Working report

Contents

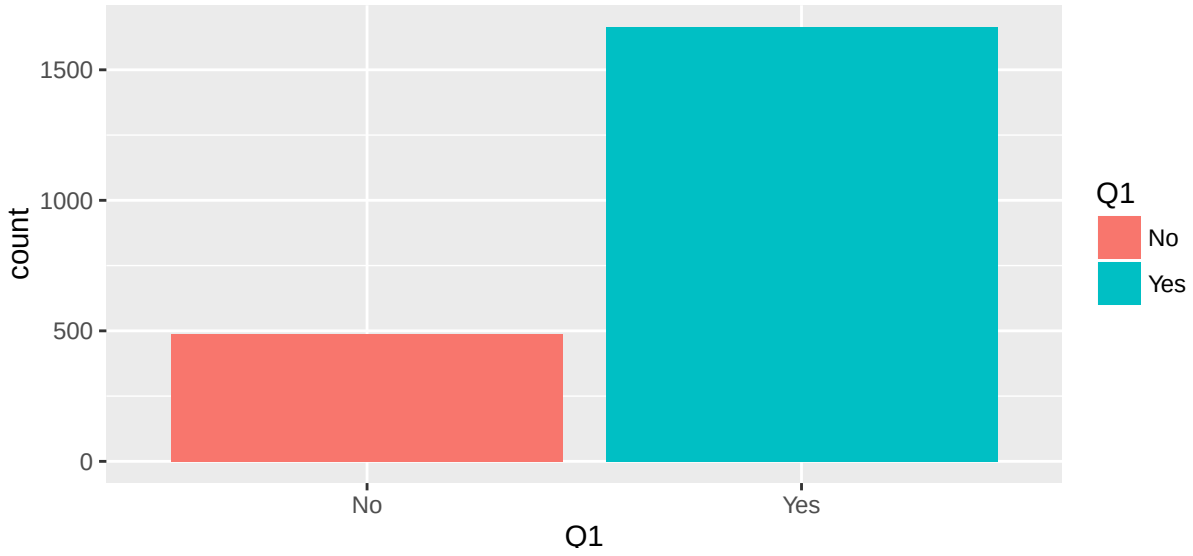
Survey questions

Q1. Before receiving this survey, did you know influenza is different from the stomach flu?

```
# Q1 summary

with(data2, table(Q1))
```

```
## Q1
##   No  Yes
##  488 1664
```

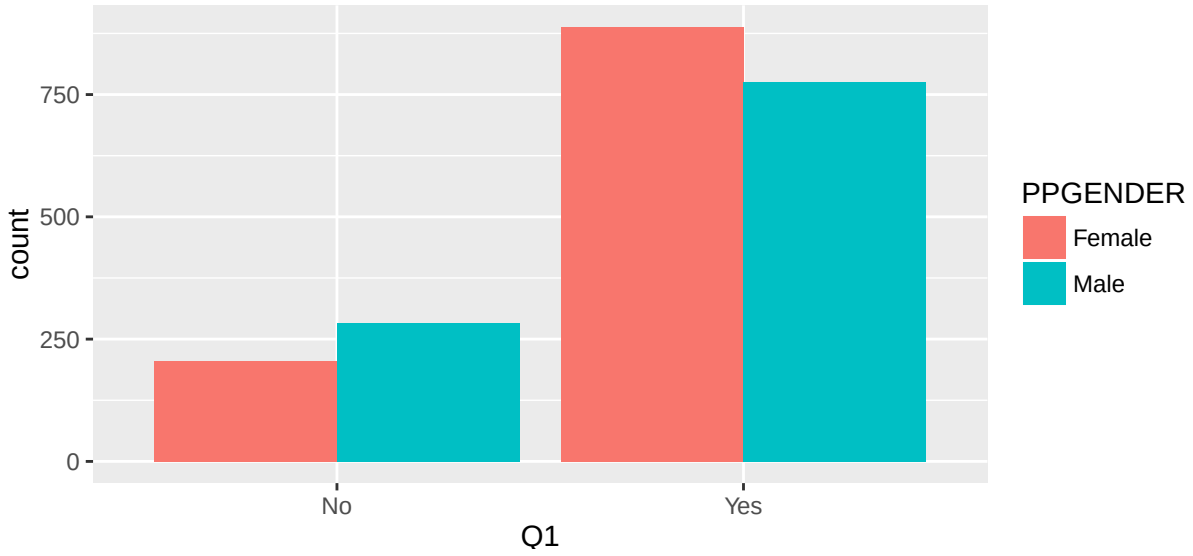
```
q1 <- data2 %>%
  count(Q1)

# plot with this one
ggplot(data2[!is.na(data2$Q1), ]) + geom_bar(mapping = aes(x = Q1, fill = Q1))
```



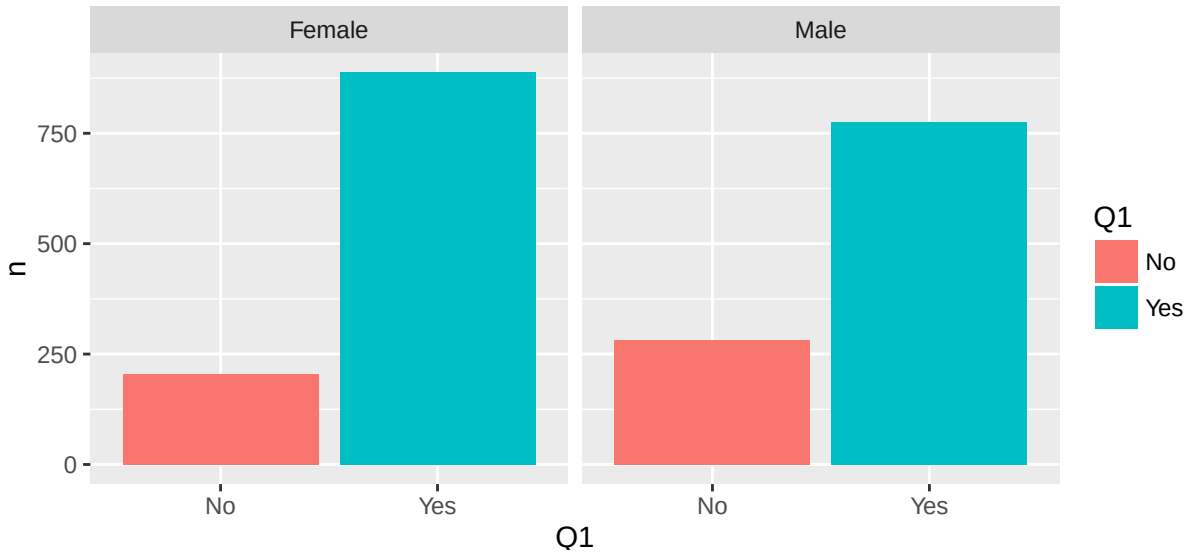
```r
# plot without na's
#ggplot(q1[!is.na(q1$Q1), ], aes(x = Q1, y = n, fill = Q1)) +
#  geom_bar(stat = 'identity', position = position_dodge())



# by gender, PPGENDER
with(data2, table(PPGENDER, Q1))
```

```
##         Q1
## PPGENDER  No Yes
##   Female 205 888
##   Male   283 776
```

```r
q1 <- data2 %>%
  count(Q1, PPGENDER)

# plot
ggplot(data2[!is.na(data2$Q1), ]) + geom_bar(mapping = aes(x = Q1, fill = PPGENDER), position = positio
```



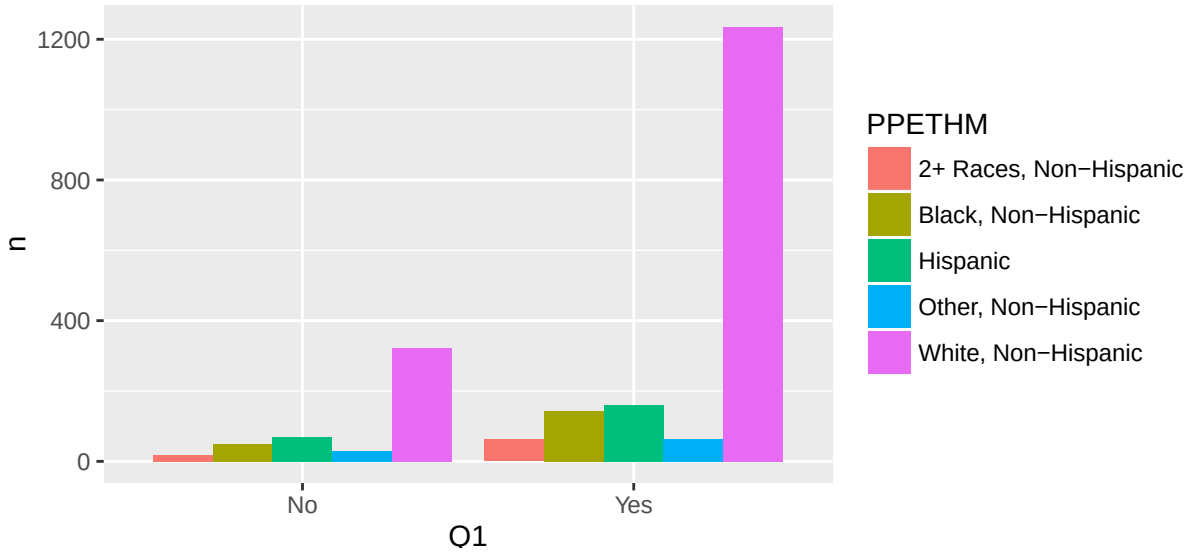

```r
# ggplot(q1[!is.na(q1$Q1), ], aes(x = Q1, y = n, fill = PPGENDER)) +
#   geom_bar(stat = 'identity', position = position_dodge())

# plot with facet
ggplot(q1[!is.na(q1$Q1), ], aes(x = Q1, y = n, fill = Q1)) +
  geom_bar(stat = 'identity', position = position_dodge()) + facet_wrap(~PPGENDER)
```



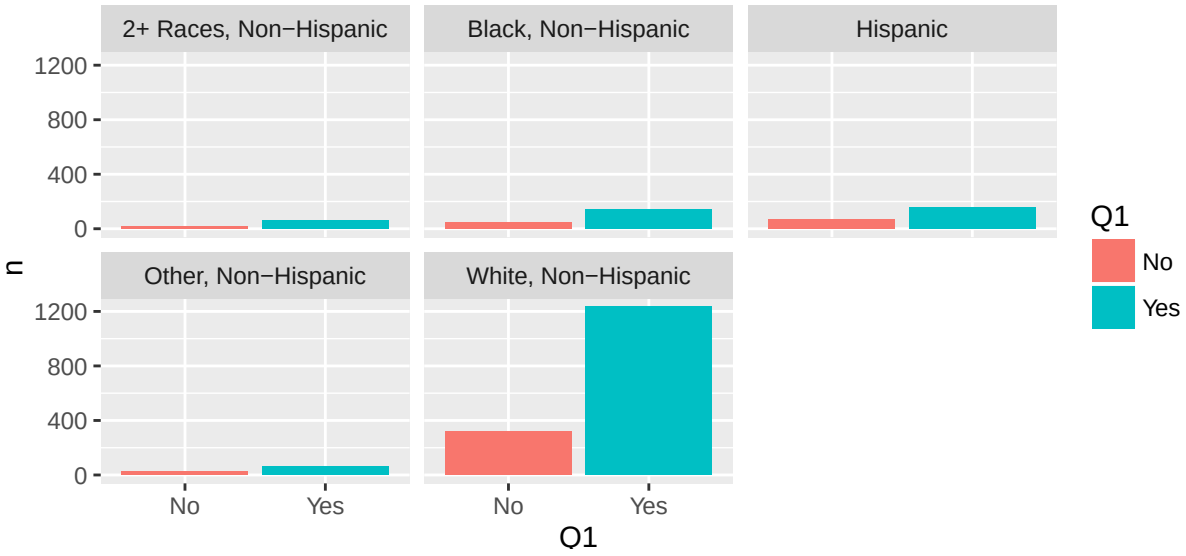

```
# by ethnicity, PPETHM
with(data2, table(PPETHM, Q1))
```

```
##                          Q1
## PPETHM                     No  Yes
##   2+ Races, Non-Hispanic   18   62
##   Black, Non-Hispanic      50  143
##   Hispanic                 69  161
##   Other, Non-Hispanic      29   63
##   White, Non-Hispanic     322 1235
```

```
q1 <- data2 %>%
  count(Q1, PPETHM)

# plot
ggplot(q1[!is.na(q1$Q1), ], aes(x = Q1, y = n, fill = PPETHM)) +
  geom_bar(stat = 'identity', position = position_dodge())
```



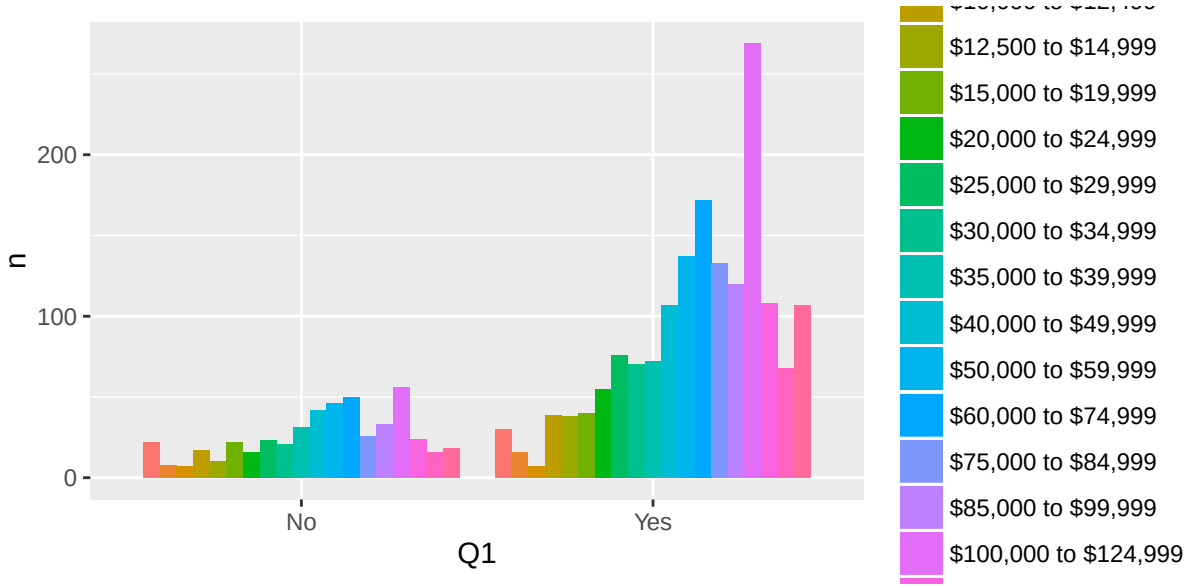
```
# plot with facet
ggplot(q1[!is.na(q1$Q1), ], aes(x = Q1, y = n, fill = Q1)) +
  geom_bar(stat = 'identity', position = position_dodge()) + facet_wrap(~PPETHM)
```



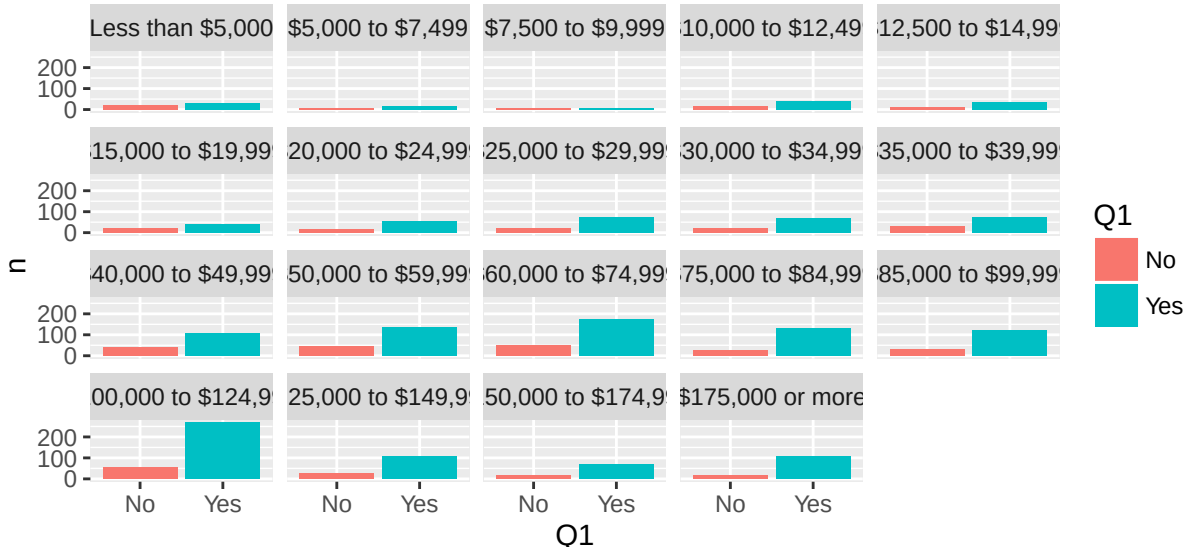

```
# by income, PPINCIMP
with(data2, table(PPINCIMP, Q1))
```

```
##                         Q1
## PPINCIMP                  No Yes
##   Less than $5,000        22  30
##   $5,000 to $7,499         8  16
##   $7,500 to $9,999         7   7
##   $10,000 to $12,499      17  39
##   $12,500 to $14,999      10  38
##   $15,000 to $19,999      22  40
##   $20,000 to $24,999      16  55
##   $25,000 to $29,999      23  76
##   $30,000 to $34,999      21  70
##   $35,000 to $39,999      31  72
##   $40,000 to $49,999      42 107
##   $50,000 to $59,999      46 137
##   $60,000 to $74,999      50 172
##   $75,000 to $84,999      26 133
##   $85,000 to $99,999      33 120
##   $100,000 to $124,999    56 269
##   $125,000 to $149,999    24 108
##   $150,000 to $174,999    16  68
##   $175,000 or more        18 107
```

```
q1 <- data2 %>%
  count(Q1, PPINCIMP)

# plot
ggplot(q1[!is.na(q1$Q1), ], aes(x = Q1, y = n, fill = PPINCIMP)) +
  geom_bar(stat = 'identity', position = position_dodge())
```




```
# plot with facet
ggplot(q1[!is.na(q1$Q1), ], aes(x = Q1, y = n, fill = Q1)) +
  geom_bar(stat = 'identity', position = position_dodge()) + facet_wrap(~PPINCIMP)
```

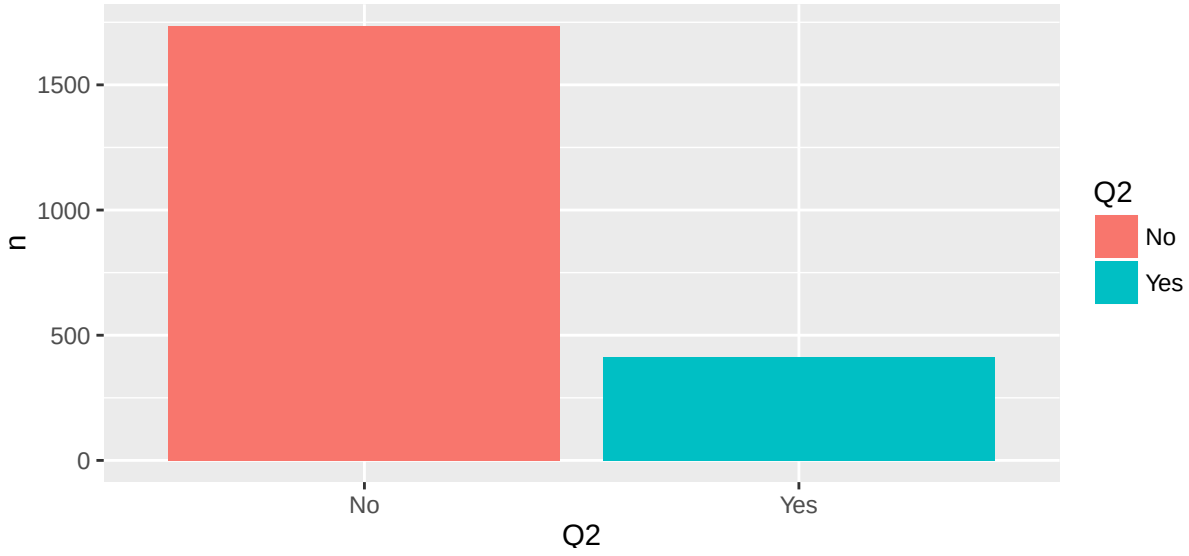


Q2. Have you had an illness with influenza-like symptoms since August 2015?

```
#
with(data2, table(Q2))
```

```
## Q2
##   No  Yes
## 1735  414
```

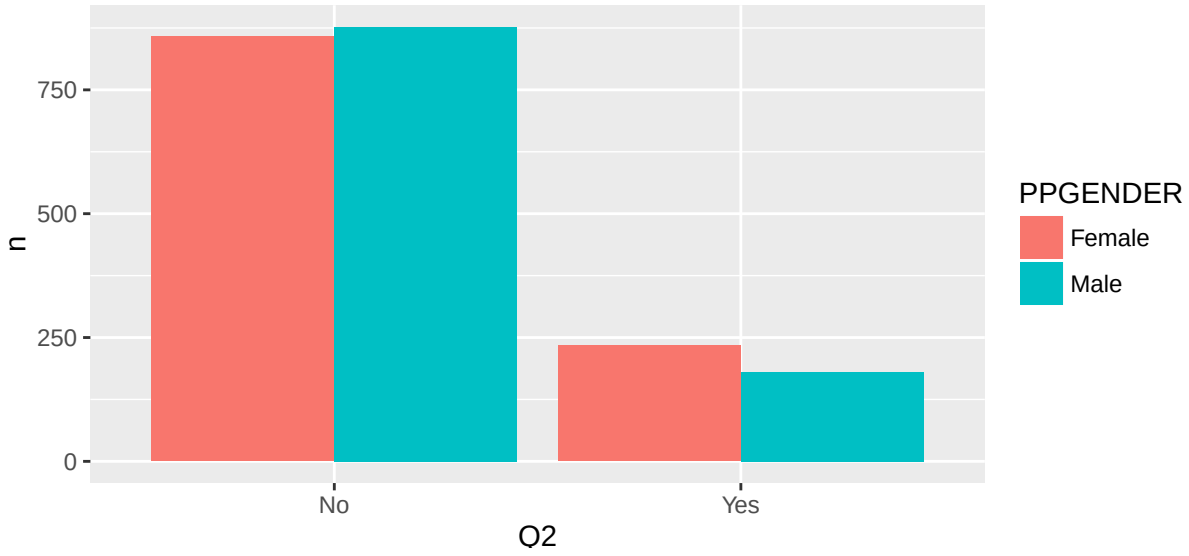
```
q2 <- data2 %>%
  count(Q2)
ggplot(q2, aes(x = Q2, y = n, fill = Q2)) + geom_bar(stat = 'identity')
```




```
# by gender
with(data2, table(Q2, PPGENDER))
```

```
##      PPGENDER
## Q2    Female Male
##   No     858  877
##   Yes    234  180
```

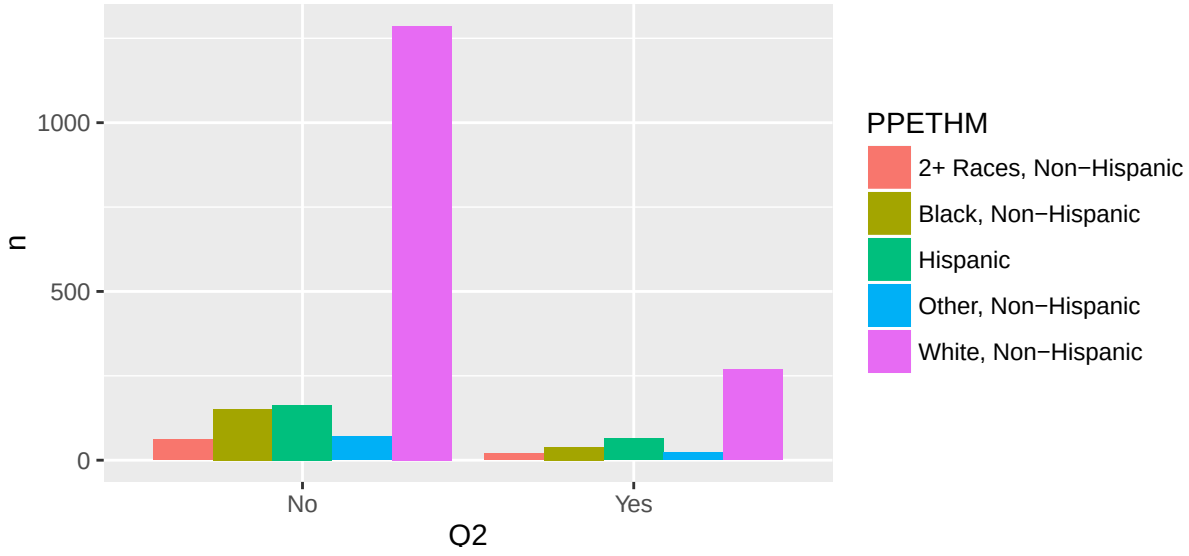
```
q2 <- data2 %>%
  count(Q2, PPGENDER)
ggplot(q2, aes(x = Q2, y = n, fill = PPGENDER)) +
  geom_bar(stat = 'identity', position = position_dodge())
```



```r
# by ethnicity
with(data2, table(Q2, PPETHM))
```

```
##      PPETHM
## Q2    2+ Races, Non-Hispanic Black, Non-Hispanic Hispanic
##   No                      61                 152      164
##   Yes                     19                  39       65
##      PPETHM
## Q2    Other, Non-Hispanic White, Non-Hispanic
##   No                   71                1287
##   Yes                  22                 269
```

```r
q2 <- data2 %>%
  count(Q2, PPETHM)
ggplot(q2, aes(x = Q2, y = n, fill = PPETHM)) +
  geom_bar(stat = 'identity', position = position_dodge())
```

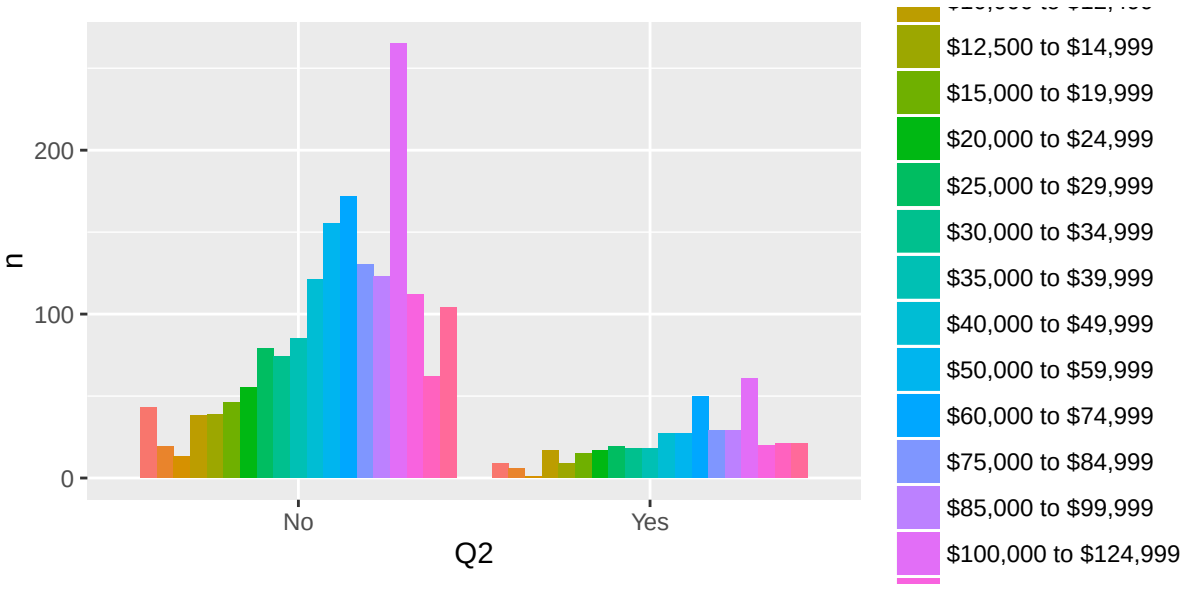



```r
# by income
with(data2, table(Q2, PPINCIMP))
```

```
##      PPINCIMP
## Q2    Less than $5,000 $5,000 to $7,499 $7,500 to $9,999
##   No                43               19               13
##   Yes                9                6                1
##      PPINCIMP
## Q2    $10,000 to $12,499 $12,500 to $14,999 $15,000 to $19,999
##   No                  38                 39                 46
##   Yes                 17                  9                 15
##      PPINCIMP
## Q2    $20,000 to $24,999 $25,000 to $29,999 $30,000 to $34,999
##   No                  55                 79                 74
##   Yes                 17                 19                 18
##      PPINCIMP
## Q2    $35,000 to $39,999 $40,000 to $49,999 $50,000 to $59,999
```

```
##   No                  85                 121                 155
##   Yes                 18                  27                  27
##      PPINCIMP
## Q2    $60,000 to $74,999 $75,000 to $84,999 $85,000 to $99,999
##   No                 172                 130                 123
##   Yes                 50                  29                  29
##      PPINCIMP
## Q2    $100,000 to $124,999 $125,000 to $149,999 $150,000 to $174,999
##   No                   265                   112                    62
##   Yes                   61                    20                    21
##      PPINCIMP
## Q2    $175,000 or more
##   No               104
##   Yes               21
```

```
q2 <- data2 %>%
  count(Q2, PPINCIMP)
ggplot(q2, aes(x = Q2, y = n, fill = PPINCIMP)) +
  geom_bar(stat = 'identity', position = position_dodge())
```

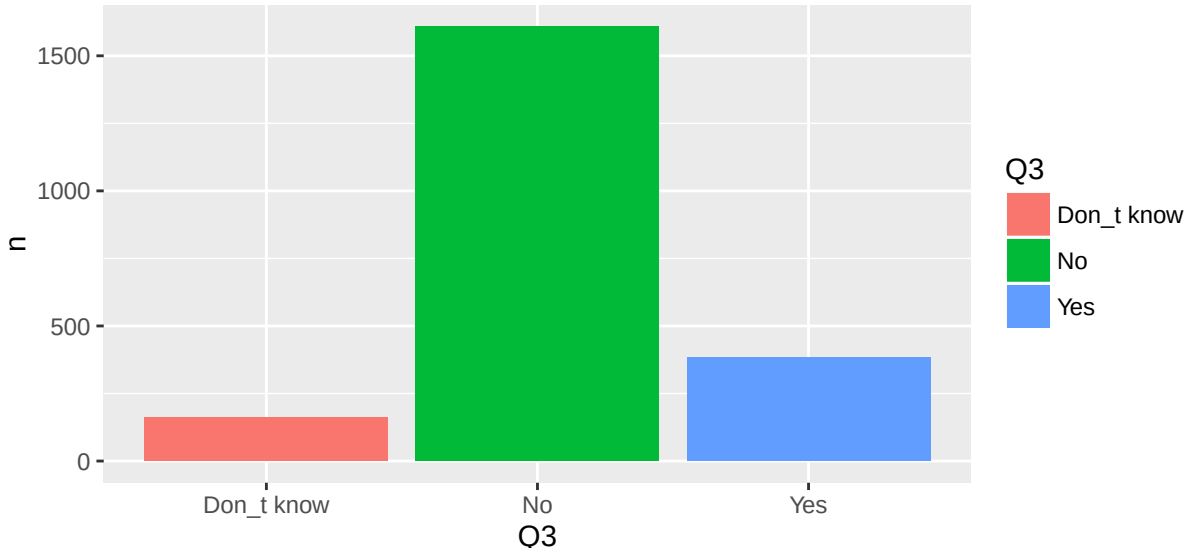


Q3. Has any other person in your household had an illness with influenza like symptoms since August 2015?

```
# all
with(data2, table(Q3))
```

```
## Q3
## Don_t know         No        Yes
##        161       1608        383
```

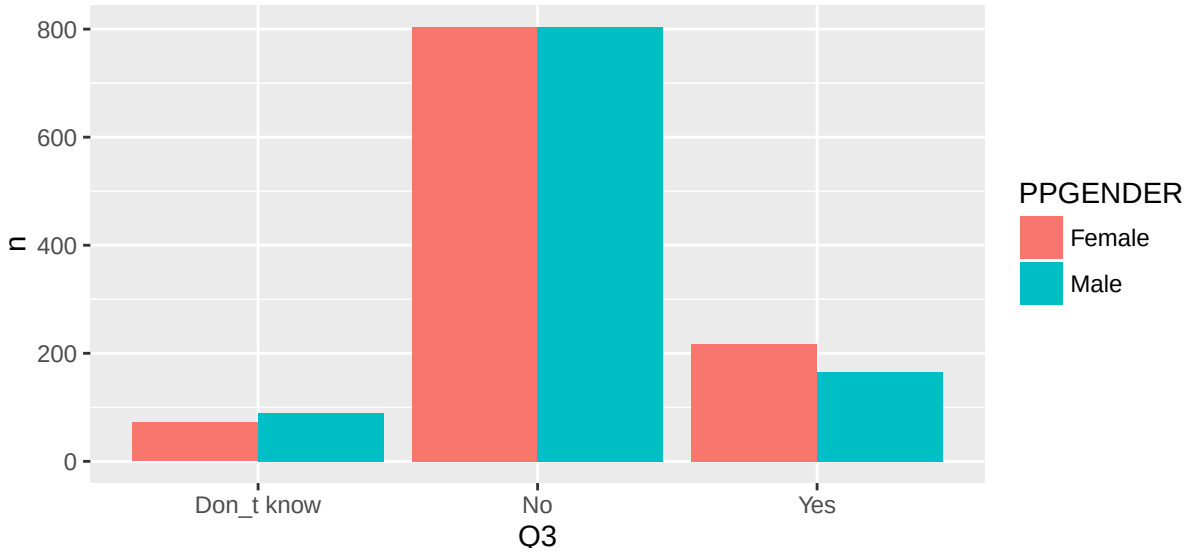
```r
q3 <- data2 %>%
  count(Q3)
ggplot(q3, aes(x = Q3, y = n, fill = Q3)) + geom_bar(stat = 'identity')
```




```r
# by gender
with(data2, table(Q3, PPGENDER))
```

```
##             PPGENDER
## Q3           Female Male
##   Don_t know     72   89
##   No            804  804
##   Yes           217  166
```

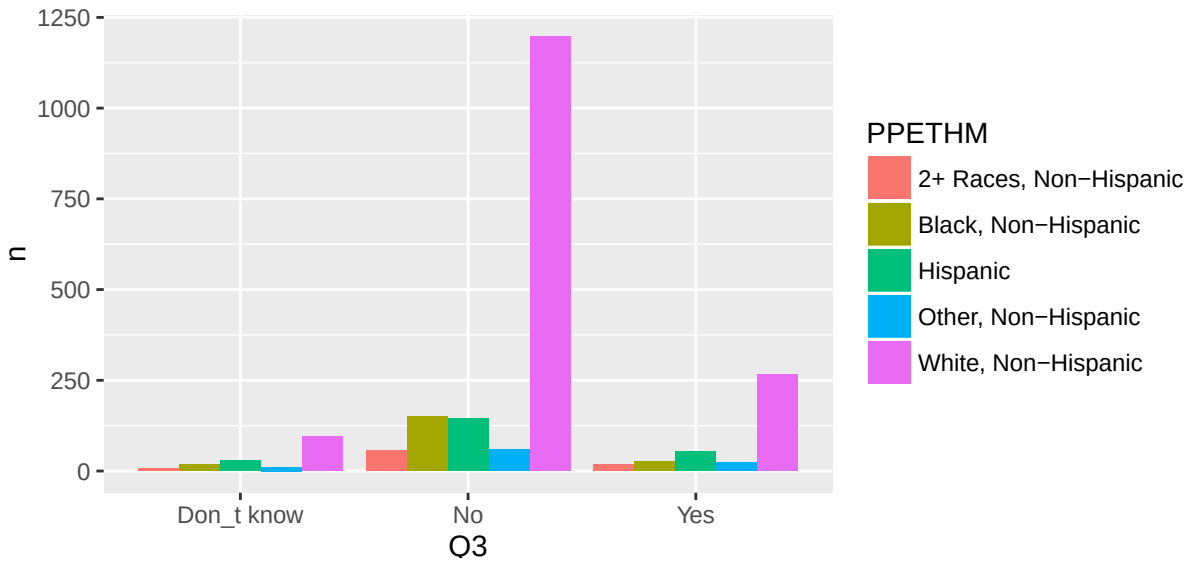
```r
q3 <- data2 %>%
  count(Q3, PPGENDER)
ggplot(q3, aes(x = Q3, y = n, fill = PPGENDER)) +
  geom_bar(stat = 'identity', position = position_dodge())
```



```r
# by ethnicity
with(data2, table(Q3, PPETHM))
```

```
##             PPETHM
## Q3           2+ Races, Non-Hispanic Black, Non-Hispanic Hispanic
##   Don_t know                      6                  19       30
##   No                             57                 149      146
##   Yes                            17                  25       53
##             PPETHM
## Q3           Other, Non-Hispanic White, Non-Hispanic
##   Don_t know                  11                  95
##   No                          59                1197
##   Yes                         23                 265
```

```r
q3 <- data2 %>%
  count(Q3, PPETHM)
ggplot(q3, aes(x = Q3, y = n, fill = PPETHM)) +
  geom_bar(stat = 'identity', position = position_dodge())
```

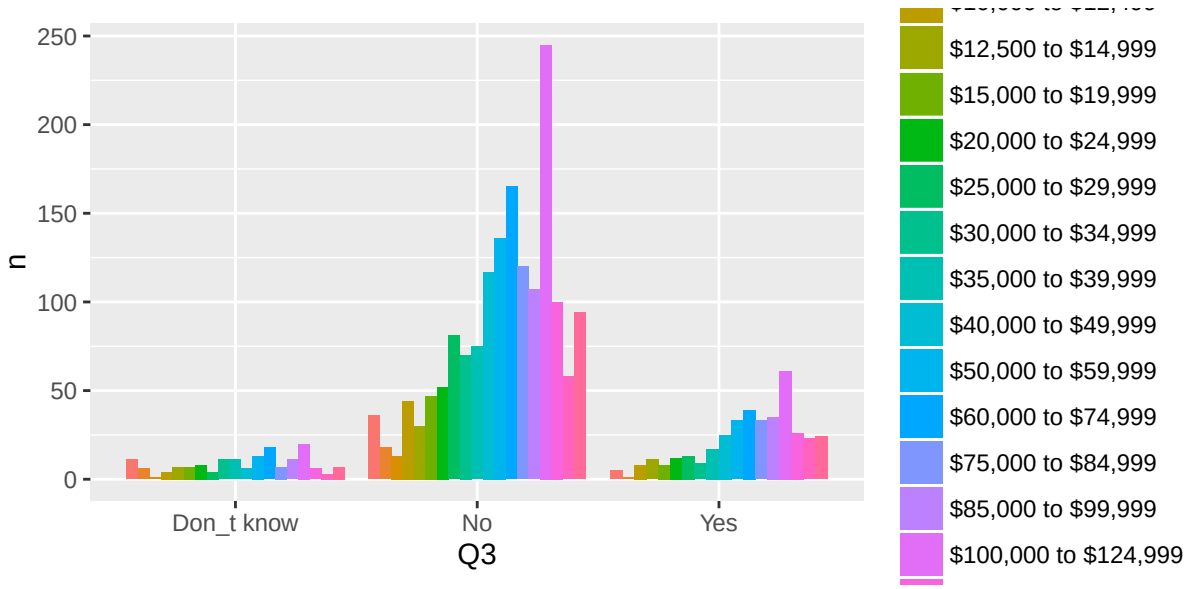



```r
# by income
with(data2, table(Q3, PPINCIMP))
```

```
##             PPINCIMP
## Q3           Less than $5,000 $5,000 to $7,499 $7,500 to $9,999
##   Don_t know               11                6                1
##   No                       36               18               13
##   Yes                       5                1                0
##             PPINCIMP
## Q3           $10,000 to $12,499 $12,500 to $14,999 $15,000 to $19,999
##   Don_t know                  4                  7                  7
##   No                         44                 30                 47
##   Yes                         8                 11                  8
##             PPINCIMP
## Q3           $20,000 to $24,999 $25,000 to $29,999 $30,000 to $34,999
```

```
##   Don_t know                  8                  4                 11
##   No                         52                 81                 70
##   Yes                        12                 13                  9
##             PPINCIMP
## Q3           $35,000 to $39,999 $40,000 to $49,999 $50,000 to $59,999
##   Don_t know                 11                  6                 13
##   No                         75                117                136
##   Yes                        17                 25                 33
##             PPINCIMP
## Q3           $60,000 to $74,999 $75,000 to $84,999 $85,000 to $99,999
##   Don_t know                 18                  7                 11
##   No                        165                120                107
##   Yes                        39                 33                 35
##             PPINCIMP
## Q3           $100,000 to $124,999 $125,000 to $149,999
##   Don_t know                   20                   6
##   No                          245                 100
##   Yes                          61                  26
##             PPINCIMP
## Q3           $150,000 to $174,999 $175,000 or more
##   Don_t know                    3                 7
##   No                           58                94
##   Yes                          23                24
```

```
q3 <- data2 %>%
  count(Q3, PPINCIMP)
ggplot(q3, aes(x = Q3, y = n, fill = PPINCIMP)) +
  geom_bar(stat = 'identity', position = position_dodge())
```

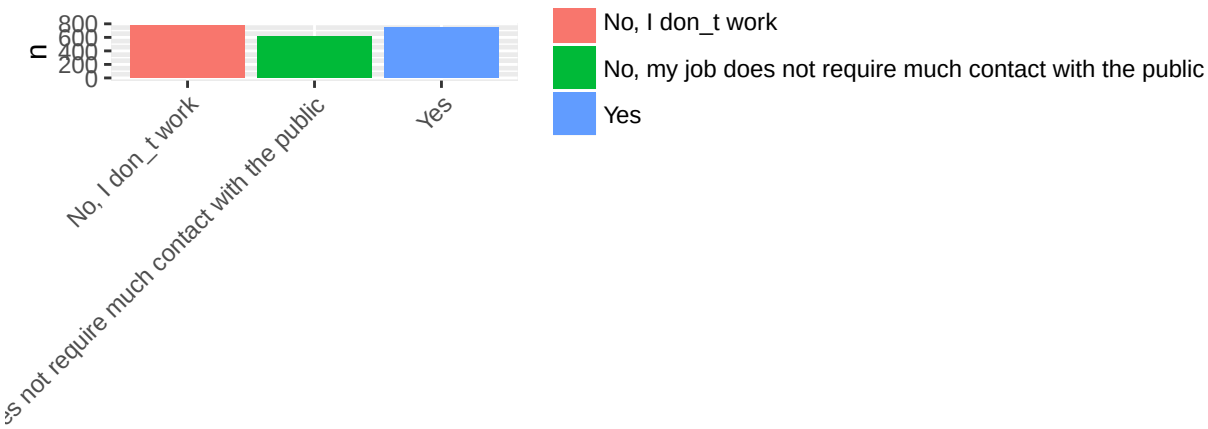


Q4. Does your job require you to have a lot of contact with the public?

```
# all
with(data2, table(Q4))
```

```
## Q4
##                                         No, I don_t work
##                                                      779
## No, my job does not require much contact with the public
##                                                      620
##                                                      Yes
##                                                      751
```

```
q4 <- data2 %>%
  count(Q4)

ggplot(q4, aes(x = Q4, y = n, fill = Q4)) + geom_bar(stat = 'identity') +
    theme(axis.text.x = element_text(angle = 45, hjust = 1))
```

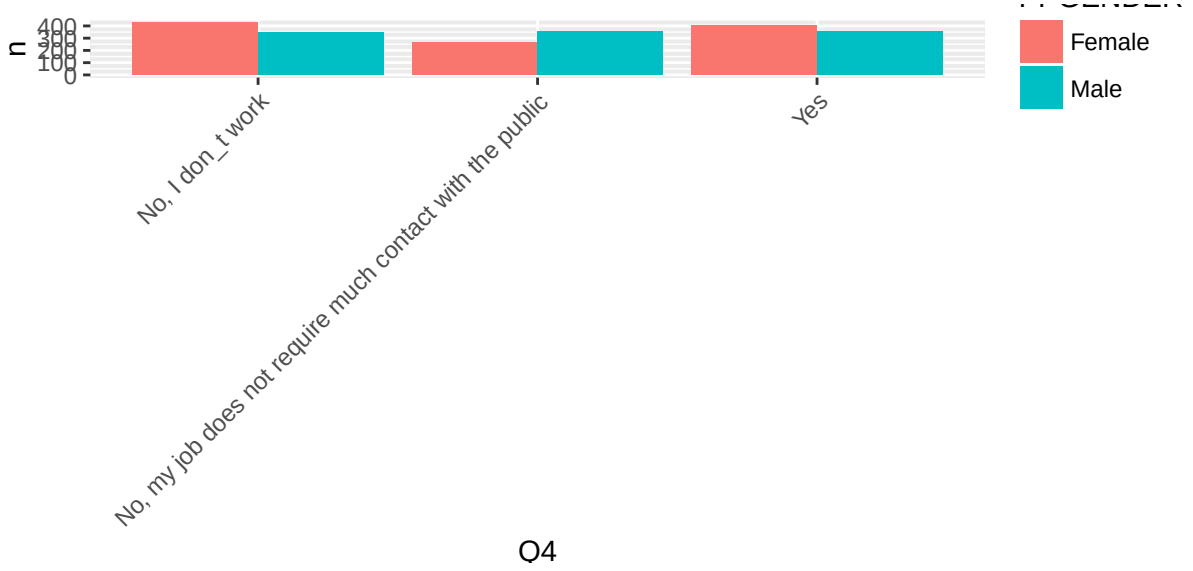


Q4

```
# by gender
with(data2, table(Q4, PPGENDER))
```

```
##                                                    PPGENDER
## Q4                                                  Female Male
##   No, I don_t work                                     430  349
##   No, my job does not require much contact with the public  263  357
##   Yes                                                  400  351
```

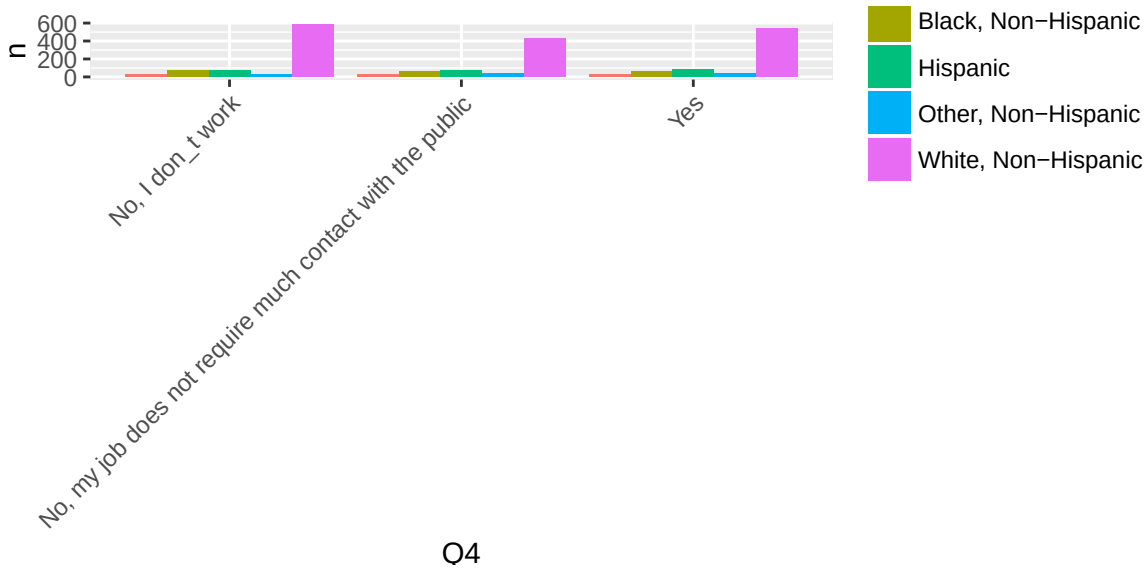
```
q4 <- data2 %>%
  count(Q4, PPGENDER)
ggplot(q4, aes(x = Q4, y = n, fill = PPGENDER)) +
  geom_bar(stat = 'identity', position = position_dodge()) +
  theme(axis.text.x = element_text(angle = 45, hjust = 1))
```




```
# by ethnicity
with(data2, table(Q4, PPETHM))
```

```
##                                                                 PPETHM
## Q4                                                               2+ Races, Non-Hispanic
##   No, I don_t work                                                                   30
##   No, my job does not require much contact with the public                           23
##   Yes                                                                                27
##                                                                 PPETHM
## Q4                                                               Black, Non-Hispanic
##   No, I don_t work                                                                   69
##   No, my job does not require much contact with the public                           59
##   Yes                                                                                64
##                                                                 PPETHM
## Q4                                                               Hispanic
##   No, I don_t work                                                     69
##   No, my job does not require much contact with the public             72
##   Yes                                                                  87
##                                                                 PPETHM
## Q4                                                               Other, Non-Hispanic
##   No, I don_t work                                                                   24
##   No, my job does not require much contact with the public                           34
##   Yes                                                                                35
##                                                                 PPETHM
## Q4                                                               White, Non-Hispanic
##   No, I don_t work                                                                  587
##   No, my job does not require much contact with the public                          432
##   Yes                                                                               538
```

```
q4 <- data2 %>%
  count(Q4, PPETHM)
ggplot(q4, aes(x = Q4, y = n, fill = PPETHM)) +
  geom_bar(stat = 'identity', position = position_dodge()) +
  theme(axis.text.x = element_text(angle = 45, hjust = 1))
```



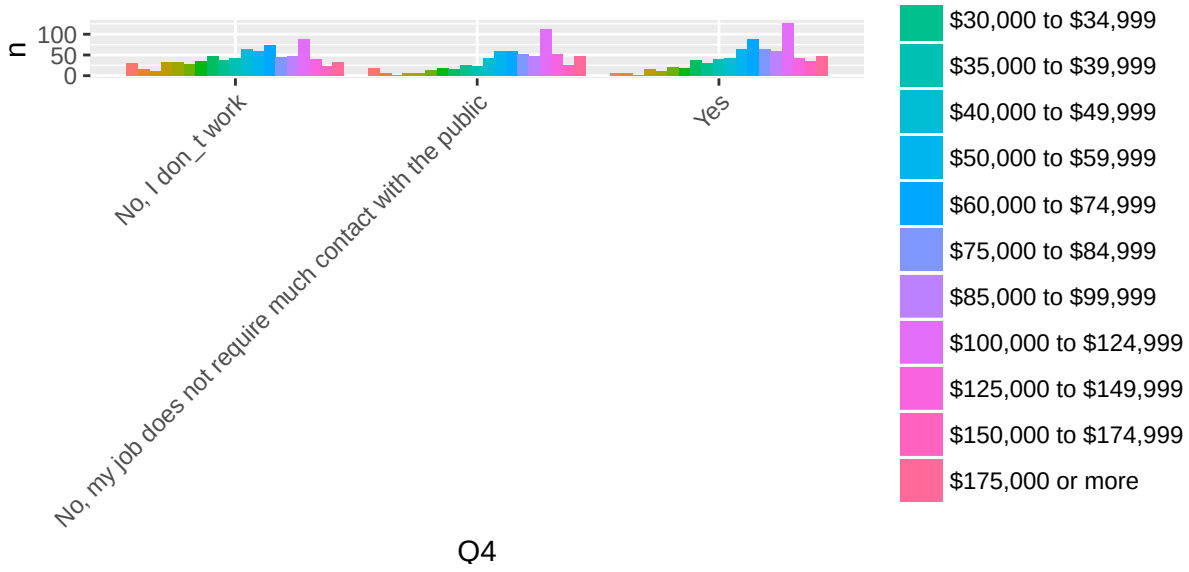

```
# by income
with(data2, table(Q4, PPINCIMP))
```

```
##                                                                 PPINCIMP
## Q4                                                               Less than $5,000
##   No, I don_t work                                                             29
##   No, my job does not require much contact with the public                     17
##   Yes                                                                           6
##                                                                 PPINCIMP
## Q4                                                               $5,000 to $7,499
##   No, I don_t work                                                             15
##   No, my job does not require much contact with the public                      5
##   Yes                                                                           5
##                                                                 PPINCIMP
## Q4                                                               $7,500 to $9,999
##   No, I don_t work                                                             11
##   No, my job does not require much contact with the public                      1
##   Yes                                                                           2
##                                                                 PPINCIMP
## Q4                                                               $10,000 to $12,499
##   No, I don_t work                                                             33
##   No, my job does not require much contact with the public                      7
##   Yes                                                                          15
##                                                                 PPINCIMP
## Q4                                                               $12,500 to $14,999
##   No, I don_t work                                                             32
##   No, my job does not require much contact with the public                      5
##   Yes                                                                          11
##                                                                 PPINCIMP
## Q4                                                               $15,000 to $19,999
##   No, I don_t work                                                             28
##   No, my job does not require much contact with the public                     13
##   Yes                                                                          21
##                                                                 PPINCIMP
## Q4                                                               $20,000 to $24,999
```

```
##   No, I don_t work                                                          35
##   No, my job does not require much contact with the public                  18
##   Yes                                                                       19
##                                                          PPINCIMP
## Q4                                                        $25,000 to $29,999
##   No, I don_t work                                                          46
##   No, my job does not require much contact with the public                  15
##   Yes                                                                       37
##                                                          PPINCIMP
## Q4                                                        $30,000 to $34,999
##   No, I don_t work                                                          38
##   No, my job does not require much contact with the public                  25
##   Yes                                                                       29
##                                                          PPINCIMP
## Q4                                                        $35,000 to $39,999
##   No, I don_t work                                                          42
##   No, my job does not require much contact with the public                  22
##   Yes                                                                       39
##                                                          PPINCIMP
## Q4                                                        $40,000 to $49,999
##   No, I don_t work                                                          64
##   No, my job does not require much contact with the public                  41
##   Yes                                                                       43
##                                                          PPINCIMP
## Q4                                                        $50,000 to $59,999
##   No, I don_t work                                                          60
##   No, my job does not require much contact with the public                  58
##   Yes                                                                       63
##                                                          PPINCIMP
## Q4                                                        $60,000 to $74,999
##   No, I don_t work                                                          73
##   No, my job does not require much contact with the public                  60
##   Yes                                                                       88
##                                                          PPINCIMP
## Q4                                                        $75,000 to $84,999
##   No, I don_t work                                                          45
##   No, my job does not require much contact with the public                  51
##   Yes                                                                       64
##                                                          PPINCIMP
## Q4                                                        $85,000 to $99,999
##   No, I don_t work                                                          47
##   No, my job does not require much contact with the public                  48
##   Yes                                                                       58
##                                                          PPINCIMP
## Q4                                                        $100,000 to $124,999
##   No, I don_t work                                                          87
##   No, my job does not require much contact with the public                 111
##   Yes                                                                      127
##                                                          PPINCIMP
## Q4                                                        $125,000 to $149,999
##   No, I don_t work                                                          39
##   No, my job does not require much contact with the public                  51
##   Yes                                                                       42
##                                                          PPINCIMP
```

```
## Q4                                                                  $150,000 to $174,999
##   No, I don_t work                                                                    23
##   No, my job does not require much contact with the public                            25
##   Yes                                                                                 36
##                                                                  PPINCIMP
## Q4                                                                $175,000 or more
##   No, I don_t work                                                                32
##   No, my job does not require much contact with the public                        47
##   Yes                                                                             46
```

```
q4 <- data2 %>%
  count(Q4, PPINCIMP)
ggplot(q4, aes(x = Q4, y = n, fill = PPINCIMP)) +
  geom_bar(stat = 'identity', position = position_dodge()) +
  theme(axis.text.x = element_text(angle = 45, hjust = 1))
```

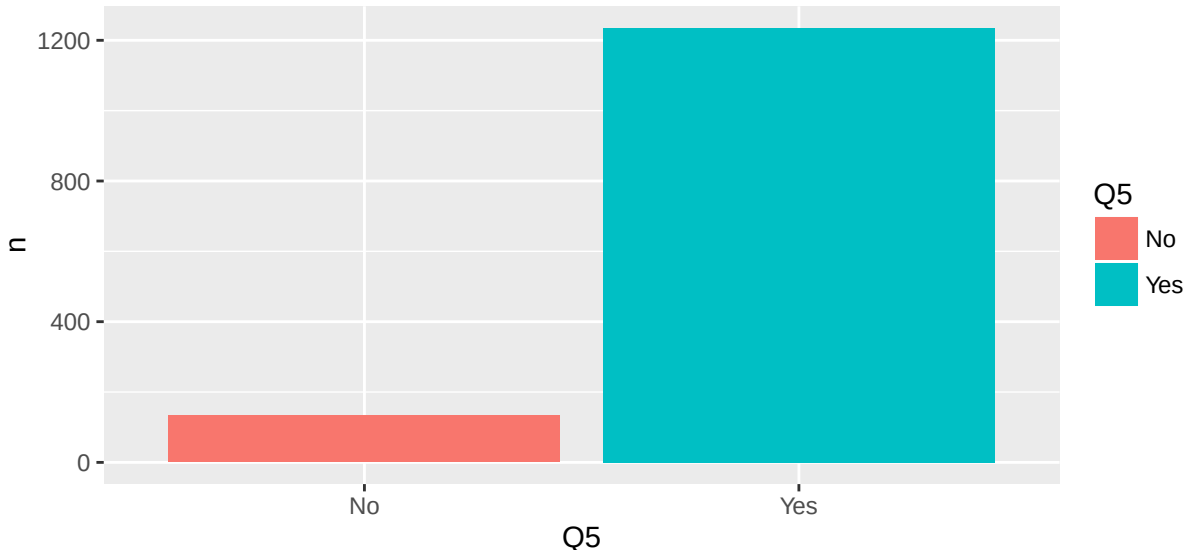


Q5. Do you have a car that you can use to travel to work?

```
# all
with(data2, table(Q5))
```

```
## Q5
##   No  Yes
##  133 1235
```

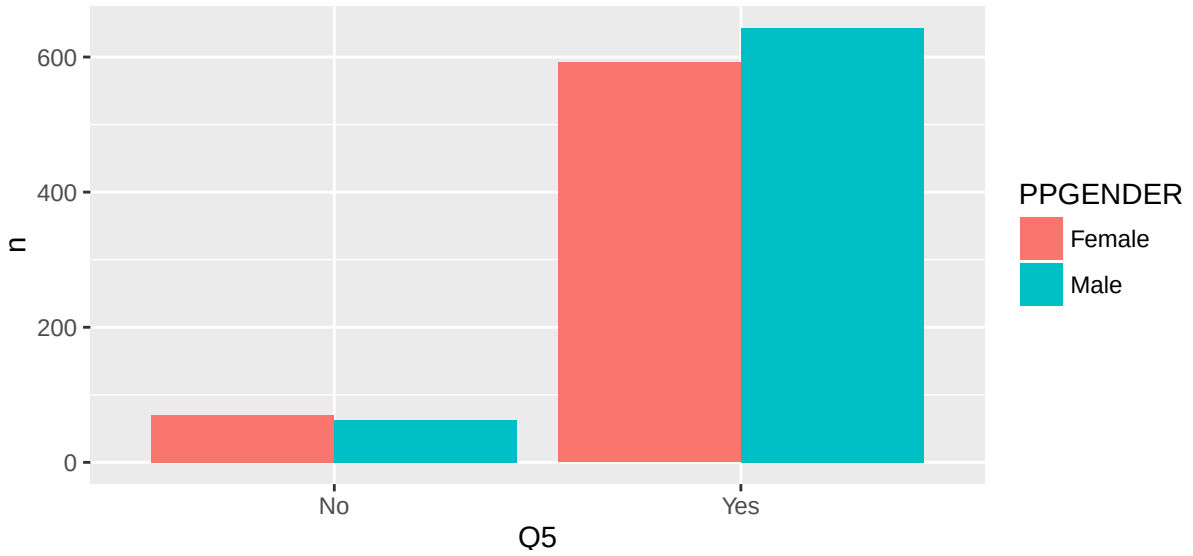
```
q5 <- data2 %>%
  count(Q5)
ggplot(q5, aes(x = Q5, y = n, fill = Q5)) + geom_bar(stat = 'identity')
```




```
# by gender
with(data2, table(PPGENDER, Q5))
```

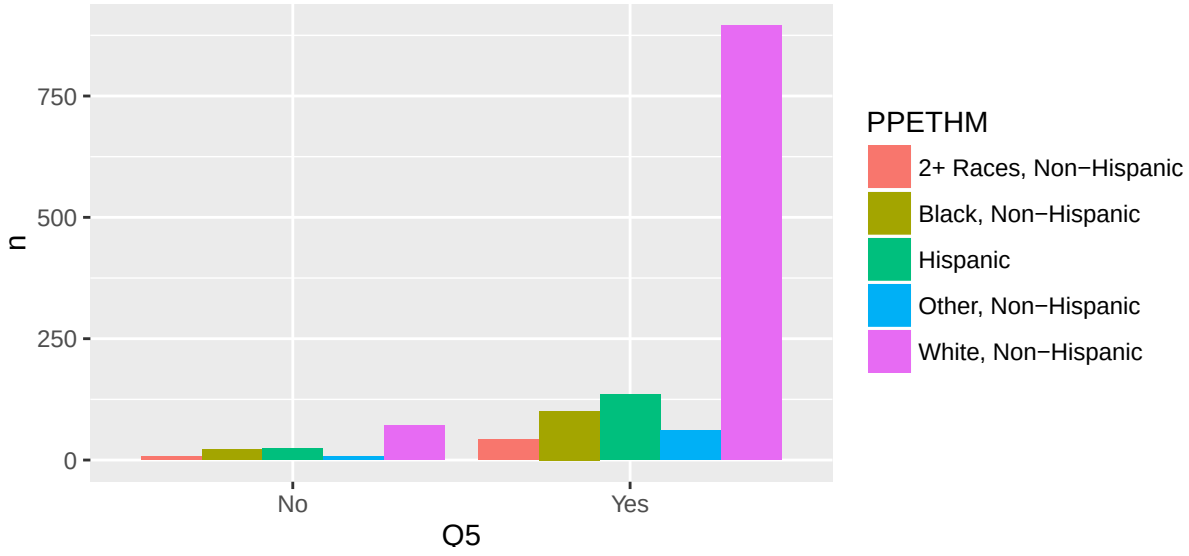
```
##         Q5
## PPGENDER  No Yes
##   Female  70 592
##   Male    63 643
```

```
q5 <- data2 %>%
  count(Q5, PPGENDER)
ggplot(q5, aes(x = Q5, y = n, fill = PPGENDER)) +
  geom_bar(stat = 'identity', position = position_dodge())
```

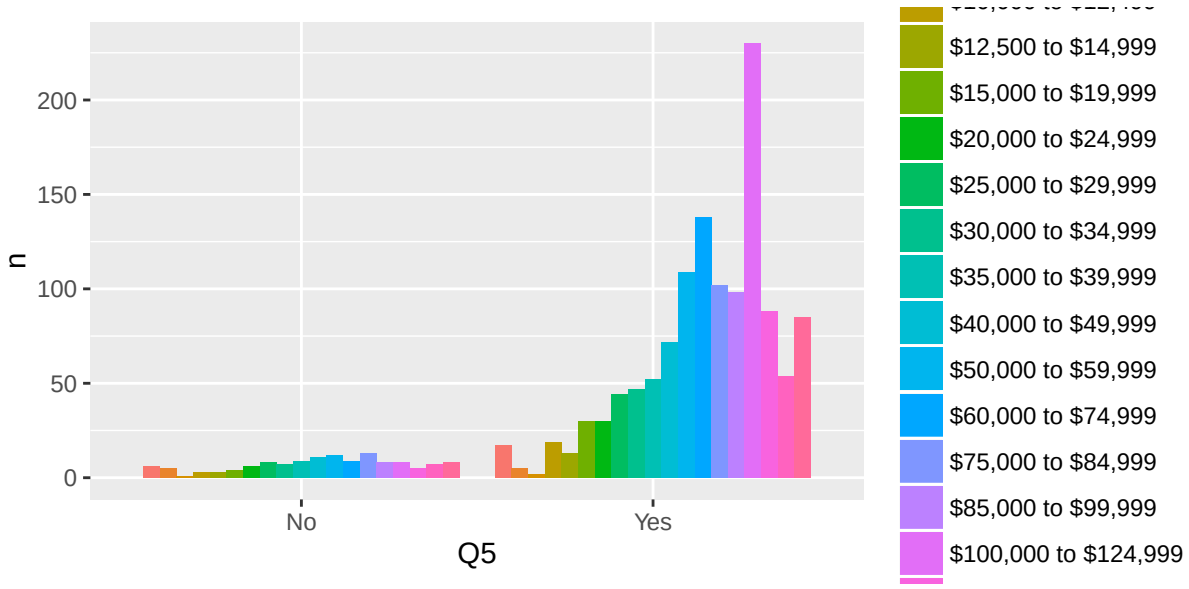



```
# by ethnicity
q5 <- data2 %>%
  count(Q5, PPETHM)
```

```
ggplot(q5, aes(x = Q5, y = n, fill = PPETHM)) +
  geom_bar(stat = 'identity', position = position_dodge())
```




```
# by income
q5 <- data2 %>%
  count(Q5, PPINCIMP)
ggplot(q5, aes(x = Q5, y = n, fill = PPINCIMP)) +
  geom_bar(stat = 'identity', position = position_dodge())
```

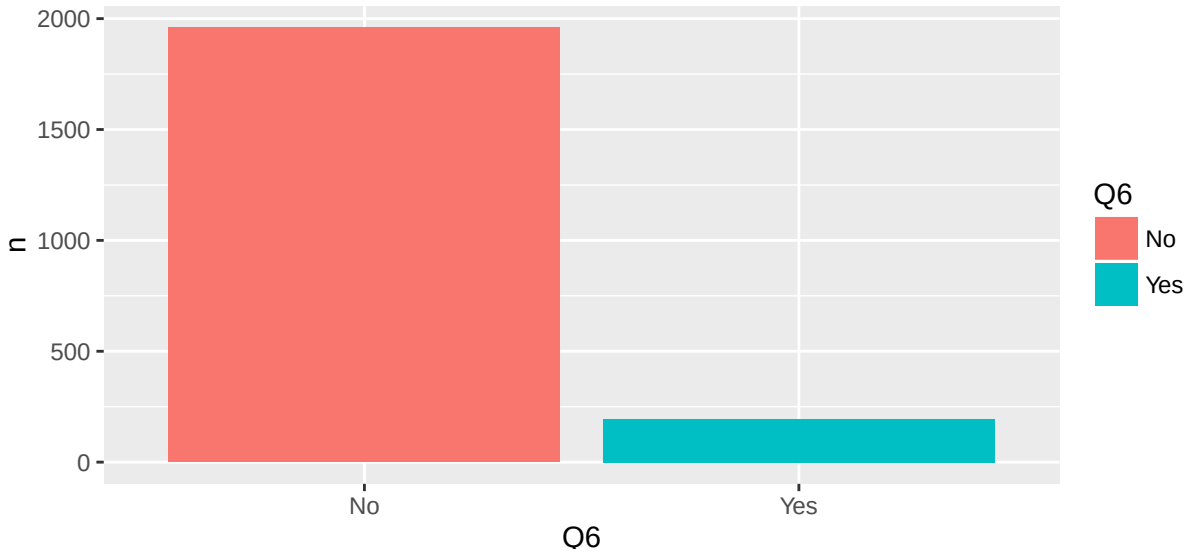


Q6. Do you regularly use public transportation?

```
# all
with(data2, table(Q6))
```

```
## Q6
##   No  Yes
## 1959  194
```

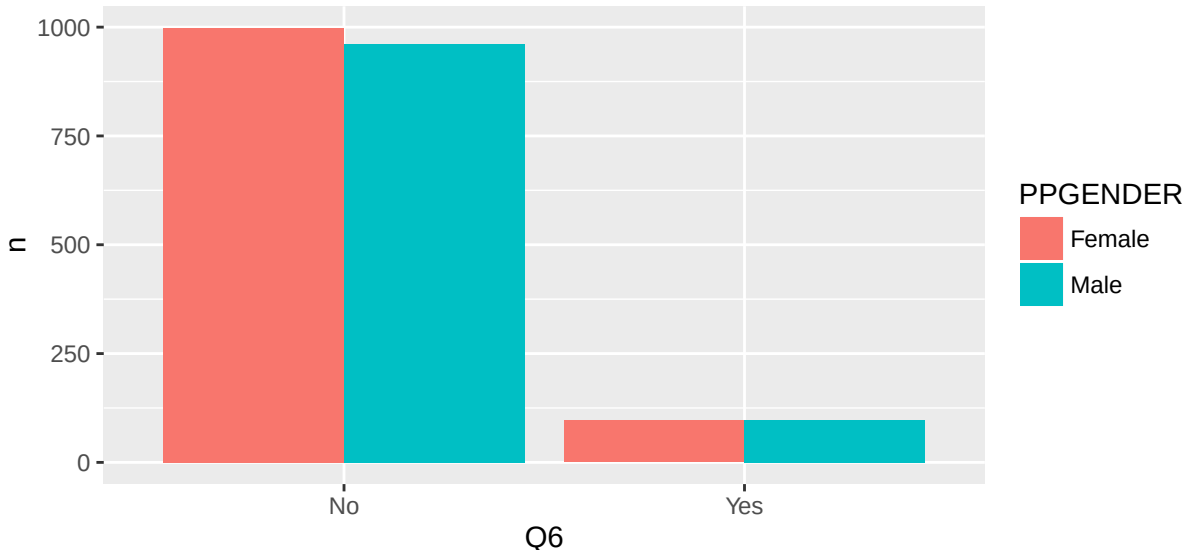
```
q6 <- data2 %>%
  count(Q6)
ggplot(q6, aes(x = Q6, y = n, fill = Q6)) + geom_bar(stat = 'identity')
```




```
# by gender
with(data2, table(PPGENDER, Q6))
```

```
##         Q6
## PPGENDER  No Yes
##   Female 998  96
##   Male   961  98
```

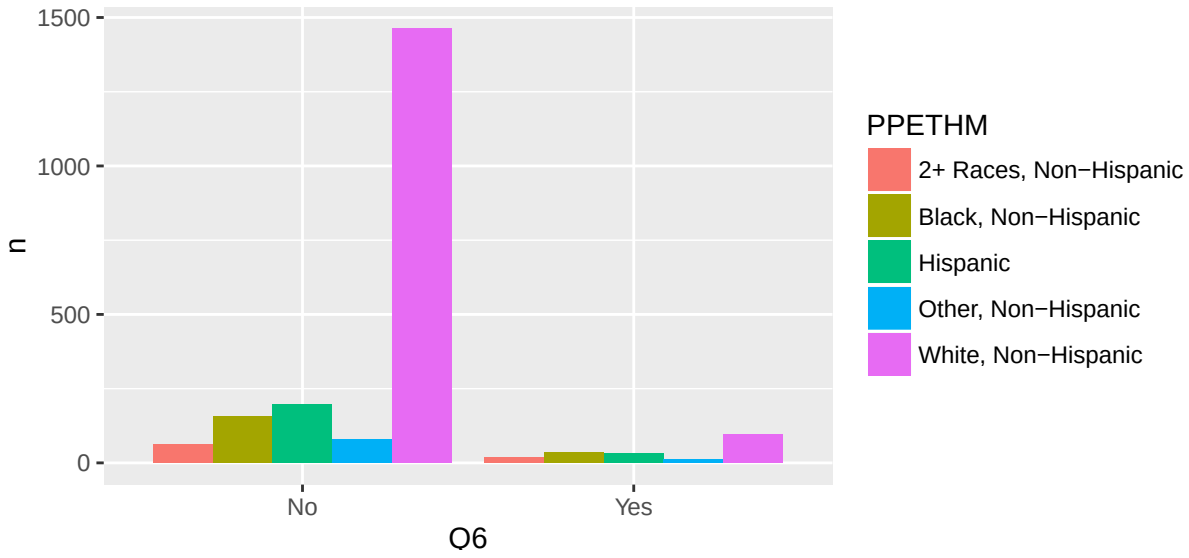
```
q6 <- data2 %>%
  count(Q6, PPGENDER)

ggplot(q6, aes(x = Q6, y = n, fill = PPGENDER)) +
  geom_bar(stat = 'identity', position = position_dodge())
```




```
# by ethnicity
with(data2, table(PPETHM, Q6))
```

```
##                          Q6
## PPETHM                     No  Yes
##   2+ Races, Non-Hispanic   62   18
##   Black, Non-Hispanic     158   36
##   Hispanic                196   32
##   Other, Non-Hispanic      80   13
##   White, Non-Hispanic    1463   95
```

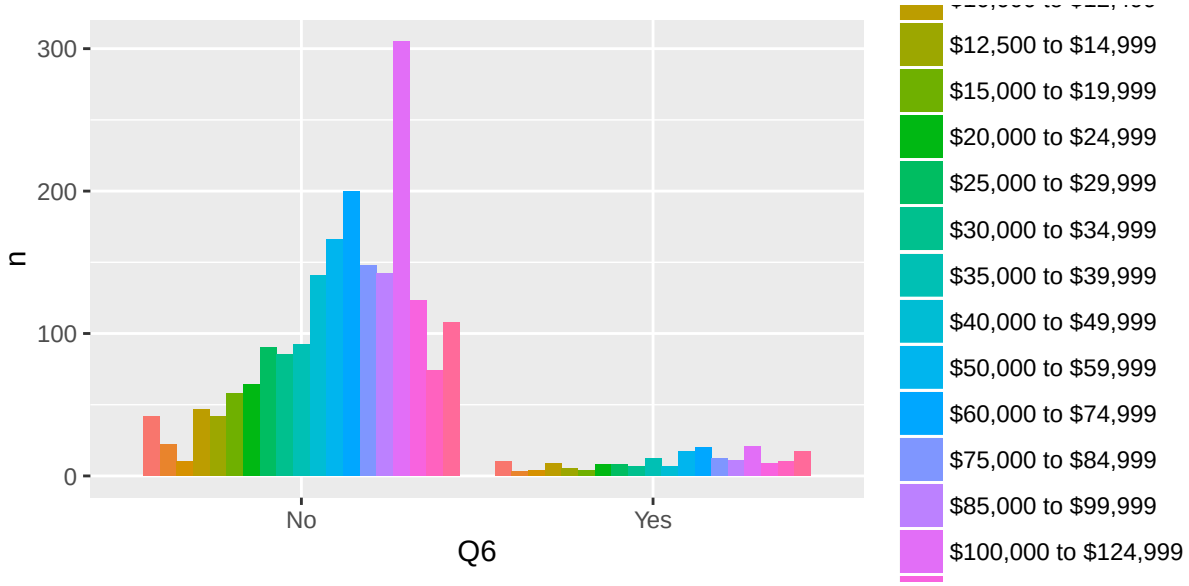
```
q6 <- data2 %>%
  count(Q6, PPETHM)

ggplot(q6, aes(x = Q6, y = n, fill = PPETHM)) +
  geom_bar(stat = 'identity', position = position_dodge())
```



```r
# by income
with(data2, table(PPINCIMP, Q6))
```

```
##                         Q6
## PPINCIMP                  No Yes
##   Less than $5,000        42  10
##   $5,000 to $7,499        22   3
##   $7,500 to $9,999        10   4
##   $10,000 to $12,499      47   9
##   $12,500 to $14,999      42   5
##   $15,000 to $19,999      58   4
##   $20,000 to $24,999      64   8
##   $25,000 to $29,999      90   8
##   $30,000 to $34,999      85   7
##   $35,000 to $39,999      92  12
##   $40,000 to $49,999     141   7
##   $50,000 to $59,999     166  17
##   $60,000 to $74,999     200  20
##   $75,000 to $84,999     148  12
##   $85,000 to $99,999     142  11
##   $100,000 to $124,999   305  21
##   $125,000 to $149,999   123   9
##   $150,000 to $174,999    74  10
##   $175,000 or more       108  17
```

```r
q6 <- data2 %>%
  count(Q6, PPINCIMP)

ggplot(q6, aes(x = Q6, y = n, fill = PPINCIMP)) +
  geom_bar(stat = 'identity', position = position_dodge())
```

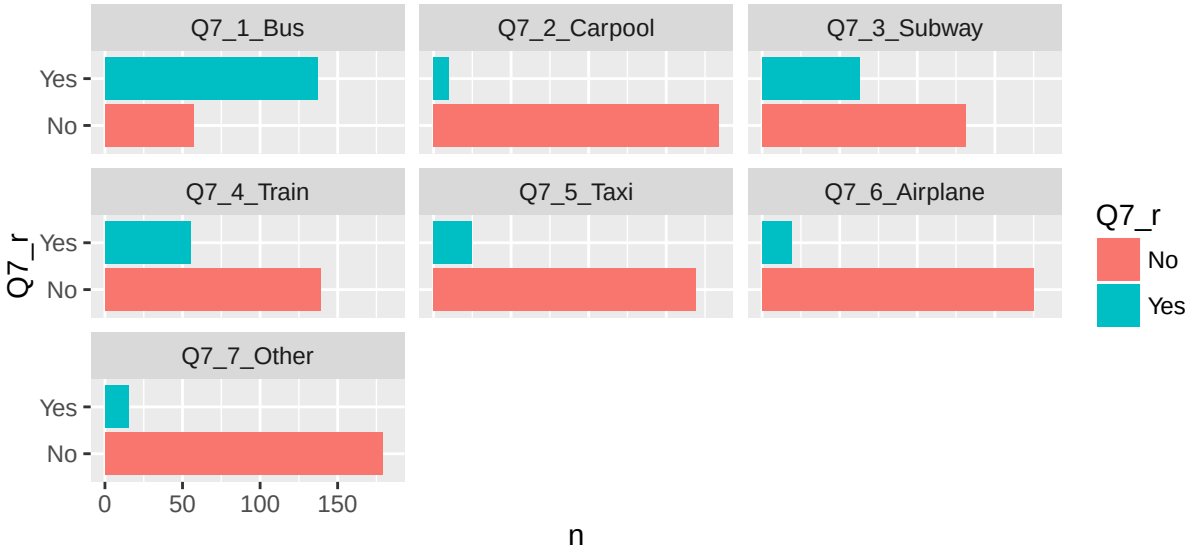


Q7. What types of public transportation do you regularly use?

```
# look at patterned names
# grep("Q7", names(data2))

# make long data
q7_long <- data2 %>%
  gather("Q7_q", "Q7_r", starts_with("Q7_"), -contains("Text"), -contains("Refused"), na.rm = TRUE)

#grep("Q7", names(q7_long))
#View(q7_long[c(1, 34, 35, 423:424)])


with(q7_long, table(Q7_q, Q7_r))
```

```
##                Q7_r
## Q7_q             No Yes
##   Q7_1_Bus       57 137
##   Q7_2_Carpool  184  10
##   Q7_3_Subway   131  63
##   Q7_4_Train    139  55
##   Q7_5_Taxi     169  25
##   Q7_6_Airplane 175  19
##   Q7_7_Other    179  15
```

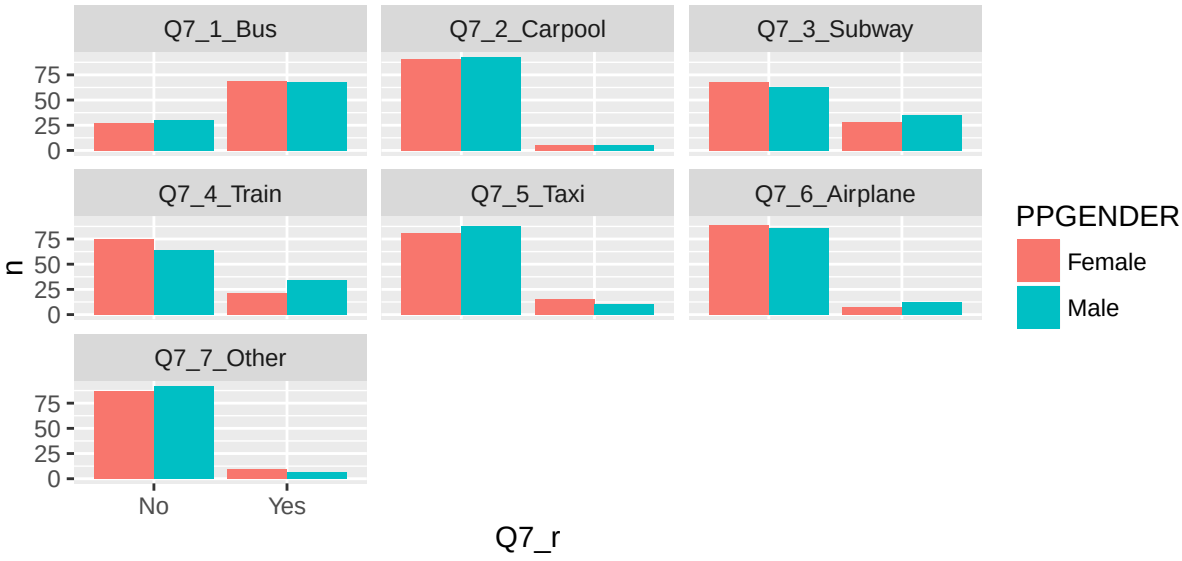
```
q7 <- q7_long %>%
  count(Q7_q, Q7_r)

# flip coordinates
ggplot(q7[!is.na(q7$Q7_r), ], aes(x = Q7_r, y = n, fill = Q7_r)) +
  geom_bar(stat = 'identity', position = position_dodge()) + facet_wrap(~Q7_q) + coord_flip()
```



```r
# by gender
with(q7_long, table(Q7_r, Q7_q, PPGENDER))
```

```
## , , PPGENDER = Female
##
##       Q7_q
## Q7_r   Q7_1_Bus Q7_2_Carpool Q7_3_Subway Q7_4_Train Q7_5_Taxi Q7_6_Airplane
##   No         27           91          68         75        81             89
##   Yes        69            5          28         21        15              7
##       Q7_q
## Q7_r   Q7_7_Other
##   No           87
##   Yes           9
##
## , , PPGENDER = Male
##
##       Q7_q
## Q7_r   Q7_1_Bus Q7_2_Carpool Q7_3_Subway Q7_4_Train Q7_5_Taxi Q7_6_Airplane
##   No         30           93          63         64        88             86
##   Yes        68            5          35         34        10             12
##       Q7_q
## Q7_r   Q7_7_Other
##   No           92
##   Yes           6
```

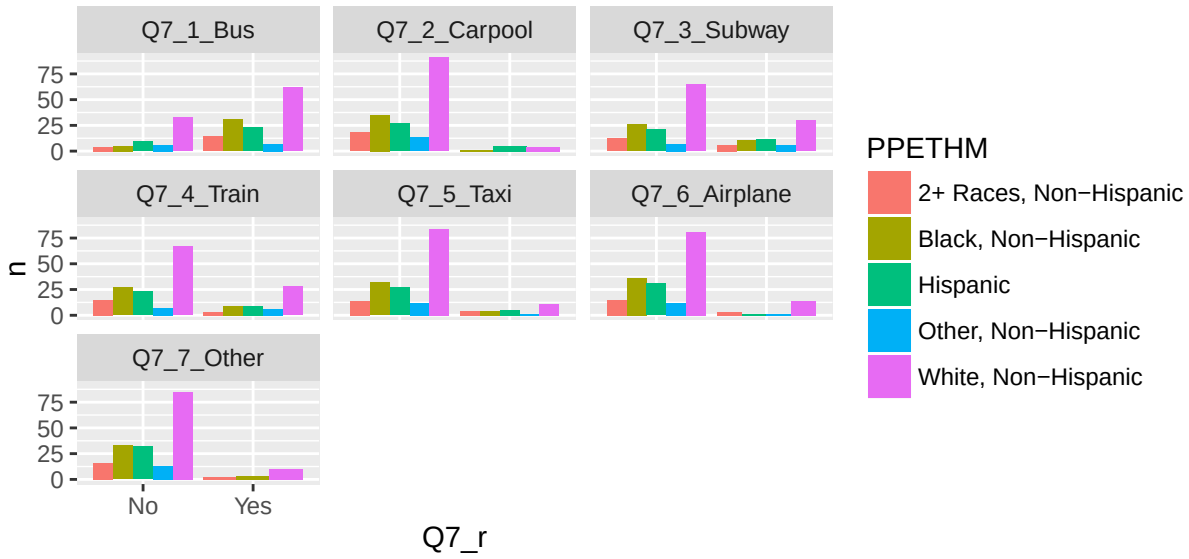
```r
q7 <- q7_long %>%
  group_by(PPGENDER, Q7_q, Q7_r) %>%
  count(PPGENDER, Q7_q, Q7_r)

ggplot(q7[!is.na(q7$Q7_r), ], aes(x = Q7_r, y = n, fill = PPGENDER)) +
  geom_bar(stat = 'identity', position = position_dodge()) + facet_wrap(~Q7_q)
```




```r
# by ethnicity
with(q7_long, table(PPETHM, Q7_q, Q7_r))
```

```
## , , Q7_r = No
##
##                          Q7_q
## PPETHM                    Q7_1_Bus Q7_2_Carpool Q7_3_Subway Q7_4_Train
##   2+ Races, Non-Hispanic        4           18          12         15
##   Black, Non-Hispanic           5           35          26         27
##   Hispanic                      9           27          21         23
##   Other, Non-Hispanic           6           13           7          7
##   White, Non-Hispanic          33           91          65         67
##                          Q7_q
## PPETHM                    Q7_5_Taxi Q7_6_Airplane Q7_7_Other
##   2+ Races, Non-Hispanic        14            15         16
##   Black, Non-Hispanic           32            36         33
##   Hispanic                      27            31         32
##   Other, Non-Hispanic           12            12         13
##   White, Non-Hispanic           84            81         85
##
## , , Q7_r = Yes
##
##                          Q7_q
## PPETHM                    Q7_1_Bus Q7_2_Carpool Q7_3_Subway Q7_4_Train
##   2+ Races, Non-Hispanic       14            0           6          3
##   Black, Non-Hispanic          31            1          10          9
##   Hispanic                     23            5          11          9
##   Other, Non-Hispanic           7            0           6          6
##   White, Non-Hispanic          62            4          30         28
##                          Q7_q
## PPETHM                    Q7_5_Taxi Q7_6_Airplane Q7_7_Other
##   2+ Races, Non-Hispanic         4             3          2
##   Black, Non-Hispanic            4             0          3
##   Hispanic                       5             1          0
##   Other, Non-Hispanic            1             1          0
##   White, Non-Hispanic           11            14         10
```

```
q7 <- q7_long %>%
  group_by(PPETHM, Q7_q, Q7_r) %>%
  count(PPETHM, Q7_q, Q7_r)

ggplot(q7[!is.na(q7$Q7_r), ], aes(x = Q7_r, y = n, fill = PPETHM)) +
  geom_bar(stat = 'identity', position = position_dodge()) + facet_wrap(~Q7_q)
```



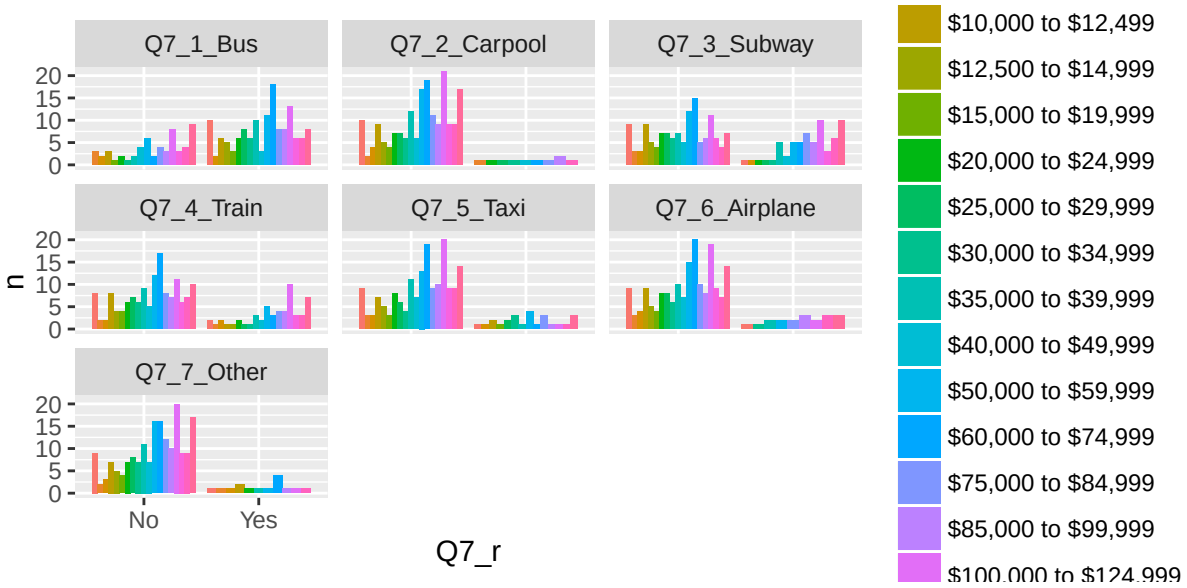

```
# by income
with(q7_long, table(PPINCIMP, Q7_q, Q7_r ))
```

```
## , , Q7_r = No
##
##                         Q7_q
## PPINCIMP                 Q7_1_Bus Q7_2_Carpool Q7_3_Subway Q7_4_Train
##   Less than $5,000              0           10           9           8
##   $5,000 to $7,499              3            2           3           2
##   $7,500 to $9,999              2            4           3           2
##   $10,000 to $12,499            3            9           9           8
##   $12,500 to $14,999            0            5           5           4
##   $15,000 to $19,999            1            4           4           4
##   $20,000 to $24,999            2            7           7           6
##   $25,000 to $29,999            0            7           7           7
##   $30,000 to $34,999            1            6           6           6
##   $35,000 to $39,999            2           12           7           9
##   $40,000 to $49,999            4            6           5           5
##   $50,000 to $59,999            6           17          12          12
##   $60,000 to $74,999            2           19          15          17
##   $75,000 to $84,999            4           11           5           8
##   $85,000 to $99,999            3            9           6           7
##   $100,000 to $124,999          8           21          11          11
##   $125,000 to $149,999          3            9           6           6
##   $150,000 to $174,999          4            9           4           7
##   $175,000 or more              9           17           7          10
##                         Q7_q
## PPINCIMP                 Q7_5_Taxi Q7_6_Airplane Q7_7_Other
##   Less than $5,000               9             9           9
##   $5,000 to $7,499               3             3           2
##   $7,500 to $9,999               3             4           3
##   $10,000 to $12,499             7             9           7
##   $12,500 to $14,999             5             5           5
##   $15,000 to $19,999             3             4           4
##   $20,000 to $24,999             8             8           7
```

```
##   $25,000 to $29,999           6             8          8
##   $30,000 to $34,999           4             6          7
##   $35,000 to $39,999          11            10         11
##   $40,000 to $49,999           7             7          7
##   $50,000 to $59,999          13            15         16
##   $60,000 to $74,999          19            20         16
##   $75,000 to $84,999           9            10         12
##   $85,000 to $99,999          10             8         10
##   $100,000 to $124,999        20            19         20
##   $125,000 to $149,999         9             9          9
##   $150,000 to $174,999         9             7          9
##   $175,000 or more            14            14         17
##
## , , Q7_r = Yes
##
##                       Q7_q
## PPINCIMP               Q7_1_Bus Q7_2_Carpool Q7_3_Subway Q7_4_Train
##   Less than $5,000           10            0           1          2
##   $5,000 to $7,499            0            1           0          1
##   $7,500 to $9,999            2            0           1          2
##   $10,000 to $12,499          6            0           0          1
##   $12,500 to $14,999          5            0           0          1
##   $15,000 to $19,999          3            0           0          0
##   $20,000 to $24,999          6            1           1          2
##   $25,000 to $29,999          8            1           1          1
##   $30,000 to $34,999          6            1           1          1
##   $35,000 to $39,999         10            0           5          3
##   $40,000 to $49,999          3            1           2          2
##   $50,000 to $59,999         11            0           5          5
##   $60,000 to $74,999         18            1           5          3
##   $75,000 to $84,999          8            1           7          4
##   $85,000 to $99,999          8            2           5          4
##   $100,000 to $124,999       13            0          10         10
##   $125,000 to $149,999        6            0           3          3
##   $150,000 to $174,999        6            1           6          3
##   $175,000 or more            8            0          10          7
##                       Q7_q
## PPINCIMP               Q7_5_Taxi Q7_6_Airplane Q7_7_Other
##   Less than $5,000             1             1          1
##   $5,000 to $7,499             0             0          1
##   $7,500 to $9,999             1             0          1
##   $10,000 to $12,499           2             0          2
##   $12,500 to $14,999           0             0          0
##   $15,000 to $19,999           1             0          0
##   $20,000 to $24,999           0             0          1
##   $25,000 to $29,999           2             0          0
##   $30,000 to $34,999           3             1          0
##   $35,000 to $39,999           1             2          1
##   $40,000 to $49,999           0             0          0
##   $50,000 to $59,999           4             2          1
##   $60,000 to $74,999           1             0          4
##   $75,000 to $84,999           3             2          0
##   $85,000 to $99,999           1             3          1
##   $100,000 to $124,999         1             2          1
```

```
##   $125,000 to $149,999          0             0          0
##   $150,000 to $174,999          1             3          1
##   $175,000 or more              3             3          0
```

```
q7 <- q7_long %>%
  group_by(PPINCIMP, Q7_q, Q7_r) %>%
  count(PPINCIMP, Q7_q, Q7_r)

ggplot(q7[!is.na(q7$Q7_r), ], aes(x = Q7_r, y = n, fill = PPINCIMP)) +
  geom_bar(stat = 'identity', position = position_dodge()) + facet_wrap(~Q7_q)
```



Q8. For what types of activities do you regularly use public transportation?

```
q8_long <- data2 %>%
  gather("Q8_q", "Q8_r", starts_with("Q8_"), -contains("otherText"), -contains("Refused"))

with(q8_long, table(Q8_q, Q8_r))
```

```
##                       Q8_r
## Q8_q                    No Yes
##   Q8_1_Work             89 105
##   Q8_2_School          158  36
##   Q8_3_Shopping        107  87
##   Q8_4_Visiting.people 125  69
##   Q8_5_Recreation      127  67
##   Q8_6_Other           175  19
```

```
q8 <- q8_long %>%
  count(Q8_q, Q8_r)
```

Q9. Do other members of your household regularly use public transportation?

```r
with(data2, table(Q9))
```

```
## Q9
## Don_t know         No        Yes
##         32       1935        183
```

Q10. What types of public transportation do other members of your household regularly use?

```r
#Q10 <- data2 %>%
#  select(CaseID, PPGENDER, PPAGE, PPEDUC, PPETHM, PPINCIMP, PPWORK, #Q10_1_Bus:Q10_9_Refused) %>%
#  gather("Q10_q", "Q10_r", Q10_1_Bus:Q10_8_Other)


q10_long <- data2 %>%
  gather("Q10_q", "Q10_r", starts_with("Q10_"), -contains("Text"), -contains("Refused"), na.rm = TRUE)

with(q10_long, table(Q10_q, Q10_r))
```

```
##                   Q10_r
## Q10_q                No Yes
##   Q10_1_Bus          48 135
##   Q10_2_Carpool     166  17
##   Q10_3_Subway      130  53
##   Q10_4_Train       137  46
##   Q10_5_Taxi        157  26
##   Q10_6_Airplane    164  19
##   Q10_7_Don_t.know  182   1
##   Q10_8_Other       172  11
```

```r
q10 <- q10_long %>%
  count(Q10_q, Q10_r)
```

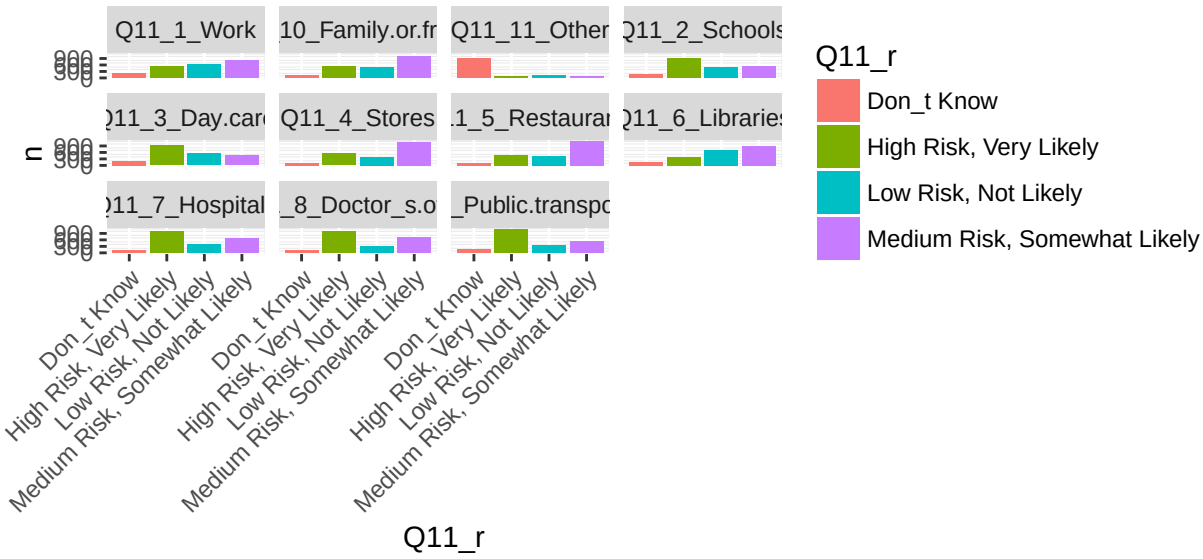
Q11. How do you rate your risk of getting influenza if you visited each of the following locations?

```r
#Q11 <- data2 %>%
#  select(PPGENDER, PPAGE, PPEDUC, PPETHM, PPINCIMP, PPWORK, #Q11_1_Work:Q11_OtherText_Codes) %>%
#  gather("q", "r", Q11_1_Work:Q11_11_Other)

q11_long <- data2 %>%
  gather("Q11_q", "Q11_r", starts_with("Q11_"), -contains("Text"), -contains("Refused"), na.rm = TRUE)


# all
with(q11_long, table(Q11_q, Q11_r))
```

```
##                             Q11_r
## Q11_q                        Don_t Know High Risk, Very Likely
##   Q11_1_Work                        185                    524
```

```
##   Q11_10_Family.or.friends           121                    541
##   Q11_11_Other                       915                     51
##   Q11_2_Schools                      178                    909
##   Q11_3_Day.care                     214                    924
##   Q11_4_Stores                       115                    551
##   Q11_5_Restaurants                  111                    483
##   Q11_6_Libraries                    169                    386
##   Q11_7_Hospitals                    123                    982
##   Q11_8_Doctor_s.office              110                    994
##   Q11_9_Public.transportation        147                   1093
##                              Q11_r
## Q11_q                         Low Risk, Not Likely
##   Q11_1_Work                                    643
##   Q11_10_Family.or.friends                      485
##   Q11_11_Other                                  104
##   Q11_2_Schools                                 508
##   Q11_3_Day.care                                554
##   Q11_4_Stores                                  405
##   Q11_5_Restaurants                             442
##   Q11_6_Libraries                               700
##   Q11_7_Hospitals                               374
##   Q11_8_Doctor_s.office                         308
##   Q11_9_Public.transportation                   353
##                              Q11_r
## Q11_q                         Medium Risk, Somewhat Likely
##   Q11_1_Work                                          795
##   Q11_10_Family.or.friends                           1000
##   Q11_11_Other                                         54
##   Q11_2_Schools                                       551
##   Q11_3_Day.care                                      454
##   Q11_4_Stores                                       1076
##   Q11_5_Restaurants                                  1111
##   Q11_6_Libraries                                     890
##   Q11_7_Hospitals                                     669
##   Q11_8_Doctor_s.office                               733
##   Q11_9_Public.transportation                         551
```

```r
q11 <- q11_long %>%
  count(Q11_q, Q11_r)

ggplot(q11[!is.na(q11$Q11_r), ], aes(x = Q11_r, y = n, fill = Q11_r)) +
  geom_bar(stat = 'identity', position = position_dodge()) + facet_wrap(~Q11_q) +
  theme(axis.text.x = element_text(angle = 45, hjust = 1))
```



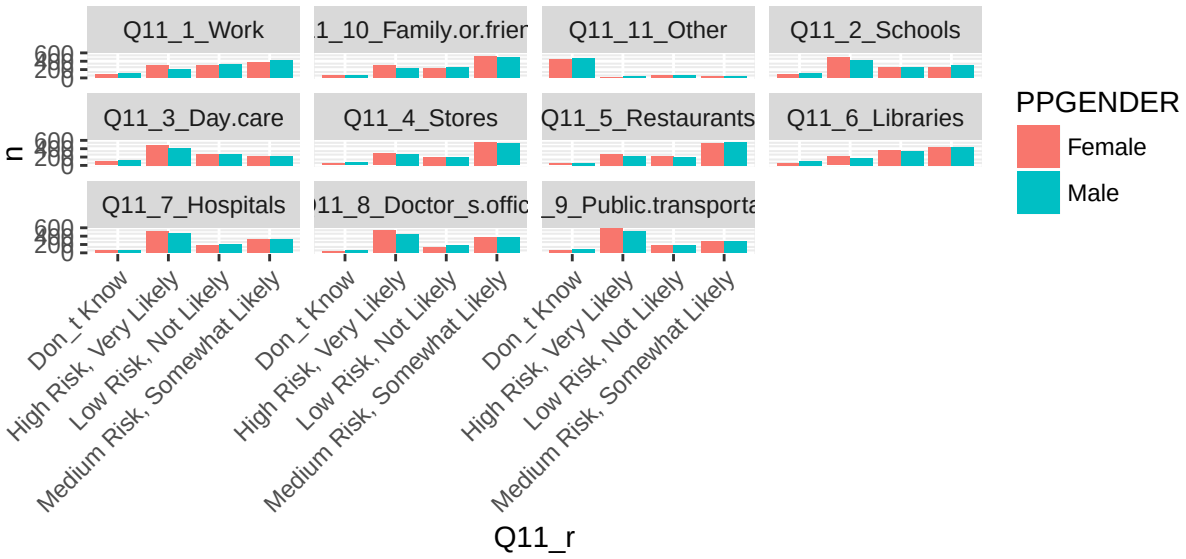

```
# by gender
with(q11_long, table(PPGENDER, Q11_r, Q11_q))
```

```
## , , Q11_q = Q11_1_Work
##
##         Q11_r
## PPGENDER Don_t Know High Risk, Very Likely Low Risk, Not Likely
##   Female         89                   309                   310
##   Male           96                   215                   333
##         Q11_r
## PPGENDER Medium Risk, Somewhat Likely
##   Female                          381
##   Male                            414
##
## , , Q11_q = Q11_10_Family.or.friends
##
##         Q11_r
## PPGENDER Don_t Know High Risk, Very Likely Low Risk, Not Likely
##   Female         53                   302                   229
##   Male           68                   239                   256
##         Q11_r
## PPGENDER Medium Risk, Somewhat Likely
##   Female                          506
##   Male                            494
##
## , , Q11_q = Q11_11_Other
##
##         Q11_r
## PPGENDER Don_t Know High Risk, Very Likely Low Risk, Not Likely
##   Female        449                    21                    53
##   Male          466                    30                    51
##         Q11_r
## PPGENDER Medium Risk, Somewhat Likely
##   Female                           27
##   Male                             27
```

```
##
## , , Q11_q = Q11_2_Schools
##
##         Q11_r
## PPGENDER Don_t Know High Risk, Very Likely Low Risk, Not Likely
##   Female         75                   500                  254
##   Male          103                   409                  254
##         Q11_r
## PPGENDER Medium Risk, Somewhat Likely
##   Female                          259
##   Male                            292
##
## , , Q11_q = Q11_3_Day.care
##
##         Q11_r
## PPGENDER Don_t Know High Risk, Very Likely Low Risk, Not Likely
##   Female         94                   498                  274
##   Male          120                   426                  280
##         Q11_r
## PPGENDER Medium Risk, Somewhat Likely
##   Female                          222
##   Male                            232
##
## , , Q11_q = Q11_4_Stores
##
##         Q11_r
## PPGENDER Don_t Know High Risk, Very Likely Low Risk, Not Likely
##   Female         45                   285                  206
##   Male           70                   266                  199
##         Q11_r
## PPGENDER Medium Risk, Somewhat Likely
##   Female                          553
##   Male                            523
##
## , , Q11_q = Q11_5_Restaurants
##
##         Q11_r
## PPGENDER Don_t Know High Risk, Very Likely Low Risk, Not Likely
##   Female         45                   266                  234
##   Male           66                   217                  208
##         Q11_r
## PPGENDER Medium Risk, Somewhat Likely
##   Female                          544
##   Male                            567
##
## , , Q11_q = Q11_6_Libraries
##
##         Q11_r
## PPGENDER Don_t Know High Risk, Very Likely Low Risk, Not Likely
##   Female         65                   213                  361
##   Male          104                   173                  339
##         Q11_r
## PPGENDER Medium Risk, Somewhat Likely
##   Female                          450
```

```
##   Male                            440
##
## , , Q11_q = Q11_7_Hospitals
##
##         Q11_r
## PPGENDER Don_t Know High Risk, Very Likely Low Risk, Not Likely
##   Female         52                   524                  179
##   Male           71                   458                  195
##         Q11_r
## PPGENDER Medium Risk, Somewhat Likely
##   Female                           335
##   Male                             334
##
## , , Q11_q = Q11_8_Doctor_s.office
##
##         Q11_r
## PPGENDER Don_t Know High Risk, Very Likely Low Risk, Not Likely
##   Female         41                   544                  138
##   Male           69                   450                  170
##         Q11_r
## PPGENDER Medium Risk, Somewhat Likely
##   Female                           365
##   Male                             368
##
## , , Q11_q = Q11_9_Public.transportation
##
##         Q11_r
## PPGENDER Don_t Know High Risk, Very Likely Low Risk, Not Likely
##   Female         61                   575                  173
##   Male           86                   518                  180
##         Q11_r
## PPGENDER Medium Risk, Somewhat Likely
##   Female                           279
##   Male                             272
```

```
q11 <- q11_long %>%
  group_by(PPGENDER, Q11_q, Q11_r) %>%
  count(PPGENDER, Q11_q, Q11_r)

ggplot(q11[!is.na(q11$Q11_r), ], aes(x = Q11_r, y = n, fill = PPGENDER)) +
  geom_bar(stat = 'identity', position = position_dodge()) + facet_wrap(~Q11_q) +
  theme(axis.text.x = element_text(angle = 45, hjust = 1))
```




```
# by ethnicity
with(q11_long, table(PPETHM, Q11_r, Q11_q))
```

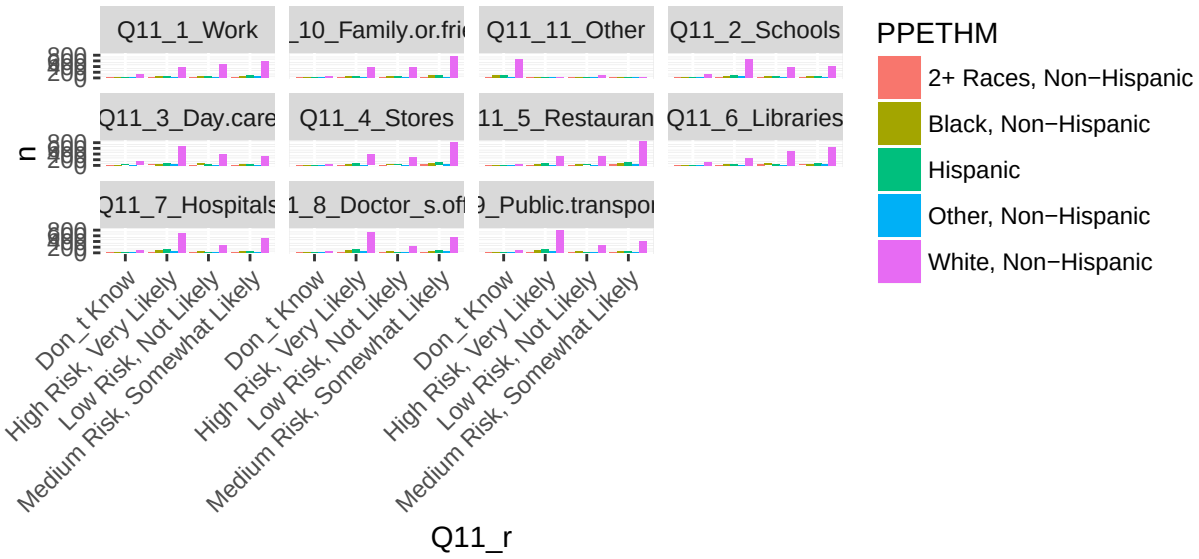
```
## , , Q11_q = Q11_1_Work
##
##                          Q11_r
## PPETHM                    Don_t Know High Risk, Very Likely
##   2+ Races, Non-Hispanic         11                     20
##   Black, Non-Hispanic            22                     42
##   Hispanic                       27                     59
##   Other, Non-Hispanic             6                     22
##   White, Non-Hispanic           119                    381
##                          Q11_r
## PPETHM                    Low Risk, Not Likely Medium Risk, Somewhat Likely
##   2+ Races, Non-Hispanic                   24                           24
##   Black, Non-Hispanic                      65                           64
##   Hispanic                                 61                           83
##   Other, Non-Hispanic                      25                           38
##   White, Non-Hispanic                     468                          586
##
## , , Q11_q = Q11_10_Family.or.friends
##
##                          Q11_r
## PPETHM                    Don_t Know High Risk, Very Likely
##   2+ Races, Non-Hispanic          7                     20
##   Black, Non-Hispanic            19                     53
##   Hispanic                       20                     68
##   Other, Non-Hispanic            10                     21
##   White, Non-Hispanic            65                    379
##                          Q11_r
## PPETHM                    Low Risk, Not Likely Medium Risk, Somewhat Likely
##   2+ Races, Non-Hispanic                   26                           26
##   Black, Non-Hispanic                      41                           80
##   Hispanic                                 37                          105
##   Other, Non-Hispanic                      26                           34
```

```
##   White, Non-Hispanic                    355                          755
##
## , , Q11_q = Q11_11_Other
##
##                         Q11_r
## PPETHM                   Don_t Know High Risk, Very Likely
##   2+ Races, Non-Hispanic         32                      1
##   Black, Non-Hispanic            90                      4
##   Hispanic                      103                     10
##   Other, Non-Hispanic            35                      2
##   White, Non-Hispanic           655                     34
##                         Q11_r
## PPETHM                   Low Risk, Not Likely Medium Risk, Somewhat Likely
##   2+ Races, Non-Hispanic                    4                           3
##   Black, Non-Hispanic                       7                           9
##   Hispanic                                 11                           8
##   Other, Non-Hispanic                       1                           1
##   White, Non-Hispanic                      81                          33
##
## , , Q11_q = Q11_2_Schools
##
##                         Q11_r
## PPETHM                   Don_t Know High Risk, Very Likely
##   2+ Races, Non-Hispanic          6                     34
##   Black, Non-Hispanic            27                     61
##   Hispanic                       22                    105
##   Other, Non-Hispanic             9                     45
##   White, Non-Hispanic           114                    664
##                         Q11_r
## PPETHM                   Low Risk, Not Likely Medium Risk, Somewhat Likely
##   2+ Races, Non-Hispanic                   21                          18
##   Black, Non-Hispanic                      62                          43
##   Hispanic                                 43                          59
##   Other, Non-Hispanic                      15                          22
##   White, Non-Hispanic                     367                         409
##
## , , Q11_q = Q11_3_Day.care
##
##                         Q11_r
## PPETHM                   Don_t Know High Risk, Very Likely
##   2+ Races, Non-Hispanic          7                     33
##   Black, Non-Hispanic            24                     63
##   Hispanic                       34                     98
##   Other, Non-Hispanic             9                     50
##   White, Non-Hispanic           140                    680
##                         Q11_r
## PPETHM                   Low Risk, Not Likely Medium Risk, Somewhat Likely
##   2+ Races, Non-Hispanic                   24                          15
##   Black, Non-Hispanic                      69                          37
##   Hispanic                                 46                          51
##   Other, Non-Hispanic                      15                          17
##   White, Non-Hispanic                     400                         334
##
## , , Q11_q = Q11_4_Stores
```

```
##
##                          Q11_r
## PPETHM                    Don_t Know High Risk, Very Likely
##   2+ Races, Non-Hispanic          5                     15
##   Black, Non-Hispanic            19                     58
##   Hispanic                       21                     74
##   Other, Non-Hispanic             9                     22
##   White, Non-Hispanic            61                    382
##                          Q11_r
## PPETHM                    Low Risk, Not Likely Medium Risk, Somewhat Likely
##   2+ Races, Non-Hispanic                   20                           39
##   Black, Non-Hispanic                      33                           83
##   Hispanic                                 33                          101
##   Other, Non-Hispanic                      22                           38
##   White, Non-Hispanic                     297                          815
##
## , , Q11_q = Q11_5_Restaurants
##
##                          Q11_r
## PPETHM                    Don_t Know High Risk, Very Likely
##   2+ Races, Non-Hispanic          6                     10
##   Black, Non-Hispanic            18                     56
##   Hispanic                       18                     70
##   Other, Non-Hispanic             8                     21
##   White, Non-Hispanic            61                    326
##                          Q11_r
## PPETHM                    Low Risk, Not Likely Medium Risk, Somewhat Likely
##   2+ Races, Non-Hispanic                   27                           36
##   Black, Non-Hispanic                      38                           81
##   Hispanic                                 33                          108
##   Other, Non-Hispanic                      21                           41
##   White, Non-Hispanic                     323                          845
##
## , , Q11_q = Q11_6_Libraries
##
##                          Q11_r
## PPETHM                    Don_t Know High Risk, Very Likely
##   2+ Races, Non-Hispanic          6                      7
##   Black, Non-Hispanic            23                     43
##   Hispanic                       22                     57
##   Other, Non-Hispanic             8                     16
##   White, Non-Hispanic           110                    263
##                          Q11_r
## PPETHM                    Low Risk, Not Likely Medium Risk, Somewhat Likely
##   2+ Races, Non-Hispanic                   36                           30
##   Black, Non-Hispanic                      64                           63
##   Hispanic                                 53                           97
##   Other, Non-Hispanic                      26                           41
##   White, Non-Hispanic                     521                          659
##
## , , Q11_q = Q11_7_Hospitals
##
##                          Q11_r
## PPETHM                    Don_t Know High Risk, Very Likely
```

```
##   2+ Races, Non-Hispanic          5                    32
##   Black, Non-Hispanic            18                    85
##   Hispanic                       16                   118
##   Other, Non-Hispanic             6                    48
##   White, Non-Hispanic            78                   699
##                         Q11_r
## PPETHM                   Low Risk, Not Likely Medium Risk, Somewhat Likely
##   2+ Races, Non-Hispanic                   18                          24
##   Black, Non-Hispanic                      44                          46
##   Hispanic                                 34                          62
##   Other, Non-Hispanic                      12                          25
##   White, Non-Hispanic                     266                         512
##
## , , Q11_q = Q11_8_Doctor_s.office
##
##                         Q11_r
## PPETHM                   Don_t Know High Risk, Very Likely
##   2+ Races, Non-Hispanic          5                    29
##   Black, Non-Hispanic            17                    81
##   Hispanic                       15                   108
##   Other, Non-Hispanic             6                    39
##   White, Non-Hispanic            67                   737
##                         Q11_r
## PPETHM                   Low Risk, Not Likely Medium Risk, Somewhat Likely
##   2+ Races, Non-Hispanic                   15                          30
##   Black, Non-Hispanic                      39                          56
##   Hispanic                                 28                          78
##   Other, Non-Hispanic                       9                          37
##   White, Non-Hispanic                     217                         532
##
## , , Q11_q = Q11_9_Public.transportation
##
##                         Q11_r
## PPETHM                   Don_t Know High Risk, Very Likely
##   2+ Races, Non-Hispanic          6                    33
##   Black, Non-Hispanic            22                    88
##   Hispanic                       20                   124
##   Other, Non-Hispanic             8                    51
##   White, Non-Hispanic            91                   797
##                         Q11_r
## PPETHM                   Low Risk, Not Likely Medium Risk, Somewhat Likely
##   2+ Races, Non-Hispanic                   15                          25
##   Black, Non-Hispanic                      41                          42
##   Hispanic                                 27                          57
##   Other, Non-Hispanic                      11                          21
##   White, Non-Hispanic                     259                         406
```

```r
q11 <- q11_long %>%
  group_by(PPETHM, Q11_q, Q11_r) %>%
  count(PPETHM, Q11_q, Q11_r)

ggplot(q11[!is.na(q11$Q11_r), ], aes(x = Q11_r, y = n, fill = PPETHM)) +
  geom_bar(stat = 'identity', position = position_dodge()) + facet_wrap(~Q11_q) +
  theme(axis.text.x = element_text(angle = 45, hjust = 1))
```




```
# by income
with(q11_long, table(Q11_q, Q11_r, PPINCIMP))
```

```
## , , PPINCIMP = Less than $5,000
##
##                                Q11_r
## Q11_q                           Don_t Know High Risk, Very Likely
##   Q11_1_Work                            14                      11
##   Q11_10_Family.or.friends              14                      11
##   Q11_11_Other                          22                       2
##   Q11_2_Schools                         15                      18
##   Q11_3_Day.care                        14                      19
##   Q11_4_Stores                          12                      13
##   Q11_5_Restaurants                     13                      11
##   Q11_6_Libraries                       15                      10
##   Q11_7_Hospitals                       15                      19
##   Q11_8_Doctor_s.office                 14                      20
##   Q11_9_Public.transportation           14                      21
##                                Q11_r
## Q11_q                           Low Risk, Not Likely
##   Q11_1_Work                                      14
##   Q11_10_Family.or.friends                        11
##   Q11_11_Other                                     3
##   Q11_2_Schools                                    7
##   Q11_3_Day.care                                   6
##   Q11_4_Stores                                     6
##   Q11_5_Restaurants                                4
##   Q11_6_Libraries                                 10
##   Q11_7_Hospitals                                  6
##   Q11_8_Doctor_s.office                            5
##   Q11_9_Public.transportation                      6
##                                Q11_r
## Q11_q                           Medium Risk, Somewhat Likely
##   Q11_1_Work                                              13
##   Q11_10_Family.or.friends                                16
```

```
##   Q11_11_Other                                          2
##   Q11_2_Schools                                        12
##   Q11_3_Day.care                                       13
##   Q11_4_Stores                                         21
##   Q11_5_Restaurants                                    24
##   Q11_6_Libraries                                      17
##   Q11_7_Hospitals                                      12
##   Q11_8_Doctor_s.office                                13
##   Q11_9_Public.transportation                          11
##
## , , PPINCIMP = $5,000 to $7,499
##
##                              Q11_r
## Q11_q                         Don_t Know High Risk, Very Likely
##   Q11_1_Work                          7                       5
##   Q11_10_Family.or.friends            5                       5
##   Q11_11_Other                       15                       0
##   Q11_2_Schools                       5                       6
##   Q11_3_Day.care                      6                       7
##   Q11_4_Stores                        5                       6
##   Q11_5_Restaurants                   5                       6
##   Q11_6_Libraries                     5                       5
##   Q11_7_Hospitals                     5                       7
##   Q11_8_Doctor_s.office               5                       7
##   Q11_9_Public.transportation         5                       9
##                              Q11_r
## Q11_q                         Low Risk, Not Likely
##   Q11_1_Work                                     6
##   Q11_10_Family.or.friends                       2
##   Q11_11_Other                                   1
##   Q11_2_Schools                                  4
##   Q11_3_Day.care                                 4
##   Q11_4_Stores                                   4
##   Q11_5_Restaurants                              3
##   Q11_6_Libraries                                5
##   Q11_7_Hospitals                                2
##   Q11_8_Doctor_s.office                          2
##   Q11_9_Public.transportation                    2
##                              Q11_r
## Q11_q                         Medium Risk, Somewhat Likely
##   Q11_1_Work                                           7
##   Q11_10_Family.or.friends                            13
##   Q11_11_Other                                         2
##   Q11_2_Schools                                       10
##   Q11_3_Day.care                                       8
##   Q11_4_Stores                                        10
##   Q11_5_Restaurants                                   11
##   Q11_6_Libraries                                     10
##   Q11_7_Hospitals                                     11
##   Q11_8_Doctor_s.office                               11
##   Q11_9_Public.transportation                          9
##
## , , PPINCIMP = $7,500 to $9,999
##
```

```
##                               Q11_r
## Q11_q                         Don_t Know High Risk, Very Likely
##   Q11_1_Work                             5                     1
##   Q11_10_Family.or.friends               2                     4
##   Q11_11_Other                           4                     1
##   Q11_2_Schools                          4                     3
##   Q11_3_Day.care                         4                     3
##   Q11_4_Stores                           3                     4
##   Q11_5_Restaurants                      3                     3
##   Q11_6_Libraries                        3                     3
##   Q11_7_Hospitals                        3                     5
##   Q11_8_Doctor_s.office                  3                     3
##   Q11_9_Public.transportation            4                     4
##                               Q11_r
## Q11_q                         Low Risk, Not Likely
##   Q11_1_Work                                     5
##   Q11_10_Family.or.friends                       2
##   Q11_11_Other                                   1
##   Q11_2_Schools                                  3
##   Q11_3_Day.care                                 3
##   Q11_4_Stores                                   1
##   Q11_5_Restaurants                              2
##   Q11_6_Libraries                                0
##   Q11_7_Hospitals                                1
##   Q11_8_Doctor_s.office                          1
##   Q11_9_Public.transportation                    0
##                               Q11_r
## Q11_q                         Medium Risk, Somewhat Likely
##   Q11_1_Work                                           2
##   Q11_10_Family.or.friends                             5
##   Q11_11_Other                                         1
##   Q11_2_Schools                                        3
##   Q11_3_Day.care                                       3
##   Q11_4_Stores                                         5
##   Q11_5_Restaurants                                    6
##   Q11_6_Libraries                                      6
##   Q11_7_Hospitals                                      3
##   Q11_8_Doctor_s.office                                5
##   Q11_9_Public.transportation                          4
##
## , , PPINCIMP = $10,000 to $12,499
##
##                               Q11_r
## Q11_q                         Don_t Know High Risk, Very Likely
##   Q11_1_Work                             4                    14
##   Q11_10_Family.or.friends               4                    18
##   Q11_11_Other                          25                     2
##   Q11_2_Schools                          3                    24
##   Q11_3_Day.care                         4                    24
##   Q11_4_Stores                           2                    21
##   Q11_5_Restaurants                      2                    15
##   Q11_6_Libraries                        3                    14
##   Q11_7_Hospitals                        3                    25
##   Q11_8_Doctor_s.office                  0                    26
```

```
##   Q11_9_Public.transportation          2                    22
##                               Q11_r
## Q11_q                          Low Risk, Not Likely
##   Q11_1_Work                                    20
##   Q11_10_Family.or.friends                      11
##   Q11_11_Other                                   5
##   Q11_2_Schools                                 19
##   Q11_3_Day.care                                19
##   Q11_4_Stores                                  12
##   Q11_5_Restaurants                             12
##   Q11_6_Libraries                               18
##   Q11_7_Hospitals                               10
##   Q11_8_Doctor_s.office                          8
##   Q11_9_Public.transportation                   16
##                               Q11_r
## Q11_q                          Medium Risk, Somewhat Likely
##   Q11_1_Work                                          16
##   Q11_10_Family.or.friends                            22
##   Q11_11_Other                                         0
##   Q11_2_Schools                                        9
##   Q11_3_Day.care                                       8
##   Q11_4_Stores                                        20
##   Q11_5_Restaurants                                   25
##   Q11_6_Libraries                                     21
##   Q11_7_Hospitals                                     18
##   Q11_8_Doctor_s.office                               20
##   Q11_9_Public.transportation                         13
##
## , , PPINCIMP = $12,500 to $14,999
##
##                               Q11_r
## Q11_q                          Don_t Know High Risk, Very Likely
##   Q11_1_Work                            8                    11
##   Q11_10_Family.or.friends              8                    11
##   Q11_11_Other                         20                     3
##   Q11_2_Schools                         7                    19
##   Q11_3_Day.care                       10                    16
##   Q11_4_Stores                          6                    17
##   Q11_5_Restaurants                     6                    13
##   Q11_6_Libraries                       7                    10
##   Q11_7_Hospitals                       4                    24
##   Q11_8_Doctor_s.office                 3                    21
##   Q11_9_Public.transportation           8                    20
##                               Q11_r
## Q11_q                          Low Risk, Not Likely
##   Q11_1_Work                                    13
##   Q11_10_Family.or.friends                      10
##   Q11_11_Other                                   3
##   Q11_2_Schools                                 12
##   Q11_3_Day.care                                13
##   Q11_4_Stores                                   6
##   Q11_5_Restaurants                              6
##   Q11_6_Libraries                               13
##   Q11_7_Hospitals                               10
```

```
##   Q11_8_Doctor_s.office                          11
##   Q11_9_Public.transportation                     9
##                              Q11_r
## Q11_q                         Medium Risk, Somewhat Likely
##   Q11_1_Work                                              15
##   Q11_10_Family.or.friends                                18
##   Q11_11_Other                                             0
##   Q11_2_Schools                                            9
##   Q11_3_Day.care                                           8
##   Q11_4_Stores                                            18
##   Q11_5_Restaurants                                       22
##   Q11_6_Libraries                                         17
##   Q11_7_Hospitals                                          9
##   Q11_8_Doctor_s.office                                   12
##   Q11_9_Public.transportation                             10
##
## , , PPINCIMP = $15,000 to $19,999
##
##                              Q11_r
## Q11_q                         Don_t Know High Risk, Very Likely
##   Q11_1_Work                          12                      14
##   Q11_10_Family.or.friends             8                      11
##   Q11_11_Other                        29                       1
##   Q11_2_Schools                       12                      28
##   Q11_3_Day.care                      12                      28
##   Q11_4_Stores                        10                      18
##   Q11_5_Restaurants                    8                      16
##   Q11_6_Libraries                     12                      11
##   Q11_7_Hospitals                      9                      30
##   Q11_8_Doctor_s.office                9                      29
##   Q11_9_Public.transportation          9                      30
##                              Q11_r
## Q11_q                         Low Risk, Not Likely
##   Q11_1_Work                                      15
##   Q11_10_Family.or.friends                        15
##   Q11_11_Other                                     0
##   Q11_2_Schools                                    8
##   Q11_3_Day.care                                  13
##   Q11_4_Stores                                    10
##   Q11_5_Restaurants                               11
##   Q11_6_Libraries                                 19
##   Q11_7_Hospitals                                  5
##   Q11_8_Doctor_s.office                            6
##   Q11_9_Public.transportation                      9
##                              Q11_r
## Q11_q                         Medium Risk, Somewhat Likely
##   Q11_1_Work                                              22
##   Q11_10_Family.or.friends                                29
##   Q11_11_Other                                             2
##   Q11_2_Schools                                           15
##   Q11_3_Day.care                                          10
##   Q11_4_Stores                                            25
##   Q11_5_Restaurants                                       28
##   Q11_6_Libraries                                         21
```

```
##   Q11_7_Hospitals                                    19
##   Q11_8_Doctor_s.office                              19
##   Q11_9_Public.transportation                        15
##
## , , PPINCIMP = $20,000 to $24,999
##
##                             Q11_r
## Q11_q                        Don_t Know High Risk, Very Likely
##   Q11_1_Work                        10                      12
##   Q11_10_Family.or.friends           7                      19
##   Q11_11_Other                      27                       2
##   Q11_2_Schools                      7                      28
##   Q11_3_Day.care                     8                      28
##   Q11_4_Stores                       5                      16
##   Q11_5_Restaurants                  4                      14
##   Q11_6_Libraries                    6                      10
##   Q11_7_Hospitals                    5                      34
##   Q11_8_Doctor_s.office              4                      34
##   Q11_9_Public.transportation        5                      32
##                             Q11_r
## Q11_q                        Low Risk, Not Likely
##   Q11_1_Work                                   20
##   Q11_10_Family.or.friends                     11
##   Q11_11_Other                                  3
##   Q11_2_Schools                                12
##   Q11_3_Day.care                               14
##   Q11_4_Stores                                 11
##   Q11_5_Restaurants                            14
##   Q11_6_Libraries                              22
##   Q11_7_Hospitals                              12
##   Q11_8_Doctor_s.office                         9
##   Q11_9_Public.transportation                   7
##                             Q11_r
## Q11_q                        Medium Risk, Somewhat Likely
##   Q11_1_Work                                          29
##   Q11_10_Family.or.friends                            34
##   Q11_11_Other                                         2
##   Q11_2_Schools                                       24
##   Q11_3_Day.care                                      21
##   Q11_4_Stores                                        39
##   Q11_5_Restaurants                                   39
##   Q11_6_Libraries                                     33
##   Q11_7_Hospitals                                     20
##   Q11_8_Doctor_s.office                               24
##   Q11_9_Public.transportation                         27
##
## , , PPINCIMP = $25,000 to $29,999
##
##                             Q11_r
## Q11_q                        Don_t Know High Risk, Very Likely
##   Q11_1_Work                        10                      33
##   Q11_10_Family.or.friends           3                      24
##   Q11_11_Other                      41                       4
##   Q11_2_Schools                      9                      45
```

```
##   Q11_3_Day.care                      10                     43
##   Q11_4_Stores                         3                     31
##   Q11_5_Restaurants                    3                     29
##   Q11_6_Libraries                      8                     20
##   Q11_7_Hospitals                      6                     44
##   Q11_8_Doctor_s.office                5                     45
##   Q11_9_Public.transportation          7                     54
##                              Q11_r
## Q11_q                         Low Risk, Not Likely
##   Q11_1_Work                                    27
##   Q11_10_Family.or.friends                      22
##   Q11_11_Other                                   8
##   Q11_2_Schools                                 25
##   Q11_3_Day.care                                29
##   Q11_4_Stores                                  22
##   Q11_5_Restaurants                             23
##   Q11_6_Libraries                               35
##   Q11_7_Hospitals                               23
##   Q11_8_Doctor_s.office                         19
##   Q11_9_Public.transportation                   20
##                              Q11_r
## Q11_q                         Medium Risk, Somewhat Likely
##   Q11_1_Work                                          29
##   Q11_10_Family.or.friends                            50
##   Q11_11_Other                                         2
##   Q11_2_Schools                                       20
##   Q11_3_Day.care                                      17
##   Q11_4_Stores                                        43
##   Q11_5_Restaurants                                   44
##   Q11_6_Libraries                                     36
##   Q11_7_Hospitals                                     26
##   Q11_8_Doctor_s.office                               30
##   Q11_9_Public.transportation                         18
##
## , , PPINCIMP = $30,000 to $34,999
##
##                              Q11_r
## Q11_q                         Don_t Know High Risk, Very Likely
##   Q11_1_Work                          11                     24
##   Q11_10_Family.or.friends             6                     20
##   Q11_11_Other                        42                      2
##   Q11_2_Schools                       10                     34
##   Q11_3_Day.care                      11                     34
##   Q11_4_Stores                         6                     24
##   Q11_5_Restaurants                    7                     22
##   Q11_6_Libraries                      8                     21
##   Q11_7_Hospitals                      7                     36
##   Q11_8_Doctor_s.office                8                     40
##   Q11_9_Public.transportation          7                     39
##                              Q11_r
## Q11_q                         Low Risk, Not Likely
##   Q11_1_Work                                    26
##   Q11_10_Family.or.friends                      24
##   Q11_11_Other                                   6
```

```
##   Q11_2_Schools                                29
##   Q11_3_Day.care                               31
##   Q11_4_Stores                                 17
##   Q11_5_Restaurants                            19
##   Q11_6_Libraries                              31
##   Q11_7_Hospitals                              19
##   Q11_8_Doctor_s.office                        15
##   Q11_9_Public.transportation                  25
##                              Q11_r
## Q11_q                         Medium Risk, Somewhat Likely
##   Q11_1_Work                                          30
##   Q11_10_Family.or.friends                            41
##   Q11_11_Other                                         2
##   Q11_2_Schools                                       17
##   Q11_3_Day.care                                      14
##   Q11_4_Stores                                        43
##   Q11_5_Restaurants                                   42
##   Q11_6_Libraries                                     30
##   Q11_7_Hospitals                                     29
##   Q11_8_Doctor_s.office                               27
##   Q11_9_Public.transportation                         19
##
## , , PPINCIMP = $35,000 to $39,999
##
##                              Q11_r
## Q11_q                         Don_t Know High Risk, Very Likely
##   Q11_1_Work                          10                    32
##   Q11_10_Family.or.friends             6                    33
##   Q11_11_Other                        39                     5
##   Q11_2_Schools                       12                    44
##   Q11_3_Day.care                      15                    38
##   Q11_4_Stores                         6                    32
##   Q11_5_Restaurants                    7                    29
##   Q11_6_Libraries                     11                    26
##   Q11_7_Hospitals                      8                    47
##   Q11_8_Doctor_s.office                5                    43
##   Q11_9_Public.transportation         10                    53
##                              Q11_r
## Q11_q                         Low Risk, Not Likely
##   Q11_1_Work                                          26
##   Q11_10_Family.or.friends                            20
##   Q11_11_Other                                         7
##   Q11_2_Schools                                       31
##   Q11_3_Day.care                                      32
##   Q11_4_Stores                                        15
##   Q11_5_Restaurants                                   20
##   Q11_6_Libraries                                     27
##   Q11_7_Hospitals                                     26
##   Q11_8_Doctor_s.office                               23
##   Q11_9_Public.transportation                         18
##                              Q11_r
## Q11_q                         Medium Risk, Somewhat Likely
##   Q11_1_Work                                          36
##   Q11_10_Family.or.friends                            45
```

```
##   Q11_11_Other                                          6
##   Q11_2_Schools                                        17
##   Q11_3_Day.care                                       19
##   Q11_4_Stores                                         51
##   Q11_5_Restaurants                                    48
##   Q11_6_Libraries                                      40
##   Q11_7_Hospitals                                      23
##   Q11_8_Doctor_s.office                                33
##   Q11_9_Public.transportation                          23
##
## , , PPINCIMP = $40,000 to $49,999
##
##                              Q11_r
## Q11_q                         Don_t Know High Risk, Very Likely
##   Q11_1_Work                           9                      37
##   Q11_10_Family.or.friends             8                      41
##   Q11_11_Other                        71                       1
##   Q11_2_Schools                       11                      59
##   Q11_3_Day.care                      10                      59
##   Q11_4_Stores                         7                      40
##   Q11_5_Restaurants                    5                      34
##   Q11_6_Libraries                      8                      24
##   Q11_7_Hospitals                      6                      66
##   Q11_8_Doctor_s.office                6                      74
##   Q11_9_Public.transportation          9                      71
##                              Q11_r
## Q11_q                         Low Risk, Not Likely
##   Q11_1_Work                                    52
##   Q11_10_Family.or.friends                      35
##   Q11_11_Other                                  12
##   Q11_2_Schools                                 40
##   Q11_3_Day.care                                51
##   Q11_4_Stores                                  32
##   Q11_5_Restaurants                             33
##   Q11_6_Libraries                               56
##   Q11_7_Hospitals                               34
##   Q11_8_Doctor_s.office                         24
##   Q11_9_Public.transportation                   31
##                              Q11_r
## Q11_q                         Medium Risk, Somewhat Likely
##   Q11_1_Work                                           49
##   Q11_10_Family.or.friends                             63
##   Q11_11_Other                                          3
##   Q11_2_Schools                                        37
##   Q11_3_Day.care                                       27
##   Q11_4_Stores                                         68
##   Q11_5_Restaurants                                    75
##   Q11_6_Libraries                                      59
##   Q11_7_Hospitals                                      41
##   Q11_8_Doctor_s.office                                43
##   Q11_9_Public.transportation                          36
##
## , , PPINCIMP = $50,000 to $59,999
##
```

```
##                              Q11_r
## Q11_q                         Don_t Know High Risk, Very Likely
##   Q11_1_Work                          16                      33
##   Q11_10_Family.or.friends             7                      52
##   Q11_11_Other                        75                       2
##   Q11_2_Schools                       14                      81
##   Q11_3_Day.care                      19                      81
##   Q11_4_Stores                         6                      45
##   Q11_5_Restaurants                    9                      33
##   Q11_6_Libraries                     14                      32
##   Q11_7_Hospitals                     10                      79
##   Q11_8_Doctor_s.office               10                      80
##   Q11_9_Public.transportation         16                      92
##                              Q11_r
## Q11_q                         Low Risk, Not Likely
##   Q11_1_Work                                    59
##   Q11_10_Family.or.friends                      43
##   Q11_11_Other                                   7
##   Q11_2_Schools                                 45
##   Q11_3_Day.care                                48
##   Q11_4_Stores                                  36
##   Q11_5_Restaurants                             42
##   Q11_6_Libraries                               61
##   Q11_7_Hospitals                               29
##   Q11_8_Doctor_s.office                         28
##   Q11_9_Public.transportation                   34
##                              Q11_r
## Q11_q                         Medium Risk, Somewhat Likely
##   Q11_1_Work                                           74
##   Q11_10_Family.or.friends                             80
##   Q11_11_Other                                          4
##   Q11_2_Schools                                        42
##   Q11_3_Day.care                                       34
##   Q11_4_Stores                                         95
##   Q11_5_Restaurants                                    98
##   Q11_6_Libraries                                      75
##   Q11_7_Hospitals                                      64
##   Q11_8_Doctor_s.office                                64
##   Q11_9_Public.transportation                          40
##
## , , PPINCIMP = $60,000 to $74,999
##
##                              Q11_r
## Q11_q                         Don_t Know High Risk, Very Likely
##   Q11_1_Work                          14                      61
##   Q11_10_Family.or.friends            10                      64
##   Q11_11_Other                        91                       5
##   Q11_2_Schools                       18                      87
##   Q11_3_Day.care                      19                      88
##   Q11_4_Stores                        12                      51
##   Q11_5_Restaurants                   10                      52
##   Q11_6_Libraries                     13                      40
##   Q11_7_Hospitals                     12                      96
##   Q11_8_Doctor_s.office                9                     105
```

```
##   Q11_9_Public.transportation         13                   113
##                               Q11_r
## Q11_q                          Low Risk, Not Likely
##   Q11_1_Work                                    66
##   Q11_10_Family.or.friends                      39
##   Q11_11_Other                                  11
##   Q11_2_Schools                                 66
##   Q11_3_Day.care                                69
##   Q11_4_Stores                                  40
##   Q11_5_Restaurants                             38
##   Q11_6_Libraries                               77
##   Q11_7_Hospitals                               38
##   Q11_8_Doctor_s.office                         34
##   Q11_9_Public.transportation                   42
##                               Q11_r
## Q11_q                          Medium Risk, Somewhat Likely
##   Q11_1_Work                                          81
##   Q11_10_Family.or.friends                           109
##   Q11_11_Other                                         7
##   Q11_2_Schools                                       50
##   Q11_3_Day.care                                      45
##   Q11_4_Stores                                       119
##   Q11_5_Restaurants                                  122
##   Q11_6_Libraries                                     91
##   Q11_7_Hospitals                                     76
##   Q11_8_Doctor_s.office                               74
##   Q11_9_Public.transportation                         54
##
## , , PPINCIMP = $75,000 to $84,999
##
##                               Q11_r
## Q11_q                          Don_t Know High Risk, Very Likely
##   Q11_1_Work                          14                    43
##   Q11_10_Family.or.friends            10                    39
##   Q11_11_Other                        73                     3
##   Q11_2_Schools                       12                    69
##   Q11_3_Day.care                      17                    68
##   Q11_4_Stores                         8                    48
##   Q11_5_Restaurants                    5                    45
##   Q11_6_Libraries                     12                    30
##   Q11_7_Hospitals                      4                    74
##   Q11_8_Doctor_s.office                6                    72
##   Q11_9_Public.transportation          7                    90
##                               Q11_r
## Q11_q                          Low Risk, Not Likely
##   Q11_1_Work                                    46
##   Q11_10_Family.or.friends                      32
##   Q11_11_Other                                   3
##   Q11_2_Schools                                 33
##   Q11_3_Day.care                                34
##   Q11_4_Stores                                  27
##   Q11_5_Restaurants                             25
##   Q11_6_Libraries                               54
##   Q11_7_Hospitals                               29
```

```
##   Q11_8_Doctor_s.office                          27
##   Q11_9_Public.transportation                    23
##                              Q11_r
## Q11_q                         Medium Risk, Somewhat Likely
##   Q11_1_Work                                          56
##   Q11_10_Family.or.friends                            78
##   Q11_11_Other                                         3
##   Q11_2_Schools                                       45
##   Q11_3_Day.care                                      40
##   Q11_4_Stores                                        76
##   Q11_5_Restaurants                                   84
##   Q11_6_Libraries                                     63
##   Q11_7_Hospitals                                     52
##   Q11_8_Doctor_s.office                               54
##   Q11_9_Public.transportation                         39
##
## , , PPINCIMP = $85,000 to $99,999
##
##                              Q11_r
## Q11_q                         Don_t Know High Risk, Very Likely
##   Q11_1_Work                          7                      40
##   Q11_10_Family.or.friends            3                      33
##   Q11_11_Other                       58                       3
##   Q11_2_Schools                       5                      68
##   Q11_3_Day.care                      6                      69
##   Q11_4_Stores                        3                      38
##   Q11_5_Restaurants                   2                      34
##   Q11_6_Libraries                     5                      30
##   Q11_7_Hospitals                     2                      73
##   Q11_8_Doctor_s.office               1                      74
##   Q11_9_Public.transportation         3                      80
##                              Q11_r
## Q11_q                         Low Risk, Not Likely
##   Q11_1_Work                                          53
##   Q11_10_Family.or.friends                            41
##   Q11_11_Other                                         9
##   Q11_2_Schools                                       38
##   Q11_3_Day.care                                      41
##   Q11_4_Stores                                        26
##   Q11_5_Restaurants                                   31
##   Q11_6_Libraries                                     43
##   Q11_7_Hospitals                                     24
##   Q11_8_Doctor_s.office                               21
##   Q11_9_Public.transportation                         26
##                              Q11_r
## Q11_q                         Medium Risk, Somewhat Likely
##   Q11_1_Work                                          52
##   Q11_10_Family.or.friends                            75
##   Q11_11_Other                                         8
##   Q11_2_Schools                                       41
##   Q11_3_Day.care                                      36
##   Q11_4_Stores                                        85
##   Q11_5_Restaurants                                   85
##   Q11_6_Libraries                                     74
```

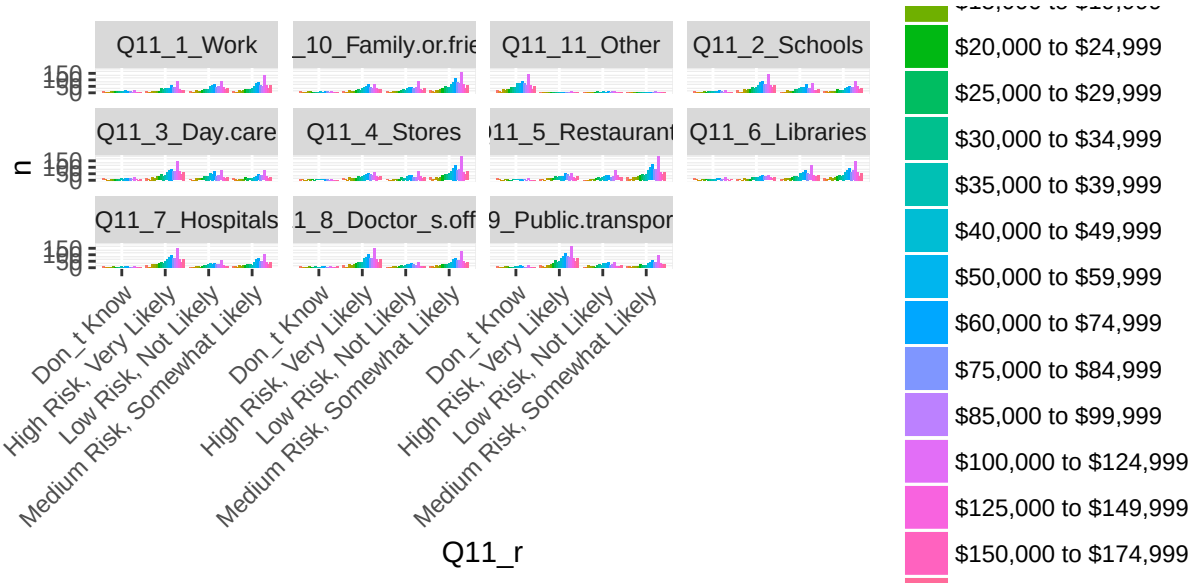
```
##   Q11_7_Hospitals                                    53
##   Q11_8_Doctor_s.office                              56
##   Q11_9_Public.transportation                        43
##
## , , PPINCIMP = $100,000 to $124,999
##
##                             Q11_r
## Q11_q                        Don_t Know High Risk, Very Likely
##   Q11_1_Work                         17                      86
##   Q11_10_Family.or.friends            9                      69
##   Q11_11_Other                      146                      10
##   Q11_2_Schools                      18                     143
##   Q11_3_Day.care                     27                     145
##   Q11_4_Stores                       12                      60
##   Q11_5_Restaurants                  13                      53
##   Q11_6_Libraries                    24                      38
##   Q11_7_Hospitals                    12                     147
##   Q11_8_Doctor_s.office               9                     151
##   Q11_9_Public.transportation        16                     165
##                             Q11_r
## Q11_q                        Low Risk, Not Likely
##   Q11_1_Work                                    90
##   Q11_10_Family.or.friends                      88
##   Q11_11_Other                                  14
##   Q11_2_Schools                                 73
##   Q11_3_Day.care                                77
##   Q11_4_Stores                                  68
##   Q11_5_Restaurants                             74
##   Q11_6_Libraries                              115
##   Q11_7_Hospitals                               60
##   Q11_8_Doctor_s.office                         41
##   Q11_9_Public.transportation                   46
##                             Q11_r
## Q11_q                        Medium Risk, Somewhat Likely
##   Q11_1_Work                                         132
##   Q11_10_Family.or.friends                           158
##   Q11_11_Other                                         4
##   Q11_2_Schools                                       91
##   Q11_3_Day.care                                      76
##   Q11_4_Stores                                       185
##   Q11_5_Restaurants                                  185
##   Q11_6_Libraries                                    147
##   Q11_7_Hospitals                                    106
##   Q11_8_Doctor_s.office                              124
##   Q11_9_Public.transportation                         98
##
## , , PPINCIMP = $125,000 to $149,999
##
##                             Q11_r
## Q11_q                        Don_t Know High Risk, Very Likely
##   Q11_1_Work                         6                      26
##   Q11_10_Family.or.friends           4                      35
##   Q11_11_Other                      61                       1
##   Q11_2_Schools                      6                      55
```

```
##   Q11_3_Day.care                       7                     67
##   Q11_4_Stores                         4                     34
##   Q11_5_Restaurants                    4                     26
##   Q11_6_Libraries                      6                     23
##   Q11_7_Hospitals                      4                     69
##   Q11_8_Doctor_s.office                4                     66
##   Q11_9_Public.transportation          4                     77
##                              Q11_r
## Q11_q                         Low Risk, Not Likely
##   Q11_1_Work                                    44
##   Q11_10_Family.or.friends                      27
##   Q11_11_Other                                   4
##   Q11_2_Schools                                 22
##   Q11_3_Day.care                                27
##   Q11_4_Stores                                  31
##   Q11_5_Restaurants                             37
##   Q11_6_Libraries                               41
##   Q11_7_Hospitals                               17
##   Q11_8_Doctor_s.office                         14
##   Q11_9_Public.transportation                   13
##                              Q11_r
## Q11_q                         Medium Risk, Somewhat Likely
##   Q11_1_Work                                          56
##   Q11_10_Family.or.friends                            66
##   Q11_11_Other                                         2
##   Q11_2_Schools                                       49
##   Q11_3_Day.care                                      31
##   Q11_4_Stores                                        63
##   Q11_5_Restaurants                                   65
##   Q11_6_Libraries                                     62
##   Q11_7_Hospitals                                     42
##   Q11_8_Doctor_s.office                               48
##   Q11_9_Public.transportation                         38
##
## , , PPINCIMP = $150,000 to $174,999
##
##                              Q11_r
## Q11_q                         Don_t Know High Risk, Very Likely
##   Q11_1_Work                          4                     21
##   Q11_10_Family.or.friends            1                     25
##   Q11_11_Other                       25                      2
##   Q11_2_Schools                       3                     41
##   Q11_3_Day.care                      4                     44
##   Q11_4_Stores                        1                     23
##   Q11_5_Restaurants                   1                     19
##   Q11_6_Libraries                     3                     15
##   Q11_7_Hospitals                     1                     42
##   Q11_8_Doctor_s.office               1                     39
##   Q11_9_Public.transportation         1                     50
##                              Q11_r
## Q11_q                         Low Risk, Not Likely
##   Q11_1_Work                                    24
##   Q11_10_Family.or.friends                      20
##   Q11_11_Other                                   3
```

```
##   Q11_2_Schools                                16
##   Q11_3_Day.care                               17
##   Q11_4_Stores                                 17
##   Q11_5_Restaurants                            21
##   Q11_6_Libraries                              32
##   Q11_7_Hospitals                              15
##   Q11_8_Doctor_s.office                        10
##   Q11_9_Public.transportation                   8
##                              Q11_r
## Q11_q                         Medium Risk, Somewhat Likely
##   Q11_1_Work                                          35
##   Q11_10_Family.or.friends                            38
##   Q11_11_Other                                         3
##   Q11_2_Schools                                       24
##   Q11_3_Day.care                                      19
##   Q11_4_Stores                                        43
##   Q11_5_Restaurants                                   43
##   Q11_6_Libraries                                     34
##   Q11_7_Hospitals                                     26
##   Q11_8_Doctor_s.office                               34
##   Q11_9_Public.transportation                         25
##
## , , PPINCIMP = $175,000 or more
##
##                              Q11_r
## Q11_q                         Don_t Know High Risk, Very Likely
##   Q11_1_Work                           7                     20
##   Q11_10_Family.or.friends             6                     27
##   Q11_11_Other                        51                      2
##   Q11_2_Schools                        7                     57
##   Q11_3_Day.care                      11                     63
##   Q11_4_Stores                         4                     30
##   Q11_5_Restaurants                    4                     29
##   Q11_6_Libraries                      6                     24
##   Q11_7_Hospitals                      7                     65
##   Q11_8_Doctor_s.office                8                     65
##   Q11_9_Public.transportation          7                     71
##                              Q11_r
## Q11_q                         Low Risk, Not Likely
##   Q11_1_Work                                  37
##   Q11_10_Family.or.friends                    32
##   Q11_11_Other                                 4
##   Q11_2_Schools                               25
##   Q11_3_Day.care                              26
##   Q11_4_Stores                                24
##   Q11_5_Restaurants                           27
##   Q11_6_Libraries                             41
##   Q11_7_Hospitals                             14
##   Q11_8_Doctor_s.office                       10
##   Q11_9_Public.transportation                 18
##                              Q11_r
## Q11_q                         Medium Risk, Somewhat Likely
##   Q11_1_Work                                          61
##   Q11_10_Family.or.friends                            60
```

```
##   Q11_11_Other                                  1
##   Q11_2_Schools                                36
##   Q11_3_Day.care                               25
##   Q11_4_Stores                                 67
##   Q11_5_Restaurants                            65
##   Q11_6_Libraries                              54
##   Q11_7_Hospitals                              39
##   Q11_8_Doctor_s.office                        42
##   Q11_9_Public.transportation                  29
```

```
q11 <- q11_long %>%
  group_by(PPINCIMP, Q11_q, Q11_r) %>%
  count(PPINCIMP, Q11_q, Q11_r)

ggplot(q11[!is.na(q11$Q11_r), ], aes(x = Q11_r, y = n, fill = PPINCIMP)) +
  geom_bar(stat = 'identity', position = position_dodge()) + facet_wrap(~Q11_q) +
  theme(axis.text.x = element_text(angle = 45, hjust = 1))
```



Q12. Which of the following actions do you take to avoid getting sick?

```
Q12 <- data2 %>%
  select(PPGENDER, PPAGE, PPEDUC, PPETHM, PPINCIMP, PPWORK, 75:91) %>%
  gather("q", "r", 7:21)

with(Q12, table(q, r))
```

```
##                                                 r
## q                                                Always Never
##   Q12_1_Avoid.touching.my.eyes                      653   324
##   Q12_10_Get.recommended.vaccine                   1041   564
##   Q12_11_Take.preventive.medicine                   425   831
##   Q12_12_Cover.my.nose.and.mouth.with.a.surgical.mask  218  1568
##   Q12_13_Avoid.contact.with.people.who.are.sick     765   153
```

```
##   Q12_14_Avoid.crowded.places                              406   413
##   Q12_15_Other                                              91   472
##   Q12_2_Avoid.touching.my.nose                             613   349
##   Q12_3_Avoid.touching.my.mouth                            758   300
##   Q12_4_Wash.my.hands.with.soap.more.often                1774    52
##   Q12_5_Use.hand.sanitizers                                911   278
##   Q12_6_Clean.the.surfaces.in.my.home                     1132   115
##   Q12_7_Clean.the.surfaces.at.work                         752   544
##   Q12_8_Eat.nutritious.food                                895   107
##   Q12_9_Get.adequate.rest                                  899   114
##                                                       r
## q                                                      Sometimes
##   Q12_1_Avoid.touching.my.eyes                              1168
##   Q12_10_Get.recommended.vaccine                             540
##   Q12_11_Take.preventive.medicine                            890
##   Q12_12_Cover.my.nose.and.mouth.with.a.surgical.mask        358
##   Q12_13_Avoid.contact.with.people.who.are.sick             1228
##   Q12_14_Avoid.crowded.places                               1322
##   Q12_15_Other                                                87
##   Q12_2_Avoid.touching.my.nose                              1183
##   Q12_3_Avoid.touching.my.mouth                             1085
##   Q12_4_Wash.my.hands.with.soap.more.often                   317
##   Q12_5_Use.hand.sanitizers                                  957
##   Q12_6_Clean.the.surfaces.in.my.home                        899
##   Q12_7_Clean.the.surfaces.at.work                           842
##   Q12_8_Eat.nutritious.food                                 1144
##   Q12_9_Get.adequate.rest                                   1130
```

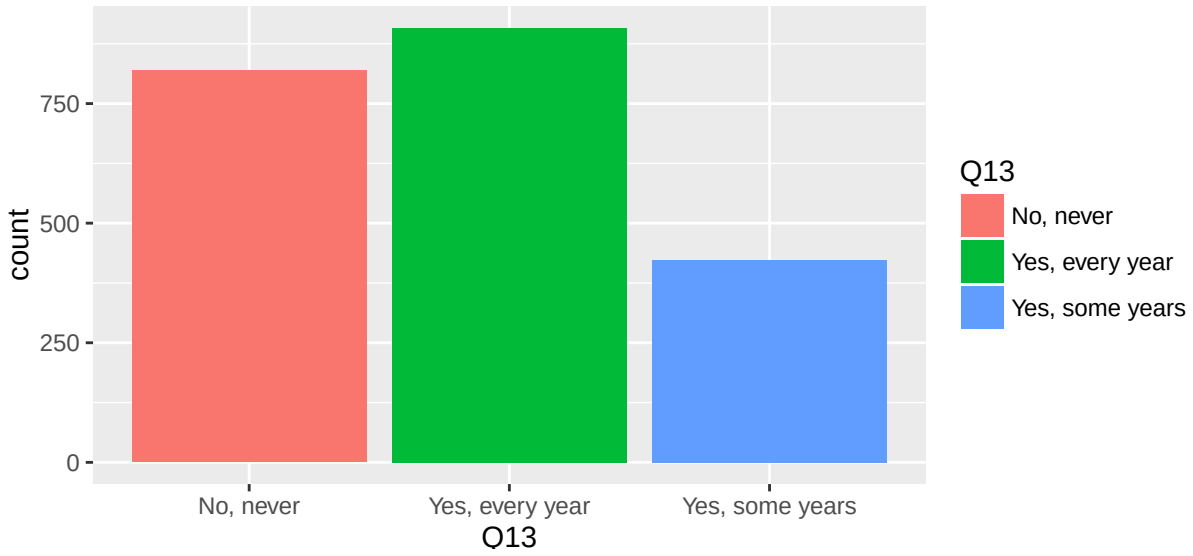
```
q12 <- Q12 %>%
  count(q, r)
```

Q13. Do you get the flu vaccine?

```
with(data2, table(Q13))
```

```
## Q13
##       No, never Yes, every year Yes, some years
##             819             908             423
```

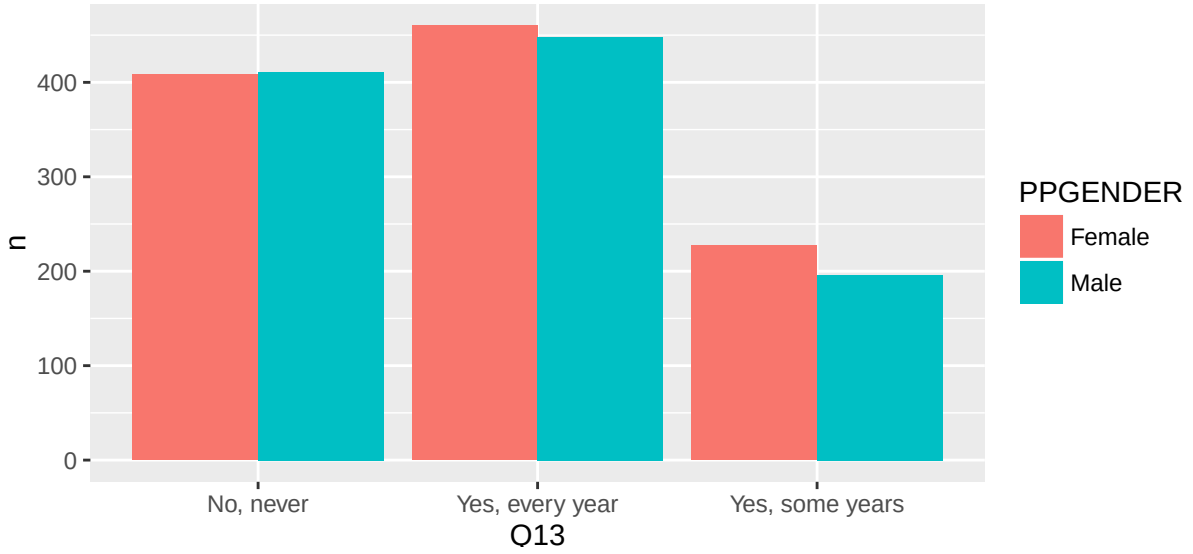
```
ggplot(data2[!is.na(data2$Q13), ]) + geom_bar(mapping = aes(x = Q13, fill = Q13), position = position_d
```




```
# by gender
with(data2, table(Q13, PPGENDER))
```

```
##                  PPGENDER
## Q13               Female Male
##   No, never          408  411
##   Yes, every year    460  448
##   Yes, some years    227  196
```

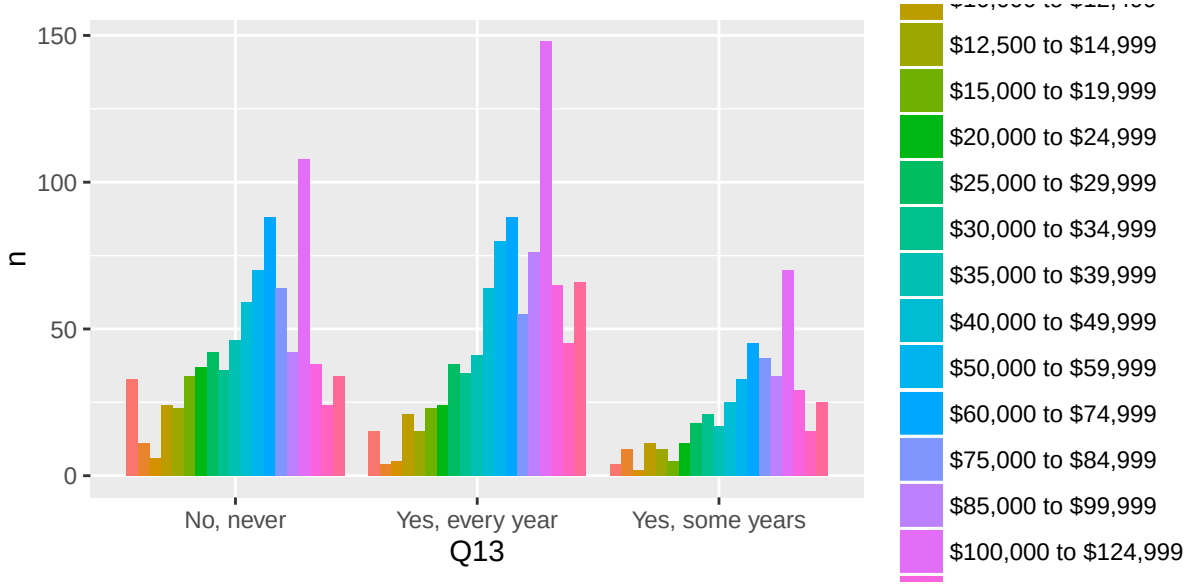
```
q13 <- data2 %>%
  count(Q13, PPGENDER)

ggplot(q13[!is.na(q13$Q13), ], aes(x = Q13, y = n, fill = PPGENDER)) +
  geom_bar(stat = 'identity', position = position_dodge())
```



```r
# by eth
with(data2, table(Q13, PPINCIMP))
```

```
##                 PPINCIMP
## Q13              Less than $5,000 $5,000 to $7,499 $7,500 to $9,999
##   No, never                    33               11                6
##   Yes, every year              15                4                5
##   Yes, some years               4                9                2
##                 PPINCIMP
## Q13              $10,000 to $12,499 $12,500 to $14,999 $15,000 to $19,999
##   No, never                      24                 23                 34
##   Yes, every year                21                 15                 23
##   Yes, some years                11                  9                  5
##                 PPINCIMP
## Q13              $20,000 to $24,999 $25,000 to $29,999 $30,000 to $34,999
##   No, never                      37                 42                 36
##   Yes, every year                24                 38                 35
##   Yes, some years                11                 18                 21
##                 PPINCIMP
## Q13              $35,000 to $39,999 $40,000 to $49,999 $50,000 to $59,999
##   No, never                      46                 59                 70
##   Yes, every year                41                 64                 80
##   Yes, some years                17                 25                 33
##                 PPINCIMP
## Q13              $60,000 to $74,999 $75,000 to $84,999 $85,000 to $99,999
##   No, never                      88                 64                 42
##   Yes, every year                88                 55                 76
##   Yes, some years                45                 40                 34
##                 PPINCIMP
## Q13              $100,000 to $124,999 $125,000 to $149,999
##   No, never                       108                  38
##   Yes, every year                 148                  65
##   Yes, some years                  70                  29
##                 PPINCIMP
## Q13              $150,000 to $174,999 $175,000 or more
##   No, never                       24               34
##   Yes, every year                 45               66
##   Yes, some years                 15               25
```

```r
q13 <- data2 %>%
  count(Q13, PPINCIMP)

ggplot(q13[!is.na(q13$Q13), ], aes(x = Q13, y = n, fill = PPINCIMP)) +
  geom_bar(stat = 'identity', position = position_dodge())
```

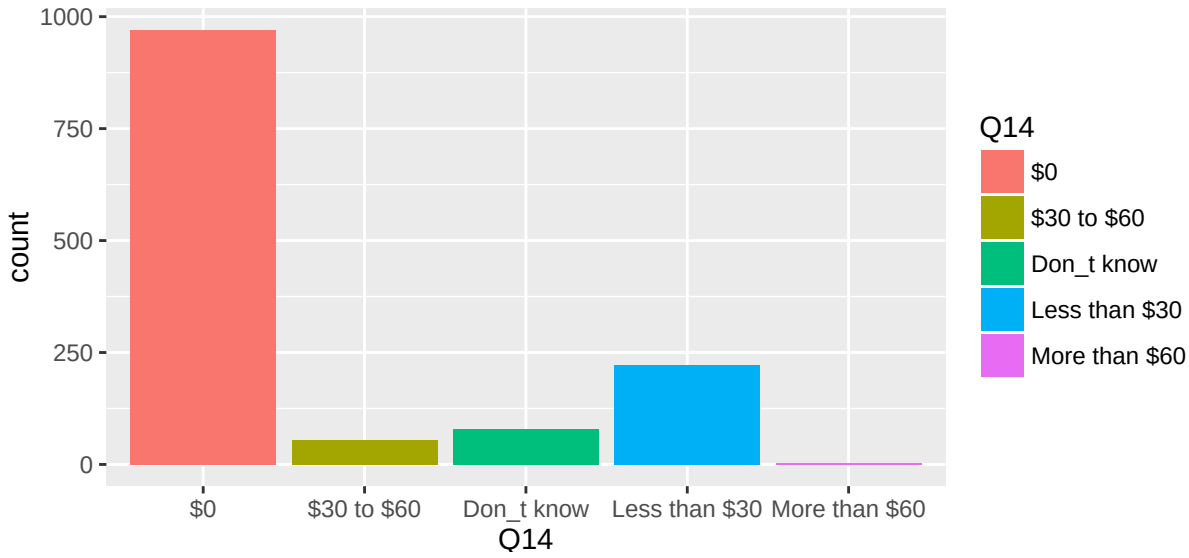


Q14. How much do you pay to get an influenza vaccine?

```
with(data2, table(Q14))
```

```
## Q14
##            $0    $30 to $60    Don_t know Less than $30 More than $60
##           970            54            80           222             4
```

```
ggplot(data2[!is.na(data2$Q14), ]) + geom_bar(mapping = aes(x = Q14, fill = Q14), position = position_d
```




```
# by gender
with(data2, by(Q14, PPGENDER, summary))
```

```
## PPGENDER: Female
```

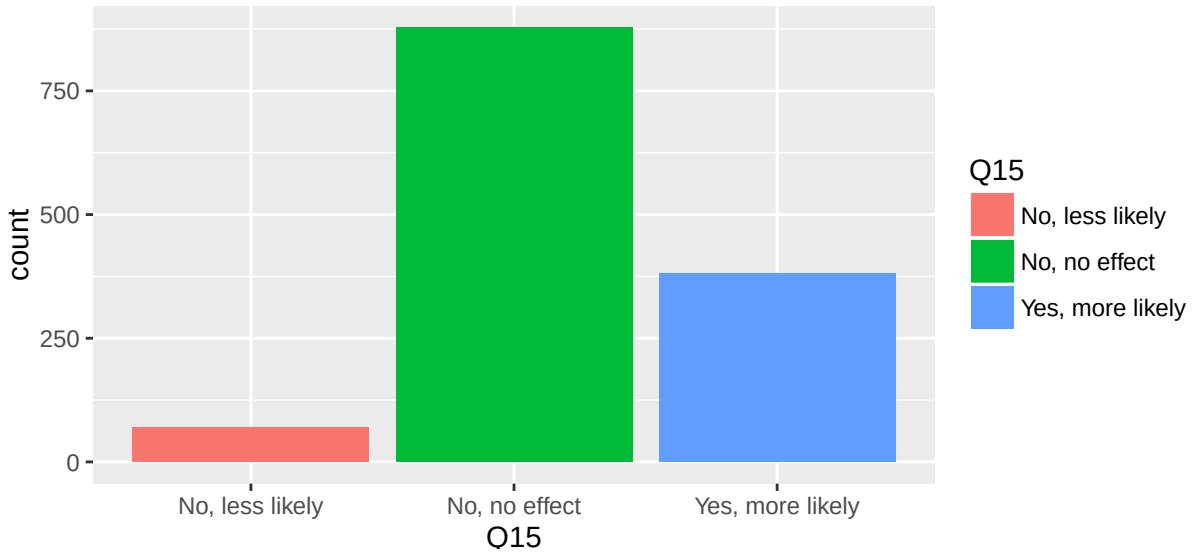
```
##            $0    $30 to $60    Don_t know Less than $30 More than $60
##           514            28            41           101             2
##          NA's
##           411
## ------------------------------------------------------------
## PPGENDER: Male
##            $0    $30 to $60    Don_t know Less than $30 More than $60
##           456            26            39           121             2
##          NA's
##           427
```

Q15. Are you more likely to get a vaccine if others around you get a vaccine?

```
with(data2, table(Q15))
```

```
## Q15
##  No, less likely    No, no effect Yes, more likely
##               70              878              381
```

```
ggplot(data2[!is.na(data2$Q15), ]) + geom_bar(mapping = aes(x = Q15, fill = Q15), position = position_d
```

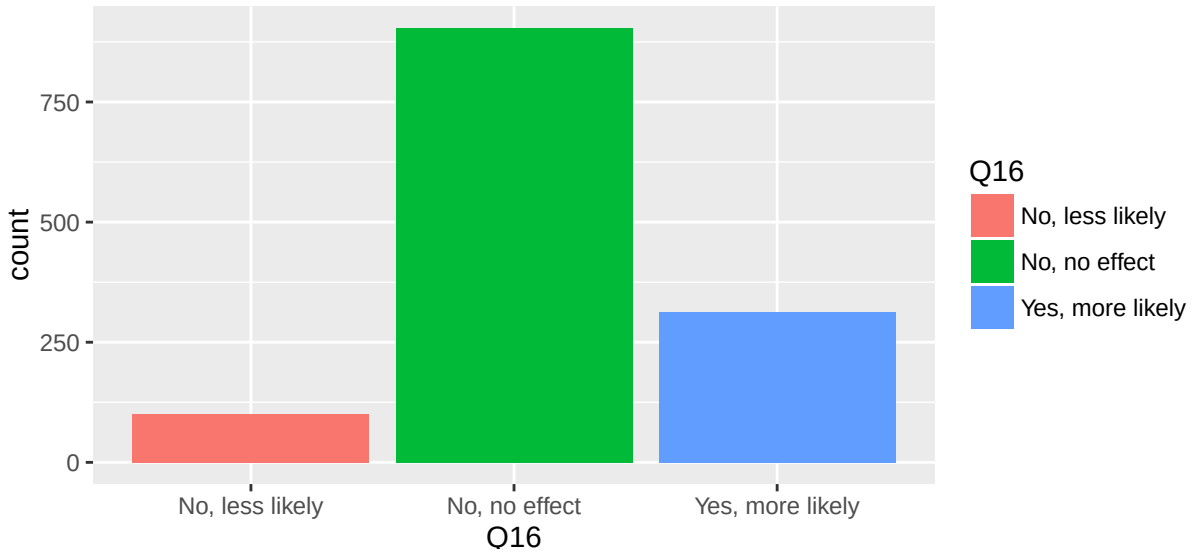


Q16. Are you more likely to get a vaccine if others around you do not get a vaccine?

```
with(data2, table(Q16))
```

```
## Q16
##  No, less likely    No, no effect Yes, more likely
##              101              904              313
```

```
ggplot(data2[!is.na(data2$Q16), ]) + geom_bar(mapping = aes(x = Q16, fill = Q16), position = position_d
```

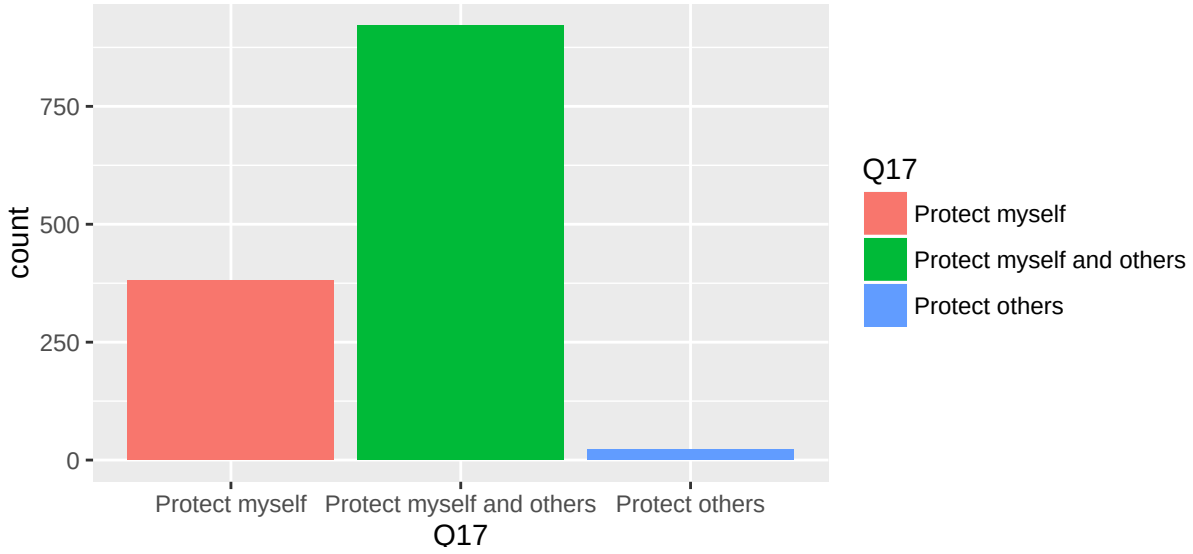


Q17. Do you get a vaccine to protect yourself, protect others, or protect yourself and others?

```
with(data2, table(Q17))
```

```
## Q17
##            Protect myself Protect myself and others
##                       381                       921
##            Protect others
##                        22
```

```
ggplot(data2[!is.na(data2$Q17), ]) + geom_bar(mapping = aes(x = Q17, fill = Q17), position = position_d
```



Q18. What are the reasons you would not get an influenza vaccine?

```r
Q18 <- data2 %>%
  select(PPGENDER, PPAGE, PPEDUC, PPETHM, PPINCIMP, PPWORK, 97:108) %>%
  gather("q", "r", 7:Q18_10_Other)

with(Q18, table(q, r))
```

```
##                                                                r
## q                                                                 No
##   Q18_1_The.vaccine.costs.too.much                              1132
##   Q18_10_Other                                                  1064
##   Q18_2_The.vaccine.is.not.very.effective.in.preventing.influenza  903
##   Q18_3_I.am.not.likely.to.get.influenza                         964
##   Q18_4_Do.not.know.where.to.get.vaccine                        1199
##   Q18_5_The.side.effect.of.the.vaccine.are.too.risky             958
##   Q18_6_I.am.allergic.to.some.of.the.ingredients.in.the.vaccine  1184
##   Q18_7_I.do.not.like.shots                                      976
##   Q18_8_I.just.don_t.get.around.to.doing.it                      878
##   Q18_9_I.have.to.travel.too.far.to.get.vaccine                 1216
##                                                                r
## q                                                                 Yes
##   Q18_1_The.vaccine.costs.too.much                              110
##   Q18_10_Other                                                  178
##   Q18_2_The.vaccine.is.not.very.effective.in.preventing.influenza  339
##   Q18_3_I.am.not.likely.to.get.influenza                        278
##   Q18_4_Do.not.know.where.to.get.vaccine                         43
##   Q18_5_The.side.effect.of.the.vaccine.are.too.risky            284
##   Q18_6_I.am.allergic.to.some.of.the.ingredients.in.the.vaccine  58
##   Q18_7_I.do.not.like.shots                                     266
##   Q18_8_I.just.don_t.get.around.to.doing.it                     364
##   Q18_9_I.have.to.travel.too.far.to.get.vaccine                  26
```

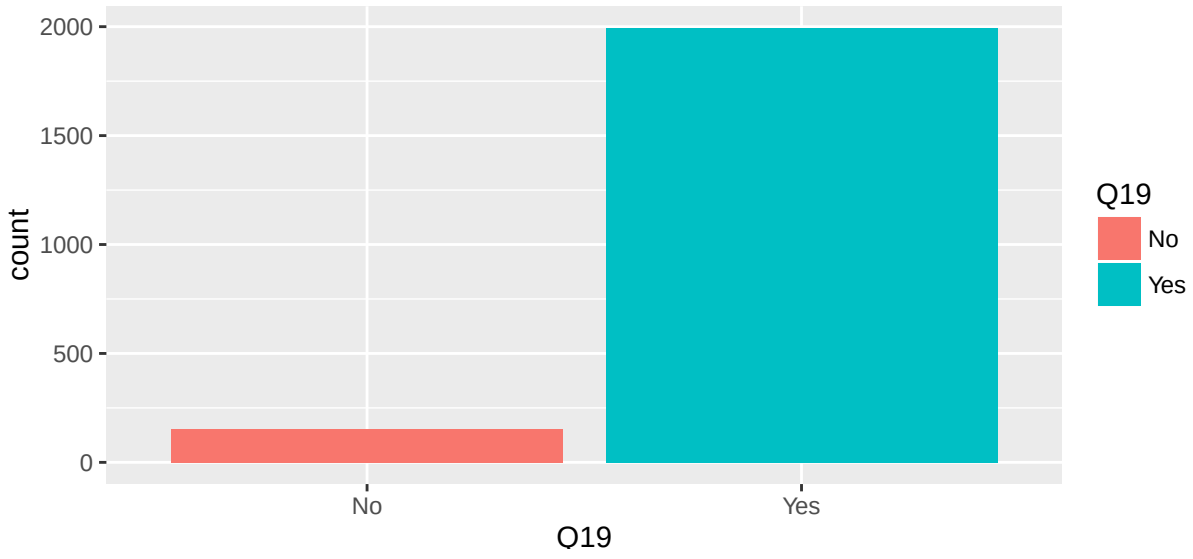
```r
q18 <- Q18 %>%
  count(q, r)
```

Q19. Do you have health insurance?

```r
with(data2, table(Q19))
```

```
## Q19
##   No  Yes
##  154 1994
```

```r
ggplot(data2[!is.na(data2$Q19), ]) + geom_bar(mapping = aes(x = Q19, fill = Q19), position = position_d
```

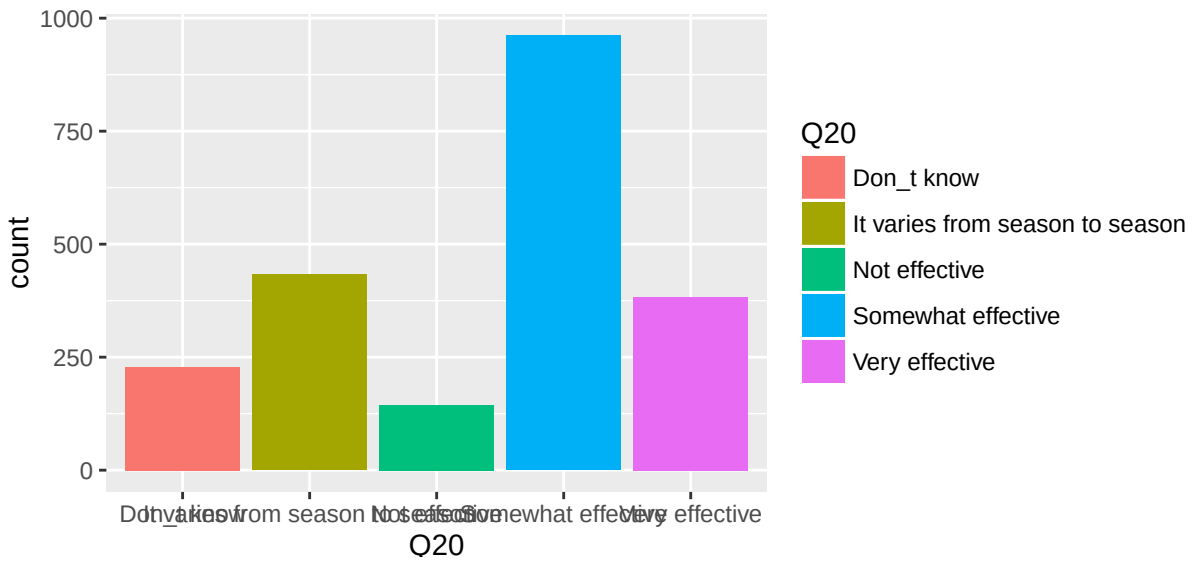


Q20. How effective do you think the influenza vaccine is in protecting people from becoming sick with influenza?

```
with(data2, table(Q20))
```

```
## Q20
##                      Don_t know It varies from season to season
##                             228                             433
##                  Not effective             Somewhat effective
##                             144                             961
##                Very effective
##                             383
```

```
ggplot(data2[!is.na(data2$Q20), ]) + geom_bar(mapping = aes(x = Q20, fill = Q20), position = position_d
```

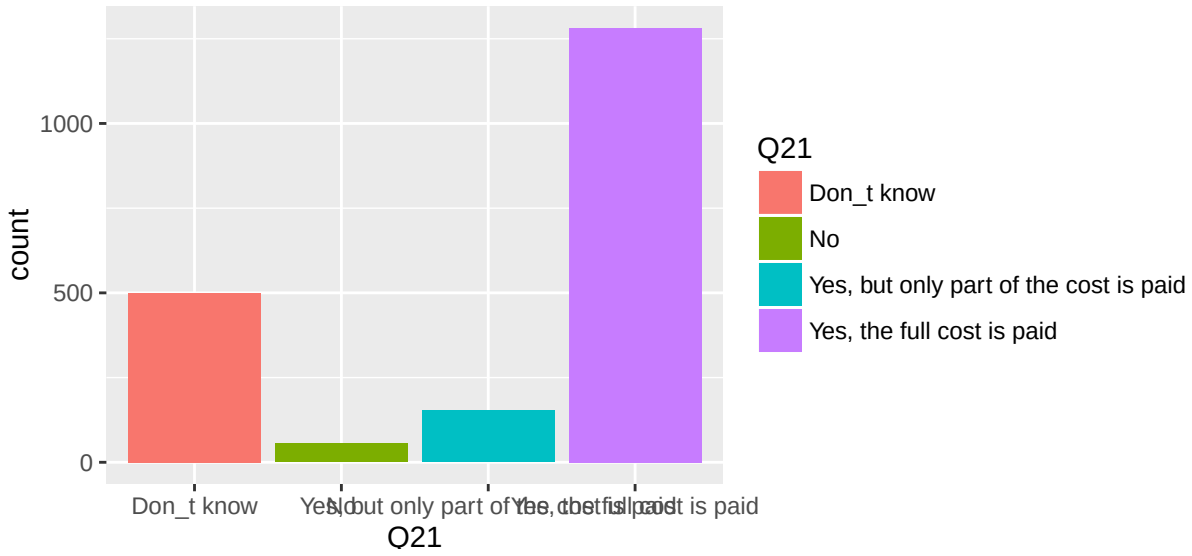


Q21. Are influenza vaccines covered by your health insurance?

```
with(data2, table(Q21))
```

```
## Q21
##                                Don_t know
##                                       500
##                                        No
##                                        55
## Yes, but only part of the cost is paid
##                                       153
##             Yes, the full cost is paid
##                                      1282
```

```
ggplot(data2[!is.na(data2$Q21), ]) + geom_bar(mapping = aes(x = Q21, fill = Q21), position = position_d
```



Q22. Do you do any of the following when you have influenza symptoms?

```
Q22 <- data2 %>%
  select(PPGENDER, PPAGE, PPEDUC, PPETHM, PPINCIMP, PPWORK, 112:122) %>%
  gather("q", "r", 7:Q22_9_Other)

with(Q22, table(q, r))
```

```
##                                                                r
## q                                                               Always
##   Q22_1_Go.to.a.doctor_s.office.or.medical.clinic                  349
##   Q22_2_Decide.on.treatment.without.consulting.a.health.practitioner  335
##   Q22_3_Search.the.internet.for.a.treatment                        126
##   Q22_4_Get.adequate.sleep                                        1147
##   Q22_5_Eat.nutritious.food                                        909
##   Q22_6_Take-over-counter.medication.for.symptoms                  796
##   Q22_7_Take.an.antiviral.medicine                                 153
```

```
##   Q22_8_Take.no.action.to.treat.the.illness                                96
##   Q22_9_Other                                                              54
##                                                                        r
## q                                                                       Never
##   Q22_1_Go.to.a.doctor_s.office.or.medical.clinic                         552
##   Q22_2_Decide.on.treatment.without.consulting.a.health.practitioner      473
##   Q22_3_Search.the.internet.for.a.treatment                              1148
##   Q22_4_Get.adequate.sleep                                                115
##   Q22_5_Eat.nutritious.food                                               135
##   Q22_6_Take-over-counter.medication.for.symptoms                         210
##   Q22_7_Take.an.antiviral.medicine                                       1103
##   Q22_8_Take.no.action.to.treat.the.illness                              1199
##   Q22_9_Other                                                             448
##                                                                        r
## q                                                                       Sometimes
##   Q22_1_Go.to.a.doctor_s.office.or.medical.clinic                           1235
##   Q22_2_Decide.on.treatment.without.consulting.a.health.practitioner        1329
##   Q22_3_Search.the.internet.for.a.treatment                                  861
##   Q22_4_Get.adequate.sleep                                                   875
##   Q22_5_Eat.nutritious.food                                                 1091
##   Q22_6_Take-over-counter.medication.for.symptoms                           1130
##   Q22_7_Take.an.antiviral.medicine                                           877
##   Q22_8_Take.no.action.to.treat.the.illness                                  839
##   Q22_9_Other                                                                 38
```

```
q22 <- Q22 %>%
  count(q, r)
```

Q23. Which of the following actions do you take when you have influenza symptoms to avoid someone else from getting sick?

```
Q23 <- data2 %>%
  select(PPGENDER, PPAGE, PPEDUC, PPETHM, PPINCIMP, PPWORK, 123:Q23_11_Other) %>%
  gather("q", "r", 7:Q23_11_Other)

with(Q23, table(q, r))
```

```
##                                                      r
## q                                                     Always Never
##   Q23_1_Stand.away.from.people                          1006   135
##   Q23_10_Cover.my.nose.and.mouth.when.I.sneeze.or.cough 1717    81
##   Q23_11_Other                                            54   421
##   Q23_2_Avoid.public.places                              897   196
##   Q23_3_Avoid.public.transportation                     1342   245
##   Q23_4_Stay.at.home                                     869   163
##   Q23_5_Wash.my.hands.with.soap.more.often              1559    92
##   Q23_6_Use.hand.sanitizers                             1014   299
##   Q23_7_Clean.the.surfaces.in.my.home                   1151   153
##   Q23_8_Clean.the.surfaces.I.use.at.work                 856   508
##   Q23_9_Cover.my.nose.and.mouth.with.a.surgical.mask     267  1463
##                                                      r
## q                                                     Sometimes
```

```
##   Q23_1_Stand.away.from.people                                996
##   Q23_10_Cover.my.nose.and.mouth.when.I.sneeze.or.cough       341
##   Q23_11_Other                                                 28
##   Q23_2_Avoid.public.places                                  1044
##   Q23_3_Avoid.public.transportation                           550
##   Q23_4_Stay.at.home                                         1106
##   Q23_5_Wash.my.hands.with.soap.more.often                    488
##   Q23_6_Use.hand.sanitizers                                   825
##   Q23_7_Clean.the.surfaces.in.my.home                         832
##   Q23_8_Clean.the.surfaces.I.use.at.work                      772
##   Q23_9_Cover.my.nose.and.mouth.with.a.surgical.mask          409
```

```
q23 <- Q23 %>%
  count(q, r)
```

Q24. What sources of information do you recall hearing or seeing about influenza outbreaks?

```
Q24 <- data2 %>%
  select(PPGENDER, PPAGE, PPEDUC, PPETHM, PPINCIMP, PPWORK, 137:Q24_7_Refused) %>%
  gather("q", "r", 7:Q24_6_Other)

with(Q24, table(q, r))
```

```
##                                                        r
## q                                                        No  Yes
##   Q24_1_Print.media.such.as.newspapers.and.magazines   1460  708
##   Q24_2_Traditional.media.such.as.television.and.radio  811 1357
##   Q24_3_Social.media.such.as.internet.and.blogs        1680  488
##   Q24_4_Word.of.mouth                                  1213  955
##   Q24_5_None                                           1764  404
##   Q24_6_Other                                          2114   54
```

```
q24 <- Q24 %>%
  count(q, r)
```

Q25. If you received information from the news, internet or other public media that there was an influenza outbreak in your community would you do any of the following?

```
Q25 <- data2 %>%
  select(PPGENDER, PPAGE, PPEDUC, PPETHM, PPINCIMP, PPWORK, 145:Q25_11_Other) %>%
  gather("q", "r", 7:Q25_11_Other)

with(Q25, table(q, r))
```

```
##                                                       r
## q                                                      Always Never
##   Q25_1_Stand.away.from.people                            649   217
##   Q25_10_Cover.my.nose.and.mouth.when.I.sneeze.or.cough  1643    90
##   Q25_11_Other                                             32   393
```

```
##   Q25_2_Avoid.public.places                                 648   270
##   Q25_3_Avoid.public.transportation                        1221   268
##   Q25_4_Stay.at.home                                        484   429
##   Q25_5_Wash.my.hands.with.soap.more.often                 1477    99
##   Q25_6_Use.hand.sanitizers                                1077   257
##   Q25_7_Clean.the.surfaces.in.my.home                      1116   160
##   Q25_8_Clean.the.surfaces.I.use.at.work                    902   464
##   Q25_9_Cover.my.nose.and.mouth.with.a.surgical.mask        343  1286
##                                                          r
## q                                                         Sometimes
##   Q25_1_Stand.away.from.people                                1268
##   Q25_10_Cover.my.nose.and.mouth.when.I.sneeze.or.cough        399
##   Q25_11_Other                                                  21
##   Q25_2_Avoid.public.places                                   1217
##   Q25_3_Avoid.public.transportation                            643
##   Q25_4_Stay.at.home                                          1222
##   Q25_5_Wash.my.hands.with.soap.more.often                     554
##   Q25_6_Use.hand.sanitizers                                    799
##   Q25_7_Clean.the.surfaces.in.my.home                          857
##   Q25_8_Clean.the.surfaces.I.use.at.work                       766
##   Q25_9_Cover.my.nose.and.mouth.with.a.surgical.mask           505
```

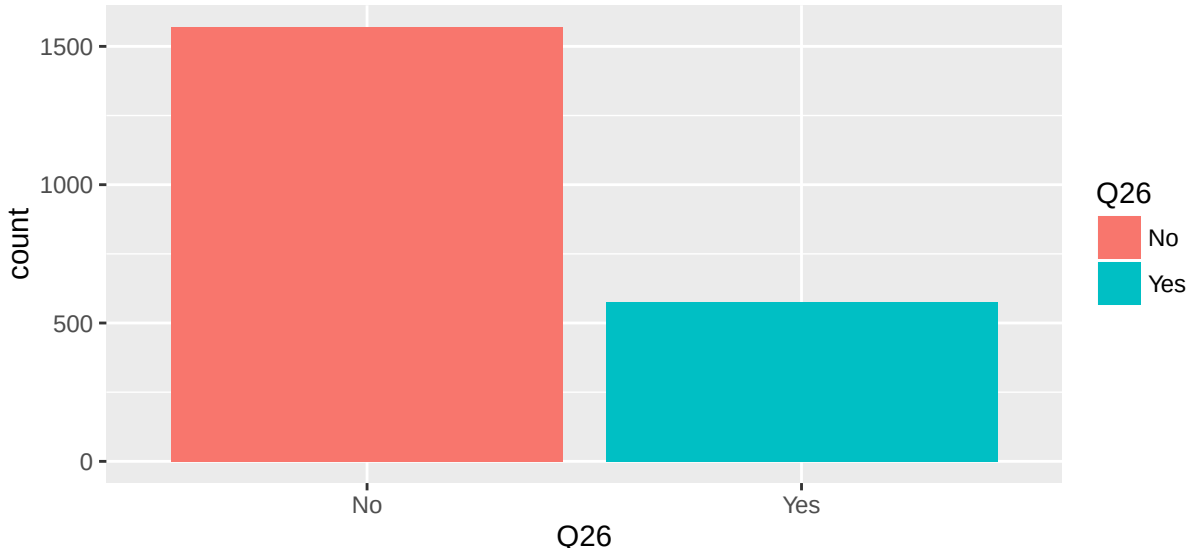
```
q25 <- Q25 %>%
  count(q, r)
```

Q26. Does your household have children?

```
with(data2, table(Q26))
```

```
## Q26
##   No  Yes
## 1570  576
```

```
ggplot(data2[!is.na(data2$Q26), ]) + geom_bar(mapping = aes(x = Q26, fill = Q26), position = position_d
```



Q27. What actions do you take when a child in your household has influenza symptoms?

```
Q27 <- data2 %>%
  select(PPGENDER, PPAGE, PPEDUC, PPETHM, PPINCIMP, PPWORK, 159:Q27_4_Other) %>%
  gather("q", "r", 7:Q27_4_Other)

with(Q27, table(q, r))
```

```
##                                                                r
## q                                                               Always Never
##   Q27_1_Keep.the.child.away.from.the.others.in.the.residence    198    90
##   Q27_2_Keep.the.child.out.of.school-daycare                    377    46
##   Q27_3_Stop.child_s.social.activities.like.play.dates          388    41
##   Q27_4_Other                                                    12    93
##                                                                r
## q                                                               Sometimes
##   Q27_1_Keep.the.child.away.from.the.others.in.the.residence       285
##   Q27_2_Keep.the.child.out.of.school-daycare                       149
##   Q27_3_Stop.child_s.social.activities.like.play.dates             144
##   Q27_4_Other                                                       12
```

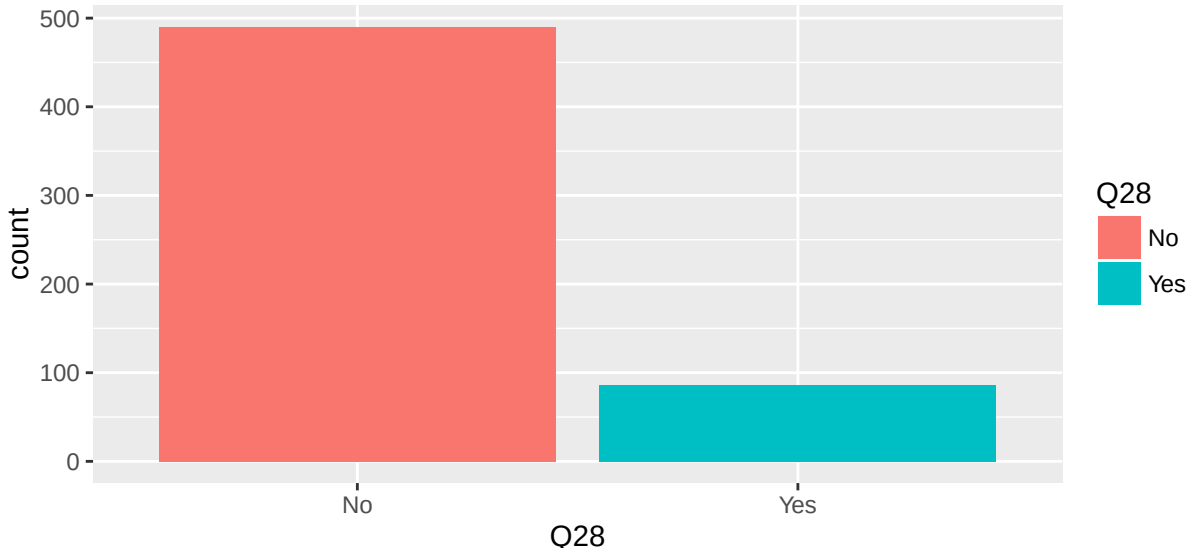
```
q27 <- Q27 %>%
  count(q, r)
```

Q28. Are you a single parent?

```
with(data2, table(Q28))
```

```
## Q28
##  No Yes
## 490  86
```

```
ggplot(data2[!is.na(data2$Q28), ]) + geom_bar(mapping = aes(x = Q28, fill = Q28), position = position_d
```



Q29. How do you care for a sick child?

```
Q29 <- data2 %>%
  select(PPGENDER, PPAGE, PPEDUC, PPETHM, PPINCIMP, PPWORK, 166:Q29_6_Other) %>%
  gather("q", "r", 7:Q29_6_Other)

with(Q29, table(q, r))
```

```
##                                                r
## q                                               Always Never Sometimes
##   Q29_1_A.parent.brings.the.child.to.work            7   438        41
##   Q29_2_A.parent.stays.home                        266    27       193
##   Q29_3_Another.adult.stays.home                    68   202       216
##   Q29_4_Send.the.child.to.school.sick                1   414        70
##   Q29_5_Take.the.child.to.a.relative.or.friends      8   292       186
##   Q29_6_Other                                        4    76         6
```

```
q29 <- Q29 %>%
  count(q, r)
```

Q30. How do you care for a sick child?

```
Q30 <- data2 %>%
  select(PPGENDER, PPAGE, PPEDUC, PPETHM, PPINCIMP, PPWORK, 174:Q30_6_Other) %>%
  gather("q", "r", 7:Q30_6_Other)

with(Q30, table(q, r))
```

```
##                                                r
## q                                               Always Never Sometimes
##   Q30_1_I.bring.the.child.to.work                    4    77         5
##   Q30_2_I.stay.home                                 34    10        42
##   Q30_3_Another.adult.stays.home                     9    25        52
##   Q30_4_Send.the.child.to.school.sick                3    60        23
##   Q30_5_Take.the.child.to.a.relative.or.friends      7    33        46
##   Q30_6_Other                                        1    14         3
```

```
q30 <- Q30 %>%
  count(q, r)
```

Q31. How many hours of screen time (time spent watching television, a computer, smartphone, iPad, etc.) do you spend each day on average when you are not sick? Enter 0 if none

```
with(data2, summary(Q31))
```

```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's
##   0.000   2.000   4.000   4.868   6.000  24.000      52
```

```r
# by gender
with(data2, by(Q31, PPGENDER, summary))
```

```
## PPGENDER: Female
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's
##   0.000   2.000   4.000   4.838   6.000  21.000      21
## ------------------------------------------------------------
## PPGENDER: Male
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's
##   0.000   2.000   4.000   4.898   6.000  24.000      31
```

Q32. How many hours of screen time do you spend each day on average when you are sick? Enter 0 if none

```r
with(data2, summary(Q32))
```

```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's
##   0.000   1.000   4.000   4.267   6.000  24.000      61
```

```r
# by gender
with(data2, by(Q33, PPGENDER, summary))
```

```
## PPGENDER: Female
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's
##   1.000   2.000   2.000   2.567   3.000   9.000       8
## ------------------------------------------------------------
## PPGENDER: Male
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's
##   1.000   2.000   2.000   2.594   3.000  14.000      20
```

Q33. How many people, including yourself, reside in your household?

```r
with(data2, summary(Q33))
```

```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's
##    1.00    2.00    2.00    2.58    3.00   14.00      28
```

```r
# by ethnicity
with(data2, by(Q33, PPETHM, summary))
```

```
## PPETHM: 2+ Races, Non-Hispanic
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's
##   1.000   2.000   2.000   2.709   3.000   7.000       1
## ------------------------------------------------------------
## PPETHM: Black, Non-Hispanic
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's
##   1.000   1.000   2.000   2.544   3.000  13.000       2
## ------------------------------------------------------------
## PPETHM: Hispanic
```

```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's
##   1.000   2.000   3.000   2.903   4.000   9.000       6
## ------------------------------------------------------------
## PPETHM: Other, Non-Hispanic
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's
##   1.000   2.000   3.000   2.946   4.000   7.000       1
## ------------------------------------------------------------
## PPETHM: White, Non-Hispanic
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's
##   1.000   2.000   2.000   2.509   3.000  14.000      18
```

Household Members

HHM1

Q35. What is the gender of this member of the household? Remember, this relates to HHM1_Name who is HHM1_AGE years old.

```
with(data2, table(Q35))
```

```
## Q35
## Female   Male
##    799    859
```

Q36. On average, how many days per week does this member of your household work or attend day care or school outside of your home?

```
with(data2, summary(Q36))
```

```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's
##   0.000   0.000   4.000   2.874   5.000   7.000     571
```

Q37. On average, how many days per week does this member of your household participate in social activities outside of your home?

```
with(data2, summary(Q37))
```

```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's
##   0.000   0.000   2.000   2.098   3.000   7.000     663
```

Q38. On average, how many days per week does this member of your household use public transportation?

```
with(data2, summary(Q38))
```

```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's
##  0.0000  0.0000  0.0000  0.3909  0.0000  7.0000     582
```

Q39. How frequently does this member of your household visit a doctor's office for wellness appointments?

```
with(data2, summary(Q39))
```

```
##    Length     Class      Mode
##      2168 character character
```

Q40. How frequently does this member of the household get sick in a typical year?

```
with(data2, summary(Q40))
```

```
##    Length     Class      Mode
##      2168 character character
```

Q41. How many times has this member of your household had influenza or another respiratory illness in the last two years?

```
with(data2, summary(Q41))
```

```
##    Length     Class      Mode
##      2168 character character
```

Q42. Does this member of your household get an annual influenza vaccine?

```
with(data2, summary(Q42))
```

```
##    Length     Class      Mode
##      2168 character character
```

HHM2

Q43. What is the gender of this member of the household? Remember, this relates to HHM1_Name who is HHM1_AGE years old.

```
with(data2, summary(Q43))
```

```
##    Length     Class      Mode
##      2168 character character
```

Q44. On average, how many days per week does this member of your household work or attend day care or school outside of your home?

```
with(data2, summary(Q44))
```

```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's
##   0.000   1.000   5.000   3.669   5.000   7.000    1383
```

Q45. On average, how many days per week does this member of your household participate in social activities outside of your home?

```
with(data2, summary(Q45))
```

```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's
##   0.000   1.000   2.000   2.395   4.000   7.000    1419
```

Q46. On average, how many days per week does this member of your household use public transportation?

```
with(data2, summary(Q46))
```

```
##    Min. 1st Qu.  Median    Mean 3rd Qu.    Max.    NA's
##  0.0000  0.0000  0.0000  0.5727  0.0000  7.0000    1391
```

Q47. How frequently does this member of your household visit a doctor's office for wellness appointments?

```
with(data2, summary(Q47))
```

```
##    Length     Class      Mode
##      2168 character character
```

Q48. How frequently does this member of the household get sick in a typical year?

```
with(data2, summary(Q48))
```

```
##    Length     Class      Mode
##      2168 character character
```

Q49. How many times has this member of your household had influenza or another respiratory illness in the last two years?

```
with(data2, summary(Q49))
```

```
##    Length     Class      Mode
##      2168 character character
```

Q50. Does this member of your household get an annual influenza vaccine?

```
with(data2, summary(Q50))
```

```
##    Length     Class      Mode
##      2168 character character
```