

# Add dynamic elements to your report

## Instructions

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This exercise builds on the previous exercise where you learnt to [build a simple MS Word report](#) .

## 1 Exercise objectives

- Open the Quarto document `exercise4.qmd` in RStudio;
- All text formatted in bold is a placeholder and should be replaced with appropriate automated calculations or cross-references.
- Complete each of the following tasks and render the document after each task or set of tasks to track your progress.

## 2 Improve navigation and readability

### Tip

- See [Quarto documentation about MS Word table of contents](#)

- ☐ Insert a table of contents to the Quarto document ;
- ☐ Automatically number the different sections of the Quarto document ;
- ☐ Configure the table of contents to only display two levels of section headings.

## 3 Implement dynamic calculations

### Tip

- See [Quarto documentation about dynamic dates](#)
- See [Quarto documentation about inline code](#)

- ☐ Change the date 2023-12-31 to the date at which the Quarto document was last modified, and format this date to display it with the format **December 31, 2023** ;
- ☐ Replace the placeholder text in bold with the automated calculation of the outbreak start and end dates ;

*“The outbreak ran from **date** to **date**”*

- ☐ Replace the placeholder text in bold with the automated calculation of the number of cases, confirmed cases and deaths.

*“Over the studied period, there were **N** cases, including **N** confirmed cases and **N** confirmed deaths.”*

## 4 Create and reference publication-ready tables

### Tip

- See [gtsummary documentation about summary tables](#)
- See [Quarto documentation about table cross-references](#)

Other R packages include [flextable](#) and [gt](#)

- ☐ Create a table summarising the demographic characteristics and outcome frequency of all cases ;
- ☐ Add a caption to the table ;
- ☐ Assign a label to the table ;
- ☐ Replace the placeholder text in bold with a cross-reference to the table ;

*“**cross-reference** provides a summary of the demographic characteristics and the outcome proportion for the overall population”*

- ☐ Create a table summarising the demographic characteristics of individuals who died versus those who are still alive ;
- ☐ Add a caption to the table ;
- ☐ Assign a label to the table ;
- ☐ Replace the placeholder text in bold with a cross-reference to the table.

*“while **cross-reference** compares the demographic characteristics of individuals who died versus those who are still alive”*

## 5 Customise figures

### Tip

- See [Quarto documentation about figure cross-references](#)
- See [Quarto documentation about figure options](#)

- ☐ Add a caption to the figure ;
- ☐ Assign a label to the figure ;
- ☐ Replace the placeholder text in bold with a cross-reference to the figure ;

*“**cross-reference** illustrates the outbreak’s progression, which can be divided into distinct phases.”*

- ☐ Adjust the dimensions of the figure until you are happy with it
- ☐ Beautify the plot using ggplot options

## 6 Code

### Tip

- See [gtsummary documentation about formatted table of regression model results](#)
- See [Quarto documentation about code chunk cross-references](#)

- ☐ Implement a logistic regression model based on description in the Quarto document ;
- ☐ Create a table summarizing the odds ratios from the logistic regression model ;
- ☐ Add a caption to the table ;
- ☐ Assign a label to the table ;
- ☐ Replace the placeholder text in bold with a cross-reference to the table ;

“The results of the logistic regression model are summarized in the formatted regression table, which is presented in **cross-reference**.”

- ☐ Display the code chunk for your R implementation of the logistic regression (and only this code chunk) in the rendered MS Word document ;
- ☐ Add a caption to the code chunk ;
- ☐ Assign a label to the code chunk ;
- ☐ Replace the placeholder text in bold with a cross-reference to the code chunk.

## 7 Add references

### Tip

- See [Quarto documentation about citations](#)

- ☐ Add the bibliography file `my_biblio.bib` to your MS Word rendered report ;
- ☐ Cite the reference `text` in your MS Word rendered report ;
- ☐ Create your own bibliography file and apply it to your MS Word rendered report ;

## 8 Finalise your MS Word report

### Tip

See [Quarto documentation about Word templates](#)

- ☐ Apply the Swiss TPH template `swisstph_template.docx` to your MS Word rendered report ;
- ☐ Create your own template and apply it to your MS Word rendered report.