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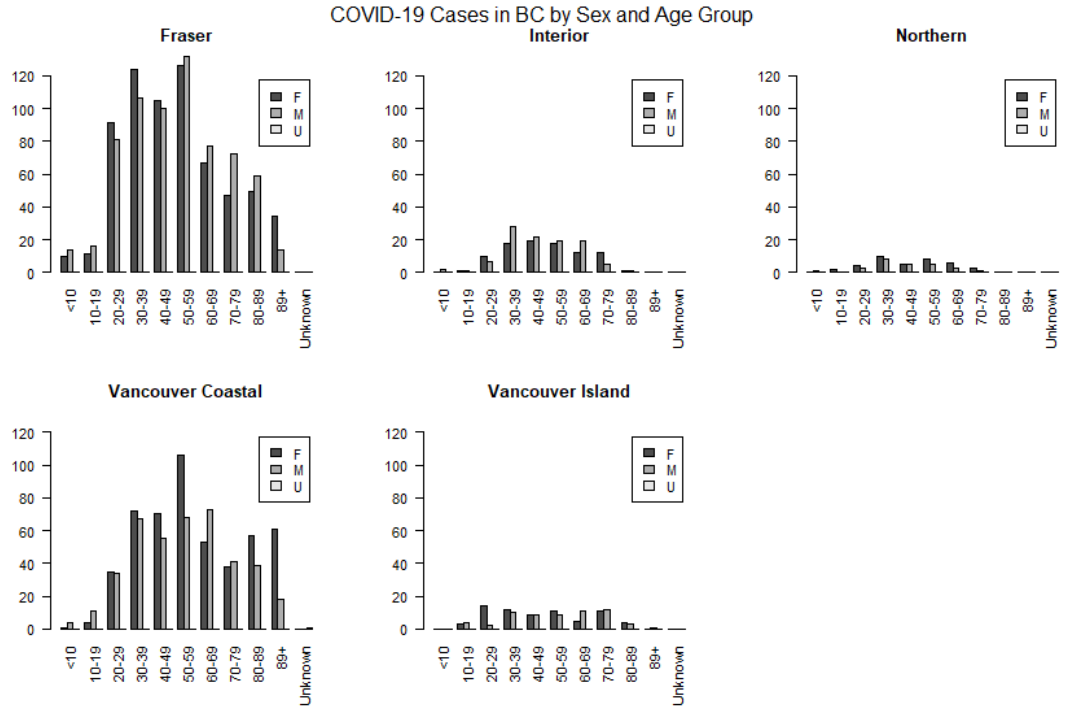
```
# Q1
covidBC<- source("covidBC.R")
covidBC
areas <- levels(covidBC$value$HA)
n <- length(areas)
covidArea <- split(covidBC$value, covidBC$value$HA)
covidArea
par(mfrow=c(2,3))
for(i in 1:n){
  cov_table <- with(covidArea[[i]], table(Sex, Age_Group))
  barplot(cov_table, beside=TRUE, main= areas[i], ylim=c(0,125), las=2, legend= TRUE )

}
cov_table
colnames(cov_table) <- NULL
cov_table
cov_table <- cov_table*NA
cov_table
mtext(side=3,line = -1.5, "COVID-19 Cases in BC by Sex and Age Group", outer = TRUE)
```


COVID-19 Cases in BC by Sex and Age Group
Fraser
Interior
Northern
Vancouver Coastal
Vancouver Island
F
M
U
0
20
40
60
80
100
120
<10
10-19
20-29
30-39
40-49
50-59
60-69
70-79
80-89
89+
Unknown

```
#Q2
n <- 100; Rvalues <- c(3.6,3.7); x <- 0.1
par(mfrow=c(2,2))
population <- numeric(n)
for(R in Rvalues){
  for(i in 1:n){
    x <- R*x*(1-x)
    population[i] <- x
  }
  population <- ts(population)
  plot(population, ylim = c(0,1))
}
```

For R = 3.6, the population growth seems to a repeating pattern.

For R = 3.7, it is similar but there are various moment where the time seems to be constant and not steep.

Unlike when R = 3.6, where the population growth is either steep downward or upward.