lab-07-simpsons.Rmd

Sara Tlal

20 March 2021

Packages

```
library(tidyverse)
library(mosaicData)
```

Exercises

1.

```
 view(Whickham)
```

Your answer: observational , Because they notice a person's health status after a period of time 2.

```
nrow(Whickham)
```

```
## [1] 1314
```

Your answer; 1314 ,represent recorded participants' age, smoking status at baesline 3.

```
ncol(Whickham)
```

```
## [1] 3
```

Your answer:

```
 class(Whickham$age)
```

```
## [1] "integer"
```

```
 class(Whickham$smoker)
```

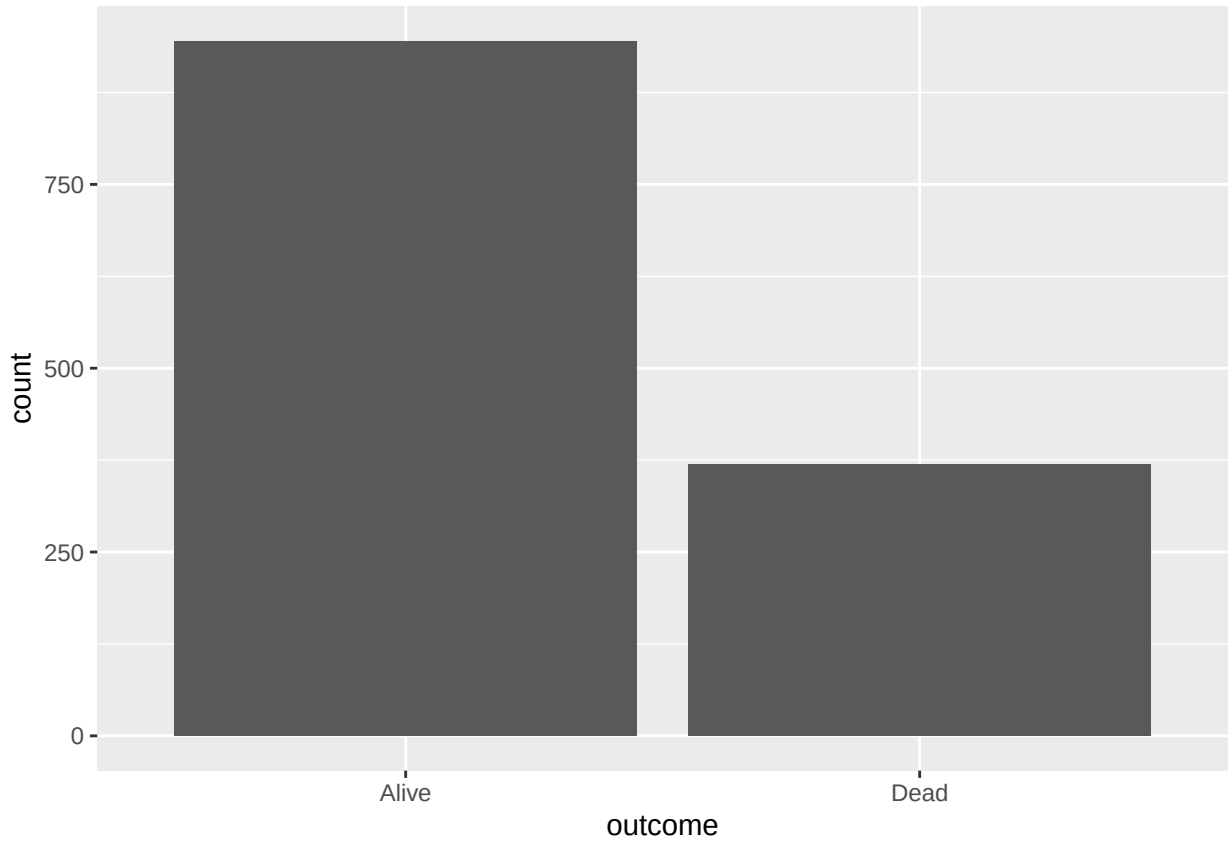
```
## [1] "factor"
```

```
  class(Whickham$outcome)
```

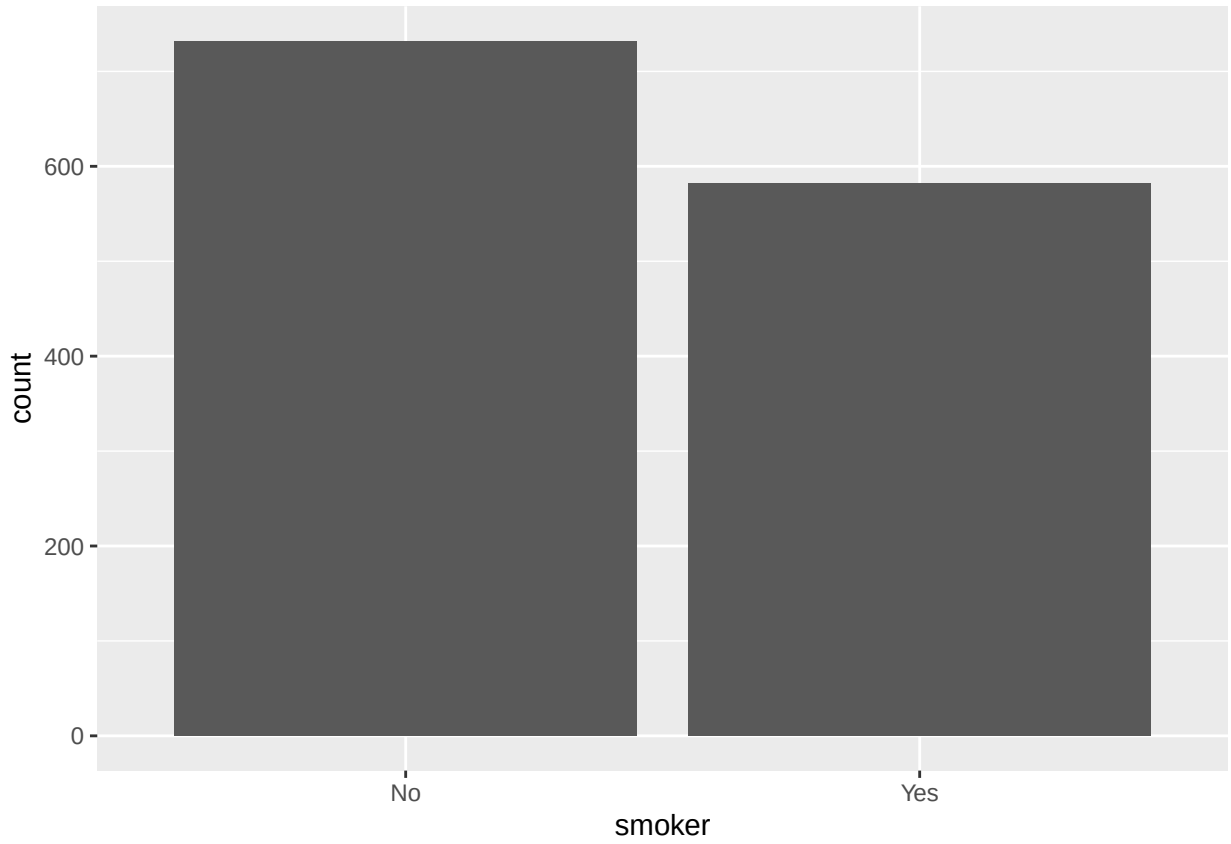
```
## [1] "factor"
```

Your answer: 3 , age (Numerical) , smoker and outcome are categorical age (integer) , smoker and outcome are (factor)

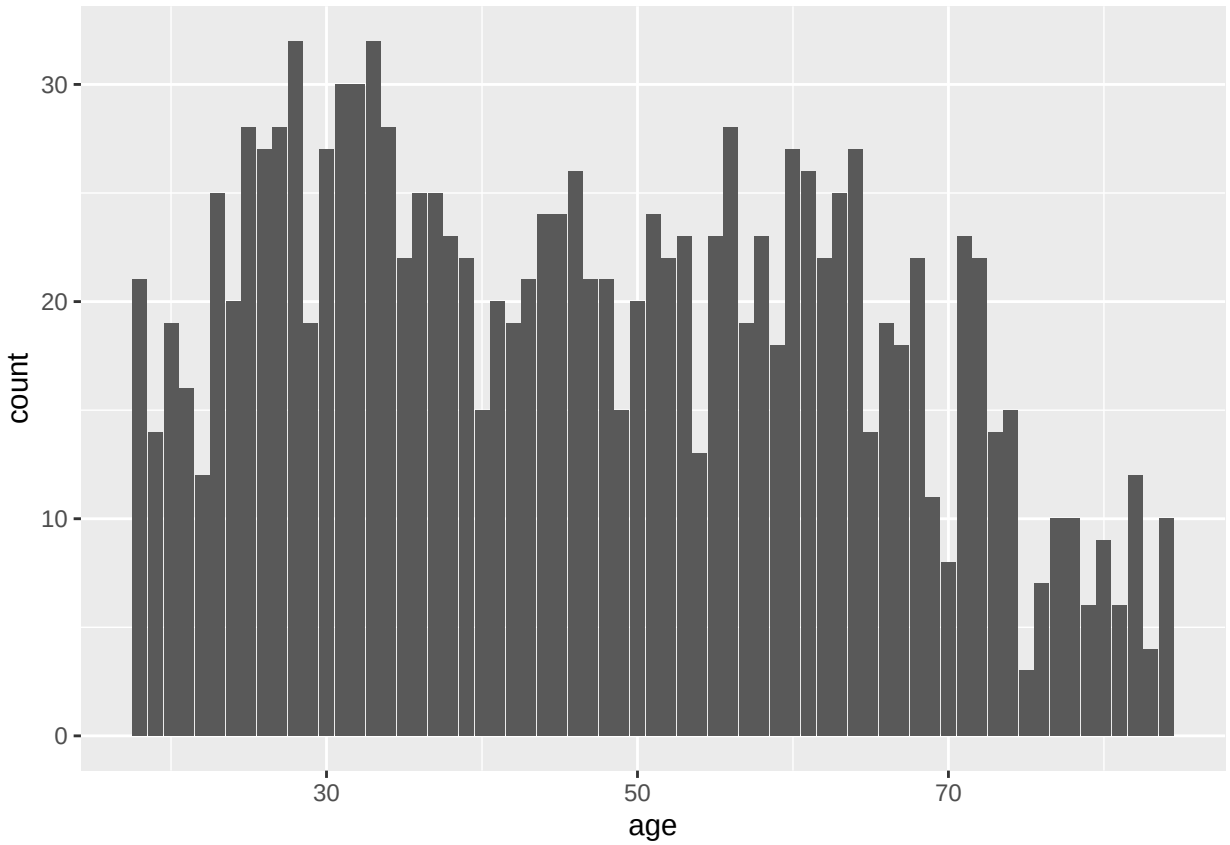
```
ggplot(Whickham, aes(x = outcome)) +
  geom_bar()
```




```
ggplot(Whickham, aes(x = smoker)) +
  geom_bar()
```

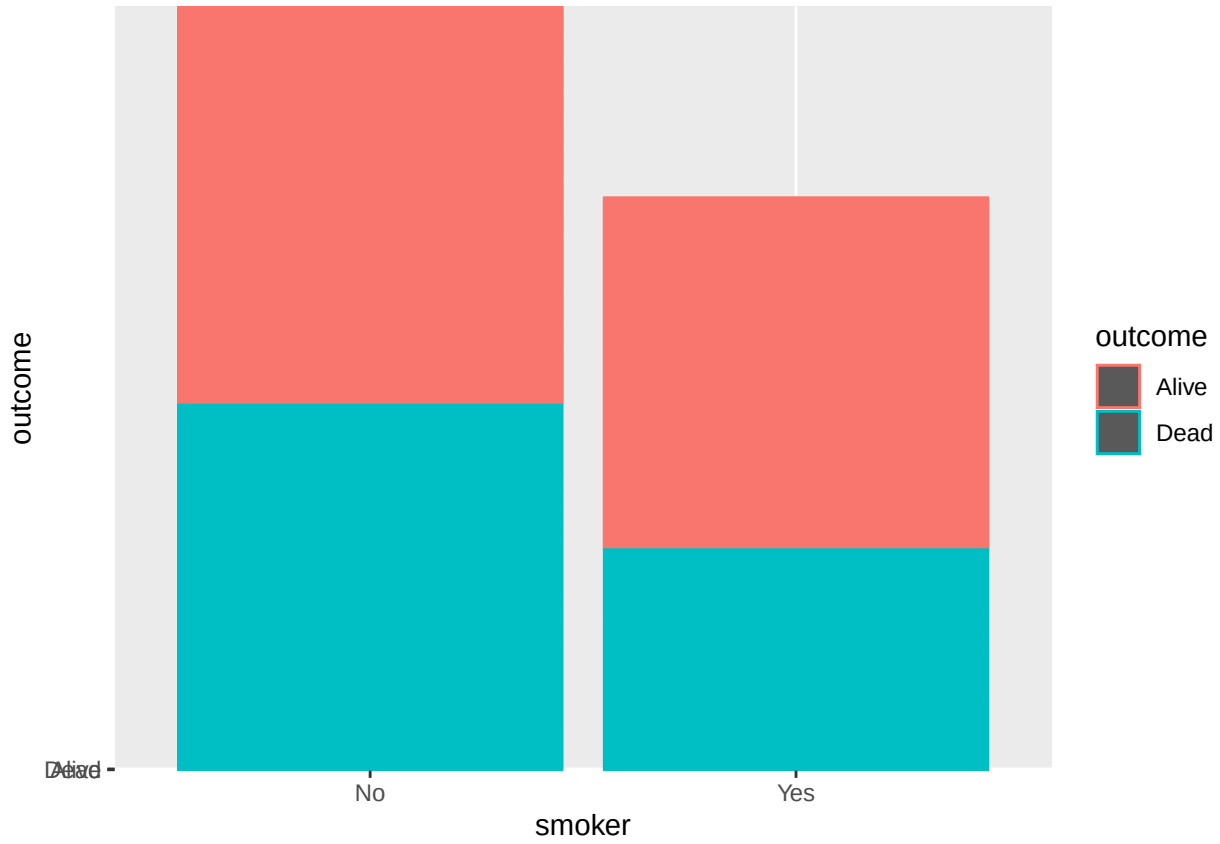



```
ggplot(Whickham, aes(x = age)) +
  geom_bar()
```



4. I expect the health will be worser and may be the person will be died after while ,if he keeping somke

```
ggplot(data=Whickham, aes(x=smoker, y=outcome, color=outcome)) + geom_bar(stat="identity")
```



Knit, commit, and push to github.

5.

```
Whickham %>%
  count(smoker, outcome)
```

```
##   smoker outcome   n
## 1     No   Alive 502
## 2     No    Dead 230
## 3    Yes   Alive 443
## 4    Yes    Dead 139
```

somker (732) NO —— 31,4 (Dead) »(68.6)Alive somker (582) Yes —— 23,8 (Dead) »(76.2)Alive

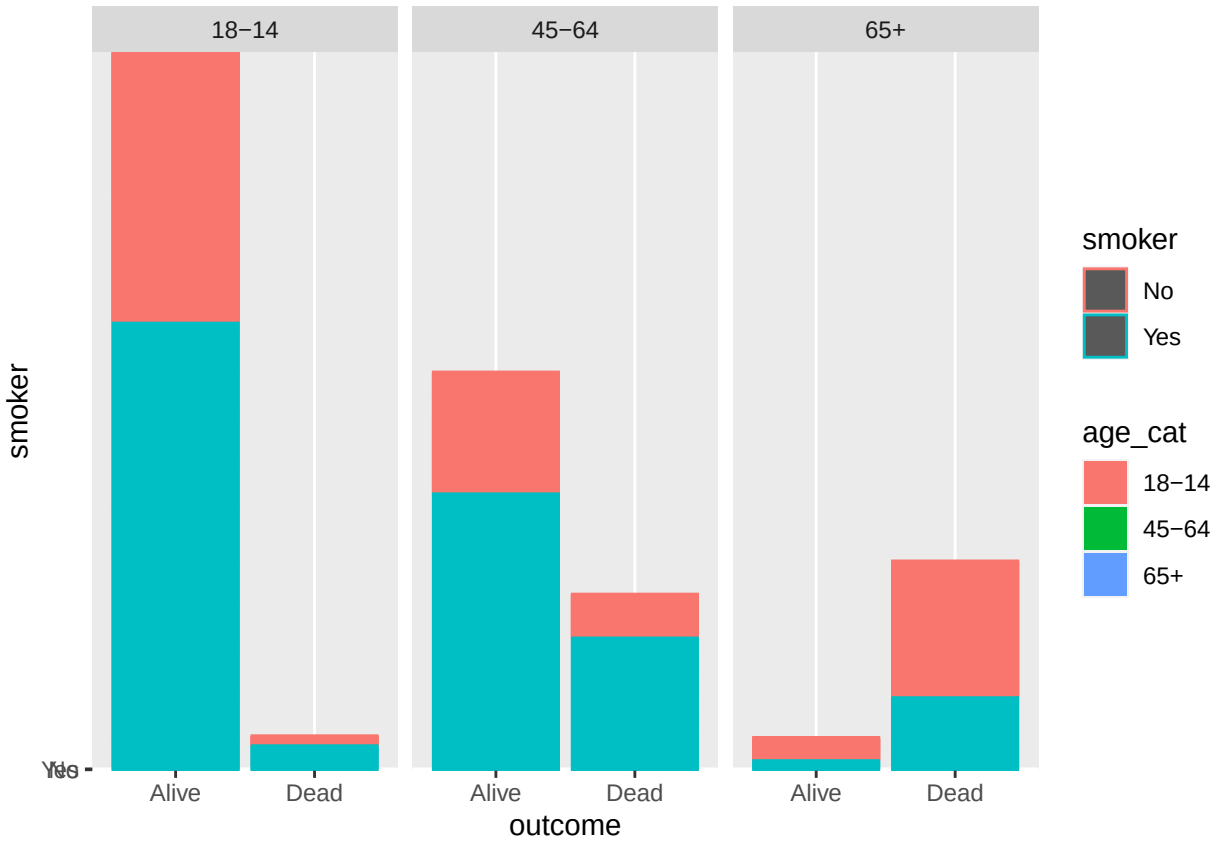
i dose not expected this result because now the most died people not somker

6.

```
Whickham <- Whickham %>% mutate(age_cat = case_when(age <= 44 ~ "18-14" , age > 44 & age <= 64 ~ "45-64
```

7.

```
ggplot(data=Whickham, aes(x=outcome, y=smoker,color=smoker, fill=age_cat)) + geom_bar(stat="identity") +
```



what changes > the category of the age it's appear to us and we see the most of dead people not smoker in age (65+).. but in age (45-64)and (18-44)the most dead people are smoker that is relationship between the smoking and helth not clearly but can say that your helth will be change to worst if you be smoker. Knit, commit, and push to github.