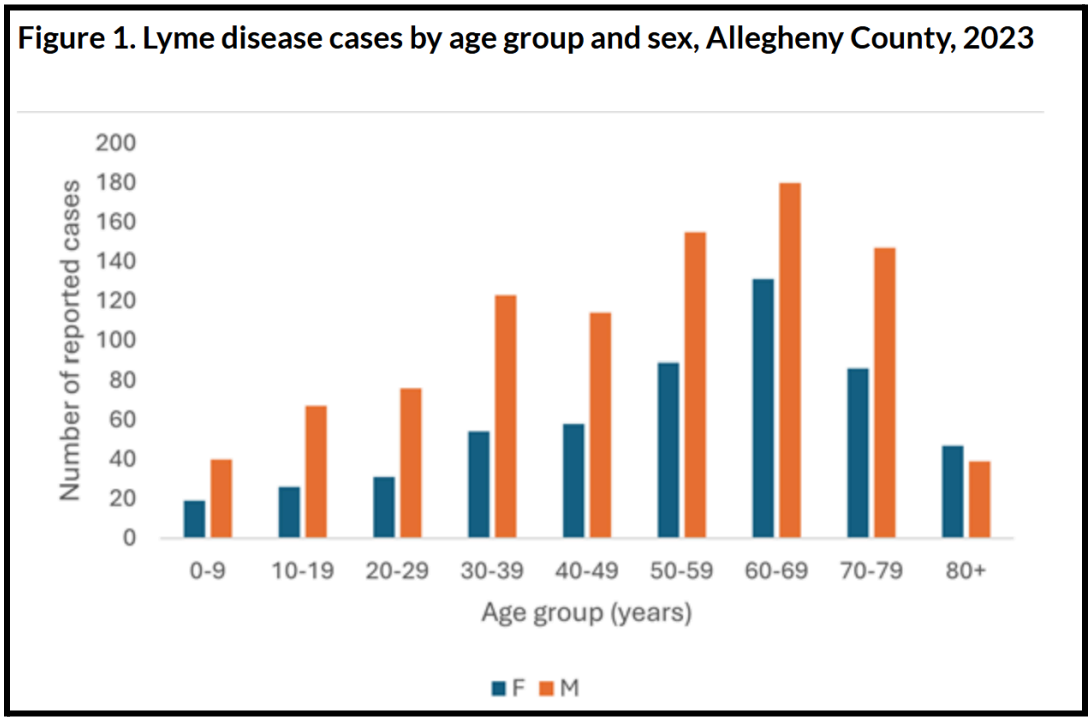
```
# R Workshop - DELPHI Summer Summit
# Curriculum by MICOM / MI-Support
# SAS Supplement Worksheet

# Third, loading a file into SAS, viewing it

### 1) & ### 2) from the R Worksheet

proc import datafile='{path/to/file}/faux_ana.csv'
out=plas_data
dbms=csv
replace;
run;


### 3) from the R Worksheet

proc freq data=plas_data;
tables hosp sex;
run;

proc means data=plas_data min q1 median mean q3 max;
var age;
run;


Extra) Fill in the blank: Of 109 cases reported in 2023, 69 (63%) were male
and _____ were > 50 years old.

proc freq data=plas_data;
tables sex;
where age > 50;
run;
```

Fourth, manipulating that file into desired format

We're going to use SAS to make this chart (but with non-suspect Anaplasmosis data):



1) & ### 2) from the R Worksheet

```
data plas_data;
set plas_data;
length age_cat $20.;
if .<age<10 then age_cat = '0-9';
else if 10<=age<20 then age_cat='10-19';
else if 20<=age<30 then age_cat='20-29';
else if 30<=age<40 then age_cat='30-39';
else if 40<=age<50 then age_cat='40-49';
else if 50<=age<60 then age_cat='50-59';
else if 60<=age<70 then age_cat='60-69';
else if 70<=age<80 then age_cat='70-79';
else if age >= 80 then age_cat='80+';
else age_cat = '.';
run;
```

3) from the R Worksheet

```
proc sql;
create table cases as
select age_cat, sex, count(distinct ptid) as num_cases
from plas_data
where status NE 'SPT'
group by age_cat, sex;
quit;

/*generates analogous dataset but not necessary for plotting*/
```

Fifth, generating a plot to visualize the data

1) & ### 2) from the R Worksheet

```
proc sgplot data = plas_data (where=(status NE 'SPT')); /*using original
dataset, generates frequency*/
vbar age_cat / group = sex groupdisplay = cluster;
run;
```

3) from the R Worksheet

Right click on the image and click “Save picture as”, then select the folder you’d like to save the image in from the pop-up window.

Extra) Format the bar plot more nicely, including color, label, and alignment, to match the website formatting more closely.

```
proc sgplot data=plas_data (where=(status NE 'SPT'));
title "Figure 1. Anaplasmosis Cases by Age Group and Sex";
styleattrs datacolors=(darkblue darkorange);
    vbar age_cat / group=sex groupdisplay=cluster;
      xaxis label="Age Group (Years)";
    yaxis label="Number of Cases";
      keylegend / title="";
run;
```