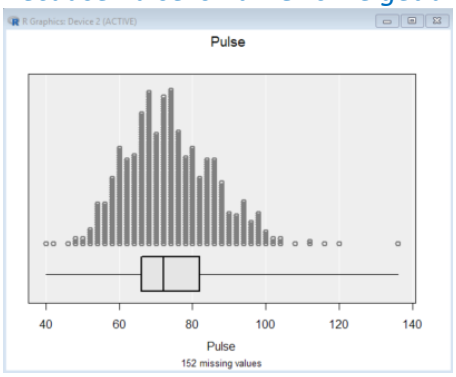
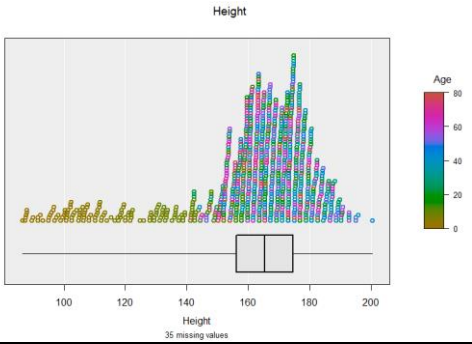
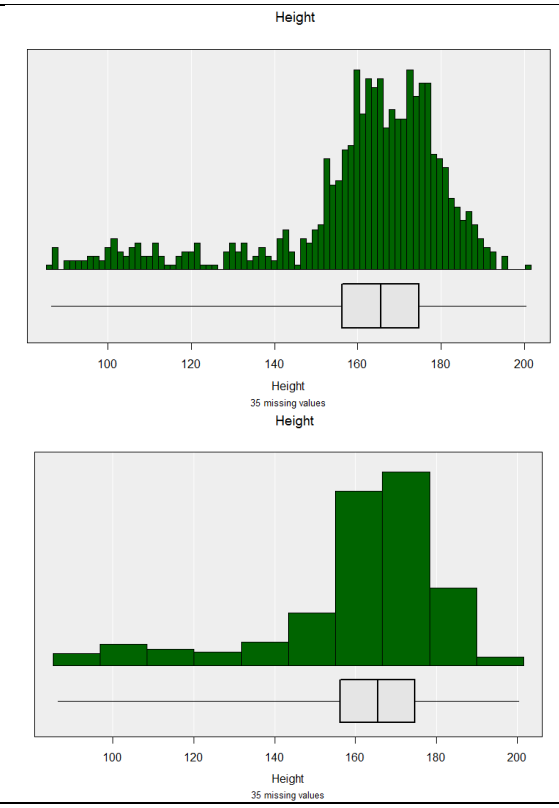
2.10 Exercise: Numeric variables – *R version*

Note: *Copying and pasting text (e.g. R code) from a pdf is not reliable. For that reason we have also provided this file in Word format (.docx) and also the code in a text file*

#R Code	Commentary
# Setup library(iNZightPlots) library(FutureLearnData) data(nhanes_1000)	
# Plot a numeric variable (Pulse) **iNZightPlot(Pulse, data=nhanes_1000)** ***# Changing the size of the dots*** iNZightPlot(Pulse, data=nhanes_1000, **cex.dotpt=.4**) iNZightPlot(Pulse, data=nhanes_1000, **cex.dotpt=2**)	*Because Pulse is **numeric** we get a **dot plot*** 
***# Get** a **Summary** for Pulse* **getPlotSummary(Pulse, data=nhanes_1000)** *# Equivalent of **Get Inference** for Pulse* getPlotSummary(Pulse, data=nhanes_1000, **summary.type="inference",** **inference.type="conf"**)	``` iNZight Summary Primary variable of interest: Pulse (numeric) Total number of observations: 1000 Number omitted due to missingness: 152 Total number of observations used: 848 Summary of Pulse: Min 25% Median 75% Max Mean SD Sample Size 40 66 72 82 136 73.73 12.03 848 ```
iNZightPlot(Height, data=nhanes_1000) ***# Colour points by** Age* iNZightPlot(Height, data=nhanes_1000**, colby=Age**)	*Coloured by Age* 

*# **Change colour palette** to rainbow* iNZightPlot(Height, data=nhanes_1000, **colby=Age, col.fun=rainbow**)	
iNZightPlot(Height, data=nhanes_1000) ***# Change Plot type to histogram*** iNZightPlot(Height, data=nhanes_1000, **plottype= "hist")** ***# Control the number of bins** (class intervals)* iNZightPlot(Height, data=nhanes_1000, **plottype= "hist", hist.bins=10**)	
# Get a list of all the other things that can be changed in plots **inzpar()** *# This list is complete* **?inzpar** *# This documentation is not complete*	

- Try doing more things like the above but using other variables and settings

Continued over …

Optional: *Try this new feature* *(interactive web graphics)*

We will export an iNZightPlot graph as an *Interactive HTML* file and open this file up in our default browser. If that is a modern browser like Chrome, Firefox or Safari (but not Internet Explorer) this will then give you an interactive version of the graph that lets you query it in various ways like hovering over the points or clicking them. Click on the box plot and it will display the numerical values.

The save process can be slow if there are a lot of dots to be drawn.

The save window allows other variables to be exported along with the plot. This is particularly useful for hover-over if you have a variable that gives the names of the people or objects.

You can give such files to others. They do not need to be connected to iNZight to work.

Here is sample code:

```
# Make a plot and also store the output in myplot
myplot = iNZightPlot(Height, data=nhanes_1000)

# Specify a location to store an Interactive HTML file. I will call my file "myintplot.html"
# You will have to change the path to the file because this one is to a location on my desktop!
filepath = "C:/Users/myusername/Desktop/myintplot.html"

exportHTML(myplot, filepath)
browseURL(filepath)   #open the file up in my default browser
```

 # If the plot is truncated make your R plotting window smaller

```
# To add extra variables …
exportHTML(myplot, filepath, data=nhanes_1000, extra.vars = c("Gender", "Weight"))
```

To discuss issues related to this Exercise,

go to **https://gitter.im/iNZightVIT/d2i-R-discussion**

To be able to post to the list you will have to set up a (free) account on ***Github***
https://github.com/login

If your question relates to an Exercise, say which one you are talking about!