title: "fars\_analysis" author: "Kate Huebner" date: "10/27/2017" output: word\_document ---

knitr::opts\_chunk$set(echo = TRUE, message = FALSE,  
 warning = FALSE, error = FALSE)

library(dplyr)   
library(tidyr)   
library(ggplot2)

load("../data/clean\_fars.RData")   
#source("../R/fars\_functions.R")  
dim(clean\_fars)

## [1] 156413 6

length(unique(clean\_fars$unique\_id))

## [1] 25593

summary(clean\_fars)

## unique\_id sex year agecat   
## Length:156413 Male :121072 Min. :1999 < 25 years :39149   
## Class :character Female: 35335 1st Qu.:2002 25--44 years:61235   
## Mode :character NA's : 6 Median :2004 45--64 years:39870   
## Mean :2004 65 years + :16108   
## 3rd Qu.:2007 NA's : 51   
## Max. :2010   
## drug\_type positive\_for\_drug  
## Alcohol :25593 Mode :logical   
## Cannabinoid:26260 FALSE:127597   
## Depressant :25988 TRUE :16894   
## Narcotic :26086 NA's :11922   
## Other :26179   
## Stimulant :26307

clean\_fars %>%  
mutate(year\_cat = cut(year, breaks = c(1999, 2002, 2006, 2010),  
labels = c("1999-2002", "2003-2006", "2007-2010"),  
include.lowest = TRUE, right = TRUE)) %>% filter(!is.na(sex)) %>%  
group\_by(drug\_type, sex, year\_cat) %>% summarize(n\_non\_missing = sum(!is.na(positive\_for\_drug)),  
positive\_test = sum(positive\_for\_drug, na.rm = TRUE),  
perc\_positive = round(100 \* positive\_test / n\_non\_missing, 1)) %>% select(drug\_type, sex, year\_cat, perc\_positive) %>%  
unite(sex\_year\_cat, sex, year\_cat) %>%  
spread(sex\_year\_cat, perc\_positive) %>%  
knitr::kable(col.names = c("Drug type", "F 1999-2002", "F 2003-2006", "F 2007-2010", "M 1999-2002", "M 2003-2006",  
 "M 2007-2010"))

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Drug type | F 1999-2002 | F 2003-2006 | F 2007-2010 | M 1999-2002 | M 2003-2006 | M 2007-2010 |
| Alcohol | 26.4 | 24.3 | 27.1 | 43.2 | 42.9 | 43.3 |
| Cannabinoid | 2.8 | 5.7 | 7.3 | 5.8 | 10.3 | 11.8 |
| Depressant | 3.4 | 3.8 | 4.8 | 2.0 | 2.5 | 3.2 |
| Narcotic | 4.2 | 4.9 | 7.0 | 2.2 | 3.4 | 4.0 |
| Other | 5.6 | 6.6 | 7.2 | 4.3 | 4.5 | 4.2 |
| Stimulant | 7.2 | 9.1 | 8.7 | 10.5 | 11.9 | 9.2 |

#Generating a table with percentages and 95% CIs by drug type for the years 1999 and 2010