#### 3.3.2.4 – Plotting the data

After exploring the data, a little in the section above, this section will look at exploring the data but this time with some plots. These plots will be produced from the dataset which we covered above, and all plots will be created within RStudio with the base *plot* function, the *ggplot2* package and some other packages within RStudio.

After looking at the average age seen per health board, this can now be plotted onto a base plot which looks as follows:

Chart, line chart

Description automatically generated

(Figure 10 – Average Age Seen per Local Health Board)

This can also be plotted with a bit more control of colour and size with the ggplot2 package, this can be seen within [appendix 8.4](#_8.4_–_Average).

<https://whatagraph.com/blog/articles/predictive-analytics-tools#:~:text=%20Predictive%20Analytics%20for%20Data%20Scientists%20%201,tool%20that%20provides%20both%20application%20and...%20More%20>

* What are the advantages and disadvantages of your chosen method?

For the chosen method, most of the work here will be carried out via the R programming language with an R IDE called RStudio. This is the chosen method as firstly it is free and open source, so anyone can easily get started with it, with little time investment. Secondly, this allows for bespoke code to be written for the sorts of analysis which will be required to carry out throughout this section.

**Advantages**

Bespoke code – which gives a lot of control over what analysis can be carried out.

Free and Open Source – The R programming language has a lot of ‘packages’ which improve the complexity it can do.

Cross-platform – Might be a small advantage but can be replicated across the different operating systems (Linux, MacOS & Windows).

Whilst the above can be seen as an advantage, this can also be a disadvantage too. This could be a disadvantage as non-technical people could be put off by the first glimpse of an IDE with lines and lines of code.

* How can your method be compared against other alternative methods?
* How does your method/sample compare against similar research?
* What choices do you have for analysing your data?
* Which choice will you make and why?