# 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"
3
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

```
title: My outbreak report
author: Helene Langet
date: "2023-12-31"

format:
docx:
toc: true
number-sections: true
toc-depth: 2
echo: false
warning: false

---
```

- (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

```
title: My outbreak report
author: Helene Langet
date: last-modified
date-format: long

format:
docx:
number-sections: true
number-sections: true
toc-depth: 2
echo: false
warning: false

---
```

- (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

- $\square$  Replace the placeholder text in bold with the automated calculation of the outbreak start and end dates;
  - "The outbreak ran from date to date"
- $\square$  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 teh following command in your console.

```
```{r}
   install.packages(gtsummary)
   ```{r}
   library(gtsummary)
   ```{r}
   #| label: tbl-1 # <14>
   #| tbl-cap: Population characteristics # <13>
4
   subdf |>
     dplyr::select(age,
                    sex,
                    bmi,
                    confirmed,
                    death) |>
10
     gtsummary::tbl_summary() # <12>
11
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	a table	summarising	the	demographic	characteristics	of	individuals	who	died
versus tl	hose wh	no are still aliv	те;						
Add a ca	aption t	to the table;							
	1 1 1 .	.1 . 11							

☐ Assign a label to the table ;

 $\square$  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

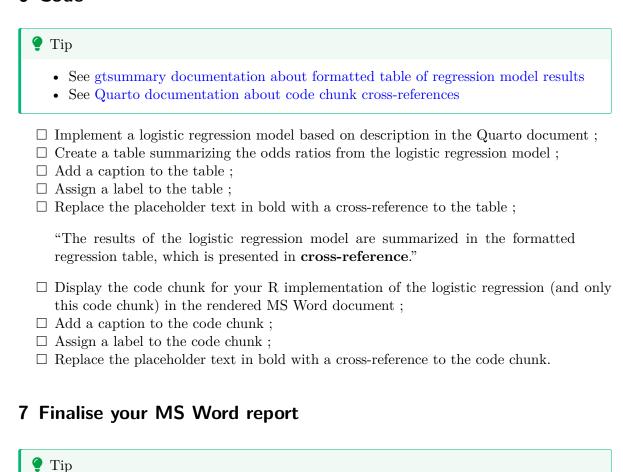


- See Quarto documentation about figure cross-references
- See Quarto documentation about figure options
- $\square$  Add a caption to the figure;
- $\square$  Assign a label to the figure;
- ☐ Replace the placeholder text in bold with a cross-reference to the figure ;

"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
- $\square$  Beautify the plot using ggplot options

#### 6 Code



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.