Explore the features of Claims_Y1

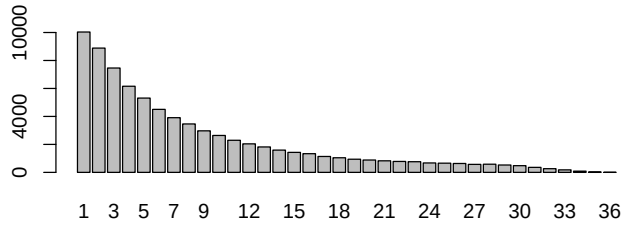
April 6, 2011

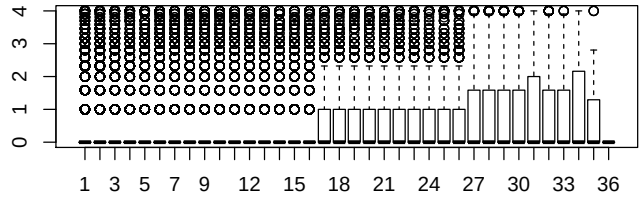
1 Load Data

```
> test.n = -1
> claims.y1 <- read.csv("../data/Claims_Y1.csv", nrows = test.n,
+     string = F)
> member.y1 <- read.csv("../data/Members_Y1.csv", string = F)
> dih.y1 <- read.csv("../data/DayInHospital_Y2.csv", string = F)
> dih.y1[, 2] <- log2(dih.y1[, 2] + 1)
```

2 Compare the 1-claim and multiple claims

```
> claims.y1.count <- aggregate(ProviderID ~ MemberID, data = claims.y1,
+     length)
> colnames(claims.y1.count)[2] <- "Count"
> claims.y1.count <- merge(claims.y1.count, dih.y1, by = 1)
> layout(matrix(1:2, 2, 1))
> barplot(table(claims.y1.count$Count))
> boxplot(with(claims.y1.count, split(DaysInHospital_Y2, Count)))
```





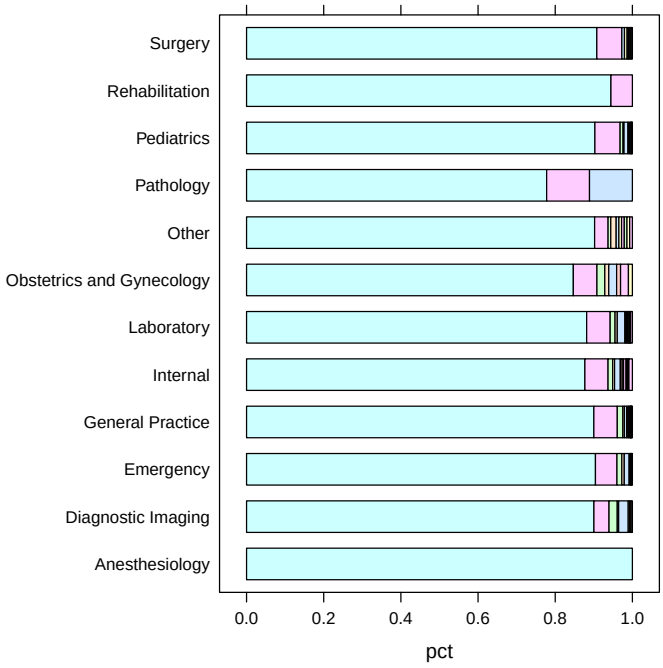
3 Focus on people who only claim once

```
> claims.y1.once <- subset(claims.y1, MemberID %in% with(claims.y1.count,
+     MemberID[Count == 1]))
> once.df <- merge(merge(claims.y1.once, member.y1, by = 1), dih.y1,
+     by = 1)
```

3.1 Specialty

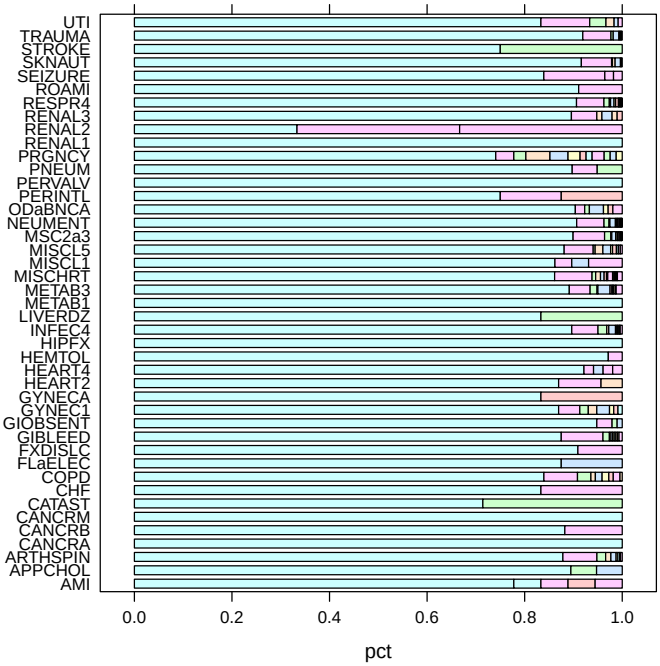
```
> library(lattice)
> barchart.pct <- function(dta = once.df.2, lab = "PrimaryConditionGroup") {
+     dta.sub <- dta[, c("MemberID", lab, "DaysInHospital_Y2")]
+     colnames(dta.sub)[2] <- "Condition"
+     dta.agg <- within(merge(aggregate(MemberID ~ Condition +
+         DaysInHospital_Y2, data = dta.sub, length), aggregate(MemberID ~
+         Condition, data = dta.sub, length), by = 1), {
+         pct = MemberID.x/MemberID.y
+     })
+     print(barchart(Condition ~ pct, group = DaysInHospital_Y2,
+         stack = T, data = dta.agg))
+ }
```

```
> barchart.pct(once.df.2, "specialty")
```



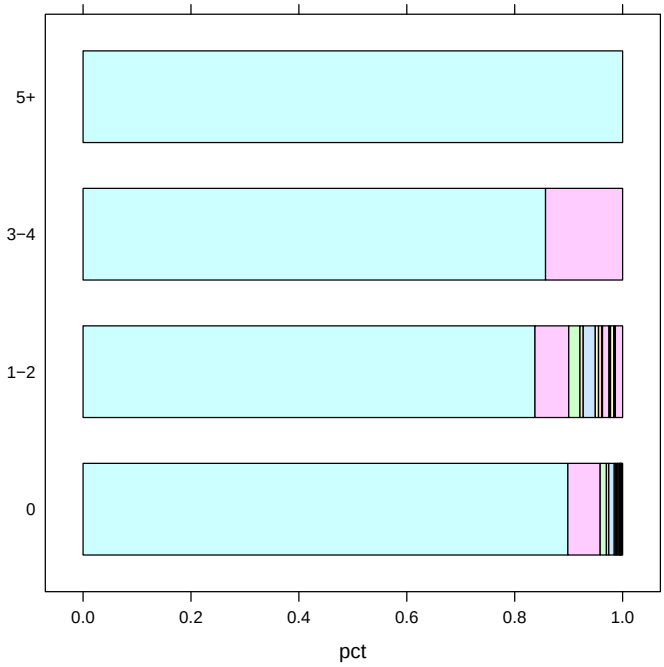
3.2 PrimaryConditionGroup

```
> barchart.pct(once.df.2, "PrimaryConditionGroup")
```



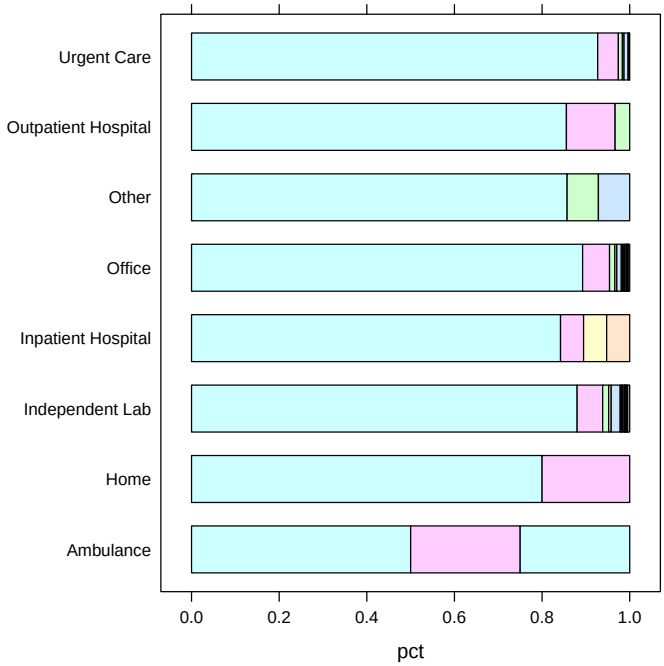
3.3 CharlsonIndex

```
> barchart.pct(once.df.2, "CharlsonIndex")
```



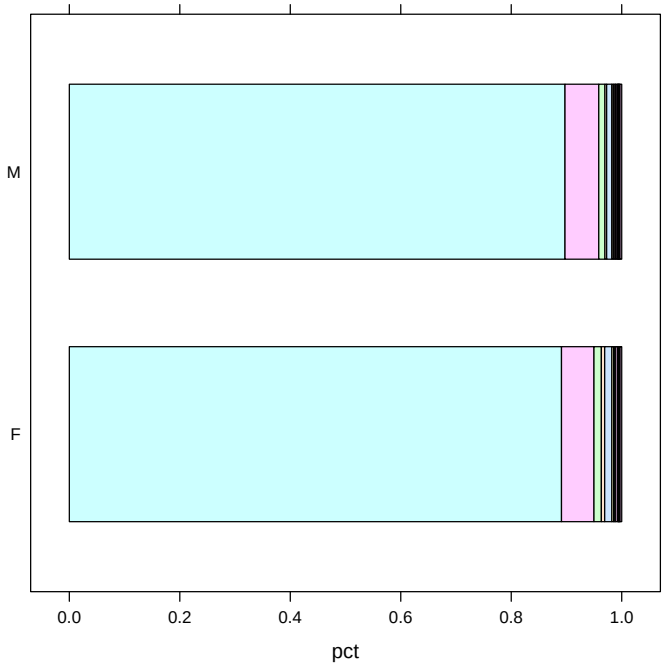
3.4 PlaceSvc

```
> barchart.pct(once.df.2, "placesvc")
```



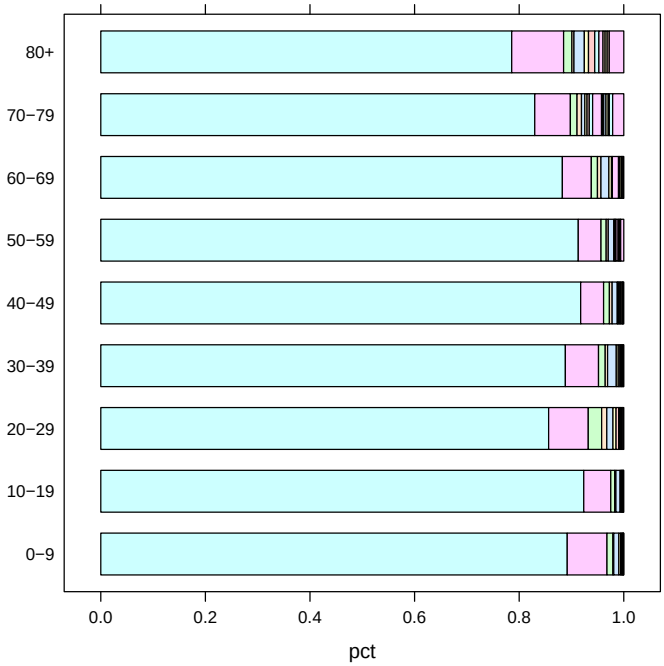
3.5 sex

```
> barchart.pct(once.df.2, "sex")
```



3.6 AgeAtFirstClaim

```
> barchart.pct(once.df.2, "AgeAtFirstClaim")
```


80+
70−79
60−69
50−59
40−49
30−39
20−29
10−19
0−9
0.0
0.2
0.4
0.6
0.8
1.0
pct