# Data collection notes

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#### R Markdown

This is an R Markdown document. Markdown is a simple formatting syntax for authoring HTML, PDF, and MS Word documents. For more details on using R Markdown see http://rmarkdown.rstudio.com.

When you click the **Knit** button a document will be generated that includes both content as well as the output of any embedded R code chunks within the document. You can embed an R code chunk like this:

#### summary(cars)

```
##
        speed
                          dist
                               2.00
##
    Min.
            : 4.0
                    Min.
##
    1st Qu.:12.0
                    1st Qu.: 26.00
    Median:15.0
                    Median: 36.00
##
    Mean
                            : 42.98
##
            :15.4
                    Mean
    3rd Qu.:19.0
                    3rd Qu.: 56.00
            :25.0
                            :120.00
##
    Max.
                    Max.
```

## **Including Plots**

You can also embed plots, for example:



Note that the echo = FALSE parameter was added to the code chunk to prevent printing of the R code that generated the plot.

## Begin notes

### Things to note:

- Collecting Data: know your metadata! This is anything that makes sense of your data but is not the data itself. How did You collect your data? When? Where? What types of measurements are you using? Remember to document your reasoning when working on your research!
- If you have vocabular in reference to data, define your terms. Make it so that someone else can read and reproduce your work.
- Protocols: conentional types are scientific publications, lab docs, notebooks, but mordenr collaborative versions include things like Github.

#### R notes:

• Vectors: 1xn• Matrix: mxn• Array:  $\Pi n_i$ 

• Data frame: contains different types of data, mxn

• List: sequence of data types