

Build a MS Word report

Step-by-step correction

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This page provides a step-by-step correction for completing Exercise 3. To get the most out of your learning experience, attempt to solve the exercise on your own before looking at this correction. Trial and error is an essential part of the learning process, helping to strengthen your understanding and build confidence. Remember, simply copying and pasting the solution without trying to solve the exercise by yourself first will limit your long-term growth. Take your time, experiment, and learn actively!

1 Setup basic elements of the Quarto document

All these basic elements are part of the YAML header.

```

1  ---
2  title: My outbreak report
3  author: Helene Langet
4  date: "2023-12-31"
5
6  format: docx
7  echo: false
8  warning: false
9  ---

```

- ① Update the title of the Quarto document.
- ② Put your name as author of the Quarto document.
- ③ Add the date 2023-12-31 to the Quarto document.
- ④ Change the output format to generate a MS Word document.
- ⑤ Configure the Quarto document to hide code in the rendered MS Word document.
- ⑥ Configure the Quarto document to hide warnings in the rendered MS Word document.

2 Improve navigation and readability

```

1  ---
2  title: My outbreak report
3  author: Helene Langet
4  date: "2023-12-31"
5
6  format:
7    docx:
8      toc: true
9      number-sections: true
10     toc-depth: 2
11  echo: false
12  warning: false
13  ---

```

- ⑦ Insert a table of contents to the Quarto document.
- ⑧ Automatically number the different sections of the Quarto document.
- ⑨ Configure the table of contents to only display two levels of section headings.

! YAML indentation

YAML is a whitespace-sensitive language where indentation determines the structure; tabs are not recognised for indentation. The recommended practice is therefore to use **two spaces** per indentation level to ensure consistency and avoid errors.

3 Implement dynamic calculations

3.1 In the YAML header

```
1 ---
2 title: My outbreak report
3 author: Helene Langet
4 date: last-modified
5 date-format: long
6
7 format:
8   docx:
9     toc: true
10    number-sections: true
11    toc-depth: 2
12 echo: false
13 warning: false
14 ---
```

10

11

10 Change the date 2023-12-31 to the date at which the Quarto document was last modified.

11 Format this date to display it with the format December 31, 2023.

3.2 In the Quarto notebook

- ☐ 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

You can use packages such as `gtsummary`

To install the package, run the following command in your console.

```
1 ```{r}
2 install.packages(gtsummary)
3 ```
```

```
1 ```{r}
2 library(gtsummary)
3 ```
```

```
1 ```{r}
2 #| label: tbl-1 # <14>
3 #| tbl-cap: Population characteristics # <13>
4
5 subdf |>
6   dplyr::select(age,
7                 sex,
8                 bmi,
9                 confirmed,
10                death) |>
11   gtsummary::tbl_summary() # <12>
12 ```
```

- ⑫ Create a table summarising the demographic characteristics and outcome frequency of all cases.
- ⑬ Add a caption to the table.
- ⑭ Assign a label to the table.

Table 1: Population characteristics

Characteristic	N = 65,669
age	50 (35, 65)
sex	
1	33,114 (50%)
2	32,555 (50%)
bmi	29 (21, 38)
confirmed	

Table 1: Population characteristics

Characteristic	N = 65,669
0	13,235 (20%)
1	52,434 (80%)
death	
0	64,455 (98%)
1	1,214 (1.8%)

- ☒ Replace the placeholder text in bold with a cross-reference to the table ;

@tbl-1 provides a summary of the demographic characteristics and the outcome proportion for the overall population.

“Table 1 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 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.