Analysis Report

```
library(ggplot2)
```

Warning: package 'ggplot2' was built under R version 4.4.3

```
# Read discharged_patients.txt into a dataframe

df <- read.table("discharged_patients.txt", header = TRUE, sep = ",", stringsAsFactors = FALS

total_rows <- nrow(df)
total_icu_admit <- sum(tolower(df$icuAdmit) == 'true')
total_ward_admit <- total_rows - total_icu_admit
df$los <- df$dischargeTime - df$admitTime
```

Total Patients: 1727

ICU admit %: 0.1401274

Icu-vs-Ward-Admits

```
# Pie chart of ICU vs Ward admits

admit_counts <- data.frame(
  type = c("ICU", "Ward"),
  count = c(total_icu_admit, total_ward_admit)
)
ggplot(admit_counts, aes(x = "", y = count, fill = type)) +
  geom_bar(stat = "identity", width = 1) +
  coord_polar(theta = "y") +
  labs(title = "ICU vs Ward Admits", x = NULL, y = NULL, fill = "Admit Type") +
  theme_void()
```
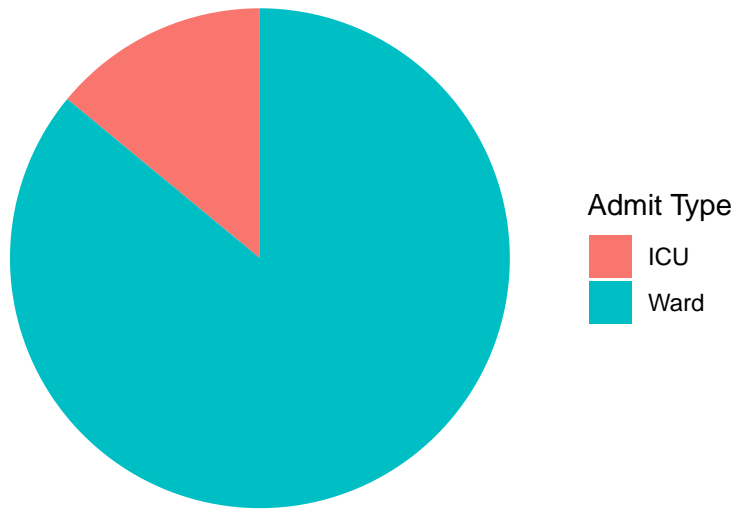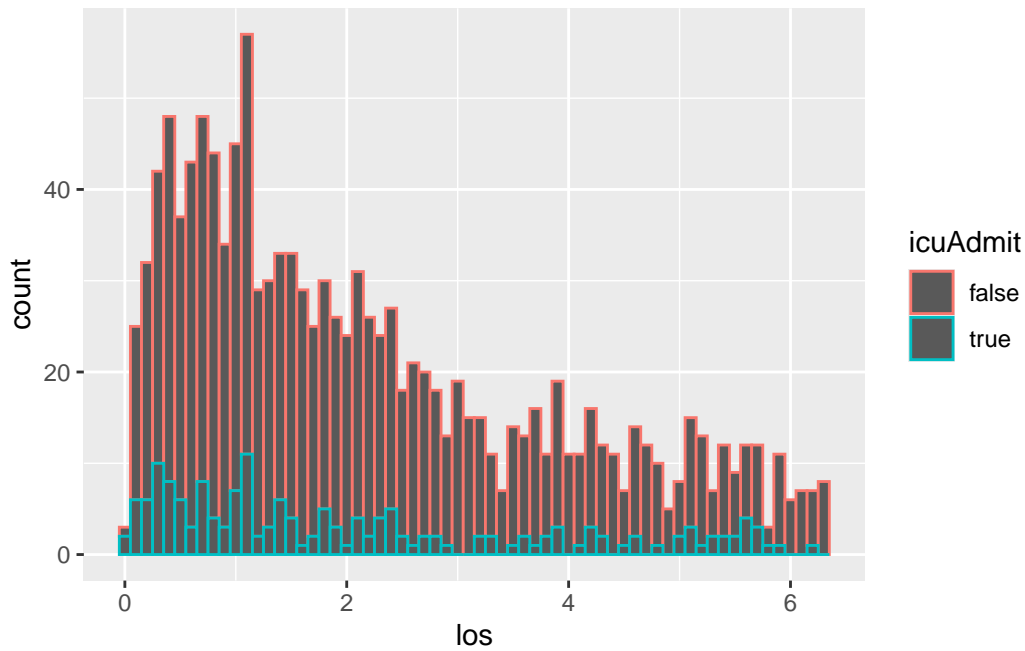
ICU vs Ward Admits

Admit Type

ICU

Ward

LOS

```
icu_patients <- df[tolower(df$icuAdmit) == "true", ]
ward_patients <- df[tolower(df$icuAdmit) == "false", ]
q3 <- quantile(df$los, 0.75, na.rm = TRUE)
ggplot(df, aes(x = los, color = icuAdmit)) +
  geom_histogram(binwidth = 0.1) +
  xlim(NA, q3)
```

Warning: Removed 432 rows containing non-finite outside the scale range
(`stat_bin()`).

Warning: Removed 2 rows containing missing values or values outside the scale range
(`geom_bar()`).

```
summary(icu_patients$los)
```

```
    Min.   1st Qu.    Median      Mean   3rd Qu.       Max.
 0.02858   1.01527   2.76024   9.91839   9.40536  202.57922
```

```
summary(ward_patients$los)
```

```
    Min.   1st Qu.    Median      Mean   3rd Qu.       Max.
 0.03232   1.12835   2.61810   6.00721   6.21858  142.36570
```

Summary Stats

key	value
Total Admissions	val
Total to Ward	val
Total to ICU	val
% icu/total	val
total discharges from ward	val
total dicharges from icu	val
total transfers to ward	val

key	value
total transfers to icu	val
% of admissions with transfer to ICU	val
Average LOS	val
average LOS for ICU-admits	val
average length of stay on ICU (transfer or otherwise)	val

HCW Visits

Summary Stats:

key	val
Average total visits per hcw/shift	val
average daily visits per patient per hcw per shift	val
average distinct patients visited per shift per hcw type	val
average time between visits per HCW by type	val
average number of HCW visits per day/patient (total/{type})	val
average time between visist by HCW per patient	val
average distinct hcw visits per day by patient	val