

Working report

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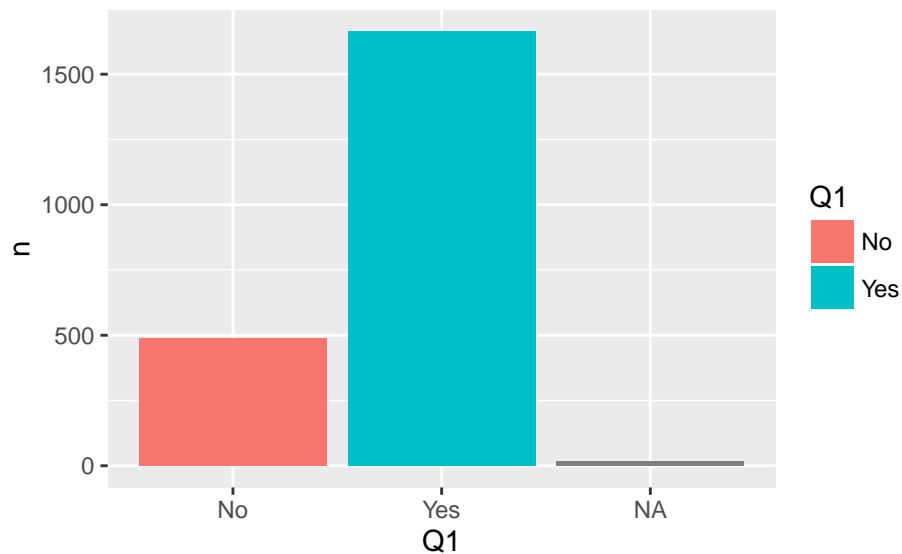
Survey questions

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

```
# Q1 table  
with(data, table(Q1))
```

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

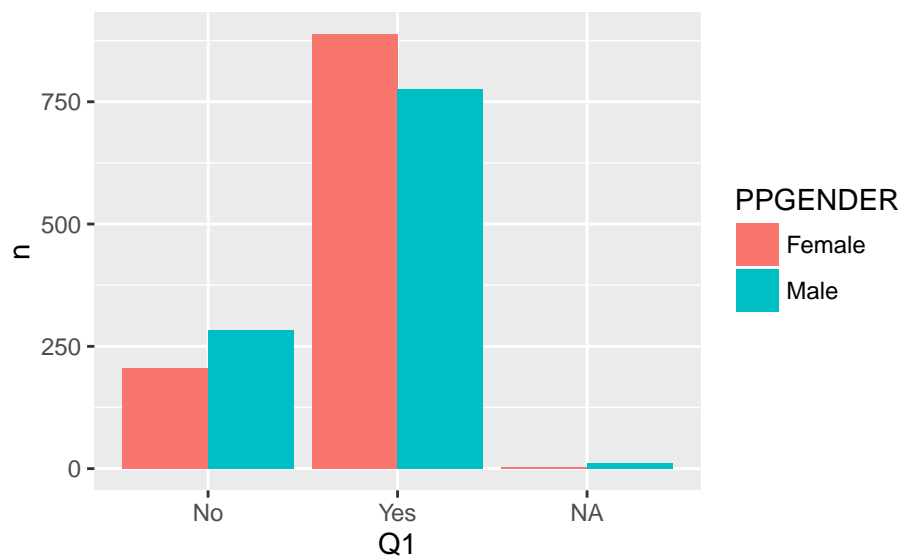
```
q1 <- data %>%  
  group_by(Q1) %>%  
  count(Q1)  
ggplot(q1, aes(x = Q1, y = n, fill = Q1)) + geom_bar(stat = 'identity')
```



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

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

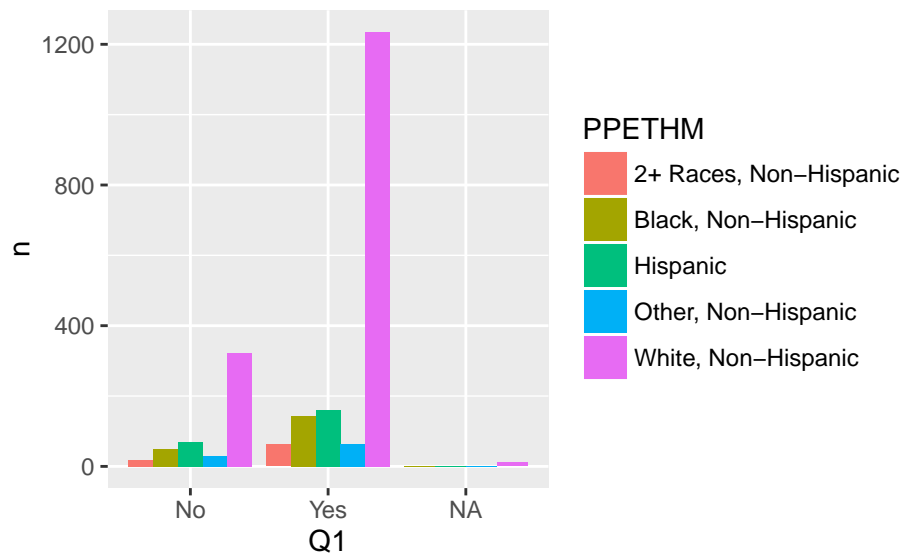
```
q1 <- data %>%
  group_by(Q1, PPGENDER) %>%
  count(Q1, PPGENDER)
ggplot(q1, aes(x = Q1, y = n, fill = PPGENDER)) +
  geom_bar(stat = 'identity', position = position_dodge())
```



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

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

```
q1 <- data %>%
  group_by(Q1, PPETHM) %>%
  count(Q1, PPETHM)
ggplot(q1, aes(x = Q1, y = n, fill = PPETHM)) +
  geom_bar(stat = 'identity', position = position_dodge())
```

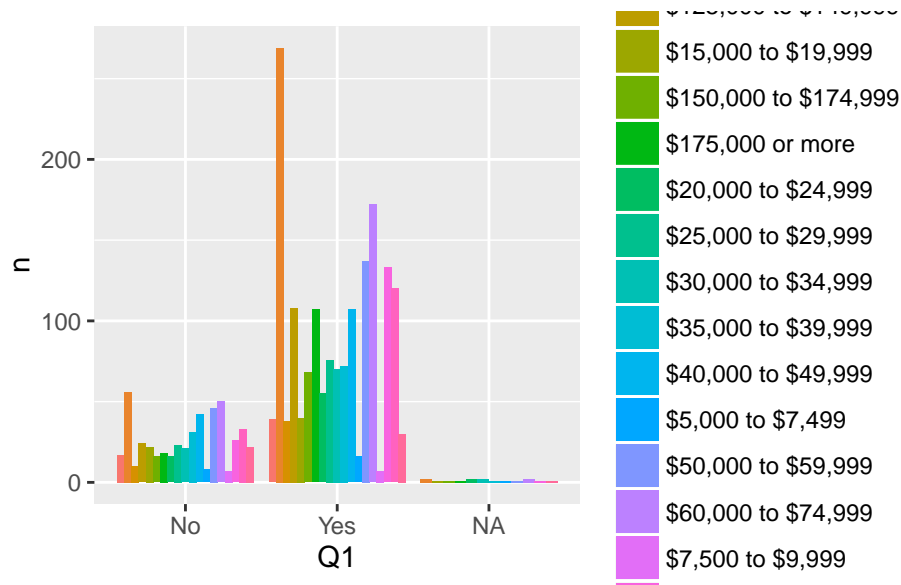


```
# by income
with(data, table(Q1, PPINCIMP))
```

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

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

```
ggplot(q1, aes(x = Q1, y = n, fill = PPINCIMP)) +
  geom_bar(stat = 'identity', position = position_dodge())
```

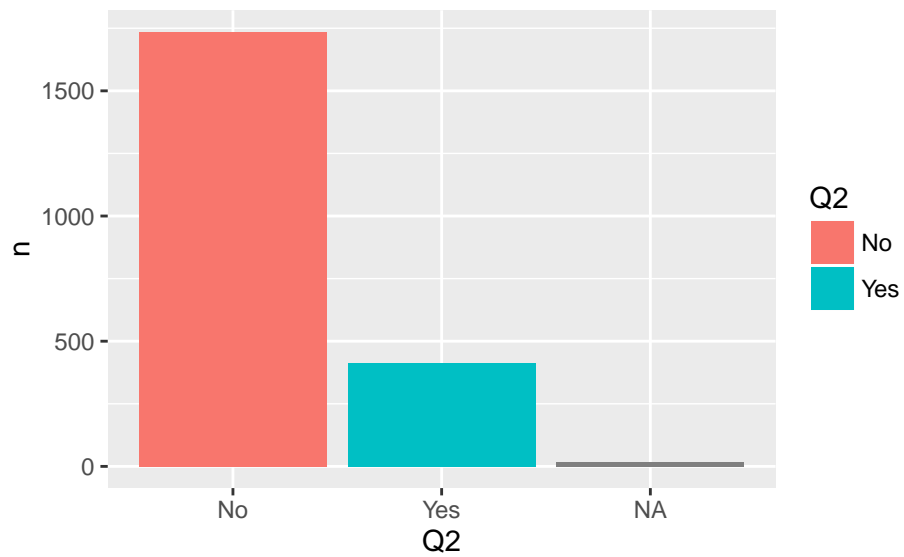


Q2. Have you had an illness with influenza-like symptoms since August 2015?

```
# all
with(data, table(Q2))
```

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

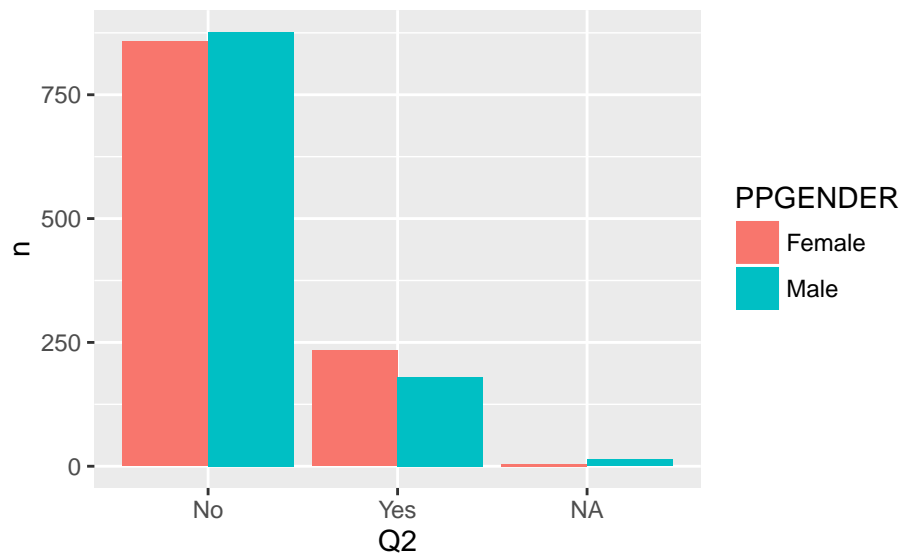
```
q2 <- data %>%
  group_by(Q2) %>%
  count(Q2)
ggplot(q2, aes(x = Q2, y = n, fill = Q2)) + geom_bar(stat = 'identity')
```



```
# by gender
with(data, table(Q2, PPGENER))
```

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

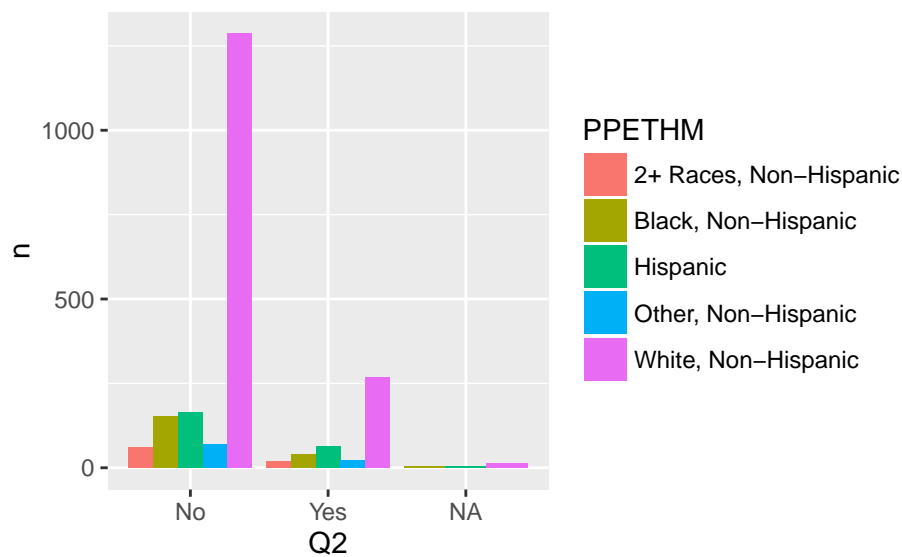
```
q2 <- data %>%
  group_by(Q2, PPGENER) %>%
  count(Q2, PPGENER)
ggplot(q2, aes(x = Q2, y = n, fill = PPGENER)) +
  geom_bar(stat = 'identity', position = position_dodge())
```



```
# by ethnicity
with(data, 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
```

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

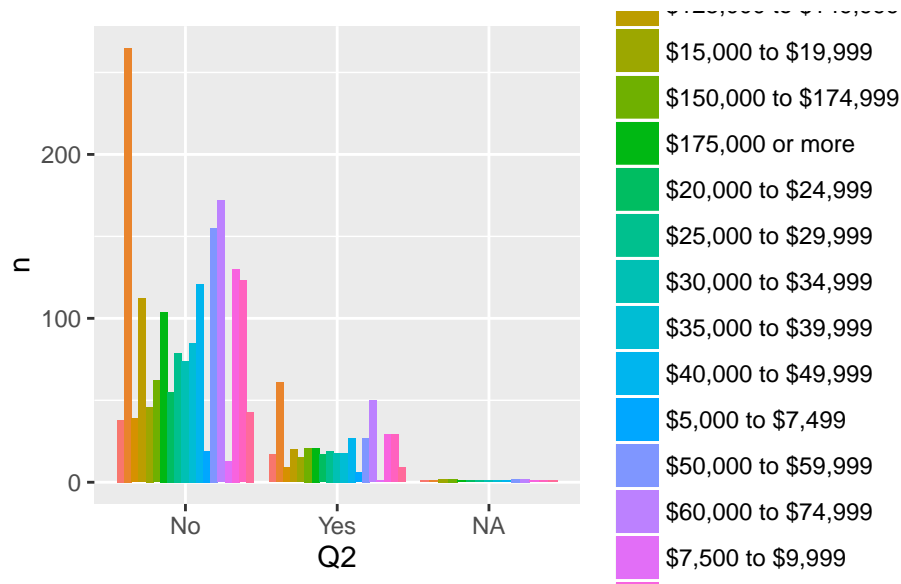


```
# by income
with(data, table(Q2, PPINCIMP))
```

```
##      PPINCIMP
## Q2    $10,000 to $12,499 $100,000 to $124,999 $12,500 to $14,999
## No                38                265                39
## Yes               17                61                 9
##      PPINCIMP
## Q2    $125,000 to $149,999 $15,000 to $19,999 $150,000 to $174,999
## No                112                46                62
## Yes               20                15                21
##      PPINCIMP
## Q2    $175,000 or more $20,000 to $24,999 $25,000 to $29,999
## No                104                55                79
## Yes               21                17                19
##      PPINCIMP
## Q2    $30,000 to $34,999 $35,000 to $39,999 $40,000 to $49,999
## No                74                85                121
## Yes               18                18                27
##      PPINCIMP
```

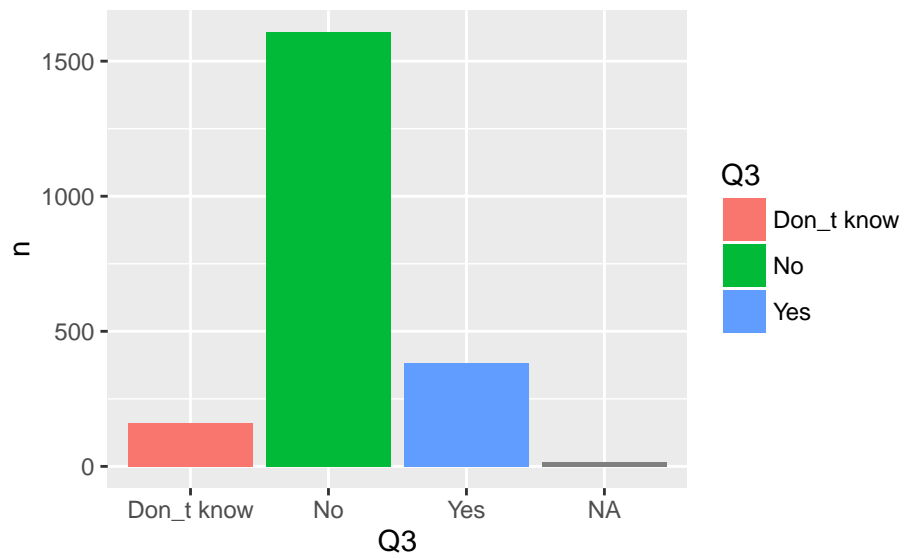
```
## Q2      $5,000 to $7,499 $50,000 to $59,999 $60,000 to $74,999
## No                19                155                172
## Yes                6                 27                 50
## PPINCIMP
## Q2      $7,500 to $9,999 $75,000 to $84,999 $85,000 to $99,999
## No                13                130                123
## Yes                1                 29                 29
## PPINCIMP
## Q2      Less than $5,000
## No                43
## Yes                9
```

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

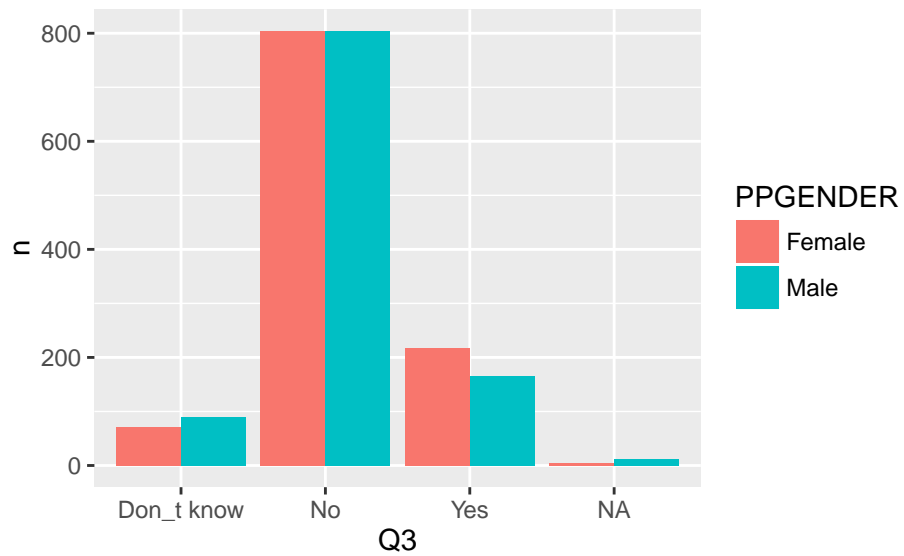


Q3. Has any other person in your household had an illness with influenza like symptoms since August 2015?

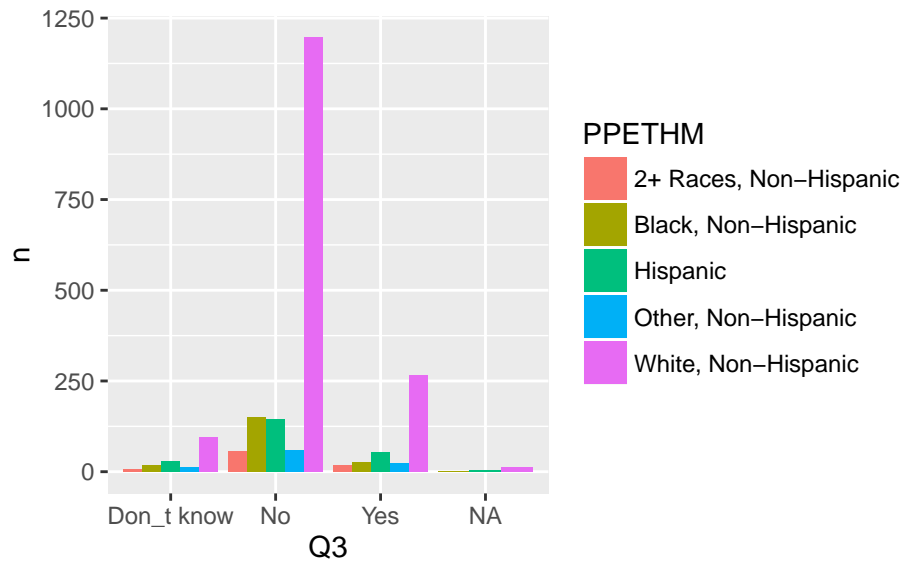
```
## Q3
## Don't know      No      Yes
##      161      1608      383
```



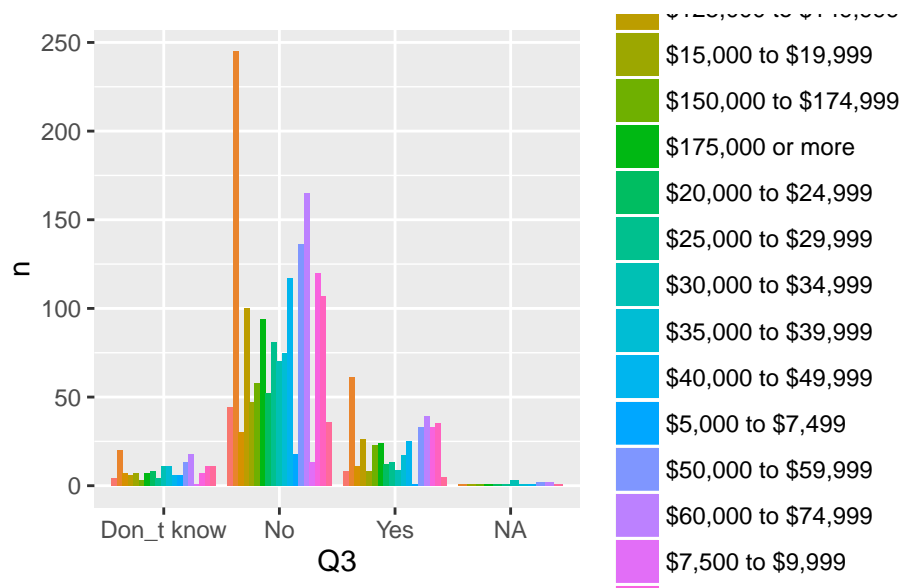
```
##          PPGENDER
## Q3      Female Male
## Don_t know      72  89
## No              804 804
## Yes             217 166
```



```
##          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
```

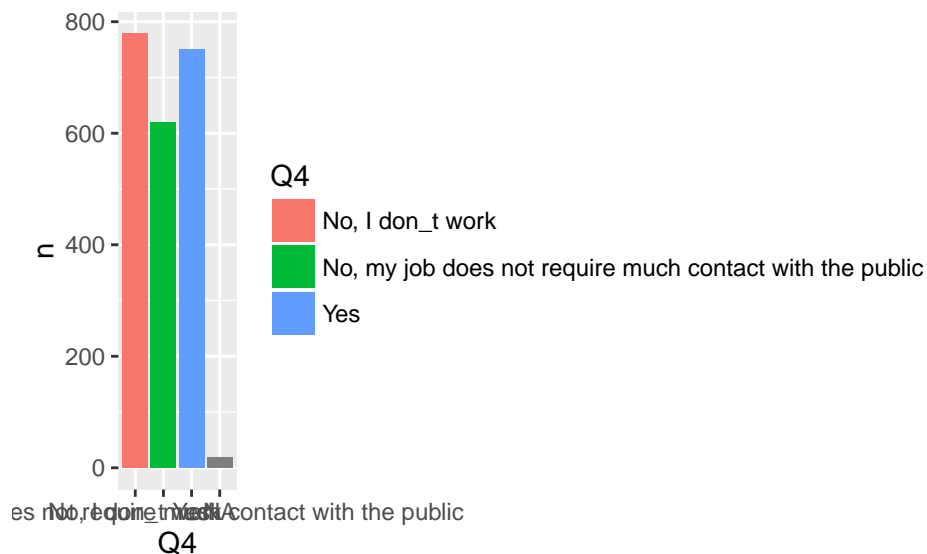



```
##          PPINCIMP
## Q3          $10,000 to $12,499 $100,000 to $124,999 $12,500 to $14,999
## Don't know                4                20                7
## No                        44               245               30
## Yes                        8                61               11
##          PPINCIMP
## Q3          $125,000 to $149,999 $15,000 to $19,999 $150,000 to $174,999
## Don't know                6                7                3
## No                       100               47               58
## Yes                       26                8               23
##          PPINCIMP
## Q3          $175,000 or more $20,000 to $24,999 $25,000 to $29,999
## Don't know                7                8                4
## No                       94               52               81
## Yes                       24               12               13
##          PPINCIMP
## Q3          $30,000 to $34,999 $35,000 to $39,999 $40,000 to $49,999
## Don't know               11               11                6
## No                       70               75              117
## Yes                       9                17               25
##          PPINCIMP
## Q3          $5,000 to $7,499 $50,000 to $59,999 $60,000 to $74,999
## Don't know                6               13               18
## No                       18              136              165
## Yes                       1               33               39
##          PPINCIMP
## Q3          $7,500 to $9,999 $75,000 to $84,999 $85,000 to $99,999
## Don't know                1                7               11
## No                       13              120              107
## Yes                       0               33               35
##          PPINCIMP
## Q3          Less than $5,000
## Don't know               11
## No                       36
## Yes                       5
```

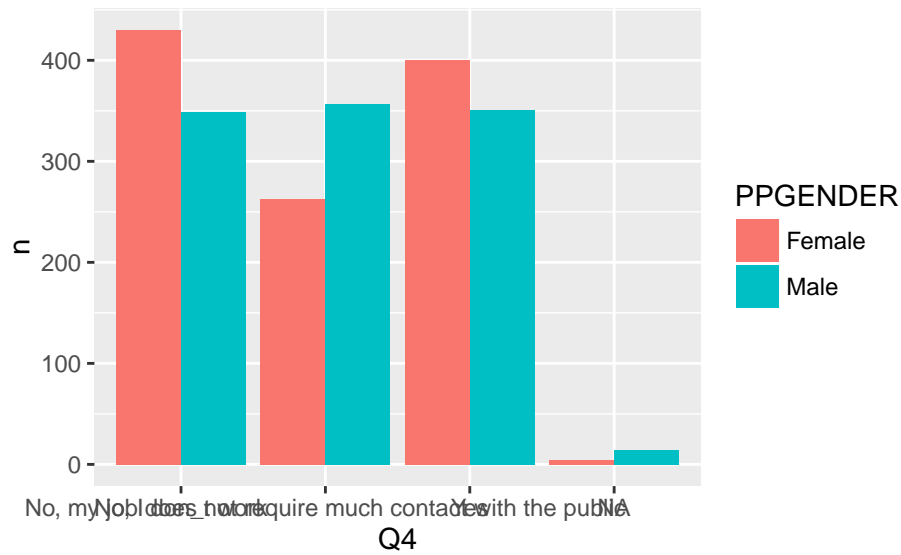


Q4. Does your job require you to have a lot of contact with the public?

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

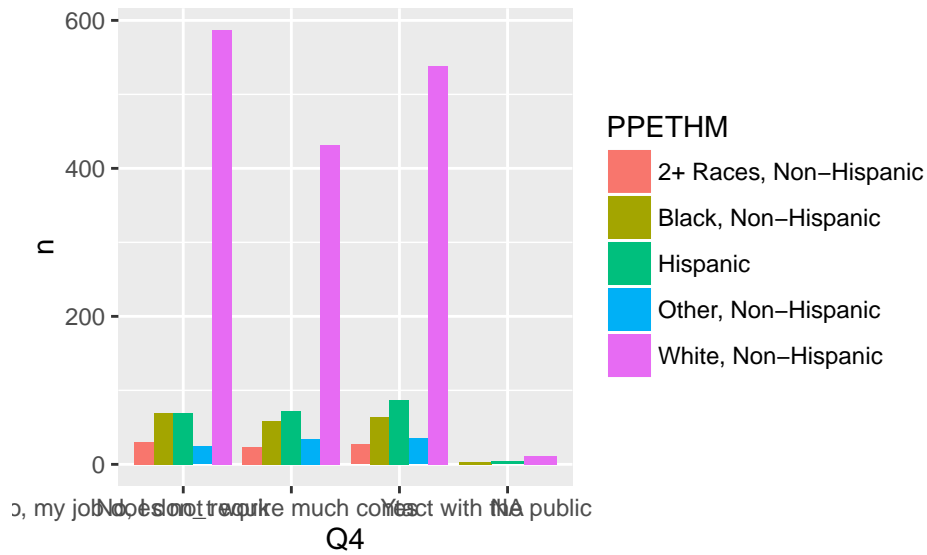


```
##                                     PPGENDER
## Q4                                     Female Male
## No, I don_t work                       430  349
## No, my job does not require much contact with the public 263  357
## Yes                                    400  351
```



```
##
## Q4
## No, I don't work
## No, my job does not require much contact with the public
## Yes
##
## Q4
## No, I don't work
## No, my job does not require much contact with the public
## Yes
##
## Q4
## No, I don't work
## No, my job does not require much contact with the public
## Yes
##
## Q4
## No, I don't work
## No, my job does not require much contact with the public
## Yes
##
## Q4
## No, I don't work
## No, my job does not require much contact with the public
## Yes
```

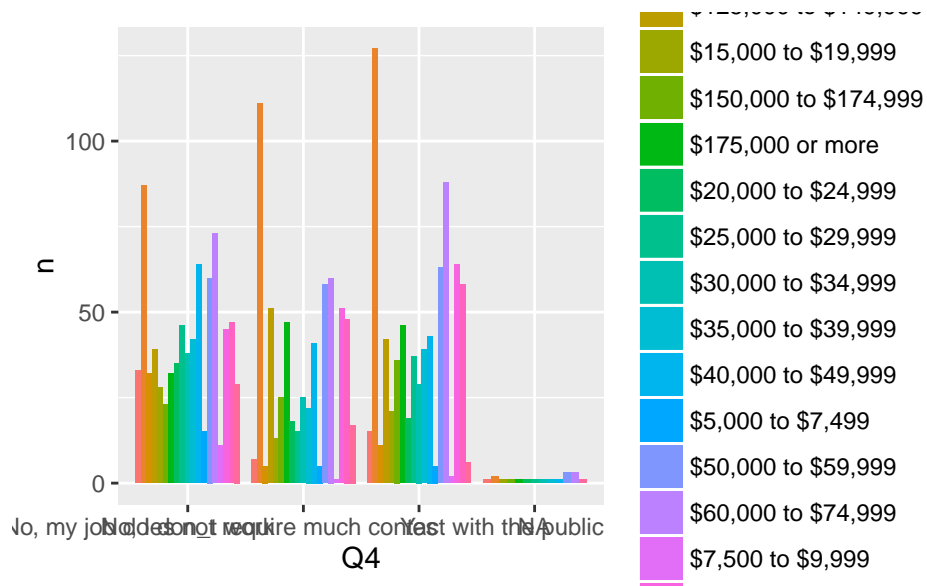
Category	Female	Male
No, my job does not require much contact with the public	430	350
No, I don't work	260	360
Yes	400	350
NA	10	20



```
##
## Q4
## No, I don't work
## No, my job does not require much contact with the public
## Yes
##
## PPINCIMP
## $10,000 to $12,499
## 33
## 7
## 15
##
## PPINCIMP
## $100,000 to $124,999
## 87
## 111
## 127
##
## PPINCIMP
## $12,500 to $14,999
## 32
## 5
## 11
##
## PPINCIMP
## $125,000 to $149,999
## 39
## 51
## 42
##
## PPINCIMP
## $15,000 to $19,999
## 28
## 13
## 21
##
## PPINCIMP
## $150,000 to $174,999
## 23
## 25
## 36
##
## PPINCIMP
## $175,000 or more
## 32
## 47
## 46
##
## PPINCIMP
```

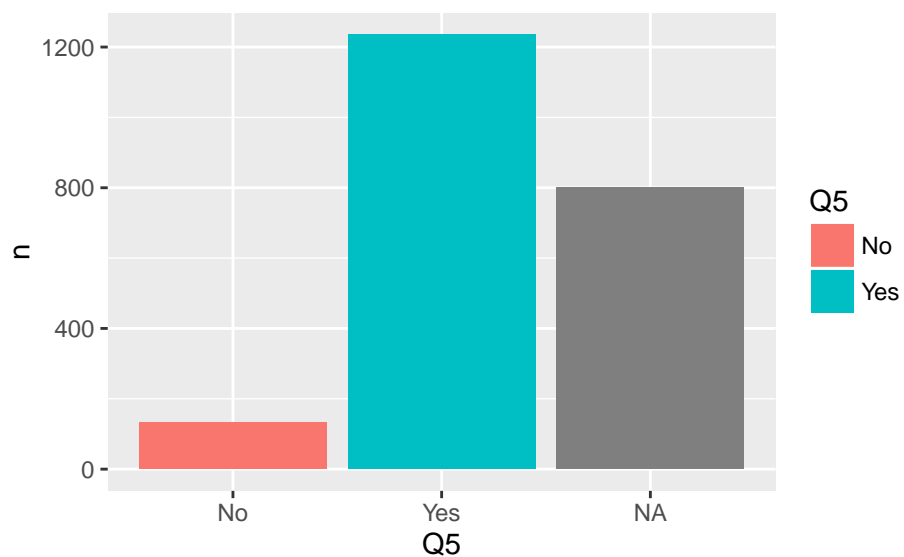
## Q4	\$20,000 to \$24,999	
## No, I don_t work		35
## No, my job does not require much contact with the public		18
## Yes		19
##	PPINCIMP	
## Q4	\$25,000 to \$29,999	
## No, I don_t work		46
## No, my job does not require much contact with the public		15
## Yes		37
##	PPINCIMP	
## Q4	\$30,000 to \$34,999	
## 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	\$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	\$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	\$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	\$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

```
##
## Q4
## No, I don't work 29
## No, my job does not require much contact with the public 17
## Yes 6
```

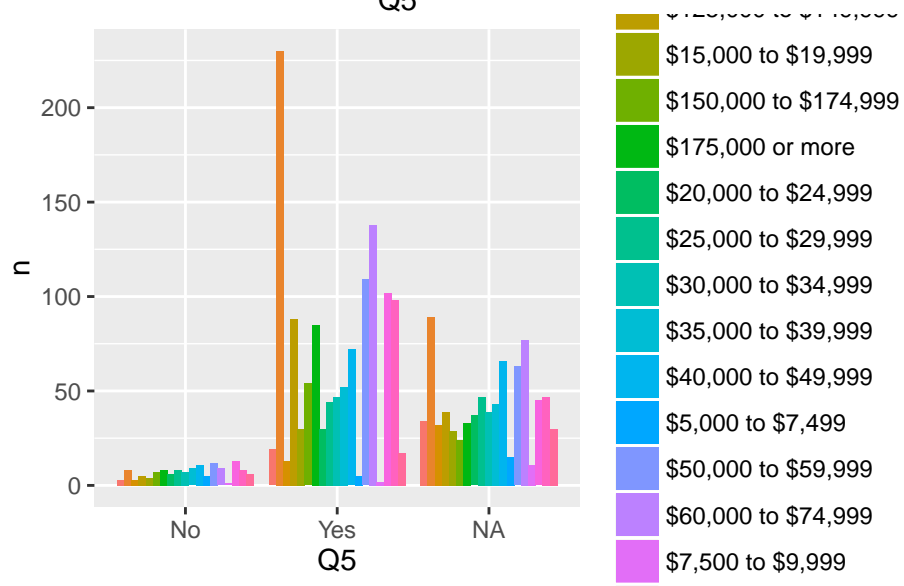
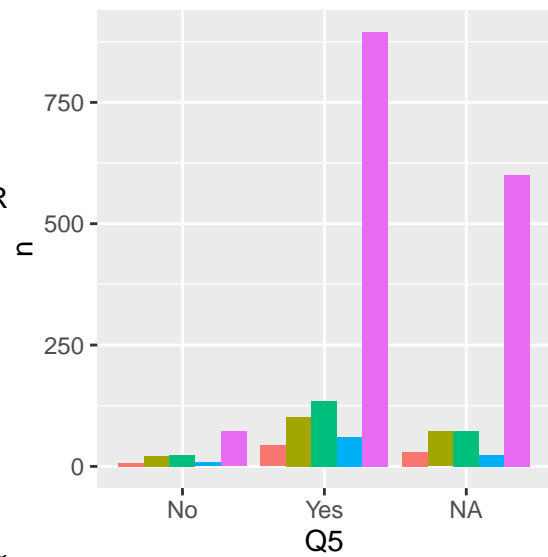
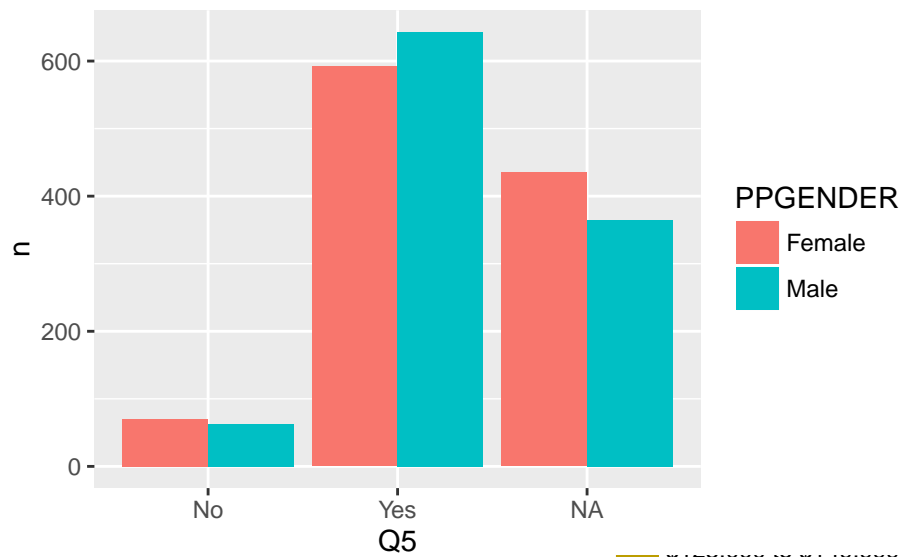


Q5. Do you have a car that you can use to travel to work?

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

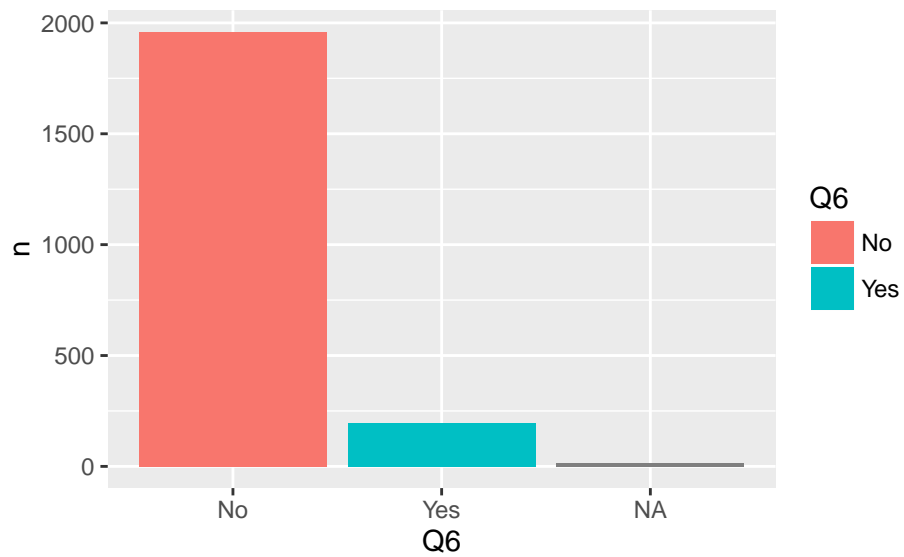


```
## Q5
## PPGENDER No Yes
## Female 70 592
## Male 63 643
```

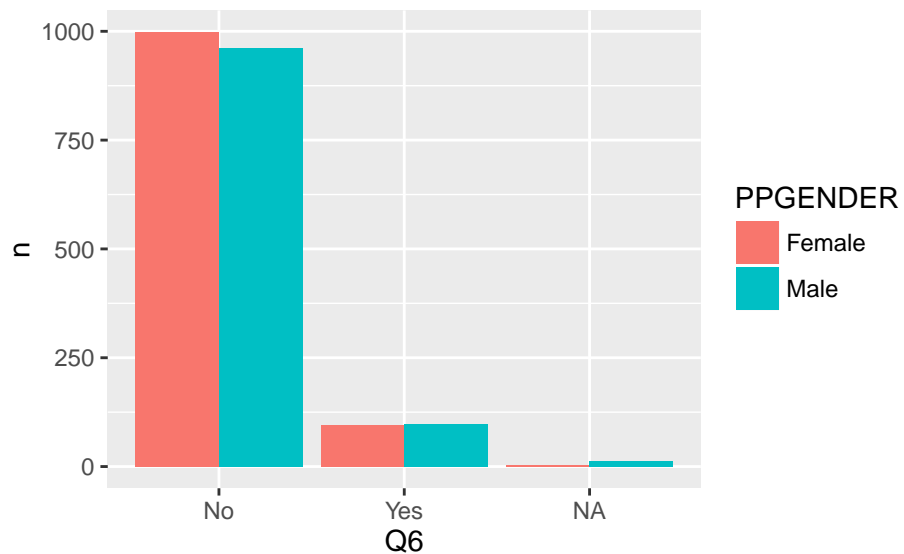


Q6. Do you regularly use public transportation?

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



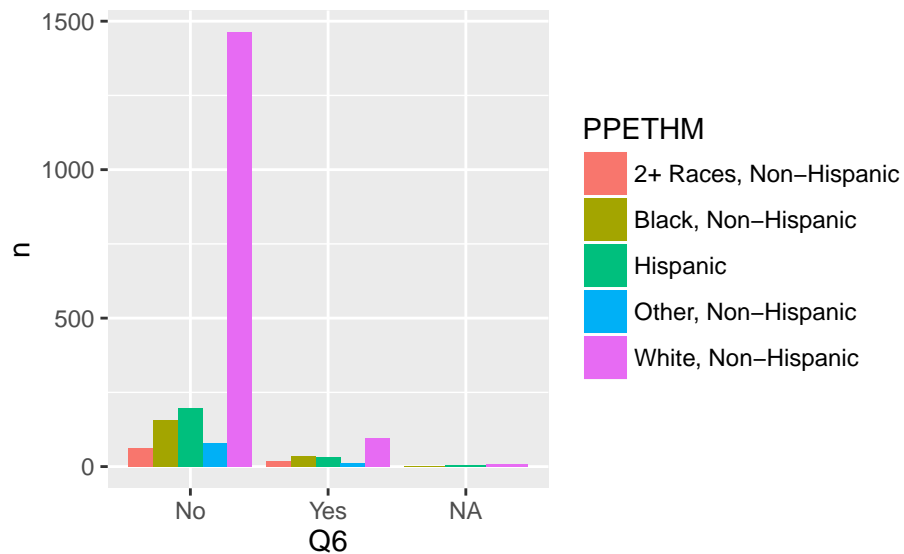
```
## Source: local data frame [6 x 3]
## Groups: Q6 [?]
##
##      Q6 PPGENDER      n
##   (fctr)   (fctr) (int)
## 1    No   Female   998
## 2    No    Male   961
## 3   Yes   Female    96
## 4   Yes    Male    98
## 5   NA   Female     3
## 6   NA    Male    12
```



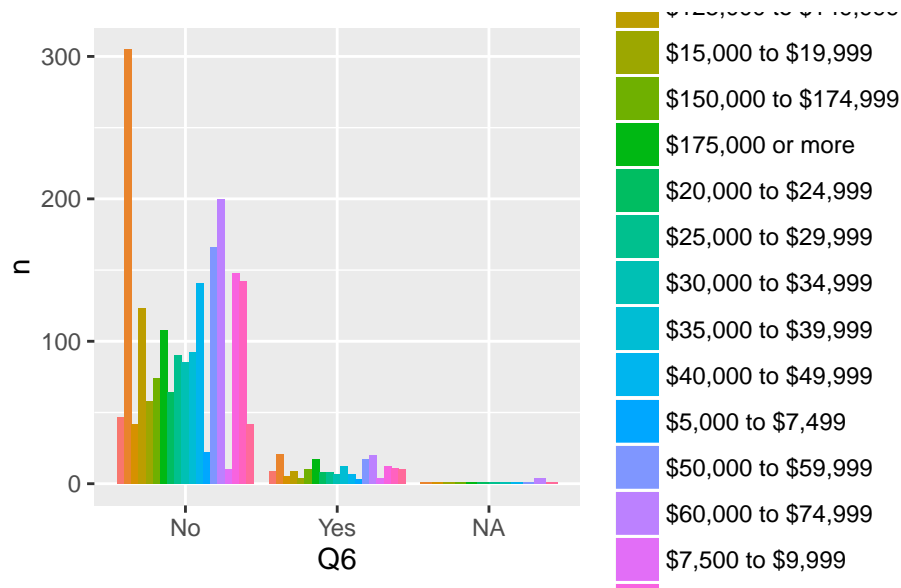
```
## Source: local data frame [13 x 3]
## Groups: Q6 [?]
##
##      Q6      PPETHM      n
##   (fctr)   (fctr) (int)
## 1    No   Female   998
## 2    No    Male   961
## 3   Yes   Female    96
## 4   Yes    Male    98
## 5   NA   Female     3
## 6   NA    Male    12
```



```
## 1      No 2+ Races, Non-Hispanic      62
## 2      No   Black, Non-Hispanic     158
## 3      No              Hispanic     196
## 4      No   Other, Non-Hispanic      80
## 5      No   White, Non-Hispanic    1463
## 6      Yes 2+ Races, Non-Hispanic     18
## 7      Yes   Black, Non-Hispanic      36
## 8      Yes              Hispanic      32
## 9      Yes   Other, Non-Hispanic     13
## 10     Yes   White, Non-Hispanic     95
## 11     NA   Black, Non-Hispanic        1
## 12     NA              Hispanic         4
## 13     NA   White, Non-Hispanic     10
```

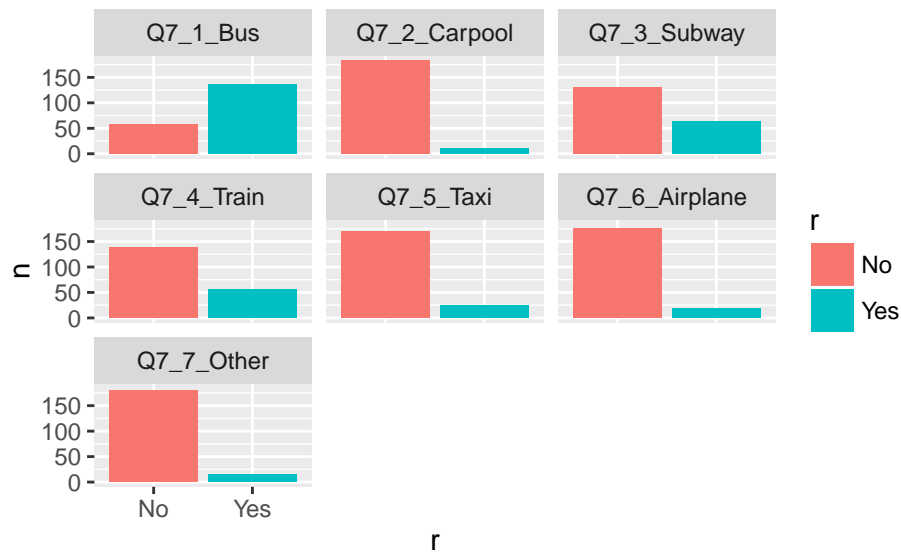


```
## Source: local data frame [50 x 3]
## Groups: Q6 [?]
##
##      Q6      PPINCIMP      n
## (fctr)      (fctr) (int)
## 1      No $10,000 to $12,499  47
## 2      No $100,000 to $124,999 305
## 3      No $12,500 to $14,999  42
## 4      No $125,000 to $149,999 123
## 5      No $15,000 to $19,999  58
## 6      No $150,000 to $174,999 74
## 7      No $175,000 or more  108
## 8      No $20,000 to $24,999  64
## 9      No $25,000 to $29,999  90
## 10     No $30,000 to $34,999  85
## ..     ...           ...   ...
```



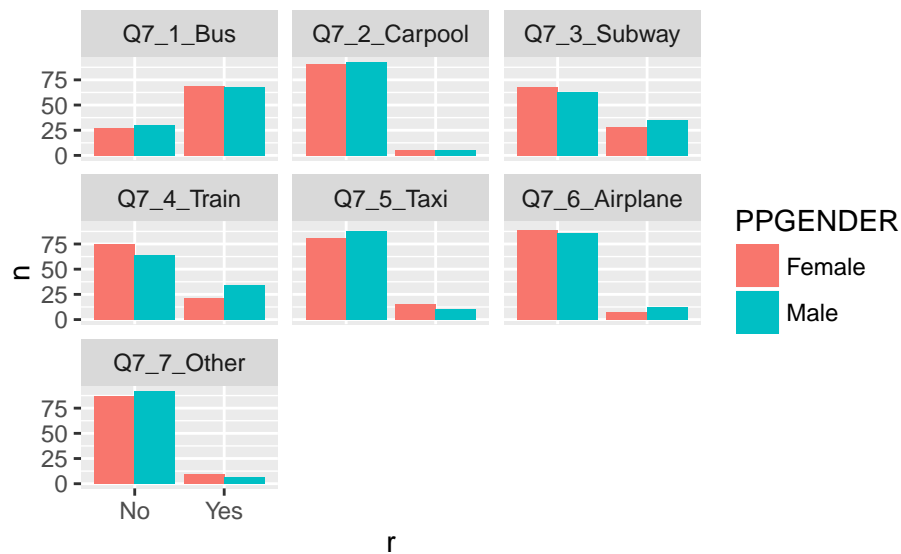
Q7. What types of public transportation do you regularly use?

##	q	r	
##	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

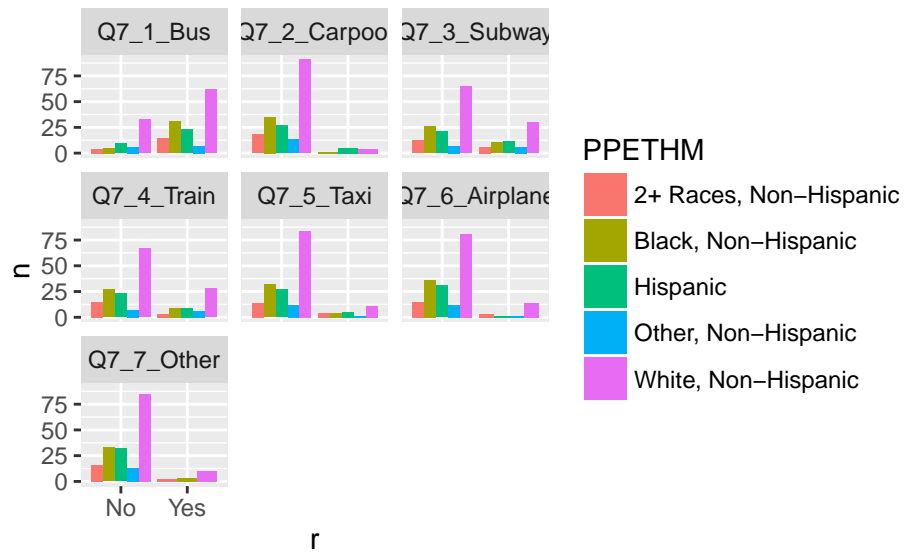


```
## Source: local data frame [42 x 4]
## Groups: PPGENDER, q [?]
##
```

```
##      PPGENDER      q      r      n
##      (fctr)      (chr) (chr) (int)
## 1   Female      Q7_1_Bus   No    27
## 2   Female      Q7_1_Bus   Yes   69
## 3   Female      Q7_1_Bus   NA  1001
## 4   Female Q7_2_Carpool   No    91
## 5   Female Q7_2_Carpool   Yes    5
## 6   Female Q7_2_Carpool   NA  1001
## 7   Female Q7_3_Subway   No    68
## 8   Female Q7_3_Subway   Yes    28
## 9   Female Q7_3_Subway   NA  1001
## 10  Female Q7_4_Train    No    75
## ..      ...      ...      ...
```



```
## Source: local data frame [100 x 4]
## Groups: PPETHM, q [?]
##
##      PPETHM      q      r      n
##      (fctr)      (chr) (chr) (int)
## 1  2+ Races, Non-Hispanic Q7_1_Bus   No    4
## 2  2+ Races, Non-Hispanic Q7_1_Bus   Yes   14
## 3  2+ Races, Non-Hispanic Q7_1_Bus   NA    62
## 4  2+ Races, Non-Hispanic Q7_2_Carpool   No   18
## 5  2+ Races, Non-Hispanic Q7_2_Carpool   NA   62
## 6  2+ Races, Non-Hispanic Q7_3_Subway   No   12
## 7  2+ Races, Non-Hispanic Q7_3_Subway   Yes    6
## 8  2+ Races, Non-Hispanic Q7_3_Subway   NA   62
## 9  2+ Races, Non-Hispanic Q7_4_Train    No   15
## 10 2+ Races, Non-Hispanic Q7_4_Train    Yes    3
## ..      ...      ...      ...
```



```
## Source: local data frame [357 x 4]
## Groups: PPINCIMP, q [?]
##
##           PPINCIMP           q      r      n
##           (fctr)      (chr) (chr) (int)
## 1  $10,000 to $12,499   Q7_1_Bus   No      3
## 2  $10,000 to $12,499   Q7_1_Bus   Yes      6
## 3  $10,000 to $12,499   Q7_1_Bus   NA     47
## 4  $10,000 to $12,499  Q7_2_Carpool   No      9
## 5  $10,000 to $12,499  Q7_2_Carpool   NA     47
## 6  $10,000 to $12,499  Q7_3_Subway   No      9
## 7  $10,000 to $12,499  Q7_3_Subway   NA     47
## 8  $10,000 to $12,499  Q7_4_Train   No      8
## 9  $10,000 to $12,499  Q7_4_Train   Yes      1
## 10 $10,000 to $12,499  Q7_4_Train   NA     47
## ..           ...           ...     ...     ...
```



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

```
Q8 <- data2 %>%
  select(PPGENDER, PPAGE, PPEDUC, PPETHM, PPINCIMP, PPWORK, Q8_1_Work:Q8_otherText) %>%
  gather("q", "r", Q8_1_Work:Q8_6_Other)
```

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

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

```
Q10 <- data2 %>% select(PPGENDER, PPAGE, PPEDUC, PPETHM, PPINCIMP, PPWORK, Q:Q) %>%
gather("q", "r", Q:Q)
```

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

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

# all
with(Q11, table(q, r))
```

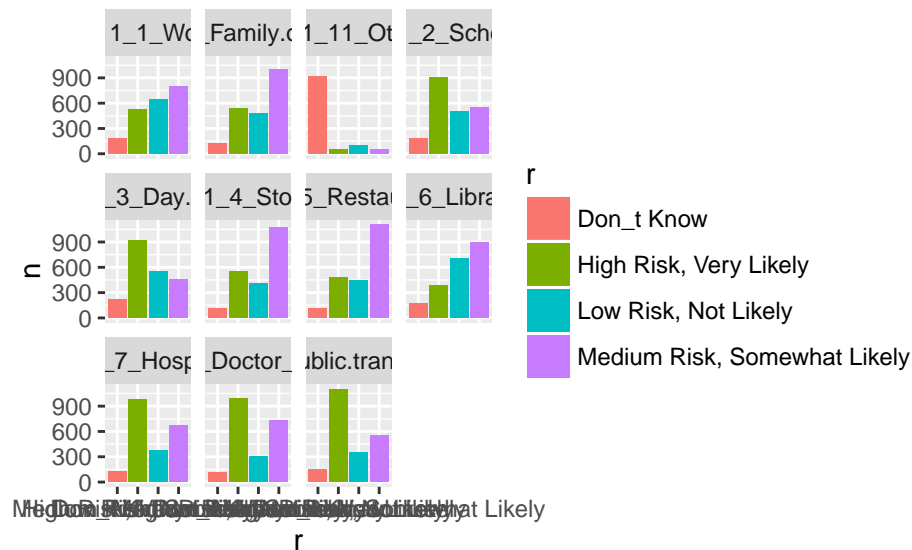
```
##
## q
## Q11_1_Work
## Q11_10_Family.or.friends
## Q11_11_Other
## Q11_2_Schools
## Q11_3_Day.care
## Q11_4_Stores
## Q11_5_Restaurants
## Q11_6_Libraries
## Q11_7_Hospitals
## Q11_8_Doctor.s.office
## Q11_9_Public.transportation
##
## r
## q
## Q11_1_Work
## Q11_10_Family.or.friends
## Q11_11_Other
## Q11_2_Schools
## Q11_3_Day.care
## Q11_4_Stores
## Q11_5_Restaurants
## Q11_6_Libraries
## Q11_7_Hospitals
## Q11_8_Doctor.s.office
## Q11_9_Public.transportation
##
## r
```

	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

	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

```
## 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
```

```
q11 <- Q11 %>%
  group_by(q, r) %>%
  count(q, r)
ggplot(q11[!is.na(q11$r), ], aes(x = r, y = n, fill = r)) +
  geom_bar(stat = 'identity', position = position_dodge()) + facet_wrap(~q)
```



```
# by gender
# with(Q7, table(PPGENDER, r, q))
(q11 <- Q11 %>%
  group_by(PPGENDER, q, r) %>%
  count(PPGENDER, q, r)
)
```

```
## Source: local data frame [110 x 4]
## Groups: PPGENDER, q [?]
```

	PPGENDER	q	r	n
	(fctr)	(chr)	(chr)	(int)
## 1	Female	Q11_1_Work	Don't Know	89
## 2	Female	Q11_1_Work	High Risk, Very Likely	309
## 3	Female	Q11_1_Work	Low Risk, Not Likely	310
## 4	Female	Q11_1_Work	Medium Risk, Somewhat Likely	381

```
## 5      Female      Q11_1_Work      NA      8
## 6      Female Q11_10_Family.or.friends      Don't Know      53
## 7      Female Q11_10_Family.or.friends      High Risk, Very Likely      302
## 8      Female Q11_10_Family.or.friends      Low Risk, Not Likely      229
## 9      Female Q11_10_Family.or.friends      Medium Risk, Somewhat Likely      506
## 10     Female Q11_10_Family.or.friends      NA      7
## ..      ...      ...      ...      ...
```

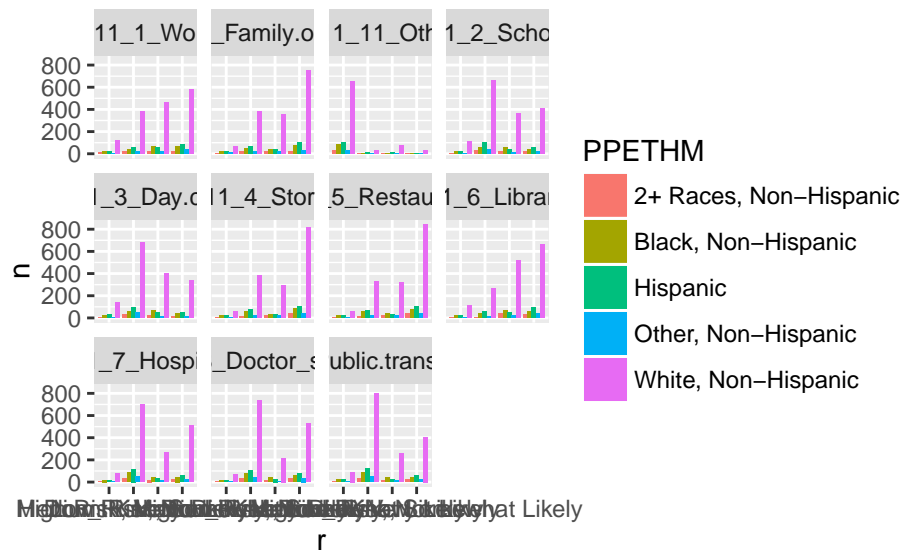
```
ggplot(q11[!is.na(q11$r), ], aes(x = r, y = n, fill = PPGENDER)) +
  geom_bar(stat = 'identity', position = position_dodge()) + facet_wrap(~q)
```



```
# by ethnicity
# with(Q7, table(PPETHM, r, q))
(q11 <- Q11 %>%
  group_by(PPETHM, q, r) %>%
  count(PPETHM, q, r)
)
```

```
## Source: local data frame [275 x 4]
## Groups: PPETHM, q [?]
##
##           PPETHM              q
##           (fctr)             (chr)
## 1  2+ Races, Non-Hispanic      Q11_1_Work
## 2  2+ Races, Non-Hispanic      Q11_1_Work
## 3  2+ Races, Non-Hispanic      Q11_1_Work
## 4  2+ Races, Non-Hispanic      Q11_1_Work
## 5  2+ Races, Non-Hispanic      Q11_1_Work
## 6  2+ Races, Non-Hispanic Q11_10_Family.or.friends
## 7  2+ Races, Non-Hispanic Q11_10_Family.or.friends
## 8  2+ Races, Non-Hispanic Q11_10_Family.or.friends
## 9  2+ Races, Non-Hispanic Q11_10_Family.or.friends
## 10 2+ Races, Non-Hispanic Q11_10_Family.or.friends
## ..      ...      ...
## Variables not shown: r (chr), n (int)
```

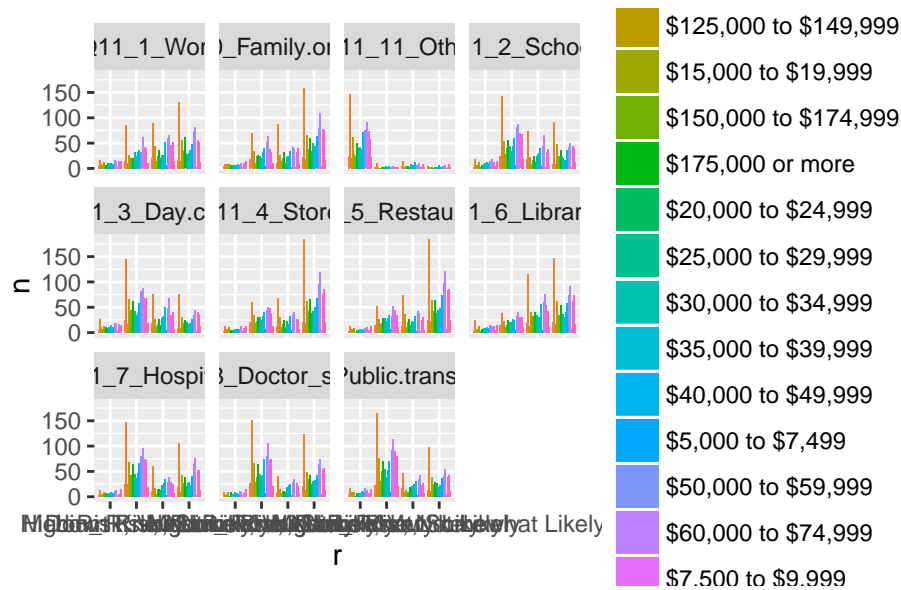
```
ggplot(q11[!is.na(q11$r), ], aes(x = r, y = n, fill = PPETHM)) +
  geom_bar(stat = 'identity', position = position_dodge()) + facet_wrap(~q)
```



```
# by income
# with(Q7, table(q, r, PPINCIMP))
(q11 <- Q11 %>%
  group_by(PPINCIMP, q, r) %>%
  count(PPINCIMP, q, r)
)
```

```
## Source: local data frame [985 x 4]
## Groups: PPINCIMP, q [?]
##
##           PPINCIMP                q
##           (fctr)              (chr)
## 1  $10,000 to $12,499      Q11_1_Work
## 2  $10,000 to $12,499      Q11_1_Work
## 3  $10,000 to $12,499      Q11_1_Work
## 4  $10,000 to $12,499      Q11_1_Work
## 5  $10,000 to $12,499      Q11_1_Work
## 6  $10,000 to $12,499 Q11_10_Family.or.friends
## 7  $10,000 to $12,499 Q11_10_Family.or.friends
## 8  $10,000 to $12,499 Q11_10_Family.or.friends
## 9  $10,000 to $12,499 Q11_10_Family.or.friends
## 10 $10,000 to $12,499 Q11_10_Family.or.friends
## ..          ...                ...
## Variables not shown: r (chr), n (int)
```

```
ggplot(q11[!is.na(q11$r), ], aes(x = r, y = n, fill = PPINCIMP)) +
  geom_bar(stat = 'identity', position = position_dodge()) + facet_wrap(~q)
```

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", Q12_1_Avoid.touching.my.eyes:Q12_15_Other)
```

Q13. Do you get the flu vaccine?

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

```
with(data, summary(Q14))
```

```
##           $0          $30 to $60    Don_t know Less than $30 More than $60
##           970             54         80             222             4
##           NA's
##           838
```

```
# by gender
with(data, 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?

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

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

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

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

Q19. Do you have health insurance?

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

Q21. Are influenza vaccines covered by your health insurance?

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

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

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, Q:Q) %>%  
gather("q", "r", Q:Q)
```

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

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

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, Q:Q) %>%  
gather("q", "r", Q:Q)
```

Q26. Does your household have children?

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

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

Q28. Are you a single parent?

Q29. How do you care for a sick child?

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

Q30. How do you care for a sick child?

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

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(data, 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
```

```
# by gender
```

```
with(data, 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

```
with(data, 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
```

```
# by gender
```

```
with(data, by(Q32, 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?

```
with(data, 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
```

```
# by ethnicity
```

```
with(data, 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.

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?

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

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

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

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

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

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

HHM2

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

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?

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

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

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

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

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

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