
    design = subset(svy_ensanut, sexo == "Female"),
    FUN = svyratio)),
  survey = rep("ENSANUT", length = 6),
  variable = rep("Received a breast exam", length = 6))
)
setnames(d_breast_examf, names(d_breast_examf), v_names)

# Visual disability
d_vis_disabf <- rbind(
  cbind(
    as.data.table(svyby(~I(vis_disab == "Yes" & !is.na(vis_disab)),
      by = ~agegroup,
      denominator = ~I(!is.na(vis_disab)),
      design = subset(svy_enpol, sexo == "Female"),
      FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Visual disability", length = 6)),
  cbind(
    as.data.table(svyby(~I(vis_disab == "Yes" & !is.na(vis_disab)),
      by = ~agegroup,
      denominator = ~I(!is.na(vis_disab)),
      design = subset(svy_ensanut, sexo == "Female"),
      FUN = svyratio)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Visual disability", length = 6))
  )
setnames(d_vis_disabf, names(d_vis_disabf), v_names)

# Literacy
d_literacyf <- rbind(
  cbind(
    as.data.table(svyby(~I(literacy == "Yes" & !is.na(literacy)),
      by = ~agegroup,
      denominator = ~I(!is.na(literacy)),
      design = subset(svy_enpol, sexo == "Female"),
      FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Literate", length = 6)),
  cbind(
    as.data.table(svyby(~I(literacy == "Yes" & !is.na(literacy)),
      by = ~agegroup,
      denominator = ~I(!is.na(literacy)),
      design = subset(svy_ensanut, sexo == "Female"),

```

```

        FUN = svyratio)),
  survey = rep("ENSANUT", length = 6),
  variable = rep("Literate", length = 6))
)
setnames(d_literacyf, names(d_literacyf), v_names)

# Schooling
d_schoolf <- rbind(
  cbind(
    as.data.table(svyby(~school,
                        by = ~agegroup,
                        design = subset(svy_enpol, sexo == "Female"),
                        FUN = svymean,
                        na.rm = TRUE
                      )),
    survey = rep("ENPOL", length = 6)),
  cbind(
    as.data.table(svyby(~school,
                        by = ~agegroup,
                        design = subset(svy_ensanut, sexo == "Female"),
                        FUN = svymean,
                        na.rm = TRUE)),
    survey = rep("ENSANUT", length = 6)))

d_schoolf <- melt(d_schoolf,
  measure.vars = patterns("^school", "^se"),
  variable.name = "variable",
  value.name = c("value", "se"))
d_schoolf$variable <- factor(d_schoolf$variable,
  levels = c(1:8),
  labels = v_school)

d_varsf <- rbind(d_foodf,
  d_electf,
  d_flushf,
  d_waterf,
  d_diabetesf,
  d_hrtf,
  d_injuryf,
  d_sassaultf,
  d_suicide_attf,
  d_suicide_idf,
  d_smokerf,
  d_drinkerf,
  d_diabetes_trtf,
  d_ht_trtf,
  d_pap_examf,
  d_breast_examf,
  d_vis_disabf,

```

```

        d_literacyf,
        d_schoolf)
d_varsf$sex <- "Female"

# Generate master dataset ####
d_vars <- rbind(d_varsm, d_varsf)

d_age$sex <- "All"
d_female$sex <- "Female"
d_vars <- rbind(d_vars, d_female, d_age)
d_vars[, n := round((value*(1-value))/(se^2))]
d_vars[, success := round(n * value)]
d_vars_enpol <- d_vars[survey == "ENPOL",]
d_vars_ensanut <- d_vars[survey == "ENSANUT",]
d_vars_test <- merge(d_vars_enpol, d_vars_ensanut, by = c("agegroup", "variable", "sex"), suffixes = c("_enpol",
"_ensanut"))

# Age weights
d_age_enpol <- rbind(
  cbind(agegroup = v_ages_enpol,
        as.data.table(svymean(~agegroup, subset(svy_enpol, sexo == "Female"), proportion = TRUE)),
        sex = rep("Female", length = 6)),
  cbind(agegroup = v_ages_ensanut,
        as.data.table(svymean(~agegroup, subset(svy_enpol, sexo == "Male"), proportion = TRUE, na.rm = TRUE)),
        sex = rep("Male", length = 6))
)
setnames(d_age_enpol, "mean", "weights")
d_age_enpol[, SE := NULL]

# Generate age-adjusted proportions

d_varsw <- merge(d_vars_test, d_age_enpol, by = c("agegroup", "sex"), all.x = TRUE)
d_varsw[, wvalue_enpol := value_enpol*weights]
d_varsw[, wvalue_ensanut := value_ensanut*weights]
d_varsw[, overall_enpol := sum(wvalue_enpol), by = .(sex, variable)]
d_varsw[, overall_ensanut := sum(wvalue_ensanut), by = .(sex, variable)]
d_varsw_summ <- unique(d_varsw[, .(sex, variable, overall_enpol, overall_ensanut)])

```

```
#####  
## Weighted ENPOL-ENSANUT tables      ##  
## Sarah Hirsch swirsch@stanford.edu ##  
## 12-15-2023                        ##  
#####
```

```
library(survey)  
library(data.table)  
options(scipen = 999)  
options(survey.adjust.domain.lonely=TRUE)  
options(survey.lonely.psu="adjust")
```

```
# Start analysing survey data #####  
d_enpol <- d_enpol[agegroup != "18-19" & agegroup != "80+",]  
d_ensanut <- d_ensanut[agegroup != "80+",]  
svy_enpol <- svydesign(ids=~key_indiv, strata=~strata, fpc=~fpc, data=d_enpol, weights=~weights)  
svy_enpol_nodes <- svydesign(ids=~key_indiv, data=d_enpol)  
svy_ensanut <- svydesign(ids=~key_indiv, strata=~strata, data=d_ensanut, weights=~weights)  
svy_ensanut_nodes <- svydesign(ids=~key_indiv, data=d_ensanut)
```

```
# Factorize variables #####  
svy_enpol <- update(svy_enpol, sexo = factor(sexo))  
svy_ensanut <- update(svy_ensanut, sexo = factor(sexo))  
svy_enpol <- update(svy_enpol, agegroup = factor(agegroup))  
svy_ensanut <- update(svy_ensanut, agegroup = factor(agegroup))  
svy_enpol <- update(svy_enpol, shelter = factor(shelter))  
svy_ensanut <- update(svy_ensanut, shelter = factor(shelter))  
svy_enpol <- update(svy_enpol, literacy = factor(literacy))  
svy_ensanut <- update(svy_ensanut, literacy = factor(literacy))  
svy_enpol <- update(svy_enpol, job = factor(job))  
svy_ensanut <- update(svy_ensanut, job = factor(job))  
svy_enpol <- update(svy_enpol, state_res = factor(state_res))  
svy_ensanut <- update(svy_ensanut, state_res = factor(state_res))  
svy_enpol <- update(svy_enpol, school = factor(school))  
svy_ensanut <- update(svy_ensanut, school = factor(school))  
svy_enpol_nodes <- update(svy_enpol_nodes, school = factor(school))  
svy_ensanut_nodes <- update(svy_ensanut_nodes, school = factor(school))  
svy_enpol_nodes <- update(svy_enpol_nodes, state_res = factor(state_res))  
svy_ensanut_nodes <- update(svy_ensanut_nodes, state_res = factor(state_res))  
svy_ensanut <- update(svy_ensanut, food = factor(food))  
svy_enpol <- update(svy_enpol, food = factor(food))  
svy_ensanut <- update(svy_ensanut, flush = factor(flush))  
svy_enpol <- update(svy_enpol, flush = factor(flush))  
svy_ensanut <- update(svy_ensanut, drain = factor(drain))  
svy_enpol <- update(svy_enpol, drain = factor(drain))  
svy_ensanut <- update(svy_ensanut, water = factor(water))  
svy_enpol <- update(svy_enpol, water = factor(water))  
svy_ensanut <- update(svy_ensanut, smoker = factor(smoker))
```

```

svy_enpol <- update(svy_enpol, smoker = factor(smoker))
svy_ensanut <- update(svy_ensanut, drinker = factor(drinker))
svy_enpol <- update(svy_enpol, drinker = factor(drinker))
svy_ensanut <- update(svy_ensanut_nodes, drinker = factor(drinker))
svy_enpol <- update(svy_enpol_nodes, drinker = factor(drinker))
svy_ensanut <- update(svy_ensanut, diabetes = factor(diabetes))
svy_enpol <- update(svy_enpol, diabetes = factor(diabetes))
svy_ensanut <- update(svy_ensanut, ht = factor(ht))
svy_enpol <- update(svy_enpol, ht = factor(ht))
svy_ensanut <- update(svy_ensanut, injury = factor(injury))
svy_enpol <- update(svy_enpol, injury = factor(injury))
svy_ensanut <- update(svy_ensanut, suicide_att = factor(suicide_att))
svy_enpol <- update(svy_enpol, suicide_att = factor(suicide_att))
svy_ensanut <- update(svy_ensanut, suicide_id = factor(suicide_id))
svy_enpol <- update(svy_enpol, suicide_id = factor(suicide_id))
svy_ensanut <- update(svy_ensanut, sassault = factor(sassault))
svy_enpol <- update(svy_enpol, sassault = factor(sassault))
svy_ensanut <- update(svy_ensanut, diabetes_trt = factor(diabetes_trt))
svy_enpol <- update(svy_enpol, diabetes_trt = factor(diabetes_trt))
svy_ensanut <- update(svy_ensanut, ht_trt = factor(ht_trt))
svy_enpol <- update(svy_enpol, ht_trt = factor(ht_trt))
svy_enpol <- update(svy_enpol, time_served = factor(time_served))
svy_ensanut <- update(svy_ensanut, aud_disab = factor(aud_disab))
svy_ensanut <- update(svy_ensanut, vis_disab = factor(vis_disab))
svy_enpol <- update(svy_enpol, aud_disab = factor(aud_disab))
svy_enpol <- update(svy_enpol, vis_disab = factor(vis_disab))
svy_ensanut <- update(svy_ensanut, agegroup = factor(agegroup))
svy_enpol <- update(svy_enpol, agegroup = factor(agegroup))
svy_ensanut <- update(svy_ensanut_nodes, agegroup = factor(agegroup))
svy_enpol <- update(svy_enpol_nodes, agegroup = factor(agegroup))
svy_ensanut <- update(svy_ensanut_nodes, sexo = factor(sexo))
svy_enpol <- update(svy_enpol_nodes, sexo = factor(sexo))
svy_enpol <- update(svy_enpol_nodes, time_served = factor(time_served))

# Labelling vectors #####
v_names <- c("agegroup", "value", "se", "survey", "variable")
v_ages_enpol <- c("#18-19",
                  "20-29", "30-39", "40-49", "50-59", "60-69", "70-79")
v_ages_ensanut <- c("20-29", "30-39", "40-49", "50-59", "60-69", "70-79")
cols <- c("#18-19",
          "20-29", "30-39", "40-49", "50-59", "60-69", "70-79", "Total", "Non-response")

# Table 1.1 General #####
# Counts
d_count <- rbind(
  cbind(
    agegroup = v_ages_enpol,
    as.data.table(svytotal(~agegroup,
                        na.rm = TRUE,

```

```

        design = svy_enpol_nodes)),
  survey = rep("ENPOL", length = 6),
  variable = rep("Count", length = 6)),
cbind(
  agegroup = v_ages_ensanut,
  as.data.table(svytotal(~agegroup,
                        na.rm = TRUE,
                        design = svy_ensanut_nodes)),
  survey = rep("ENSANUT", length = 6),
  variable = rep("Count", length = 6))
)
v_names <- c("agegroup", "value", "se", "survey", "variable")
setnames(d_count, names(d_count), v_names)

# Age
d_age <- rbind(
  cbind(
    as.data.table(svyby(~age,
                      by = ~agegroup,
                      na.rm = TRUE,
                      design = svy_enpol,
                      FUN = svymean)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Average age", length = 6)),
  cbind(
    as.data.table(svyby(~age,
                      by = ~agegroup,
                      na.rm = TRUE,
                      design = svy_ensanut,
                      FUN = svymean)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Average age", length = 6))
)
setnames(d_age, names(d_age), v_names)

# Female
d_female <- rbind(
  cbind(
    as.data.table(svyby(~I(sexo == "Female" & !is.na(sexo)),
                    by = ~agegroup,
                    denominator = ~I(!is.na(sexo)),
                    design = svy_enpol,
                    FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Female", length = 6)),
  cbind(
    as.data.table(svyby(~I(sexo == "Female" & !is.na(sexo)),
                    by = ~agegroup,
                    denominator = ~I(!is.na(sexo)),

```

```

        design = svy_ensanut,
        FUN = svyratio)),
  survey = rep("ENSANUT", length = 6),
  variable = rep("Female", length = 6))
)
setnames(d_female, names(d_female), v_names)

# Rural
d_rurality <- rbind(
  cbind(
    as.data.table(svyby(~I(rurality == 1 & !is.na(rurality)),
      by = ~agegroup,
      denominator = ~I(!is.na(rurality)),
      design = svy_ensanut,
      FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Rural", length = 6)),
  cbind(
    as.data.table(svyby(~I(rurality == 1 & !is.na(rurality)),
      by = ~agegroup,
      denominator = ~I(!is.na(rurality)),
      design = svy_ensanut,
      FUN = svyratio)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Rural", length = 6))
)
setnames(d_rurality, names(d_rurality), v_names)

# Inadequate shelter
d_shelter <- rbind(
  cbind(
    as.data.table(svyby(~I(shelter == "No" & !is.na(shelter)),
      by = ~agegroup,
      denominator = ~I(!is.na(shelter)),
      design = svy_ensanut,
      FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Inadequate shelter", length = 6)),
  cbind(
    as.data.table(svyby(~I(shelter == "No" & !is.na(shelter)),
      by = ~agegroup,
      denominator = ~I(!is.na(shelter)),
      design = svy_ensanut,
      FUN = svyratio)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Inadequate shelter", length = 6))
)
setnames(d_shelter, names(d_shelter), v_names)

```

```

# Totals
d_countttot_enp <- as.data.table(svytotal(c(rep(1, nrow(d_enpol)))), svy_enpol_nodes)
d_countttot_enp[, `:=`(SE = "Total", variable = "Count", survey = "ENPOL")]
setnames(d_countttot_enp, c("total", "SE"), c("value", "agegroup"))

d_agetot_enp <- as.data.table(svymean(~age, svy_enpol, na.rm = TRUE))
d_agetot_enp[, `:=`(age = "Total", variable = "Average age", survey = "ENPOL")]
setnames(d_agetot_enp, c("mean", "age"), c("value", "agegroup"))

d_femaletot_enp <- as.data.table(svyratio(~I(sexo == "Female" & !is.na(sexo)), ~I(!is.na(sexo)), svy_enpol)$ratio)
setnames(d_femaletot_enp, names(d_femaletot_enp), "value")
d_femaletot_enp[, `:=`(agegroup = "Total", variable = "Female", survey = "ENPOL")]

d_ruraltot_enp <- as.data.table(svyratio(~I(rurality == 1 & !is.na(rurality)), ~I(!is.na(rurality)), svy_enpol)$ratio)
setnames(d_ruraltot_enp, names(d_ruraltot_enp), "value")
d_ruraltot_enp[, `:=`(agegroup = "Total", variable = "Rural", survey = "ENPOL")]

d_sheltertот_enp <- as.data.table(svyratio(~I(shelter == "No" & !is.na(shelter)), ~I(!is.na(shelter)), svy_enpol)$ratio)
setnames(d_sheltertот_enp, names(d_sheltertот_enp), "value")
d_sheltertот_enp[, `:=`(agegroup = "Total", variable = "Inadequate shelter", survey = "ENPOL")]

d_countttot_ens <- as.data.table(svytotal(c(rep(1, nrow(d_ensanut)))), svy_ensanut_nodes)
d_countttot_ens[, `:=`(SE = "Total", variable = "Count", survey = "ENSANUT")]
setnames(d_countttot_ens, c("total", "SE"), c("value", "agegroup"))

d_agetot_ens <- as.data.table(svymean(~age, svy_ensanut, na.rm = TRUE))
d_agetot_ens[, `:=`(age = "Total", variable = "Average age", survey = "ENSANUT")]
setnames(d_agetot_ens, c("mean", "age"), c("value", "agegroup"))

d_femaletot_ens <- as.data.table(svyratio(~I(sexo == "Female" & !is.na(sexo)), ~I(!is.na(sexo)), svy_ensanut)$ratio)
setnames(d_femaletot_ens, names(d_femaletot_ens), "value")
d_femaletot_ens[, `:=`(agegroup = "Total", variable = "Female", survey = "ENSANUT")]

d_ruraltot_ens <- as.data.table(svyratio(~I(rurality == 1 & !is.na(rurality)), ~I(!is.na(rurality)), svy_ensanut)$ratio)
setnames(d_ruraltot_ens, names(d_ruraltot_ens), "value")
d_ruraltot_ens[, `:=`(agegroup = "Total", variable = "Rural", survey = "ENSANUT")]

attr(svyprop(~I(rurality == 1 & !is.na(rurality)), design = subset(svy_ensanut, !is.na(rurality), method = "logit")),
"ci") - svyratio(~I(rurality == 1 & !is.na(rurality)), ~I(!is.na(rurality)), svy_ensanut)$ratio

d_sheltertот_ens <- as.data.table(svyratio(~I(shelter == "No" & !is.na(shelter)), ~I(!is.na(shelter)),
svy_ensanut)$ratio)
setnames(d_sheltertот_ens, names(d_sheltertот_ens), "value")
d_sheltertот_ens[, `:=`(agegroup = "Total", variable = "Inadequate shelter", survey = "ENSANUT")]

d_total <- rbind(d_countttot_enp,
                d_countttot_ens,
                d_agetot_enp,
                d_agetot_ens,

```

```

d_femaletot_enp,
d_femaletot_ens,
d_ruraltot_enp,
d_ruraltot_ens,
d_sheltertot_enp,
d_sheltertot_ens)

# Non-response
d_agenr_enp <- as.data.table(svyratio(~I(is.na(age)), ~c(rep(1, nrow(d_enpol)))), svy_enpol_nodes)$ratio)
setnames(d_agenr_enp, names(d_agenr_enp), "value")
d_agenr_enp[, `:=`(agegroup = "Non-response", variable = "Average age", survey = "ENPOL")]

d_femalenr_enp <- as.data.table(svyratio(~I(is.na(sexo)), ~c(rep(1, nrow(d_enpol)))), svy_enpol_nodes)$ratio)
setnames(d_femalenr_enp, names(d_femalenr_enp), "value")
d_femalenr_enp[, `:=`(agegroup = "Non-response", variable = "Female", survey = "ENPOL")]

d_ruralnr_enp <- as.data.table(svyratio(~I(is.na(rurality)), ~c(rep(1, nrow(d_enpol)))), svy_enpol_nodes)$ratio)
setnames(d_ruralnr_enp, names(d_ruralnr_enp), "value")
d_ruralnr_enp[, `:=`(agegroup = "Non-response", variable = "Rural", survey = "ENPOL")]

d_shelternr_enp <- as.data.table(svyratio(~I(is.na(shelter)), ~c(rep(1, nrow(d_enpol)))), svy_enpol_nodes)$ratio)
setnames(d_shelternr_enp, names(d_shelternr_enp), "value")
d_shelternr_enp[, `:=`(agegroup = "Non-response", variable = "Inadequate shelter", survey = "ENPOL")]

d_agenr_ens <- as.data.table(svyratio(~I(is.na(age)), ~c(rep(1, nrow(d_ensanut)))), svy_ensanut_nodes)$ratio)
setnames(d_agenr_ens, names(d_agenr_ens), "value")
d_agenr_ens[, `:=`(agegroup = "Non-response", variable = "Average age", survey = "ENSANUT")]

d_femalenr_ens <- as.data.table(svyratio(~I(is.na(sexo)), ~c(rep(1, nrow(d_ensanut)))), svy_ensanut_nodes)$ratio)
setnames(d_femalenr_ens, names(d_femalenr_ens), "value")
d_femalenr_ens[, `:=`(agegroup = "Non-response", variable = "Female", survey = "ENSANUT")]

d_ruralnr_ens <- as.data.table(svyratio(~I(is.na(rurality)), ~c(rep(1, nrow(d_ensanut)))), svy_ensanut_nodes)$ratio)
setnames(d_ruralnr_ens, names(d_ruralnr_ens), "value")
d_ruralnr_ens[, `:=`(agegroup = "Non-response", variable = "Rural", survey = "ENSANUT")]

d_shelternr_ens <- as.data.table(svyratio(~I(is.na(shelter)), ~c(rep(1, nrow(d_ensanut)))), svy_ensanut_nodes)$ratio)
setnames(d_shelternr_ens, names(d_shelternr_ens), "value")
d_shelternr_ens[, `:=`(agegroup = "Non-response", variable = "Inadequate shelter", survey = "ENSANUT")]

d_nr <- rbind(d_agenr_enp,
              d_agenr_ens,
              d_femalenr_enp,
              d_femalenr_ens,
              d_ruralnr_enp,
              d_ruralnr_ens,
              d_shelternr_enp,
              d_shelternr_ens)

```

```

tabw1.1 <- rbind(d_count, d_age, d_female, d_rurality, d_shelter)
tabw1.1 <- as.data.table(tabw1.1)
tabw1.1[, se := NULL]

tabw1.1 <- rbind(tabw1.1, d_total, d_nr)
tabw1.1 <- as.data.table(tabw1.1)
tabw1.1 <- dcast(tabw1.1, agegroup + variable ~ survey, value.var = "value")
tabw1.1$Difference <- tabw1.1$ENPOL - tabw1.1$ENSANUT
tabw1.1 <- melt(tabw1.1, id.vars = c("agegroup", "variable"), variable.name = "survey")
tabw1.1 <- dcast(tabw1.1, survey + variable ~ agegroup)
tabw1.1$survey <- factor(tabw1.1$survey,
                        levels = c("ENPOL", "ENSANUT", "Difference"),
                        ordered = TRUE)
tabw1.1 <- tabw1.1[, .(variable, survey, `20-29`, `30-39`, `40-49`, `50-59`, `60-69`, `70-79`, `Total`, `Non-
response`)]
tabw1.1$variable <- factor(tabw1.1$variable,
                        levels = c("Count", "Average age", "Female", "Rural", "Inadequate shelter"),
                        ordered = TRUE)

setorder(tabw1.1, variable)
tabw1.1[, (cols) := lapply(.SD, round, digits = 4), .SDcols = cols]
fwrite(tabw1.1, "00_data/newTabs/tabw1_1.csv")

# Table 1.2 - State of residence ####
d_state_enp <- as.data.table(svytotal(~(interaction(state_res, agegroup)), svy_enpol, na.rm = TRUE))
v_state_enp <- unique(d_enpol$state_res)
v_state_enp <- sort(v_state_enp)
v_state_col_enp <- rep(v_state_enp, times = 6)
v_ages_enpol_col <- rep(v_ages_enpol, each = 32)
d_state_enp <- cbind(d_state_enp, level = v_state_col_enp, agegroup = v_ages_enpol_col)
d_state_enp[, SE := as.character(SE)][, SE := "State of residence"]
setnames(d_state_enp, c("total", "SE"), c("value", "variable"))
d_state_enp$survey <- "ENPOL"
d_state_enp[, value := value/sum(value), by = agegroup]

d_state_ens <- as.data.table(svytotal(~(interaction(state_res, agegroup)), svy_ensanut, na.rm = TRUE))
v_state_ens <- as.character(unique(d_ensanut$state_res))
v_state_ens <- sort(v_state_ens)
v_state_ens <- c(v_state_ens)
v_state_col_ens <- rep(v_state_ens, times = 6)
v_ages_ensanut_col <- rep(v_ages_ensanut, each = 32)
d_state_ens <- cbind(d_state_ens, level = v_state_col_ens, agegroup = v_ages_ensanut_col)
d_state_ens <- d_state_ens[level != "NA",]
d_state_ens[, SE := as.character(SE)][, SE := "State of residence"]
setnames(d_state_ens, c("total", "SE"), c("value", "variable"))
d_state_ens$survey <- "ENSANUT"
d_state_ens[, value := value/sum(value), by = agegroup]

d_statetot_enp <- as.data.table(svytotal(~state_res, svy_enpol, na.rm = TRUE))

```

```

d_statetot_enp <- cbind(d_statetot_enp, level = v_state_enp)
d_statetot_enp[, SE := as.character(SE)][, SE := "State of residence"]
setnames(d_statetot_enp, c("total", "SE"), c("value", "variable"))
d_statetot_enp$agegroup <- "Total"
d_statetot_enp$survey <- "ENPOL"
d_statetot_enp[, value := value/sum(value)]

d_statetot_ens <- as.data.table(svytotal(~state_res, svy_ensanut, na.rm = TRUE))
d_statetot_ens <- d_statetot_ens[1:32,] # for some reason there was a 33rd row that registered 0 NAs.
v_state_ens <- v_state_ens[1:32]
d_statetot_ens <- cbind(d_statetot_ens, level = v_state_ens)
d_statetot_ens[, SE := as.character(SE)][, SE := "State of residence"]
setnames(d_statetot_ens, c("total", "SE"), c("value", "variable"))
d_statetot_ens$agegroup <- "Total"
d_statetot_ens$survey <- "ENSANUT"
d_statetot_ens[, value := value/sum(value)]

d_statenr_enp <- as.data.table(svyby(~I(is.na(state_res)),
                                   by = ~state_res,
                                   denominator = ~I(!is.na(state_res)),
                                   design = svy_enpol_nodes,
                                   FUN = svyratio))
setnames(d_statenr_enp, names(d_statenr_enp), c("level", "value", "variable"))
d_statenr_enp[, variable := as.character(variable)][, variable := "State of residence"]
d_statenr_enp$agegroup <- "Non-response"
d_statenr_enp$survey <- "ENPOL"
d_statenr_enp <- d_statenr_enp[, .(value, variable, level, agegroup, survey)]

d_statenr_ens <- as.data.table(svyby(~I(is.na(state_res)),
                                   by = ~state_res,
                                   denominator = ~I(!is.na(state_res)),
                                   design = svy_ensanut_nodes,
                                   FUN = svyratio))
setnames(d_statenr_ens, names(d_statenr_ens), c("level", "value", "variable"))
d_statenr_ens[, variable := as.character(variable)][, variable := "State of residence"]
d_statenr_ens$agegroup <- "Non-response"
d_statenr_ens$survey <- "ENSANUT"
d_statenr_ens <- d_statenr_ens[, .(value, variable, level, agegroup, survey)]

tabw1.2 <- rbind(d_state_enp,
                 d_state_ens,
                 d_statetot_enp,
                 d_statetot_ens,
                 d_statenr_enp,
                 d_statenr_ens)
tabw1.2 <- as.data.table(tabw1.2)
tabw1.2 <- dcast(tabw1.2, variable + level + agegroup ~ survey)
tabw1.2$Difference <- tabw1.2$ENPOL - tabw1.2$ENSANUT
tabw1.2 <- melt(tabw1.2, id.vars = c("variable", "level", "agegroup"), variable.name = "survey")

```

```

tabw1.2 <- dcast(tabw1.2, variable + level + survey ~ agegroup)
tabw1.2$survey <- factor(tabw1.2$survey,
                        levels = c("ENPOL", "ENSANUT", "Difference"),
                        ordered = TRUE)
tabw1.2$level <- factor(tabw1.2$level,
                      levels = c("Aguascalientes", "Baja California", "Baja California Sur", "Campeche",
                                "Coahuila", "Colima", "Chiapas", "Chihuahua",
                                "Ciudad de Mexico", "Durango", "Guanajuato", "Guerrero",
                                "Hidalgo", "Jalisco", "Estado de Mexico", "Michoacan", "Morelos",
                                "Nayarit", "Nuevo Leon", "Oaxaca", "Puebla", "Queretaro",
                                "Quintana Roo", "San Luis Potosi", "Sinaloa", "Sonora", "Tabasco",
                                "Tamaulipas", "Tlaxcala", "Veracruz", "Yucatan", "Zacatecas"),
                      ordered = TRUE)
setorder(tabw1.2, level)
tabw1.2 <- tabw1.2[, .(variable, level, survey, `20-29`, `30-39`, `40-49`, `50-59`, `60-69`, `70-79`, `Total`, `Non-
response`)]
tabw1.2[, (cols) := lapply(.SD, round, digits = 4), .SDcols = cols]
fwrite(tabw1.2, "00_data/newTabs/tabw1_2.csv")

# Table 1.3m - Schooling (male) ####
d_schoolm_enp <- as.data.table(svytotal(~(interaction(school, agegroup)), subset(svy_enpol, sexo == "Male"), na.rm =
TRUE))
v_school_enp <- unique(d_enpol$school)
v_school_enp <- sort(v_school_enp)
v_school_col <- rep(v_school_enp, times = 6)
v_ages_enpol_col <- rep(v_ages_enpol, each = 8)
d_schoolm_enp <- cbind(d_schoolm_enp, level = v_school_col, agegroup = v_ages_enpol_col)
d_schoolm_enp[, SE := as.character(SE)][, SE := "Level of schooling"]
setnames(d_schoolm_enp, c("total", "SE"), c("value", "variable"))
d_schoolm_enp$survey <- "ENPOL"
d_schoolm_enp[, value := value/sum(value), by = agegroup]

d_schoolm_ens <- as.data.table(svytotal(~(interaction(school, agegroup)), subset(svy_ensanut, sexo == "Male"), na.rm =
TRUE))
v_school_ens <- unique(d_ensanut$school)
v_school_ens <- sort(v_school_ens)
v_school_col_ens <- rep(v_school_ens, times = 6)
v_ages_ensanut_col <- rep(v_ages_ensanut, each = 8)
d_schoolm_ens <- cbind(d_schoolm_ens, level = v_school_col_ens, agegroup = v_ages_ensanut_col)
d_schoolm_ens[, SE := as.character(SE)][, SE := "Level of schooling"]
setnames(d_schoolm_ens, c("total", "SE"), c("value", "variable"))
d_schoolm_ens$survey <- "ENSANUT"
d_schoolm_ens[, value := value/sum(value), by = agegroup]

d_schoolmtot_enp <- as.data.table(svytotal(~school, subset(svy_enpol, sexo == "Male"), na.rm = TRUE))
d_schoolmtot_enp <- cbind(d_schoolmtot_enp, level = v_school_enp)
d_schoolmtot_enp[, SE := as.character(SE)][, SE := "Level of schooling"]
setnames(d_schoolmtot_enp, c("total", "SE"), c("value", "variable"))
d_schoolmtot_enp$agegroup <- "Total"

```

```

d_schoolmtot_enp$survey <- "ENPOL"
d_schoolmtot_enp[, value := value/sum(value)]

d_schoolmtot_ens <- as.data.table(svytotal(~school, subset(svy_ensanut, sexo == "Male"), na.rm = TRUE))
d_schoolmtot_ens <- cbind(d_schoolmtot_ens, level = v_school_ens)
d_schoolmtot_ens[, SE := as.character(SE)][, SE := "Level of schooling"]
setnames(d_schoolmtot_ens, c("total", "SE"), c("value", "variable"))
d_schoolmtot_ens$agegroup <- "Total"
d_schoolmtot_ens$survey <- "ENSANUT"
d_schoolmtot_ens[, value := value/sum(value)]

d_schoolmnr_enp <- as.data.table(svyby(~I(is.na(school)),
                                     by = ~school,
                                     denominator = ~I(!is.na(school)),
                                     design = subset(svy_enpol_nodes, sexo == "Male"),
                                     FUN = svyratio))
setnames(d_schoolmnr_enp, names(d_schoolmnr_enp), c("level", "value", "variable"))
d_schoolmnr_enp[, variable := as.character(variable)][, variable := "Level of schooling"]
d_schoolmnr_enp$agegroup <- "Non-response"
d_schoolmnr_enp$survey <- "ENPOL"
d_schoolmnr_enp <- d_schoolmnr_enp[, .(value, variable, level, agegroup, survey)]

d_schoolmnr_ens <- as.data.table(svyby(~I(is.na(school)),
                                     by = ~school,
                                     denominator = ~I(!is.na(school)),
                                     design = subset(svy_ensanut_nodes, sexo == "Male"),
                                     FUN = svyratio))
setnames(d_schoolmnr_ens, names(d_schoolmnr_ens), c("level", "value", "variable"))
d_schoolmnr_ens[, variable := as.character(variable)][, variable := "Level of schooling"]
d_schoolmnr_ens$agegroup <- "Non-response"
d_schoolmnr_ens$survey <- "ENSANUT"
d_schoolmnr_ens <- d_schoolmnr_ens[, .(value, variable, level, agegroup, survey)]

tabw1.3m <- rbind(d_schoolm_enp,
                 d_schoolm_ens,
                 d_schoolmtot_enp,
                 d_schoolmtot_ens,
                 d_schoolmnr_enp,
                 d_schoolmnr_ens)
tabw1.3m <- as.data.table(tabw1.3m)
tabw1.3m <- dcast(tabw1.3m, variable + level + agegroup ~ survey)
tabw1.3m$Difference <- tabw1.3m$ENPOL - tabw1.3m$ENSANUT
tabw1.3m <- melt(tabw1.3m, id.vars = c("variable", "level", "agegroup"), variable.name = "survey")
tabw1.3m <- dcast(tabw1.3m, variable + level + survey ~ agegroup)
tabw1.3m$survey <- factor(tabw1.3m$survey,
                         levels = c("ENPOL", "ENSANUT", "Difference"),
                         ordered = TRUE)
tabw1.3m$level <- factor(tabw1.3m$level,
                        levels = c("None",

```

```

        "Preschool",
        "Elementary school",
        "Middle school",
        "High school",
        "Vocational/Technical",
        "Undergraduate",
        "Graduate"),
    ordered = TRUE)
setorder(tabw1.3m, level)
tabw1.3m <- tabw1.3m[, .(variable, level, survey, `20-29`, `30-39`, `40-49`, `50-59`, `60-69`, `70-79`, `Total`, `Non-
response`)]
tabw1.3m[, (cols) := lapply(.SD, round, digits = 4), .SDcols = cols]
fwrite(tabw1.3m, "00_data/newTabs/tabw1_3m.csv")

# Tab 1.3f - Schooling (female) ####
d_schoolf_enp <- as.data.table(svytotal(~(interaction(school, agegroup)), subset(svy_enpol, sexo == "Female"), na.rm =
TRUE))
d_schoolf_enp <- cbind(d_schoolf_enp, level = v_school_col, agegroup = v_ages_enpol_col)
d_schoolf_enp[, SE := as.character(SE)][, SE := "Level of schooling"]
setnames(d_schoolf_enp, c("total", "SE"), c("value", "variable"))
d_schoolf_enp$survey <- "ENPOL"
d_schoolf_enp[, value := value/sum(value), by = agegroup]

d_schoolf_ens <- as.data.table(svytotal(~(interaction(school, agegroup)), subset(svy_ensanut, sexo == "Female"), na.rm =
TRUE))
d_schoolf_ens <- cbind(d_schoolf_ens, level = v_school_col_ens, agegroup = v_ages_ensanut_col)
d_schoolf_ens[, SE := as.character(SE)][, SE := "Level of schooling"]
setnames(d_schoolf_ens, c("total", "SE"), c("value", "variable"))
d_schoolf_ens$survey <- "ENSANUT"
d_schoolf_ens[, value := value/sum(value), by = agegroup]

d_schoolftot_enp <- as.data.table(svytotal(~school, subset(svy_enpol, sexo == "Female"), na.rm = TRUE))
d_schoolftot_enp <- cbind(d_schoolftot_enp, level = v_school_enp)
d_schoolftot_enp[, SE := as.character(SE)][, SE := "Level of schooling"]
setnames(d_schoolftot_enp, c("total", "SE"), c("value", "variable"))
d_schoolftot_enp$agegroup <- "Total"
d_schoolftot_enp$survey <- "ENPOL"
d_schoolftot_enp[, value := value/sum(value)]

d_schoolftot_ens <- as.data.table(svytotal(~school, subset(svy_ensanut, sexo == "Female"), na.rm = TRUE))
d_schoolftot_ens <- cbind(d_schoolftot_ens, level = v_school_ens)
d_schoolftot_ens[, SE := as.character(SE)][, SE := "Level of schooling"]
setnames(d_schoolftot_ens, c("total", "SE"), c("value", "variable"))
d_schoolftot_ens$agegroup <- "Total"
d_schoolftot_ens$survey <- "ENSANUT"
d_schoolftot_ens[, value := value/sum(value)]

d_schoolfnr_enp <- as.data.table(svyby(~I(is.na(school)),
                                     by = ~school,

```

```

denominator = ~I(!is.na(school)),
design = subset(svy_enpol_nodes, sexo == "Female"),
FUN = svyratio))
setnames(d_schoolfnr_enp, names(d_schoolfnr_enp), c("level", "value", "variable"))
d_schoolfnr_enp[, variable := as.character(variable)][, variable := "Level of schooling"]
d_schoolfnr_enp$agegroup <- "Non-response"
d_schoolfnr_enp$survey <- "ENPOL"
d_schoolfnr_enp <- d_schoolfnr_enp[, .(value, variable, level, agegroup, survey)]

d_schoolfnr_ens <- as.data.table(svyby(~I(is.na(school)),
by = ~school,
denominator = ~I(!is.na(school)),
design = subset(svy_ensanut_nodes, sexo == "Female"),
FUN = svyratio))
setnames(d_schoolfnr_ens, names(d_schoolfnr_ens), c("level", "value", "variable"))
d_schoolfnr_ens[, variable := as.character(variable)][, variable := "Level of schooling"]
d_schoolfnr_ens$agegroup <- "Non-response"
d_schoolfnr_ens$survey <- "ENSANUT"
d_schoolfnr_ens <- d_schoolfnr_ens[, .(value, variable, level, agegroup, survey)]

tabw1.3f <- rbind(d_schoolf_enp,
d_schoolf_ens,
d_schoolftot_enp,
d_schoolftot_ens,
d_schoolfnr_enp,
d_schoolfnr_ens)
tabw1.3f <- as.data.table(tabw1.3f)
tabw1.3f <- dcast(tabw1.3f, variable + level + agegroup ~ survey)
tabw1.3f$Difference <- tabw1.3f$ENPOL - tabw1.3f$ENSANUT
tabw1.3f <- melt(tabw1.3f, id.vars = c("variable", "level", "agegroup"), variable.name = "survey")
tabw1.3f <- dcast(tabw1.3f, variable + level + survey ~ agegroup)
tabw1.3f$survey <- factor(tabw1.3f$survey,
levels = c("ENPOL", "ENSANUT", "Difference"),
ordered = TRUE)
tabw1.3f$level <- factor(tabw1.3f$level,
levels = c("None",
"Preschool",
"Elementary school",
"Middle school",
"High school",
"Vocational/Technical",
"Undergraduate",
"Graduate"),
ordered = TRUE)
setorder(tabw1.3f, level)
tabw1.3f <- tabw1.3f[, .(variable, level, survey, `20-29`, `30-39`, `40-49`, `50-59`, `60-69`, `70-79`, `Total`, `Non-
response`)]
tabw1.3f[, (cols) := lapply(.SD, round, digits = 4), .SDcols = cols]
fwrite(tabw1.3f, "00_data/newTabs/tabw1_3f.csv")

```

```

# Tab 1.4m - Literacy and Employment (male) ####
# Counts
d_countm <- rbind(
  cbind(
    agegroup = v_ages_enpol,
    as.data.table(svytotal(~agegroup,
                          na.rm = TRUE,
                          design = subset(svy_enpol_nodes, sexo == "Male"))),
    survey = rep("ENPOL", length = 6),
    variable = rep("Count", length = 6)),
  cbind(
    agegroup = v_ages_ensanut,
    as.data.table(svytotal(~agegroup,
                          na.rm = TRUE,
                          design = subset(svy_ensanut_nodes, sexo == "Male"))),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Count", length = 6))
)
setnames(d_countm, names(d_countm), v_names)

# Literacy
d_literacym <- rbind(
  cbind(
    as.data.table(svyby(~I(literacy == "Yes" & !is.na(literacy)),
                     by = ~agegroup,
                     denominator = ~I(!is.na(literacy)),
                     design = subset(svy_enpol, sexo == "Male"),
                     FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Literate", length = 6)),
  cbind(
    as.data.table(svyby(~I(literacy == "Yes" & !is.na(literacy)),
                     by = ~agegroup,
                     denominator = ~I(!is.na(literacy)),
                     design = subset(svy_ensanut, sexo == "Male"),
                     FUN = svyratio)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Literate", length = 6))
)
setnames(d_literacym, names(d_literacym), v_names)

# Employed
d_jobm <- rbind(
  cbind(
    as.data.table(svyby(~I(job == "Yes" & !is.na(job)),
                     by = ~agegroup,
                     denominator = ~I(!is.na(job)),

```

```

        design = subset(svy_enspol, sexo == "Male"),
        FUN = svyratio)),
  survey = rep("ENPOL", length = 6),
  variable = rep("Employed", length = 6)),
cbind(
  as.data.table(svyby(~I(job == "Yes" & !is.na(job)),
    by = ~agegroup,
    denominator = ~I(!is.na(job)),
    design = subset(svy_ensanut, sexo == "Male"),
    FUN = svyratio)),
  survey = rep("ENSANUT", length = 6),
  variable = rep("Employed", length = 6))
)
setnames(d_jobm, names(d_jobm), v_names)

# Totals
d_countmtot_enspol <- as.data.table(svytotal(c(rep(1, nrow(d_enspol[d_enspol$sexo == "Male"])))), subset(svy_enspol_nodes, sexo == "Male")))
d_countmtot_enspol[, `:=`(SE = "Total", variable = "Count", survey = "ENPOL")]
setnames(d_countmtot_enspol, c("total", "SE"), c("value", "agegroup"))

d_litmtot_enspol <- as.data.table(svyratio(~I(literacy == "Yes" & !is.na(literacy)), ~I(!is.na(literacy)),
subset(svy_enspol, sexo == "Male"))$ratio)
setnames(d_litmtot_enspol, names(d_litmtot_enspol), "value")
d_litmtot_enspol[, `:=`(agegroup = "Total", variable = "Literate", survey = "ENPOL")]

d_jobmtot_enspol <- as.data.table(svyratio(~I(job == "Yes" & !is.na(job)), ~I(!is.na(job)), subset(svy_enspol, sexo == "Male"))$ratio)
setnames(d_jobmtot_enspol, names(d_jobmtot_enspol), "value")
d_jobmtot_enspol[, `:=`(agegroup = "Total", variable = "Employed", survey = "ENPOL")]

d_countmtot_ensanut <- as.data.table(svytotal(c(rep(1, nrow(d_ensanut[d_ensanut$sexo == "Male"])))),
subset(svy_ensanut_nodes, sexo == "Male")))
d_countmtot_ensanut[, `:=`(SE = "Total", variable = "Count", survey = "ENSANUT")]
setnames(d_countmtot_ensanut, c("total", "SE"), c("value", "agegroup"))

d_litmtot_ensanut <- as.data.table(svyratio(~I(literacy == "Yes" & !is.na(literacy)), ~I(!is.na(literacy)),
subset(svy_ensanut, sexo == "Male"))$ratio)
setnames(d_litmtot_ensanut, names(d_litmtot_ensanut), "value")
d_litmtot_ensanut[, `:=`(agegroup = "Total", variable = "Literate", survey = "ENSANUT")]

d_jobmtot_ensanut <- as.data.table(svyratio(~I(job == "Yes" & !is.na(job)), ~I(!is.na(job)), subset(svy_ensanut, sexo == "Male"))$ratio)
setnames(d_jobmtot_ensanut, names(d_jobmtot_ensanut), "value")
d_jobmtot_ensanut[, `:=`(agegroup = "Total", variable = "Employed", survey = "ENSANUT")]

d_total <- rbind(d_countmtot_enspol,

```

```

        d_countmtot_ens,
        d_litmtot_ens,
        d_litmtot_ens,
        d_jobmtot_ens,
        d_jobmtot_ens)

# Non-response
d_litmnr_ens <- as.data.table(svyratio(~I(is.na(literacy)), ~c(rep(1, nrow(d_ensanut[d_ensanut$sexo == "Male"])))),
subset(svy_ensanut_nodes, sexo == "Male"))$ratio)
setnames(d_litmnr_ens, names(d_litmnr_ens), "value")
d_litmnr_ens[, `:=`(agegroup = "Non-response", variable = "Literate", survey = "ENPOL")]

d_jobmnr_ens <- as.data.table(svyratio(~I(is.na(job)), ~c(rep(1, nrow(d_ensanut[d_ensanut$sexo == "Male"])))),
subset(svy_ensanut_nodes, sexo == "Male"))$ratio)
setnames(d_jobmnr_ens, names(d_jobmnr_ens), "value")
d_jobmnr_ens[, `:=`(agegroup = "Non-response", variable = "Employed", survey = "ENPOL")]

d_litmnr_ens <- as.data.table(svyratio(~I(is.na(literacy)), ~c(rep(1, nrow(d_ensanut[d_ensanut$sexo == "Male"])))),
subset(svy_ensanut_nodes, sexo == "Male"))$ratio)
setnames(d_litmnr_ens, names(d_litmnr_ens), "value")
d_litmnr_ens[, `:=`(agegroup = "Non-response", variable = "Literate", survey = "ENSANUT")]

d_jobmnr_ens <- as.data.table(svyratio(~I(is.na(job)), ~c(rep(1, nrow(d_ensanut[d_ensanut$sexo == "Male"])))),
subset(svy_ensanut_nodes, sexo == "Male"))$ratio)
setnames(d_jobmnr_ens, names(d_jobmnr_ens), "value")
d_jobmnr_ens[, `:=`(agegroup = "Non-response", variable = "Employed", survey = "ENSANUT")]

d_nr <- rbind(d_litmnr_ens,
              d_litmnr_ens,
              d_jobmnr_ens,
              d_jobmnr_ens)

tabw1.4m <- rbind(d_countm, d_literacym, d_jobm)
tabw1.4m <- as.data.table(tabw1.4m)
tabw1.4m[, se := NULL]

tabw1.4m <- rbind(tabw1.4m, d_total, d_nr)
tabw1.4m <- as.data.table(tabw1.4m)
tabw1.4m <- dcast(tabw1.4m, agegroup + variable ~ survey, value.var = "value")
tabw1.4m$Difference <- tabw1.4m$ENPOL - tabw1.4m$ENSANUT
tabw1.4m <- melt(tabw1.4m, id.vars = c("agegroup", "variable"), variable.name = "survey")
tabw1.4m <- dcast(tabw1.4m, survey + variable ~ agegroup)
tabw1.4m$survey <- factor(tabw1.4m$survey,
                        levels = c("ENPOL", "ENSANUT", "Difference"),
                        ordered = TRUE)
tabw1.4m <- tabw1.4m[, .(variable, survey, `20-29`, `30-39`, `40-49`, `50-59`, `60-69`, `70-79`, `Total`, `Non-
response`)]
tabw1.4m$variable <- factor(tabw1.4m$variable,

```

```

                levels = c("Count", "Literate", "Employed"),
                ordered = TRUE)
setorder(tabw1.4m, variable)
tabw1.4m[, (cols) := lapply(.SD, round, digits = 4), .SDcols = cols]
fwrite(tabw1.4m, "00_data/newTabs/tabw1_4m.csv")

# Tab 1.4f - Literacy and Employment (female) ####
# Counts
d_countf <- rbind(
  cbind(
    agegroup = v_ages_enpol,
    as.data.table(svytotal(~agegroup,
                          na.rm = TRUE,
                          design = subset(svy_enpol_nodes, sexo == "Female"))),
    survey = rep("ENPOL", length = 6),
    variable = rep("Count", length = 6)),
  cbind(
    agegroup = v_ages_ensanut,
    as.data.table(svytotal(~agegroup,
                          na.rm = TRUE,
                          design = subset(svy_ensanut_nodes, sexo == "Female"))),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Count", length = 6))
)
setnames(d_countf, names(d_countf), v_names)

# Literacy
d_literacyf <- rbind(
  cbind(
    as.data.table(svyby(~I(literacy == "Yes" & !is.na(literacy)),
                     by = ~agegroup,
                     denominator = ~I(!is.na(literacy)),
                     design = subset(svy_enpol, sexo == "Female"),
                     FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Literate", length = 6)),
  cbind(
    as.data.table(svyby(~I(literacy == "Yes" & !is.na(literacy)),
                     by = ~agegroup,
                     denominator = ~I(!is.na(literacy)),
                     design = subset(svy_ensanut, sexo == "Female"),
                     FUN = svyratio)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Literate", length = 6))
)
setnames(d_literacyf, names(d_literacyf), v_names)

# Employed
d_jobf <- rbind(

```

```

cbind(
  as.data.table(svyby(~I(job == "Yes" & !is.na(job)),
    by = ~agegroup,
    denominator = ~I(!is.na(job)),
    design = subset(svy_enpol, sexo == "Female"),
    FUN = svyratio)),
  survey = rep("ENPOL", length = 6),
  variable = rep("Employed", length = 6)),
cbind(
  as.data.table(svyby(~I(job == "Yes" & !is.na(job)),
    by = ~agegroup,
    denominator = ~I(!is.na(job)),
    design = subset(svy_ensanut, sexo == "Female"),
    FUN = svyratio)),
  survey = rep("ENSANUT", length = 6),
  variable = rep("Employed", length = 6))
)
setnames(d_jobf, names(d_jobf), v_names)

# Totals
d_countftot_enp <- as.data.table(svytotal(c(rep(1, nrow(d_enpol[d_enpol$sexo == "Female"]))), subset(svy_enpol_nodes,
  sexo == "Female")))
d_countftot_enp[, `:=`(SE = "Total", variable = "Count", survey = "ENPOL")]
setnames(d_countftot_enp, c("total", "SE"), c("value", "agegroup"))

d_litftot_enp <- as.data.table(svyratio(~I(literacy == "Yes" & !is.na(literacy)), ~I(!is.na(literacy)),
  subset(svy_enpol, sexo == "Female"))$ratio)
setnames(d_litftot_enp, names(d_litftot_enp), "value")
d_litftot_enp[, `:=`(agegroup = "Total", variable = "Literate", survey = "ENPOL")]

d_jobftot_enp <- as.data.table(svyratio(~I(job == "Yes" & !is.na(job)), ~I(!is.na(job)), subset(svy_enpol, sexo ==
  "Female"))$ratio)
setnames(d_jobftot_enp, names(d_jobftot_enp), "value")
d_jobftot_enp[, `:=`(agegroup = "Total", variable = "Employed", survey = "ENPOL")]

d_countftot_ens <- as.data.table(svytotal(c(rep(1, nrow(d_ensanut[d_ensanut$sexo == "Female"]))),
  subset(svy_ensanut_nodes, sexo == "Female")))
d_countftot_ens[, `:=`(SE = "Total", variable = "Count", survey = "ENSANUT")]
setnames(d_countftot_ens, c("total", "SE"), c("value", "agegroup"))

d_litftot_ens <- as.data.table(svyratio(~I(literacy == "Yes" & !is.na(literacy)), ~I(!is.na(literacy)),
  subset(svy_ensanut, sexo == "Female"))$ratio)
setnames(d_litftot_ens, names(d_litftot_ens), "value")
d_litftot_ens[, `:=`(agegroup = "Total", variable = "Literate", survey = "ENSANUT")]

d_jobftot_ens <- as.data.table(svyratio(~I(job == "Yes" & !is.na(job)), ~I(!is.na(job)), subset(svy_ensanut, sexo ==
  "Female"))$ratio)
setnames(d_jobftot_ens, names(d_jobftot_ens), "value")

```

```

d_jobftot_ens[, `:=`(agegroup = "Total", variable = "Employed", survey = "ENSANUT")]

d_total <- rbind(d_countftot_ens,
               d_countftot_ens,
               d_litftot_ens,
               d_litftot_ens,
               d_jobftot_ens,
               d_jobftot_ens)

# Non-response
d_litfnr_ens <- as.data.table(svyratio(~I(is.na(literacy)), ~c(rep(1, nrow(d_ensanut[d_ensanut$sexo == "Female"])))),
subset(svy_ensanut_nodes, sexo == "Female"))$ratio)
setnames(d_litfnr_ens, names(d_litfnr_ens), "value")
d_litfnr_ens[, `:=`(agegroup = "Non-response", variable = "Literate", survey = "ENSANUT")]

d_jobfnr_ens <- as.data.table(svyratio(~I(is.na(job)), ~c(rep(1, nrow(d_ensanut[d_ensanut$sexo == "Female"])))),
subset(svy_ensanut_nodes, sexo == "Female"))$ratio)
setnames(d_jobfnr_ens, names(d_jobfnr_ens), "value")
d_jobfnr_ens[, `:=`(agegroup = "Non-response", variable = "Employed", survey = "ENSANUT")]

d_litfnr_ens <- as.data.table(svyratio(~I(is.na(literacy)), ~c(rep(1, nrow(d_ensanut[d_ensanut$sexo == "Female"])))),
subset(svy_ensanut_nodes, sexo == "Female"))$ratio)
setnames(d_litfnr_ens, names(d_litfnr_ens), "value")
d_litfnr_ens[, `:=`(agegroup = "Non-response", variable = "Literate", survey = "ENSANUT")]

d_jobfnr_ens <- as.data.table(svyratio(~I(is.na(job)), ~c(rep(1, nrow(d_ensanut[d_ensanut$sexo == "Female"])))),
subset(svy_ensanut_nodes, sexo == "Female"))$ratio)
setnames(d_jobfnr_ens, names(d_jobfnr_ens), "value")
d_jobfnr_ens[, `:=`(agegroup = "Non-response", variable = "Employed", survey = "ENSANUT")]

d_nr <- rbind(d_litfnr_ens,
             d_litfnr_ens,
             d_jobfnr_ens,
             d_jobfnr_ens)

tabw1.4f <- rbind(d_countf, d_literacyf, d_jobf)
tabw1.4f <- as.data.table(tabw1.4f)
tabw1.4f[, se := NULL]

tabw1.4f <- rbind(tabw1.4f, d_total, d_nr)
tabw1.4f <- as.data.table(tabw1.4f)
tabw1.4f <- dcast(tabw1.4f, agegroup + variable ~ survey, value.var = "value")
tabw1.4f$Difference <- tabw1.4f$ENPOL - tabw1.4f$ENSANUT
tabw1.4f <- melt(tabw1.4f, id.vars = c("agegroup", "variable"), variable.name = "survey")
tabw1.4f <- dcast(tabw1.4f, survey + variable ~ agegroup)
tabw1.4f$survey <- factor(tabw1.4f$survey,
                        levels = c("ENPOL", "ENSANUT", "Difference"),

```

```

        ordered = TRUE)
tabw1.4f <- tabw1.4f[, .(variable, survey, `20-29`, `30-39`, `40-49`, `50-59`, `60-69`, `70-79`, `Total`, `Non-
response`)]
tabw1.4f$variable <- factor(tabw1.4f$variable,
                            levels = c("Count", "Literate", "Employed"),
                            ordered = TRUE)
setorder(tabw1.4f, variable)
tabw1.4f[, (cols) := lapply(.SD, round, digits = 4), .SDcols = cols]
fwrite(tabw1.4f, "00_data/newTabs/tabw1_4f.csv")

# Tab 2.1m - Contextual risk factors (male) ####
# Counts
d_countm <- rbind(
  cbind(
    agegroup = v_ages_enpol,
    as.data.table(svytotal(~agegroup,
                          na.rm = TRUE,
                          design = subset(svy_enpol_nodes, sexo == "Male"))),
    survey = rep("ENPOL", length = 6),
    variable = rep("Count", length = 6)),
  cbind(
    agegroup = v_ages_ensanut,
    as.data.table(svytotal(~agegroup,
                          na.rm = TRUE,
                          design = subset(svy_ensanut_nodes, sexo == "Male"))),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Count", length = 6))
)
v_namesm <- c("agegroup", "value", "se", "survey", "variable")
setnames(d_countm, names(d_countm), v_namesm)

# Water insecurity
d_waterm <- rbind(
  cbind(
    as.data.table(svyby(~I(water == "No" & !is.na(water)),
                      by = ~agegroup,
                      denominator = ~I(!is.na(water)),
                      design = subset(svy_enpol, sexo == "Male"),
                      FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Water insecurity", length = 6)),
  cbind(
    as.data.table(svyby(~I(water == "No" & !is.na(water)),
                      by = ~agegroup,
                      denominator = ~I(!is.na(water)),
                      design = subset(svy_ensanut, sexo == "Male"),
                      FUN = svyratio)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Water insecurity", length = 6))
)

```

```

)
setnames(d_waterm, names(d_waterm), v_namesm)

# Food insecurity (are you insecure -- "yes")
d_foodm <- rbind(
  cbind(
    as.data.table(svyby(~I(food == "Yes" & !is.na(food)),
                      by = ~agegroup,
                      denominator = ~I(!is.na(food)),
                      design = subset(svy_enspol, sexo == "Male"),
                      FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Food insecurity", length = 6)),
  cbind(
    as.data.table(svyby(~I(food == "Yes" & !is.na(food)),
                      by = ~agegroup,
                      denominator = ~I(!is.na(food)),
                      design = subset(svy_ensanut, sexo == "Male"),
                      FUN = svyratio)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Food insecurity", length = 6))
)
setnames(d_foodm, names(d_foodm), v_namesm)

# No electricity
d_elecm <- rbind(
  cbind(
    as.data.table(svyby(~I(electricity == "No" & !is.na(electricity)),
                      by = ~agegroup,
                      denominator = ~I(!is.na(electricity)),
                      design = subset(svy_enspol, sexo == "Male"),
                      FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("No electricity", length = 6)),
  cbind(
    as.data.table(svyby(~I(electricity == "No" & !is.na(electricity)),
                      by = ~agegroup,
                      denominator = ~I(!is.na(electricity)),
                      design = subset(svy_ensanut, sexo == "Male"),
                      FUN = svyratio)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("No electricity", length = 6))
)
setnames(d_elecm, names(d_elecm), v_namesm)

# No drainage
d_drainm <- rbind(
  cbind(
    as.data.table(svyby(~I(drain == "No" & !is.na(drain)),

```

```

        by = ~agegroup,
        denominator = ~I(!is.na(drain)),
        design = subset(svy_enspol, sexo == "Male"),
        FUN = svyratio)),
  survey = rep("ENPOL", length = 6),
  variable = rep("No drainage", length = 6)),
cbind(
  as.data.table(svyby(~I(drain == "No" & !is.na(drain)),
    by = ~agegroup,
    denominator = ~I(!is.na(drain)),
    design = subset(svy_ensanut, sexo == "Male"),
    FUN = svyratio)),
  survey = rep("ENSANUT", length = 6),
  variable = rep("No drainage", length = 6))
)
setnames(d_drainm, names(d_drainm), v_namesm)

# No flushing toilet
d_flushm <- rbind(
  cbind(
    as.data.table(svyby(~I(flush == "No" & !is.na(flush)),
      by = ~agegroup,
      denominator = ~I(!is.na(flush)),
      design = subset(svy_enspol, sexo == "Male"),
      FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("No flushing toilet", length = 6)),
  cbind(
    as.data.table(svyby(~I(flush == "No" & !is.na(flush)),
      by = ~agegroup,
      denominator = ~I(!is.na(flush)),
      design = subset(svy_ensanut, sexo == "Male"),
      FUN = svyratio)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("No flushing toilet", length = 6))
  )
)
setnames(d_flushm, names(d_flushm), v_namesm)

# Totals
d_countmtot_ens <- as.data.table(svytotal(c(rep(1, nrow(d_enspol[sexo == "Male"]))), subset(svy_enspol_nodes, sexo == "Male")))
d_countmtot_ens[, `:=`(SE = "Total", variable = "Count", survey = "ENPOL")]
setnames(d_countmtot_ens, c("total", "SE"), c("value", "agegroup"))

d_watermtot_ens <- as.data.table(svyratio(~I(water == "No" & !is.na(water)), ~I(!is.na(water)), subset(svy_enspol, sexo == "Male"))$ratio)
setnames(d_watermtot_ens, names(d_watermtot_ens), "value")
d_watermtot_ens[, `:=`(agegroup = "Total", variable = "Water insecurity", survey = "ENPOL")]

```

```

d_foodmtot_enp <- as.data.table(svyratio(~I(food == "Yes" & !is.na(food)), ~I(!is.na(food)), subset(svy_enpol, sexo ==
"Male"))$ratio)
setnames(d_foodmtot_enp, names(d_foodmtot_enp), "value")
d_foodmtot_enp[, `:=`(agegroup = "Total", variable = "Food insecurity", survey = "ENPOL")]

d_elecmtot_enp <- as.data.table(svyratio(~I(electricity == "No" & !is.na(electricity)), ~I(!is.na(electricity)),
subset(svy_enpol, sexo == "Male"))$ratio)
setnames(d_elecmtot_enp, names(d_elecmtot_enp), "value")
d_elecmtot_enp[, `:=`(agegroup = "Total", variable = "No electricity", survey = "ENPOL")]

d_drainmtot_enp <- as.data.table(svyratio(~I(drain == "No" & !is.na(drain)), ~I(!is.na(drain)), subset(svy_enpol, sexo
== "Male"))$ratio)
setnames(d_drainmtot_enp, names(d_drainmtot_enp), "value")
d_drainmtot_enp[, `:=`(agegroup = "Total", variable = "No drainage", survey = "ENPOL")]

d_flushmtot_enp <- as.data.table(svyratio(~I(flush == "No" & !is.na(flush)), ~I(!is.na(flush)), subset(svy_enpol, sexo
== "Male"))$ratio)
setnames(d_flushmtot_enp, names(d_flushmtot_enp), "value")
d_flushmtot_enp[, `:=`(agegroup = "Total", variable = "No flushing toilet", survey = "ENPOL")]

d_countmtot_ens <- as.data.table(svytotal(c(rep(1, nrow(d_ensanut[sexo == "Male"]))), subset(svy_ensanut_nodes, sexo ==
"Male")))
d_countmtot_ens[, `:=`(SE = "Total", variable = "Count", survey = "ENSANUT")]
setnames(d_countmtot_ens, c("total", "SE"), c("value", "agegroup"))

d_watermtot_ens <- as.data.table(svyratio(~I(water == "No" & !is.na(water)), ~I(!is.na(water)), subset(svy_ensanut, sexo
== "Male"))$ratio)
setnames(d_watermtot_ens, names(d_watermtot_ens), "value")
d_watermtot_ens[, `:=`(agegroup = "Total", variable = "Water insecurity", survey = "ENSANUT")]

d_foodmtot_ens <- as.data.table(svyratio(~I(food == "Yes" & !is.na(food)), ~I(!is.na(food)), subset(svy_ensanut, sexo ==
"Male"))$ratio)
setnames(d_foodmtot_ens, names(d_foodmtot_ens), "value")
d_foodmtot_ens[, `:=`(agegroup = "Total", variable = "Food insecurity", survey = "ENSANUT")]

d_elecmtot_ens <- as.data.table(svyratio(~I(electricity == "No" & !is.na(electricity)), ~I(!is.na(electricity)),
subset(svy_ensanut, sexo == "Male"))$ratio)
setnames(d_elecmtot_ens, names(d_elecmtot_ens), "value")
d_elecmtot_ens[, `:=`(agegroup = "Total", variable = "No electricity", survey = "ENSANUT")]

d_drainmtot_ens <- as.data.table(svyratio(~I(drain == "No" & !is.na(drain)), ~I(!is.na(drain)), subset(svy_ensanut, sexo
== "Male"))$ratio)
setnames(d_drainmtot_ens, names(d_drainmtot_ens), "value")
d_drainmtot_ens[, `:=`(agegroup = "Total", variable = "No drainage", survey = "ENSANUT")]

d_flushmtot_ens <- as.data.table(svyratio(~I(flush == "No" & !is.na(flush)), ~I(!is.na(flush)), subset(svy_ensanut, sexo
== "Male"))$ratio)
setnames(d_flushmtot_ens, names(d_flushmtot_ens), "value")
d_flushmtot_ens[, `:=`(agegroup = "Total", variable = "No flushing toilet", survey = "ENSANUT")]

```

```

d_totalm <- rbind(d_countmtot_enp,
                 d_countmtot_ens,
                 d_watermtot_enp,
                 d_watermtot_ens,
                 d_foodmtot_enp,
                 d_foodmtot_ens,
                 d_elecmtot_enp,
                 d_elecmtot_ens,
                 d_drainmtot_enp,
                 d_drainmtot_ens,
                 d_flushmtot_enp,
                 d_flushmtot_ens)

# Non-response
d_watermn_r_enp <- as.data.table(svyratio(~I(is.na(water)), ~c(rep(1, nrow(d_enpol[sexo == "Male"]))),
                                subset(svy_enpol_nodes, sexo == "Male"))$ratio)
setnames(d_watermn_r_enp, names(d_watermn_r_enp), "value")
d_watermn_r_enp[, `:=`(agegroup = "Non-response", variable = "Water insecurity", survey = "ENPOL")]

d_foodmn_r_enp <- as.data.table(svyratio(~I(is.na(food)), ~c(rep(1, nrow(d_enpol[sexo == "Male"]))),
                                subset(svy_enpol_nodes, sexo == "Male"))$ratio)
setnames(d_foodmn_r_enp, names(d_foodmn_r_enp), "value")
d_foodmn_r_enp[, `:=`(agegroup = "Non-response", variable = "Food insecurity", survey = "ENPOL")]

d_elecmn_r_enp <- as.data.table(svyratio(~I(is.na(electricity)), ~c(rep(1, nrow(d_enpol[sexo == "Male"]))),
                                subset(svy_enpol_nodes, sexo == "Male"))$ratio)
setnames(d_elecmn_r_enp, names(d_elecmn_r_enp), "value")
d_elecmn_r_enp[, `:=`(agegroup = "Non-response", variable = "No electricity", survey = "ENPOL")]

d_drainmn_r_enp <- as.data.table(svyratio(~I(is.na(drain)), ~c(rep(1, nrow(d_enpol[sexo == "Male"]))),
                                subset(svy_enpol_nodes, sexo == "Male"))$ratio)
setnames(d_drainmn_r_enp, names(d_drainmn_r_enp), "value")
d_drainmn_r_enp[, `:=`(agegroup = "Non-response", variable = "No drainage", survey = "ENPOL")]

d_flushmn_r_enp <- as.data.table(svyratio(~I(is.na(flush)), ~c(rep(1, nrow(d_enpol[sexo == "Male"]))),
                                subset(svy_enpol_nodes, sexo == "Male"))$ratio)
setnames(d_flushmn_r_enp, names(d_flushmn_r_enp), "value")
d_flushmn_r_enp[, `:=`(agegroup = "Non-response", variable = "No flushing toilet", survey = "ENPOL")]

d_watermn_r_ens <- as.data.table(svyratio(~I(is.na(water)), ~c(rep(1, nrow(d_ensanut[sexo == "Male"]))),
                                subset(svy_ensanut_nodes, sexo == "Male"))$ratio)
setnames(d_watermn_r_ens, names(d_watermn_r_ens), "value")
d_watermn_r_ens[, `:=`(agegroup = "Non-response", variable = "Water insecurity", survey = "ENSANUT")]

d_foodmn_r_ens <- as.data.table(svyratio(~I(is.na(food)), ~c(rep(1, nrow(d_ensanut[sexo == "Male"]))),
                                subset(svy_ensanut_nodes, sexo == "Male"))$ratio)
setnames(d_foodmn_r_ens, names(d_foodmn_r_ens), "value")

```

```

d_foodmnr_ens[, `:=`(agegroup = "Non-response", variable = "Food insecurity", survey = "ENSANUT")]

d_electmnr_ens <- as.data.table(svyratio(~I(is.na(electricity)), ~c(rep(1, nrow(d_ensanut[sexo == "Male"])))),
subset(svy_ensanut_nodes, sexo == "Male"))$ratio)
setnames(d_electmnr_ens, names(d_electmnr_ens), "value")
d_electmnr_ens[, `:=`(agegroup = "Non-response", variable = "No electricity", survey = "ENSANUT")]

d_drainmnr_ens <- as.data.table(svyratio(~I(is.na(drain)), ~c(rep(1, nrow(d_ensanut[sexo == "Male"])))),
subset(svy_ensanut_nodes, sexo == "Male"))$ratio)
setnames(d_drainmnr_ens, names(d_drainmnr_ens), "value")
d_drainmnr_ens[, `:=`(agegroup = "Non-response", variable = "No drainage", survey = "ENSANUT")]

d_flushmnr_ens <- as.data.table(svyratio(~I(is.na(flush)), ~c(rep(1, nrow(d_ensanut[sexo == "Male"])))),
subset(svy_ensanut_nodes, sexo == "Male"))$ratio)
setnames(d_flushmnr_ens, names(d_flushmnr_ens), "value")
d_flushmnr_ens[, `:=`(agegroup = "Non-response", variable = "No flushing toilet", survey = "ENSANUT")]

d_nrm <- rbind(d_watermnr_ens,
              d_watermnr_ens,
              d_foodmnr_ens,
              d_foodmnr_ens,
              d_electmnr_ens,
              d_electmnr_ens,
              d_drainmnr_ens,
              d_drainmnr_ens,
              d_flushmnr_ens,
              d_flushmnr_ens)

tabw2.1m <- rbind(d_countm, d_waterm, d_foodm, d_electm, d_drainm, d_flushm)
tabw2.1m <- as.data.table(tabw2.1m)
tabw2.1m[, se := NULL]

tabw2.1m <- rbind(tabw2.1m, d_totalm, d_nrm)
tabw2.1m <- as.data.table(tabw2.1m)
tabw2.1m <- dcast(tabw2.1m, agegroup + variable ~ survey, value.var = "value")
tabw2.1m$Difference <- tabw2.1m$ENPOL - tabw2.1m$ENSANUT
tabw2.1m <- melt(tabw2.1m, id.vars = c("agegroup", "variable"), variable.name = "survey")
tabw2.1m <- dcast(tabw2.1m, survey + variable ~ agegroup)
tabw2.1m$survey <- factor(tabw2.1m$survey,
                          levels = c("ENPOL", "ENSANUT", "Difference"),
                          ordered = TRUE)

tabw2.1m <- tabw2.1m[, .(variable, survey, `20-29`, `30-39`, `40-49`, `50-59`, `60-69`, `70-79`, `Total`, `Non-
response`)]
tabw2.1m$variable <- factor(tabw2.1m$variable,
                            levels = c("Count", "Water insecurity", "Food insecurity", "No electricity", "No drainage",
"No flushing toilet"),
                            ordered = TRUE)

setorder(tabw2.1m, variable)
tabw2.1m[, (cols) := lapply(.SD, round, digits = 4), .SDcols = cols]

```

```

fwrite(tabw2.1m, "00_data/newTabs/tabw2_1m.csv")

# Tab 2.1f - Contextual risk factors (female) ####
d_countf <- rbind(
  cbind(
    agegroup = v_ages_enpol,
    as.data.table(svytotal(~agegroup,
                          na.rm = TRUE,
                          design = subset(svy_enpol_nodes, sexo == "Female"))),
    survey = rep("ENPOL", length = 6),
    variable = rep("Count", length = 6)),
  cbind(
    agegroup = v_ages_ensanut,
    as.data.table(svytotal(~agegroup,
                          na.rm = TRUE,
                          design = subset(svy_ensanut_nodes, sexo == "Female"))),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Count", length = 6))
)
v_namesf <- c("agegroup", "value", "se", "survey", "variable")
setnames(d_countf, names(d_countf), v_namesf)

# Water insecurity
d_waterf <- rbind(
  cbind(
    as.data.table(svyby(~I(water == "No" & !is.na(water)),
                     by = ~agegroup,
                     denominator = ~I(!is.na(water)),
                     design = subset(svy_enpol, sexo == "Female"),
                     FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Water insecurity", length = 6)),
  cbind(
    as.data.table(svyby(~I(water == "No" & !is.na(water)),
                     by = ~agegroup,
                     denominator = ~I(!is.na(water)),
                     design = subset(svy_ensanut, sexo == "Female"),
                     FUN = svyratio)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Water insecurity", length = 6))
)
setnames(d_waterf, names(d_waterf), v_namesf)

# Food insecurity (are you insecure -- "yes")
d_foodf <- rbind(
  cbind(
    as.data.table(svyby(~I(food == "Yes" & !is.na(food)),
                     by = ~agegroup,
                     denominator = ~I(!is.na(food)),

```

```

        design = subset(svy_enpol, sexo == "Female"),
        FUN = svyratio)),
  survey = rep("ENPOL", length = 6),
  variable = rep("Food insecurity", length = 6)),
cbind(
  as.data.table(svyby(~I(food == "Yes" & !is.na(food)),
    by = ~agegroup,
    denominator = ~I(!is.na(food)),
    design = subset(svy_ensanut, sexo == "Female"),
    FUN = svyratio)),
  survey = rep("ENSANUT", length = 6),
  variable = rep("Food insecurity", length = 6))
)
setnames(d_foodf, names(d_foodf), v_namesf)

# No electricity
d_electf <- rbind(
  cbind(
    as.data.table(svyby(~I(electricity == "No" & !is.na(electricity)),
      by = ~agegroup,
      denominator = ~I(!is.na(electricity)),
      design = subset(svy_enpol, sexo == "Female"),
      FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("No electricity", length = 6)),
  cbind(
    as.data.table(svyby(~I(electricity == "No" & !is.na(electricity)),
      by = ~agegroup,
      denominator = ~I(!is.na(electricity)),
      design = subset(svy_ensanut, sexo == "Female"),
      FUN = svyratio)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("No electricity", length = 6))
  )
setnames(d_electf, names(d_electf), v_namesf)

# No drainage
d_drainf <- rbind(
  cbind(
    as.data.table(svyby(~I(drain == "No" & !is.na(drain)),
      by = ~agegroup,
      denominator = ~I(!is.na(drain)),
      design = subset(svy_enpol, sexo == "Female"),
      FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("No drainage", length = 6)),
  cbind(
    as.data.table(svyby(~I(drain == "No" & !is.na(drain)),
      by = ~agegroup,

```

```

        denominator = ~I(!is.na(drain)),
        design = subset(svy_ensanut, sexo == "Female"),
        FUN = svyratio)),
  survey = rep("ENSANUT", length = 6),
  variable = rep("No drainage", length = 6))
)
setnames(d_drainf, names(d_drainf), v_namesf)

# No flushing toilet
d_flushf <- rbind(
  cbind(
    as.data.table(svyby(~I(flush == "No" & !is.na(flush)),
      by = ~agegroup,
      denominator = ~I(!is.na(flush)),
      design = subset(svy_enpol, sexo == "Female"),
      FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("No flushing toilet", length = 6)),
  cbind(
    as.data.table(svyby(~I(flush == "No" & !is.na(flush)),
      by = ~agegroup,
      denominator = ~I(!is.na(flush)),
      design = subset(svy_ensanut, sexo == "Female"),
      FUN = svyratio)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("No flushing toilet", length = 6))
)
setnames(d_flushf, names(d_flushf), v_namesf)

# Totals
d_countftot_enp <- as.data.table(svytotal(c(rep(1, nrow(d_enpol[sexo == "Female"]))), subset(svy_enpol_nodes, sexo ==
"Female"))))
d_countftot_enp[, `:=`(SE = "Total", variable = "Count", survey = "ENPOL")]
setnames(d_countftot_enp, c("total", "SE"), c("value", "agegroup"))

d_waterftot_enp <- as.data.table(svyratio(~I(water == "No" & !is.na(water)), ~I(!is.na(water)), subset(svy_enpol, sexo
== "Female"))$ratio)
setnames(d_waterftot_enp, names(d_waterftot_enp), "value")
d_waterftot_enp[, `:=`(agegroup = "Total", variable = "Water insecurity", survey = "ENPOL")]

d_foodftot_enp <- as.data.table(svyratio(~I(food == "Yes" & !is.na(food)), ~I(!is.na(food)), subset(svy_enpol, sexo ==
"Female"))$ratio)
setnames(d_foodftot_enp, names(d_foodftot_enp), "value")
d_foodftot_enp[, `:=`(agegroup = "Total", variable = "Food insecurity", survey = "ENPOL")]

d_elecftot_enp <- as.data.table(svyratio(~I(electricity == "No" & !is.na(electricity)), ~I(!is.na(electricity)),
subset(svy_enpol, sexo == "Female"))$ratio)
setnames(d_elecftot_enp, names(d_elecftot_enp), "value")
d_elecftot_enp[, `:=`(agegroup = "Total", variable = "No electricity", survey = "ENPOL")]

```

```

d_drainftot_enp <- as.data.table(svyratio(~I(drain == "No" & !is.na(drain)), ~I(!is.na(drain)), subset(svy_enpol, sexo
== "Female"))$ratio)
setnames(d_drainftot_enp, names(d_drainftot_enp), "value")
d_drainftot_enp[, `:=`(agegroup = "Total", variable = "No drainage", survey = "ENPOL")]

d_flushftot_enp <- as.data.table(svyratio(~I(flush == "No" & !is.na(flush)), ~I(!is.na(flush)), subset(svy_enpol, sexo
== "Female"))$ratio)
setnames(d_flushftot_enp, names(d_flushftot_enp), "value")
d_flushftot_enp[, `:=`(agegroup = "Total", variable = "No flushing toilet", survey = "ENPOL")]

d_countftot_ens <- as.data.table(svytotal(c(rep(1, nrow(d_ensanut[sexo == "Female"]))), subset(svy_ensanut_nodes, sexo
== "Female")))
d_countftot_ens[, `:=`(SE = "Total", variable = "Count", survey = "ENSANUT")]
setnames(d_countftot_ens, c("total", "SE"), c("value", "agegroup"))

d_waterftot_ens <- as.data.table(svyratio(~I(water == "No" & !is.na(water)), ~I(!is.na(water)), subset(svy_ensanut, sexo
== "Female"))$ratio)
setnames(d_waterftot_ens, names(d_waterftot_ens), "value")
d_waterftot_ens[, `:=`(agegroup = "Total", variable = "Water insecurity", survey = "ENSANUT")]

d_foodftot_ens <- as.data.table(svyratio(~I(food == "Yes" & !is.na(food)), ~I(!is.na(food)), subset(svy_ensanut, sexo ==
"Female"))$ratio)
setnames(d_foodftot_ens, names(d_foodftot_ens), "value")
d_foodftot_ens[, `:=`(agegroup = "Total", variable = "Food insecurity", survey = "ENSANUT")]

d_elecftot_ens <- as.data.table(svyratio(~I(electricity == "No" & !is.na(electricity)), ~I(!is.na(electricity)),
subset(svy_ensanut, sexo == "Female"))$ratio)
setnames(d_elecftot_ens, names(d_elecftot_ens), "value")
d_elecftot_ens[, `:=`(agegroup = "Total", variable = "No electricity", survey = "ENSANUT")]

d_drainftot_ens <- as.data.table(svyratio(~I(drain == "No" & !is.na(drain)), ~I(!is.na(drain)), subset(svy_ensanut, sexo
== "Female"))$ratio)
setnames(d_drainftot_ens, names(d_drainftot_ens), "value")
d_drainftot_ens[, `:=`(agegroup = "Total", variable = "No drainage", survey = "ENSANUT")]

d_flushftot_ens <- as.data.table(svyratio(~I(flush == "No" & !is.na(flush)), ~I(!is.na(flush)), subset(svy_ensanut, sexo
== "Female"))$ratio)
setnames(d_flushftot_ens, names(d_flushftot_ens), "value")
d_flushftot_ens[, `:=`(agegroup = "Total", variable = "No flushing toilet", survey = "ENSANUT")]

d_totalf <- rbind(d_countftot_enp,
                  d_countftot_ens,
                  d_waterftot_enp,
                  d_waterftot_ens,
                  d_foodftot_enp,
                  d_foodftot_ens,
                  d_elecftot_enp,
                  d_elecftot_ens,

```

```
d_drainftot_enp,  
d_drainftot_ens,  
d_flushftot_enp,  
d_flushftot_ens)
```

```
# Non-response
```

```
d_waterfnr_enp <- as.data.table(svyratio(~I(is.na(water)), ~c(rep(1, nrow(d_enpol[sexo == "Female"]))),  
subset(svy_enpol_nodes, sexo == "Female"))$ratio)  
setnames(d_waterfnr_enp, names(d_waterfnr_enp), "value")  
d_waterfnr_enp[, `:=`(agegroup = "Non-response", variable = "Water insecurity", survey = "ENPOL")]
```

```
d_foodfnr_enp <- as.data.table(svyratio(~I(is.na(food)), ~c(rep(1, nrow(d_enpol[sexo == "Female"]))),  
subset(svy_enpol_nodes, sexo == "Female"))$ratio)  
setnames(d_foodfnr_enp, names(d_foodfnr_enp), "value")  
d_foodfnr_enp[, `:=`(agegroup = "Non-response", variable = "Food insecurity", survey = "ENPOL")]
```

```
d_elecfnr_enp <- as.data.table(svyratio(~I(is.na(electricity)), ~c(rep(1, nrow(d_enpol[sexo == "Female"]))),  
subset(svy_enpol_nodes, sexo == "Female"))$ratio)  
setnames(d_elecfnr_enp, names(d_elecfnr_enp), "value")  
d_elecfnr_enp[, `:=`(agegroup = "Non-response", variable = "No electricity", survey = "ENPOL")]
```

```
d_drainfnr_enp <- as.data.table(svyratio(~I(is.na(drain)), ~c(rep(1, nrow(d_enpol[sexo == "Female"]))),  
subset(svy_enpol_nodes, sexo == "Female"))$ratio)  
setnames(d_drainfnr_enp, names(d_drainfnr_enp), "value")  
d_drainfnr_enp[, `:=`(agegroup = "Non-response", variable = "No drainage", survey = "ENPOL")]
```

```
d_flushfnr_enp <- as.data.table(svyratio(~I(is.na(flush)), ~c(rep(1, nrow(d_enpol[sexo == "Female"]))),  
subset(svy_enpol_nodes, sexo == "Female"))$ratio)  
setnames(d_flushfnr_enp, names(d_flushfnr_enp), "value")  
d_flushfnr_enp[, `:=`(agegroup = "Non-response", variable = "No flushing toilet", survey = "ENPOL")]
```

```
d_waterfnr_ens <- as.data.table(svyratio(~I(is.na(water)), ~c(rep(1, nrow(d_ensanut[sexo == "Female"]))),  
subset(svy_ensanut_nodes, sexo == "Female"))$ratio)  
setnames(d_waterfnr_ens, names(d_waterfnr_ens), "value")  
d_waterfnr_ens[, `:=`(agegroup = "Non-response", variable = "Water insecurity", survey = "ENSANUT")]
```

```
d_foodfnr_ens <- as.data.table(svyratio(~I(is.na(food)), ~c(rep(1, nrow(d_ensanut[sexo == "Female"]))),  
subset(svy_ensanut_nodes, sexo == "Female"))$ratio)  
setnames(d_foodfnr_ens, names(d_foodfnr_ens), "value")  
d_foodfnr_ens[, `:=`(agegroup = "Non-response", variable = "Food insecurity", survey = "ENSANUT")]
```

```
d_elecfnr_ens <- as.data.table(svyratio(~I(is.na(electricity)), ~c(rep(1, nrow(d_ensanut[sexo == "Female"]))),  
subset(svy_ensanut_nodes, sexo == "Female"))$ratio)  
setnames(d_elecfnr_ens, names(d_elecfnr_ens), "value")  
d_elecfnr_ens[, `:=`(agegroup = "Non-response", variable = "No electricity", survey = "ENSANUT")]
```

```
d_drainfnr_ens <- as.data.table(svyratio(~I(is.na(drain)), ~c(rep(1, nrow(d_ensanut[sexo == "Female"]))),  
subset(svy_ensanut_nodes, sexo == "Female"))$ratio)
```

```

setnames(d_drainfnr_ens, names(d_drainfnr_ens), "value")
d_drainfnr_ens[, `:=`(agegroup = "Non-response", variable = "No drainage", survey = "ENSANUT")]

d_flushfnr_ens <- as.data.table(svyratio(~I(is.na(flush)), ~c(rep(1, nrow(d_ensanut[sexo == "Female"]))),
subset(svy_ensanut_nodes, sexo == "Female"))$ratio)
setnames(d_flushfnr_ens, names(d_flushfnr_ens), "value")
d_flushfnr_ens[, `:=`(agegroup = "Non-response", variable = "No flushing toilet", survey = "ENSANUT")]

d_nrf <- rbind(d_waterfnr_enp,
              d_waterfnr_ens,
              d_foodfnr_enp,
              d_foodfnr_ens,
              d_elecfnr_enp,
              d_elecfnr_ens,
              d_drainfnr_enp,
              d_drainfnr_ens,
              d_flushfnr_enp,
              d_flushfnr_ens)

tabw2.1f <- rbind(d_countf, d_waterf, d_foodf, d_elecf, d_drainf, d_flushf)
tabw2.1f <- as.data.table(tabw2.1f)
tabw2.1f[, se := NULL]

tabw2.1f <- rbind(tabw2.1f, d_totalf, d_nrf)
tabw2.1f <- as.data.table(tabw2.1f)
tabw2.1f <- dcast(tabw2.1f, agegroup + variable ~ survey, value.var = "value")
tabw2.1f$Difference <- tabw2.1f$ENPOL - tabw2.1f$ENSANUT
tabw2.1f <- melt(tabw2.1f, id.vars = c("agegroup", "variable"), variable.name = "survey")
tabw2.1f <- dcast(tabw2.1f, survey + variable ~ agegroup)
tabw2.1f$survey <- factor(tabw2.1f$survey,
                          levels = c("ENPOL", "ENSANUT", "Difference"),
                          ordered = TRUE)

tabw2.1f <- tabw2.1f[, .(variable, survey, `20-29`, `30-39`, `40-49`, `50-59`, `60-69`, `70-79`, `Total`, `Non-
response`)]
tabw2.1f$variable <- factor(tabw2.1f$variable,
                            levels = c("Count", "Water insecurity", "Food insecurity", "No electricity", "No drainage",
"No flushing toilet"),
                            ordered = TRUE)

setorder(tabw2.1f, variable)
tabw2.1f[, (cols) := lapply(.SD, round, digits = 4), .SDcols = cols]
fwrite(tabw2.1f, "00_data/newTabs/tabw2_1f.csv")

# Tab 2.2m - Behavioral risk factors (Male) ####
d_countm <- rbind(
  cbind(
    agegroup = v_ages_enpol,
    as.data.table(svytotal(~agegroup,
                          na.rm = TRUE,
                          design = subset(svy_enpol_nodes, sexo == "Male"))),

```

```

    survey = rep("ENPOL", length = 6),
    variable = rep("Count", length = 6)),
cbind(
  agegroup = v_ages_ensanut,
  as.data.table(svytotal(~agegroup,
                        na.rm = TRUE,
                        design = subset(svy_ensanut_nodes, sexo == "Male"))),
  survey = rep("ENSANUT", length = 6),
  variable = rep("Count", length = 6))
)
setnames(d_countm, names(d_countm), v_names)

# Smoker
d_smokerm <- rbind(
  cbind(
    as.data.table(svyby(~I(smoker == "Yes" & !is.na(smoker)),
                     by = ~agegroup,
                     denominator = ~I(!is.na(smoker)),
                     design = subset(svy_enpol, sexo == "Male"),
                     FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Smoker", length = 6)),
  cbind(
    as.data.table(svyby(~I(smoker == "Yes" & !is.na(smoker)),
                     by = ~agegroup,
                     denominator = ~I(!is.na(smoker)),
                     design = subset(svy_ensanut, sexo == "Male"),
                     FUN = svyratio)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Smoker", length = 6))
)
setnames(d_smokerm, names(d_smokerm), v_names)

# Drinker
d_drinkerm <- rbind(
  cbind(
    as.data.table(svyby(~I(drinker == "Yes" & !is.na(drinker)),
                     by = ~agegroup,
                     denominator = ~I(!is.na(drinker)),
                     design = subset(svy_enpol, sexo == "Male"),
                     FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Drinker", length = 6)),
  cbind(
    as.data.table(svyby(~I(drinker == "Yes" & !is.na(drinker)),
                     by = ~agegroup,
                     denominator = ~I(!is.na(drinker)),
                     design = subset(svy_ensanut, sexo == "Male"),
                     FUN = svyratio)),

```

```

    survey = rep("ENSANUT", length = 6),
    variable = rep("Drinker", length = 6))
)
setnames(d_drinkerm, names(d_drinkerm), v_names)

# Totals
d_countmtot_enp <- as.data.table(svytotal(c(rep(1, nrow(d_enpol[d_enpol$sexo == "Male"]))), subset(svy_enpol_nodes, sexo == "Male")))
d_countmtot_enp[, `:=`(SE = "Total", variable = "Count", survey = "ENPOL")]
setnames(d_countmtot_enp, c("total", "SE"), c("value", "agegroup"))

d_smokermtot_enp <- as.data.table(svyratio(~I(smoker == "Yes" & !is.na(smoker)), ~I(!is.na(smoker)), subset(svy_enpol, sexo == "Male"))$ratio)
setnames(d_smokermtot_enp, names(d_smokermtot_enp), "value")
d_smokermtot_enp[, `:=`(agegroup = "Total", variable = "Smoker", survey = "ENPOL")]

d_drinkermtot_enp <- as.data.table(svyratio(~I(drinker == "Yes" & !is.na(drinker)), ~I(!is.na(drinker)), subset(svy_enpol, sexo == "Male"))$ratio)
setnames(d_drinkermtot_enp, names(d_drinkermtot_enp), "value")
d_drinkermtot_enp[, `:=`(agegroup = "Total", variable = "Drinker", survey = "ENPOL")]

d_countmtot_ens <- as.data.table(svytotal(c(rep(1, nrow(d_ensanut[d_ensanut$sexo == "Male"]))), subset(svy_ensanut_nodes, sexo == "Male")))
d_countmtot_ens[, `:=`(SE = "Total", variable = "Count", survey = "ENSANUT")]
setnames(d_countmtot_ens, c("total", "SE"), c("value", "agegroup"))

d_smokermtot_ens <- as.data.table(svyratio(~I(smoker == "Yes" & !is.na(smoker)), ~I(!is.na(smoker)), subset(svy_ensanut, sexo == "Male"))$ratio)
setnames(d_smokermtot_ens, names(d_smokermtot_ens), "value")
d_smokermtot_ens[, `:=`(agegroup = "Total", variable = "Smoker", survey = "ENSANUT")]

d_drinkermtot_ens <- as.data.table(svyratio(~I(drinker == "Yes" & !is.na(drinker)), ~I(!is.na(drinker)), subset(svy_ensanut, sexo == "Male"))$ratio)
setnames(d_drinkermtot_ens, names(d_drinkermtot_ens), "value")
d_drinkermtot_ens[, `:=`(agegroup = "Total", variable = "Drinker", survey = "ENSANUT")]

d_total <- rbind(d_countmtot_enp,
                d_countmtot_ens,
                d_smokermtot_enp,
                d_smokermtot_ens,
                d_drinkermtot_enp,
                d_drinkermtot_ens)

# Non-response
d_smokermnr_enp <- as.data.table(svyratio(~I(is.na(smoker)), ~c(rep(1, nrow(d_enpol[d_enpol$sexo == "Male"]))), subset(svy_enpol_nodes, sexo == "Male"))$ratio)
setnames(d_smokermnr_enp, names(d_smokermnr_enp), "value")

```

```

d_smokermnr_enp[, `:=`(agegroup = "Non-response", variable = "Smoker", survey = "ENPOL")]

d_drinkermnr_enp <- as.data.table(svyratio(~I(is.na(drinker)), ~c(rep(1, nrow(d_enpol[d_enpol$sexo == "Male"]))),
subset(svy_enpol_nodes, sexo == "Male"))$ratio)
setnames(d_drinkermnr_enp, names(d_drinkermnr_enp), "value")
d_drinkermnr_enp[, `:=`(agegroup = "Non-response", variable = "Drinker", survey = "ENPOL")]

d_smokermnr_ens <- as.data.table(svyratio(~I(is.na(smoker)), ~c(rep(1, nrow(d_ensanut[d_ensanut$sexo == "Male"]))),
subset(svy_ensanut_nodes, sexo == "Male"))$ratio)
setnames(d_smokermnr_ens, names(d_smokermnr_ens), "value")
d_smokermnr_ens[, `:=`(agegroup = "Non-response", variable = "Smoker", survey = "ENSANUT")]

d_drinkermnr_ens <- as.data.table(svyratio(~I(is.na(drinker)), ~c(rep(1, nrow(d_ensanut[d_ensanut$sexo == "Male"]))),
subset(svy_ensanut_nodes, sexo == "Male"))$ratio)
setnames(d_drinkermnr_ens, names(d_drinkermnr_ens), "value")
d_drinkermnr_ens[, `:=`(agegroup = "Non-response", variable = "Drinker", survey = "ENSANUT")]

d_nr <- rbind(d_smokermnr_enp,
              d_smokermnr_ens,
              d_drinkermnr_enp,
              d_drinkermnr_ens)

tabw2.2m <- rbind(d_countm, d_smokerm, d_drinkerm)
tabw2.2m <- as.data.table(tabw2.2m)
tabw2.2m[, se := NULL]

tabw2.2m <- rbind(tabw2.2m, d_total, d_nr)
tabw2.2m <- as.data.table(tabw2.2m)
tabw2.2m <- dcast(tabw2.2m, agegroup + variable ~ survey, value.var = "value")
tabw2.2m$Difference <- tabw2.2m$ENPOL - tabw2.2m$ENSANUT
tabw2.2m <- melt(tabw2.2m, id.vars = c("agegroup", "variable"), variable.name = "survey")
tabw2.2m <- dcast(tabw2.2m, survey + variable ~ agegroup)
tabw2.2m$survey <- factor(tabw2.2m$survey,
                          levels = c("ENPOL", "ENSANUT", "Difference"),
                          ordered = TRUE)
tabw2.2m <- tabw2.2m[, .(variable, survey, `20-29`, `30-39`, `40-49`, `50-59`, `60-69`, `70-79`, `Total`, `Non-
response`)]
tabw2.2m$variable <- factor(tabw2.2m$variable,
                           levels = c("Count", "Smoker", "Drinker"),
                           ordered = TRUE)

setorder(tabw2.2m, variable)
tabw2.2m[, (cols) := lapply(.SD, round, digits = 4), .SDcols = cols]
fwrite(tabw2.2m, "00_data/newTabs/tabw2_2m.csv")

# Tab 2.2f - Behavioral risk factors (female) ####
d_countf <- rbind(
  cbind(
    agegroup = v_ages_enpol,

```

```

as.data.table(svytotal(~agegroup,
                        na.rm = TRUE,
                        design = subset(svy_enpol_nodes, sexo == "Female"))),
survey = rep("ENPOL", length = 6),
variable = rep("Count", length = 6)),
cbind(
  agegroup = v_ages_ensanut,
  as.data.table(svytotal(~agegroup,
                        na.rm = TRUE,
                        design = subset(svy_ensanut_nodes, sexo == "Female"))),
  survey = rep("ENSANUT", length = 6),
  variable = rep("Count", length = 6))
)
setnames(d_countf, names(d_countf), v_names)

# Smoker
d_smokerf <- rbind(
  cbind(
    as.data.table(svyby(~I(smoker == "Yes" & !is.na(smoker)),
                     by = ~agegroup,
                     denominator = ~I(!is.na(smoker)),
                     design = subset(svy_enpol, sexo == "Female"),
                     FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Smoker", length = 6)),
  cbind(
    as.data.table(svyby(~I(smoker == "Yes" & !is.na(smoker)),
                     by = ~agegroup,
                     denominator = ~I(!is.na(smoker)),
                     design = subset(svy_ensanut, sexo == "Female"),
                     FUN = svyratio)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Smoker", length = 6))
)
setnames(d_smokerf, names(d_smokerf), v_names)

# Drinker
d_drinkerf <- rbind(
  cbind(
    as.data.table(svyby(~I(drinker == "Yes" & !is.na(drinker)),
                     by = ~agegroup,
                     denominator = ~I(!is.na(drinker)),
                     design = subset(svy_enpol, sexo == "Female"),
                     FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Drinker", length = 6)),
  cbind(
    as.data.table(svyby(~I(drinker == "Yes" & !is.na(drinker)),
                     by = ~agegroup,

```

```

        denominator = ~I(!is.na(drinker)),
        design = subset(svy_ensanut, sexo == "Female"),
        FUN = svyratio)),
  survey = rep("ENSANUT", length = 6),
  variable = rep("Drinker", length = 6))
)
setnames(d_drinkerf, names(d_drinkerf), v_names)

# Totals
d_countftot_enp <- as.data.table(svytotal(c(rep(1, nrow(d_enpol[d_enpol$sexo == "Female"]))), subset(svy_enpol_nodes,
sexo == "Female"))))
d_countftot_enp[, `:=`(SE = "Total", variable = "Count", survey = "ENPOL")]
setnames(d_countftot_enp, c("total", "SE"), c("value", "agegroup"))

d_smokerftot_enp <- as.data.table(svyratio(~I(smoker == "Yes" & !is.na(smoker)), ~I(!is.na(smoker)), subset(svy_enpol,
sexo == "Female"))$ratio)
setnames(d_smokerftot_enp, names(d_smokerftot_enp), "value")
d_smokerftot_enp[, `:=`(agegroup = "Total", variable = "Smoker", survey = "ENPOL")]

d_drinkerftot_enp <- as.data.table(svyratio(~I(drinker == "Yes" & !is.na(drinker)), ~I(!is.na(drinker)),
subset(svy_enpol, sexo == "Female"))$ratio)
setnames(d_drinkerftot_enp, names(d_drinkerftot_enp), "value")
d_drinkerftot_enp[, `:=`(agegroup = "Total", variable = "Drinker", survey = "ENPOL")]

d_countftot_ens <- as.data.table(svytotal(c(rep(1, nrow(d_ensanut[d_ensanut$sexo == "Female"]))),
subset(svy_ensanut_nodes, sexo == "Female"))))
d_countftot_ens[, `:=`(SE = "Total", variable = "Count", survey = "ENSANUT")]
setnames(d_countftot_ens, c("total", "SE"), c("value", "agegroup"))

d_smokerftot_ens <- as.data.table(svyratio(~I(smoker == "Yes" & !is.na(smoker)), ~I(!is.na(smoker)), subset(svy_ensanut,
sexo == "Female"))$ratio)
setnames(d_smokerftot_ens, names(d_smokerftot_ens), "value")
d_smokerftot_ens[, `:=`(agegroup = "Total", variable = "Smoker", survey = "ENSANUT")]

d_drinkerftot_ens <- as.data.table(svyratio(~I(drinker == "Yes" & !is.na(drinker)), ~I(!is.na(drinker)),
subset(svy_ensanut, sexo == "Female"))$ratio)
setnames(d_drinkerftot_ens, names(d_drinkerftot_ens), "value")
d_drinkerftot_ens[, `:=`(agegroup = "Total", variable = "Drinker", survey = "ENSANUT")]

d_total <- rbind(d_countftot_enp,
                d_countftot_ens,
                d_smokerftot_enp,
                d_smokerftot_ens,
                d_drinkerftot_enp,
                d_drinkerftot_ens)

# Non-response

```

```

d_smokerfnr_enp <- as.data.table(svyratio(~I(is.na(smoker)), ~c(rep(1, nrow(d_enpol[d_enpol$sexo == "Female"]))),
subset(svy_enpol_nodes, sexo == "Female"))$ratio)
setnames(d_smokerfnr_enp, names(d_smokerfnr_enp), "value")
d_smokerfnr_enp[, `:=`(agegroup = "Non-response", variable = "Smoker", survey = "ENPOL")]

d_drinkerfnr_enp <- as.data.table(svyratio(~I(is.na(drinker)), ~c(rep(1, nrow(d_enpol[d_enpol$sexo == "Female"]))),
subset(svy_enpol_nodes, sexo == "Female"))$ratio)
setnames(d_drinkerfnr_enp, names(d_drinkerfnr_enp), "value")
d_drinkerfnr_enp[, `:=`(agegroup = "Non-response", variable = "Drinker", survey = "ENPOL")]

d_smokerfnr_ens <- as.data.table(svyratio(~I(is.na(smoker)), ~c(rep(1, nrow(d_ensanut[d_ensanut$sexo == "Female"]))),
subset(svy_ensanut_nodes, sexo == "Female"))$ratio)
setnames(d_smokerfnr_ens, names(d_smokerfnr_ens), "value")
d_smokerfnr_ens[, `:=`(agegroup = "Non-response", variable = "Smoker", survey = "ENSANUT")]

d_drinkerfnr_ens <- as.data.table(svyratio(~I(is.na(drinker)), ~c(rep(1, nrow(d_ensanut[d_ensanut$sexo == "Female"]))),
subset(svy_ensanut_nodes, sexo == "Female"))$ratio)
setnames(d_drinkerfnr_ens, names(d_drinkerfnr_ens), "value")
d_drinkerfnr_ens[, `:=`(agegroup = "Non-response", variable = "Drinker", survey = "ENSANUT")]

d_nr <- rbind(d_smokerfnr_enp,
             d_smokerfnr_ens,
             d_drinkerfnr_enp,
             d_drinkerfnr_ens)

tabw2.2f <- rbind(d_countf, d_smokerf, d_drinkerf)
tabw2.2f <- as.data.table(tabw2.2f)
tabw2.2f[, se := NULL]

tabw2.2f <- rbind(tabw2.2f, d_total, d_nr)
tabw2.2f <- as.data.table(tabw2.2f)
tabw2.2f <- dcast(tabw2.2f, agegroup + variable ~ survey, value.var = "value")
tabw2.2f$Difference <- tabw2.2f$ENPOL - tabw2.2f$ENSANUT
tabw2.2f <- melt(tabw2.2f, id.vars = c("agegroup", "variable"), variable.name = "survey")
tabw2.2f <- dcast(tabw2.2f, survey + variable ~ agegroup)
tabw2.2f$survey <- factor(tabw2.2f$survey,
                        levels = c("ENPOL", "ENSANUT", "Difference"),
                        ordered = TRUE)

tabw2.2f <- tabw2.2f[, .(variable, survey, `20-29`, `30-39`, `40-49`, `50-59`, `60-69`, `70-79`, `Total`, `Non-
response`)]
tabw2.2f$variable <- factor(tabw2.2f$variable,
                        levels = c("Count", "Smoker", "Drinker"),
                        ordered = TRUE)

setorder(tabw2.2f, variable)
tabw2.2f[, (cols) := lapply(.SD, round, digits = 4), .SDcols = cols]
fwrite(tabw2.2f, "00_data/newTabs/tabw2_2f.csv")

# Tab 3.1m - Physical health conditions (male) ####

```

```

# Counts
d_countm <- rbind(
  cbind(
    agegroup = v_ages_enpol,
    as.data.table(svytotal(~agegroup,
                          na.rm = TRUE,
                          design = subset(svy_enpol_nodes, sexo == "Male"))),
    survey = rep("ENPOL", length = 6),
    variable = rep("Count", length = 6)),
  cbind(
    agegroup = v_ages_ensanut,
    as.data.table(svytotal(~agegroup,
                          na.rm = TRUE,
                          design = subset(svy_ensanut_nodes, sexo == "Male"))),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Count", length = 6))
)
v_names <- c("agegroup", "value", "se", "survey", "variable")
setnames(d_countm, names(d_countm), v_names)

# Diabetes diagnosis
d_diabetesm <- rbind(
  cbind(
    as.data.table(svyby(~I(diabetes == "Yes" & !is.na(diabetes)),
                     by = ~agegroup,
                     denominator = ~I(!is.na(diabetes)),
                     design = subset(svy_enpol, sexo == "Male"),
                     FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Diabetes diagnosis", length = 6)),
  cbind(
    as.data.table(svyby(~I(diabetes == "Yes" & !is.na(diabetes)),
                     by = ~agegroup,
                     denominator = ~I(!is.na(diabetes)),
                     design = subset(svy_ensanut, sexo == "Male"),
                     FUN = svyratio)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Diabetes diagnosis", length = 6))
)
setnames(d_diabetesm, names(d_diabetesm), v_names)

# Hypertension diagnosis
d_htm <- rbind(
  cbind(
    as.data.table(svyby(~I(ht == "Yes" & !is.na(ht)),
                     by = ~agegroup,
                     denominator = ~I(!is.na(ht)),
                     design = subset(svy_enpol, sexo == "Male"),
                     FUN = svyratio)),

```

```

    survey = rep("ENPOL", length = 6),
    variable = rep("Hypertension diagnosis", length = 6)),
cbind(
  as.data.table(svyby(~I(ht == "Yes" & !is.na(ht)),
    by = ~agegroup,
    denominator = ~I(!is.na(ht)),
    design = subset(svy_ensanut, sexo == "Male"),
    FUN = svyratio)),
  survey = rep("ENSANUT", length = 6),
  variable = rep("Hypertension diagnosis", length = 6))
)
setnames(d_htm, names(d_htm), v_names)

# COVID-19 diagnosis
d_covidm <- rbind(
  cbind(
    as.data.table(svyby(~I(covid == "Yes" & !is.na(covid)),
      by = ~agegroup,
      denominator = ~I(!is.na(covid)),
      design = subset(svy_enpol, sexo == "Male"),
      FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("COVID-19 diagnosis", length = 6)),
  cbind(
    as.data.table(svyby(~I(covid == "Yes" & !is.na(covid)),
      by = ~agegroup,
      denominator = ~I(!is.na(covid)),
      design = subset(svy_ensanut, sexo == "Male"),
      FUN = svyratio)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("COVID-19 diagnosis", length = 6))
  )
setnames(d_covidm, names(d_covidm), v_names)

# Visual disability
d_vis_disabm <- rbind(
  cbind(
    as.data.table(svyby(~I(vis_disab == "Yes" & !is.na(vis_disab)),
      by = ~agegroup,
      denominator = ~I(!is.na(vis_disab)),
      design = subset(svy_enpol, sexo == "Male"),
      FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Visual disability", length = 6)),
  cbind(
    as.data.table(svyby(~I(vis_disab == "Yes" & !is.na(vis_disab)),
      by = ~agegroup,
      denominator = ~I(!is.na(vis_disab)),
      design = subset(svy_ensanut, sexo == "Male"),

```

```

        FUN = svyratio)),
  survey = rep("ENSANUT", length = 6),
  variable = rep("Visual disability", length = 6))
)
setnames(d_vis_disabm, names(d_vis_disabm), v_names)

# Hearing disability
d_aud_disabm <- rbind(
  cbind(
    as.data.table(svyby(~I(aud_disab == "Yes" & !is.na(aud_disab)),
      by = ~agegroup,
      denominator = ~I(!is.na(aud_disab)),
      design = subset(svy_enpol, sexo == "Male"),
      FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Hearing disability", length = 6)),
  cbind(
    as.data.table(svyby(~I(aud_disab == "Yes" & !is.na(aud_disab)),
      by = ~agegroup,
      denominator = ~I(!is.na(aud_disab)),
      design = subset(svy_ensanut, sexo == "Male"),
      FUN = svyratio)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Hearing disability", length = 6))
)
setnames(d_aud_disabm, names(d_aud_disabm), v_names)

# Physical injury from violence
d_injurym <- rbind(
  cbind(
    as.data.table(svyby(~I(injury == "Yes" & !is.na(injury)),
      by = ~agegroup,
      denominator = ~I(!is.na(injury)),
      design = subset(svy_enpol, sexo == "Male"),
      FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Physical injury from violence", length = 6)),
  cbind(
    as.data.table(svyby(~I(injury == "Yes" & !is.na(injury)),
      by = ~agegroup,
      denominator = ~I(!is.na(injury)),
      design = subset(svy_ensanut, sexo == "Male"),
      FUN = svyratio)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Physical injury from violence", length = 6))
)
setnames(d_injurym, names(d_injurym), v_names)

# Totals

```

```

d_countmtot_enp <- as.data.table(svytotal(c(rep(1, nrow(d_enpol[sexo == "Male"]))), subset(svy_enpol_nodes, sexo ==
"Male")))
d_countmtot_enp[, `:=`(SE = "Total", variable = "Count", survey = "ENPOL")]
setnames(d_countmtot_enp, c("total", "SE"), c("value", "agegroup"))

d_diabetesmtot_enp <- as.data.table(svyratio(~I(diabetes == "Yes" & !is.na(diabetes)), ~I(!is.na(diabetes)),
subset(svy_enpol, sexo == "Male"))$ratio)
setnames(d_diabetesmtot_enp, names(d_diabetesmtot_enp), "value")
d_diabetesmtot_enp[, `:=`(agegroup = "Total", variable = "Diabetes diagnosis", survey = "ENPOL")]

d_htmtot_enp <- as.data.table(svyratio(~I(ht == "Yes" & !is.na(ht)), ~I(!is.na(ht)), subset(svy_enpol, sexo ==
"Male"))$ratio)
setnames(d_htmtot_enp, names(d_htmtot_enp), "value")
d_htmtot_enp[, `:=`(agegroup = "Total", variable = "Hypertension diagnosis", survey = "ENPOL")]

d_covidmtot_enp <- as.data.table(svyratio(~I(covid == "Yes" & !is.na(covid)), ~I(!is.na(covid)), subset(svy_enpol, sexo ==
"Male"))$ratio)
setnames(d_covidmtot_enp, names(d_covidmtot_enp), "value")
d_covidmtot_enp[, `:=`(agegroup = "Total", variable = "COVID-19 diagnosis", survey = "ENPOL")]

d_vis_disabmtot_enp <- as.data.table(svyratio(~I(vis_disab == "Yes" & !is.na(vis_disab)), ~I(!is.na(vis_disab)),
subset(svy_enpol, sexo == "Male"))$ratio)
setnames(d_vis_disabmtot_enp, names(d_vis_disabmtot_enp), "value")
d_vis_disabmtot_enp[, `:=`(agegroup = "Total", variable = "Visual disability", survey = "ENPOL")]

d_aud_disabmtot_enp <- as.data.table(svyratio(~I(aud_disab == "Yes" & !is.na(aud_disab)), ~I(!is.na(aud_disab)),
subset(svy_enpol, sexo == "Male"))$ratio)
setnames(d_aud_disabmtot_enp, names(d_aud_disabmtot_enp), "value")
d_aud_disabmtot_enp[, `:=`(agegroup = "Total", variable = "Hearing disability", survey = "ENPOL")]

d_injurymtot_enp <- as.data.table(svyratio(~I(injury == "Yes" & !is.na(injury)), ~I(!is.na(injury)), subset(svy_enpol,
sexo == "Male"))$ratio)
setnames(d_injurymtot_enp, names(d_injurymtot_enp), "value")
d_injurymtot_enp[, `:=`(agegroup = "Total", variable = "Physical injury from violence", survey = "ENPOL")]

d_countmtot_ens <- as.data.table(svytotal(c(rep(1, nrow(d_ensanut[sexo == "Male"]))), subset(svy_ensanut_nodes, sexo ==
"Male")))
d_countmtot_ens[, `:=`(SE = "Total", variable = "Count", survey = "ENSANUT")]
setnames(d_countmtot_ens, c("total", "SE"), c("value", "agegroup"))

d_diabetesmtot_ens <- as.data.table(svyratio(~I(diabetes == "Yes" & !is.na(diabetes)), ~I(!is.na(diabetes)),
subset(svy_ensanut, sexo == "Male"))$ratio)
setnames(d_diabetesmtot_ens, names(d_diabetesmtot_ens), "value")
d_diabetesmtot_ens[, `:=`(agegroup = "Total", variable = "Diabetes diagnosis", survey = "ENSANUT")]

d_htmtot_ens <- as.data.table(svyratio(~I(ht == "Yes" & !is.na(ht)), ~I(!is.na(ht)), subset(svy_ensanut, sexo ==
"Male"))$ratio)
setnames(d_htmtot_ens, names(d_htmtot_ens), "value")
d_htmtot_ens[, `:=`(agegroup = "Total", variable = "Hypertension diagnosis", survey = "ENSANUT")]

```

```

d_covidmtot_ens <- as.data.table(svyratio(~I(covid == "Yes" & !is.na(covid)), ~I(!is.na(covid)), subset(svy_ensanut,
sexo == "Male"))$ratio)
setnames(d_covidmtot_ens, names(d_covidmtot_ens), "value")
d_covidmtot_ens[, `:=`(agegroup = "Total", variable = "COVID-19 diagnosis", survey = "ENSANUT")]

d_vis_disabmtot_ens <- as.data.table(svyratio(~I(vis_disab == "Yes" & !is.na(vis_disab)), ~I(!is.na(vis_disab)),
subset(svy_ensanut, sexo == "Male"))$ratio)
setnames(d_vis_disabmtot_ens, names(d_vis_disabmtot_ens), "value")
d_vis_disabmtot_ens[, `:=`(agegroup = "Total", variable = "Visual disability", survey = "ENSANUT")]

d_aud_disabmtot_ens <- as.data.table(svyratio(~I(aud_disab == "Yes" & !is.na(aud_disab)), ~I(!is.na(aud_disab)),
subset(svy_ensanut, sexo == "Male"))$ratio)
setnames(d_aud_disabmtot_ens, names(d_aud_disabmtot_ens), "value")
d_aud_disabmtot_ens[, `:=`(agegroup = "Total", variable = "Hearing disability", survey = "ENSANUT")]

d_injurymtot_ens <- as.data.table(svyratio(~I(injury == "Yes" & !is.na(injury)), ~I(!is.na(injury)), subset(svy_ensanut,
sexo == "Male"))$ratio)
setnames(d_injurymtot_ens, names(d_injurymtot_ens), "value")
d_injurymtot_ens[, `:=`(agegroup = "Total", variable = "Physical injury from violence", survey = "ENSANUT")]

d_total <- rbind(d_countmtot_ens,
                d_countmtot_ens,
                d_diabetesmtot_ens,
                d_diabetesmtot_ens,
                d_htmtot_ens,
                d_htmtot_ens,
                d_covidmtot_ens,
                d_covidmtot_ens,
                d_vis_disabmtot_ens,
                d_vis_disabmtot_ens,
                d_aud_disabmtot_ens,
                d_aud_disabmtot_ens,
                d_injurymtot_ens,
                d_injurymtot_ens)

# Non-response
d_diabetesmnr_ens <- as.data.table(svyratio(~I(is.na(diabetes)), ~c(rep(1, nrow(d_ensapol[sexo == "Male"]))),
subset(svy_ensapol_nodes, sexo == "Male"))$ratio)
setnames(d_diabetesmnr_ens, names(d_diabetesmnr_ens), "value")
d_diabetesmnr_ens[, `:=`(agegroup = "Non-response", variable = "Diabetes diagnosis", survey = "ENPOL")]

d_htmnr_ens <- as.data.table(svyratio(~I(is.na(ht)), ~c(rep(1, nrow(d_ensapol[sexo == "Male"]))), subset(svy_ensapol_nodes,
sexo == "Male"))$ratio)
setnames(d_htmnr_ens, names(d_htmnr_ens), "value")
d_htmnr_ens[, `:=`(agegroup = "Non-response", variable = "Hypertension diagnosis", survey = "ENPOL")]

d_covidmnr_ens <- as.data.table(svyratio(~I(is.na(covid)), ~c(rep(1, nrow(d_ensapol[sexo == "Male"]))),
subset(svy_ensapol_nodes, sexo == "Male"))$ratio)

```

```

setnames(d_covidmnr_enp, names(d_covidmnr_enp), "value")
d_covidmnr_enp[, `:=`(agegroup = "Non-response", variable = "COVID-19 diagnosis", survey = "ENPOL")]

d_vis_disabmnr_enp <- as.data.table(svyratio(~I(is.na(vis_disab)), ~c(rep(1, nrow(d_enpol[sexo == "Male"]))),
subset(svy_enpol_nodes, sexo == "Male"))$ratio)
setnames(d_vis_disabmnr_enp, names(d_vis_disabmnr_enp), "value")
d_vis_disabmnr_enp[, `:=`(agegroup = "Non-response", variable = "Visual disability", survey = "ENPOL")]

d_aud_disabmnr_enp <- as.data.table(svyratio(~I(is.na(aud_disab)), ~c(rep(1, nrow(d_enpol[sexo == "Male"]))),
subset(svy_enpol_nodes, sexo == "Male"))$ratio)
setnames(d_aud_disabmnr_enp, names(d_aud_disabmnr_enp), "value")
d_aud_disabmnr_enp[, `:=`(agegroup = "Non-response", variable = "Hearing disability", survey = "ENPOL")]

d_injurymnr_enp <- as.data.table(svyratio(~I(is.na(injury)), ~c(rep(1, nrow(d_enpol[sexo == "Male"]))),
subset(svy_enpol_nodes, sexo == "Male"))$ratio)
setnames(d_injurymnr_enp, names(d_injurymnr_enp), "value")
d_injurymnr_enp[, `:=`(agegroup = "Non-response", variable = "Physical injury from violence", survey = "ENPOL")]

d_diabetesmnr_ens <- as.data.table(svyratio(~I(is.na(diabetes)), ~c(rep(1, nrow(d_ensanut[sexo == "Male"]))),
subset(svy_ensanut_nodes, sexo == "Male"))$ratio)
setnames(d_diabetesmnr_ens, names(d_diabetesmnr_ens), "value")
d_diabetesmnr_ens[, `:=`(agegroup = "Non-response", variable = "Diabetes diagnosis", survey = "ENSANUT")]

d_htmnr_ens <- as.data.table(svyratio(~I(is.na(ht)), ~c(rep(1, nrow(d_ensanut[sexo == "Male"]))),
subset(svy_ensanut_nodes, sexo == "Male"))$ratio)
setnames(d_htmnr_ens, names(d_htmnr_ens), "value")
d_htmnr_ens[, `:=`(agegroup = "Non-response", variable = "Hypertension diagnosis", survey = "ENSANUT")]

d_covidmnr_ens <- as.data.table(svyratio(~I(is.na(covid)), ~c(rep(1, nrow(d_ensanut[sexo == "Male"]))),
subset(svy_ensanut_nodes, sexo == "Male"))$ratio)
setnames(d_covidmnr_ens, names(d_covidmnr_ens), "value")
d_covidmnr_ens[, `:=`(agegroup = "Non-response", variable = "COVID-19 diagnosis", survey = "ENSANUT")]

d_vis_disabmnr_ens <- as.data.table(svyratio(~I(is.na(vis_disab)), ~c(rep(1, nrow(d_ensanut[sexo == "Male"]))),
subset(svy_ensanut_nodes, sexo == "Male"))$ratio)
setnames(d_vis_disabmnr_ens, names(d_vis_disabmnr_ens), "value")
d_vis_disabmnr_ens[, `:=`(agegroup = "Non-response", variable = "Visual disability", survey = "ENSANUT")]

d_aud_disabmnr_ens <- as.data.table(svyratio(~I(is.na(aud_disab)), ~c(rep(1, nrow(d_ensanut[sexo == "Male"]))),
subset(svy_ensanut_nodes, sexo == "Male"))$ratio)
setnames(d_aud_disabmnr_ens, names(d_aud_disabmnr_ens), "value")
d_aud_disabmnr_ens[, `:=`(agegroup = "Non-response", variable = "Hearing disability", survey = "ENSANUT")]

d_injurymnr_ens <- as.data.table(svyratio(~I(is.na(injury)), ~c(rep(1, nrow(d_ensanut[sexo == "Male"]))),
subset(svy_ensanut_nodes, sexo == "Male"))$ratio)
setnames(d_injurymnr_ens, names(d_injurymnr_ens), "value")
d_injurymnr_ens[, `:=`(agegroup = "Non-response", variable = "Physical injury from violence", survey = "ENSANUT")]

```

```

d_nr <- rbind(d_diabetesmnr_enp,
             d_diabetesmnr_ens,
             d_htmnr_enp,
             d_htmnr_ens,
             d_covidmnr_enp,
             d_covidmnr_ens,
             d_vis_disabmnr_enp,
             d_vis_disabmnr_ens,
             d_aud_disabmnr_enp,
             d_aud_disabmnr_ens,
             d_injurymnr_enp,
             d_injurymnr_ens)

tabw3.1m <- rbind(d_countm, d_diabetesm, d_htm, d_covidm, d_vis_disabm, d_aud_disabm, d_injurym)
tabw3.1m <- as.data.table(tabw3.1m)
tabw3.1m[, se := NULL]

tabw3.1m <- rbind(tabw3.1m, d_total, d_nr)
tabw3.1m <- as.data.table(tabw3.1m)
tabw3.1m <- dcast(tabw3.1m, agegroup + variable ~ survey, value.var = "value")
tabw3.1m$Difference <- tabw3.1m$ENPOL - tabw3.1m$ENSANUT
tabw3.1m <- melt(tabw3.1m, id.vars = c("agegroup", "variable"), variable.name = "survey")
tabw3.1m <- dcast(tabw3.1m, survey + variable ~ agegroup)
tabw3.1m$survey <- factor(tabw3.1m$survey,
                        levels = c("ENPOL", "ENSANUT", "Difference"),
                        ordered = TRUE)

tabw3.1m <- tabw3.1m[, .(variable, survey, `20-29`, `30-39`, `40-49`, `50-59`, `60-69`, `70-79`, `Total`, `Non-
response`)]
tabw3.1m$variable <- factor(tabw3.1m$variable,
                        levels = c("Count", "Diabetes diagnosis", "Hypertension diagnosis", "COVID-19 diagnosis",
"Visual disability", "Hearing disability", "Physical injury from violence"),
                        ordered = TRUE)

setorder(tabw3.1m, variable)
tabw3.1m[, (cols) := lapply(.SD, round, digits = 4), .SDcols = cols]
fwrite(tabw3.1m, "00_data/newTabs/tabw3_1m.csv")
# Tab 3.1f - Physical health conditions (female) ####
# Counts
d_countf <- rbind(
  cbind(
    agegroup = v_ages_enpol,
    as.data.table(svytotal(~agegroup,
                        na.rm = TRUE,
                        design = subset(svy_enpol_nodes, sexo == "Female"))),
    survey = rep("ENPOL", length = 6),
    variable = rep("Count", length = 6)),
  cbind(
    agegroup = v_ages_ensanut,
    as.data.table(svytotal(~agegroup,
                        na.rm = TRUE,

```

```

        design = subset(svy_ensanut_nodes, sexo == "Female"))),
  survey = rep("ENSANUT", length = 6),
  variable = rep("Count", length = 6))
)
v_names <- c("agegroup", "value", "se", "survey", "variable")
setnames(d_countf, names(d_countf), v_names)

# Diabetes diagnosis
d_diabetesf <- rbind(
  cbind(
    as.data.table(svyby(~I(diabetes == "Yes" & !is.na(diabetes)),
      by = ~agegroup,
      denominator = ~I(!is.na(diabetes)),
      design = subset(svy_enpol, sexo == "Female"),
      FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Diabetes diagnosis", length = 6)),
  cbind(
    as.data.table(svyby(~I(diabetes == "Yes" & !is.na(diabetes)),
      by = ~agegroup,
      denominator = ~I(!is.na(diabetes)),
      design = subset(svy_ensanut, sexo == "Female"),
      FUN = svyratio)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Diabetes diagnosis", length = 6))
)
setnames(d_diabetesf, names(d_diabetesf), v_names)

# Hypertension diagnosis
d_htf <- rbind(
  cbind(
    as.data.table(svyby(~I(ht == "Yes" & !is.na(ht)),
      by = ~agegroup,
      denominator = ~I(!is.na(ht)),
      design = subset(svy_enpol, sexo == "Female"),
      FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Hypertension diagnosis", length = 6)),
  cbind(
    as.data.table(svyby(~I(ht == "Yes" & !is.na(ht)),
      by = ~agegroup,
      denominator = ~I(!is.na(ht)),
      design = subset(svy_ensanut, sexo == "Female"),
      FUN = svyratio)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Hypertension diagnosis", length = 6))
)
setnames(d_htf, names(d_htf), v_names)

```

```

# COVID-19 diagnosis
d_covidf <- rbind(
  cbind(
    as.data.table(svyby(~I(covid == "Yes" & !is.na(covid)),
      by = ~agegroup,
      denominator = ~I(!is.na(covid)),
      design = subset(svy_enspol, sexo == "Female"),
      FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("COVID-19 diagnosis", length = 6)),
  cbind(
    as.data.table(svyby(~I(covid == "Yes" & !is.na(covid)),
      by = ~agegroup,
      denominator = ~I(!is.na(covid)),
      design = subset(svy_ensanut, sexo == "Female"),
      FUN = svyratio)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("COVID-19 diagnosis", length = 6))
)
setnames(d_covidf, names(d_covidf), v_names)

# Visual disability
d_vis_disabf <- rbind(
  cbind(
    as.data.table(svyby(~I(vis_disab == "Yes" & !is.na(vis_disab)),
      by = ~agegroup,
      denominator = ~I(!is.na(vis_disab)),
      design = subset(svy_enspol, sexo == "Female"),
      FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Visual disability", length = 6)),
  cbind(
    as.data.table(svyby(~I(vis_disab == "Yes" & !is.na(vis_disab)),
      by = ~agegroup,
      denominator = ~I(!is.na(vis_disab)),
      design = subset(svy_ensanut, sexo == "Female"),
      FUN = svyratio)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Visual disability", length = 6))
)
setnames(d_vis_disabf, names(d_vis_disabf), v_names)

# Hearing disability
d_aud_disabf <- rbind(
  cbind(
    as.data.table(svyby(~I(aud_disab == "Yes" & !is.na(aud_disab)),
      by = ~agegroup,
      denominator = ~I(!is.na(aud_disab)),
      design = subset(svy_enspol, sexo == "Female"),

```

```

        FUN = svyratio)),
  survey = rep("ENPOL", length = 6),
  variable = rep("Hearing disability", length = 6)),
cbind(
  as.data.table(svyby(~I(aud_disab == "Yes" & !is.na(aud_disab)),
    by = ~agegroup,
    denominator = ~I(!is.na(aud_disab)),
    design = subset(svy_ensanut, sexo == "Female"),
    FUN = svyratio)),
  survey = rep("ENSANUT", length = 6),
  variable = rep("Hearing disability", length = 6))
)
setnames(d_aud_disabf, names(d_aud_disabf), v_names)

# Physical injury from violence
d_injuryf <- rbind(
  cbind(
    as.data.table(svyby(~I(injury == "Yes" & !is.na(injury)),
      by = ~agegroup,
      denominator = ~I(!is.na(injury)),
      design = subset(svy_enpol, sexo == "Female"),
      FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Physical injury from violence", length = 6)),
  cbind(
    as.data.table(svyby(~I(injury == "Yes" & !is.na(injury)),
      by = ~agegroup,
      denominator = ~I(!is.na(injury)),
      design = subset(svy_ensanut, sexo == "Female"),
      FUN = svyratio)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Physical injury from violence", length = 6))
)
setnames(d_injuryf, names(d_injuryf), v_names)

# Totals
d_countftot_enp <- as.data.table(svytotal(c(rep(1, nrow(d_enpol[sexo == "Female"]))), subset(svy_enpol_nodes, sexo == "Female")))
d_countftot_enp[, `:=`(SE = "Total", variable = "Count", survey = "ENPOL")]
setnames(d_countftot_enp, c("total", "SE"), c("value", "agegroup"))

d_diabetesftot_enp <- as.data.table(svyratio(~I(diabetes == "Yes" & !is.na(diabetes)), ~I(!is.na(diabetes)),
subset(svy_enpol, sexo == "Female"))$ratio)
setnames(d_diabetesftot_enp, names(d_diabetesftot_enp), "value")
d_diabetesftot_enp[, `:=`(agegroup = "Total", variable = "Diabetes diagnosis", survey = "ENPOL")]

d_htftot_enp <- as.data.table(svyratio(~I(ht == "Yes" & !is.na(ht)), ~I(!is.na(ht)), subset(svy_enpol, sexo == "Female"))$ratio)
setnames(d_htftot_enp, names(d_htftot_enp), "value")

```

```

d_htftot_enp[, `:=`(agegroup = "Total", variable = "Hypertension diagnosis", survey = "ENPOL")]

d_covidftot_enp <- as.data.table(svyratio(~I(covid == "Yes" & !is.na(covid)), ~I(!is.na(covid)), subset(svy_enpol, sexo
== "Female"))$ratio)
setnames(d_covidftot_enp, names(d_covidftot_enp), "value")
d_covidftot_enp[, `:=`(agegroup = "Total", variable = "COVID-19 diagnosis", survey = "ENPOL")]

d_vis_disabftot_enp <- as.data.table(svyratio(~I(vis_disab == "Yes" & !is.na(vis_disab)), ~I(!is.na(vis_disab)),
subset(svy_enpol, sexo == "Female"))$ratio)
setnames(d_vis_disabftot_enp, names(d_vis_disabftot_enp), "value")
d_vis_disabftot_enp[, `:=`(agegroup = "Total", variable = "Visual disability", survey = "ENPOL")]

d_aud_disabftot_enp <- as.data.table(svyratio(~I(aud_disab == "Yes" & !is.na(aud_disab)), ~I(!is.na(aud_disab)),
subset(svy_enpol, sexo == "Female"))$ratio)
setnames(d_aud_disabftot_enp, names(d_aud_disabftot_enp), "value")
d_aud_disabftot_enp[, `:=`(agegroup = "Total", variable = "Hearing disability", survey = "ENPOL")]

d_injuryftot_enp <- as.data.table(svyratio(~I(injury == "Yes" & !is.na(injury)), ~I(!is.na(injury)), subset(svy_enpol,
sexo == "Female"))$ratio)
setnames(d_injuryftot_enp, names(d_injuryftot_enp), "value")
d_injuryftot_enp[, `:=`(agegroup = "Total", variable = "Physical injury from violence", survey = "ENPOL")]

d_countftot_ens <- as.data.table(svytotal(c(rep(1, nrow(d_ensanut[sexo == "Female"]))), subset(svy_ensanut_nodes, sexo
== "Female")))
d_countftot_ens[, `:=`(SE = "Total", variable = "Count", survey = "ENSANUT")]
setnames(d_countftot_ens, c("total", "SE"), c("value", "agegroup"))

d_diabetesftot_ens <- as.data.table(svyratio(~I(diabetes == "Yes" & !is.na(diabetes)), ~I(!is.na(diabetes)),
subset(svy_ensanut, sexo == "Female"))$ratio)
setnames(d_diabetesftot_ens, names(d_diabetesftot_ens), "value")
d_diabetesftot_ens[, `:=`(agegroup = "Total", variable = "Diabetes diagnosis", survey = "ENSANUT")]

d_htftot_ens <- as.data.table(svyratio(~I(ht == "Yes" & !is.na(ht)), ~I(!is.na(ht)), subset(svy_ensanut, sexo ==
"Female"))$ratio)
setnames(d_htftot_ens, names(d_htftot_ens), "value")
d_htftot_ens[, `:=`(agegroup = "Total", variable = "Hypertension diagnosis", survey = "ENSANUT")]

d_covidftot_ens <- as.data.table(svyratio(~I(covid == "Yes" & !is.na(covid)), ~I(!is.na(covid)), subset(svy_ensanut,
sexo == "Female"))$ratio)
setnames(d_covidftot_ens, names(d_covidftot_ens), "value")
d_covidftot_ens[, `:=`(agegroup = "Total", variable = "COVID-19 diagnosis", survey = "ENSANUT")]

d_vis_disabftot_ens <- as.data.table(svyratio(~I(vis_disab == "Yes" & !is.na(vis_disab)), ~I(!is.na(vis_disab)),
subset(svy_ensanut, sexo == "Female"))$ratio)
setnames(d_vis_disabftot_ens, names(d_vis_disabftot_ens), "value")
d_vis_disabftot_ens[, `:=`(agegroup = "Total", variable = "Visual disability", survey = "ENSANUT")]

d_aud_disabftot_ens <- as.data.table(svyratio(~I(aud_disab == "Yes" & !is.na(aud_disab)), ~I(!is.na(aud_disab)),

```

```

subset(svy_ensanut, sexo == "Female"))$ratio)
setnames(d_aud_disabftot_ens, names(d_aud_disabftot_ens), "value")
d_aud_disabftot_ens[, `:=`(agegroup = "Total", variable = "Hearing disability", survey = "ENSANUT")]

d_injuryftot_ens <- as.data.table(svyratio(~I(injury == "Yes" & !is.na(injury)), ~I(!is.na(injury)), subset(svy_ensanut,
sexo == "Female"))$ratio)
setnames(d_injuryftot_ens, names(d_injuryftot_ens), "value")
d_injuryftot_ens[, `:=`(agegroup = "Total", variable = "Physical injury from violence", survey = "ENSANUT")]

d_total <- rbind(d_countftot_ens,
                d_countftot_ens,
                d_diabetesftot_ens,
                d_diabetesftot_ens,
                d_htftot_ens,
                d_htftot_ens,
                d_covidftot_ens,
                d_covidftot_ens,
                d_vis_disabftot_ens,
                d_vis_disabftot_ens,
                d_aud_disabftot_ens,
                d_aud_disabftot_ens,
                d_injuryftot_ens,
                d_injuryftot_ens)

# Non-response
d_diabetesfnr_ens <- as.data.table(svyratio(~I(is.na(diabetes)), ~c(rep(1, nrow(d_ensapol[sexo == "Female"])))),
subset(svy_ensapol_nodes, sexo == "Female"))$ratio)
setnames(d_diabetesfnr_ens, names(d_diabetesfnr_ens), "value")
d_diabetesfnr_ens[, `:=`(agegroup = "Non-response", variable = "Diabetes diagnosis", survey = "ENPOL")]

d_htfnr_ens <- as.data.table(svyratio(~I(is.na(ht)), ~c(rep(1, nrow(d_ensapol[sexo == "Female"])))),
subset(svy_ensapol_nodes, sexo == "Female"))$ratio)
setnames(d_htfnr_ens, names(d_htfnr_ens), "value")
d_htfnr_ens[, `:=`(agegroup = "Non-response", variable = "Hypertension diagnosis", survey = "ENPOL")]

d_covidfnr_ens <- as.data.table(svyratio(~I(is.na(covid)), ~c(rep(1, nrow(d_ensapol[sexo == "Female"])))),
subset(svy_ensapol_nodes, sexo == "Female"))$ratio)
setnames(d_covidfnr_ens, names(d_covidfnr_ens), "value")
d_covidfnr_ens[, `:=`(agegroup = "Non-response", variable = "COVID-19 diagnosis", survey = "ENPOL")]

d_vis_disabfnr_ens <- as.data.table(svyratio(~I(is.na(vis_disab)), ~c(rep(1, nrow(d_ensapol[sexo == "Female"])))),
subset(svy_ensapol_nodes, sexo == "Female"))$ratio)
setnames(d_vis_disabfnr_ens, names(d_vis_disabfnr_ens), "value")
d_vis_disabfnr_ens[, `:=`(agegroup = "Non-response", variable = "Visual disability", survey = "ENPOL")]

d_aud_disabfnr_ens <- as.data.table(svyratio(~I(is.na(aud_disab)), ~c(rep(1, nrow(d_ensapol[sexo == "Female"])))),
subset(svy_ensapol_nodes, sexo == "Female"))$ratio)
setnames(d_aud_disabfnr_ens, names(d_aud_disabfnr_ens), "value")
d_aud_disabfnr_ens[, `:=`(agegroup = "Non-response", variable = "Hearing disability", survey = "ENPOL")]

```

```

d_injuryfnr_enp <- as.data.table(svyratio(~I(is.na(injury)), ~c(rep(1, nrow(d_enpol[sexo == "Female"]))),
subset(svy_enpol_nodes, sexo == "Female"))$ratio)
setnames(d_injuryfnr_enp, names(d_injuryfnr_enp), "value")
d_injuryfnr_enp[, `:=`(agegroup = "Non-response", variable = "Physical injury from violence", survey = "ENPOL")]

d_diabetesfnr_ens <- as.data.table(svyratio(~I(is.na(diabetes)), ~c(rep(1, nrow(d_ensanut[sexo == "Female"]))),
subset(svy_ensanut_nodes, sexo == "Female"))$ratio)
setnames(d_diabetesfnr_ens, names(d_diabetesfnr_ens), "value")
d_diabetesfnr_ens[, `:=`(agegroup = "Non-response", variable = "Diabetes diagnosis", survey = "ENSANUT")]

d_htfnr_ens <- as.data.table(svyratio(~I(is.na(ht)), ~c(rep(1, nrow(d_ensanut[sexo == "Female"]))),
subset(svy_ensanut_nodes, sexo == "Female"))$ratio)
setnames(d_htfnr_ens, names(d_htfnr_ens), "value")
d_htfnr_ens[, `:=`(agegroup = "Non-response", variable = "Hypertension diagnosis", survey = "ENSANUT")]

d_covidfnr_ens <- as.data.table(svyratio(~I(is.na(covid)), ~c(rep(1, nrow(d_ensanut[sexo == "Female"]))),
subset(svy_ensanut_nodes, sexo == "Female"))$ratio)
setnames(d_covidfnr_ens, names(d_covidfnr_ens), "value")
d_covidfnr_ens[, `:=`(agegroup = "Non-response", variable = "COVID-19 diagnosis", survey = "ENSANUT")]

d_vis_disabfnr_ens <- as.data.table(svyratio(~I(is.na(vis_disab)), ~c(rep(1, nrow(d_ensanut[sexo == "Female"]))),
subset(svy_ensanut_nodes, sexo == "Female"))$ratio)
setnames(d_vis_disabfnr_ens, names(d_vis_disabfnr_ens), "value")
d_vis_disabfnr_ens[, `:=`(agegroup = "Non-response", variable = "Visual disability", survey = "ENSANUT")]

d_aud_disabfnr_ens <- as.data.table(svyratio(~I(is.na(aud_disab)), ~c(rep(1, nrow(d_ensanut[sexo == "Female"]))),
subset(svy_ensanut_nodes, sexo == "Female"))$ratio)
setnames(d_aud_disabfnr_ens, names(d_aud_disabfnr_ens), "value")
d_aud_disabfnr_ens[, `:=`(agegroup = "Non-response", variable = "Hearing disability", survey = "ENSANUT")]

d_injuryfnr_ens <- as.data.table(svyratio(~I(is.na(injury)), ~c(rep(1, nrow(d_ensanut[sexo == "Female"]))),
subset(svy_ensanut_nodes, sexo == "Female"))$ratio)
setnames(d_injuryfnr_ens, names(d_injuryfnr_ens), "value")
d_injuryfnr_ens[, `:=`(agegroup = "Non-response", variable = "Physical injury from violence", survey = "ENSANUT")]

d_nr <- rbind(d_diabetesfnr_enp,
              d_diabetesfnr_ens,
              d_htfnr_enp,
              d_htfnr_ens,
              d_covidfnr_enp,
              d_covidfnr_ens,
              d_vis_disabfnr_enp,
              d_vis_disabfnr_ens,
              d_aud_disabfnr_enp,
              d_aud_disabfnr_ens,
              d_injuryfnr_enp,
              d_injuryfnr_ens)

```

```

tabw3.1f <- rbind(d_countf, d_diabetesf, d_htf, d_covidf, d_vis_disabf, d_aud_disabf, d_injuryf)
tabw3.1f <- as.data.table(tabw3.1f)
tabw3.1f[, se := NULL]

tabw3.1f <- rbind(tabw3.1f, d_total, d_nr)
tabw3.1f <- as.data.table(tabw3.1f)
tabw3.1f <- dcast(tabw3.1f, agegroup + variable ~ survey, value.var = "value")
tabw3.1f$Difference <- tabw3.1f$ENPOL - tabw3.1f$ENSANUT
tabw3.1f <- melt(tabw3.1f, id.vars = c("agegroup", "variable"), variable.name = "survey")
tabw3.1f <- dcast(tabw3.1f, survey + variable ~ agegroup)
tabw3.1f$survey <- factor(tabw3.1f$survey,
                          levels = c("ENPOL", "ENSANUT", "Difference"),
                          ordered = TRUE)
tabw3.1f <- tabw3.1f[, .(variable, survey, `20-29`, `30-39`, `40-49`, `50-59`, `60-69`, `70-79`, `Total`, `Non-
response`)]
tabw3.1f$variable <- factor(tabw3.1f$variable,
                            levels = c("Count", "Diabetes diagnosis", "Hypertension diagnosis", "COVID-19 diagnosis",
"Visual disability", "Hearing disability", "Physical injury from violence"),
                            ordered = TRUE)
setorder(tabw3.1f, variable)
tabw3.1f[, (cols) := lapply(.SD, round, digits = 4), .SDcols = cols]
fwrite(tabw3.1f, "00_data/newTabs/tabw3_1f.csv")
# Tab 3.2m - Emotional-sexual conditions (male) ####
d_countm <- rbind(
  cbind(
    agegroup = v_ages_enpol,
    as.data.table(svytotal(~agegroup,
                          na.rm = TRUE,
                          design = subset(svy_enpol_nodes, sexo == "Male"))),
    survey = rep("ENPOL", length = 6),
    variable = rep("Count", length = 6)),
  cbind(
    agegroup = v_ages_ensanut,
    as.data.table(svytotal(~agegroup,
                          na.rm = TRUE,
                          design = subset(svy_ensanut_nodes, sexo == "Male"))),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Count", length = 6))
)
setnames(d_countm, names(d_countm), v_names)

# Suicidal ideation
d_suicide_idm <- rbind(
  cbind(
    as.data.table(svyby(~I(suicide_id == "Yes" & !is.na(suicide_id)),
                     by = ~agegroup,
                     denominator = ~I(!is.na(suicide_id)),
                     design = subset(svy_enpol, sexo == "Male"),

```

```

        FUN = svyratio)),
  survey = rep("ENPOL", length = 6),
  variable = rep("Suicidal ideation", length = 6)),
cbind(
  as.data.table(svyby(~I(suicide_id == "Yes" & !is.na(suicide_id)),
    by = ~agegroup,
    denominator = ~I(!is.na(suicide_id)),
    design = subset(svy_ensanut, sexo == "Male"),
    FUN = svyratio)),
  survey = rep("ENSANUT", length = 6),
  variable = rep("Suicidal ideation", length = 6))
)
setnames(d_suicide_idm, names(d_suicide_idm), v_names)

# Suicide attempt
d_suicide_attn <- rbind(
  cbind(
    as.data.table(svyby(~I(suicide_att == "Yes" & !is.na(suicide_att) & suicide_id == "Yes" & !is.na(suicide_id)),
      by = ~agegroup,
      denominator = ~I(!is.na(suicide_id)),
      design = subset(svy_enpol, sexo == "Male"),
      FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Suicide attempt", length = 6)),
  cbind(
    as.data.table(svyby(~I(suicide_att == "Yes" & !is.na(suicide_att) & suicide_id == "Yes" & !is.na(suicide_id)),
      by = ~agegroup,
      denominator = ~I(!is.na(suicide_id)),
      design = subset(svy_ensanut, sexo == "Male"),
      FUN = svyratio)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Suicide attempt", length = 6))
  )
setnames(d_suicide_attn, names(d_suicide_attn), v_names)

# Sexual assault
d_sassaultm <- rbind(
  cbind(
    as.data.table(svyby(~I(sassault == "Yes" & !is.na(sassault)),
      by = ~agegroup,
      denominator = ~I(!is.na(sassault)),
      design = subset(svy_enpol, sexo == "Male"),
      FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Sexual assault", length = 6)),
  cbind(
    as.data.table(svyby(~I(sassault == "Yes" & !is.na(sassault)),
      by = ~agegroup,
      denominator = ~I(!is.na(sassault)),

```

```

        design = subset(svy_ensanut, sexo == "Male"),
        FUN = svyratio)),
  survey = rep("ENSANUT", length = 6),
  variable = rep("Sexual assault", length = 6))
)
setnames(d_sassaultm, names(d_sassaultm), v_names)

# Totals
d_countmtot_enp <- as.data.table(svytotal(c(rep(1, nrow(d_enpol[d_enpol$sexo == "Male"])))), subset(svy_enpol_nodes, sexo == "Male")))
d_countmtot_enp[, `:=`(SE = "Total", variable = "Count", survey = "ENPOL")]
setnames(d_countmtot_enp, c("total", "SE"), c("value", "agegroup"))

d_suicide_idmtot_enp <- as.data.table(svyratio(~I(suicide_id == "Yes" & !is.na(suicide_id)), ~I(!is.na(suicide_id)),
subset(svy_enpol, sexo == "Male"))$ratio)
setnames(d_suicide_idmtot_enp, names(d_suicide_idmtot_enp), "value")
d_suicide_idmtot_enp[, `:=`(agegroup = "Total", variable = "Suicidal ideation", survey = "ENPOL")]

d_suicide_attmtot_enp <- as.data.table(svyratio(~I(suicide_att == "Yes" & !is.na(suicide_att) & suicide_id == "Yes" &
!is.na(suicide_id)), ~I(!is.na(suicide_id)), subset(svy_enpol, sexo == "Male"))$ratio)
setnames(d_suicide_attmtot_enp, names(d_suicide_attmtot_enp), "value")
d_suicide_attmtot_enp[, `:=`(agegroup = "Total", variable = "Suicide attempt", survey = "ENPOL")]

d_sassaultmtot_enp <- as.data.table(svyratio(~I(sassault == "Yes" & !is.na(sassault)), ~I(!is.na(sassault)),
subset(svy_enpol, sexo == "Male"))$ratio)
setnames(d_sassaultmtot_enp, names(d_sassaultmtot_enp), "value")
d_sassaultmtot_enp[, `:=`(agegroup = "Total", variable = "Sexual assault", survey = "ENPOL")]

d_countmtot_ens <- as.data.table(svytotal(c(rep(1, nrow(d_ensanut[d_ensanut$sexo == "Male"])))),
subset(svy_ensanut_nodes, sexo == "Male")))
d_countmtot_ens[, `:=`(SE = "Total", variable = "Count", survey = "ENSANUT")]
setnames(d_countmtot_ens, c("total", "SE"), c("value", "agegroup"))

d_suicide_idmtot_ens <- as.data.table(svyratio(~I(suicide_id == "Yes" & !is.na(suicide_id)), ~I(!is.na(suicide_id)),
subset(svy_ensanut, sexo == "Male"))$ratio)
setnames(d_suicide_idmtot_ens, names(d_suicide_idmtot_ens), "value")
d_suicide_idmtot_ens[, `:=`(agegroup = "Total", variable = "Suicidal ideation", survey = "ENSANUT")]

d_suicide_attmtot_ens <- as.data.table(svyratio(~I(suicide_att == "Yes" & !is.na(suicide_att) & suicide_id == "Yes" &
!is.na(suicide_id)), ~I(!is.na(suicide_id)), subset(svy_ensanut, sexo == "Male"))$ratio)
setnames(d_suicide_attmtot_ens, names(d_suicide_attmtot_ens), "value")
d_suicide_attmtot_ens[, `:=`(agegroup = "Total", variable = "Suicide attempt", survey = "ENSANUT")]

d_sassaultmtot_ens <- as.data.table(svyratio(~I(sassault == "Yes" & !is.na(sassault)), ~I(!is.na(sassault)),
subset(svy_ensanut, sexo == "Male"))$ratio)
setnames(d_sassaultmtot_ens, names(d_sassaultmtot_ens), "value")
d_sassaultmtot_ens[, `:=`(agegroup = "Total", variable = "Sexual assault", survey = "ENSANUT")]

```

```

d_total <- rbind(d_countmtot_enp,
               d_countmtot_ens,
               d_suicide_idmtot_enp,
               d_suicide_idmtot_ens,
               d_suicide_attmtot_enp,
               d_suicide_attmtot_ens,
               d_sassaultmtot_enp,
               d_sassaultmtot_ens)

# Non-response
d_suicide_idmnr_enp <- as.data.table(svyratio(~I(is.na(suicide_id)), ~c(rep(1, nrow(d_enpol[d_enpol$sexo == "Male"])))),
subset(svy_enpol_nodes, sexo == "Male"))$ratio)
setnames(d_suicide_idmnr_enp, names(d_suicide_idmnr_enp), "value")
d_suicide_idmnr_enp[, `:=`(agegroup = "Non-response", variable = "Suicidal ideation", survey = "ENPOL")]

d_suicide_attmnr_enp <- as.data.table(svyratio(~I(is.na(suicide_id)), ~c(rep(1, nrow(d_enpol[d_enpol$sexo == "Male"])))),
subset(svy_enpol_nodes, sexo == "Male"))$ratio)
setnames(d_suicide_attmnr_enp, names(d_suicide_attmnr_enp), "value")
d_suicide_attmnr_enp[, `:=`(agegroup = "Non-response", variable = "Suicide attempt", survey = "ENPOL")]

d_sassaultmnr_enp <- as.data.table(svyratio(~I(is.na(sassault)), ~c(rep(1, nrow(d_enpol[d_enpol$sexo == "Male"])))),
subset(svy_enpol_nodes, sexo == "Male"))$ratio)
setnames(d_sassaultmnr_enp, names(d_sassaultmnr_enp), "value")
d_sassaultmnr_enp[, `:=`(agegroup = "Non-response", variable = "Sexual assault", survey = "ENPOL")]

d_suicide_idmnr_ens <- as.data.table(svyratio(~I(is.na(suicide_id)), ~c(rep(1, nrow(d_ensanut[d_ensanut$sexo ==
"Male"])))), subset(svy_ensanut_nodes, sexo == "Male"))$ratio)
setnames(d_suicide_idmnr_ens, names(d_suicide_idmnr_ens), "value")
d_suicide_idmnr_ens[, `:=`(agegroup = "Non-response", variable = "Suicidal ideation", survey = "ENSANUT")]

d_suicide_attmnr_ens <- as.data.table(svyratio(~I(is.na(suicide_id)), ~c(rep(1, nrow(d_ensanut[d_ensanut$sexo ==
"Male"])))), subset(svy_ensanut_nodes, sexo == "Male"))$ratio)
setnames(d_suicide_attmnr_ens, names(d_suicide_attmnr_ens), "value")
d_suicide_attmnr_ens[, `:=`(agegroup = "Non-response", variable = "Suicide attempt", survey = "ENSANUT")]

d_sassaultmnr_ens <- as.data.table(svyratio(~I(is.na(sassault)), ~c(rep(1, nrow(d_ensanut[d_ensanut$sexo == "Male"])))),
subset(svy_ensanut_nodes, sexo == "Male"))$ratio)
setnames(d_sassaultmnr_ens, names(d_sassaultmnr_ens), "value")
d_sassaultmnr_ens[, `:=`(agegroup = "Non-response", variable = "Sexual assault", survey = "ENSANUT")]

d_nr <- rbind(d_suicide_idmnr_enp,
             d_suicide_idmnr_ens,
             d_suicide_attmnr_enp,
             d_suicide_attmnr_ens,
             d_sassaultmnr_enp,
             d_sassaultmnr_ens)

tabw3.2m <- rbind(d_countm, d_suicide_idm, d_suicide_attm, d_sassaultm)

```

```

tabw3.2m <- as.data.table(tabw3.2m)
tabw3.2m[, se := NULL]

tabw3.2m <- rbind(tabw3.2m, d_total, d_nr)
tabw3.2m <- as.data.table(tabw3.2m)
tabw3.2m <- dcast(tabw3.2m, agegroup + variable ~ survey, value.var = "value")
tabw3.2m$Difference <- tabw3.2m$ENPOL - tabw3.2m$ENSANUT
tabw3.2m <- melt(tabw3.2m, id.vars = c("agegroup", "variable"), variable.name = "survey")
tabw3.2m <- dcast(tabw3.2m, survey + variable ~ agegroup)
tabw3.2m$survey <- factor(tabw3.2m$survey,
                          levels = c("ENPOL", "ENSANUT", "Difference"),
                          ordered = TRUE)

tabw3.2m <- tabw3.2m[, .(variable, survey, `20-29`, `30-39`, `40-49`, `50-59`, `60-69`, `70-79`, `Total`, `Non-
response`)]
tabw3.2m$variable <- factor(tabw3.2m$variable,
                            levels = c("Count", "Suicidal ideation", "Suicide attempt", "Sexual assault"),
                            ordered = TRUE)

setorder(tabw3.2m, variable)
tabw3.2m[, (cols) := lapply(.SD, round, digits = 4), .SDcols = cols]
fwrite(tabw3.2m, "00_data/newTabs/tabw3_2m.csv")

# Tab 3.2f - Emotional-sexual conditions (female) ####
d_countf <- rbind(
  cbind(
    agegroup = v_ages_enpol,
    as.data.table(svytotal(~agegroup,
                          na.rm = TRUE,
                          design = subset(svy_enpol_nodes, sexo == "Female"))),
    survey = rep("ENPOL", length = 6),
    variable = rep("Count", length = 6)),
  cbind(
    agegroup = v_ages_ensanut,
    as.data.table(svytotal(~agegroup,
                          na.rm = TRUE,
                          design = subset(svy_ensanut_nodes, sexo == "Female"))),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Count", length = 6))
)
setnames(d_countf, names(d_countf), v_names)

# Suicidal ideation
d_suicide_idf <- rbind(
  cbind(
    as.data.table(svyby(~I(suicide_id == "Yes" & !is.na(suicide_id)),
                     by = ~agegroup,
                     denominator = ~I(!is.na(suicide_id)),
                     design = subset(svy_enpol, sexo == "Female"),
                     FUN = svyratio)),
    survey = rep("ENPOL", length = 6),

```

```

    variable = rep("Suicidal ideation", length = 6)),
cbind(
  as.data.table(svyby(~I(suicide_id == "Yes" & !is.na(suicide_id)),
    by = ~agegroup,
    denominator = ~I(!is.na(suicide_id)),
    design = subset(svy_ensanut, sexo == "Female"),
    FUN = svyratio)),
  survey = rep("ENSANUT", length = 6),
  variable = rep("Suicidal ideation", length = 6))
)
setnames(d_suicide_idf, names(d_suicide_idf), v_names)

# Suicide attempt
d_suicide_attf <- rbind(
  cbind(
    as.data.table(svyby(~I(suicide_att == "Yes" & !is.na(suicide_att) & suicide_id == "Yes" & !is.na(suicide_id)),
      by = ~agegroup,
      denominator = ~I(!is.na(suicide_id)),
      design = subset(svy_enpol, sexo == "Female"),
      FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Suicide attempt", length = 6)),
  cbind(
    as.data.table(svyby(~I(suicide_att == "Yes" & !is.na(suicide_att) & suicide_id == "Yes" & !is.na(suicide_id)),
      by = ~agegroup,
      denominator = ~I(!is.na(suicide_id)),
      design = subset(svy_ensanut, sexo == "Female"),
      FUN = svyratio)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Suicide attempt", length = 6))
)
setnames(d_suicide_attf, names(d_suicide_attf), v_names)

# Sexual assault
d_sassaultf <- rbind(
  cbind(
    as.data.table(svyby(~I(sassault == "Yes" & !is.na(sassault)),
      by = ~agegroup,
      denominator = ~I(!is.na(sassault)),
      design = subset(svy_enpol, sexo == "Female"),
      FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Sexual assault", length = 6)),
  cbind(
    as.data.table(svyby(~I(sassault == "Yes" & !is.na(sassault)),
      by = ~agegroup,
      denominator = ~I(!is.na(sassault)),
      design = subset(svy_ensanut, sexo == "Female"),
      FUN = svyratio)),

```

```

    survey = rep("ENSANUT", length = 6),
    variable = rep("Sexual assault", length = 6))
)
setnames(d_sassaultf, names(d_sassaultf), v_names)

# Totals
d_countftot_enp <- as.data.table(svytotal(c(rep(1, nrow(d_enpol[d_enpol$sexo == "Female"]))), subset(svy_enpol_nodes,
sexo == "Female")))
d_countftot_enp[, `:=`(SE = "Total", variable = "Count", survey = "ENPOL")]
setnames(d_countftot_enp, c("total", "SE"), c("value", "agegroup"))

d_suicide_idftot_enp <- as.data.table(svyratio(~I(suicide_id == "Yes" & !is.na(suicide_id)), ~I(!is.na(suicide_id)),
subset(svy_enpol, sexo == "Female"))$ratio)
setnames(d_suicide_idftot_enp, names(d_suicide_idftot_enp), "value")
d_suicide_idftot_enp[, `:=`(agegroup = "Total", variable = "Suicidal ideation", survey = "ENPOL")]

d_suicide_attftot_enp <- as.data.table(svyratio(~I(suicide_att == "Yes" & !is.na(suicide_att) & suicide_id == "Yes" &
!is.na(suicide_id)), ~I(!is.na(suicide_id)), subset(svy_enpol, sexo == "Female"))$ratio)
setnames(d_suicide_attftot_enp, names(d_suicide_attftot_enp), "value")
d_suicide_attftot_enp[, `:=`(agegroup = "Total", variable = "Suicide attempt", survey = "ENPOL")]

d_sassaultftot_enp <- as.data.table(svyratio(~I(sassault == "Yes" & !is.na(sassault)), ~I(!is.na(sassault)),
subset(svy_enpol, sexo == "Female"))$ratio)
setnames(d_sassaultftot_enp, names(d_sassaultftot_enp), "value")
d_sassaultftot_enp[, `:=`(agegroup = "Total", variable = "Sexual assault", survey = "ENPOL")]

d_countftot_ens <- as.data.table(svytotal(c(rep(1, nrow(d_ensanut[d_ensanut$sexo == "Female"]))),
subset(svy_ensanut_nodes, sexo == "Female")))
d_countftot_ens[, `:=`(SE = "Total", variable = "Count", survey = "ENSANUT")]
setnames(d_countftot_ens, c("total", "SE"), c("value", "agegroup"))

d_suicide_idftot_ens <- as.data.table(svyratio(~I(suicide_id == "Yes" & !is.na(suicide_id)), ~I(!is.na(suicide_id)),
subset(svy_ensanut, sexo == "Female"))$ratio)
setnames(d_suicide_idftot_ens, names(d_suicide_idftot_ens), "value")
d_suicide_idftot_ens[, `:=`(agegroup = "Total", variable = "Suicidal ideation", survey = "ENSANUT")]

d_suicide_attftot_ens <- as.data.table(svyratio(~I(suicide_att == "Yes" & !is.na(suicide_att) & suicide_id == "Yes" &
!is.na(suicide_id)), ~I(!is.na(suicide_id)), subset(svy_ensanut, sexo == "Female"))$ratio)
setnames(d_suicide_attftot_ens, names(d_suicide_attftot_ens), "value")
d_suicide_attftot_ens[, `:=`(agegroup = "Total", variable = "Suicide attempt", survey = "ENSANUT")]

d_sassaultftot_ens <- as.data.table(svyratio(~I(sassault == "Yes" & !is.na(sassault)), ~I(!is.na(sassault)),
subset(svy_ensanut, sexo == "Female"))$ratio)
setnames(d_sassaultftot_ens, names(d_sassaultftot_ens), "value")
d_sassaultftot_ens[, `:=`(agegroup = "Total", variable = "Sexual assault", survey = "ENSANUT")]

d_total <- rbind(d_countftot_enp,

```

```

d_countftot_ens,
d_suicide_idftot_ens,
d_suicide_idftot_ens,
d_suicide_attftot_ens,
d_suicide_attftot_ens,
d_sassaultftot_ens,
d_sassaultftot_ens)

```

```
# Non-response
```

```

d_suicide_idfnr_ens <- as.data.table(svyratio(~I(is.na(suicide_id)), ~c(rep(1, nrow(d_ensanut[d_ensanut$sexo ==
"Female"])))), subset(svy_ensanut_nodes, sexo == "Female"))$ratio)
setnames(d_suicide_idfnr_ens, names(d_suicide_idfnr_ens), "value")
d_suicide_idfnr_ens[, `:=`(agegroup = "Non-response", variable = "Suicidal ideation", survey = "ENSANUT")]

```

```

d_suicide_attfnr_ens <- as.data.table(svyratio(~I(is.na(suicide_id)), ~c(rep(1, nrow(d_ensanut[d_ensanut$sexo ==
"Female"])))), subset(svy_ensanut_nodes, sexo == "Female"))$ratio)
setnames(d_suicide_attfnr_ens, names(d_suicide_attfnr_ens), "value")
d_suicide_attfnr_ens[, `:=`(agegroup = "Non-response", variable = "Suicide attempt", survey = "ENSANUT")]

```

```

d_sassaultfnr_ens <- as.data.table(svyratio(~I(is.na(sassault)), ~c(rep(1, nrow(d_ensanut[d_ensanut$sexo == "Female"])))),
subset(svy_ensanut_nodes, sexo == "Female"))$ratio)
setnames(d_sassaultfnr_ens, names(d_sassaultfnr_ens), "value")
d_sassaultfnr_ens[, `:=`(agegroup = "Non-response", variable = "Sexual assault", survey = "ENSANUT")]

```

```

d_suicide_idfnr_ens <- as.data.table(svyratio(~I(is.na(suicide_id)), ~c(rep(1, nrow(d_ensanut[d_ensanut$sexo ==
"Female"])))), subset(svy_ensanut_nodes, sexo == "Female"))$ratio)
setnames(d_suicide_idfnr_ens, names(d_suicide_idfnr_ens), "value")
d_suicide_idfnr_ens[, `:=`(agegroup = "Non-response", variable = "Suicidal ideation", survey = "ENSANUT")]

```

```

d_suicide_attfnr_ens <- as.data.table(svyratio(~I(is.na(suicide_id)), ~c(rep(1, nrow(d_ensanut[d_ensanut$sexo ==
"Female"])))), subset(svy_ensanut_nodes, sexo == "Female"))$ratio)
setnames(d_suicide_attfnr_ens, names(d_suicide_attfnr_ens), "value")
d_suicide_attfnr_ens[, `:=`(agegroup = "Non-response", variable = "Suicide attempt", survey = "ENSANUT")]

```

```

d_sassaultfnr_ens <- as.data.table(svyratio(~I(is.na(sassault)), ~c(rep(1, nrow(d_ensanut[d_ensanut$sexo ==
"Female"])))), subset(svy_ensanut_nodes, sexo == "Female"))$ratio)
setnames(d_sassaultfnr_ens, names(d_sassaultfnr_ens), "value")
d_sassaultfnr_ens[, `:=`(agegroup = "Non-response", variable = "Sexual assault", survey = "ENSANUT")]

```

```

d_nr <- rbind(d_suicide_idfnr_ens,
d_suicide_idfnr_ens,
d_suicide_attfnr_ens,
d_suicide_attfnr_ens,
d_sassaultfnr_ens,
d_sassaultfnr_ens)

```

```

tabw3.2f <- rbind(d_countf, d_suicide_idf, d_suicide_attf, d_sassaultf)
tabw3.2f <- as.data.table(tabw3.2f)

```

```

tabw3.2f[, se := NULL]

tabw3.2f <- rbind(tabw3.2f, d_total, d_nr)
tabw3.2f <- as.data.table(tabw3.2f)
tabw3.2f <- dcast(tabw3.2f, agegroup + variable ~ survey, value.var = "value")
tabw3.2f$Difference <- tabw3.2f$ENPOL - tabw3.2f$ENSANUT
tabw3.2f <- melt(tabw3.2f, id.vars = c("agegroup", "variable"), variable.name = "survey")
tabw3.2f <- dcast(tabw3.2f, survey + variable ~ agegroup)
tabw3.2f$survey <- factor(tabw3.2f$survey,
                          levels = c("ENPOL", "ENSANUT", "Difference"),
                          ordered = TRUE)

tabw3.2f <- tabw3.2f[, .(variable, survey, `20-29`, `30-39`, `40-49`, `50-59`, `60-69`, `70-79`, `Total`, `Non-
response`)]
tabw3.2f$variable <- factor(tabw3.2f$variable,
                            levels = c("Count", "Suicidal ideation", "Suicide attempt", "Sexual assault"),
                            ordered = TRUE)

setorder(tabw3.2f, variable)
tabw3.2f[, (cols) := lapply(.SD, round, digits = 4), .SDcols = cols]
fwrite(tabw3.2f, "00_data/newTabs/tabw3_2f.csv")

# Tab 4m - Treatment (male) ####
d_countm <- rbind(
  cbind(
    agegroup = v_ages_enpol,
    as.data.table(svytotal(~agegroup,
                          na.rm = TRUE,
                          design = subset(svy_enpol_nodes, sexo == "Male"))),
    survey = rep("ENPOL", length = 6),
    variable = rep("Count", length = 6)),
  cbind(
    agegroup = v_ages_ensanut,
    as.data.table(svytotal(~agegroup,
                          na.rm = TRUE,
                          design = subset(svy_ensanut_nodes, sexo == "Male"))),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Count", length = 6))
)
setnames(d_countm, names(d_countm), v_names)

# Diabetes treatment
d_diabetes_trtm <- rbind(
  cbind(
    as.data.table(svyby(~I(diabetes_trt == "Yes" & !is.na(diabetes_trt) & diabetes == "Yes" & !is.na(diabetes)),
                    by = ~agegroup,
                    denominator = ~I(!is.na(diabetes_trt) & diabetes == "Yes" & !is.na(diabetes)),
                    design = subset(svy_enpol, sexo == "Male"),
                    FUN = svyratio)),
    survey = rep("ENPOL", length = 6),

```

```

    variable = rep("Treated for diabetes", length = 6)),
  cbind(
    as.data.table(svyby(~I(diabetes_trt == "Yes" & !is.na(diabetes_trt) & diabetes == "Yes" & !is.na(diabetes)),
      by = ~agegroup,
      denominator = ~I(!is.na(diabetes_trt) & diabetes == "Yes" & !is.na(diabetes)),
      design = subset(svy_ensanut, sexo == "Male"),
      FUN = svyratio)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Treated for diabetes", length = 6))
)
setnames(d_diabetes_trtm, names(d_diabetes_trtm), v_names)

# Hypertension treatment
d_ht_trtm <- rbind(
  cbind(
    as.data.table(svyby(~I(ht_trt == "Yes" & !is.na(ht_trt) & ht == "Yes" & !is.na(ht)),
      by = ~agegroup,
      denominator = ~I(!is.na(ht_trt) & ht == "Yes" & !is.na(ht)),
      design = subset(svy_ensapol, sexo == "Male"),
      FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Treated for hypertension", length = 6)),
  cbind(
    as.data.table(svyby(~I(ht_trt == "Yes" & !is.na(ht_trt) & ht == "Yes" & !is.na(ht)),
      by = ~agegroup,
      denominator = ~I(!is.na(ht_trt) & ht == "Yes" & !is.na(ht)),
      design = subset(svy_ensanut, sexo == "Male"),
      FUN = svyratio)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Treated for hypertension", length = 6))
)
setnames(d_ht_trtm, names(d_ht_trtm), v_names)

# Totals
d_countmtot_ens <- as.data.table(svytotal(c(rep(1, nrow(d_ensapol[d_ensapol$sexo == "Male"])))), subset(svy_ensapol_nodes, sexo == "Male"))
d_countmtot_ens[, `:=`(SE = "Total", variable = "Count", survey = "ENPOL")]
setnames(d_countmtot_ens, c("total", "SE"), c("value", "agegroup"))

d_diabetes_trtm_tot_ens <- as.data.table(svyratio(~I(diabetes_trt == "Yes" & !is.na(diabetes_trt) & diabetes == "Yes" & !is.na(diabetes)), ~I(!is.na(diabetes_trt) & diabetes == "Yes" & !is.na(diabetes)), subset(svy_ensapol, sexo == "Male"))$ratio)
setnames(d_diabetes_trtm_tot_ens, names(d_diabetes_trtm_tot_ens), "value")
d_diabetes_trtm_tot_ens[, `:=`(agegroup = "Total", variable = "Treated for diabetes", survey = "ENPOL")]

d_ht_trtm_tot_ens <- as.data.table(svyratio(~I(ht_trt == "Yes" & !is.na(ht_trt) & ht == "Yes" & !is.na(ht)), ~I(!is.na(ht_trt) & ht == "Yes" & !is.na(ht)), subset(svy_ensapol, sexo == "Male"))$ratio)
setnames(d_ht_trtm_tot_ens, names(d_ht_trtm_tot_ens), "value")
d_ht_trtm_tot_ens[, `:=`(agegroup = "Total", variable = "Treated for hypertension", survey = "ENPOL")]

```

```

d_countmtot_ens <- as.data.table(svytotal(c(rep(1, nrow(d_ensanut[d_ensanut$sexo == "Male"]))),
subset(svy_ensanut_nodes, sexo == "Male")))
d_countmtot_ens[, `:=`(SE = "Total", variable = "Count", survey = "ENSANUT")]
setnames(d_countmtot_ens, c("total", "SE"), c("value", "agegroup"))

d_diabetes_trtmtot_ens <- as.data.table(svyratio(~I(diabetes_trt == "Yes" & !is.na(diabetes_trt) & diabetes == "Yes" &
!is.na(diabetes)), ~I(!is.na(diabetes_trt) & diabetes == "Yes" & !is.na(diabetes)), subset(svy_ensanut, sexo ==
"Male"))$ratio)
setnames(d_diabetes_trtmtot_ens, names(d_diabetes_trtmtot_ens), "value")
d_diabetes_trtmtot_ens[, `:=`(agegroup = "Total", variable = "Treated for diabetes", survey = "ENSANUT")]

d_ht_trtmtot_ens <- as.data.table(svyratio(~I(ht_trt == "Yes" & !is.na(ht_trt) & ht == "Yes" & !is.na(ht)),
~I(!is.na(ht_trt) & ht == "Yes" & !is.na(ht)), subset(svy_ensanut, sexo == "Male"))$ratio)
setnames(d_ht_trtmtot_ens, names(d_ht_trtmtot_ens), "value")
d_ht_trtmtot_ens[, `:=`(agegroup = "Total", variable = "Treated for hypertension", survey = "ENSANUT")]

d_total <- rbind(d_countmtot_ens,
                d_countmtot_ens,
                d_diabetes_trtmtot_ens,
                d_diabetes_trtmtot_ens,
                d_ht_trtmtot_ens,
                d_ht_trtmtot_ens)

# Non-response
d_diabetes_trtmnr_ens <- as.data.table(svyratio(~I(is.na(diabetes_trt) & diabetes == "Yes" & !is.na(diabetes)),
~c(rep(1, nrow(d_ensapol[d_ensapol$sexo == "Male" & d_ensapol$diabetes == "Yes" & !is.na(d_ensapol$diabetes)]))),
subset(svy_ensapol_nodes, sexo == "Male" & diabetes == "Yes" & !is.na(diabetes)))$ratio)
setnames(d_diabetes_trtmnr_ens, names(d_diabetes_trtmnr_ens), "value")
d_diabetes_trtmnr_ens[, `:=`(agegroup = "Non-response", variable = "Treated for diabetes", survey = "ENPOL")]

d_ht_trtmnr_ens <- as.data.table(svyratio(~I(is.na(ht_trt) & ht == "Yes" & !is.na(ht)), ~c(rep(1,
nrow(d_ensapol[d_ensapol$sexo == "Male" & d_ensapol$ht == "Yes" & !is.na(d_ensapol$ht)]))), subset(svy_ensapol_nodes, sexo ==
"Male" & ht == "Yes" & !is.na(ht)))$ratio)
setnames(d_ht_trtmnr_ens, names(d_ht_trtmnr_ens), "value")
d_ht_trtmnr_ens[, `:=`(agegroup = "Non-response", variable = "Treated for hypertension", survey = "ENPOL")]

d_diabetes_trtmnr_ens <- as.data.table(svyratio(~I(is.na(diabetes_trt) & diabetes == "Yes" & !is.na(diabetes)),
~c(rep(1, nrow(d_ensanut[d_ensanut$sexo == "Male" & d_ensanut$diabetes == "Yes" & !is.na(d_ensanut$diabetes)]))),
subset(svy_ensanut_nodes, sexo == "Male" & diabetes == "Yes" & !is.na(diabetes)))$ratio)
setnames(d_diabetes_trtmnr_ens, names(d_diabetes_trtmnr_ens), "value")
d_diabetes_trtmnr_ens[, `:=`(agegroup = "Non-response", variable = "Treated for diabetes", survey = "ENSANUT")]

d_ht_trtmnr_ens <- as.data.table(svyratio(~I(is.na(ht_trt) & ht == "Yes" & !is.na(ht)), ~c(rep(1,
nrow(d_ensanut[d_ensanut$sexo == "Male" & d_ensanut$ht == "Yes" & !is.na(d_ensanut$ht)]))), subset(svy_ensanut_nodes,
sexo == "Male" & ht == "Yes" & !is.na(ht)))$ratio)

```

```

setnames(d_ht_trtmnr_ens, names(d_ht_trtmnr_ens), "value")
d_ht_trtmnr_ens[, `:=`(agegroup = "Non-response", variable = "Treated for hypertension", survey = "ENSANUT")]

d_nr <- rbind(d_diabetes_trtmnr_ens,
             d_diabetes_trtmnr_ens,
             d_ht_trtmnr_ens,
             d_ht_trtmnr_ens)

tabw4m <- rbind(d_countm, d_diabetes_trtm, d_ht_trtm)
tabw4m <- as.data.table(tabw4m)
tabw4m[, se := NULL]

tabw4m <- rbind(tabw4m, d_total, d_nr)
tabw4m <- as.data.table(tabw4m)
tabw4m <- dcast(tabw4m, agegroup + variable ~ survey, value.var = "value")
tabw4m$Difference <- tabw4m$ENPOL - tabw4m$ENSANUT
tabw4m <- melt(tabw4m, id.vars = c("agegroup", "variable"), variable.name = "survey")
tabw4m <- dcast(tabw4m, survey + variable ~ agegroup)
tabw4m$survey <- factor(tabw4m$survey,
                       levels = c("ENPOL", "ENSANUT", "Difference"),
                       ordered = TRUE)
tabw4m <- tabw4m[, .(variable, survey, `20-29`, `30-39`, `40-49`, `50-59`, `60-69`, `70-79`, `Total`, `Non-response`)]
tabw4m$variable <- factor(tabw4m$variable,
                         levels = c("Count", "Treated for diabetes", "Treated for hypertension"),
                         ordered = TRUE)

setorder(tabw4m, variable)
tabw4m[, (cols) := lapply(.SD, round, digits = 4), .SDcols = cols]
fwrite(tabw4m, "00_data/newTabs/tabw4m.csv")

# Tab 4f - Treatment (female) ####
d_countf <- rbind(
  cbind(
    agegroup = v_ages_enspol,
    as.data.table(svytotal(~agegroup,
                          na.rm = TRUE,
                          design = subset(svy_enspol_nodes, sexo == "Female"))),
    survey = rep("ENPOL", length = 6),
    variable = rep("Count", length = 6)),
  cbind(
    agegroup = v_ages_ensanut,
    as.data.table(svytotal(~agegroup,
                          na.rm = TRUE,
                          design = subset(svy_ensanut_nodes, sexo == "Female"))),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Count", length = 6))
)
setnames(d_countf, names(d_countf), v_names)

# Diabetes treatment

```

```

d_diabetes_trtf <- rbind(
  cbind(
    as.data.table(svyby(~I(diabetes_trt == "Yes" & !is.na(diabetes_trt) & diabetes == "Yes" & !is.na(diabetes)),
      by = ~agegroup,
      denominator = ~I(!is.na(diabetes_trt) & diabetes == "Yes" & !is.na(diabetes)),
      design = subset(svy_enspol, sexo == "Female"),
      FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Treated for diabetes", length = 6)),
  cbind(
    as.data.table(svyby(~I(diabetes_trt == "Yes" & !is.na(diabetes_trt) & diabetes == "Yes" & !is.na(diabetes)),
      by = ~agegroup,
      denominator = ~I(!is.na(diabetes_trt) & diabetes == "Yes" & !is.na(diabetes)),
      design = subset(svy_ensanut, sexo == "Female"),
      FUN = svyratio)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Treated for diabetes", length = 6))
)
setnames(d_diabetes_trtf, names(d_diabetes_trtf), v_names)

# Hypertension treatment
d_ht_trtf <- rbind(
  cbind(
    as.data.table(svyby(~I(ht_trt == "Yes" & !is.na(ht_trt) & ht == "Yes" & !is.na(ht)),
      by = ~agegroup,
      denominator = ~I(!is.na(ht_trt) & ht == "Yes" & !is.na(ht)),
      design = subset(svy_enspol, sexo == "Female"),
      FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Treated for hypertension", length = 6)),
  cbind(
    as.data.table(svyby(~I(ht_trt == "Yes" & !is.na(ht_trt) & ht == "Yes" & !is.na(ht)),
      by = ~agegroup,
      denominator = ~I(!is.na(ht_trt) & ht == "Yes" & !is.na(ht)),
      design = subset(svy_ensanut, sexo == "Female"),
      FUN = svyratio)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Treated for hypertension", length = 6))
)
setnames(d_ht_trtf, names(d_ht_trtf), v_names)

# Totals
d_countftot_ens <- as.data.table(svytotal(c(rep(1, nrow(d_enspol[d_enspol$sexo == "Female"]))), subset(svy_enspol_nodes,
  sexo == "Female")))
d_countftot_ens[, `:=`(SE = "Total", variable = "Count", survey = "ENPOL")]
setnames(d_countftot_ens, c("total", "SE"), c("value", "agegroup"))

d_diabetes_trtftot_ens <- as.data.table(svyratio(~I(diabetes_trt == "Yes" & !is.na(diabetes_trt) & diabetes == "Yes" &
  !is.na(diabetes)), ~I(!is.na(diabetes_trt) & diabetes == "Yes" & !is.na(diabetes)), subset(svy_enspol, sexo ==

```

```

"Female"))$ratio)
setnames(d_diabetes_trtftot_enp, names(d_diabetes_trtftot_enp), "value")
d_diabetes_trtftot_enp[, `:=`(agegroup = "Total", variable = "Treated for diabetes", survey = "ENPOL")]

d_ht_trtftot_enp <- as.data.table(svyratio(~I(ht_trt == "Yes" & !is.na(ht_trt) & ht == "Yes" & !is.na(ht)),
~I(!is.na(ht_trt) & ht == "Yes" & !is.na(ht)), subset(svy_enpol, sexo == "Female"))$ratio)
setnames(d_ht_trtftot_enp, names(d_ht_trtftot_enp), "value")
d_ht_trtftot_enp[, `:=`(agegroup = "Total", variable = "Treated for hypertension", survey = "ENPOL")]

d_countftot_ens <- as.data.table(svytotal(c(rep(1, nrow(d_ensanut[d_ensanut$sexo == "Female"])))),
subset(svy_ensanut_nodes, sexo == "Female")))
d_countftot_ens[, `:=`(SE = "Total", variable = "Count", survey = "ENSANUT")]
setnames(d_countftot_ens, c("total", "SE"), c("value", "agegroup"))

d_diabetes_trtftot_ens <- as.data.table(svyratio(~I(diabetes_trt == "Yes" & !is.na(diabetes_trt) & diabetes == "Yes" &
!is.na(diabetes)), ~I(!is.na(diabetes_trt) & diabetes == "Yes" & !is.na(diabetes)), subset(svy_ensanut, sexo ==
"Female"))$ratio)
setnames(d_diabetes_trtftot_ens, names(d_diabetes_trtftot_ens), "value")
d_diabetes_trtftot_ens[, `:=`(agegroup = "Total", variable = "Treated for diabetes", survey = "ENSANUT")]

d_ht_trtftot_ens <- as.data.table(svyratio(~I(ht_trt == "Yes" & !is.na(ht_trt) & ht == "Yes" & !is.na(ht)),
~I(!is.na(ht_trt) & ht == "Yes" & !is.na(ht)), subset(svy_ensanut, sexo == "Female"))$ratio)
setnames(d_ht_trtftot_ens, names(d_ht_trtftot_ens), "value")
d_ht_trtftot_ens[, `:=`(agegroup = "Total", variable = "Treated for hypertension", survey = "ENSANUT")]

d_total <- rbind(d_countftot_enp,
                d_countftot_ens,
                d_diabetes_trtftot_enp,
                d_diabetes_trtftot_ens,
                d_ht_trtftot_enp,
                d_ht_trtftot_ens)

# Non-response
d_diabetes_trtfnr_enp <- as.data.table(svyratio(~I(is.na(diabetes_trt) & diabetes == "Yes" & !is.na(diabetes)),
~c(rep(1, nrow(d_enpol[d_enpol$sexo == "Female" & d_enpol$diabetes == "Yes" & !is.na(d_enpol$diabetes)]))),
subset(svy_enpol_nodes, sexo == "Female" & diabetes == "Yes" & !is.na(diabetes)))$ratio)
setnames(d_diabetes_trtfnr_enp, names(d_diabetes_trtfnr_enp), "value")
d_diabetes_trtfnr_enp[, `:=`(agegroup = "Non-response", variable = "Treated for diabetes", survey = "ENPOL")]

d_ht_trtfnr_enp <- as.data.table(svyratio(~I(is.na(ht_trt) & ht == "Yes" & !is.na(ht)), ~c(rep(1,
nrow(d_enpol[d_enpol$sexo == "Female" & d_enpol$ht == "Yes" & !is.na(d_enpol$ht)]))), subset(svy_enpol_nodes, sexo ==
"Female" & ht == "Yes" & !is.na(ht)))$ratio)
setnames(d_ht_trtfnr_enp, names(d_ht_trtfnr_enp), "value")
d_ht_trtfnr_enp[, `:=`(agegroup = "Non-response", variable = "Treated for hypertension", survey = "ENPOL")]

d_diabetes_trtfnr_ens <- as.data.table(svyratio(~I(is.na(diabetes_trt) & diabetes == "Yes" & !is.na(diabetes)),

```

```

~c(rep(1, nrow(d_ensanut[d_ensanut$sexo == "Female" & d_ensanut$diabetes == "Yes" & !is.na(d_ensanut$diabetes)]))),
subset(svy_ensanut_nodes, sexo == "Female" & diabetes == "Yes" & !is.na(diabetes)))$ratio)
setnames(d_diabetes_trtfnr_ens, names(d_diabetes_trtfnr_ens), "value")
d_diabetes_trtfnr_ens[, `:=`(agegroup = "Non-response", variable = "Treated for diabetes", survey = "ENSANUT")]

d_ht_trtfnr_ens <- as.data.table(svyratio(~I(is.na(ht_trt) & ht == "Yes" & !is.na(ht)), ~c(rep(1,
nrow(d_ensanut[d_ensanut$sexo == "Female" & d_ensanut$ht == "Yes" & !is.na(d_ensanut$ht)]))), subset(svy_ensanut_nodes,
sexo == "Female" & ht == "Yes" & !is.na(ht)))$ratio)
setnames(d_ht_trtfnr_ens, names(d_ht_trtfnr_ens), "value")
d_ht_trtfnr_ens[, `:=`(agegroup = "Non-response", variable = "Treated for hypertension", survey = "ENSANUT")]

d_nr <- rbind(d_diabetes_trtfnr_ens,
             d_diabetes_trtfnr_ens,
             d_ht_trtfnr_ens,
             d_ht_trtfnr_ens)

tabw4f <- rbind(d_countf, d_diabetes_trtf, d_ht_trtf)
tabw4f <- as.data.table(tabw4f)
tabw4f[, se := NULL]

tabw4f <- rbind(tabw4f, d_total, d_nr)
tabw4f <- as.data.table(tabw4f)
tabw4f <- dcast(tabw4f, agegroup + variable ~ survey, value.var = "value")
tabw4f$Difference <- tabw4f$ENPOL - tabw4f$ENSANUT
tabw4f <- melt(tabw4f, id.vars = c("agegroup", "variable"), variable.name = "survey")
tabw4f <- dcast(tabw4f, survey + variable ~ agegroup)
tabw4f$survey <- factor(tabw4f$survey,
                       levels = c("ENPOL", "ENSANUT", "Difference"),
                       ordered = TRUE)

tabw4f <- tabw4f[, .(variable, survey, `20-29`, `30-39`, `40-49`, `50-59`, `60-69`, `70-79`, `Total`, `Non-response`)]
tabw4f$variable <- factor(tabw4f$variable,
                          levels = c("Count", "Treated for diabetes", "Treated for hypertension"),
                          ordered = TRUE)

setorder(tabw4f, variable)
tabw4f[, (cols) := lapply(.SD, round, digits = 4), .SDcols = cols]
fwrite(tabw4f, "00_data/newTabs/tabw4f.csv")

# Tab 5 - Women's preventive care ####
d_countf <- rbind(
  cbind(
    agegroup = v_ages_enspol,
    as.data.table(svytotal(~agegroup,
                          na.rm = TRUE,
                          design = subset(svy_enspol_nodes, sexo == "Female"))),
    survey = rep("ENPOL", length = 6),
    variable = rep("Count", length = 6)),
  cbind(
    agegroup = v_ages_ensanut,
    as.data.table(svytotal(~agegroup,

```

```

        na.rm = TRUE,
        design = subset(svy_ensanut_nodes, sexo == "Female"))),
  survey = rep("ENSANUT", length = 6),
  variable = rep("Count", length = 6))
)
setnames(d_countf, names(d_countf), v_names)

# Pap exam
d_pap_examf <- rbind(
  cbind(
    as.data.table(svyby(~I(pap_exam == "Yes" & !is.na(pap_exam)),
      by = ~agegroup,
      denominator = ~I(!is.na(pap_exam)),
      design = subset(svy_enpol, sexo == "Female"),
      FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Received a Papanicolaou exam", length = 6)),
  cbind(
    as.data.table(svyby(~I(pap_exam == "Yes" & !is.na(pap_exam)),
      by = ~agegroup,
      denominator = ~I(!is.na(pap_exam)),
      design = subset(svy_ensanut, sexo == "Female"),
      FUN = svyratio)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Received a Papanicolaou exam", length = 6))
)
setnames(d_pap_examf, names(d_pap_examf), v_names)

# Breast exam
d_breast_examf <- rbind(
  cbind(
    as.data.table(svyby(~I(breast_exam == "Yes" & !is.na(breast_exam)),
      by = ~agegroup,
      denominator = ~I(!is.na(breast_exam)),
      design = subset(svy_enpol, sexo == "Female"),
      FUN = svyratio)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Received a breast exam", length = 6)),
  cbind(
    as.data.table(svyby(~I(breast_exam == "Yes" & !is.na(breast_exam)),
      by = ~agegroup,
      denominator = ~I(!is.na(breast_exam)),
      design = subset(svy_ensanut, sexo == "Female"),
      FUN = svyratio)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Received a breast exam", length = 6))
)
setnames(d_breast_examf, names(d_breast_examf), v_names)

```

```

# Totals
d_countftot_enp <- as.data.table(svytotal(c(rep(1, nrow(d_enpol[d_enpol$sexo == "Female"]))), subset(svy_enpol_nodes,
sexo == "Female")))
d_countftot_enp[, `:=`(SE = "Total", variable = "Count", survey = "ENPOL")]
setnames(d_countftot_enp, c("total", "SE"), c("value", "agegroup"))

d_pap_examftot_enp <- as.data.table(svyratio(~I(pap_exam == "Yes" & !is.na(pap_exam)), ~I(!is.na(pap_exam)),
subset(svy_enpol, sexo == "Female"))$ratio)
setnames(d_pap_examftot_enp, names(d_pap_examftot_enp), "value")
d_pap_examftot_enp[, `:=`(agegroup = "Total", variable = "Received a Papanicolaou exam", survey = "ENPOL")]

d_breast_examftot_enp <- as.data.table(svyratio(~I(breast_exam == "Yes" & !is.na(breast_exam)), ~I(!is.na(breast_exam)),
subset(svy_enpol, sexo == "Female"))$ratio)
setnames(d_breast_examftot_enp, names(d_breast_examftot_enp), "value")
d_breast_examftot_enp[, `:=`(agegroup = "Total", variable = "Received a breast exam", survey = "ENPOL")]

d_countftot_ens <- as.data.table(svytotal(c(rep(1, nrow(d_ensanut[d_ensanut$sexo == "Female"]))),
subset(svy_ensanut_nodes, sexo == "Female")))
d_countftot_ens[, `:=`(SE = "Total", variable = "Count", survey = "ENSANUT")]
setnames(d_countftot_ens, c("total", "SE"), c("value", "agegroup"))

d_pap_examftot_ens <- as.data.table(svyratio(~I(pap_exam == "Yes" & !is.na(pap_exam)), ~I(!is.na(pap_exam)),
subset(svy_ensanut, sexo == "Female"))$ratio)
setnames(d_pap_examftot_ens, names(d_pap_examftot_ens), "value")
d_pap_examftot_ens[, `:=`(agegroup = "Total", variable = "Received a Papanicolaou exam", survey = "ENSANUT")]

d_breast_examftot_ens <- as.data.table(svyratio(~I(breast_exam == "Yes" & !is.na(breast_exam)), ~I(!is.na(breast_exam)),
subset(svy_ensanut, sexo == "Female"))$ratio)
setnames(d_breast_examftot_ens, names(d_breast_examftot_ens), "value")
d_breast_examftot_ens[, `:=`(agegroup = "Total", variable = "Received a breast exam", survey = "ENSANUT")]

d_total <- rbind(d_countftot_enp,
                d_countftot_ens,
                d_pap_examftot_enp,
                d_pap_examftot_ens,
                d_breast_examftot_enp,
                d_breast_examftot_ens)

# Non-response
d_pap_examfnr_enp <- as.data.table(svyratio(~I(is.na(pap_exam)), ~c(rep(1, nrow(d_enpol[d_enpol$sexo == "Female"]))),
subset(svy_enpol_nodes, sexo == "Female"))$ratio)
setnames(d_pap_examfnr_enp, names(d_pap_examfnr_enp), "value")
d_pap_examfnr_enp[, `:=`(agegroup = "Non-response", variable = "Received a Papanicolaou exam", survey = "ENPOL")]

d_breast_examfnr_enp <- as.data.table(svyratio(~I(is.na(breast_exam)), ~c(rep(1, nrow(d_enpol[d_enpol$sexo ==
"Female"]))), subset(svy_enpol_nodes, sexo == "Female"))$ratio)
setnames(d_breast_examfnr_enp, names(d_breast_examfnr_enp), "value")

```

```

d_breast_examfnr_enp[, `:=`(agegroup = "Non-response", variable = "Received a breast exam", survey = "ENPOL")]

d_pap_examfnr_ens <- as.data.table(svyratio(~I(is.na(pap_exam)), ~c(rep(1, nrow(d_ensanut[d_ensanut$sexo ==
"Female"])))), subset(svy_ensanut_nodes, sexo == "Female"))$ratio)
setnames(d_pap_examfnr_ens, names(d_pap_examfnr_ens), "value")
d_pap_examfnr_ens[, `:=`(agegroup = "Non-response", variable = "Received a Papanicolaou exam", survey = "ENSANUT")]

d_breast_examfnr_ens <- as.data.table(svyratio(~I(is.na(breast_exam)), ~c(rep(1, nrow(d_ensanut[d_ensanut$sexo ==
"Female"])))), subset(svy_ensanut_nodes, sexo == "Female"))$ratio)
setnames(d_breast_examfnr_ens, names(d_breast_examfnr_ens), "value")
d_breast_examfnr_ens[, `:=`(agegroup = "Non-response", variable = "Received a breast exam", survey = "ENSANUT")]

d_nr <- rbind(d_pap_examfnr_enp,
             d_pap_examfnr_ens,
             d_breast_examfnr_enp,
             d_breast_examfnr_ens)

tabw5 <- rbind(d_countf, d_pap_examf, d_breast_examf)
tabw5 <- as.data.table(tabw5)
tabw5[, se := NULL]

tabw5 <- rbind(tabw5, d_total, d_nr)
tabw5 <- as.data.table(tabw5)
tabw5 <- dcast(tabw5, agegroup + variable ~ survey, value.var = "value")
tabw5$Difference <- tabw5$ENPOL - tabw5$ENSANUT
tabw5 <- melt(tabw5, id.vars = c("agegroup", "variable"), variable.name = "survey")
tabw5 <- dcast(tabw5, survey + variable ~ agegroup)
tabw5$survey <- factor(tabw5$survey,
                      levels = c("ENPOL", "ENSANUT", "Difference"),
                      ordered = TRUE)
tabw5 <- tabw5[, .(variable, survey, `20-29`, `30-39`, `40-49`, `50-59`, `60-69`, `70-79`, `Total`, `Non-response`)]
tabw5$variable <- factor(tabw5$variable,
                      levels = c("Count", "Received a Papanicolaou exam", "Received a breast exam"),
                      ordered = TRUE)

setorder(tabw5, variable)
tabw5[, (cols) := lapply(.SD, round, digits = 4), .SDcols = cols]
fwrite(tabw5, "00_data/newTabs/tabw5.csv")

# Tab 6 - Time served (male and female) ####
d_time_servedm_enp <- cbind(
  as.data.table(svyby(~I(time_served == "Yes" & !is.na(time_served)),
    by = ~agegroup,
    denominator = ~I(!is.na(time_served)),
    design = subset(svy_enpol, sexo == "Male"),
    FUN = svyratio)),
  survey = rep("ENPOL", length = 6),
  variable = rep("More than 2 years incarcerated", length = 6))
setnames(d_time_servedm_enp, names(d_time_servedm_enp), v_names)

```

```

d_time_servedm_enp[, se := NULL]

# Totals
d_time_servedmtot_enp <- as.data.table(svyratio(~I(time_served == "Yes" & !is.na(time_served)), ~I(!is.na(time_served)),
subset(svy_enpol, sexo == "Male"))$ratio)
setnames(d_time_servedmtot_enp, names(d_time_servedmtot_enp), "value")
d_time_servedmtot_enp[, `:=`(agegroup = "Total", variable = "More than 2 years incarcerated", survey = "ENPOL")]

# Non-response
d_time_servedmnr_enp <- as.data.table(svyratio(~I(is.na(time_served)), ~c(rep(1, nrow(d_enpol[d_enpol$sexo == "Male" &
!is.na(d_enpol$diabetes)]))), subset(svy_enpol_nodes, sexo == "Male" & !is.na(diabetes)))$ratio)
setnames(d_time_servedmnr_enp, names(d_time_servedmnr_enp), "value")
d_time_servedmnr_enp[, `:=`(agegroup = "Non-response", variable = "More than 2 years incarcerated", survey = "ENPOL")]

tabw6m <- rbind(d_time_servedm_enp, d_time_servedmtot_enp, d_time_servedmnr_enp)
tabw6m <- as.data.table(tabw6m)
tabw6m <- dcast(tabw6m, variable ~ agegroup, value.var = "value")

tabw6m[, sex := "Male"]
tabw6m <- tabw6m[, .(variable, sex, `20-29`, `30-39`, `40-49`, `50-59`, `60-69`, `70-79`, `Total`, `Non-response`)]

# Female
d_time_servedf_enp <- cbind(
  as.data.table(svyby(~I(time_served == "Yes" & !is.na(time_served)),
    by = ~agegroup,
    denominator = ~I(!is.na(time_served)),
    design = subset(svy_enpol, sexo == "Female"),
    FUN = svyratio)),
  survey = rep("ENPOL", length = 6),
  variable = rep("More than 2 years incarcerated", length = 6))
setnames(d_time_servedf_enp, names(d_time_servedf_enp), v_names)
d_time_servedf_enp[, se := NULL]

d_time_servedftot_enp <- as.data.table(svyratio(~I(time_served == "Yes" & !is.na(time_served)), ~I(!is.na(time_served)),
subset(svy_enpol, sexo == "Female"))$ratio)
setnames(d_time_servedftot_enp, names(d_time_servedftot_enp), "value")
d_time_servedftot_enp[, `:=`(agegroup = "Total", variable = "More than 2 years incarcerated", survey = "ENPOL")]

d_time_servedfnr_enp <- as.data.table(svyratio(~I(is.na(time_served)), ~c(rep(1, nrow(d_enpol[d_enpol$sexo == "Female" &
!is.na(d_enpol$diabetes)]))), subset(svy_enpol_nodes, sexo == "Female" & !is.na(diabetes)))$ratio)
setnames(d_time_servedfnr_enp, names(d_time_servedfnr_enp), "value")
d_time_servedfnr_enp[, `:=`(agegroup = "Non-response", variable = "More than 2 years incarcerated", survey = "ENPOL")]

tabw6f <- rbind(d_time_servedf_enp, d_time_servedftot_enp, d_time_servedfnr_enp)
tabw6f <- as.data.table(tabw6f)
tabw6f <- dcast(tabw6f, variable ~ agegroup, value.var = "value")

tabw6f[, sex := "Female"]

```

```

tabw6f <- tabw6f[, .(variable, sex, `20-29`, `30-39`, `40-49`, `50-59`, `60-69`, `70-79`, `Total`, `Non-response`)]

tabw6 <- rbind(tabw6f, tabw6m)
tabw6[, (cols) := lapply(.SD, round, digits = 4), .SDcols = cols]
fwrite(tabw6, "00_data/newTabs/tabw6.csv")

# Tab 7 - Crime types (male and female) ####
# Male
# Murder
d_murderCrimesm <- cbind(
  as.data.table(svyby(~I(murderCrimes == 1 & !is.na(murderCrimes) & sentenced != 1 & !is.na(sentenced)),
    by = ~agegroup,
    denominator = ~I(!is.na(murderCrimes) & sentenced != 1 & !is.na(sentenced)),
    design = subset(svy_enpol, sexo == "Male"),
    FUN = svyratio)),
  survey = rep("ENPOL", length = 6),
  variable = rep("Homicide", length = 6))
setnames(d_murderCrimesm, names(d_murderCrimesm), v_names)

# Violent
d_violentCrimesm <- cbind(
  as.data.table(svyby(~I(violentCrimes == 1 & !is.na(violentCrimes) & sentenced != 1 & !is.na(sentenced)),
    by = ~agegroup,
    denominator = ~I(!is.na(violentCrimes) & sentenced != 1 & !is.na(sentenced)),
    design = subset(svy_enpol, sexo == "Male"),
    FUN = svyratio)),
  survey = rep("ENPOL", length = 6),
  variable = rep("Violent crimes", length = 6))
setnames(d_violentCrimesm, names(d_violentCrimesm), v_names)

# Property
d_propertyCrimesm <- cbind(
  as.data.table(svyby(~I(propertyCrimes == 1 & !is.na(propertyCrimes) & sentenced != 1 & !is.na(sentenced)),
    by = ~agegroup,
    denominator = ~I(!is.na(propertyCrimes) & sentenced != 1 & !is.na(sentenced)),
    design = subset(svy_enpol, sexo == "Male"),
    FUN = svyratio)),
  survey = rep("ENPOL", length = 6),
  variable = rep("Property crimes", length = 6))
setnames(d_propertyCrimesm, names(d_propertyCrimesm), v_names)

# Sexual
d_sexualCrimesm <- cbind(
  as.data.table(svyby(~I(sexualCrimes == 1 & !is.na(sexualCrimes) & sentenced != 1 & !is.na(sentenced)),
    by = ~agegroup,
    denominator = ~I(!is.na(sexualCrimes) & sentenced != 1 & !is.na(sentenced)),
    design = subset(svy_enpol, sexo == "Male"),
    FUN = svyratio)),
  survey = rep("ENPOL", length = 6),

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```

    variable = rep("Sexual crimes", length = 6))
setnames(d_sexualCrimesm, names(d_sexualCrimesm), v_names)

# Drug
d_drugCrimesm <- cbind(
  as.data.table(svyby(~I(drugCrimes == 1 & !is.na(drugCrimes) & sentenced != 1 & !is.na(sentenced)),
    by = ~agegroup,
    denominator = ~I(!is.na(drugCrimes) & sentenced != 1 & !is.na(sentenced)),
    design = subset(svy_enpol, sexo == "Male"),
    FUN = svyratio)),
  survey = rep("ENPOL", length = 6),
  variable = rep("Drug crimes", length = 6))
setnames(d_drugCrimesm, names(d_drugCrimesm), v_names)

# Organized
d_organizedCrimesm <- cbind(
  as.data.table(svyby(~I(organizedCrimes == 1 & !is.na(organizedCrimes) & sentenced != 1 & !is.na(sentenced)),
    by = ~agegroup,
    denominator = ~I(!is.na(organizedCrimes) & sentenced != 1 & !is.na(sentenced)),
    design = subset(svy_enpol, sexo == "Male"),
    FUN = svyratio)),
  survey = rep("ENPOL", length = 6),
  variable = rep("Organized crime", length = 6))
setnames(d_organizedCrimesm, names(d_organizedCrimesm), v_names)

# Totals
d_murderCrimesmtot <- as.data.table(svyratio(~I(murderCrimes == 1 & !is.na(murderCrimes) & sentenced != 1 &
!is.na(sentenced)), ~I(!is.na(murderCrimes) & sentenced != 1 & !is.na(sentenced)), subset(svy_enpol, sexo ==
"Male"))$ratio)
setnames(d_murderCrimesmtot, names(d_murderCrimesmtot), "value")
d_murderCrimesmtot[, `:=`(agegroup = "Total", variable = "Homicide", survey = "ENPOL")]

d_violentCrimesmtot <- as.data.table(svyratio(~I(violentCrimes == 1 & !is.na(violentCrimes) & sentenced != 1 &
!is.na(sentenced)), ~I(!is.na(violentCrimes) & sentenced != 1 & !is.na(sentenced)), subset(svy_enpol, sexo ==
"Male"))$ratio)
setnames(d_violentCrimesmtot, names(d_violentCrimesmtot), "value")
d_violentCrimesmtot[, `:=`(agegroup = "Total", variable = "Violent crimes", survey = "ENPOL")]

d_propertyCrimesmtot <- as.data.table(svyratio(~I(propertyCrimes == 1 & !is.na(propertyCrimes) & sentenced != 1 &
!is.na(sentenced)), ~I(!is.na(propertyCrimes) & sentenced != 1 & !is.na(sentenced)), subset(svy_enpol, sexo ==
"Male"))$ratio)
setnames(d_propertyCrimesmtot, names(d_propertyCrimesmtot), "value")
d_propertyCrimesmtot[, `:=`(agegroup = "Total", variable = "Property crimes", survey = "ENPOL")]

d_sexualCrimesmtot <- as.data.table(svyratio(~I(sexualCrimes == 1 & !is.na(sexualCrimes) & sentenced != 1 &
!is.na(sentenced)), ~I(!is.na(sexualCrimes) & sentenced != 1 & !is.na(sentenced)), subset(svy_enpol, sexo ==
"Male"))$ratio)
setnames(d_sexualCrimesmtot, names(d_sexualCrimesmtot), "value")
d_sexualCrimesmtot[, `:=`(agegroup = "Total", variable = "Sexual crimes", survey = "ENPOL")]

```

```

d_drugCrimesmtot <- as.data.table(svyratio(~I(drugCrimes == 1 & !is.na(drugCrimes) & sentenced != 1 &
!is.na(sentenced)), ~I(!is.na(drugCrimes) & sentenced != 1 & !is.na(sentenced)), subset(svy_enpol, sexo ==
"Male"))$ratio)
setnames(d_drugCrimesmtot, names(d_drugCrimesmtot), "value")
d_drugCrimesmtot[, `:=`(agegroup = "Total", variable = "Drug crimes", survey = "ENPOL")]

d_organizedCrimesmtot <- as.data.table(svyratio(~I(organizedCrimes == 1 & !is.na(organizedCrimes) & sentenced != 1 &
!is.na(sentenced)), ~I(!is.na(organizedCrimes) & sentenced != 1 & !is.na(sentenced)), subset(svy_enpol, sexo ==
"Male"))$ratio)
setnames(d_organizedCrimesmtot, names(d_organizedCrimesmtot), "value")
d_organizedCrimesmtot[, `:=`(agegroup = "Total", variable = "Organized crime", survey = "ENPOL")]

d_crimesmtot <- rbind(d_murderCrimesmtot,
                    d_violentCrimesmtot,
                    d_propertyCrimesmtot,
                    d_sexualCrimesmtot,
                    d_drugCrimesmtot,
                    d_organizedCrimesmtot)

# Non-response -- left off here -- problematic
d_murderCrimesmnr <- as.data.table(svyratio(~I(is.na(murderCrimes)), ~c(rep(1, nrow(d_enpol[d_enpol$sexo == "Male" &
sentenced != 1 & !is.na(sentenced)]))), subset(svy_enpol_nodes, sexo == "Male" & sentenced != 1 &
!is.na(sentenced)))$ratio)
setnames(d_murderCrimesmnr, names(d_murderCrimesmnr), "value")
d_murderCrimesmnr[, `:=`(agegroup = "Non-response", variable = "Homicide", survey = "ENPOL")]

d_violentCrimesmnr <- as.data.table(svyratio(~I(is.na(violentCrimes)), ~c(rep(1, nrow(d_enpol[d_enpol$sexo == "Male" &
sentenced != 1 & !is.na(sentenced)]))), subset(svy_enpol_nodes, sexo == "Male" & sentenced != 1 &
!is.na(sentenced)))$ratio)
setnames(d_violentCrimesmnr, names(d_violentCrimesmnr), "value")
d_violentCrimesmnr[, `:=`(agegroup = "Non-response", variable = "Violent crimes", survey = "ENPOL")]

d_propertyCrimesmnr <- as.data.table(svyratio(~I(is.na(propertyCrimes)), ~c(rep(1, nrow(d_enpol[d_enpol$sexo == "Male" &
sentenced != 1 & !is.na(sentenced)]))), subset(svy_enpol_nodes, sexo == "Male" & sentenced != 1 &
!is.na(sentenced)))$ratio)
setnames(d_propertyCrimesmnr, names(d_propertyCrimesmnr), "value")
d_propertyCrimesmnr[, `:=`(agegroup = "Non-response", variable = "Property crimes", survey = "ENPOL")]

d_sexualCrimesmnr <- as.data.table(svyratio(~I(is.na(sexualCrimes)), ~c(rep(1, nrow(d_enpol[d_enpol$sexo == "Male" &
sentenced != 1 & !is.na(sentenced)]))), subset(svy_enpol_nodes, sexo == "Male" & sentenced != 1 &
!is.na(sentenced)))$ratio)
setnames(d_sexualCrimesmnr, names(d_sexualCrimesmnr), "value")
d_sexualCrimesmnr[, `:=`(agegroup = "Non-response", variable = "Sexual crimes", survey = "ENPOL")]

d_drugCrimesmnr <- as.data.table(svyratio(~I(is.na(drugCrimes)), ~c(rep(1, nrow(d_enpol[d_enpol$sexo == "Male" &
sentenced != 1 & !is.na(sentenced)]))), subset(svy_enpol_nodes, sexo == "Male" & sentenced != 1 &
!is.na(sentenced)))$ratio)
setnames(d_drugCrimesmnr, names(d_drugCrimesmnr), "value")

```

```

d_drugCrimesmnr[, `:=`(agegroup = "Non-response", variable = "Drug crimes", survey = "ENPOL")]

d_organizedCrimesmnr <- as.data.table(svyratio(~I(is.na(organizedCrimes)), ~c(rep(1, nrow(d_enpol[d_enpol$sexo == "Male"
& sentenced != 1 & !is.na(sentenced)]))), subset(svy_enpol_nodes, sexo == "Male" & sentenced != 1 &
!is.na(sentenced)))$ratio)
setnames(d_organizedCrimesmnr, names(d_organizedCrimesmnr), "value")
d_organizedCrimesmnr[, `:=`(agegroup = "Non-response", variable = "Organized crime", survey = "ENPOL")]

d_crimesmnr <- rbind(d_murderCrimesmnr,
                    d_violentCrimesmnr,
                    d_propertyCrimesmnr,
                    d_sexualCrimesmnr,
                    d_drugCrimesmnr,
                    d_organizedCrimesmnr)

tabw7m <- rbind(d_murderCrimesm,
               d_violentCrimesm,
               d_propertyCrimesm,
               d_sexualCrimesm,
               d_drugCrimesm,
               d_organizedCrimesm)
tabw7m <- as.data.table(tabw7m)
tabw7m[, se := NULL]

tabw7m <- rbind(tabw7m, d_crimesmtot, d_crimesmnr)
tabw7m <- as.data.table(tabw7m)
tabw7m <- dcast(tabw7m, variable ~ agegroup, value.var = "value")

tabw7m[, sex := "Male"]
tabw7m <- tabw7m[, .(variable, sex, `20-29`, `30-39`, `40-49`, `50-59`, `60-69`, `70-79`, `Total`, `Non-response`)]

# Female
# Murder
d_murderCrimesf <- cbind(
  as.data.table(svyby(~I(murderCrimes == 1 & !is.na(murderCrimes) & sentenced != 1 & !is.na(sentenced)),
    by = ~agegroup,
    denominator = ~I(!is.na(murderCrimes) & sentenced != 1 & !is.na(sentenced)),
    design = subset(svy_enpol, sexo == "Female"),
    FUN = svyratio)),
  survey = rep("ENPOL", length = 6),
  variable = rep("Homicide", length = 6))
setnames(d_murderCrimesf, names(d_murderCrimesf), v_names)

# Violent
d_violentCrimesf <- cbind(
  as.data.table(svyby(~I(violentCrimes == 1 & !is.na(violentCrimes) & sentenced != 1 & !is.na(sentenced)),
    by = ~agegroup,
    denominator = ~I(!is.na(violentCrimes) & sentenced != 1 & !is.na(sentenced)),
    design = subset(svy_enpol, sexo == "Female"),

```

```

        FUN = svyratio)),
  survey = rep("ENPOL", length = 6),
  variable = rep("Violent crimes", length = 6))
setnames(d_violentCrimesf, names(d_violentCrimesf), v_names)

# Property
d_propertyCrimesf <- cbind(
  as.data.table(svyby(~I(propertyCrimes == 1 & !is.na(propertyCrimes) & sentenced != 1 & !is.na(sentenced)),
    by = ~agegroup,
    denominator = ~I(!is.na(propertyCrimes) & sentenced != 1 & !is.na(sentenced)),
    design = subset(svy_enpol, sexo == "Female"),
    FUN = svyratio)),
  survey = rep("ENPOL", length = 6),
  variable = rep("Property crimes", length = 6))
setnames(d_propertyCrimesf, names(d_propertyCrimesf), v_names)

# Sexual
d_sexualCrimesf <- cbind(
  as.data.table(svyby(~I(sexualCrimes == 1 & !is.na(sexualCrimes) & sentenced != 1 & !is.na(sentenced)),
    by = ~agegroup,
    denominator = ~I(!is.na(sexualCrimes) & sentenced != 1 & !is.na(sentenced)),
    design = subset(svy_enpol, sexo == "Female"),
    FUN = svyratio)),
  survey = rep("ENPOL", length = 6),
  variable = rep("Sexual crimes", length = 6))
setnames(d_sexualCrimesf, names(d_sexualCrimesf), v_names)

# Drug
d_drugCrimesf <- cbind(
  as.data.table(svyby(~I(drugCrimes == 1 & !is.na(drugCrimes) & sentenced != 1 & !is.na(sentenced)),
    by = ~agegroup,
    denominator = ~I(!is.na(drugCrimes) & sentenced != 1 & !is.na(sentenced)),
    design = subset(svy_enpol, sexo == "Female"),
    FUN = svyratio)),
  survey = rep("ENPOL", length = 6),
  variable = rep("Drug crimes", length = 6))
setnames(d_drugCrimesf, names(d_drugCrimesf), v_names)

# Organized
d_organizedCrimesf <- cbind(
  as.data.table(svyby(~I(organizedCrimes == 1 & !is.na(organizedCrimes) & sentenced != 1 & !is.na(sentenced)),
    by = ~agegroup,
    denominator = ~I(!is.na(organizedCrimes) & sentenced != 1 & !is.na(sentenced)),
    design = subset(svy_enpol, sexo == "Female"),
    FUN = svyratio)),
  survey = rep("ENPOL", length = 6),
  variable = rep("Organized crime", length = 6))
setnames(d_organizedCrimesf, names(d_organizedCrimesf), v_names)

```

```

# Totals
d_murderCrimesftot <- as.data.table(svyratio(~I(murderCrimes == 1 & !is.na(murderCrimes) & sentenced != 1 &
!is.na(sentenced)), ~I(!is.na(murderCrimes) & sentenced != 1 & !is.na(sentenced)), subset(svy_enpol, sexo ==
"Female"))$ratio)
setnames(d_murderCrimesftot, names(d_murderCrimesftot), "value")
d_murderCrimesftot[, `:=`(agegroup = "Total", variable = "Homicide", survey = "ENPOL")]

d_violentCrimesftot <- as.data.table(svyratio(~I(violentCrimes == 1 & !is.na(violentCrimes) & sentenced != 1 &
!is.na(sentenced)), ~I(!is.na(violentCrimes) & sentenced != 1 & !is.na(sentenced)), subset(svy_enpol, sexo ==
"Female"))$ratio)
setnames(d_violentCrimesftot, names(d_violentCrimesftot), "value")
d_violentCrimesftot[, `:=`(agegroup = "Total", variable = "Violent crimes", survey = "ENPOL")]

d_propertyCrimesftot <- as.data.table(svyratio(~I(propertyCrimes == 1 & !is.na(propertyCrimes) & sentenced != 1 &
!is.na(sentenced)), ~I(!is.na(propertyCrimes) & sentenced != 1 & !is.na(sentenced)), subset(svy_enpol, sexo ==
"Female"))$ratio)
setnames(d_propertyCrimesftot, names(d_propertyCrimesftot), "value")
d_propertyCrimesftot[, `:=`(agegroup = "Total", variable = "Property crimes", survey = "ENPOL")]

d_sexualCrimesftot <- as.data.table(svyratio(~I(sexualCrimes == 1 & !is.na(sexualCrimes) & sentenced != 1 &
!is.na(sentenced)), ~I(!is.na(sexualCrimes) & sentenced != 1 & !is.na(sentenced)), subset(svy_enpol, sexo ==
"Female"))$ratio)
setnames(d_sexualCrimesftot, names(d_sexualCrimesftot), "value")
d_sexualCrimesftot[, `:=`(agegroup = "Total", variable = "Sexual crimes", survey = "ENPOL")]

d_drugCrimesftot <- as.data.table(svyratio(~I(drugCrimes == 1 & !is.na(drugCrimes) & sentenced != 1 &
!is.na(sentenced)), ~I(!is.na(drugCrimes) & sentenced != 1 & !is.na(sentenced)), subset(svy_enpol, sexo ==
"Female"))$ratio)
setnames(d_drugCrimesftot, names(d_drugCrimesftot), "value")
d_drugCrimesftot[, `:=`(agegroup = "Total", variable = "Drug crimes", survey = "ENPOL")]

d_organizedCrimesftot <- as.data.table(svyratio(~I(organizedCrimes == 1 & !is.na(organizedCrimes) & sentenced != 1 &
!is.na(sentenced)), ~I(!is.na(organizedCrimes) & sentenced != 1 & !is.na(sentenced)), subset(svy_enpol, sexo ==
"Female"))$ratio)
setnames(d_organizedCrimesftot, names(d_organizedCrimesftot), "value")
d_organizedCrimesftot[, `:=`(agegroup = "Total", variable = "Organized crime", survey = "ENPOL")]

d_crimesftot <- rbind(d_murderCrimesftot,
                     d_violentCrimesftot,
                     d_propertyCrimesftot,
                     d_sexualCrimesftot,
                     d_drugCrimesftot,
                     d_organizedCrimesftot)

# Non-response -- left off here -- problematic
d_murderCrimesfnr <- as.data.table(svyratio(~I(is.na(murderCrimes)), ~c(rep(1, nrow(d_enpol[d_enpol$sexo == "Female" &
sentenced != 1 & !is.na(sentenced)]))), subset(svy_enpol_nodes, sexo == "Female" & sentenced != 1 &
!is.na(sentenced)))$ratio)
setnames(d_murderCrimesfnr, names(d_murderCrimesfnr), "value")

```

```

d_murderCrimesfnr[, `:=`(agegroup = "Non-response", variable = "Homicide", survey = "ENPOL")]

d_violentCrimesfnr <- as.data.table(svyratio(~I(is.na(violentCrimes)), ~c(rep(1, nrow(d_enpol[d_enpol$sexo == "Female" &
sentenced != 1 & !is.na(sentenced)]))), subset(svy_enpol_nodes, sexo == "Female" & sentenced != 1 &
!is.na(sentenced)))$ratio)
setnames(d_violentCrimesfnr, names(d_violentCrimesfnr), "value")
d_violentCrimesfnr[, `:=`(agegroup = "Non-response", variable = "Violent crimes", survey = "ENPOL")]

d_propertyCrimesfnr <- as.data.table(svyratio(~I(is.na(propertyCrimes)), ~c(rep(1, nrow(d_enpol[d_enpol$sexo == "Female"
& sentenced != 1 & !is.na(sentenced)]))), subset(svy_enpol_nodes, sexo == "Female" & sentenced != 1 &
!is.na(sentenced)))$ratio)
setnames(d_propertyCrimesfnr, names(d_propertyCrimesfnr), "value")
d_propertyCrimesfnr[, `:=`(agegroup = "Non-response", variable = "Property crimes", survey = "ENPOL")]

d_sexualCrimesfnr <- as.data.table(svyratio(~I(is.na(sexualCrimes)), ~c(rep(1, nrow(d_enpol[d_enpol$sexo == "Female" &
sentenced != 1 & !is.na(sentenced)]))), subset(svy_enpol_nodes, sexo == "Female" & sentenced != 1 &
!is.na(sentenced)))$ratio)
setnames(d_sexualCrimesfnr, names(d_sexualCrimesfnr), "value")
d_sexualCrimesfnr[, `:=`(agegroup = "Non-response", variable = "Sexual crimes", survey = "ENPOL")]

d_drugCrimesfnr <- as.data.table(svyratio(~I(is.na(drugCrimes)), ~c(rep(1, nrow(d_enpol[d_enpol$sexo == "Female" &
sentenced != 1 & !is.na(sentenced)]))), subset(svy_enpol_nodes, sexo == "Female" & sentenced != 1 &
!is.na(sentenced)))$ratio)
setnames(d_drugCrimesfnr, names(d_drugCrimesfnr), "value")
d_drugCrimesfnr[, `:=`(agegroup = "Non-response", variable = "Drug crimes", survey = "ENPOL")]

d_organizedCrimesfnr <- as.data.table(svyratio(~I(is.na(organizedCrimes)), ~c(rep(1, nrow(d_enpol[d_enpol$sexo ==
"Female" & sentenced != 1 & !is.na(sentenced)]))), subset(svy_enpol_nodes, sexo == "Female" & sentenced != 1 &
!is.na(sentenced)))$ratio)
setnames(d_organizedCrimesfnr, names(d_organizedCrimesfnr), "value")
d_organizedCrimesfnr[, `:=`(agegroup = "Non-response", variable = "Organized crime", survey = "ENPOL")]

d_crimesfnr <- rbind(d_murderCrimesfnr,
                    d_violentCrimesfnr,
                    d_propertyCrimesfnr,
                    d_sexualCrimesfnr,
                    d_drugCrimesfnr,
                    d_organizedCrimesfnr)

tabw7f <- rbind(d_murderCrimesf,
               d_violentCrimesf,
               d_propertyCrimesf,
               d_sexualCrimesf,
               d_drugCrimesf,
               d_organizedCrimesf)
tabw7f <- as.data.table(tabw7f)
tabw7f[, se := NULL]

tabw7f <- rbind(tabw7f, d_crimesftot, d_crimesfnr)

```

```
tabw7f <- as.data.table(tabw7f)
tabw7f <- dcast(tabw7f, variable ~ agegroup, value.var = "value")

tabw7f[, sex := "Female"]
tabw7f <- tabw7f[, .(variable, sex, `20-29`, `30-39`, `40-49`, `50-59`, `60-69`, `70-79`, `Total`, `Non-response`)]

tabw7 <- rbind(tabw7f, tabw7m)
tabw7[, (cols) := lapply(.SD, round, digits = 4), .SDcols = cols]
fwrite(tabw7, "00_data/newTabs/tabw7.csv")
```

```
#####
## Graphs ##
## Sarah Hirsch swirsch@stanford.edu ##
## 12-15-2023 ##
#####
```

```
# Environment ####
library(data.table)
library(ggplot2)
library(RColorBrewer)
library(scales)
library(grid)
library(tmap)
library(ggnewscale)
library(sf)
library(stringdist)
```

```
# Prison map ####
rmcols <- c("V1", "EST_DIS", "FAC_PER", "FPC")
d_enpolsoc <- fread("00_data/ENPOL2021_SOC.csv")
d_enpolsoc[, (rmcols) := NULL]
```

```
deaccent <- function(vector){
  vector <- gsub("\xd3", "O", vector)
  vector <- gsub("\xda", "U", vector)
  vector <- gsub("\xc9", "E", vector)
  vector <- gsub("\xe1", "a", vector)
  vector <- gsub("\xe9", "e", vector)
  vector <- gsub("\xf3", "o", vector)
  vector <- gsub("\xed", "i", vector)
  vector <- gsub("\xd1", "N", vector)
  vector <- gsub("\xcd", "I", vector)
}
```

```
# Data cleaning ####
d_peniten_geo <- fread("00_data/mlslplcp1_cnsipee2022.csv")
d_cefereso <- fread("00_data/CEFERESOS_WIKI.csv")
d_cefereso$type <- "Federal"
d_cefereso$lon <- 0 - d_cefereso$lon
d_peniten_geo$type <- "State"
cols <- c("nombrel", "municipl", "enticvel", "entidad_a", "latitudl", "longitul", "type")
setnames(d_cefereso, names(d_cefereso), cols)
d_cefereso <- d_cefereso[, .(entidad_a, enticvel, nombrel, municipl, latitudl, longitul, type)]
d_peniten_geo <- rbind(d_peniten_geo, d_cefereso, fill = TRUE)

d_enpolpen <- unique(d_enpolsoc[, .(NOM_INT, CVE_ENT)])
d_enpolpen <- d_enpolpen[!is.na(NOM_INT)]
```

```

d_enpolpen$NOM_INT <- deaccent(d_enpolpen$NOM_INT)
d_enpolpen$NOM_INT <- gsub("CENTRO DE REINSENCION SOCIAL", "CERESO", d_enpolpen$NOM_INT) # Common abbreviation
d_enpolpen$NOM_INT <- gsub("NUMERO", "NO", d_enpolpen$NOM_INT)
d_enpolpen$NOM_INT <- gsub(" NO ", " ", d_enpolpen$NOM_INT)
d_enpolpen$NOM_INT[d_enpolpen$NOM_INT == "PENITENCIARIA SAN LUIS POTOSI"] <- "CENTRO PENITENCIARIO SAN LUIS POTOSI" #
Verified same location
d_enpolpen$NOM_INT[d_enpolpen$NOM_INT == "COMISARIA DE REINSENCION SOCIAL"] <- "COMISARIA DE SENTENCIADOS" # Verified
same location
d_enpolpen$NOM_INT[d_enpolpen$NOM_INT == "CEPRERESO LEON"] <- "CERESO LEON" # Verified same location
d_enpolpen$NOM_INT[d_enpolpen$NOM_INT == "CERESO TEXCOCO DR. ALFONSO QUIROZ CUARON"] <- "CERESO TEXCOCO"
d_enpolpen$NOM_INT[d_enpolpen$nombre1 == "CERESO CP1 EL VARONIL"] <- "CERESO CP1 EL VARONIL" # Verified same location as
CERESO SAN JOSE EL ALTO
d_enpolpen$NOM_INT[d_enpolpen$nombre1 == "CERESO CP2 EL VARONIL"] <- "CERESO CP2 EL VARONIL" # Verified same location as
CERESO SAN JOSE EL ALTO
d_enpolpen$NOM_INT[d_enpolpen$nombre1 == "CERESO DE TABASCO (CRESET)"] <- "CERESO DE TABASCO (CRESET)" # Verified same
location as CERESO VILLAHERMOSA
d_enpolpen$NOM_INT[d_enpolpen$nombre1 == "CENTRO REGIONAL DE REINSENCION SOCIAL VARONIL CIENEGUILLAS"] <- "CENTRO
REGIONAL DE REINSENCION SOCIAL VARONIL CIENEGUILLAS" # Verified same location as CERESO CIENEGUILLAS
d_enpolpen$NOM_INT[d_enpolpen$nombre1 == "CENTRO ESTATAL DE REINSENCION SOCIAL FEMENIL CIENEGUILLAS"] <- "CENTRO ESTATAL
DE REINSENCION SOCIAL FEMENIL CIENEGUILLAS" # Verified same location as CERESO CIENEGUILLAS
d_enpolpen$NOM_INT[d_enpolpen$NOM_INT == "CERESO TLALNEPANTLA JUAN FERNANDEZ ALBARRAN"] <- "CERESO TLALNEPANTLA"
d_enpolpen$NOM_INT[d_enpolpen$NOM_INT == "CENTRO PENITENCIARIO FEDERAL 18 \\\\"CPS COAHUILA\\\\""] <- "CEFERESO 18 CPS
COAHUILA"
d_enpolpen$NOM_INT[d_enpolpen$NOM_INT == "CERESO ECATEPEC DR. SERGIO GARCIA RAMIREZ"] <- "CERESO ECATEPEC"

```

```

# CEPRERESO LEON = CERESO LEON
# COMISARIA DE REINSENCION SOCIAL = COMISARIA DE SENTENCIADOS
# PENITENCIARIA SAN LUIS POTOSI = CENTRO PENITENCIARIO DE SAN LUIS POTOSI
d_peniten_geo$nombre1 <- gsub("NO.", "NO", d_peniten_geo$nombre1)
d_peniten_geo$nombre1 <- gsub(" NO ", " ", d_peniten_geo$nombre1)
d_peniten_geo$nombre1 <- gsub("CENTRO DE REINSENCION SOCIAL", "CERESO", d_peniten_geo$nombre1) # Common abbreviation
d_peniten_geo$nombre1 <- gsub("CENTRO PENITENCIARIO", "CERESO", d_peniten_geo$nombre1) # Common misnomer
d_peniten_geo$nombre1 <- gsub("EL ALTIPLANOALMOLOYA", "ALTIPLANO ALMOLOYA", d_peniten_geo$nombre1)
d_peniten_geo$nombre1 <- gsub("CENTRO DE READAPTACION SOCIAL VENUSTIANOCARRANZA", "CERESO NAYARIT",
d_peniten_geo$nombre1) # Verified same location, not to be confused with CEFERESO 4 NOROESTE
d_peniten_geo$municipi1[d_peniten_geo$municipi1 == "ACAPULCO DE JUAREZ"] <- "ACAPULCO"
d_peniten_geo$municipi1[d_peniten_geo$municipi1 == "ALMOLOYA DE JUAREZ"] <- "ALMOLOYA"
d_peniten_geo$municipi1[d_peniten_geo$municipi1 == "ECATEPEC DE MORELOS"] <- "ECATEPEC"
d_peniten_geo$municipi1[d_peniten_geo$municipi1 == "TLALNEPANTLA DE BAZ"] <- "TLALNEPANTLA"

```

```

# Jaro distance matching ###
d_penmatch <- merge(d_peniten_geo, d_enpolpen, by.x = "enticvel", by.y = "CVE_ENT", all = TRUE, allow.cartesian = TRUE)
d_penmatch$dist <- stringdist(d_penmatch$nombre1, d_penmatch$NOM_INT, method = "lv")
d_penmatch[, minDist := min(dist), by = .(NOM_INT)]
d_penmatch[, matchFlag := ifelse(minDist == dist & dist < 10, 1, 0)]
munFind <- sapply(unique(d_penmatch$municipi1), grepl, d_penmatch$NOM_INT)
munFind <- as.data.table(munFind)
cols <- names(munFind)

```

```

munFind[, (cols) := lapply(.SD, function(x) as.character(x)), .SDcols = cols]
w <- which(munFind == "TRUE", arr.ind = TRUE)
munFind[w] <- names(munFind)[w[, "col"]]
munFind[, (cols) := lapply(.SD, function(x) ifelse(x != "FALSE", x, NA)), .SDcols = cols]
munFind[, JUAREZ := NA]
munFind <- do.call(dplyr::coalesce, munFind)
d_penmatch <- cbind(d_penmatch, munMatch = munFind)
d_penmatch[, matchFlag := ifelse(minDist == dist & dist >= 10 & municip1 == munMatch, 1, matchFlag)]
d_penmatch$matchFlag[d_penmatch$nombrel == "CERESO VARONIL DE SAN FRANCISCO TANIVET" & d_penmatch$NOM_INT == "CERESO DE
MEDIA SEGURIDAD TANIVET"] <- 1
d_penmatch$matchFlag[d_penmatch$nombrel == "CERESO FEMENIL DE SAN FRANCISCO TANIVET" & d_penmatch$NOM_INT == "CERESO DE
MEDIA SEGURIDAD TANIVET"] <- 1
d_penmatch$matchFlag[d_penmatch$nombrel == "CERESO SAN FRANCISCO KOBEN CAMPECHE" & d_penmatch$NOM_INT == "CERESO KOBEN"]
<- 1
d_penmatch[, Inclusion := ifelse(matchFlag == 1, "Surveyed", "Not Surveyed")]
d_penmatch$Inclusion[is.na(d_penmatch$Inclusion)] <- "Not Surveyed"
d_penmatch <- unique(d_penmatch[, .(enticvel, entidad_a, numeral, nombrel, integral, ubicageo_e, municip1, colonial,
latitud1, longitul, type, Inclusion)])

# Load and merge other spatial data ####
sd_urb <- st_read("00_data/localidad50_a.shp")
sd_urb <- subset(sd_urb, tipo == "Urbana")
sd_pen <- st_as_sf(d_penmatch, coords = c("longitul", "latitud1"), crs = 6365)
sd_state <- st_read("00_data/MEX_adml.shp", crs = 6365)
sd_pen$Inclusion <- factor(sd_pen$Inclusion,
                        levels = c("Surveyed", "Not Surveyed"),
                        ordered = TRUE)

sd_near <- st_join(sd_urb, sd_pen, join = st_is_within_distance, dist = 10)
sd_near %>% filter(!is.na(Inclusion)) %>% distinct(nombrel) %>% summarize(n = n())

# Maps ####
colors <- setNames(brewer.pal(2, "Paired"),
                  levels(sd_pen$Inclusion))
colors[1] <- "#000000"
colors[2] <- "#A6CEE3"
names(sd_urb)[names(sd_urb) == "tipo"] <- "Area type"

ggplot() +
  geom_sf(sd_state, mapping = aes(), fill = "white") +
  geom_sf(sd_urb, mapping = aes(fill = `Area type`), color = "darkred") +
  scale_fill_discrete("Area type", labels = "Urban", type = "darkred") +
  new_scale("fill")+
  geom_sf(sd_pen, mapping = aes(fill = Inclusion, shape = Inclusion), size = 2.5) +
  scale_fill_manual("Inclusion", values = colors[1:2]) +
  scale_shape_manual("Inclusion", values = c(22,24)) +
  theme_minimal() +

```

```

ggtitle("Geographic distribution of Mexican prisons superimposed on urban zones") +
theme(axis.line = element_blank(),
      panel.grid.major = element_blank(),
      panel.grid.minor = element_blank(),
      axis.text = element_blank(),
      axis.ticks = element_blank(),
      plot.title = element_text(size = 16)) +
scale_color_identity(guide = "legend") +
theme(legend.position = c(0.8, 0.7))

tm_shape(sd_state) +
  tm_borders(col = "black") +
tm_shape(sd_pen) +
  tm_symbols(col = "Inclusion", shape = "Inclusion") +
tm_shape(sd_urb) +
  tm_polygons(fill = "tipo")

# Prevalence graphs
# Data cleaning #####
tab2.1m <- fread("00_data/newTabs/tabw2_1m.csv")
tab2.1f <- fread("00_data/newTabs/tabw2_1f.csv")
tab3.1m <- fread("00_data/newTabs/tabw3_1m.csv")
tab3.1f <- fread("00_data/newTabs/tabw3_1f.csv")
tab3.2m <- fread("00_data/newTabs/tabw3_2m.csv")
tab3.2f <- fread("00_data/newTabs/tabw3_2f.csv")
tab6 <- fread("00_data/newTabs/tabw6.csv")
tab7 <- fread("00_data/newTabs/tabw7.csv")

tab2.1m$sex <- "Male"
tab2.1f$sex <- "Female"
tab3.1m$sex <- "Male"
tab3.1f$sex <- "Female"
tab3.2m$sex <- "Male"
tab3.2f$sex <- "Female"
tab6$measure <- "Time incarcerated"
tab7$measure <- "Reason for incarceration"

tab2.1 <- rbind(tab2.1m, tab2.1f)
tab3.1 <- rbind(tab3.1m, tab3.1f)
tab3.2 <- rbind(tab3.2m, tab3.2f)
tab6_7 <- rbind(tab6, tab7)

tab2.1 <- tab2.1[survey != "Difference",]
tab3.1 <- tab3.1[survey != "Difference",]
tab3.2 <- tab3.2[survey != "Difference",]

tab2.1[, survey := ifelse(survey == "ENPOL", "Incarcerated", "Free-living")]
tab3.1[, survey := ifelse(survey == "ENPOL", "Incarcerated", "Free-living")]

```

```

tab3.2[, survey := ifelse(survey == "ENPOL", "Incarcerated", "Free-living")]

# Nutrition and sanitation exposures bar graph ####
tab2.1 <- tab2.1[variable %in% c("Water insecurity", "Food insecurity", "No electricity", "No flushing toilet")]
tab2.1 <- tab2.1[, .(variable, sex, survey, `20-29`, `30-39`, `40-49`, `50-59`, `60-69`, `70-79`)]
tab2.1 <- melt(tab2.1, id.vars = c("variable", "survey", "sex"), variable.name = "agegroup", value.name = "value")
tab2.1$survey <- factor(tab2.1$survey,
  levels = c("Incarcerated", "Free-living"),
  ordered = TRUE)
tab2.1$variable <- factor(tab2.1$variable,
  levels = c("No flushing toilet", "Water insecurity", "Food insecurity", "No electricity"))

tab2.1 <- tab2.1[!(agegroup == "80+" & sex == "Female")]
setnames(tab2.1, "value", "Prevalence")

v_colors <- c("#333399", "#D95F02", "#B2DF8A")

# Create a dummy table to adjust y axes
dummy2.1 <- data.frame(variable = rep(rep(c("Water insecurity", "Food insecurity", "No electricity"), each = 2), 2),
  survey = rep(rep(c("Incarcerated", "Free-living"), 3), 2),
  sex = rep(c("Male", "Female"), each = 6),
  agegroup = rep("20-29", 6),
  Prevalence = rep(rep(c(0.3, 0.3, 0.1), each = 2), 2))

ggplot(tab2.1) +
  geom_col(aes(x = agegroup, y = Prevalence, fill = survey), position = "dodge") +
  facet_grid(variable~sex, scales = "free") +
  ggtitle("Comparative prevalence of nutrition and sanitation exposures")+
  xlab("Age Group") +
  ylab("") +
  guides(fill = guide_legend(title="Population")) +
  geom_blank(data = dummy2.1, aes(x = agegroup, y = Prevalence)) +
  theme_bw() +
  scale_fill_manual(values = v_colors) +
  scale_y_continuous(labels = scales::percent_format(accuracy = 1))

# Physical health outcomes bar graph ####
tab3.1_cond <- tab3.1[variable %in% c("Hypertension diagnosis", "Diabetes diagnosis")]
tab3.1_cond <- tab3.1_cond[, .(variable, survey, sex, `20-29`, `30-39`, `40-49`, `50-59`, `60-69`, `70-79`)]
tab3.1_cond <- melt(tab3.1_cond, id.vars = c("variable", "survey", "sex"), variable.name = "agegroup", value.name =
"value")
tab3.1_cond$survey <- factor(tab3.1_cond$survey,
  levels = c("Incarcerated", "Free-living", "Difference"),
  ordered = TRUE)
tab3.1_cond$value[tab3.1_cond$agegroup == "80+" & tab3.1_cond$sex == "Female"] <- NA
setnames(tab3.1_cond, "value", "Prevalence")

tab3.1_vio <- tab3.1[variable == "Physical injury from violence"]

```

```

tab3.2_vio <- tab3.2[variable == "Sexual assault"]
tab_vio <- rbind(tab3.1_vio, tab3.2_vio)
tab_vio <- tab_vio[, .(variable, survey, sex, `20-29`, `30-39`, `40-49`, `50-59`, `60-69`, `70-79`)]
tab_vio <- melt(tab_vio, id.vars = c("variable", "survey", "sex"), variable.name = "agegroup", value.name = "value")
tab_vio$survey <- factor(tab_vio$survey,
                        levels = c("Incarcerated", "Free-living", "Difference"),
                        ordered = TRUE)
tab_vio$variable[tab_vio$variable == "Physical injury from violence"] <- "Injury from violence"

tab_vio$value[tab_vio$agegroup == "80+" & tab_vio$sex == "Female"] <- NA
setnames(tab_vio, "value", "Prevalence")

tab_phys <- rbind(tab3.1_cond, tab_vio)
tab_phys$variable <- factor(tab_phys$variable,
                            levels = c("Hypertension diagnosis", "Diabetes diagnosis", "Injury from violence", "Sexual
assault"),
                            ordered = TRUE)

dummy_phys <- data.frame(variable = rep(rep(c("Diabetes diagnosis", "Injury from violence", "Sexual assault"), each =
2), 2),
                        survey = rep(rep(c("Incarcerated", "Free-living"), 3), 2),
                        sex = rep(c("Male", "Female"), each = 6),
                        agegroup = rep("20-29", 6),
                        Prevalence = rep(rep(c(0.6, 0.15, 0.15), each = 2), 2))

ggplot(tab_phys) +
  geom_col(aes(x = agegroup, y = Prevalence, fill = survey), position = "dodge") +
  facet_grid(variable~sex, scales = "free") +
  ggtitle("Comparative prevalence of physical health events by sex") +
  geom_blank(data=dummy_phys, aes(x = agegroup, y = Prevalence)) +
  xlab("Age Group") +
  ylab("") +
  guides(fill = guide_legend(title="Population")) +
  theme_bw() +
  scale_fill_manual(values = v_colors) +
  scale_y_continuous(labels = percent_format(accuracy = 1)
)

# Mental health graph ####
tab3.2_mh <- tab3.2[variable %in% c("Suicidal ideation", "Suicide attempt")]
tab3.2_mh <- tab3.2_mh[, .(variable, survey, sex, `20-29`, `30-39`, `40-49`, `50-59`, `60-69`, `70-79`)]
tab3.2_mh <- melt(tab3.2_mh, id.vars = c("variable", "survey", "sex"), variable.name = "agegroup", value.name = "value")
tab3.2_mh$survey <- factor(tab3.2_mh$survey,
                        levels = c("Incarcerated", "Free-living", "Difference"),
                        ordered = TRUE)
tab3.2_mh$value[tab3.2_mh$agegroup == "80+" & tab3.2_mh$sex == "Female"] <- NA
tab3.2_mh$value[tab3.2_mh$agegroup == "80+" & tab3.2_mh$sex == "Male" & tab3.2_mh$variable == "Suicide attempt"] <- NA
setnames(tab3.2_mh, "value", "Prevalence")

```

```

dummy3.2_mh <- data.frame(variable = rep(rep(c("Suicidal ideation", "Suicide attempt"), each = 2), 2),
  survey = rep(rep(c("Incarcerated", "Free-living"), 2), 2),
  sex = rep(c("Male", "Female"), each = 4),
  agegroup = rep("20-29", 4),
  Prevalence = rep(rep(c(0.2, 0.1), each = 2), 2))

ggplot(tab3.2_mh) +
  geom_col(aes(x = agegroup, y = Prevalence, fill = survey), position = "dodge") +
  geom_blank(data=dummy3.2_mh, aes(x = agegroup, y = Prevalence)) +
  facet_grid(variable~sex, scales = "free_y") +
  ggtitle("Comparative suicidal ideation and suicide attempts by sex") +
  xlab("Age Group") +
  ylab("") +
  guides(fill = guide_legend(title="Population")) +
  theme_bw() +
  scale_fill_manual(values = v_colors) +
  scale_y_continuous(labels = percent_format(accuracy = 1))

tab6_7 <- tab6_7[, .(variable, sex, measure, `20-29`, `30-39`, `40-49`, `50-59`, `60-69`, `70-79`)]
tab6_7 <- melt(tab6_7, id.vars = c("variable", "sex", "measure"), variable.name = "agegroup", value.name = "value")
tab6_7$variable <- factor(tab6_7$variable,
  levels = c("More than 2 years incarcerated", "Drug crimes", "Homicide", "Violent crimes",
"Property crimes", "Sexual crimes", "Organized crime"),
  ordered = TRUE)
tab6_7$measure <- factor(tab6_7$measure,
  levels = c("Time incarcerated", "Reason for incarceration"),
  ordered = TRUE)
tab6_7$value[tab6_7$agegroup == "80+" & tab6_7$sex == "Female"] <- NA
setnames(tab6_7, "value", "Prevalence")

tab7 <- tab6_7[measure != "Time incarcerated"]

colors <- setNames(brewer.pal(6, "Dark2"),
  levels(tab7$variable)[levels(tab7$variable) != "More than 2 years incarcerated"])

ggplot(tab7) +
  geom_col(aes(x = agegroup, y = Prevalence, fill = variable), position = "dodge") +
  facet_grid(sex~measure, scales = "fixed") +
  ggtitle("Reason for incarceration") +
  xlab("Age Group") +
  ylab("") +
  guides(fill = guide_legend(title="Variable")) +
  scale_fill_manual(values = colors) +
  theme_bw() +
  scale_y_continuous(labels = percent_format(accuracy = 1))

```

```
#####  
## Significance tests      ##  
## Sarah Hirsch swhirsch@stanford.edu ##  
## 12-15-2023             ##  
#####
```

```
library(tidyr)  
library(dplyr)  
library(broom)  
library(survey)  
library(data.table)  
options(scipen = 999)  
options(survey.adjust.domain.lonely=TRUE)  
options(survey.lonely.psu="adjust")
```

```
# Start analysing survey data ####  
d_enpol <- d_enpol[agegroup != "18-19" & agegroup != "80+",]  
d_ensanut <- d_ensanut[agegroup != "80+",]  
svy_enpol <- svydesign(ids=~key_indiv, strata=~strata, fpc=~fpc, data=d_enpol, weights=~weights_old)  
svy_enpol_nodes <- svydesign(ids=~key_indiv, data=d_enpol)  
svy_ensanut <- svydesign(ids=~key_indiv, strata=~strata, data=d_ensanut, weights=~weights_old)  
svy_ensanut_nodes <- svydesign(ids=~key_indiv, data=d_ensanut)
```

```
# Factorize variables ####  
svy_enpol <- update(svy_enpol, agegroup = factor(agegroup))  
svy_ensanut <- update(svy_ensanut, agegroup = factor(agegroup))  
svy_enpol <- update(svy_enpol, shelter = factor(shelter))  
svy_ensanut <- update(svy_ensanut, shelter = factor(shelter))  
svy_enpol <- update(svy_enpol, literacy = factor(literacy))  
svy_ensanut <- update(svy_ensanut, literacy = factor(literacy))  
svy_enpol <- update(svy_enpol, job = factor(job))  
svy_ensanut <- update(svy_ensanut, job = factor(job))  
svy_enpol <- update(svy_enpol, state_res = factor(state_res))  
svy_ensanut <- update(svy_ensanut, state_res = factor(state_res))  
svy_enpol <- update(svy_enpol, school = factor(school))  
svy_ensanut <- update(svy_ensanut, school = factor(school))  
svy_enpol_nodes <- update(svy_enpol_nodes, school = factor(school))  
svy_ensanut_nodes <- update(svy_ensanut_nodes, school = factor(school))  
svy_enpol_nodes <- update(svy_enpol_nodes, state_res = factor(state_res))  
svy_ensanut_nodes <- update(svy_ensanut_nodes, state_res = factor(state_res))  
svy_ensanut <- update(svy_ensanut, food = factor(food))  
svy_enpol <- update(svy_enpol, food = factor(food))  
svy_ensanut <- update(svy_ensanut, flush = factor(flush))  
svy_enpol <- update(svy_enpol, flush = factor(flush))  
svy_ensanut <- update(svy_ensanut, drain = factor(drain))  
svy_enpol <- update(svy_enpol, drain = factor(drain))  
svy_ensanut <- update(svy_ensanut, water = factor(water))  
svy_enpol <- update(svy_enpol, water = factor(water))
```

```

svy_ensanut <- update(svy_ensanut, smoker = factor(smoker))
svy_enpol <- update(svy_enpol, smoker = factor(smoker))
svy_ensanut <- update(svy_ensanut, drinker = factor(drinker))
svy_enpol <- update(svy_enpol, drinker = factor(drinker))
svy_ensanut <- update(svy_ensanut, diabetes = factor(diabetes))
svy_enpol <- update(svy_enpol, diabetes = factor(diabetes))
svy_ensanut <- update(svy_ensanut, ht = factor(ht))
svy_enpol <- update(svy_enpol, ht = factor(ht))
svy_ensanut <- update(svy_ensanut, injury = factor(injury))
svy_enpol <- update(svy_enpol, injury = factor(injury))
svy_ensanut <- update(svy_ensanut, suicide_att = factor(suicide_att))
svy_enpol <- update(svy_enpol, suicide_att = factor(suicide_att))
svy_ensanut <- update(svy_ensanut, sassault = factor(sassault))
svy_enpol <- update(svy_enpol, sassault = factor(sassault))
svy_ensanut <- update(svy_ensanut, diabetes_trt = factor(diabetes_trt))
svy_enpol <- update(svy_enpol, diabetes_trt = factor(diabetes_trt))
svy_enpol <- update(svy_enpol, time_served = factor(time_served))
svy_ensanut <- update(svy_ensanut, vis_disab = factor(vis_disab))
svy_enpol <- update(svy_enpol, vis_disab = factor(vis_disab))
svy_ensanut <- update(svy_ensanut, aud_disab = factor(aud_disab))
svy_enpol <- update(svy_enpol, aud_disab = factor(aud_disab))
svy_enpol <- update(svy_enpol, school_none = factor(school_none))
svy_ensanut <- update(svy_ensanut, school_none = factor(school_none))

# Labelling vectors ####
v_names <- c("agegroup", "value", "se", "survey", "variable")
v_ages_enpol <- c("#18-19",
  "20-29", "30-39", "40-49", "50-59", "60-69", "70-79")
v_ages_ensanut <- c("20-29", "30-39", "40-49", "50-59", "60-69", "70-79")
cols <- c("#18-19",
  "20-29", "30-39", "40-49", "50-59", "60-69", "70-79", "Total", "Non-response")
v_namesm <- c("agegroup", "value", "se", "survey", "variable")
v_namesf <- c("agegroup", "value", "se", "survey", "variable")
v_school <- c("Elementary school", "Graduate", "High school", "Middle school", "None", "Preschool", "Undergraduate",
  "Vocational/Technical school")
v_newnames <- c("agegroup", "no", "yes", "se.no", "se.yes", "survey", "variable")

# No school
d_nonem <- rbind(
  cbind(
    as.data.table(svyby(~school_none,
      by = ~agegroup,
      na.rm = TRUE,
      design = subset(svy_enpol, sexo == "Male"),
      FUN = svytotal)),
    survey = rep("ENPOL", length = 6),
    variable = rep("No schooling", length = 6)),

```

```

cbind(
  as.data.table(svyby(~school_none,
    by = ~agegroup,
    na.rm = TRUE,
    design = subset(svy_ensanut, sexo == "Male"),
    FUN = svytotal)),
  survey = rep("ENSANUT", length = 6),
  variable = rep("No schooling", length = 6))
)
setnames(d_nonem, names(d_nonem), v_newnames)

# Preschool
d_preschoolm <- rbind(
  cbind(
    as.data.table(svyby(~school_preschool,
      by = ~agegroup,
      na.rm = TRUE,
      design = subset(svy_enpol, sexo == "Male"),
      FUN = svytotal)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Preschool", length = 6)),
  cbind(
    as.data.table(svyby(~school_preschool,
      by = ~agegroup,
      na.rm = TRUE,
      design = subset(svy_ensanut, sexo == "Male"),
      FUN = svytotal)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Preschool", length = 6))
  )
)
setnames(d_preschoolm, names(d_preschoolm), v_newnames)

# Elementary
d_elementarym <- rbind(
  cbind(
    as.data.table(svyby(~school_elementary_school,
      by = ~agegroup,
      na.rm = TRUE,
      design = subset(svy_enpol, sexo == "Male"),
      FUN = svytotal)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Elementary school", length = 6)),
  cbind(
    as.data.table(svyby(~school_elementary_school,
      by = ~agegroup,
      na.rm = TRUE,
      design = subset(svy_ensanut, sexo == "Male"),
      FUN = svytotal)),
    survey = rep("ENSANUT", length = 6),

```

```

    variable = rep("Elementary school", length = 6))
)
setnames(d_elementarym, names(d_elementarym), v_newnames)

# Middle
d_middlem <- rbind(
  cbind(
    as.data.table(svyby(~school_middle_school,
                        by = ~agegroup,
                        na.rm = TRUE,
                        design = subset(svy_enpol, sexo == "Male"),
                        FUN = svytotal)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Middle school", length = 6)),
  cbind(
    as.data.table(svyby(~school_middle_school,
                        by = ~agegroup,
                        na.rm = TRUE,
                        design = subset(svy_ensanut, sexo == "Male"),
                        FUN = svytotal)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Middle school", length = 6))
)
setnames(d_middlem, names(d_middlem), v_newnames)

# High
d_highm <- rbind(
  cbind(
    as.data.table(svyby(~school_high_school,
                        by = ~agegroup,
                        na.rm = TRUE,
                        design = subset(svy_enpol, sexo == "Male"),
                        FUN = svytotal)),
    survey = rep("ENPOL", length = 6),
    variable = rep("High school", length = 6)),
  cbind(
    as.data.table(svyby(~school_high_school,
                        by = ~agegroup,
                        na.rm = TRUE,
                        design = subset(svy_ensanut, sexo == "Male"),
                        FUN = svytotal)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("High school", length = 6))
)
setnames(d_highm, names(d_highm), v_newnames)

# Vocational/Technical
d_votechm <- rbind(
  cbind(

```

```

as.data.table(svyby(~school_vocational_technical,
                    by = ~agegroup,
                    na.rm = TRUE,
                    design = subset(svy_enpol, sexo == "Male"),
                    FUN = svytotal)),
survey = rep("ENPOL", length = 6),
variable = rep("Vocational/Technical", length = 6)),
cbind(
  as.data.table(svyby(~school_vocational_technical,
                      by = ~agegroup,
                      na.rm = TRUE,
                      design = subset(svy_ensanut, sexo == "Male"),
                      FUN = svytotal)),
  survey = rep("ENSANUT", length = 6),
  variable = rep("Vocational/Technical", length = 6))
)
setnames(d_votechm, names(d_votechm), v_newnames)

# Undergraduate
d_undergraduatem <- rbind(
  cbind(
    as.data.table(svyby(~school_undergraduate,
                        by = ~agegroup,
                        na.rm = TRUE,
                        design = subset(svy_enpol, sexo == "Male"),
                        FUN = svytotal)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Undergraduate", length = 6)),
  cbind(
    as.data.table(svyby(~school_undergraduate,
                        by = ~agegroup,
                        na.rm = TRUE,
                        design = subset(svy_ensanut, sexo == "Male"),
                        FUN = svytotal)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Undergraduate", length = 6))
  )
)
setnames(d_undergraduatem, names(d_undergraduatem), v_newnames)

# Graduate
d_graduatem <- rbind(
  cbind(
    as.data.table(svyby(~school_graduate,
                        by = ~agegroup,
                        na.rm = TRUE,
                        design = subset(svy_enpol, sexo == "Male"),
                        FUN = svytotal)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Graduate", length = 6)),

```

```

cbind(
  as.data.table(svyby(~school_graduate,
                     by = ~agegroup,
                     na.rm = TRUE,
                     design = subset(svy_ensanut, sexo == "Male"),
                     FUN = svytotal)),
  survey = rep("ENSANUT", length = 6),
  variable = rep("Graduate", length = 6))
)
setnames(d_graduatem, names(d_graduatem), v_newnames)

# 20-29
d_20_29m <- rbind(
  cbind(
    agegroup = "20-29",
    as.data.table(svytotal(~agegroup_20_29,
                          na.rm = TRUE,
                          design = subset(svy_enpol, sexo == "Male")
    ))[1,],
    as.data.table(svytotal(~agegroup_20_29,
                          na.rm = TRUE,
                          design = subset(svy_enpol, sexo == "Male")
    ))[2,],
    survey = "ENPOL",
    variable = "20-29"),
  cbind(
    agegroup = "20-29",
    as.data.table(svytotal(~agegroup_20_29,
                          na.rm = TRUE,
                          design = subset(svy_ensanut, sexo == "Male")
    ))[1,],
    as.data.table(svytotal(~agegroup_20_29,
                          na.rm = TRUE,
                          design = subset(svy_ensanut, sexo == "Male")
    ))[2,],
    survey = "ENSANUT",
    variable = "20-29")
)
names(d_20_29m) <- as.character(seq(1, length(names(d_20_29m))))
setnames(d_20_29m, names(d_20_29m), v_newnames)

# 30-39
d_30_39m <- rbind(
  cbind(
    agegroup = "30-39",
    as.data.table(svytotal(~agegroup_30_39,
                          na.rm = TRUE,
                          design = subset(svy_enpol, sexo == "Male")
    ))[1,],

```

```

as.data.table(svytotal(~agegroup_30_39,
                        na.rm = TRUE,
                        design = subset(svy_enpol, sexo == "Male")
))[2,],
survey = "ENPOL",
variable = "30-39"),
cbind(
  agegroup = "30-39",
  as.data.table(svytotal(~agegroup_30_39,
                        na.rm = TRUE,
                        design = subset(svy_ensanut, sexo == "Male")
))[1,],
  as.data.table(svytotal(~agegroup_30_39,
                        na.rm = TRUE,
                        design = subset(svy_ensanut, sexo == "Male")
))[2,],
  survey = "ENSANUT",
  variable = "30-39")
)
names(d_30_39m) <- as.character(seq(1, length(names(d_30_39m))))
setnames(d_30_39m, names(d_30_39m), v_newnames)

# 40-49
d_40_49m <- rbind(
  cbind(
    agegroup = "40-49",
    as.data.table(svytotal(~agegroup_40_49,
                          na.rm = TRUE,
                          design = subset(svy_enpol, sexo == "Male")
    ))[1,],
    as.data.table(svytotal(~agegroup_40_49,
                          na.rm = TRUE,
                          design = subset(svy_enpol, sexo == "Male")
    ))[2,],
    survey = "ENPOL",
    variable = "40-49"),
  cbind(
    agegroup = "40-49",
    as.data.table(svytotal(~agegroup_40_49,
                          na.rm = TRUE,
                          design = subset(svy_ensanut, sexo == "Male")
    ))[1,],
    as.data.table(svytotal(~agegroup_40_49,
                          na.rm = TRUE,
                          design = subset(svy_ensanut, sexo == "Male")
    ))[2,],
    survey = "ENSANUT",
    variable = "40-49")
)

```

```

names(d_40_49m) <- as.character(seq(1, length(names(d_40_49m))))
setnames(d_40_49m, names(d_40_49m), v_newnames)

# 50-59
d_50_59m <- rbind(
  cbind(
    agegroup = "50-59",
    as.data.table(svytotal(~agegroup_50_59,
                          na.rm = TRUE,
                          design = subset(svy_enpol, sexo == "Male"))
  ))[1,],
  as.data.table(svytotal(~agegroup_50_59,
                          na.rm = TRUE,
                          design = subset(svy_enpol, sexo == "Male"))
  ))[2,],
  survey = "ENPOL",
  variable = "50-59"),
  cbind(
    agegroup = "50-59",
    as.data.table(svytotal(~agegroup_50_59,
                          na.rm = TRUE,
                          design = subset(svy_ensanut, sexo == "Male"))
  ))[1,],
  as.data.table(svytotal(~agegroup_50_59,
                          na.rm = TRUE,
                          design = subset(svy_ensanut, sexo == "Male"))
  ))[2,],
  survey = "ENSANUT",
  variable = "50-59")
)
names(d_50_59m) <- as.character(seq(1, length(names(d_50_59m))))
setnames(d_50_59m, names(d_50_59m), v_newnames)

# 60-69
d_60_69m <- rbind(
  cbind(
    agegroup = "60-69",
    as.data.table(svytotal(~agegroup_60_69,
                          na.rm = TRUE,
                          design = subset(svy_enpol, sexo == "Male"))
  ))[1,],
  as.data.table(svytotal(~agegroup_60_69,
                          na.rm = TRUE,
                          design = subset(svy_enpol, sexo == "Male"))
  ))[2,],
  survey = "ENPOL",
  variable = "60-69"),
  cbind(
    agegroup = "60-69",

```

```

as.data.table(svytotal(~agegroup_60_69,
                        na.rm = TRUE,
                        design = subset(svy_ensanut, sexo == "Male")
))[1,],
as.data.table(svytotal(~agegroup_60_69,
                        na.rm = TRUE,
                        design = subset(svy_ensanut, sexo == "Male")
))[2,],
survey = "ENSANUT",
variable = "60-69")
)
names(d_60_69m) <- as.character(seq(1, length(names(d_60_69m))))
setnames(d_60_69m, names(d_60_69m), v_newnames)

# 70-79
d_70_79m <- rbind(
  cbind(
    agegroup = "70-79",
    as.data.table(svytotal(~agegroup_70_79,
                          na.rm = TRUE,
                          design = subset(svy_ensanut, sexo == "Male")
    ))[1,],
    as.data.table(svytotal(~agegroup_70_79,
                          na.rm = TRUE,
                          design = subset(svy_ensanut, sexo == "Male")
    ))[2,],
    survey = "ENPOL",
    variable = "70-79"),
  cbind(
    agegroup = "70-79",
    as.data.table(svytotal(~agegroup_70_79,
                          na.rm = TRUE,
                          design = subset(svy_ensanut, sexo == "Male")
    ))[1,],
    as.data.table(svytotal(~agegroup_70_79,
                          na.rm = TRUE,
                          design = subset(svy_ensanut, sexo == "Male")
    ))[2,],
    survey = "ENSANUT",
    variable = "70-79")
)
names(d_70_79m) <- as.character(seq(1, length(names(d_70_79m))))
setnames(d_70_79m, names(d_70_79m), v_newnames)

# Suicidal ideation
d_suicide_idm <- rbind(
  cbind(
    as.data.table(svyby(~suicide_id,
                       by = ~agegroup,

```

```

        na.rm = TRUE,
        design = subset(svy_enpol, sexo == "Male"),
        FUN = svytotal)),
  survey = rep("ENPOL", length = 6),
  variable = rep("Suicidal ideation", length = 6)),
cbind(
  as.data.table(svyby(~suicide_id,
                      by = ~agegroup,
                      na.rm = TRUE,
                      design = subset(svy_ensanut, sexo == "Male"),
                      FUN = svytotal)),
  survey = rep("ENSANUT", length = 6),
  variable = rep("Suicidal ideation", length = 6))
)
setnames(d_suicide_idm, names(d_suicide_idm), v_newnames)

# Suicide attempt
d_suicide_attn <- rbind(
  cbind(
    as.data.table(svyby(~suicide_att,
                        by = ~agegroup,
                        na.rm = TRUE,
                        design = subset(svy_enpol, sexo == "Male" & suicide_id == "Yes" & !is.na(suicide_id)),
                        FUN = svytotal)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Suicide attempt", length = 6)),
  cbind(
    as.data.table(svyby(~suicide_att,
                        by = ~agegroup,
                        na.rm = TRUE,
                        design = subset(svy_ensanut, sexo == "Male" & suicide_id == "Yes" & !is.na(suicide_id)),
                        FUN = svytotal)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Suicide attempt", length = 6))
  )
setnames(d_suicide_attn, names(d_suicide_attn), v_newnames)

# Sexual assault
d_sassaultm <- rbind(
  cbind(
    as.data.table(svyby(~sassault,
                        by = ~agegroup,
                        na.rm = TRUE,
                        design = subset(svy_enpol, sexo == "Male"),
                        FUN = svytotal)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Sexual assault", length = 6)),
  cbind(
    as.data.table(svyby(~sassault,

```

```

        by = ~agegroup,
        na.rm = TRUE,
        design = subset(svy_ensanut, sexo == "Male"),
        FUN = svytotal)),
  survey = rep("ENSANUT", length = 6),
  variable = rep("Sexual assault", length = 6))
)
setnames(d_sassaultm, names(d_sassaultm), v_newnames)

# Female ####
d_female <- rbind(
  cbind(
    as.data.table(svyby(~sexo,
      by = ~agegroup,
      na.rm = TRUE,
      design = svy_enpol,
      FUN = svytotal)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Female", length = 6)),
  cbind(
    as.data.table(svyby(~sexo,
      by = ~agegroup,
      na.rm = TRUE,
      design = svy_ensanut,
      FUN = svytotal)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Female", length = 6))
)
setnames(d_female, names(d_female), v_newnames)

# Water insecurity
d_waterm <- rbind(
  cbind(
    as.data.table(svyby(~water,
      by = ~agegroup,
      na.rm = TRUE,
      design = subset(svy_enpol, sexo == "Male"),
      FUN = svytotal)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Water insecurity", length = 6)),
  cbind(
    as.data.table(svyby(~water,
      by = ~agegroup,
      na.rm = TRUE,
      design = subset(svy_ensanut, sexo == "Male"),
      FUN = svytotal)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Water insecurity", length = 6))
)

```

```

setnames(d_waterm, names(d_waterm), v_newnames)

# Food insecurity (are you insecure -- "yes")
d_foodm <- rbind(
  cbind(
    as.data.table(svyby(~food,
                        by = ~agegroup,
                        na.rm = TRUE,
                        design = subset(svy_enpol, sexo == "Male"),
                        FUN = svytotal)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Food insecurity", length = 6)),
  cbind(
    as.data.table(svyby(~food,
                        by = ~agegroup,
                        na.rm = TRUE,
                        design = subset(svy_ensanut, sexo == "Male"),
                        FUN = svytotal)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Food insecurity", length = 6))
)
setnames(d_foodm, names(d_foodm), v_newnames)

# No electricity
d_elecm <- rbind(
  cbind(
    as.data.table(svyby(~electricity,
                        by = ~agegroup,
                        na.rm = TRUE,
                        design = subset(svy_enpol, sexo == "Male"),
                        FUN = svytotal)),
    survey = rep("ENPOL", length = 6),
    variable = rep("No electricity", length = 6)),
  cbind(
    as.data.table(svyby(~electricity,
                        by = ~agegroup,
                        na.rm = TRUE,
                        design = subset(svy_ensanut, sexo == "Male"),
                        FUN = svytotal)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("No electricity", length = 6))
)
setnames(d_elecm, names(d_elecm), v_newnames)

# No flushing toilet
d_flushm <- rbind(
  cbind(
    as.data.table(svyby(~flush,
                        by = ~agegroup,

```

```

        na.rm = TRUE,
        design = subset(svy_enpol, sexo == "Male"),
        FUN = svytotal)),
  survey = rep("ENPOL", length = 6),
  variable = rep("No flushing toilet", length = 6)),
cbind(
  as.data.table(svyby(~flush,
    by = ~agegroup,
    na.rm = TRUE,
    design = subset(svy_ensanut, sexo == "Male"),
    FUN = svytotal)),
  survey = rep("ENSANUT", length = 6),
  variable = rep("No flushing toilet", length = 6))
)
setnames(d_flushm, names(d_flushm), v_newnames)

# Diabetes diagnosis
d_diabetesm <- rbind(
  cbind(
    as.data.table(svyby(~diabetes,
      by = ~agegroup,
      na.rm = TRUE,
      design = subset(svy_enpol, sexo == "Male"),
      FUN = svytotal)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Diabetes diagnosis", length = 6)),
  cbind(
    as.data.table(svyby(~diabetes,
      by = ~agegroup,
      na.rm = TRUE,
      design = subset(svy_ensanut, sexo == "Male"),
      FUN = svytotal)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Diabetes diagnosis", length = 6))
  )
)
setnames(d_diabetesm, names(d_diabetesm), v_newnames)

# Hypertension diagnosis
d_htm <- rbind(
  cbind(
    as.data.table(svyby(~ht,
      by = ~agegroup,
      na.rm = TRUE,
      design = subset(svy_enpol, sexo == "Male"),
      FUN = svytotal)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Hypertension diagnosis", length = 6)),
  cbind(
    as.data.table(svyby(~ht,

```

```

        by = ~agegroup,
        na.rm = TRUE,
        design = subset(svy_ensanut, sexo == "Male"),
        FUN = svytotal)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Hypertension diagnosis", length = 6))
)
setnames(d_htm, names(d_htm), v_newnames)

# Physical injury from violence
d_injurym <- rbind(
  cbind(
    as.data.table(svyby(~injury,
                        by = ~agegroup,
                        na.rm = TRUE,
                        design = subset(svy_enpol, sexo == "Male"),
                        FUN = svytotal)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Physical injury from violence", length = 6)),
  cbind(
    as.data.table(svyby(~injury,
                        by = ~agegroup,
                        na.rm = TRUE,
                        design = subset(svy_ensanut, sexo == "Male"),
                        FUN = svytotal)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Physical injury from violence", length = 6))
)
setnames(d_injurym, names(d_injurym), v_newnames)

# Smoker
d_smokerm <- rbind(
  cbind(
    as.data.table(svyby(~smoker,
                        by = ~agegroup,
                        na.rm = TRUE,
                        design = subset(svy_enpol, sexo == "Male"),
                        FUN = svytotal)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Smoker", length = 6)),
  cbind(
    as.data.table(svyby(~smoker,
                        by = ~agegroup,
                        na.rm = TRUE,
                        design = subset(svy_ensanut, sexo == "Male"),
                        FUN = svytotal)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Smoker", length = 6))
)
)

```

```

setnames(d_smokerm, names(d_smokerm), v_newnames)

# Drinker
d_drinkerm <- rbind(
  cbind(
    as.data.table(svyby(~drinker,
                        by = ~agegroup,
                        na.rm = TRUE,
                        design = subset(svy_enpol, sexo == "Male"),
                        FUN = svytotal)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Drinker", length = 6)),
  cbind(
    as.data.table(svyby(~drinker,
                        by = ~agegroup,
                        na.rm = TRUE,
                        design = subset(svy_ensanut, sexo == "Male"),
                        FUN = svytotal)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Drinker", length = 6))
)
setnames(d_drinkerm, names(d_drinkerm), v_newnames)

# Diabetes treatment
d_diabetes_trtm <- rbind(
  cbind(
    as.data.table(svyby(~diabetes_trt,
                        by = ~agegroup,
                        na.rm = TRUE,
                        design = subset(svy_enpol, sexo == "Male" & diabetes == "Yes" & !is.na(diabetes)),
                        FUN = svytotal)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Treated for diabetes", length = 6)),
  cbind(
    as.data.table(svyby(~diabetes_trt,
                        by = ~agegroup,
                        na.rm = TRUE,
                        design = subset(svy_ensanut, sexo == "Male" & diabetes == "Yes" & !is.na(diabetes)),
                        FUN = svytotal)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Treated for diabetes", length = 6))
)
setnames(d_diabetes_trtm, names(d_diabetes_trtm), v_newnames)

# Hypertension treatment
d_ht_trtm <- rbind(
  cbind(
    as.data.table(svyby(~ht_trt,
                        by = ~agegroup,

```

```

        na.rm = TRUE,
        design = subset(svy_enspol, sexo == "Male" & ht == "Yes" & !is.na(ht)),
        FUN = svytotal)),
  survey = rep("ENPOL", length = 6),
  variable = rep("Treated for hypertension", length = 6)),
cbind(
  as.data.table(svyby(~ht_trt,
                      by = ~agegroup,
                      na.rm = TRUE,
                      design = subset(svy_ensanut, sexo == "Male" & ht == "Yes" & !is.na(ht)),
                      FUN = svytotal)),
  survey = rep("ENSANUT", length = 6),
  variable = rep("Treated for hypertension", length = 6))
)
setnames(d_ht_trtm, names(d_ht_trtm), v_newnames)

# Visual disability
d_vis_disabm <- rbind(
  cbind(
    as.data.table(svyby(~vis_disab,
                        by = ~agegroup,
                        na.rm = TRUE,
                        design = subset(svy_enspol, sexo == "Male"),
                        FUN = svytotal)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Visual disability", length = 6)),
  cbind(
    as.data.table(svyby(~vis_disab,
                        by = ~agegroup,
                        na.rm = TRUE,
                        design = subset(svy_ensanut, sexo == "Male"),
                        FUN = svytotal)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Visual disability", length = 6))
  )
)
setnames(d_vis_disabm, names(d_vis_disabm), v_newnames)

# Literacy
d_literacym <- rbind(
  cbind(
    as.data.table(svyby(~literacy,
                        by = ~agegroup,
                        na.rm = TRUE,
                        design = subset(svy_enspol, sexo == "Male"),
                        FUN = svytotal)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Literate", length = 6)),
  cbind(
    as.data.table(svyby(~literacy,

```

```

        by = ~agegroup,
        na.rm = TRUE,
        design = subset(svy_ensanut, sexo == "Male"),
        FUN = svytotal)),
  survey = rep("ENSANUT", length = 6),
  variable = rep("Literate", length = 6))
)
setnames(d_literacym, names(d_literacym), v_newnames)

```

```

d_varsm <- rbind(d_foodm,
  d_electm,
  d_flushm,
  d_waterm,
  d_diabetesm,
  d_htm,
  d_injurym,
  d_sassaultm,
  d_suicide_attm,
  d_suicide_idm,
  d_smokerm,
  d_drinkerm,
  d_diabetes_trtm,
  d_ht_trtm,
  d_vis_disabm,
  d_literacym,
  d_nonem,
  d_preschoolm,
  d_elementarym,
  d_middlem,
  d_highm,
  d_votechm,
  d_undergraduatem,
  d_graduatem,
  d_20_29m,
  d_30_39m,
  d_40_49m,
  d_50_59m,
  d_60_69m,
  d_70_79m
)

```

```

d_varsm$sex <- "Male"

```

```

# Female ####

```

```

# No school

```

```

d_nonef <- rbind(
  cbind(
    as.data.table(svyby(~school_none,
      by = ~agegroup,

```

```

        na.rm = TRUE,
        design = subset(svy_enpol, sexo == "Female"),
        FUN = svytotal)),
  survey = rep("ENPOL", length = 6),
  variable = rep("No schooling", length = 6)),
cbind(
  as.data.table(svyby(~school_none,
    by = ~agegroup,
    na.rm = TRUE,
    design = subset(svy_ensanut, sexo == "Female"),
    FUN = svytotal)),
  survey = rep("ENSANUT", length = 6),
  variable = rep("No schooling", length = 6))
)
setnames(d_nonef, names(d_nonef), v_newnames)

# Preschool
d_preschoolf <- rbind(
  cbind(
    as.data.table(svyby(~school_preschool,
      by = ~agegroup,
      na.rm = TRUE,
      design = subset(svy_enpol, sexo == "Female"),
      FUN = svytotal)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Preschool", length = 6)),
  cbind(
    as.data.table(svyby(~school_preschool,
      by = ~agegroup,
      na.rm = TRUE,
      design = subset(svy_ensanut, sexo == "Female"),
      FUN = svytotal)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Preschool", length = 6))
  )
)
setnames(d_preschoolf, names(d_preschoolf), v_newnames)

# Elementary
d_elementaryf <- rbind(
  cbind(
    as.data.table(svyby(~school_elementary_school,
      by = ~agegroup,
      na.rm = TRUE,
      design = subset(svy_enpol, sexo == "Female"),
      FUN = svytotal)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Elementary school", length = 6)),
  cbind(
    as.data.table(svyby(~school_elementary_school,

```

```

        by = ~agegroup,
        na.rm = TRUE,
        design = subset(svy_ensanut, sexo == "Female"),
        FUN = svytotal)),
  survey = rep("ENSANUT", length = 6),
  variable = rep("Elementary school", length = 6))
)
setnames(d_elementaryf, names(d_elementaryf), v_newnames)

# Middle
d_middlef <- rbind(
  cbind(
    as.data.table(svyby(~school_middle_school,
      by = ~agegroup,
      na.rm = TRUE,
      design = subset(svy_ensanut, sexo == "Female"),
      FUN = svytotal)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Middle school", length = 6)),
  cbind(
    as.data.table(svyby(~school_middle_school,
      by = ~agegroup,
      na.rm = TRUE,
      design = subset(svy_ensanut, sexo == "Female"),
      FUN = svytotal)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Middle school", length = 6))
)
setnames(d_middlef, names(d_middlef), v_newnames)

# High
d_highf <- rbind(
  cbind(
    as.data.table(svyby(~school_high_school,
      by = ~agegroup,
      na.rm = TRUE,
      design = subset(svy_ensanut, sexo == "Female"),
      FUN = svytotal)),
    survey = rep("ENPOL", length = 6),
    variable = rep("High school", length = 6)),
  cbind(
    as.data.table(svyby(~school_high_school,
      by = ~agegroup,
      na.rm = TRUE,
      design = subset(svy_ensanut, sexo == "Female"),
      FUN = svytotal)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("High school", length = 6))
)
)

```

```

setnames(d_highf, names(d_highf), v_newnames)

# Vocational/Technical
d_votechf <- rbind(
  cbind(
    as.data.table(svyby(~school_vocational_technical,
                        by = ~agegroup,
                        na.rm = TRUE,
                        design = subset(svy_enpol, sexo == "Female"),
                        FUN = svytotal)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Vocational/Technical", length = 6)),
  cbind(
    as.data.table(svyby(~school_vocational_technical,
                        by = ~agegroup,
                        na.rm = TRUE,
                        design = subset(svy_ensanut, sexo == "Female"),
                        FUN = svytotal)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Vocational/Technical", length = 6))
)
setnames(d_votechf, names(d_votechf), v_newnames)

# Undergraduate
d_undergraduatef <- rbind(
  cbind(
    as.data.table(svyby(~school_undergraduate,
                        by = ~agegroup,
                        na.rm = TRUE,
                        design = subset(svy_enpol, sexo == "Female"),
                        FUN = svytotal)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Undergraduate", length = 6)),
  cbind(
    as.data.table(svyby(~school_undergraduate,
                        by = ~agegroup,
                        na.rm = TRUE,
                        design = subset(svy_ensanut, sexo == "Female"),
                        FUN = svytotal)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Undergraduate", length = 6))
)
setnames(d_undergraduatef, names(d_undergraduatef), v_newnames)

# Graduate
d_graduatef <- rbind(
  cbind(
    as.data.table(svyby(~school_graduate,
                        by = ~agegroup,

```

```

        na.rm = TRUE,
        design = subset(svy_enpol, sexo == "Female"),
        FUN = svytotal)),
  survey = rep("ENPOL", length = 6),
  variable = rep("Graduate", length = 6)),
cbind(
  as.data.table(svyby(~school_graduate,
                     by = ~agegroup,
                     na.rm = TRUE,
                     design = subset(svy_ensanut, sexo == "Female"),
                     FUN = svytotal)),
  survey = rep("ENSANUT", length = 6),
  variable = rep("Graduate", length = 6))
)
setnames(d_graduatef, names(d_graduatef), v_newnames)

# 20-29
d_20_29f <- rbind(
  cbind(
    agegroup = "20-29",
    as.data.table(svytotal(~agegroup_20_29,
                          na.rm = TRUE,
                          design = subset(svy_enpol, sexo == "Female")
    ))[1,],
    as.data.table(svytotal(~agegroup_20_29,
                          na.rm = TRUE,
                          design = subset(svy_enpol, sexo == "Female")
    ))[2,],
    survey = "ENPOL",
    variable = "20-29"),
  cbind(
    agegroup = "20-29",
    as.data.table(svytotal(~agegroup_20_29,
                          na.rm = TRUE,
                          design = subset(svy_ensanut, sexo == "Female")
    ))[1,],
    as.data.table(svytotal(~agegroup_20_29,
                          na.rm = TRUE,
                          design = subset(svy_ensanut, sexo == "Female")
    ))[2,],
    survey = "ENSANUT",
    variable = "20-29")
)
names(d_20_29f) <- as.character(seq(1, length(names(d_20_29f))))
setnames(d_20_29f, names(d_20_29f), v_newnames)

# 30-39
d_30_39f <- rbind(
  cbind(

```

```

agegroup = "30-39",
as.data.table(svytotal(~agegroup_30_39,
                        na.rm = TRUE,
                        design = subset(svy_enpol, sexo == "Female")
))[1,],
as.data.table(svytotal(~agegroup_30_39,
                        na.rm = TRUE,
                        design = subset(svy_enpol, sexo == "Female")
))[2,],
survey = "ENPOL",
variable = "30-39"),
cbind(
agegroup = "30-39",
as.data.table(svytotal(~agegroup_30_39,
                        na.rm = TRUE,
                        design = subset(svy_ensanut, sexo == "Female")
))[1,],
as.data.table(svytotal(~agegroup_30_39,
                        na.rm = TRUE,
                        design = subset(svy_ensanut, sexo == "Female")
))[2,],
survey = "ENSANUT",
variable = "30-39")
)
names(d_30_39f) <- as.character(seq(1, length(names(d_30_39f))))
setnames(d_30_39f, names(d_30_39f), v_newnames)

# 40-49
d_40_49f <- rbind(
cbind(
agegroup = "40-49",
as.data.table(svytotal(~agegroup_40_49,
                        na.rm = TRUE,
                        design = subset(svy_enpol, sexo == "Female")
))[1,],
as.data.table(svytotal(~agegroup_40_49,
                        na.rm = TRUE,
                        design = subset(svy_enpol, sexo == "Female")
))[2,],
survey = "ENPOL",
variable = "40-49"),
cbind(
agegroup = "40-49",
as.data.table(svytotal(~agegroup_40_49,
                        na.rm = TRUE,
                        design = subset(svy_ensanut, sexo == "Female")
))[1,],
as.data.table(svytotal(~agegroup_40_49,
                        na.rm = TRUE,

```

```

                                design = subset(svy_ensanut, sexo == "Female")
  ))[2,],
  survey = "ENSANUT",
  variable = "40-49")
)
names(d_40_49f) <- as.character(seq(1, length(names(d_40_49f))))
setnames(d_40_49f, names(d_40_49f), v_newnames)

# 50-59
d_50_59f <- rbind(
  cbind(
    agegroup = "50-59",
    as.data.table(svytotal(~agegroup_50_59,
                          na.rm = TRUE,
                          design = subset(svy_ensapol, sexo == "Female")
    ))[1,],
    as.data.table(svytotal(~agegroup_50_59,
                          na.rm = TRUE,
                          design = subset(svy_ensapol, sexo == "Female")
    ))[2,],
    survey = "ENPOL",
    variable = "50-59"),
  cbind(
    agegroup = "50-59",
    as.data.table(svytotal(~agegroup_50_59,
                          na.rm = TRUE,
                          design = subset(svy_ensanut, sexo == "Female")
    ))[1,],
    as.data.table(svytotal(~agegroup_50_59,
                          na.rm = TRUE,
                          design = subset(svy_ensanut, sexo == "Female")
    ))[2,],
    survey = "ENSANUT",
    variable = "50-59")
)
names(d_50_59f) <- as.character(seq(1, length(names(d_50_59f))))
setnames(d_50_59f, names(d_50_59f), v_newnames)

# 60-69
d_60_69f <- rbind(
  cbind(
    agegroup = "60-69",
    as.data.table(svytotal(~agegroup_60_69,
                          na.rm = TRUE,
                          design = subset(svy_ensapol, sexo == "Female")
    ))[1,],
    as.data.table(svytotal(~agegroup_60_69,
                          na.rm = TRUE,
                          design = subset(svy_ensapol, sexo == "Female")

```

```

    ))[2,],
    survey = "ENPOL",
    variable = "60-69"),
cbind(
  agegroup = "60-69",
  as.data.table(svytotal(~agegroup_60_69,
                        na.rm = TRUE,
                        design = subset(svy_ensanut, sexo == "Female")
  ))[1,],
  as.data.table(svytotal(~agegroup_60_69,
                        na.rm = TRUE,
                        design = subset(svy_ensanut, sexo == "Female")
  ))[2,],
  survey = "ENSANUT",
  variable = "60-69")
)
names(d_60_69f) <- as.character(seq(1, length(names(d_60_69f))))
setnames(d_60_69f, names(d_60_69f), v_newnames)

# 70-79
d_70_79f <- rbind(
  cbind(
    agegroup = "70-79",
    as.data.table(svytotal(~agegroup_70_79,
                          na.rm = TRUE,
                          design = subset(svy_enpol, sexo == "Female")
    ))[1,],
    as.data.table(svytotal(~agegroup_70_79,
                          na.rm = TRUE,
                          design = subset(svy_enpol, sexo == "Female")
    ))[2,],
    survey = "ENPOL",
    variable = "70-79"),
  cbind(
    agegroup = "70-79",
    as.data.table(svytotal(~agegroup_70_79,
                          na.rm = TRUE,
                          design = subset(svy_ensanut, sexo == "Female")
    ))[1,],
    as.data.table(svytotal(~agegroup_70_79,
                          na.rm = TRUE,
                          design = subset(svy_ensanut, sexo == "Female")
    ))[2,],
    survey = "ENSANUT",
    variable = "70-79")
)
names(d_70_79f) <- as.character(seq(1, length(names(d_70_79f))))
setnames(d_70_79f, names(d_70_79f), v_newnames)

```

```

# Water insecurity
d_waterf <- rbind(
  cbind(
    as.data.table(svyby(~water,
                        by = ~agegroup,
                        na.rm = TRUE,
                        design = subset(svy_enpol, sexo == "Female"),
                        FUN = svytotal)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Water insecurity", length = 6)),
  cbind(
    as.data.table(svyby(~water,
                        by = ~agegroup,
                        na.rm = TRUE,
                        design = subset(svy_ensanut, sexo == "Female"),
                        FUN = svytotal)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Water insecurity", length = 6))
)
setnames(d_waterf, names(d_waterf), v_newnames)

# Food insecurity (are you insecure -- "yes")
d_foodf <- rbind(
  cbind(
    as.data.table(svyby(~food,
                        by = ~agegroup,
                        na.rm = TRUE,
                        design = subset(svy_enpol, sexo == "Female"),
                        FUN = svytotal)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Food insecurity", length = 6)),
  cbind(
    as.data.table(svyby(~food,
                        by = ~agegroup,
                        na.rm = TRUE,
                        design = subset(svy_ensanut, sexo == "Female"),
                        FUN = svytotal)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Food insecurity", length = 6))
)
setnames(d_foodf, names(d_foodf), v_newnames)

# No electricity
d_elecfc <- rbind(
  cbind(
    as.data.table(svyby(~electricity,
                        by = ~agegroup,
                        na.rm = TRUE,

```

```

        design = subset(svy_enpol, sexo == "Female"),
        FUN = svytotal)),
  survey = rep("ENPOL", length = 6),
  variable = rep("No electricity", length = 6)),
cbind(
  as.data.table(svyby(~electricity,
    by = ~agegroup,
    na.rm = TRUE,
    design = subset(svy_ensanut, sexo == "Female"),
    FUN = svytotal)),
  survey = rep("ENSANUT", length = 6),
  variable = rep("No electricity", length = 6))
)
setnames(d_electf, names(d_electf), v_newnames)

# No flushing toilet
d_flushf <- rbind(
  cbind(
    as.data.table(svyby(~flush,
      by = ~agegroup,
      na.rm = TRUE,
      design = subset(svy_enpol, sexo == "Female"),
      FUN = svytotal)),
    survey = rep("ENPOL", length = 6),
    variable = rep("No flushing toilet", length = 6)),
  cbind(
    as.data.table(svyby(~flush,
      by = ~agegroup,
      na.rm = TRUE,
      design = subset(svy_ensanut, sexo == "Female"),
      FUN = svytotal)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("No flushing toilet", length = 6))
  )
)
setnames(d_flushf, names(d_flushf), v_newnames)

# Diabetes diagnosis
d_diabetesf <- rbind(
  cbind(
    as.data.table(svyby(~diabetes,
      by = ~agegroup,
      na.rm = TRUE,
      design = subset(svy_enpol, sexo == "Female"),
      FUN = svytotal)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Diabetes diagnosis", length = 6)),
  cbind(
    as.data.table(svyby(~diabetes,
      by = ~agegroup,

```

```

        na.rm = TRUE,
        design = subset(svy_ensanut, sexo == "Female"),
        FUN = svytotal)),
  survey = rep("ENSANUT", length = 6),
  variable = rep("Diabetes diagnosis", length = 6))
)
setnames(d_diabetesf, names(d_diabetesf), v_newnames)

# Hypertension diagnosis
d_htf <- rbind(
  cbind(
    as.data.table(svyby(~ht,
                        by = ~agegroup,
                        na.rm = TRUE,
                        design = subset(svy_enpol, sexo == "Female"),
                        FUN = svytotal)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Hypertension diagnosis", length = 6)),
  cbind(
    as.data.table(svyby(~ht,
                        by = ~agegroup,
                        na.rm = TRUE,
                        design = subset(svy_ensanut, sexo == "Female"),
                        FUN = svytotal)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Hypertension diagnosis", length = 6))
)
setnames(d_htf, names(d_htf), v_newnames)

# Physical injury from violence
d_injuryf <- rbind(
  cbind(
    as.data.table(svyby(~injury,
                        by = ~agegroup,
                        na.rm = TRUE,
                        design = subset(svy_enpol, sexo == "Female"),
                        FUN = svytotal)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Physical injury from violence", length = 6)),
  cbind(
    as.data.table(svyby(~injury,
                        by = ~agegroup,
                        na.rm = TRUE,
                        design = subset(svy_ensanut, sexo == "Female"),
                        FUN = svytotal)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Physical injury from violence", length = 6))
)
setnames(d_injuryf, names(d_injuryf), v_newnames)

```

```

# Suicidal ideation
d_suicide_idf <- rbind(
  cbind(
    as.data.table(svyby(~suicide_id,
                        by = ~agegroup,
                        na.rm = TRUE,
                        design = subset(svy_enpol, sexo == "Female"),
                        FUN = svytotal)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Suicidal ideation", length = 6)),
  cbind(
    as.data.table(svyby(~suicide_id,
                        by = ~agegroup,
                        na.rm = TRUE,
                        design = subset(svy_ensanut, sexo == "Female"),
                        FUN = svytotal)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Suicidal ideation", length = 6))
)
setnames(d_suicide_idf, names(d_suicide_idf), v_newnames)

# Suicide attempt
d_suicide_attf <- rbind(
  cbind(
    as.data.table(svyby(~suicide_att,
                        by = ~agegroup,
                        na.rm = TRUE,
                        design = subset(svy_enpol, sexo == "Female" & !is.na(suicide_id) & suicide_id == "Yes"),
                        FUN = svytotal)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Suicide attempt", length = 6)),
  cbind(
    as.data.table(svyby(~suicide_att,
                        by = ~agegroup,
                        na.rm = TRUE,
                        design = subset(svy_ensanut, sexo == "Female" & !is.na(suicide_id) & suicide_id == "Yes"),
                        FUN = svytotal)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Suicide attempt", length = 6))
)
setnames(d_suicide_attf, names(d_suicide_attf), v_newnames)

# Sexual assault
d_sassaultf <- rbind(
  cbind(
    as.data.table(svyby(~sassault,
                        by = ~agegroup,
                        na.rm = TRUE,

```

```

        design = subset(svy_enpol, sexo == "Female"),
        FUN = svytotal)),
  survey = rep("ENPOL", length = 6),
  variable = rep("Sexual assault", length = 6)),
cbind(
  as.data.table(svyby(~sassault,
    by = ~agegroup,
    na.rm = TRUE,
    design = subset(svy_ensanut, sexo == "Female"),
    FUN = svytotal)),
  survey = rep("ENSANUT", length = 6),
  variable = rep("Sexual assault", length = 6))
)
setnames(d_sassaultf, names(d_sassaultf), v_newnames)

# Smoker
d_smokerf <- rbind(
  cbind(
    as.data.table(svyby(~smoker,
      by = ~agegroup,
      na.rm = TRUE,
      design = subset(svy_enpol, sexo == "Female"),
      FUN = svytotal)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Smoker", length = 6)),
  cbind(
    as.data.table(svyby(~smoker,
      by = ~agegroup,
      na.rm = TRUE,
      design = subset(svy_ensanut, sexo == "Female"),
      FUN = svytotal)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Smoker", length = 6))
  )
)
setnames(d_smokerf, names(d_smokerf), v_newnames)

# Drinker
d_drinkerf <- rbind(
  cbind(
    as.data.table(svyby(~drinker,
      by = ~agegroup,
      na.rm = TRUE,
      design = subset(svy_enpol, sexo == "Female"),
      FUN = svytotal)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Drinker", length = 6)),
  cbind(
    as.data.table(svyby(~drinker,
      by = ~agegroup,

```

```

        na.rm = TRUE,
        design = subset(svy_ensanut, sexo == "Female"),
        FUN = svytotal)),
  survey = rep("ENSANUT", length = 6),
  variable = rep("Drinker", length = 6))
)
setnames(d_drinkerf, names(d_drinkerf), v_newnames)

# Diabetes treatment
d_diabetes_trtf <- rbind(
  cbind(
    as.data.table(svyby(~diabetes_trt,
                        by = ~agegroup,
                        na.rm = TRUE,
                        design = subset(svy_ensapol, sexo == "Female" & diabetes == "Yes" & !is.na(diabetes)),
                        FUN = svytotal)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Treated for diabetes", length = 6)),
  cbind(
    as.data.table(svyby(~diabetes_trt,
                        by = ~agegroup,
                        na.rm = TRUE,
                        design = subset(svy_ensanut, sexo == "Female" & diabetes == "Yes" & !is.na(diabetes)),
                        FUN = svytotal)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Treated for diabetes", length = 6))
)
setnames(d_diabetes_trtf, names(d_diabetes_trtf), v_newnames)

# Hypertension treatment
d_ht_trtf <- rbind(
  cbind(
    as.data.table(svyby(~ht_trt,
                        by = ~agegroup,
                        na.rm = TRUE,
                        design = subset(svy_ensapol, sexo == "Female" & ht == "Yes" & !is.na(ht)),
                        FUN = svytotal)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Treated for hypertension", length = 6)),
  cbind(
    as.data.table(svyby(~ht_trt,
                        by = ~agegroup,
                        na.rm = TRUE,
                        design = subset(svy_ensanut, sexo == "Female" & ht == "Yes" & !is.na(ht)),
                        FUN = svytotal)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Treated for hypertension", length = 6))
)
setnames(d_ht_trtf, names(d_ht_trtf), v_newnames)

```

```

d_pap_examf <- rbind(
  cbind(
    as.data.table(svyby(~pap_exam,
                        by = ~agegroup,
                        na.rm = TRUE,
                        design = subset(svy_enpol, sexo == "Female"),
                        FUN = svytotal)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Received a Papanicolaou exam", length = 6)),
  cbind(
    as.data.table(svyby(~pap_exam,
                        by = ~agegroup,
                        na.rm = TRUE,
                        design = subset(svy_ensanut, sexo == "Female"),
                        FUN = svytotal)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Received a Papanicolaou exam", length = 6))
)
setnames(d_pap_examf, names(d_pap_examf), v_newnames)

# Breast exam
d_breast_examf <- rbind(
  cbind(
    as.data.table(svyby(~breast_exam,
                        by = ~agegroup,
                        na.rm = TRUE,
                        design = subset(svy_enpol, sexo == "Female"),
                        FUN = svytotal)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Received a breast exam", length = 6)),
  cbind(
    as.data.table(svyby(~breast_exam,
                        by = ~agegroup,
                        na.rm = TRUE,
                        design = subset(svy_ensanut, sexo == "Female"),
                        FUN = svytotal)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Received a breast exam", length = 6))
)
setnames(d_breast_examf, names(d_breast_examf), v_newnames)

# Visual disability
d_vis_disabf <- rbind(
  cbind(
    as.data.table(svyby(~vis_disab,
                        by = ~agegroup,
                        na.rm = TRUE,
                        design = subset(svy_enpol, sexo == "Female"),

```

```

        FUN = svytotal)),
  survey = rep("ENPOL", length = 6),
  variable = rep("Visual disability", length = 6)),
cbind(
  as.data.table(svyby(~vis_disab,
    by = ~agegroup,
    na.rm = TRUE,
    design = subset(svy_ensanut, sexo == "Female"),
    FUN = svytotal)),
  survey = rep("ENSANUT", length = 6),
  variable = rep("Visual disability", length = 6))
)
setnames(d_vis_disabf, names(d_vis_disabf), v_newnames)

# Literacy
d_literacyf <- rbind(
  cbind(
    as.data.table(svyby(~literacy,
      by = ~agegroup,
      na.rm = TRUE,
      design = subset(svy_enpol, sexo == "Female"),
      FUN = svytotal)),
    survey = rep("ENPOL", length = 6),
    variable = rep("Literate", length = 6)),
  cbind(
    as.data.table(svyby(~literacy,
      by = ~agegroup,
      na.rm = TRUE,
      design = subset(svy_ensanut, sexo == "Female"),
      FUN = svytotal)),
    survey = rep("ENSANUT", length = 6),
    variable = rep("Literate", length = 6))
  )
)
setnames(d_literacyf, names(d_literacyf), v_newnames)

d_varsf <- rbind(d_foodf,
  d_elecf,
  d_flushf,
  d_waterf,
  d_diabetesf,
  d_htf,
  d_injuryf,
  d_sassaultf,
  d_suicide_attf,
  d_suicide_idf,
  d_smokerf,
  d_drinkerf,
  d_diabetes_trtf,
  d_ht_trtf,

```

```

      d_pap_examf,
      d_breast_examf,
      d_vis_disabf,
      d_literacyf,
      d_nonef,
      d_preschoolf,
      d_elementaryf,
      d_middlef,
      d_highf,
      d_votechf,
      d_undergraduatef,
      d_graduatef,
      d_20_29f,
      d_30_39f,
      d_40_49f,
      d_50_59f,
      d_60_69f,
      d_70_79f
    )
d_varsf$sex <- "Female"

# Significance tests by age-sex group ####
d_vars <- rbind(d_varsm, d_varsf)
d_female$sex <- "Female"
d_vars <- rbind(d_vars, d_female
)
d_vars_enpol <- d_vars[survey == "ENPOL",]
d_vars_ensanut <- d_vars[survey == "ENSANUT",]
d_vars_test <- merge(d_vars_enpol, d_vars_ensanut, by = c("agegroup", "variable", "sex"), suffixes = c("_enpol",
"_ensanut"))

names <- names(d_vars_test)[grepl("yes|no", names(d_vars_test))]
names <- names[!grepl("se.", names)]
d_vars_test[, (names) := lapply(.SD, round), .SDcols = names]

d_vars_test$p_value <- d_vars_test %>%
  rowwise %>%
  summarise(out = list(fisher.test(x = rbind(c(yes_enpol, yes_ensanut), c(no_enpol, no_ensanut)))) %>%
    tidy) %>%

  ungroup %>%
  unnest(cols = c(out)) %>%
  select(p.value)

# Significance tests for age-standardized proportions ####
# Age weights
d_age_enpol <- rbind(
  cbind(agegroup = v_ages_enpol,
    as.data.table(svymean(~agegroup, subset(svy_enpol, sexo == "Female"), proportion = TRUE)),

```

```

      sex = rep("Female", length = 6)),
  cbind(agegroup = v_ages_ensanut,
        as.data.table(svymean(~agegroup, subset(svy_enpol, sexo == "Male"), proportion = TRUE, na.rm = TRUE)),
        sex = rep("Male", length = 6)))
setnames(d_age_enpol, "mean", "weights")
d_age_enpol[, SE := NULL]

d_varsw <- merge(d_vars_test, d_age_enpol, by = c("agegroup", "sex"), all.x = TRUE)
d_varsw[, wno_enpol := no_enpol*weights]
d_varsw[, wyes_enpol := yes_enpol*weights]
d_varsw[, wno_ensanut := no_ensanut*weights]
d_varsw[, wyes_ensanut := yes_ensanut*weights]
d_varsw[, overallno_enpol := sum(wno_enpol), by = .(sex, variable)]
d_varsw[, overallyes_enpol := sum(wyes_enpol), by = .(sex, variable)]
d_varsw[, overallno_ensanut := sum(wno_ensanut), by = .(sex, variable)]
d_varsw[, overallyes_ensanut := sum(wyes_ensanut), by = .(sex, variable)]
d_varsw_summ <- unique(d_varsw[, .(sex, variable, overallno_enpol, overallyes_enpol, overallno_ensanut,
overallyes_ensanut)])

names <- names(d_varsw_summ)[grepl("yes|no", names(d_varsw_summ))]
names <- names[!grepl("se.", names)]
d_varsw_summ[, (names) := lapply(.SD, round), .SDcols = names]

d_varsw_summ$p_value <- d_varsw_summ %>%
  rowwise %>%
  summarise(out = list(fisher.test(x = rbind(c(overallyes_enpol, overallyes_ensanut), c(overallno_enpol,
overallno_ensanut)))) %>%
    tidy)) %>%
  ungroup %>%
  unnest(cols = c(out)) %>%
  select(p.value)

```