Reproducible documents

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Setup code chuck

```
library(knitr)
library(tidyverse)
library(ggplot2)
post_meal_data <- read_csv2(here::here("data/post-meal-insulin.csv"))
```

About me

- PhD student
- Owns many shrimps
- From SDU, FGM, ATLAS

I started my PhD the 1th of *October*

I am taller than i am **wide**

Simple code

```
3*3
```

```
[1] 9
```

Testing for Git

Then type out a sentence below the header with some random words, maybe about the weather.

Showing the data

```
post_meal_data
```

```
glimpse(post_meal_data)
head(post_meal_data)
```

tidy data

Each variable is a column; each column is a variable. Each observation is a row; each row is an observation. Each value is a cell; each cell is a single value.

mistakes in the data BMI is combined NA values id column

```
colnames(post_meal_data)
post_meal_data$id
```

9 - Basic data visualization

```
ggplot(post_meal_data,aes(x = BMI)) +
  geom_histogram(bins=10)
```

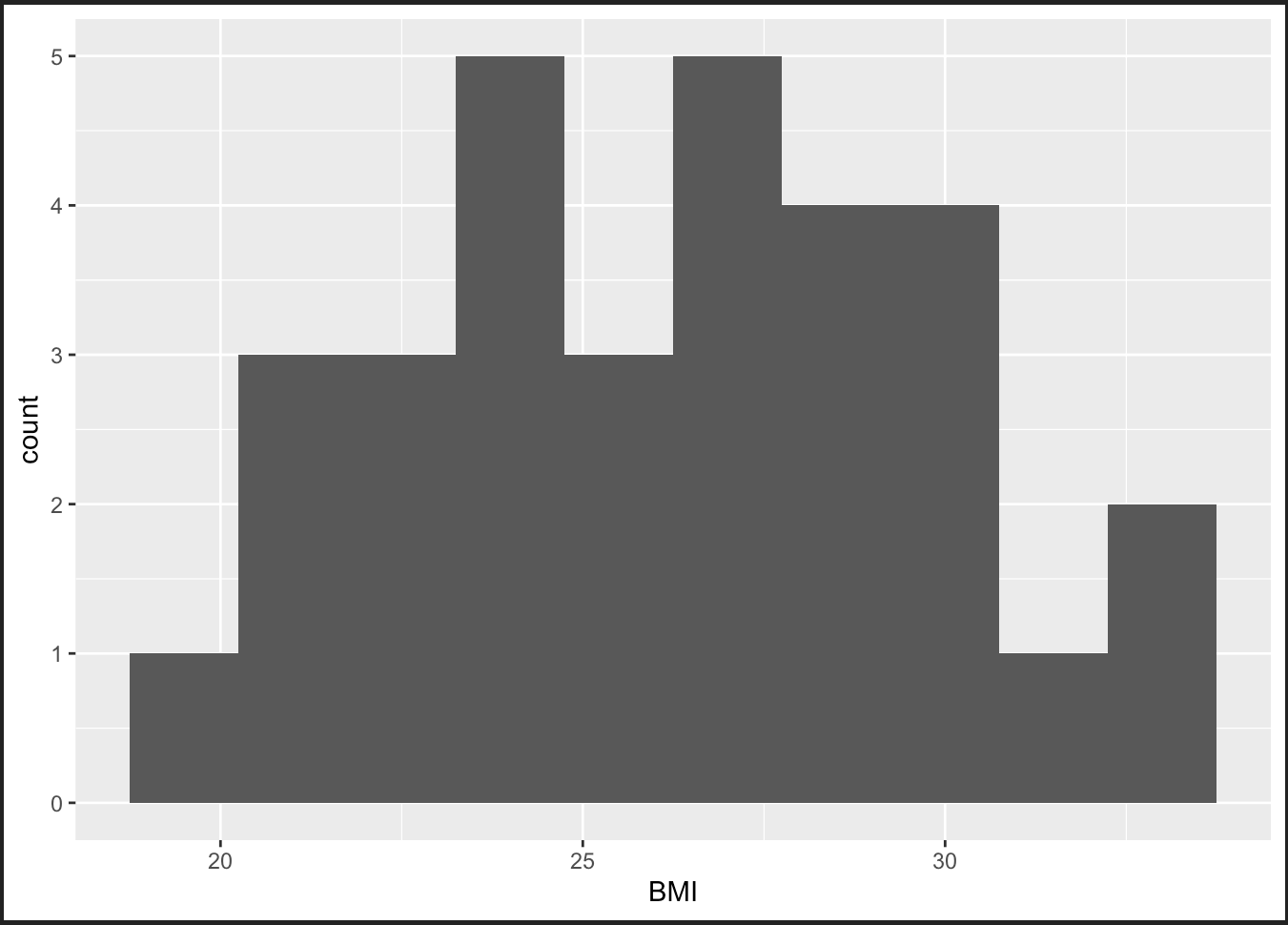


Figure 1: Distribution of BMI.

Exercise: discrete plots

```
post_meal_data |>
  ggplot(aes(x=Group,fill=as.factor(glykemi)))+
    geom_bar()+
    labs(fill="Glykemi")
```

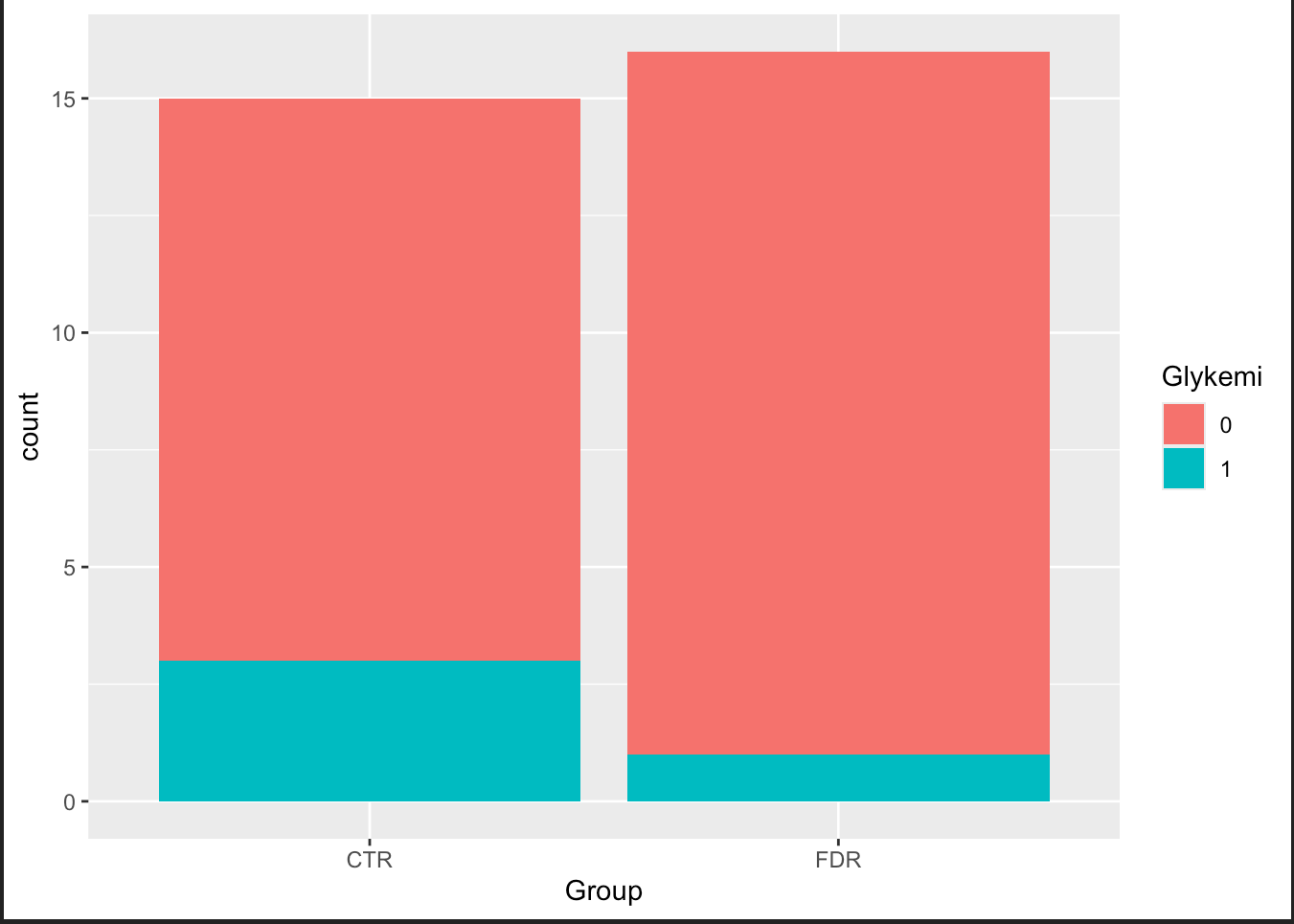
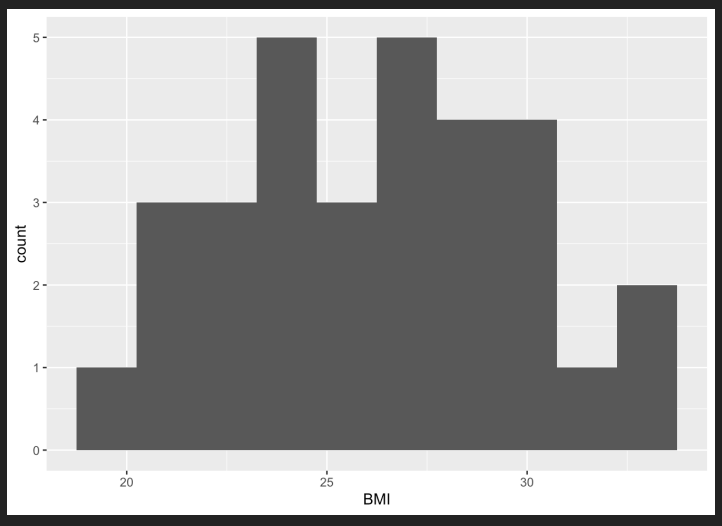


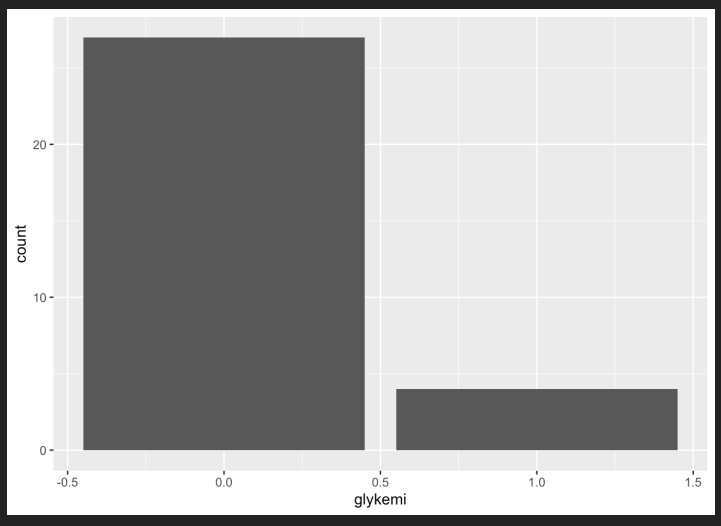
Figure 2: Glykemi and Groups

Side by side plots

```
ggplot(post_meal_data, aes(x = BMI)) +
  geom_histogram(bins = 10)

ggplot(post_meal_data, aes(x = glykemi)) +
  geom_bar()
```



(a) Distribution of BMI.



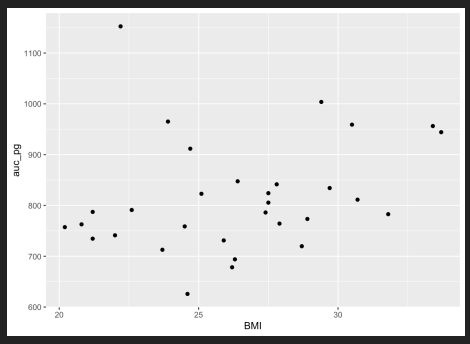
(b) Number of those with glycemia.

Figure 3: BMI and glycemia, side by side.

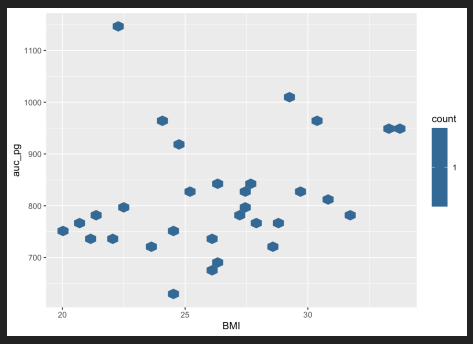
9.11 Plotting two continuous variables

```
post_meal_data |>
  ggplot(aes(x = BMI, y = auc_pg)) +
    geom_point()

post_meal_data |>
  ggplot(aes(x = BMI, y = auc_pg)) +
    geom_hex()

post_meal_data |>
  ggplot(aes(x = BMI, y = auc_pg)) +
    geom_point()+
    geom_smooth(fill = "red4")
```

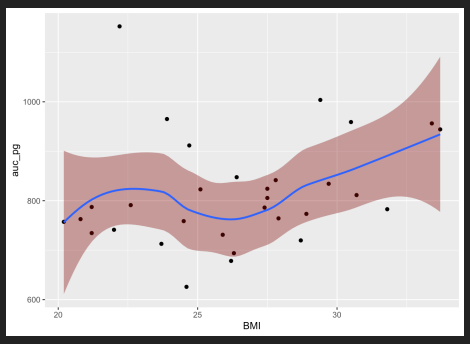
```
`geom_smooth()` using method = 'loess' and formula = 'y ~ x'
```



(a) geom point



(b) geom hex



(c) geom point and geom smooth

Figure 4: BMI and auc_pg,