Naloxone12moCTC

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Open packages.

```
library(base)
library(knitr)
library(dplyr)
library(here)
library(foreign)
library(labelled)
library(dplyr)
library(reshape2)
```

Open working directory and load/label the data.

```
#set working directory
setwd("~/Documents/GitHub/lizzyandshelley/Dataset") #LIZZY

#load the data
df <- read.spss("CTC12month.SAV", use.value.labels = TRUE, to.data.frame=TRUE)
```

Get variable labels.

Subset the data to delete all rows that are entirely NA (since they didn't show up to 12 month visit).

```
df <- df[rowSums(is.na(df)) < 600,] #rows reduced from N=984 to N=536 people
```

Descriptives of overdose and naloxone variables.

```
#ODP6M: Overdosed in the last 6 months
#In the last 6 months, have you overdosed?
tbl.ODP6M <- table(df$ODP6M, useNA = "ifany")
tbl.ODP6M
```

```
##
##   No  Yes <NA>
##  449   85    2
```

```
prop.table(tbl.ODP6M)
```

```
##
##           No        Yes       <NA>
## 0.837686567 0.158582090 0.003731343
```

```
#ODTIMES: Times overdosed in the last 6 months
#How many times did you overdose in the last 6 months?
tbl.ODTIMES <- table(df$ODTIMES, useNA = "ifany")
tbl.ODTIMES
```

```
##
```

```
##    0    1    2    3    4    5    6    7   10 <NA>
##    1   36   24    9    5    3    1    2    2  453
```

```r
prop.table(tbl.ODTIMES)
```

```
##
##           0           1           2           3           4           5
## 0.001865672 0.067164179 0.044776119 0.016791045 0.009328358 0.005597015
##           6           7          10        <NA>
## 0.001865672 0.003731343 0.003731343 0.845149254
```

```r
#FENTOD: Number of fentanyl related overdoses
#In the last 6 months, when you overdosed, how many times had you been using Fentanyl
#or drugs with Fentanyl in it?
tbl.FENTOD <- table(df$FENTOD, useNA = "ifany")
tbl.FENTOD
```

```
##
##    0    1    2    3    4    5    6    7    9 <NA>
##   20   26   12    9    3    3    2    1    1  459
```

```r
prop.table(tbl.FENTOD)
```

```
##
##           0           1           2           3           4           5
## 0.037313433 0.048507463 0.022388060 0.016791045 0.005597015 0.005597015
##           6           7           9        <NA>
## 0.003731343 0.001865672 0.001865672 0.856343284
```

```r
#ODDRUG: Drugs used when overdosed the last time
#The last time you overdosed, what drug or drugs had you been using?  Check all that apply
table(df$ODDRUG, useNA = "ifany")
```

```
##
##    1    2    3    4    7 <NA>
##   31   37    8    4    1  455
```

```r
table(df$ODDRUGA, useNA = "ifany") #Crack cocaine
```

```
##
##   No  Yes <NA>
##   78    3  455
```

```r
table(df$ODDRUGB, useNA = "ifany") #Powder cocaine
```

```
##
##   No  Yes <NA>
##   79    2  455
```

```r
table(df$ODDRUGC, useNA = "ifany") #Methamphetamine
```

```
##
##   No  Yes <NA>
##   67   14  455
```

```r
table(df$ODDRUGD, useNA = "ifany") #Heroin (by itself)
```

```
##
##   No  Yes <NA>
##   30   51  455
```

```r
table(df$ODDRUGE, useNA = "ifany") #Speedball (heroin mixed with cocaine or crack)
```

```
##
##   No  Yes <NA>
##   77    4  455
```

```r
table(df$ODDRUGF, useNA = "ifany") #Goofball (heroin mixed with speed)
```

```
##
##   No  Yes <NA>
##   75    6  455
```

```r
table(df$ODDRUGG, useNA = "ifany") #Non-opiate pain relievers (percocet, percodan, darvon)
```

```
##
##   No  Yes <NA>
##   81    0  455
```

```r
table(df$ODDRUGH, useNA = "ifany") #Opiates (vicodin, oxycontin, dilaudid)
```

```
##
##   No  Yes <NA>
##   78    3  455
```

```r
table(df$ODDRUGI, useNA = "ifany") #Tranquilizers (klonopin, xanax, valium, atavan)
```

```
##
##   No  Yes <NA>
##   71   10  455
```

```r
table(df$ODDRUGJ, useNA = "ifany") #Sedatives (restoril, tuinal, phenobarbatal)
```

```
##
##   No  Yes <NA>
##   81    0  455
```

```r
table(df$ODDRUGK, useNA = "ifany") #Stimulants (ritalin, aderall, methadrine, bezedrine)
```

```
##
##   No  Yes <NA>
##   81    0  455
```

```r
table(df$ODDRUGL, useNA = "ifany") #Methadone
```

```
##
##   No  Yes <NA>
##   78    3  455
```

```r
table(df$ODDRUGM, useNA = "ifany") #Alcohol
```

```
##
##   No  Yes <NA>
##   74    7  455
```

```r
table(df$ODDRUGN, useNA = "ifany") #Fentanyl or drugs w/fentanyl
```

```
##
##   No  Yes <NA>
##   32   49  455
```

```r
#WOD6M: Witnessed an overdose in the last 6 months
#In the last 6 months, have you witnessed a heroin or opiate overdose?
tbl.WOD6M <- table(df$WOD6M, useNA = "ifany")
tbl.WOD6M
```

```
##
##   No  Yes <NA>
##  270  265    1
```

```r
prop.table(tbl.WOD6M)
```

```
##
##          No         Yes        <NA>
## 0.503731343 0.494402985 0.001865672
```

```r
#WODX6M: Number of witnessed overdoses in the last 6 months
#In the last 6 months, how many heroin or opiate overdoses have you witnessed?
tbl.WODX6M <- table(df$WODX6M, useNA = "ifany")
tbl.WODX6M
```

```
##
##    0    1    2    3    4    5    6    7    8   10   11   12   13   15   20   24
##    2   34   43   44   27   24   13    3    8   22    1    7    1    5    5    4
##   25   30   45   49   50   60   72   90  100  180 <NA>
##    3    2    1    1    2    3    1    1    2    1  276
```

```r
prop.table(tbl.WODX6M)
```

```
##
##           0           1           2           3           4           5
## 0.003731343 0.063432836 0.080223881 0.082089552 0.050373134 0.044776119
##           6           7           8          10          11          12
## 0.024253731 0.005597015 0.014925373 0.041044776 0.001865672 0.013059701
##          13          15          20          24          25          30
## 0.001865672 0.009328358 0.009328358 0.007462687 0.005597015 0.003731343
##          45          49          50          60          72          90
## 0.001865672 0.001865672 0.003731343 0.005597015 0.001865672 0.001865672
##         100         180        <NA>
## 0.003731343 0.001865672 0.514925373
```

```r
#NARCAN: More than one dose of narcan to revive person
#Of the overdoses you witnessed where naloxone was used, did any of them require more than
#one dose to revive the person to the best of your knowledge?
tbl.NARCAN <- table(df$NARCAN, useNA = "ifany")
tbl.NARCAN
```

```
##
##   No  Yes <NA>
##   52  183  301
```

```r
prop.table(tbl.NARCAN)
```

```
##
##          No         Yes        <NA>
## 0.09701493  0.34141791  0.56156716
```

```r
#RIGID: Rigidty or seizures during the overdose
#During the overdose(s) that you witnessed, did any one of the victims have immediate body
#rigidity or seizures?
```

```r
tbl.RIGID <- table(df$RIGID, useNA = "ifany")
tbl.RIGID
```

```
## 
##   No  Yes <NA>
##  146  107  283
```

```r
prop.table(tbl.RIGID)
```

```
## 
##        No       Yes      <NA>
## 0.2723881 0.1996269 0.5279851
```

```r
#IMMED: Any immediate overdoses
#Of the overdoses you witnessed, did any of the victims overdose immediately or shortly
#after taking their shot?
tbl.IMMED <- table(df$IMMED, useNA = "ifany")
tbl.IMMED
```

```
## 
##   No  Yes <NA>
##   21  224  291
```

```r
prop.table(tbl.IMMED)
```

```
## 
##        No       Yes      <NA>
## 0.0391791 0.4179104 0.5429104
```

```r
#USEDNAL: Times naloxone used by bystander to prevent overdose in the last 30 days
#In the last 6 months, how many of these witnessed overdoses did you or someone else
#who was not an EMT or police officer use naloxone or narcan?
tbl.USEDNAL <- table(df$USEDNAL, useNA = "ifany")
tbl.USEDNAL
```

```
## 
##    0    1    2    3    4    5    6    7    8    9   10   11   12   13   14   15
##   39   30   35   36   21   28    4    4    7    1   13    2    3    1    1    2
##   17   20   24   25   30   35   50   60   70  100 <NA>
##    1    7    3    1    1    1    2    2    1    1  289
```

```r
prop.table(tbl.USEDNAL)
```

```
## 
##            0           1           2           3           4           5
## 0.072761194 0.055970149 0.065298507 0.067164179 0.039179104 0.052238806
##            6           7           8           9          10          11
## 0.007462687 0.007462687 0.013059701 0.001865672 0.024253731 0.003731343
##           12          13          14          15          17          20
## 0.005597015 0.001865672 0.001865672 0.003731343 0.001865672 0.013059701
##           24          25          30          35          50          60
## 0.005597015 0.001865672 0.001865672 0.001865672 0.003731343 0.003731343
##           70         100        <NA>
## 0.001865672 0.001865672 0.539179104
```

```r
#OD911: Number of witnessed od where 911 was called in the last 30 days
#In the last 6 months, how many of these witnessed overdoses did you or someone else call 911?
tbl.OD911 <- table(df$OD911, useNA = "ifany")
tbl.OD911
```

```
##
##    0    1    2    3    4    5    6    7    8    9   10   13   15   17   20   24
##   52   54   39   29   12   22    6    8    3    1   10    2    1    1    3    2
##   30   40   50   60  180 <NA>
##    1    1    1    1    1  286
```

```
prop.table(tbl.OD911)
```

```
##
##           0           1           2           3           4           5
## 0.097014925 0.100746269 0.072761194 0.054104478 0.022388060 0.041044776
##           6           7           8           9          10          13
## 0.011194030 0.014925373 0.005597015 0.001865672 0.018656716 0.003731343
##          15          17          20          24          30          40
## 0.001865672 0.001865672 0.005597015 0.003731343 0.001865672 0.001865672
##          50          60         180        <NA>
## 0.001865672 0.001865672 0.001865672 0.533582090
```

```
#ODTRAIN: Have you ever participated in overdose prevention training?
#Have you ever participated in overdose prevention training?
tbl.ODTRAIN <- table(df$ODTRAIN, useNA = "ifany")
tbl.ODTRAIN
```

```
##
##   No  Yes <NA>
##  241  294    1
```

```
prop.table(tbl.ODTRAIN)
```

```
##
##          No         Yes        <NA>
## 0.449626866 0.548507463 0.001865672
```

```
#ODTBY: OD training from whom
#From whom did you receive overdose prevention training?
table(df$ODTBY, useNA = "ifany")
```

```
##
##    1    2    3    4 <NA>
##  266   24    3    1  242
```

```
table(df$ODTBYA, useNA = "ifany") #Needle exchange
```

```
##
##   No  Yes <NA>
##   69  225  242
```

```
table(df$ODTBYB, useNA = "ifany") #Another drug user
```

```
##
##   No  Yes <NA>
##  284   10  242
```

```
table(df$ODTBYC, useNA = "ifany") #Another community member
```

```
##
##   No  Yes <NA>
##  289    5  242
```

```r
table(df$ODTBYD, useNA = "ifany") #A family member
```

```
##
##   No  Yes <NA>
##  293    1  242
```

```r
table(df$ODTBYE, useNA = "ifany") #Pharmacy
```

```
##
##   No  Yes <NA>
##  293    1  242
```

```r
table(df$ODTBYF, useNA = "ifany") #Community clinic
```

```
##
##   No  Yes <NA>
##  259   35  242
```

```r
table(df$ODTBYG, useNA = "ifany") #Hospital
```

```
##
##   No  Yes <NA>
##  283   11  242
```

```r
table(df$ODTBYH, useNA = "ifany") #Jail or prison
```

```
##
##   No  Yes <NA>
##  285    9  242
```

```r
table(df$ODTBYI, useNA = "ifany") #Other
```

```
##
##   No  Yes <NA>
##  264   30  242
```

```r
#ODTOTH:Overdose training by other organization
#What is the other organization or entity that provided you with overdose training?
tbl.ODTOTH <- table(df$ODTOTH, useNA = "ifany")
tbl.ODTOTH
```

```
##
##
##                                                      0
## -Hopics (58th and broadway) and -Needle exchange
##                                                      1
## [Skipped]
##                                                    505
## Anarchist Collective
##                                                      1
## DOPE Project
##                                                      1
## Dr. Dan
##                                                      1
## Drop In Center
##                                                      1
## Drug Users Union
##                                                      2
```

```
## DUU
##                                                              2
## Florida Technical College, Florida
##                                                              1
## Haight Youth Alliance
##                                                              1
## Health Dept.
##                                                              1
## High school
##                                                              1
## Homeless Outreach Team
##                                                              1
## Impact treatment center
##                                                              1
## kaiser outpatient clinic
##                                                              1
## Needle Exchange Outreach
##                                                              1
## Not Applicable
##                                                              1
## Nursing school
##                                                              1
## Nursing School
##                                                              1
## Outreach Person
##                                                              1
## Outreach Worker
##                                                              1
## Research Study on Van Ness
##                                                              1
## ROTC
##                                                              1
## SF AIDS Foundation
##                                                              1
## SF Drug Users Union
##                                                              1
## SFAF
##                                                              2
## VA outpatient clinic on Temple St.
##                                                              1
## Ward 93
##                                                              2
```

```r
#NALEVER: Ever received naloxone
#Have you ever received naloxone (including narcan, intranasal narcan, and/or autoinjector
#of naloxone to use on yourself or other people?
tbl.NALEVER <- table(df$NALEVER, useNA = "ifany")
tbl.NALEVER
```

```
##
##   No  Yes <NA>
##  148  387    1
```

```r
prop.table(tbl.NALEVER)
```

```
##
```

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```
##          No         Yes        <NA>
## 0.276119403 0.722014925 0.001865672
```
#NAL6MOS: Received naloxone in the last 6 months
#Have you received naloxone in the last 6 months?
tbl.NAL6MOS <- table(df$NAL6MOS, useNA = "ifany")
tbl.NAL6MOS

```
##
##   No  Yes <NA>
##  122  265  149
```
prop.table(tbl.NAL6MOS)

```
##
##          No        Yes       <NA>
## 0.2276119 0.4944030 0.2779851
```
#NAL6ORG: Naloxone from whom in the last 6 months
#From whom did you receive naloxone, narcan, intranasal narcan, and/or autoinjector/evzio in the last 6
table(df$NAL6ORG, useNA = "ifany")

```
##
##    1    2    3 <NA>
##  240   21    3  272
```
table(df$NAL6ORGA, useNA = "ifany") #Needle exchange

```
##
##   No  Yes <NA>
##   42  222  272
```
table(df$NAL6ORGB, useNA = "ifany") #Another drug user

```
##
##   No  Yes <NA>
##  245   19  272
```
table(df$NAL6ORGC, useNA = "ifany") #Another community member

```
##
##   No  Yes <NA>
##  263    1  272
```
table(df$NAL6ORGD, useNA = "ifany") #A family member

```
##
##   No  Yes <NA>
##  264    0  272
```
table(df$NAL6ORGE, useNA = "ifany") #Pharmacy

```
##
##   No  Yes <NA>
##  262    2  272
```
table(df$NAL6ORGF, useNA = "ifany") #Community clinic

```
##
##   No  Yes <NA>
##  237   27  272
```

```r
table(df$NAL6ORGG, useNA = "ifany") #Hospital
```

```
##
##   No  Yes <NA>
##  259    5  272
```

```r
table(df$NAL6ORGH, useNA = "ifany") #Jail or prison
```

```
##
##   No  Yes <NA>
##  262    2  272
```

```r
table(df$NAL6ORGI, useNA = "ifany") #Other
```

```
##
##   No  Yes <NA>
##  251   13  272
```

```r
#OTHNORG: Other organization that provided naloxone in the last 6 months
#What is the other organization or entity that provided you with naloxone in the last 6 months?
table(df$OTHNORG, useNA = "ifany")
```

```
##
##                                  [Skipped]
##                                          0                                  521
## Bar - Friend's Memorial          Bye-C Study at SFDPH
##                                          1                                    1
## Don't Know                       DUU
##                                          1                                    1
## Found it (ground score)          Found on street
##                                          1                                    1
## Found Them                       Homeless Outreach Team
##                                          1                                    1
## Not Applicable                   outreach worker
##                                          1                                    1
## SEP outreach workers on the streets SF Drug Users Union
##                                          1                                    1
## The UFO Study                    UFO Study, SFDUU
##                                          1                                    1
## Was Given a Backpack
##                                          1
```

```r
#NALUSED:Used naloxone in the last 6 months
#Have you used your Naloxone in the last 6 months?
tbl.NALUSED <- table(df$NALUSED, useNA = "ifany")
tbl.NALUSED
```

```
##
##   No  Yes <NA>
##  114  149  273
```

```r
prop.table(tbl.NALUSED)
```

```
##
##         No        Yes       <NA>
## 0.2126866 0.2779851 0.5093284
```

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```
#NALOSE: Lost naloxone in the last 6 months
#Have you lost your Naloxone in the last 6 months?
tbl.NALOSE <- table(df$NALOSE, useNA = "ifany")
tbl.NALOSE
```

```
##
##   No  Yes <NA>
##  137  126  273
```

```
prop.table(tbl.NALOSE)
```

```
##
##        No       Yes      <NA>
## 0.2555970 0.2350746 0.5093284
```

```
#NALFILL: Got a refill of naloxone in the last 6 months
#After using or losing your naloxone, did you get a replacement or refill?
tbl.NALFILL <- table(df$NALFILL, useNA = "ifany")
tbl.NALFILL
```

```
##
##   No  Yes <NA>
##   46  178  312
```

```
prop.table(tbl.NALFILL)
```

```
##
##        No       Yes      <NA>
## 0.0858209 0.3320896 0.5820896
```

```
#TMEFILL: Days it took to refill or replace naloxone.
#How long after using or losing your Naloxone, did you get a replacement or refill?
tbl.TMEFILL <- table(df$TMEFILL, useNA = "ifany")
tbl.TMEFILL
```

```
##
##    0    1    2    3    4    5    6    7    9   10   11   14   15   21   30   60
##    4   52   37   13    6    9    3   29    1    2    1    2    1    1    7    3
## <NA>
##  365
```

```
prop.table(tbl.TMEFILL)
```

```
##
##           0           1           2           3           4           5
## 0.007462687 0.097014925 0.069029851 0.024253731 0.011194030 0.016791045
##           6           7           9          10          11          14
## 0.005597015 0.054104478 0.001865672 0.003731343 0.001865672 0.003731343
##          15          21          30          60        <NA>
## 0.001865672 0.001865672 0.013059701 0.005597015 0.680970149
```

```
#NALPRVD: Who provided the naloxone replacement or refill
#From whom did you receive your naloxone replacement or refill?
table(df$NALPRVD, useNA = "ifany")
```

```
##
##    0    1    2    3    4 <NA>
##    1  167    8    2    1  357
```

```r
table(df$NALPRVDA, useNA = "ifany") #Needle exchange
```

```
##
##   No  Yes <NA>
##   16  163  357
```

```r
table(df$NALPRVDB, useNA = "ifany") #Another drug user
```

```
##
##   No  Yes <NA>
##  172    7  357
```

```r
table(df$NALPRVDC, useNA = "ifany") #Another community member
```

```
##
##   No  Yes <NA>
##  177    2  357
```

```r
table(df$NALPRVDD, useNA = "ifany") #A family member
```

```
##
##   No  Yes <NA>
##  178    1  357
```

```r
table(df$NALPRVDE, useNA = "ifany") #Pharmacy
```

```
##
##   No  Yes <NA>
##  176    3  357
```

```r
table(df$NALPRVDF, useNA = "ifany") #Community clinic
```

```
##
##   No  Yes <NA>
##  168   11  357
```

```r
table(df$NALPRVDG, useNA = "ifany") #Hospital
```

```
##
##   No  Yes <NA>
##  178    1  357
```

```r
table(df$NALPRVDH, useNA = "ifany") #Jail or prison
```

```
##
##   No  Yes <NA>
##  178    1  357
```

```r
table(df$NALPRVDI, useNA = "ifany") #Other
```

```
##
##   No  Yes <NA>
##  175    4  357
```

```r
#OTHPRON: Replacement naloxone provided by what other organization
#What is the other organization or entity that provided you with naloxone dose replacement or refill?
table(df$OTHPRON, useNA = "ifany") #Other
```

```
##
##                                              [Skipped]
```

```
##                                             0                              491
## Don't Know                          DUU
##                                             2                                1
## Found among someone else's belongings Not Applicable
##                                             1                               39
## Outreach                            SEP outreach workers
##                                             1                                1
```

```r
#NALOWN: Own a dose of naloxone
#Do you currently have at least one dose of naloxone? (By this, we mean you possess
#or own your own naloxone dose)
tbl.NALOWN <- table(df$NALOWN, useNA = "ifany")
tbl.NALOWN
```

```
##
##   No  Yes <NA>
##   76  188  272
```

```r
prop.table(tbl.NALOWN)
```

```
##
##        No       Yes      <NA>
## 0.1417910 0.3507463 0.5074627
```

```r
#NALAVAIL: Naloxone available
#In the last 6 months, when you injected drugs, how often did you or someone else around you have nalox
tbl.NALAVAIL <- table(df$NALAVAIL, useNA = "ifany")
tbl.NALAVAIL
```

```
##
##               Never - 0% Occasionally - 1% to 25%   Sometimes - 26% to 74%
##                      131                         55                       44
##     Usually - 75% to 99%           Always - 100%                     <NA>
##                       94                        135                       77
```

```r
prop.table(tbl.NALAVAIL)
```

```
##
##               Never - 0% Occasionally - 1% to 25%   Sometimes - 26% to 74%
##               0.24440299                 0.10261194               0.08208955
##     Usually - 75% to 99%           Always - 100%                     <NA>
##               0.17537313                 0.25186567               0.14365672
```