

Flu Survey Data

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```
## Source: local data frame [3 x 2]
##
##      Q1 count
##    (fctr) (int)
## 1      No   488
## 2 Refused   16
## 3      Yes 1664
```

Working analysis

```
# Q1 and Q13: knowing influenza is different from stomach flu; vs. getting the flu vaccine
with(data, table(Q1, Q13))
```

```
##      Q13
## Q1      No, never Refused Yes, every year Yes, some years
##  No           260      4           143           81
##  Refused         2     10           4           0
##  Yes           557      4           761          342
```

```
summary(with(data, table(Q1, Q13)))
```

```
## Number of cases in table: 2168
## Number of factors: 2
## Test for independence of all factors:
##  Chisq = 813.4, df = 6, p-value = 1.981e-172
##  Chi-squared approximation may be incorrect
```

```
# Q1 and Q2: knowing flu and getting flu
with(data, table(Q1, Q2))
```

```
##           Q2
## Q1          No Refused  Yes
##  No          399      3   86
##  Refused      5     11    0
##  Yes        1331      5  328
```

```
summary(with(data, table(Q1, Q2)))
```

```
## Number of cases in table: 2168
## Number of factors: 2
## Test for independence of all factors:
##  Chisq = 856.6, df = 4, p-value = 4.169e-184
##  Chi-squared approximation may be incorrect
```

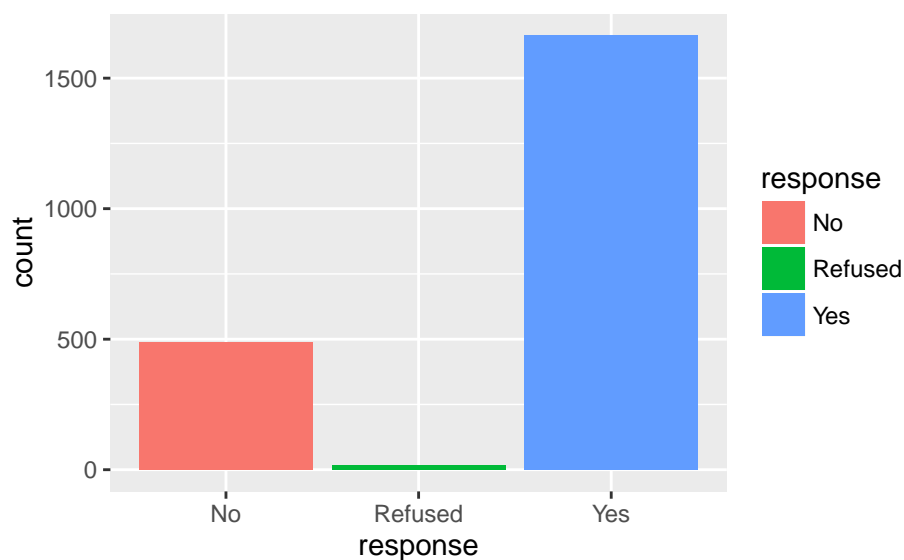
Survey questions

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

```
summary(q1.df)
```

```
##           Q1
##  No          : 488
##  Refused:    16
##  Yes         :1664
```

```
ggplot(q1) + geom_bar(aes(x=response, fill=response))
```



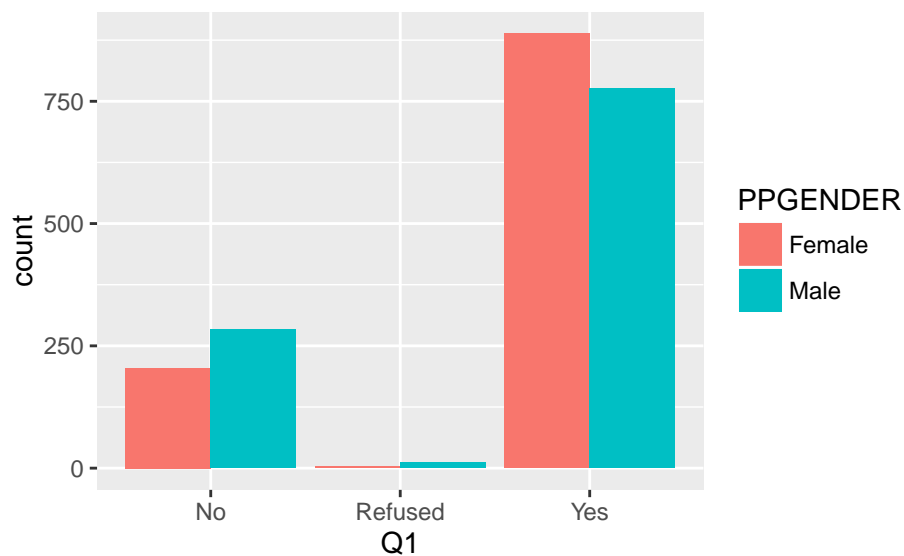
```
# alternatively, summary(q1.df)
data %>%
  group_by(Q1) %>%
  summarise(count = n())
```

```
## Source: local data frame [3 x 2]
##
##      Q1 count
## (fctr) (int)
## 1      No   488
## 2 Refused    16
## 3      Yes 1664
```

```
# by gender
q1.gen = data %>%
  group_by(Q1, PPGENDER)
q1.gen %>%
  summarise(count = n())
```

```
## Source: local data frame [6 x 3]
## Groups: Q1 [?]
##
##      Q1 PPGENDER count
## (fctr) (fctr) (int)
## 1      No   Female   205
## 2      No    Male   283
## 3 Refused Female     4
## 4 Refused  Male    12
## 5      Yes   Female  888
## 6      Yes    Male  776
```

```
ggplot(q1.gen) + geom_bar(aes(x = Q1, fill = PPGENDER), position = "dodge")
```

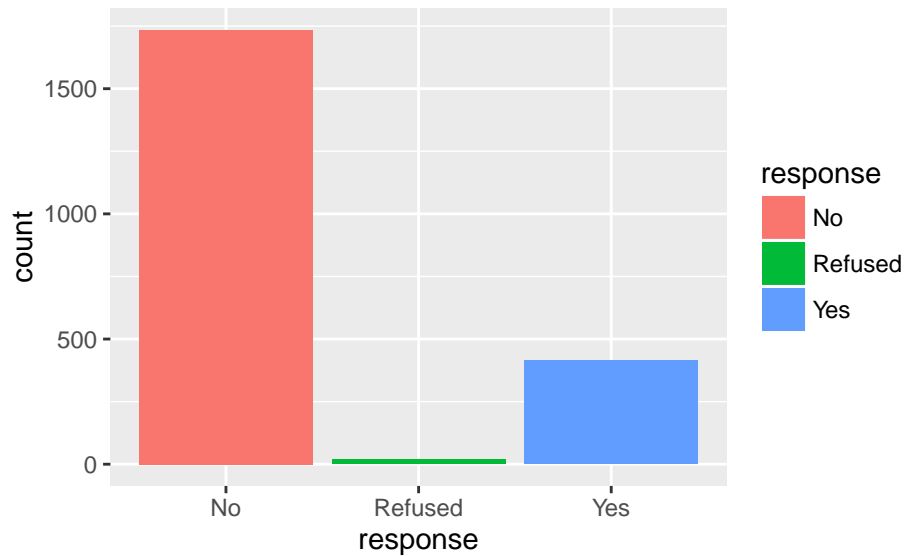


Q2. Have you had an illness with influenza like symptoms since August 2015?

```
summary(q2.df)
```

```
##      Q2
## No      :1735
## Refused:  19
## Yes      : 414
```

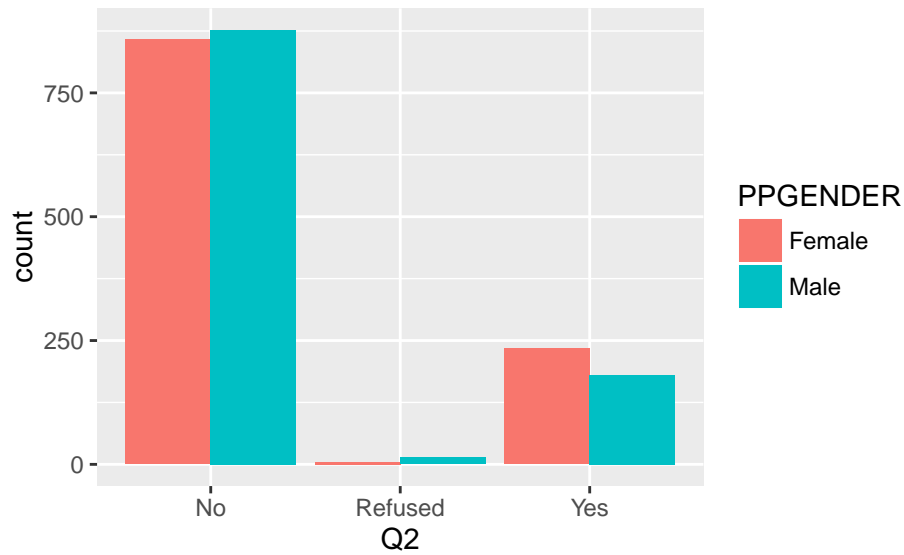
```
ggplot(q2) + geom_bar(aes(x=response, fill=response))
```



```
# by gender
q2.gen = data %>%
  group_by(Q2, PPGENDER)
q2.gen %>%
  summarise(count = n())
```

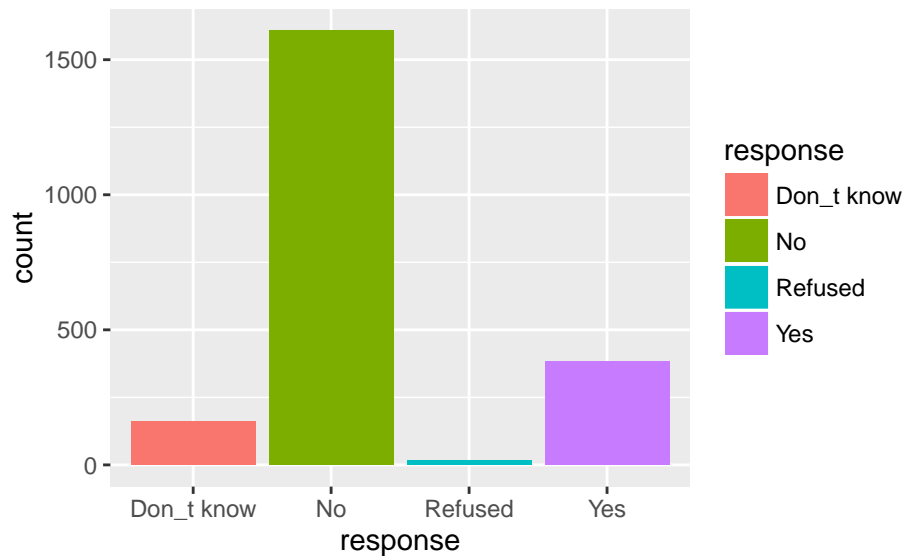
```
## Source: local data frame [6 x 3]
## Groups: Q2 [?]
##
##      Q2 PPGENDER count
## (fctr) (fctr) (int)
## 1     No   Female  858
## 2     No   Male   877
## 3 Refused Female    5
## 4 Refused Male    14
## 5     Yes Female  234
## 6     Yes Male   180
```

```
ggplot(q2.gen) + geom_bar(aes(x = Q2, fill = PPGENDER), position = "dodge")
```



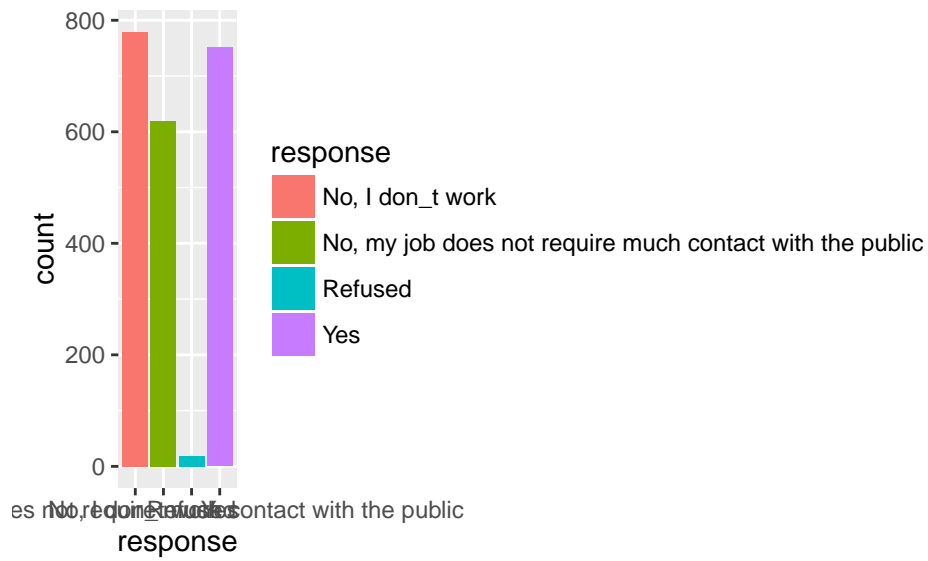
Q3. Has any other person in your household had an illness with influenza like symptoms since August 2015?

```
##          Q3
## Don_t know: 161
## No       :1608
## Refused  :  16
## Yes      : 383
```



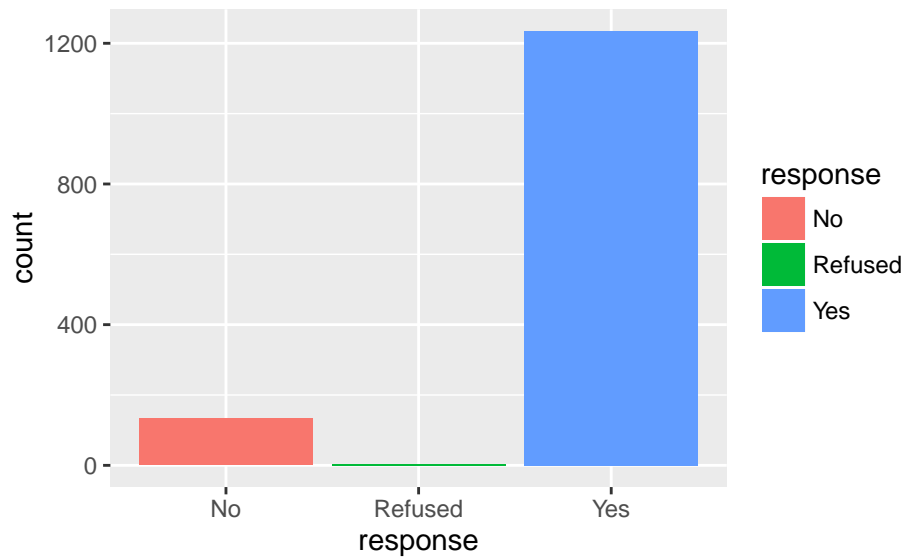
Q4. Does your job require you to have a lot of contact with the public?

```
##          Q4
## No, I don_t work      :779
## No, my job does not require much contact with the public:620
## Refused              :  18
## Yes                  :751
```



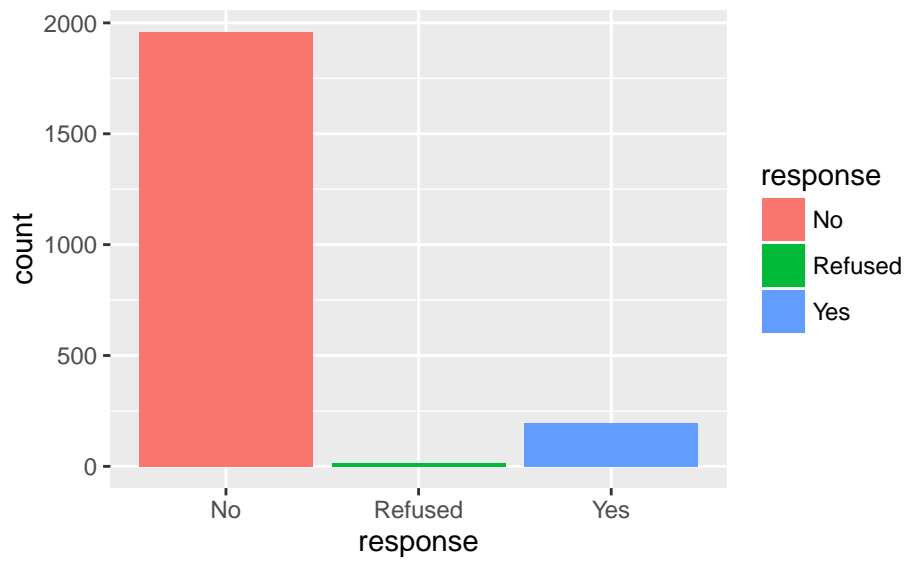
Q5. Do you have a car that you can use to travel to work?

```
##      Q5
## No      : 133
## Refused:   3
## Yes     :1235
## NA's    : 797
```

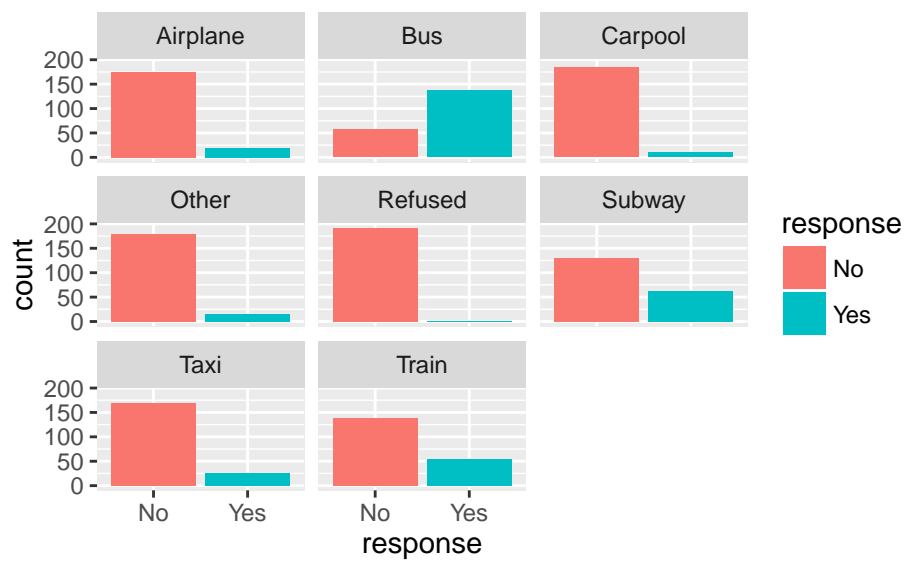


Q6. Do you regularly use public transportation?

```
##      Q6
## No      :1959
## Refused:  15
## Yes     : 194
```



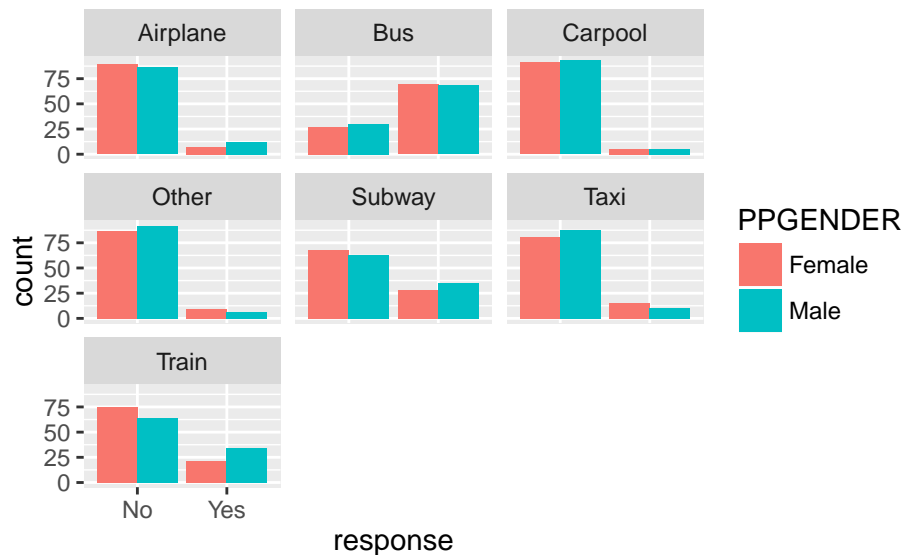
Q7. What types of public transportation do you regularly use?



```
##      Bus      Carpool      Subway      Train      Taxi      Airplane
## No   : 57    No   : 184    No   : 131    No   : 139    No   : 169    No   : 175
## Yes  : 137   Yes   : 10     Yes   : 63     Yes   : 55     Yes   : 25     Yes   : 19
## NA's:1974   NA's:1974   NA's:1974   NA's:1974   NA's:1974   NA's:1974
##
##
##
##
##      Other      Refused      Other text
## No   : 179    No   : 192    bike,walk: 1
## Yes  : 15     Yes   : 2     car      : 1
## NA's:1974   NA's:1974   ferry     : 1
##                                     Ferry    : 1
##                                     Horse    : 1
```

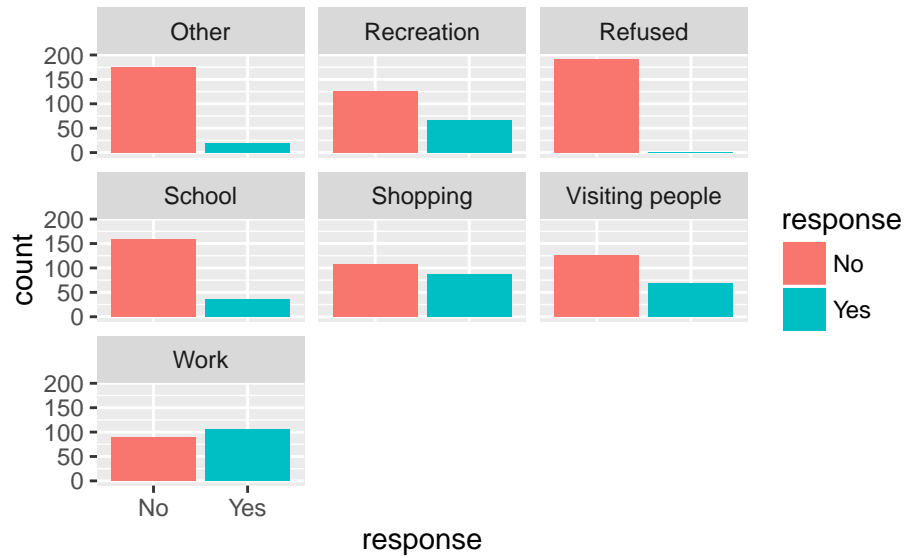
```
##                (Other) : 10
##                NA's    :2153

## Source: local data frame [15,176 x 5]
## Groups: PPGENDER, option, response [42]
##
##   PPGENDER Refused Other text option response
##   (fctr)   (fctr)   (fctr) (chr)   (chr)
## 1   Female      No      NA    Bus     Yes
## 2   Male       NA      NA    Bus     NA
## 3   Female      NA      NA    Bus     NA
## 4   Male      No      NA    Bus     Yes
## 5   Male      NA      NA    Bus     NA
## 6   Male      NA      NA    Bus     NA
## 7   Female      NA      NA    Bus     NA
## 8   Male      NA      NA    Bus     NA
## 9   Female      NA      NA    Bus     NA
## 10  Male      NA      NA    Bus     NA
## ..      ...      ...      ...      ...      ...
```



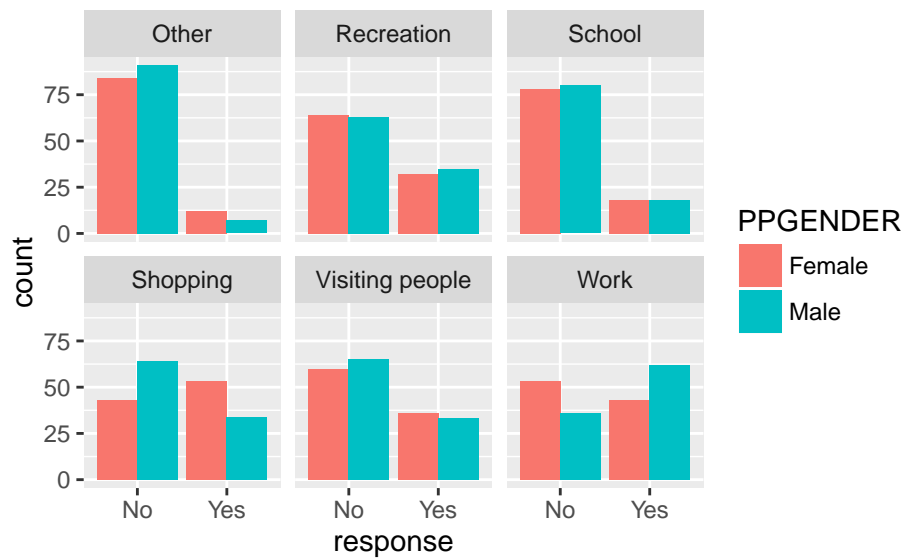
```
## Source: local data frame [42 x 4]
## Groups: PPGENDER, option [?]
##
##   PPGENDER option response count
##   (fctr)   (chr)   (chr) (int)
## 1   Female Airplane      No    89
## 2   Female Airplane      Yes     7
## 3   Female Airplane      NA  1001
## 4   Female   Bus        No    27
## 5   Female   Bus        Yes    69
## 6   Female   Bus        NA  1001
## 7   Female Carpool      No    91
## 8   Female Carpool      Yes     5
## 9   Female Carpool      NA  1001
## 10  Female  Other       No    87
## ..      ...      ...      ...      ...
```


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



```
##      Work      School      Shopping      Visiting people      Recreation
## No   : 89    No   : 158    No   : 107    No   : 125        No   : 127
## Yes  : 105   Yes  : 36     Yes  : 87     Yes  : 69        Yes  : 67
## NA's:1974   NA's:1974   NA's:1974   NA's:1974        NA's:1974
##
##
##
##
##      Other      Refused      Other text
## No   : 175    No   : 192    church, adult ed   : 1
## Yes  : 19     Yes  : 2      doc. app.         : 1
## NA's:1974   NA's:1974   Doctor            : 1
##                                     doctor visits      : 1
##                                     Doctor's appointments: 1
##                                     (Other)             : 14
##                                     NA's                 :2149
```

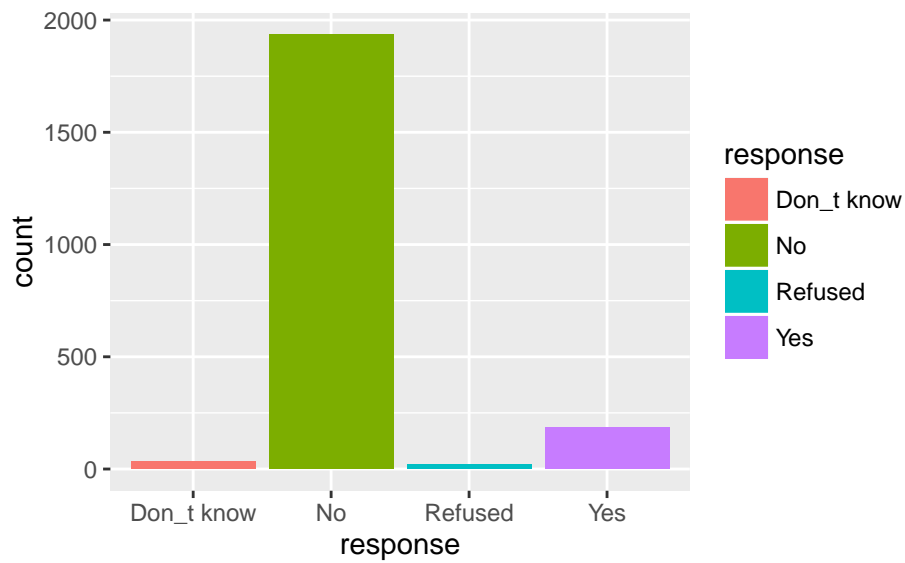
```
## Source: local data frame [13,008 x 5]
## Groups: PPGENDER, option, response [36]
##
##      PPGENDER Refused Other text option response
##      (fctr)   (fctr)   (fctr)   (chr)      (chr)
## 1    Female    No      NA        Work       No
## 2    Male      NA      NA        Work       NA
## 3    Female    NA      NA        Work       NA
## 4    Male      No      NA        Work       Yes
## 5    Male      NA      NA        Work       NA
## 6    Male      NA      NA        Work       NA
## 7    Female    NA      NA        Work       NA
## 8    Male      NA      NA        Work       NA
## 9    Female    NA      NA        Work       NA
## 10   Male      NA      NA        Work       NA
## ..      ...      ...      ...      ...      ...
```



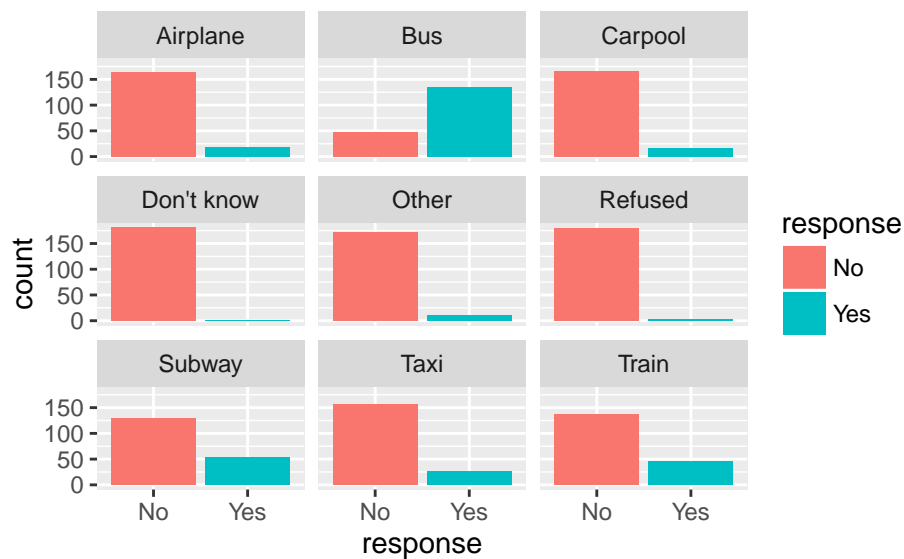
```
## Source: local data frame [36 x 4]
## Groups: PPGENDER, option [?]
##
##   PPGENDER    option response count
##   (fctr)      (chr)    (chr) (int)
## 1   Female    Other     No     84
## 2   Female    Other     Yes    12
## 3   Female    Other     NA   1001
## 4   Female Recreation No     64
## 5   Female Recreation Yes    32
## 6   Female Recreation NA   1001
## 7   Female    School    No     78
## 8   Female    School    Yes    18
## 9   Female    School    NA   1001
## 10  Female Shopping No     43
## ..      ...      ...      ...   ...
```

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

```
##           Q9
## Don't know:  32
## No          :1935
## Refused     :  18
## Yes         : 183
```



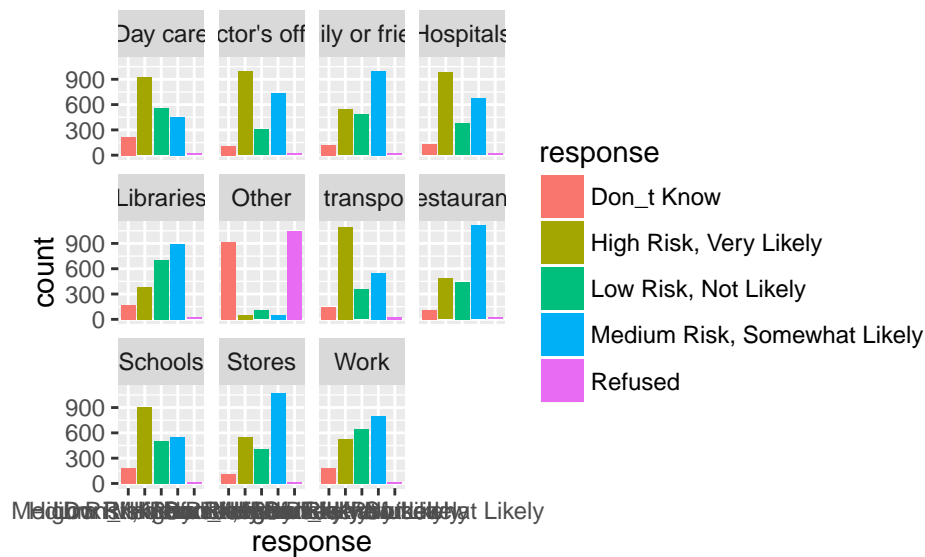
Q10. What types of public transportation do other members of your household regularly use?



```
##      Bus      Carpool      Subway      Train      Taxi      Airplane
## No   : 48    No   : 166    No   : 130    No   : 137    No   : 157    No   : 164
## Yes  : 135   Yes   : 17     Yes   : 53     Yes   : 46     Yes   : 26     Yes   : 19
## NA's:1985   NA's:1985   NA's:1985   NA's:1985   NA's:1985   NA's:1985
##
##
##
##
## Don't know  Other      Refused      Other text
## No   : 182  No   : 172    No   : 180    None   : 2
## Yes  : 1    Yes   : 11     Yes   : 3     car    : 1
## NA's:1985  NA's:1985   NA's:1985   ferry   : 1
##                                     Ferry   : 1
##                                     Horse   : 1
```

```
## (Other): 5
## NA's :2157
```

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



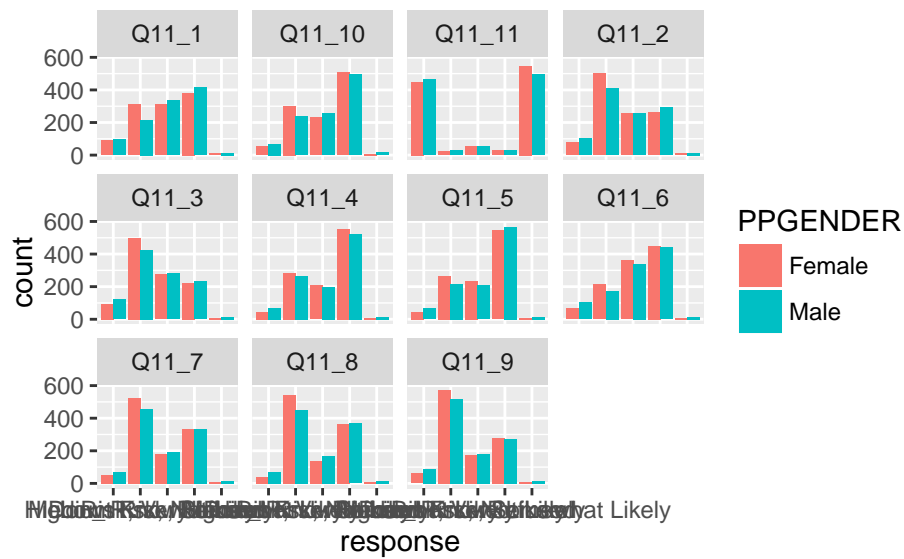
```
## Work Schools
## Don't Know :185 Don't Know :178
## High Risk, Very Likely :524 High Risk, Very Likely :909
## Low Risk, Not Likely :643 Low Risk, Not Likely :508
## Medium Risk, Somewhat Likely:795 Medium Risk, Somewhat Likely:551
## Refused : 21 Refused : 22
##
##
## Day care Stores
## Don't Know :214 Don't Know : 115
## High Risk, Very Likely :924 High Risk, Very Likely : 551
## Low Risk, Not Likely :554 Low Risk, Not Likely : 405
## Medium Risk, Somewhat Likely:454 Medium Risk, Somewhat Likely:1076
## Refused : 22 Refused : 21
##
##
## Restaurants Libraries
## Don't Know : 111 Don't Know :169
## High Risk, Very Likely : 483 High Risk, Very Likely :386
## Low Risk, Not Likely : 442 Low Risk, Not Likely :700
## Medium Risk, Somewhat Likely:1111 Medium Risk, Somewhat Likely:890
## Refused : 21 Refused : 23
##
##
## Hospitals Doctor's office
## Don't Know :123 Don't Know :110
## High Risk, Very Likely :982 High Risk, Very Likely :994
## Low Risk, Not Likely :374 Low Risk, Not Likely :308
## Medium Risk, Somewhat Likely:669 Medium Risk, Somewhat Likely:733
```

```

## Refused : 20 Refused : 23
##
##
## Public transportation
## Don_t Know : 147
## High Risk, Very Likely :1093
## Low Risk, Not Likely : 353
## Medium Risk, Somewhat Likely: 551
## Refused : 24
##
##
## Family or friends Other
## Don_t Know : 121 Don_t Know : 915
## High Risk, Very Likely : 541 High Risk, Very Likely : 51
## Low Risk, Not Likely : 485 Low Risk, Not Likely : 104
## Medium Risk, Somewhat Likely:1000 Medium Risk, Somewhat Likely: 54
## Refused : 21 Refused :1044
##
##
## Other text
## church : 13
## Church : 13
## none : 8
## gym : 7
## n/a : 4
## (Other): 126
## NA's :1997

## Source: local data frame [23,848 x 3]
## Groups: PPGENDER, option, response [110]
##
## PPGENDER option response
## (fctr) (chr) (chr)
## 1 Female Q11_1 High Risk, Very Likely
## 2 Male Q11_1 Refused
## 3 Female Q11_1 Medium Risk, Somewhat Likely
## 4 Male Q11_1 High Risk, Very Likely
## 5 Male Q11_1 High Risk, Very Likely
## 6 Male Q11_1 Medium Risk, Somewhat Likely
## 7 Female Q11_1 Low Risk, Not Likely
## 8 Male Q11_1 Low Risk, Not Likely
## 9 Female Q11_1 Low Risk, Not Likely
## 10 Male Q11_1 Low Risk, Not Likely
## .. ... ...

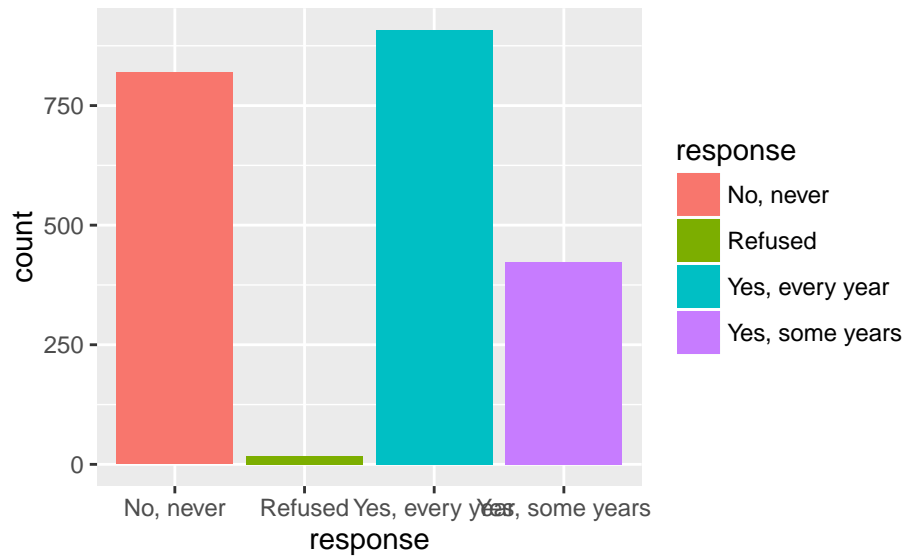
```



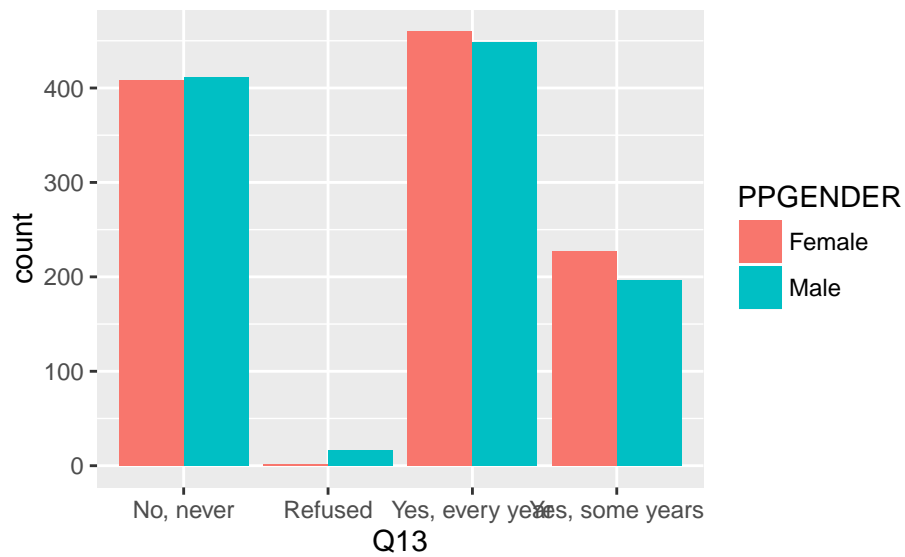
```
## Source: local data frame [110 x 4]
## Groups: PPGENDER, option [?]
##
##   PPGENDER option                response count
##   (fctr)  (chr)                  (chr) (int)
## 1   Female Q11_1                Don't Know    89
## 2   Female Q11_1                High Risk, Very Likely 309
## 3   Female Q11_1                Low Risk, Not Likely 310
## 4   Female Q11_1                Medium Risk, Somewhat Likely 381
## 5   Female Q11_1                Refused      8
## 6   Female Q11_10              Don't Know    53
## 7   Female Q11_10              High Risk, Very Likely 302
## 8   Female Q11_10              Low Risk, Not Likely 229
## 9   Female Q11_10              Medium Risk, Somewhat Likely 506
## 10  Female Q11_10              Refused      7
## ..      ...      ...                ...    ...
```

Q13. Do you get the flu vaccine?

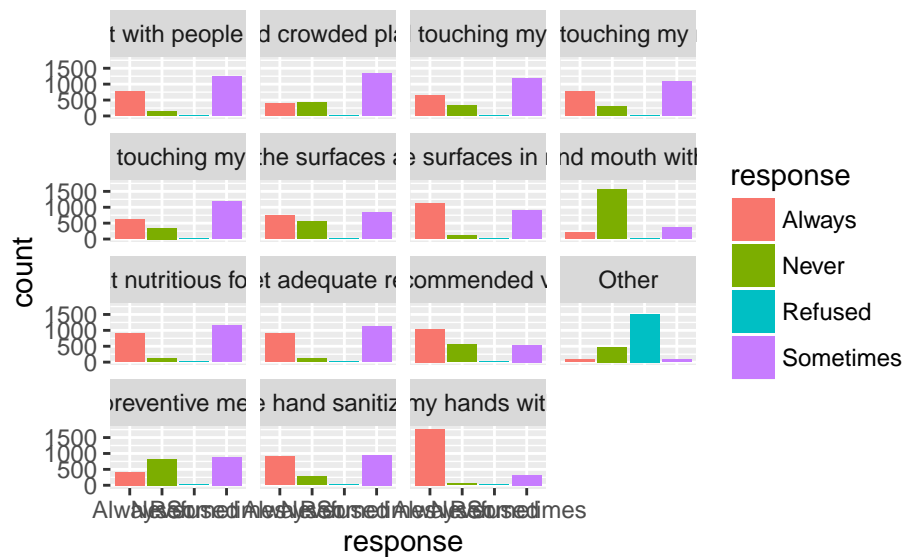
```
##           Q13
## No, never      :819
## Refused        : 18
## Yes, every year:908
## Yes, some years:423
```



```
## Source: local data frame [8 x 3]
## Groups: Q13 [?]
##
##      Q13 PPGENDER count
##      (fctr) (fctr) (int)
## 1    No, never Female   408
## 2    No, never  Male   411
## 3    Refused   Female    2
## 4    Refused   Male    16
## 5 Yes, every year Female  460
## 6 Yes, every year  Male  448
## 7 Yes, some years Female  227
## 8 Yes, some years  Male  196
```



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



```
## Avoid touching my eyes Avoid touching my nose Avoid touching my mouth
## Always : 653 Always : 613 Always : 758
## Never : 324 Never : 349 Never : 300
## Refused : 23 Refused : 23 Refused : 25
## Sometimes:1168 Sometimes:1183 Sometimes:1085
##
##
##
## Wash my hands with soap Use hand sanitizers Clean the surfaces in my home
## Always :1774 Always :911 Always :1132
## Never : 52 Never :278 Never : 115
## Refused : 25 Refused : 22 Refused : 22
## Sometimes: 317 Sometimes:957 Sometimes: 899
##
##
##
## Clean the surfaces at work Eat nutritious food Get adequate rest
## Always :752 Always : 895 Always : 899
## Never :544 Never : 107 Never : 114
## Refused : 30 Refused : 22 Refused : 25
## Sometimes:842 Sometimes:1144 Sometimes:1130
##
##
##
## Get recommended vaccine Take preventive medicine
## Always :1041 Always :425
## Never : 564 Never :831
## Refused : 23 Refused : 22
## Sometimes: 540 Sometimes:890
##
##
##
## Cover my nose and mouth with a surgical mask
## Always : 218
## Never :1568
## Refused : 24
```

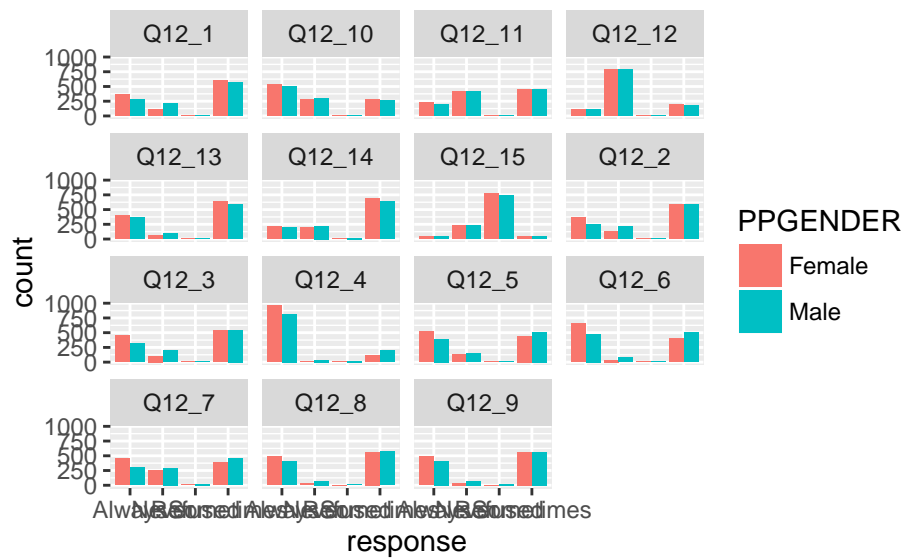


```

## Sometimes: 358
##
##
##
## Avoid contact with people who are sick Avoid crowded places
## Always : 765 Always : 406
## Never : 153 Never : 413
## Refused : 22 Refused : 27
## Sometimes:1228 Sometimes:1322
##
##
##
## Other Other text
## Always : 91 none : 7
## Never : 472 stay home : 4
## Refused :1518 avoid sick people: 3
## Sometimes: 87 N/A : 3
## nothing : 3
## (Other) : 126
## NA's :2022

## Source: local data frame [32,520 x 3]
## Groups: PPGENDER, option, response [120]
##
## PPGENDER option response
## (fctr) (chr) (chr)
## 1 Female Q12_1 Sometimes
## 2 Male Q12_1 Refused
## 3 Female Q12_1 Always
## 4 Male Q12_1 Sometimes
## 5 Male Q12_1 Sometimes
## 6 Male Q12_1 Sometimes
## 7 Female Q12_1 Sometimes
## 8 Male Q12_1 Never
## 9 Female Q12_1 Always
## 10 Male Q12_1 Sometimes
## .. ... ...

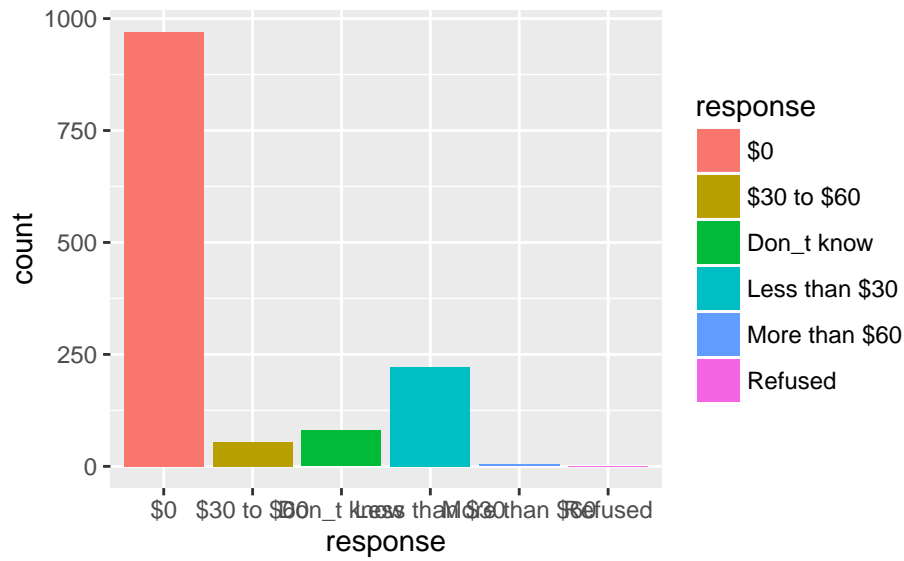
```



```
## Source: local data frame [120 x 4]
## Groups: PPGENDER, option [?]
##
##   PPGENDER option response count
##   (fctr)   (chr)   (chr)  (int)
## 1  Female Q12_1    Always    367
## 2  Female Q12_1    Never     118
## 3  Female Q12_1    Refused      9
## 4  Female Q12_1    Sometimes  603
## 5  Female Q12_10   Always    540
## 6  Female Q12_10   Never     275
## 7  Female Q12_10   Refused      9
## 8  Female Q12_10   Sometimes  273
## 9  Female Q12_11   Always    223
## 10 Female Q12_11   Never     419
## ..      ...      ...      ...
```

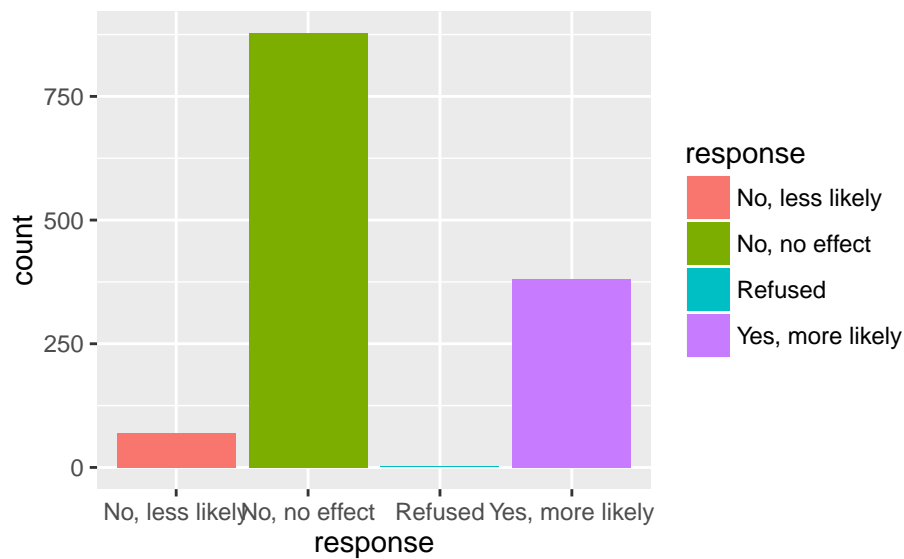
Q14. How much do you pay to get an influenza vaccine?

```
##           Q14
## $0           :970
## $30 to $60   : 54
## Don't know   : 80
## Less than $30:222
## More than $60:  4
## Refused      :  1
## NA's         :837
```



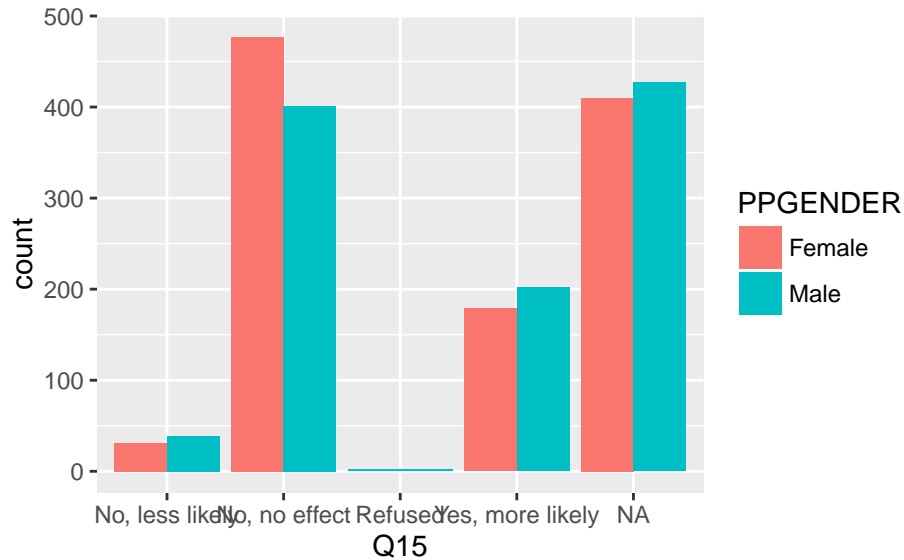
Q15. Are you more likely to get a vaccine if others around you get a vaccine?

```
##           Q15
## No, less likely : 70
## No, no effect   :878
## Refused        : 2
## Yes, more likely:381
## NA's           :837
```



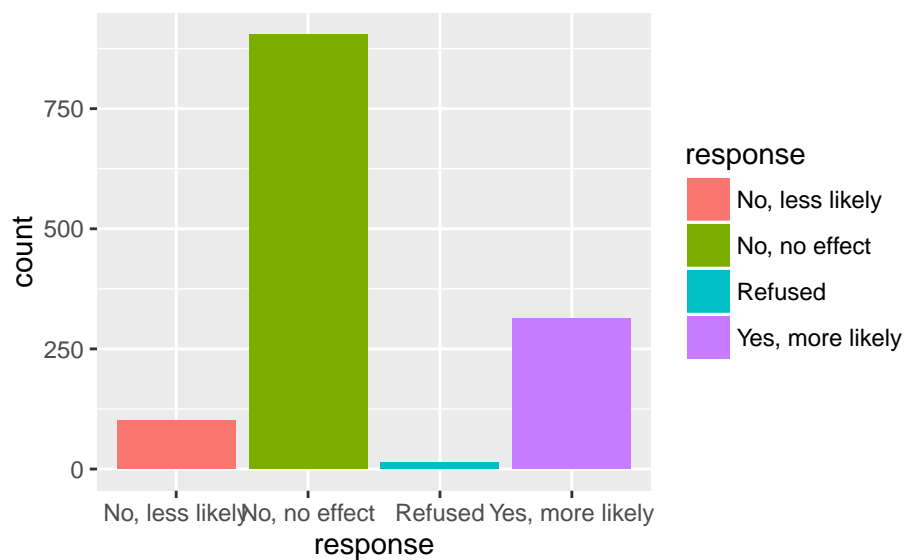
```
## Source: local data frame [9 x 3]
## Groups: Q15 [?]
##
##           Q15 PPGENDER count
##           (fctr) (fctr) (int)
## 1 No, less likely Female   31
## 2 No, less likely  Male   39
```

```
## 3    No, no effect    Female  477
## 4    No, no effect    Male   401
## 5      Refused       Male    2
## 6 Yes, more likely   Female  179
## 7 Yes, more likely   Male   202
## 8      NA            Female  410
## 9      NA            Male   427
```

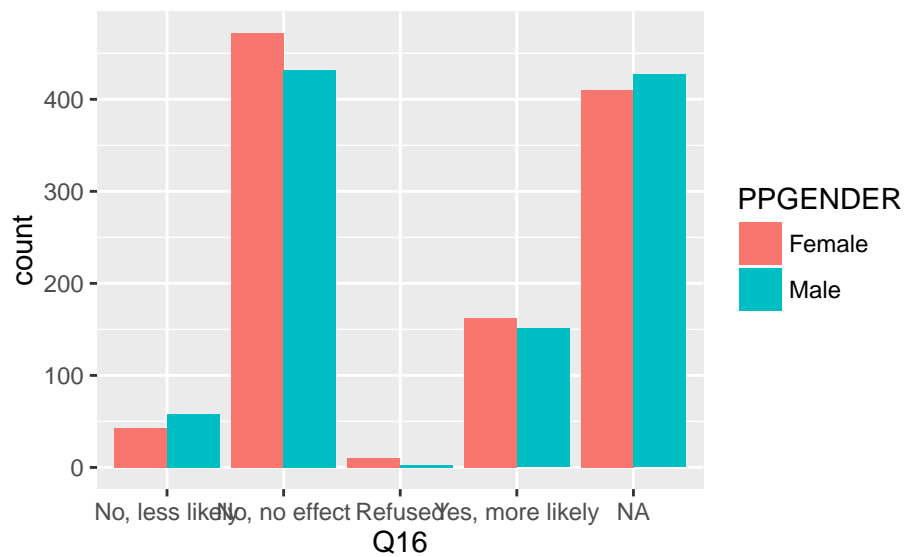


Q16. Are you more likely to get a vaccine if others around you do not get a vaccine?

```
##          Q16
## No, less likely :101
## No, no effect   :904
## Refused        : 13
## Yes, more likely:313
## NA's           :837
```

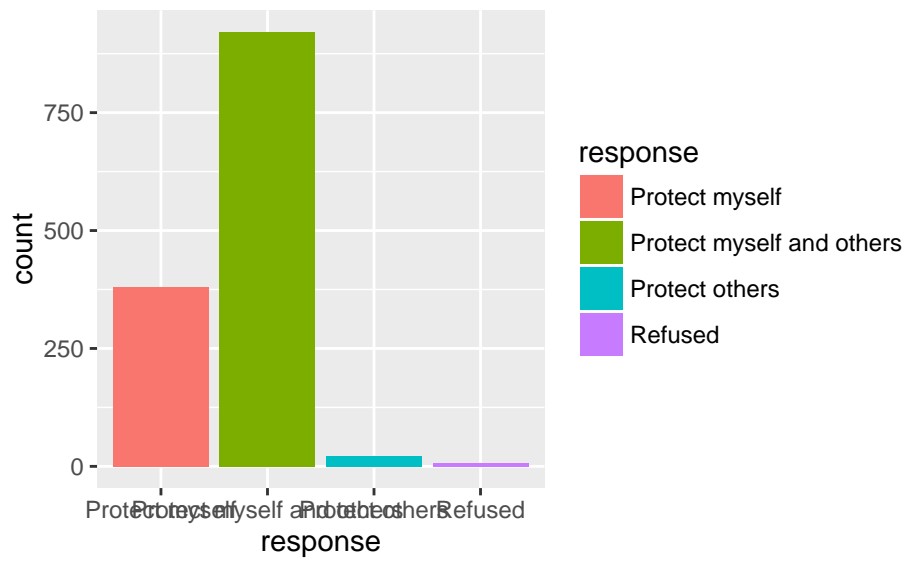


```
## Source: local data frame [10 x 3]
## Groups: Q16 [?]
##
##           Q16 PPGENDER count
##           (fctr)  (fctr) (int)
## 1  No, less likely  Female    43
## 2  No, less likely   Male    58
## 3    No, no effect  Female  472
## 4    No, no effect   Male  432
## 5         Refused   Female    10
## 6         Refused    Male     3
## 7  Yes, more likely  Female  162
## 8  Yes, more likely   Male  151
## 9              NA   Female  410
## 10             NA    Male  427
```

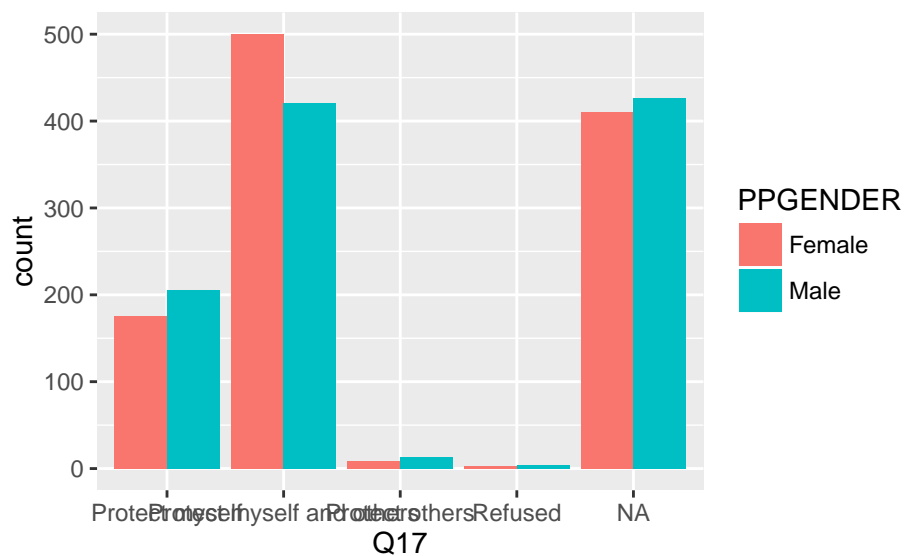


Q17. Do you get a vaccine to protect yourself, protect others, or protect yourself and others?

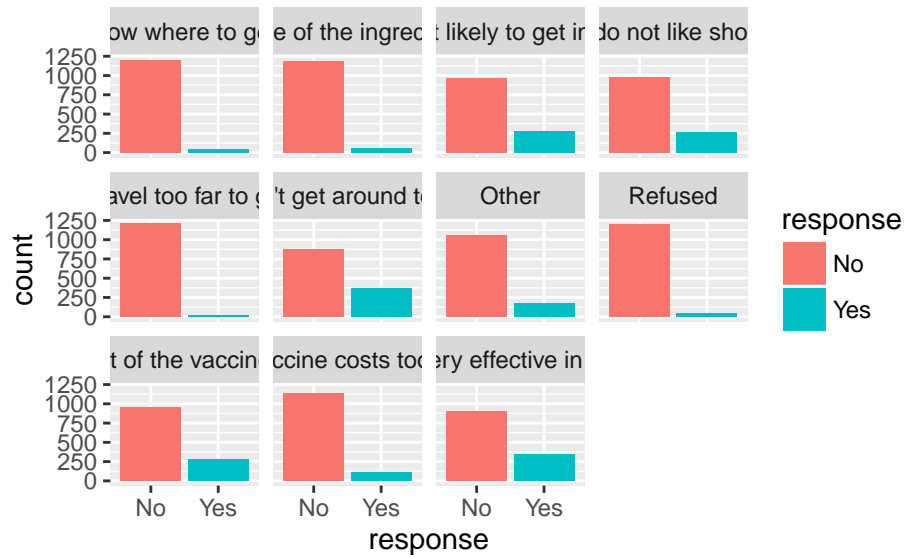
```
##           Q17
## Protect myself :381
## Protect myself and others:921
## Protect others : 22
## Refused       : 7
## NA's          :837
```



```
## Source: local data frame [10 x 3]
## Groups: Q17 [?]
##
##           Q17 PPGENDER count
##           (fctr)  (fctr) (int)
## 1    Protect myself Female   175
## 2    Protect myself   Male   206
## 3 Protect myself and others Female   500
## 4 Protect myself and others   Male   421
## 5    Protect others Female     9
## 6    Protect others   Male    13
## 7         Refused Female     3
## 8         Refused   Male     4
## 9              NA Female   410
## 10             NA   Male   427
```



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



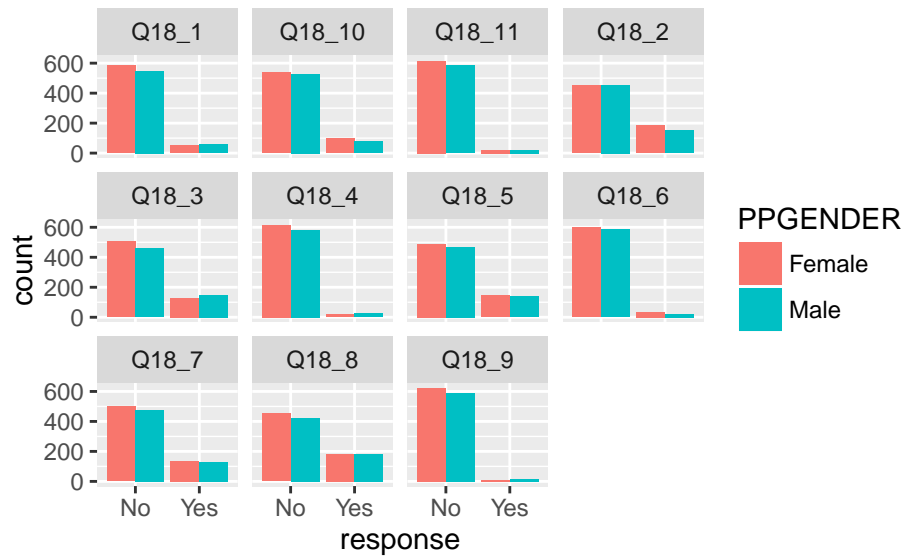
```
## The vaccine costs too much
## No :1132
## Yes : 110
## NA's: 926
##
##
##
##
## The vaccine is not very effective in preventing influenza
## No :903
## Yes :339
## NA's:926
##
##
##
##
## I am not likely to get influenza Do not know where to get vaccine
## No :964 No :1199
## Yes :278 Yes : 43
## NA's:926 NA's: 926
##
##
##
##
## The side effect of the vaccine are too risky
## No :958
## Yes :284
## NA's:926
##
##
##
##
## I am allergic to some of the ingredients in the vaccine
```

```

## No :1184
## Yes : 58
## NA's: 926
##
##
##
##
## I do not like shots I just don't get around to doing it
## No :976          No :878
## Yes :266         Yes :364
## NA's:926         NA's:926
##
##
##
##
## I have to travel too far to get vaccine Other      Refused
## No :1216          No :1064    No :1200
## Yes : 26          Yes : 178    Yes : 42
## NA's: 926         NA's: 926    NA's: 926
##
##
##
##
##                                     Other text
## no need                           : 3
## 70's swine flu vacc                : 1
## Always get sick when I get the shot : 1
## because                           : 1
## because i get treatments to lower and over active immune system.: 1
## (Other)                           : 170
## NA's                              :1991

## Source: local data frame [23,848 x 3]
## Groups: PPGENDER, option, response [66]
##
##   PPGENDER option response
##   (fctr)  (chr)      (chr)
## 1   Female Q18_1      NA
## 2   Male   Q18_1      NA
## 3   Female Q18_1      NA
## 4   Male   Q18_1      No
## 5   Male   Q18_1      NA
## 6   Male   Q18_1      No
## 7   Female Q18_1      No
## 8   Male   Q18_1      NA
## 9   Female Q18_1      No
## 10  Male   Q18_1      No
## ..      ...      ...

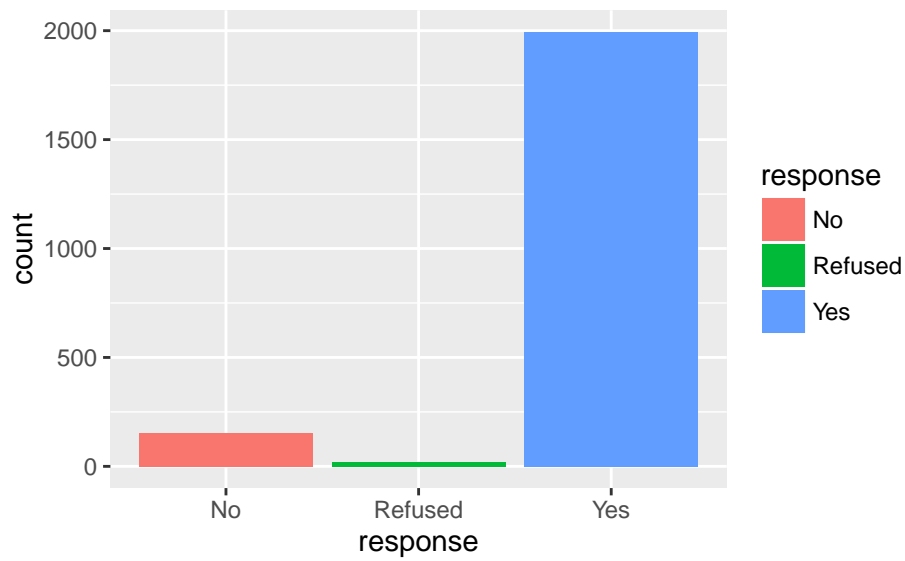
```

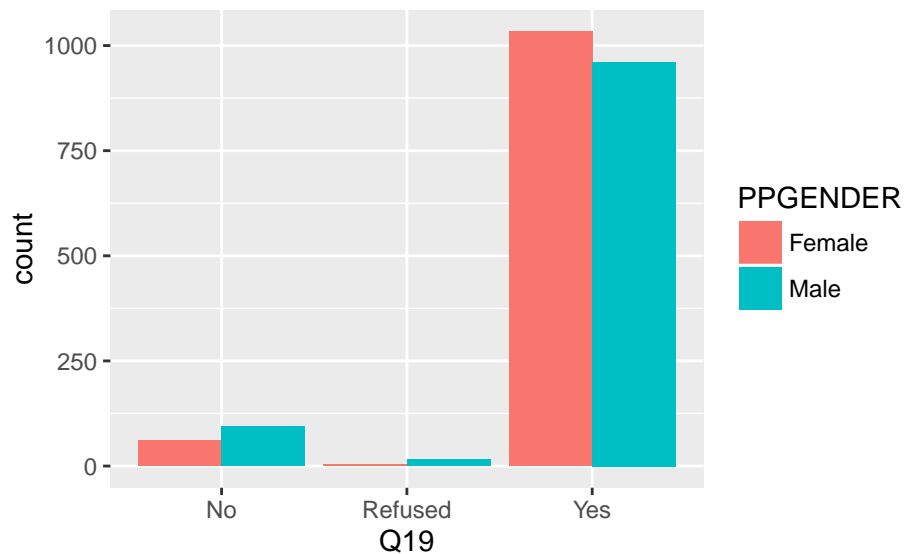
```
## Source: local data frame [66 x 4]
## Groups: PPGENDER, option [?]
##
##   PPGENDER option response count
##   (fctr)   (chr)   (chr) (int)
## 1   Female Q18_1    No    584
## 2   Female Q18_1    Yes    51
## 3   Female Q18_1    NA    462
## 4   Female Q18_10   No    537
## 5   Female Q18_10   Yes    98
## 6   Female Q18_10   NA    462
## 7   Female Q18_11   No    614
## 8   Female Q18_11   Yes    21
## 9   Female Q18_11   NA    462
## 10  Female Q18_2    No    449
## ..      ...      ...      ...
```

Q19. Do you have health insurance?

```
##      Q19
## No      : 154
## Refused: 20
## Yes     :1994
```



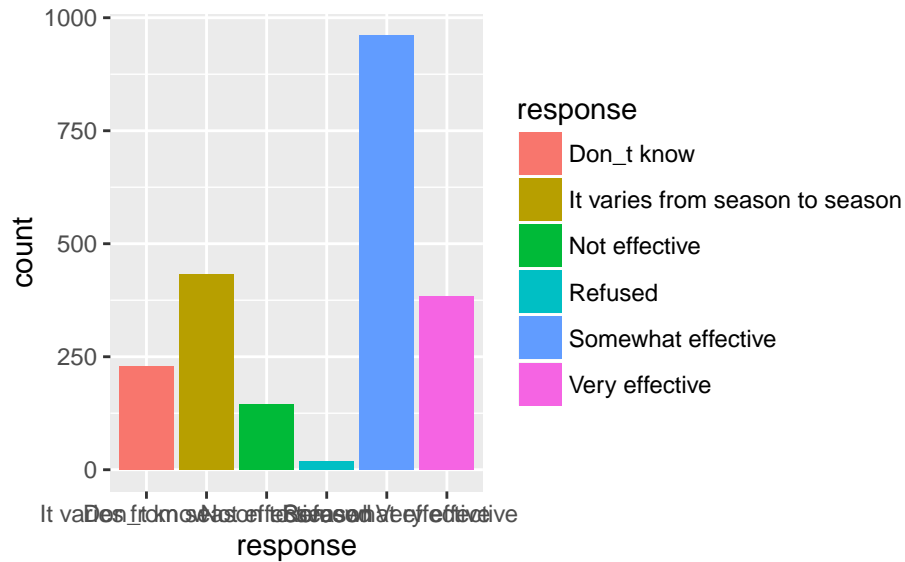
```
## Source: local data frame [6 x 3]
## Groups: Q19 [?]
##
##      Q19 PPGENDER count
##    (fctr) (fctr) (int)
## 1      No  Female    60
## 2      No   Male    94
## 3 Refused Female     4
## 4 Refused  Male    16
## 5      Yes Female 1033
## 6      Yes  Male   961
```



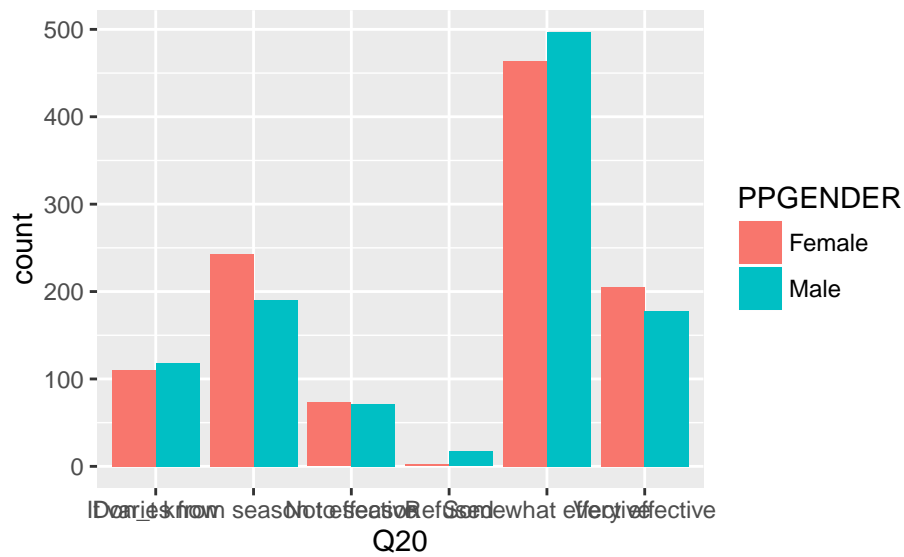
Q20. How effective do you think the influenza vaccine is in protecting people from becoming sick with influenza?

```
##                                     Q20
```

```
## Don_t know :228
## It varies from season to season:433
## Not effective :144
## Refused : 19
## Somewhat effective :961
## Very effective :383
```

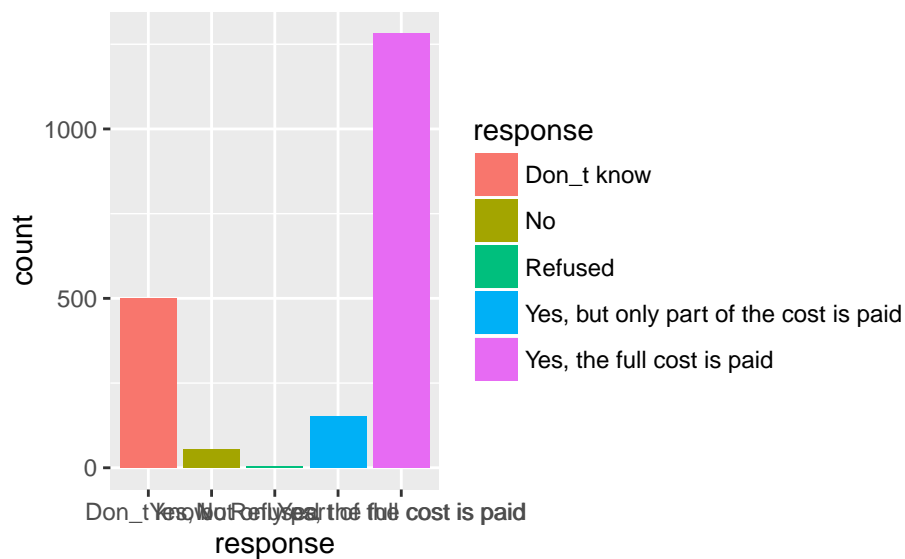


```
## Source: local data frame [12 x 3]
## Groups: Q20 [?]
##
##           Q20 PPGENER count
##           (fctr) (fctr) (int)
## 1           Don_t know  Female   110
## 2           Don_t know   Male   118
## 3 It varies from season to season  Female  243
## 4 It varies from season to season   Male  190
## 5           Not effective  Female    73
## 6           Not effective   Male    71
## 7           Refused       Female     2
## 8           Refused       Male    17
## 9      Somewhat effective  Female  464
## 10     Somewhat effective   Male  497
## 11          Very effective  Female  205
## 12          Very effective   Male  178
```



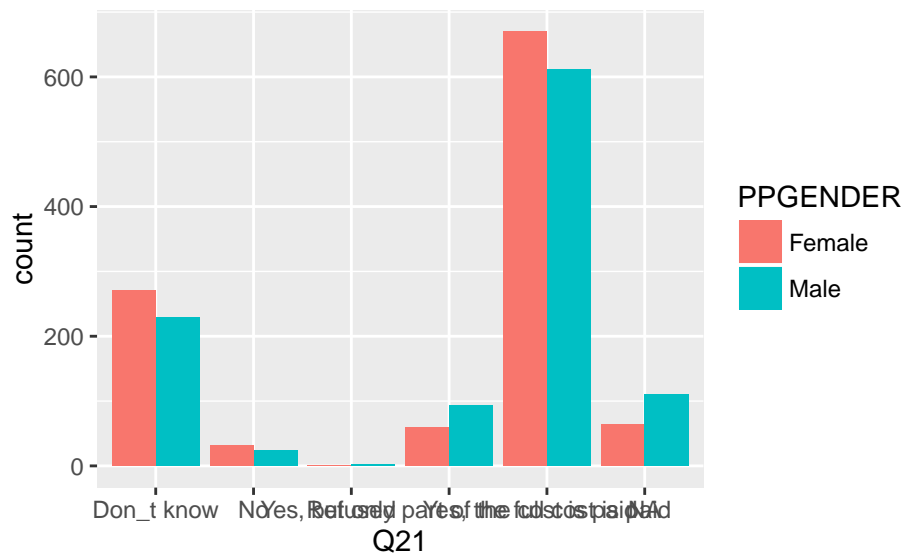
Q21. Are influenza vaccines covered by your health insurance?

```
##                                     Q21
## Don't know                        : 500
## No                               : 55
## Refused                          : 4
## Yes, but only part of the cost is paid: 153
## Yes, the full cost is paid        :1282
## NA's                             : 174
```

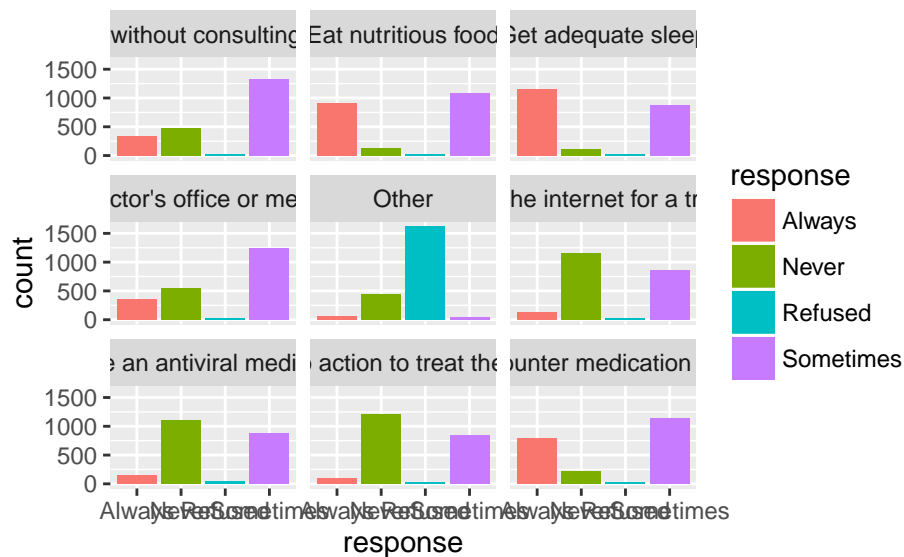


```
## Source: local data frame [12 x 3]
## Groups: Q21 [?]
##
##                                     Q21 PPGENDER count
##                                     (fctr) (fctr) (int)
## 1                                     Don't know   Female    271
```

## 2	Don't know	Male	229
## 3	No	Female	31
## 4	No	Male	24
## 5	Refused	Female	1
## 6	Refused	Male	3
## 7	Yes, but only part of the cost is paid	Female	60
## 8	Yes, but only part of the cost is paid	Male	93
## 9	Yes, the full cost is paid	Female	670
## 10	Yes, the full cost is paid	Male	612
## 11	NA	Female	64
## 12	NA	Male	110



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



Go to a doctor's office or medical clinic
 ## Always : 349

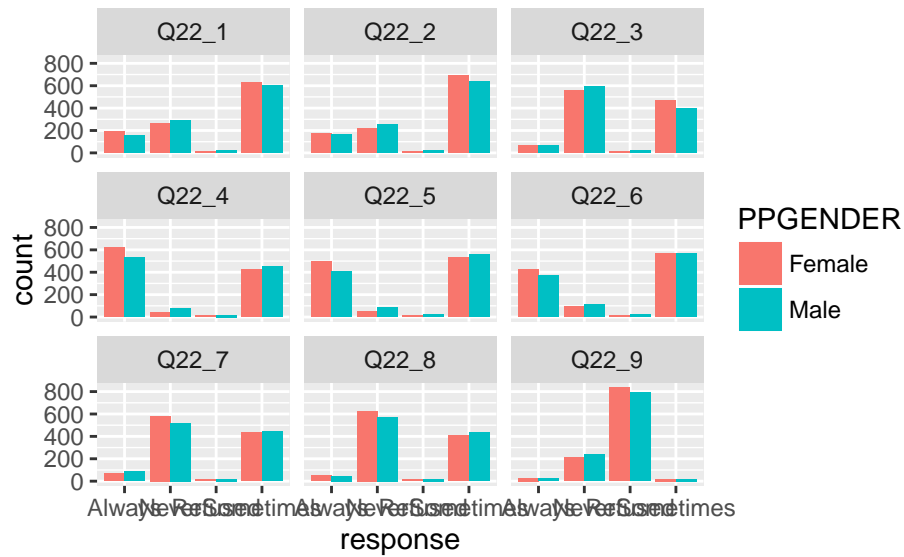
```

## Never      : 552
## Refused    : 32
## Sometimes:1235
##
##
##
## Decide on treatment without consulting a health practitioner
## Always     : 335
## Never      : 473
## Refused    : 31
## Sometimes:1329
##
##
##
## Search the internet for a treatment Get adequate sleep
## Always     : 126                Always    :1147
## Never      :1148                Never      : 115
## Refused    : 33                Refused    : 31
## Sometimes: 861                Sometimes: 875
##
##
##
## Eat nutritious food Take-over-counter medication for symptoms
## Always     : 909                Always    : 796
## Never      : 135                Never      : 210
## Refused    : 33                Refused    : 32
## Sometimes:1091                Sometimes:1130
##
##
##
## Take an antiviral medicine Take no action to treat the illness
## Always     : 153                Always    : 96
## Never      :1103                Never      :1199
## Refused    : 35                Refused    : 34
## Sometimes: 877                Sometimes: 839
##
##
##
##          Other                      Other text
## Always   : 54    none                      : 6
## Never    : 448    dont know                  : 2
## Refused  :1628    drink lots of fluids      : 2
## Sometimes: 38    eat chicken noodle soup: 2
##          :      n/a                      : 2
##          :      (Other)                  : 108
##          :      NA's                    :2046

## Source: local data frame [19,512 x 3]
## Groups: PPGENDER, option, response [72]
##
##   PPGENDER option response
##   (fctr)  (chr)   (chr)
## 1   Female Q22_1 Sometimes
## 2    Male  Q22_1  Refused

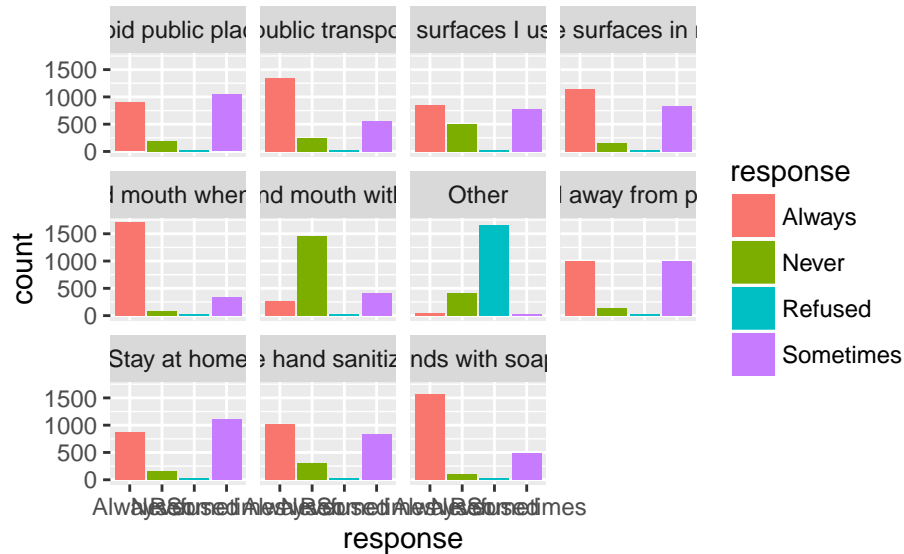
```

```
## 3      Female Q22_1 Always
## 4      Male  Q22_1 Sometimes
## 5      Male  Q22_1 Sometimes
## 6      Male  Q22_1 Never
## 7      Female Q22_1 Sometimes
## 8      Male  Q22_1 Never
## 9      Female Q22_1 Never
## 10     Male  Q22_1 Never
## ..      ...    ...    ...
```



```
## Source: local data frame [72 x 4]
## Groups: PPGENDER, option [?]
##
##   PPGENDER option response count
##   (fctr)   (chr)   (chr)   (int)
## 1  Female  Q22_1   Always   189
## 2  Female  Q22_1   Never    265
## 3  Female  Q22_1   Refused    13
## 4  Female  Q22_1   Sometimes 630
## 5  Female  Q22_2   Always   171
## 6  Female  Q22_2   Never    220
## 7  Female  Q22_2   Refused    12
## 8  Female  Q22_2   Sometimes 694
## 9  Female  Q22_3   Always    63
## 10 Female  Q22_3   Never    554
## ..      ...    ...    ...
```

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

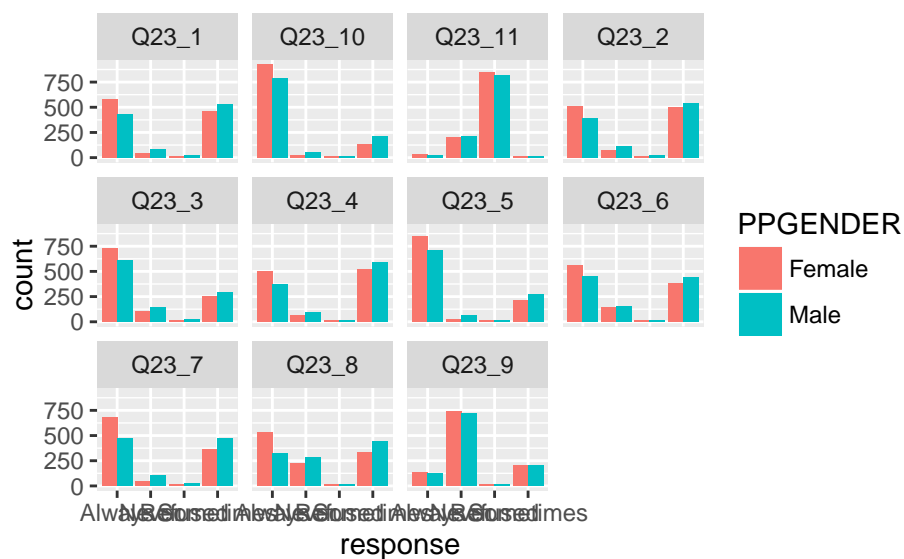


```
## Stand away from people Avoid public places Avoid public transportation
## Always :1006 Always : 897 Always :1342
## Never : 135 Never : 196 Never : 245
## Refused : 31 Refused : 31 Refused : 31
## Sometimes: 996 Sometimes:1044 Sometimes: 550
##
##
##
## Stay at home Wash my hands with soap more often Use hand sanitizers
## Always : 869 Always :1559 Always :1014
## Never : 163 Never : 92 Never : 299
## Refused : 30 Refused : 29 Refused : 30
## Sometimes:1106 Sometimes: 488 Sometimes: 825
##
##
##
## Clean the surfaces in my home Clean the surfaces I use at work
## Always :1151 Always :856
## Never : 153 Never :508
## Refused : 32 Refused : 32
## Sometimes: 832 Sometimes:772
##
##
##
## Cover my nose and mouth with a surgical mask
## Always : 267
## Never :1463
## Refused : 29
## Sometimes: 409
##
##
##
```



```
## Cover my nose and mouth when I sneeze or cough      Other
## Always      :1717                                Always   : 54
## Never       : 81                                Never     : 421
## Refused    : 29                                Refused   :1665
## Sometimes  : 341                                Sometimes : 28
##
##
##
##      Other text
## none      : 6
## stay in bed: 3
## dont know : 2
## na        : 2
## never had : 2
## (Other)   : 75
## NA's      :2078
```

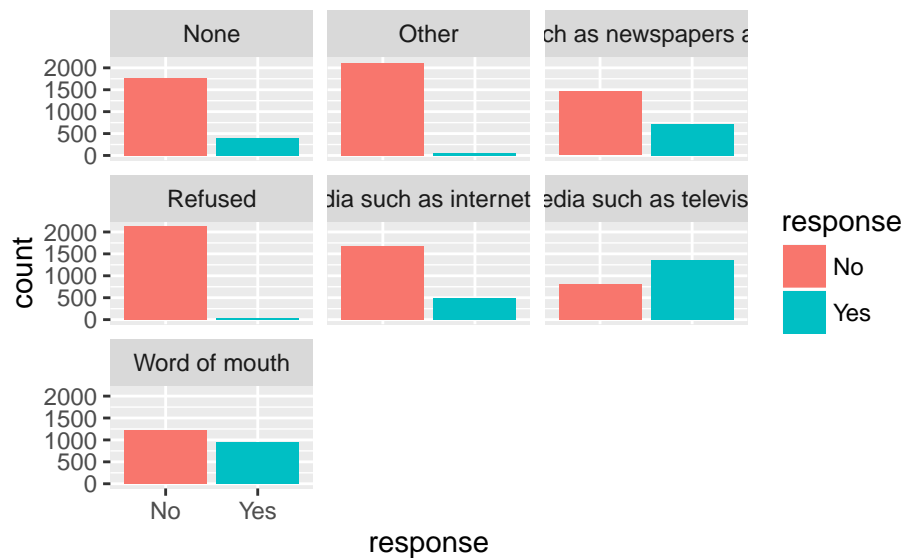
```
## Source: local data frame [23,848 x 3]
## Groups: PPGENDER, option, response [88]
##
##   PPGENDER option response
##   (fctr)   (chr)   (chr)
## 1   Female Q23_1 Sometimes
## 2   Male   Q23_1 Refused
## 3   Female Q23_1 Always
## 4   Male   Q23_1 Sometimes
## 5   Male   Q23_1 Always
## 6   Male   Q23_1 Sometimes
## 7   Female Q23_1 Sometimes
## 8   Male   Q23_1 Sometimes
## 9   Female Q23_1 Always
## 10  Male   Q23_1 Always
## ..      ...      ...      ...
```



```
## Source: local data frame [88 x 4]
```

```
## Groups: PPGENDER, option [?]
##
##      PPGENDER option  response count
##      (fctr)   (chr)    (chr)  (int)
## 1   Female  Q23_1     Always    579
## 2   Female  Q23_1     Never     46
## 3   Female  Q23_1     Refused    11
## 4   Female  Q23_1     Sometimes  461
## 5   Female Q23_10     Always    930
## 6   Female Q23_10     Never     25
## 7   Female Q23_10     Refused    10
## 8   Female Q23_10     Sometimes  132
## 9   Female Q23_11     Always     32
## 10  Female Q23_11     Never    203
## ..      ...      ...      ...      ...
```

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



```
## Print media such as newspapers and magazines
## No :1460
## Yes: 708
##
##
##
##
##
## Traditional media such as television and radio
## No : 811
## Yes:1357
##
##
##
##
##
```

```

## Social media such as internet and blogs Word of mouth None
## No :1680                               No :1213       No :1764
## Yes: 488                               Yes: 955        Yes: 404
##
##
##
##
## Other          Refused          Other text
## No :2114       No :2138       CDC          :    2
## Yes: 54        Yes: 30        doctor       :    2
##                                     Internet      :    2
##                                     Online news:    2
##                                     work           :    2
##                                     (Other)       :   44
##                                     NA's          :2114

```

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?

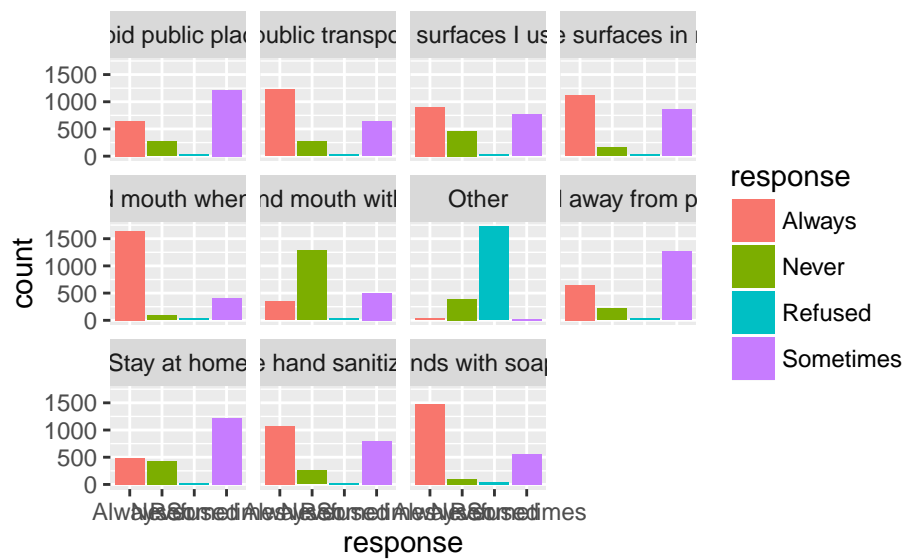
```

## Stand away from people Avoid public places Avoid public transportation
## Always : 649           Always : 648           Always :1221
## Never : 217            Never : 270           Never : 268
## Refused : 34           Refused : 33           Refused : 36
## Sometimes:1268         Sometimes:1217         Sometimes: 643
##
##
##
## Stay at home Wash my hands with soap more often Use hand sanitizers
## Always : 484           Always :1477           Always :1077
## Never : 429            Never : 99             Never : 257
## Refused : 33           Refused : 38           Refused : 35
## Sometimes:1222         Sometimes: 554         Sometimes: 799
##
##
##
## Clean the surfaces in my home Clean the surfaces I use at work
## Always :1116           Always :902
## Never : 160            Never :464
## Refused : 35           Refused : 36
## Sometimes: 857         Sometimes:766
##
##
##
## Cover my nose and mouth with a surgical mask
## Always : 343
## Never :1286
## Refused : 34
## Sometimes: 505
##
##
##
## Cover my nose and mouth when I sneeze or cough Other

```

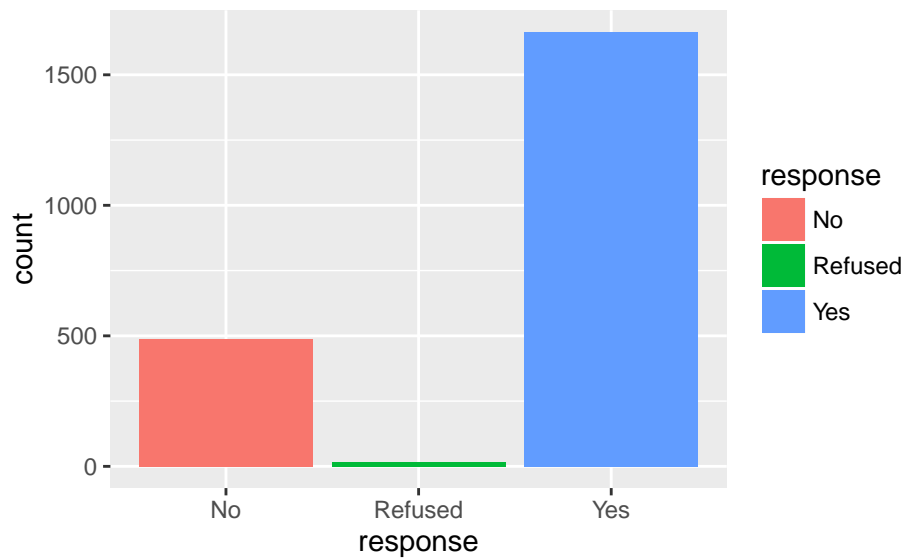
```
## Always :1643
## Never : 90
## Refused : 36
## Sometimes: 399
##
##
##
## Other text
## none : 9
## nothing : 3
## n/a : 2
## stay home: 2
## - : 1
## (Other) : 51
## NA's :2100
```

```
Always : 32
Never : 393
Refused :1722
Sometimes: 21
```



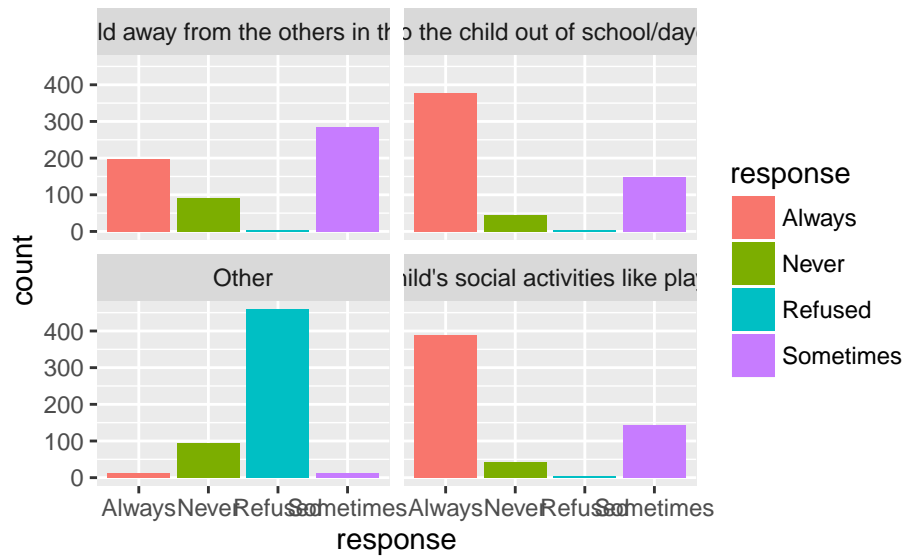
Q26. Does your household have children?

```
## Q26
## No :1570
## Refused: 22
## Yes : 576
```

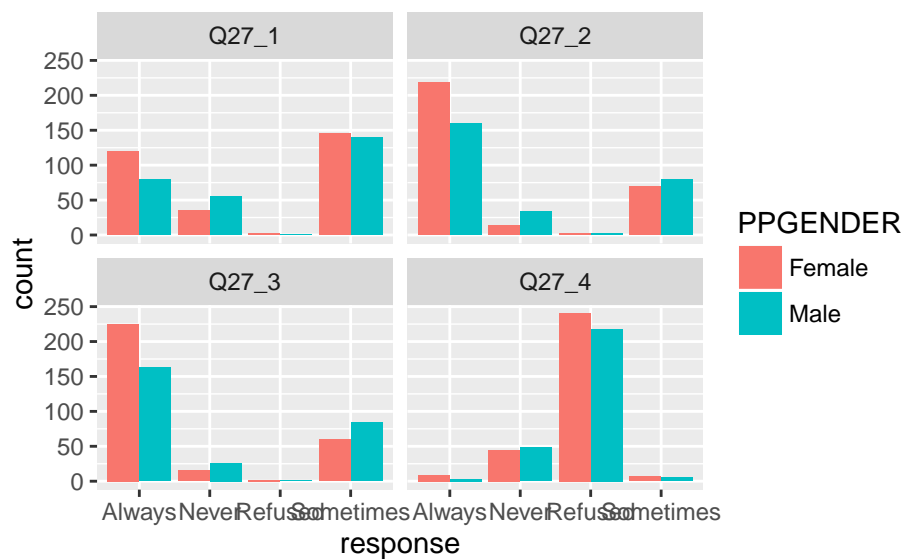


Q27. What actions do you take when a child in your household has influenza symptoms?

```
## Keep the child away from the others in the residence
## Always : 198
## Never : 90
## Refused : 3
## Sometimes: 285
## NA's :1592
##
##
## Keep the child out of school/daycare
## Always : 377
## Never : 46
## Refused : 4
## Sometimes: 149
## NA's :1592
##
##
## Stop child's social activities like play dates Other
## Always : 388 Always : 12
## Never : 41 Never : 93
## Refused : 3 Refused : 459
## Sometimes: 144 Sometimes: 12
## NA's :1592 NA's :1592
##
##
## Other text
## Consult with the child's doctors. : 1
## crawling on floor : 1
## Depending on symptoms id have him wear a mask to help us not get it: 1
## doctor visit : 1
## give supplements & herbs : 1
## (Other) : 16
## NA's :2147
```



```
## Source: local data frame [8,672 x 3]
## Groups: PPGENDER, option, response [40]
##
##   PPGENDER option  response
##   (fctr)   (chr)   (chr)
## 1   Female  Q27_1  Sometimes
## 2   Male   Q27_1   NA
## 3   Female  Q27_1  Always
## 4   Male   Q27_1  Never
## 5   Male   Q27_1   NA
## 6   Male   Q27_1  Never
## 7   Female  Q27_1   NA
## 8   Male   Q27_1   NA
## 9   Female  Q27_1   NA
## 10  Male   Q27_1   NA
## ..      ...      ...      ...
```

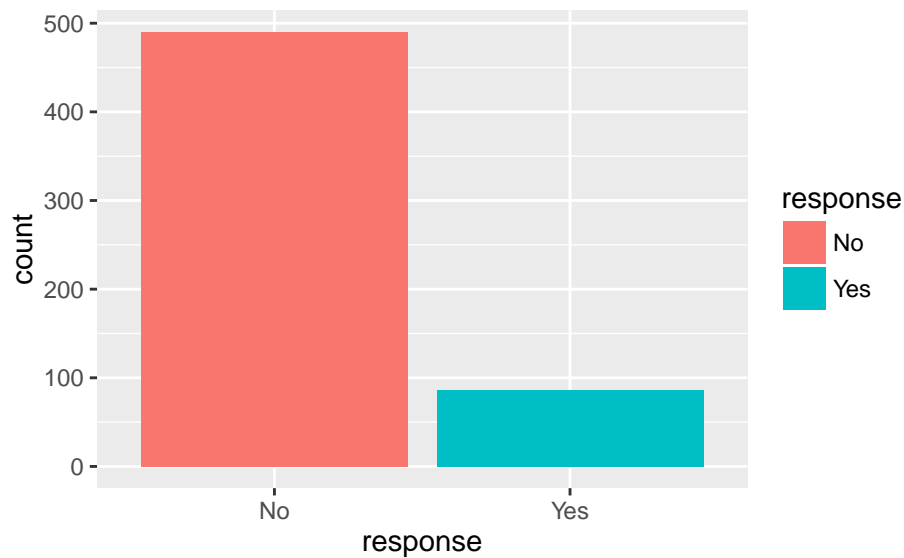


```
## Source: local data frame [40 x 4]
```

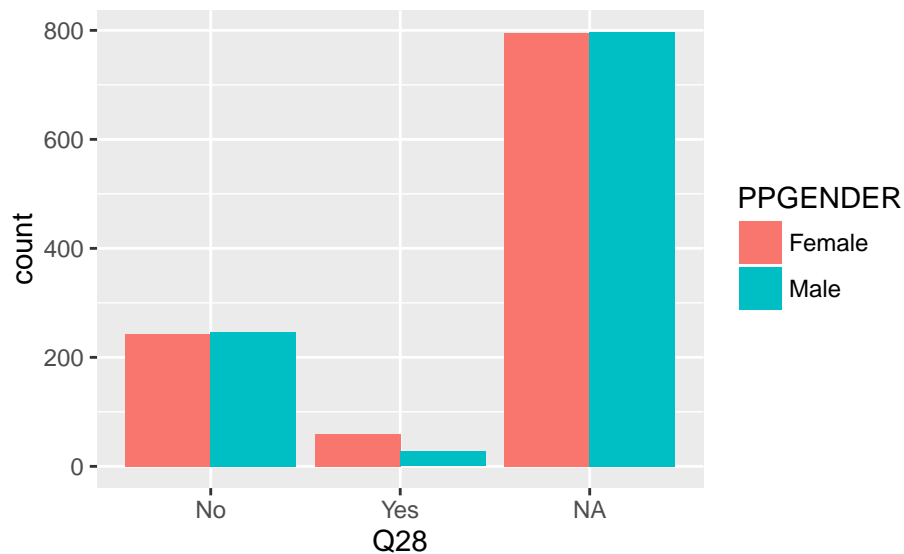
```
## Groups: PPGENDER, option [?]
##
##   PPGENDER option response count
##   (fctr)   (chr)   (chr) (int)
## 1  Female Q27_1   Always   119
## 2  Female Q27_1   Never    35
## 3  Female Q27_1   Refused    2
## 4  Female Q27_1   Sometimes 146
## 5  Female Q27_1    NA    795
## 6  Female Q27_2   Always   218
## 7  Female Q27_2   Never    13
## 8  Female Q27_2   Refused    2
## 9  Female Q27_2   Sometimes  69
## 10 Female Q27_2    NA    795
## ..      ...      ...      ...
```

Q28. Are you a single parent?

```
##   Q28
## No  : 490
## Yes :  86
## NA's:1592
```

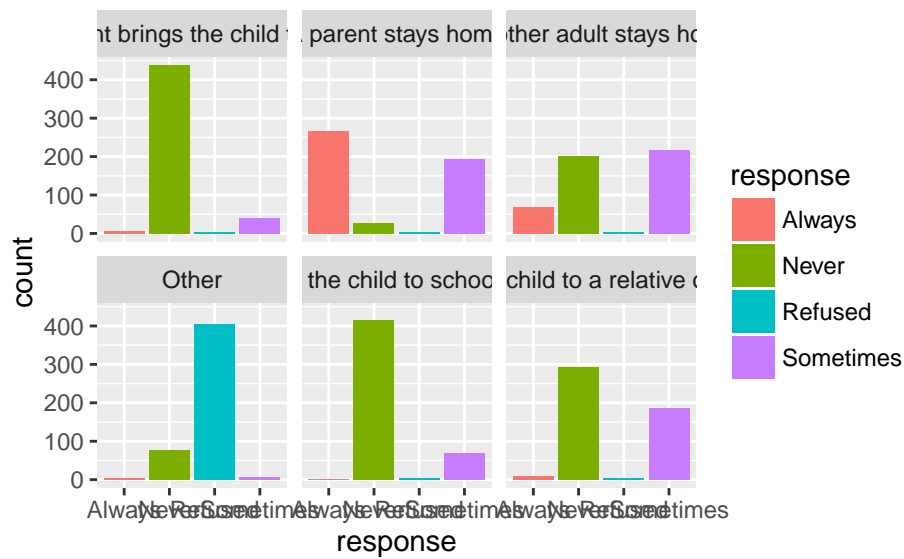


```
## Source: local data frame [6 x 3]
## Groups: Q28 [?]
##
##   Q28 PPGENDER count
##   (fctr) (fctr) (int)
## 1  No  Female   243
## 2  No  Male    247
## 3  Yes Female    59
## 4  Yes Male     27
## 5  NA  Female   795
## 6  NA  Male    797
```

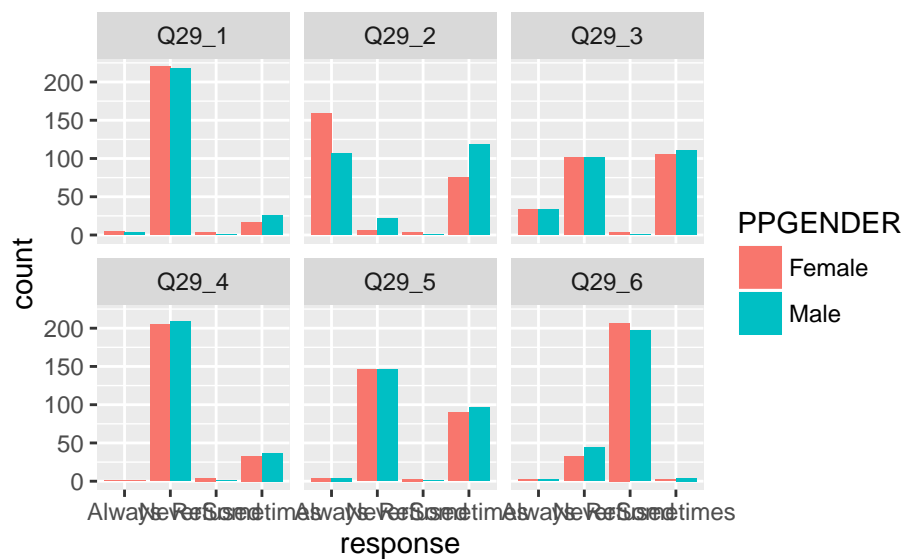


Q29. How do you care for a sick child?

```
## A parent brings the child to work A parent stays home
## Always : 7 Always : 266
## Never : 438 Never : 27
## Refused : 4 Refused : 4
## Sometimes: 41 Sometimes: 193
## NA's :1678 NA's :1678
##
##
## Another adult stays home Send the child to school sick
## Always : 68 Always : 1
## Never : 202 Never : 414
## Refused : 4 Refused : 5
## Sometimes: 216 Sometimes: 70
## NA's :1678 NA's :1678
##
##
## Take the child to a relative or friends Other
## Always : 8 Always : 4
## Never : 292 Never : 76
## Refused : 4 Refused : 404
## Sometimes: 186 Sometimes: 6
## NA's :1678 NA's :1678
##
##
##
## Because of proper diets and physical training my family stays healthy the year round: 1
## Child stays home alone : 1
## child stays home alone, old enough to take care of himself : 1
## drive to school : 1
## Have the student sleep more and work less (on school stuff). : 1
## (Other) : 6
## NA's :2157
```

```
## Source: local data frame [13,008 x 3]
## Groups: PPGENDER, option, response [59]
##
##   PPGENDER option response
##   (fctr)   (chr)   (chr)
## 1   Female  Q29_1   Never
## 2   Male   Q29_1    NA
## 3   Female  Q29_1   Never
## 4   Male   Q29_1   Never
## 5   Male   Q29_1    NA
## 6   Male   Q29_1   Never
## 7   Female  Q29_1    NA
## 8   Male   Q29_1    NA
## 9   Female  Q29_1    NA
## 10  Male   Q29_1    NA
## ..      ...      ...
```

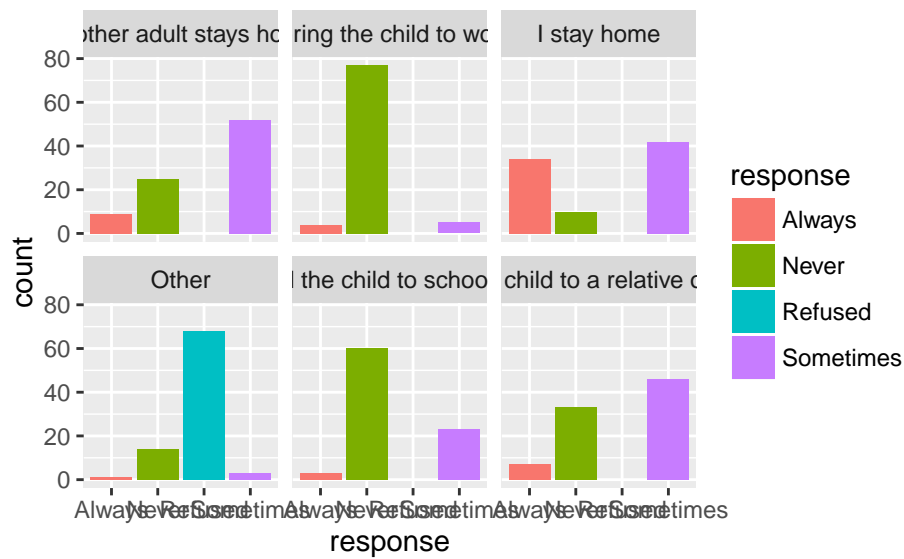


```
## Source: local data frame [59 x 4]
```

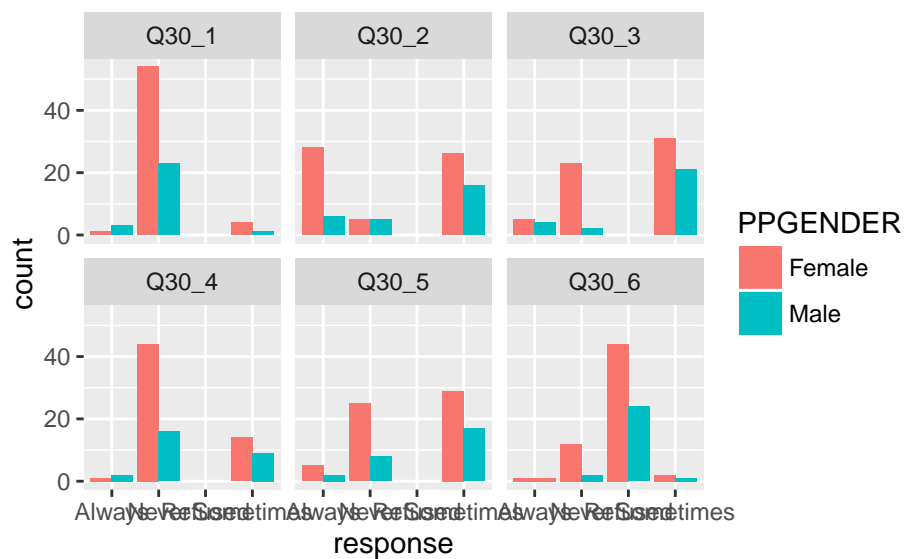
```
## Groups: PPGENDER, option [?]
##
##      PPGENDER option  response count
##      (fctr)  (chr)      (chr) (int)
## 1   Female  Q29_1    Always      4
## 2   Female  Q29_1    Never    220
## 3   Female  Q29_1    Refused     3
## 4   Female  Q29_1    Sometimes  16
## 5   Female  Q29_1     NA    854
## 6   Female  Q29_2    Always   159
## 7   Female  Q29_2    Never     6
## 8   Female  Q29_2    Refused     3
## 9   Female  Q29_2    Sometimes  75
## 10  Female  Q29_2     NA    854
## ..      ...      ...      ...      ...
```

Q30. How do you care for a sick child?

```
## I bring the child to work    I stay home    Another adult stays home
## Always   : 4                Always   : 34    Always   : 9
## Never    : 77               Never    : 10    Never    : 25
## Sometimes: 5                Sometimes: 42   Sometimes: 52
## NA's     :2082              NA's     :2082   NA's     :2082
##
## Send the child to school sick Take the child to a relative or friends
## Always   : 3                Always   : 7
## Never    : 60               Never    : 33
## Sometimes: 23               Sometimes: 46
## NA's     :2082              NA's     :2082
##
##      Other                                Other text
## Always : 1    adult child                  : 1
## Never  : 14   Hes old enough to stay alone: 1
## Refused : 68  my children are grown        : 1
## Sometimes: 3  NA's                          :2165
## NA's    :2082
```



```
## Source: local data frame [13,008 x 3]
## Groups: PPGENDER, option, response [49]
##
##   PPGENDER option response
##   (fctr)   (chr)   (chr)
## 1   Female  Q30_1    NA
## 2   Male   Q30_1    NA
## 3   Female  Q30_1    NA
## 4   Male   Q30_1    NA
## 5   Male   Q30_1    NA
## 6   Male   Q30_1    NA
## 7   Female  Q30_1    NA
## 8   Male   Q30_1    NA
## 9   Female  Q30_1    NA
## 10  Male   Q30_1    NA
## ..      ...      ...      ...
```

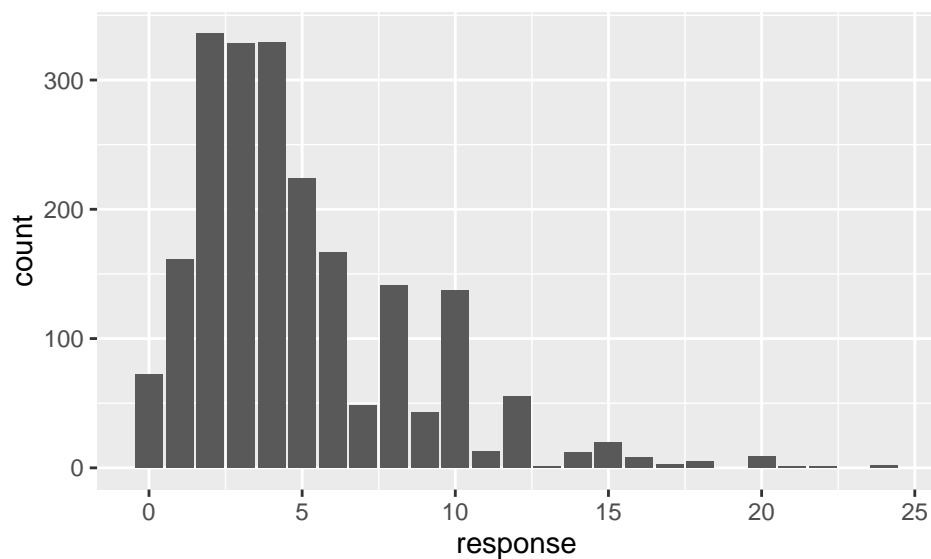


```
## Source: local data frame [49 x 4]
```

```
## Groups: PPGENDER, option [?]
##
##   PPGENDER option response count
##   (fctr)   (chr)   (chr) (int)
## 1  Female Q30_1   Always     1
## 2  Female Q30_1   Never    54
## 3  Female Q30_1 Sometimes    4
## 4  Female Q30_1     NA  1038
## 5  Female Q30_2   Always    28
## 6  Female Q30_2   Never     5
## 7  Female Q30_2 Sometimes   26
## 8  Female Q30_2     NA  1038
## 9  Female Q30_3   Always     5
## 10 Female Q30_3   Never    23
## ..      ...      ...      ...
```

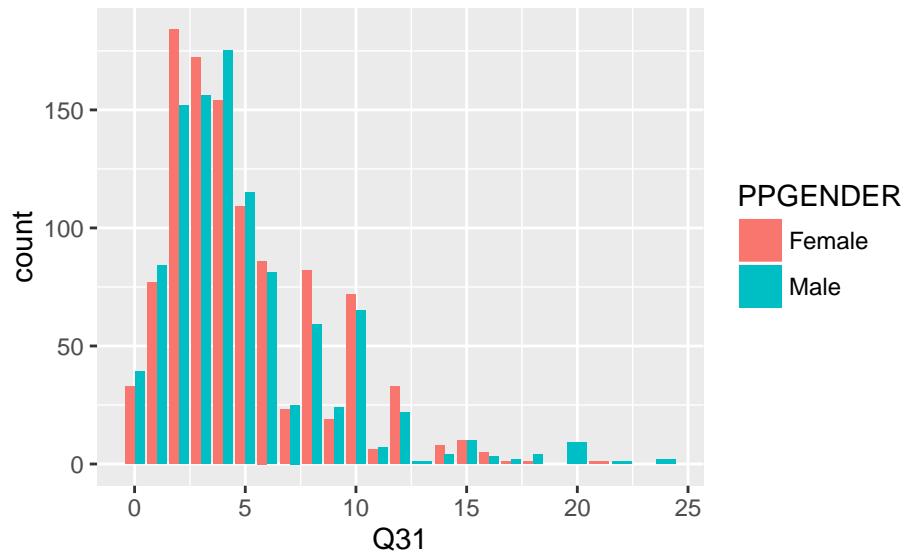
Q31. How many hours of screen time (time spent watching television, a computer, smartphone, iPad, etc.) do you spend each day on average when you are not sick? Enter 0 if none

```
##      Q31      Q31_Codes
## Min.   : 0.000   Refused: 52
## 1st Qu.: 2.000   NA's   :2116
## Median : 4.000
## Mean   : 4.868
## 3rd Qu.: 6.000
## Max.   :24.000
## NA's   :52
```



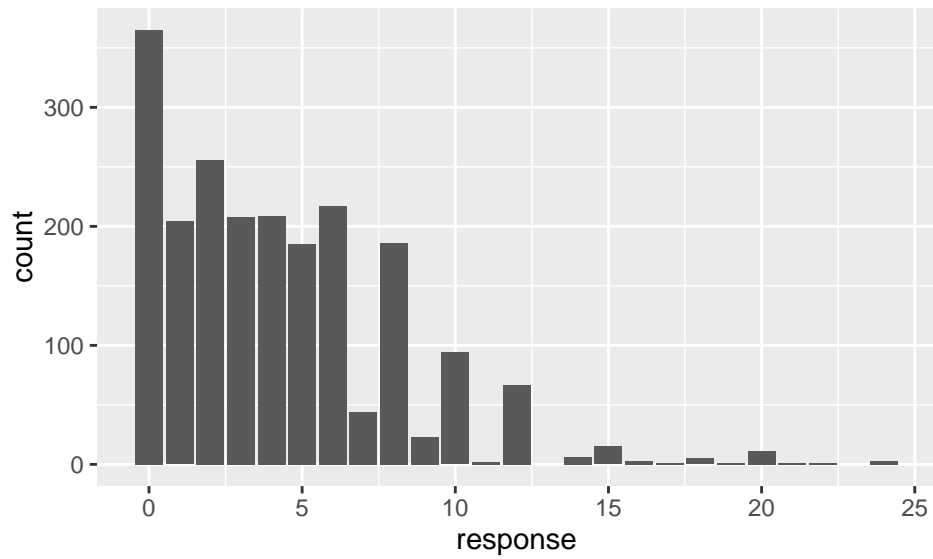
```
## Source: local data frame [43 x 3]
## Groups: Q31 [?]
##
##      Q31 PPGENDER count
##      (int)   (fctr) (int)
## 1      0   Female   33
```

```
## 2      0      Male      39
## 3      1    Female      77
## 4      1      Male      84
## 5      2    Female     184
## 6      2      Male     152
## 7      3    Female     172
## 8      3      Male     156
## 9      4    Female     154
## 10     4      Male     175
## ..    ...      ...     ...
```

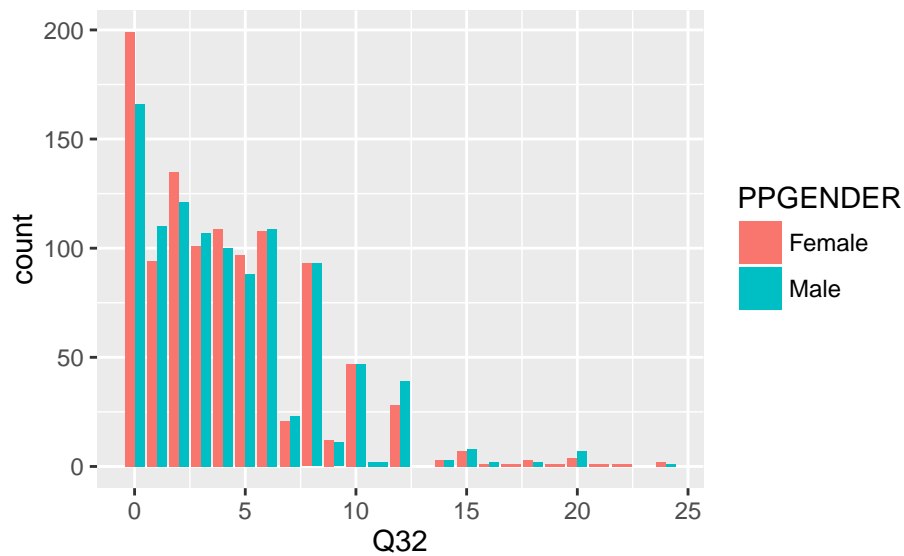


Q32. How many hours of screen time do you spend each day on average when you are sick?
Enter 0 if none

```
##      Q32      Q32_Codes
## Min.   : 0.000   Refused:  61
## 1st Qu.: 1.000   NA's   :2107
## Median : 4.000
## Mean    : 4.267
## 3rd Qu.: 6.000
## Max.    :24.000
## NA's    :61
```

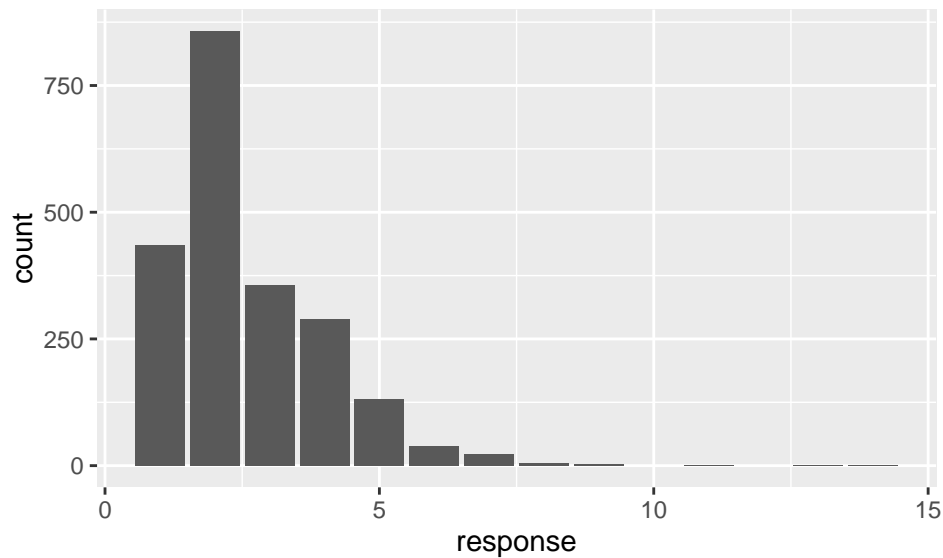


```
## Source: local data frame [43 x 3]
## Groups: Q32 [?]
##
##   Q32 PPGENDER count
##   (int)   (fctr) (int)
## 1     0   Female  199
## 2     0    Male  166
## 3     1   Female   94
## 4     1    Male  110
## 5     2   Female  135
## 6     2    Male  121
## 7     3   Female  101
## 8     3    Male  107
## 9     4   Female  109
## 10    4    Male  100
## .. ...      ...   ...
```

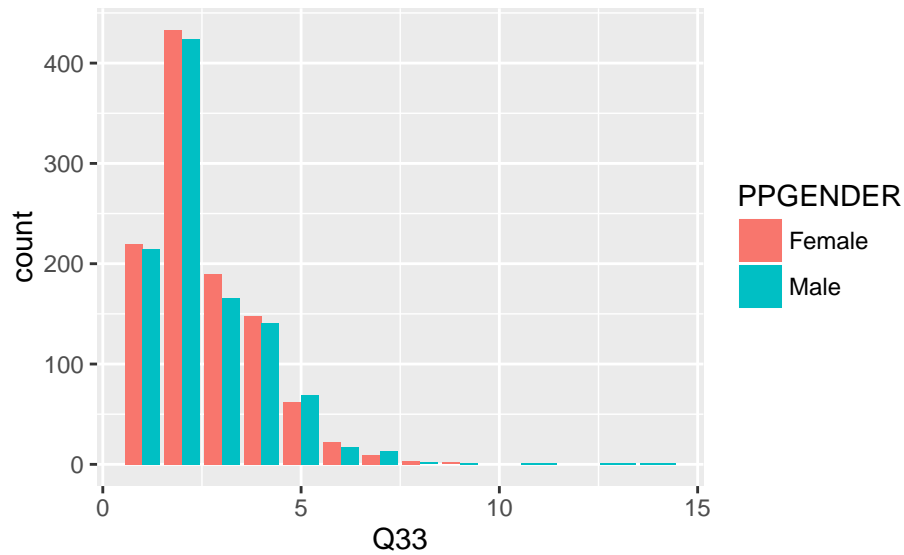


Q33. How many people, including yourself, reside in your household?

```
##      Q33      Q33_Codes
## Min.   : 1.00   Refused:  28
## 1st Qu.: 2.00   NA's   :2140
## Median : 2.00
## Mean   : 2.58
## 3rd Qu.: 3.00
## Max.   :14.00
## NA's   :28
```



```
## Source: local data frame [23 x 3]
## Groups: Q33 [?]
##
##      Q33 PPGENDER count
##   (int)   (fctr) (int)
## 1      1   Female  220
## 2      1    Male  215
## 3      2   Female  433
## 4      2    Male  424
## 5      3   Female  190
## 6      3    Male  166
## 7      4   Female  148
## 8      4    Male  141
## 9      5   Female   62
## 10     5    Male   69
## .. ...      ...   ...
```



Household members

```
##      Q35      Q36      Q36_Codes      Q37
## Female :799  Min. :0.000  Don't know: 61  Min. :0.000
## Male   :859  1st Qu.:0.000  Refused   : 5  1st Qu.:0.000
## Refused: 5   Median :4.000  NA's      :2102 Median :2.000
## NA's    :505  Mean   :2.873              Mean :2.098
##              3rd Qu.:5.000              3rd Qu.:3.000
##              Max.   :7.000              Max.   :7.000
##              NA's   :571              NA's   :663
##      Q37_Codes      Q38      Q38_Codes
## Don't know: 143  Min. :0.0000  Don't know: 58
## Refused   : 15  1st Qu.:0.0000  Refused   : 19
## NA's      :2010 Median :0.0000  NA's      :2091
##              Mean   :0.3909
##              3rd Qu.:0.0000
##              Max.   :7.0000
##              NA's   :582
##      Q39      Q40      Q41
## Don't know      : 84  1 to 2 times :1025  Never      :807
## Less than once per year:222  3 to 5 times : 271  Once       :400
## More than once per year:593  Never       : 226  2 times    :191
## Never           :100  Don't know  : 87  Don't know:158
## Once per year    :656  6 to 10 times: 32  3 times    : 60
## Refused         : 8   (Other)     : 22  (Other)    : 47
## NA's            :505  NA's       : 505  NA's       :505
##
##      Q42
## Don't know :166
## No, never   :567
## Refused    : 6
## Yes, always :661
## Yes, sometimes:263
## NA's       :505
##
```



```

##          Q43          Q44          Q44_Codes          Q45
## Female : 388   Min.    :0.000   Don_t know: 40   Min.    :0.000
## Male   : 431   1st Qu.:1.000   Refused   : 3   1st Qu.:1.000
## Refused: 9     Median :5.000   NA's      :2125 Median :2.000
## NA's    :1340   Mean     :3.669                Mean  :2.395
##          3rd Qu.:5.000                3rd Qu.:4.000
##          Max.    :7.000                Max.    :7.000
##          NA's    :1383                NA's    :1419
##          Q45_Codes          Q46          Q46_Codes
## Don_t know: 70   Min.    :0.0000   Don_t know: 42
## Refused   : 9   1st Qu.:0.0000   Refused   : 9
## NA's      :2089 Median :0.0000   NA's      :2117
##          Mean     :0.5727
##          3rd Qu.:0.0000
##          Max.    :7.0000
##          NA's    :1391
##          Q47          Q48          Q49
## Don_t know      : 55   1 to 2 times : 490   Never      : 403
## Less than once per year: 125   3 to 5 times : 153   Once       : 183
## More than once per year: 232   Never       : 83   Don_t know: 93
## Never           : 59   Don_t know  : 66   2 times    : 91
## Once per year   : 353   6 to 10 times: 25   3 times    : 32
## Refused        : 4   (Other)     : 11   (Other)    : 26
## NA's           :1340   NA's        :1340   NA's       :1340
##          Q50
## Don_t know      : 100
## No, never       : 317
## Refused        : 4
## Yes, always     : 275
## Yes, sometimes : 132
## NA's           :1340
##

```

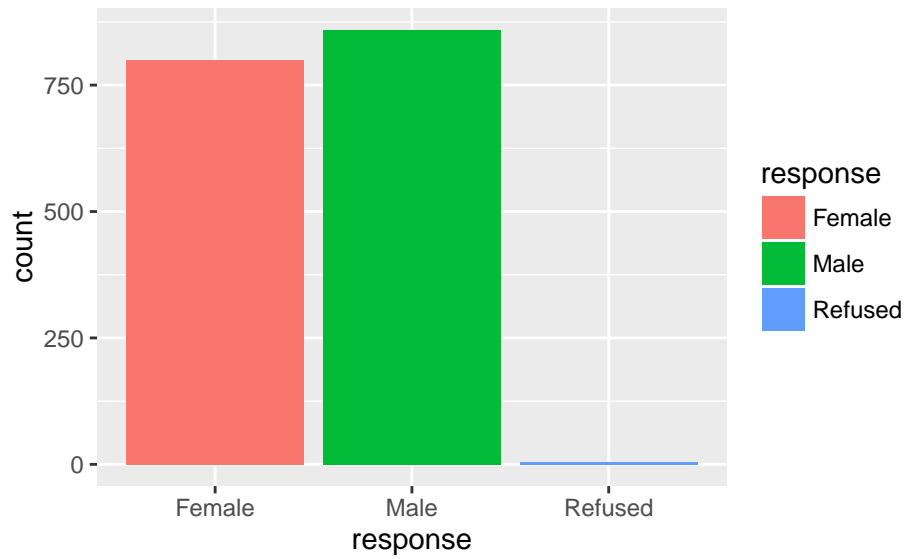
HHM1

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

```

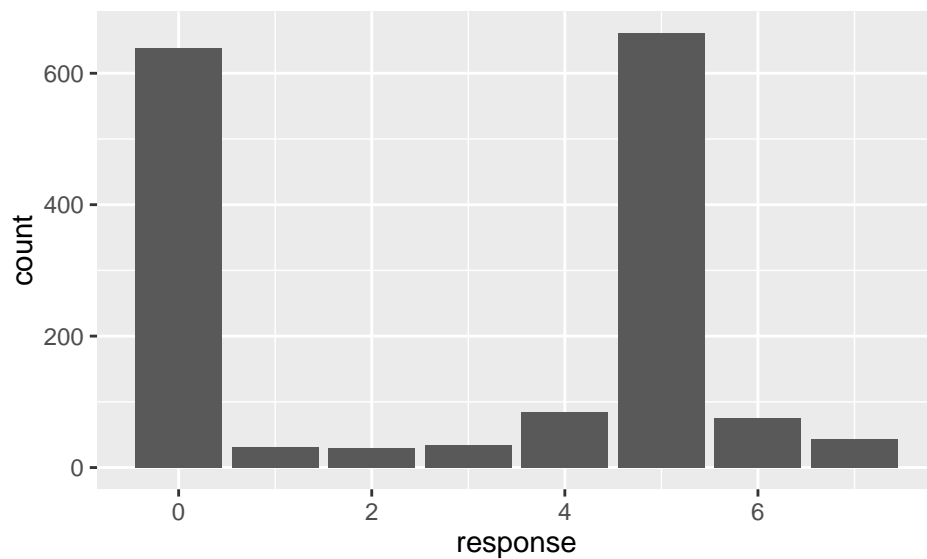
##          Q35
## Female :799
## Male   :859
## Refused: 5
## NA's    :505

```



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?

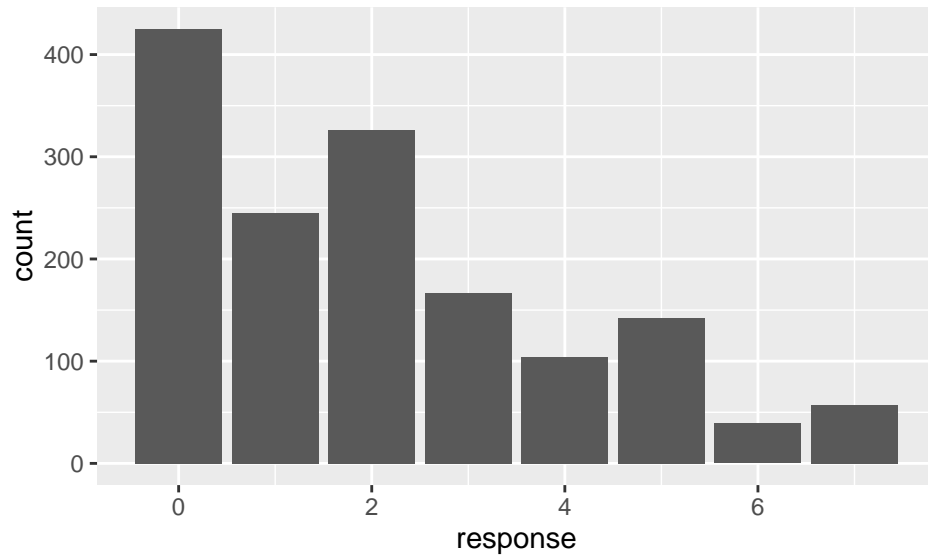
```
##      Q36      Q36_Codes
## Min. :0.000 Don't know: 61
## 1st Qu.:0.000 Refused   : 5
## Median :4.000 NA's      :2102
## Mean   :2.873
## 3rd Qu.:5.000
## Max.   :7.000
## NA's   :571
```



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

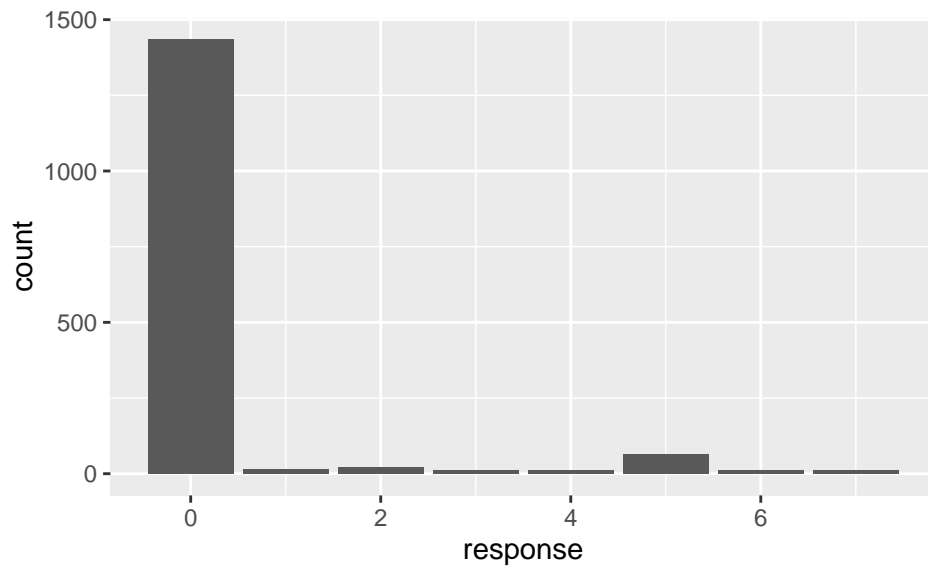
```
##      Q37      Q37_Codes
```

```
## Min.      :0.000   Don't know: 143
## 1st Qu.:0.000   Refused   : 15
## Median :2.000   NA's      :2010
## Mean    :2.098
## 3rd Qu.:3.000
## Max.    :7.000
## NA's    :663
```



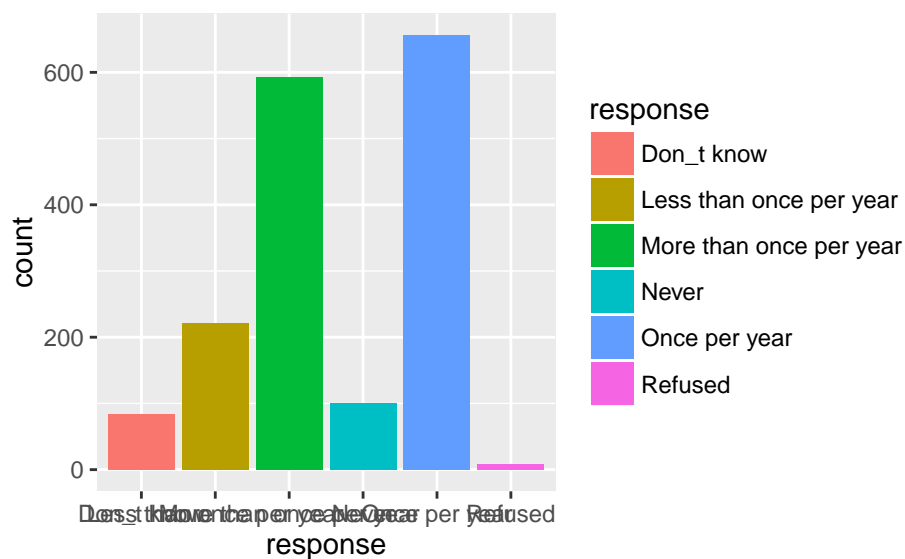
Q38. On average, how many days per week does this member of your household use public transportation?

```
##      Q38      Q38_Codes
## Min.      :0.0000   Don't know: 58
## 1st Qu.:0.0000   Refused   : 19
## Median :0.0000   NA's      :2091
## Mean    :0.3909
## 3rd Qu.:0.0000
## Max.    :7.0000
## NA's    :582
```



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

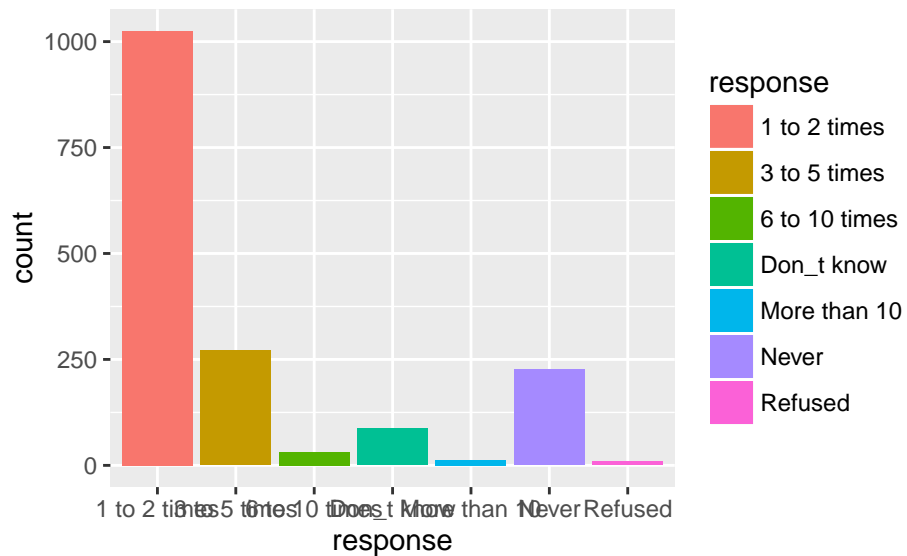
```
##                Q39
## Don't know      : 84
## Less than once per year:222
## More than once per year:593
## Never           :100
## Once per year   :656
## Refused        : 8
## NA's           :505
```



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

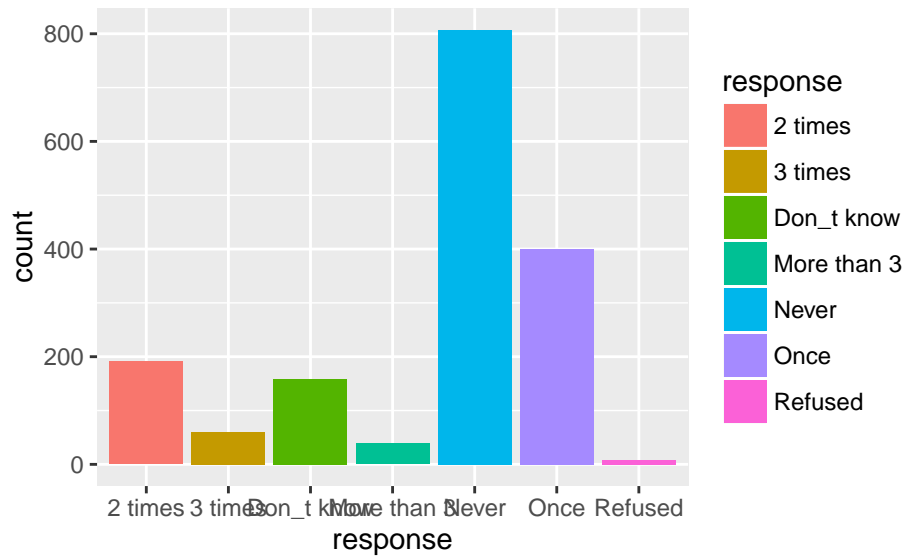
```
##                Q40
```

```
## 1 to 2 times :1025
## 3 to 5 times : 271
## Never      : 226
## Don't know : 87
## 6 to 10 times: 32
## (Other)    : 22
## NA's       : 505
```



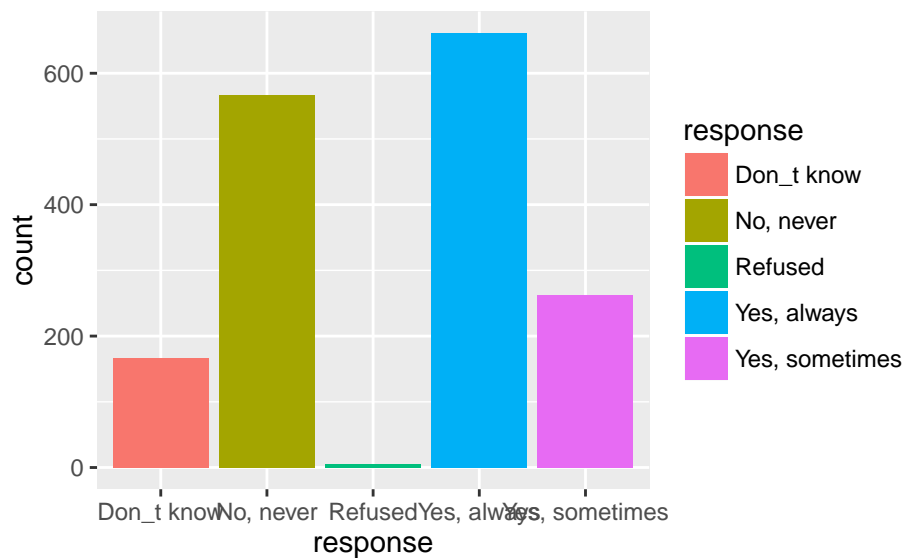
Q41. How many times has this member of your household had influenza or another respiratory illness in the last two years?

```
## Q41
## Never :807
## Once :400
## 2 times :191
## Don't know:158
## 3 times : 60
## (Other) : 47
## NA's :505
```



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

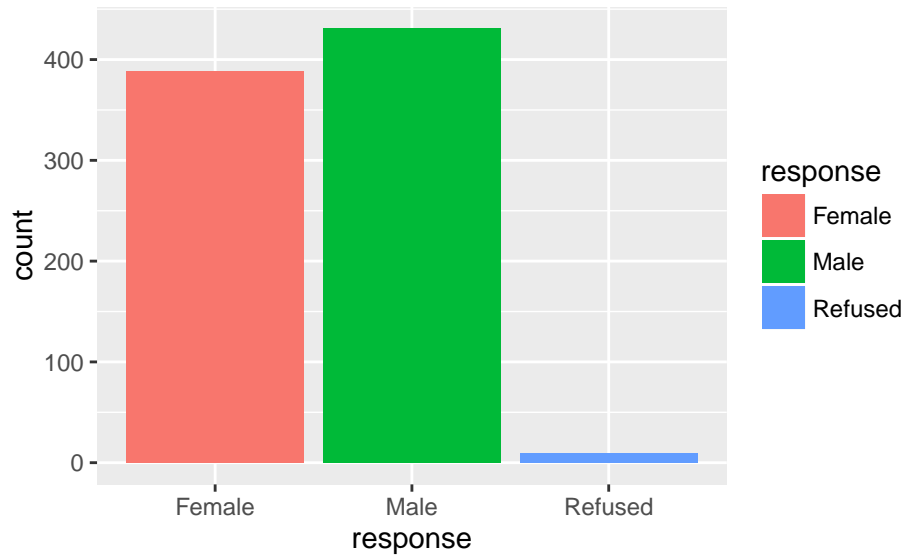
```
##          Q42
## Don't know   :166
## No, never    :567
## Refused      :  6
## Yes, always  :661
## Yes, sometimes:263
## NA's         :505
```



HHM2

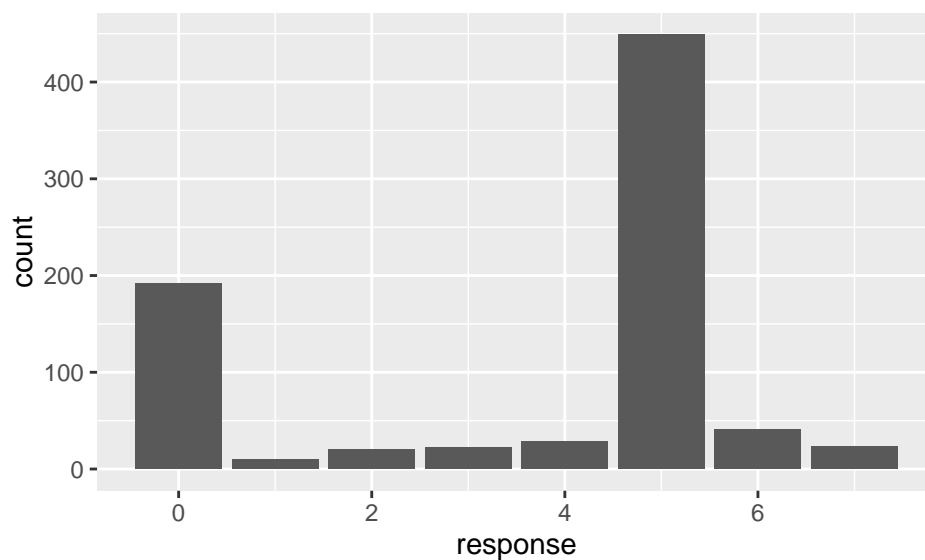
Q43. What is the gender of this member of the household? Remember, this relates to HHM1_Name who is HHM1_AGE years old.

```
##      Q43
## Female : 388
## Male   : 431
## Refused: 9
## NA's   :1340
```



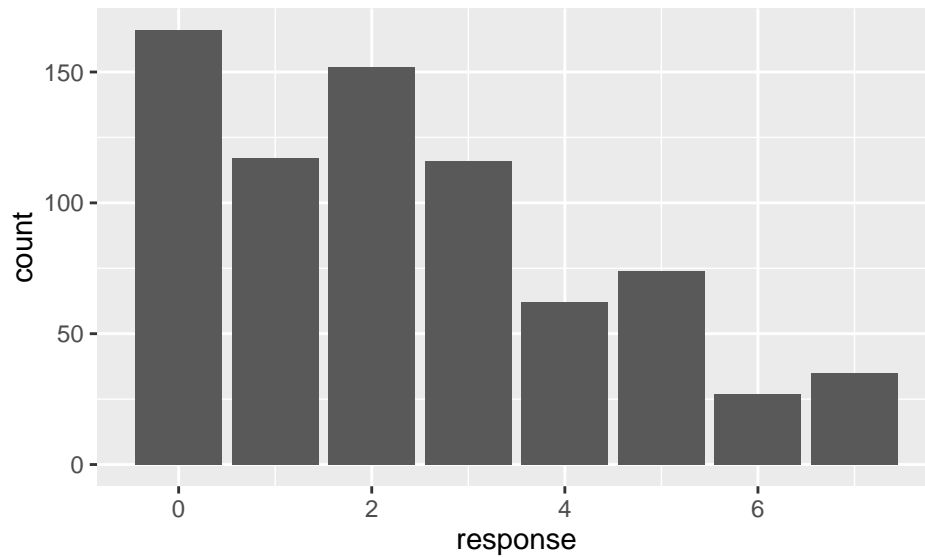
Q44. On average, how many days per week does this member of your household work or attend day care or school outside of your home?

```
##      Q44      Q44_Codes
## Min.   :0.000 Don't know: 40
## 1st Qu.:1.000 Refused   : 3
## Median :5.000 NA's      :2125
## Mean    :3.669
## 3rd Qu.:5.000
## Max.    :7.000
## NA's    :1383
```



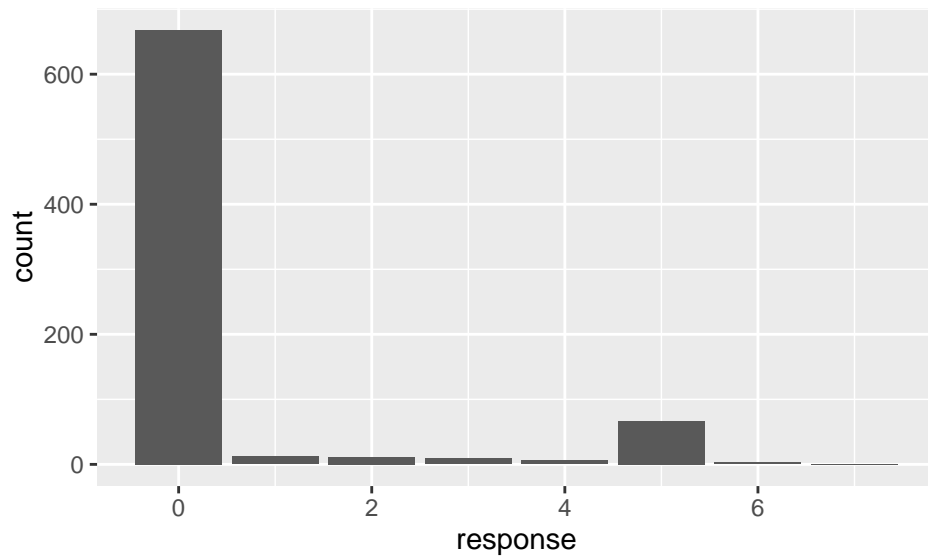
Q45. On average, how many days per week does this member of your household participate in social activities outside of your home?

```
##          Q45          Q45_Codes
## Min.      :0.000    Don't know:  70
## 1st Qu.:1.000    Refused   :   9
## Median :2.000    NA's      :2089
## Mean      :2.395
## 3rd Qu.:4.000
## Max.      :7.000
## NA's      :1419
```



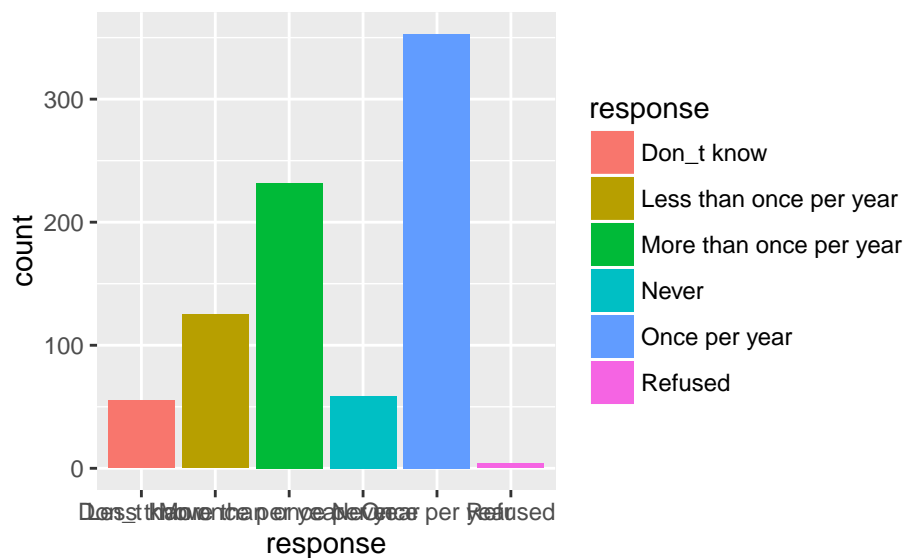
Q46. On average, how many days per week does this member of your household use public transportation?

```
##          Q46          Q46_Codes
## Min.      :0.0000    Don't know:  42
## 1st Qu.:0.0000    Refused   :   9
## Median :0.0000    NA's      :2117
## Mean      :0.5727
## 3rd Qu.:0.0000
## Max.      :7.0000
## NA's      :1391
```

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

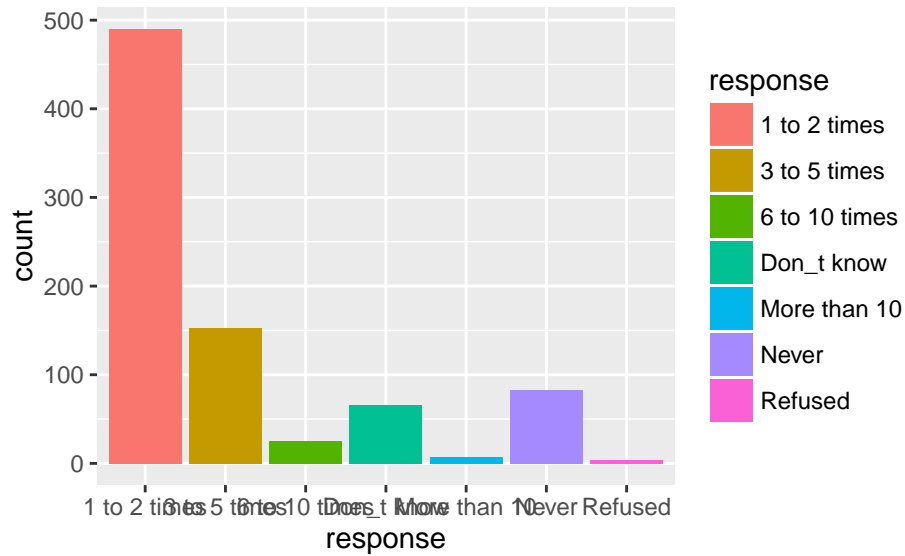
```
##           Q47
## Don_t know      : 55
## Less than once per year: 125
## More than once per year: 232
## Never           : 59
## Once per year    : 353
## Refused         : 4
## NA's            :1340
```



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

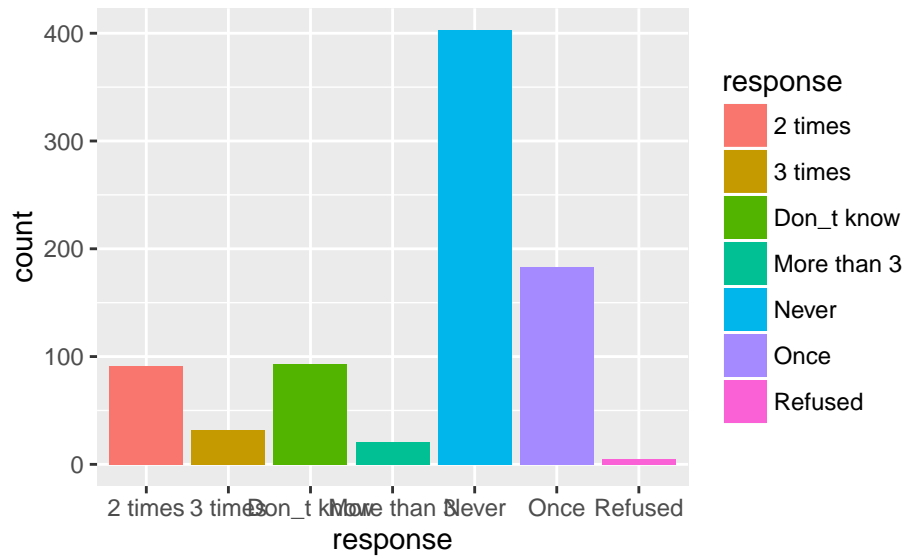
```
##           Q48
```

```
## 1 to 2 times : 490
## 3 to 5 times : 153
## Never       : 83
## Don't know  : 66
## 6 to 10 times: 25
## (Other)     : 11
## NA's        :1340
```



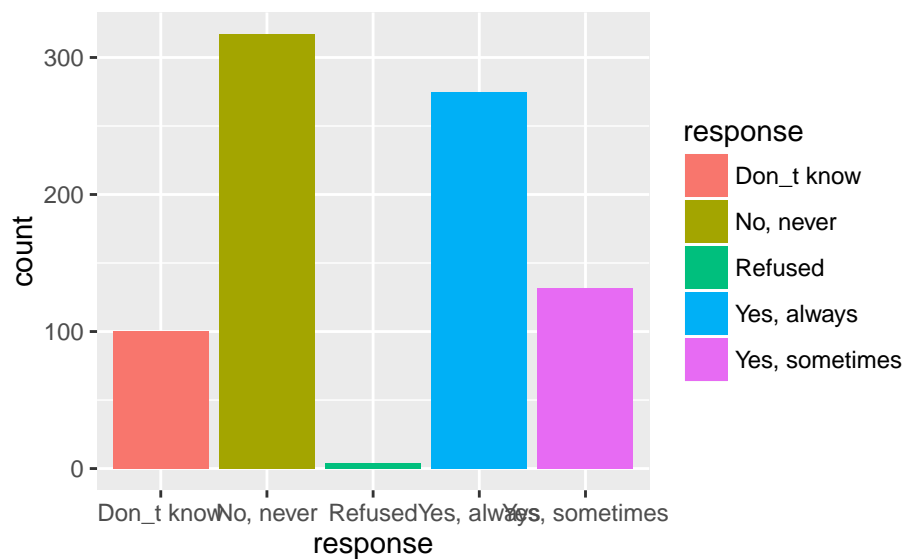
Q49. How many times has this member of your household had influenza or another respiratory illness in the last two years?

```
## Q49
## Never : 403
## Once : 183
## Don't know: 93
## 2 times : 91
## 3 times : 32
## (Other) : 26
## NA's :1340
```



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

```
##           Q50
## Don't know : 100
## No, never  : 317
## Refused    : 4
## Yes, always : 275
## Yes, sometimes: 132
## NA's       :1340
```



to-do:

- need to remove NA's
- `ggplot(q7) + geom_bar(aes(x = option, fill = response), position = "dodge")`
- `ggplot(data = data) + geom_bar(mapping = aes(x = Q1)) + stat_sum()`