P8123_final_project

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```
bmi_data = read_xpt(
  "./data/BMX_G.XPT"
  ) %>% select (SEQN, BMXBMI, BMDBMIC) %>%
  rename(BMI = BMXBMI) %>%
  mutate(child_BMI =
           case_when(BMDBMIC == 1 ~"Underweight",
            BMDBMIC == 2 ~ "Normal",
            BMDBMIC == 3 ~ "Overweight",
            BMDBMIC == 4 ~ "Obese")) %>%
  select(SEQN, BMI, child_BMI) %>%
  drop_na(BMI)

demo = read_xpt(
  "./data/DEMO_G.XPT"
  ) %>%
  select(SEQN, RIAGENDR, RIDAGEYR, RIDRETH1, INDFMPIR) %>%
  rename(PIR = INDFMPIR) %>%
  drop_na() %>%
  mutate(sex = case_when(RIAGENDR == 1 ~"Male",
                         RIAGENDR == 2 ~ "Female"),
         age = case_when(RIDAGEYR >= 6 & RIDAGEYR < 12 ~ "6 - 12",
                         RIDAGEYR >= 12 & RIDAGEYR < 20 ~ "12 to <20",
                         RIDAGEYR >= 20 & RIDAGEYR < 40 ~ "20 to <40",
                         RIDAGEYR >= 40 & RIDAGEYR < 60 ~ "40 to <60",
                         RIDAGEYR >=60 & RIDAGEYR <= 80 ~"60 - 80"),
        race = case_when(RIDRETH1 == 1 ~ "Mexican American",
                         RIDRETH1 == 2 ~"Other Hispanic",
                         RIDRETH1 ==3 ~"Non-Hispanic White",
                         RIDRETH1 == 4 ~ "Non-Hispanic Black",
                         RIDRETH1 == 5 ~ "Non-Hispanic Black" )) %>%
  select(SEQN, sex, age, race, PIR)

t_data = read_xpt(
  "./data/TST_G.XPT"
  ) %>%
  drop_na() %>%
  rename(T = LBXTST)

# final merged dataset
survey_df = read_xpt(
  "./data/PHTHTE_G.XPT"
  ) %>%
```

```
  drop_na() %>%
  inner_join(t_data, by = "SEQN") %>%
  left_join(demo, by = "SEQN") %>%
  left_join(bmi_data, by = "SEQN")
```

Regenerate Table 1

	n	Weighted Median (25th, 75th (Weighted %) Percentile)
Age group, y		41(23, 56)
6 − 12	293(6.63)	
12 to < 20	351(12.0)	
20 to < 40	572(29.5)	
40 to < 60	507(31.6)	
60 − 80	485(20.2)	
Sex		
Female	1098(51.3)	
Male	1110(48.7)	
Race/ethnicity		
Mexican American	277(8.82)	
Other Hispanic	232(7.14)	
Non-Hispanic white	742(64.6)	
Non-Hispanic black	573(12.2)	
Other race/multiracial	384(7.20)	
PIR continuous (no units)		2.72(1.26, 4.76)
BMI continuous, kg/m ^{2}		26.5(22.8, 31)
Child/adolescent BMI categories ^{2}		
Underweight	18(2.86)	
Normal weight	370(57.8)	
Overweight	109(17.7)	
Obese	141(21.6)	

```
table_1 = survey_df %>%
  select(SEQN, sex, age, race, BMI, child_BMI)
```