

**2021
REPORT**

ASSIGNMENT 1- ANALYSIS AND
VISUALISATION OF DATA
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ANALYSIS AND VISUALISATION OF DATA

BSC CLOUD COMPUTING
MODULE:
DATA ANALYSIS AND VISUALISATION

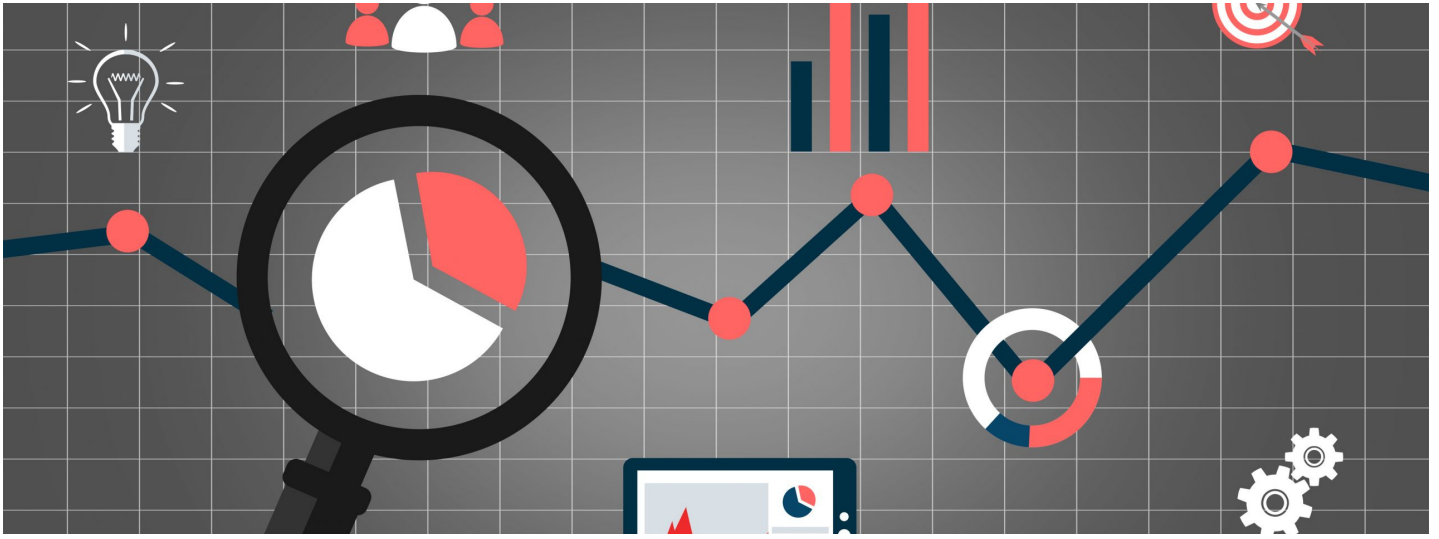


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INTRODUCTION

The report represent essential characteristics and concepts behind a data analysis and visualisation. As part of data visualisation Infographics can represent both quantitative and qualitative content. Quantitative infographics refer to numbers and data—anything that can be measured, such as graphs, data visualizations and statistical maps or thematic maps.

EXPLANATION OF THE INFORMATION PRESENTED ON THE GIVEN INFOGRAPHIC

- **Impact of COVID-19 on business**

Message shown on the pie chart given is clear enough for the user to understand the percentages and what impact COVID-19 has on businesses. I would suggest using of a different colour scheme, so

4% is the critical impact on business, where businesses may have to close permanently.

The significant impact is **66%** - critical threat to business that can be mitigated.

Limited impact - **13%** (minimal threat to business).

No impact **2%**, where there is no threat to business at all.

And finally **15%** belongs to businesses where can be seen a positive impact.

- **Market disruption will drive innovation**

This particular sector clearly shows what are percentages, based on agree or strongly agree responses - results based on a survey made. Data is visualised as up arrow for all of the different opinions

84% of the people surveyed agree that COVID-19 has caused a significant industry disruption.

77% of the surveyed see the impact of COVID-19 as an opportunity for innovation

And **66%** need to change their operating model

EXPLANATION OF THE INFORMATION PRESENTED ON THE GIVEN INFOGRAPHIC

- **Office print volumes are in free fall**

Here again the presented data is based on a survey made on what is the impact on customer print volumes. The data is appropriately visualised as a column chart, where **68** is the percent of the significant decline, **27%** is a marginal decline, **3%** no change , and 2% marginal increase.

- **Vertical demand varies**

Bar chart is presenting the data of how demand is changing in variate of sectors. Education, retail, business and professional service, financial services, government and healthcare, where massive decrease is observed in educational sector and the highest increase is in Healthcare.

- **Collaboration, cloud and digitisation opportunities - anticipated future interest**

Increases in all sectors as follows **96%**, **89%** and **85%** for digitisation of paper-based processes.

- **Chanel partners expecting more support from their suppliers -**

63% expect extended payment terms, **63%** expect financial support, **47%** advanced rebates, **45%** updates on supply chain issues and **27%** expect professionalised guidance.

- **Most are cautious about business recovery time**

35% of the surveyed say that the recovery time will take between 6 and 12 months. **6%** of them are hoping for a shorter term of recovery ,less than 3 months.

EVALUATION

- **Visually Efficient**

The infographic only includes the necessary content to present accurate information. Avoiding addition of irrelevant and unnecessary visual information.

- **Organization and Layout**

Aligning the elements with each other. Use grouping and shows relationships. Objects are similar in size, shape and colour.

- **Right choice of visualization, data and content.**

Infographic formats were designed for specific types of data and content. Bar graphs are effective for representing and comparing quantities.

- **The graphics are determined accurate for the audience.**

Identifying targeted audience, extract information and meaning from the chosen format. Identify the objective of the visualization. Numbers are rounded and easy to understand.

- **Stick with two-dimensional infographics.** When it comes to designing graphs, a third dimension is unnecessary unless the third dimension represents a value.

- **Clean, legible font chosen.**

The titles, labels and explanations in an infographic are the key to understanding it. Therefore, choose fonts where the letters are easy to discriminate from each other and easy to read.

CONCLUSION AND RECOMMENDATIONS:

The visualization help the audience to understand it. When designing quantitative infographics, you are translating data values into visual features. You encode the values of the data into points, lines, shapes, colours and similar attributes.

Colours that are easy to distinguish. Use of colour wheel to make sure that the colours are sufficiently separated from each other is recommended.

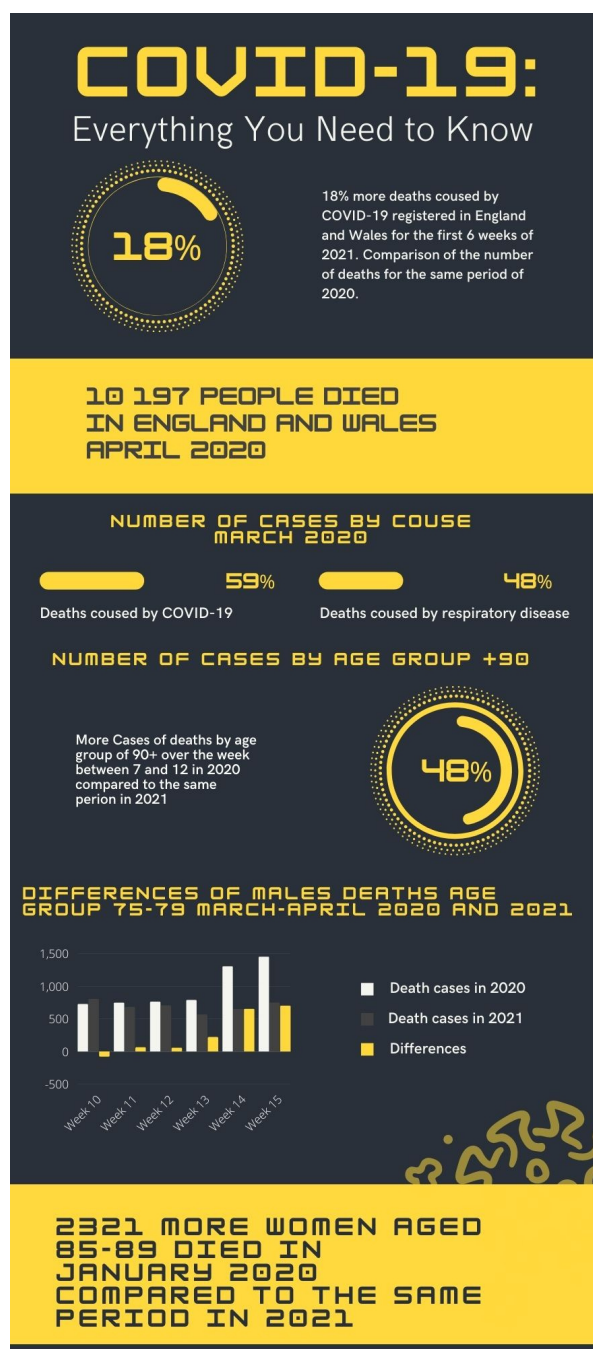
However, visual representations are a proven way to make data and abstractions concrete. They can also mislead and confuse viewers when they are poorly designed. If take the time to analyse, reflect and plan, infographic design skills will naturally improve.

REFERENCES

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- Friel, Susan N., et al. “Making Sense of Graphs: Critical Factors Influencing Comprehension and Instructional Implications.” *Journal for Research in Mathematics Education*, vol. 32, no. 2, 2001, pp. 124–158.
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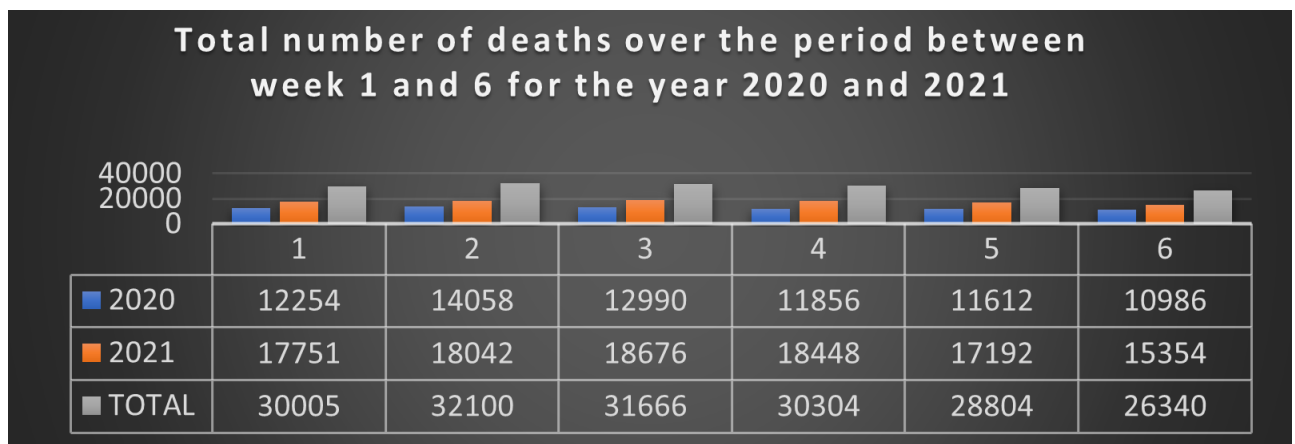
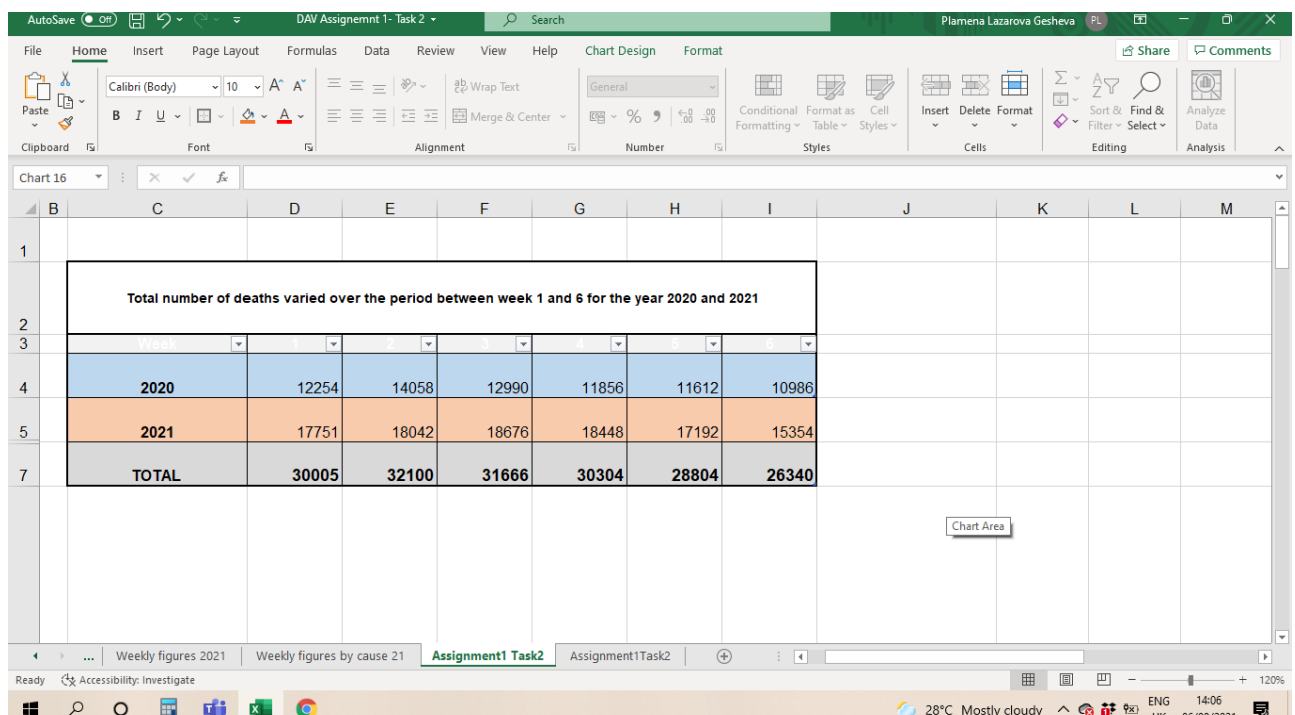
A3 COLOUR POSTER

Based on data below this A3 colour poster allows viewers to easily answer the following questions:



APPENDIX

1. How has the total number of deaths varied over the period between week 1 and 6 for the year 2020 and 2021?



APPENDIX

2. How have the differences of total average deaths recorded between England and Wales over the period of week between 15 and 20 in the year 2020?

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Chart 16

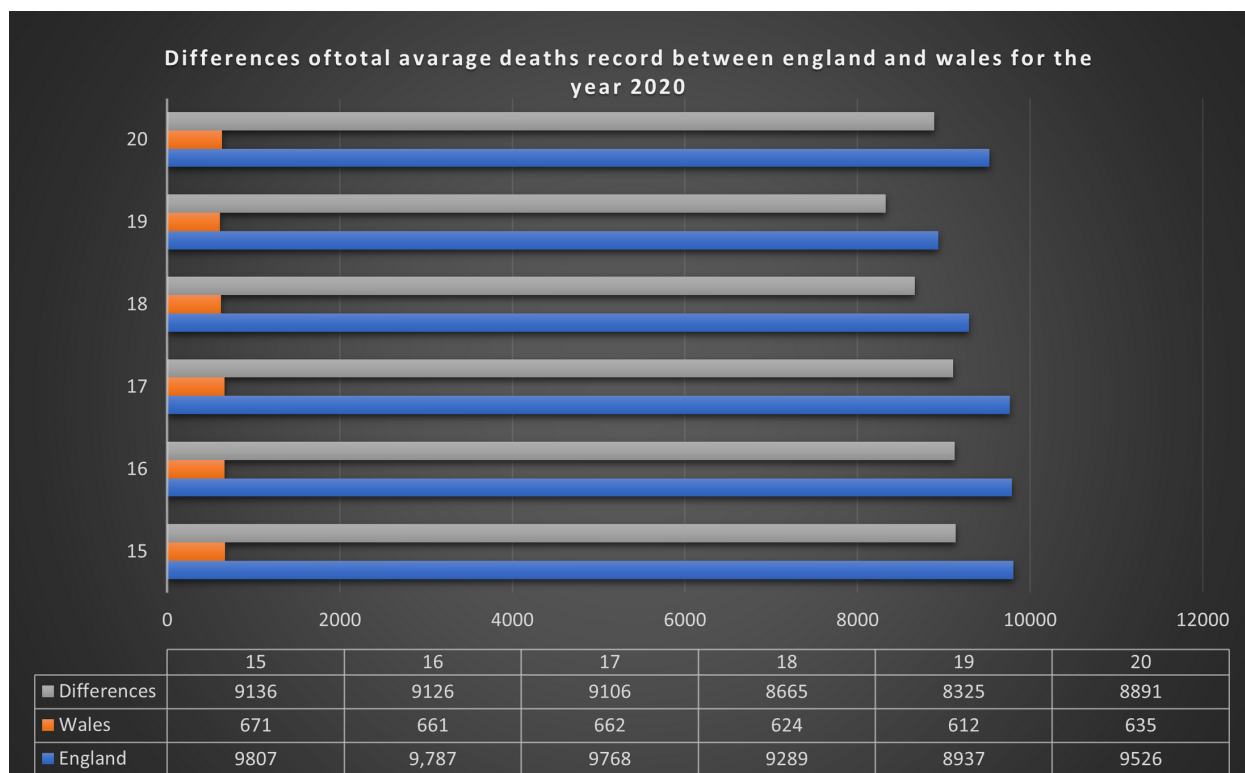
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Differences of total average deaths recorded between England and Wales 2020

Week	15	16	17	18	19	20
England	9807	9,787	9768	9289	8937	9526
Wales	671	661	662	624	612	635
Differences	9136	9126	9106	8665	8325	8891

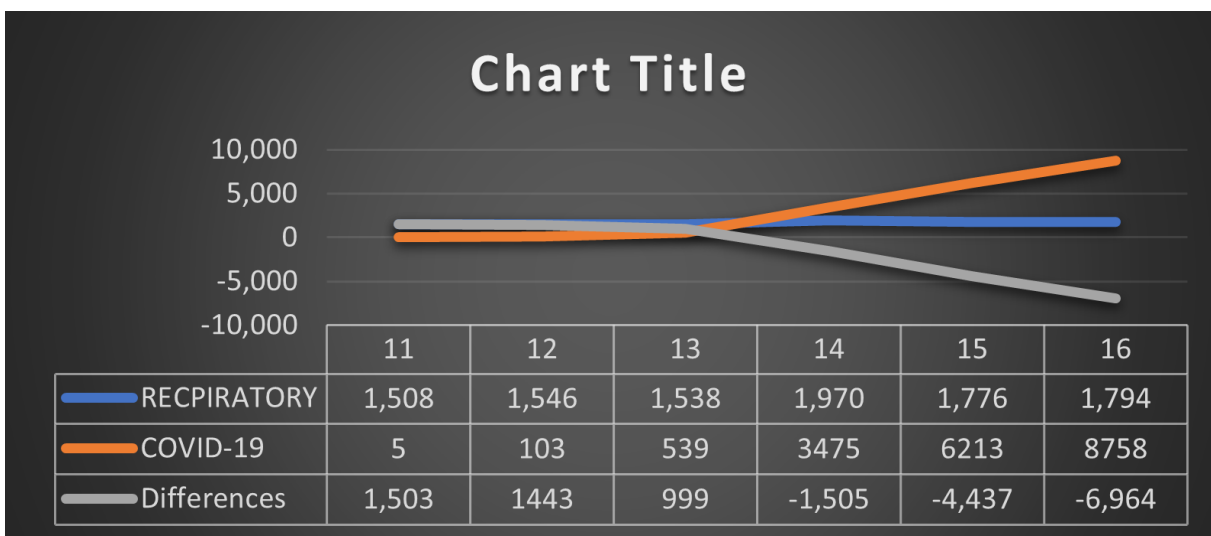
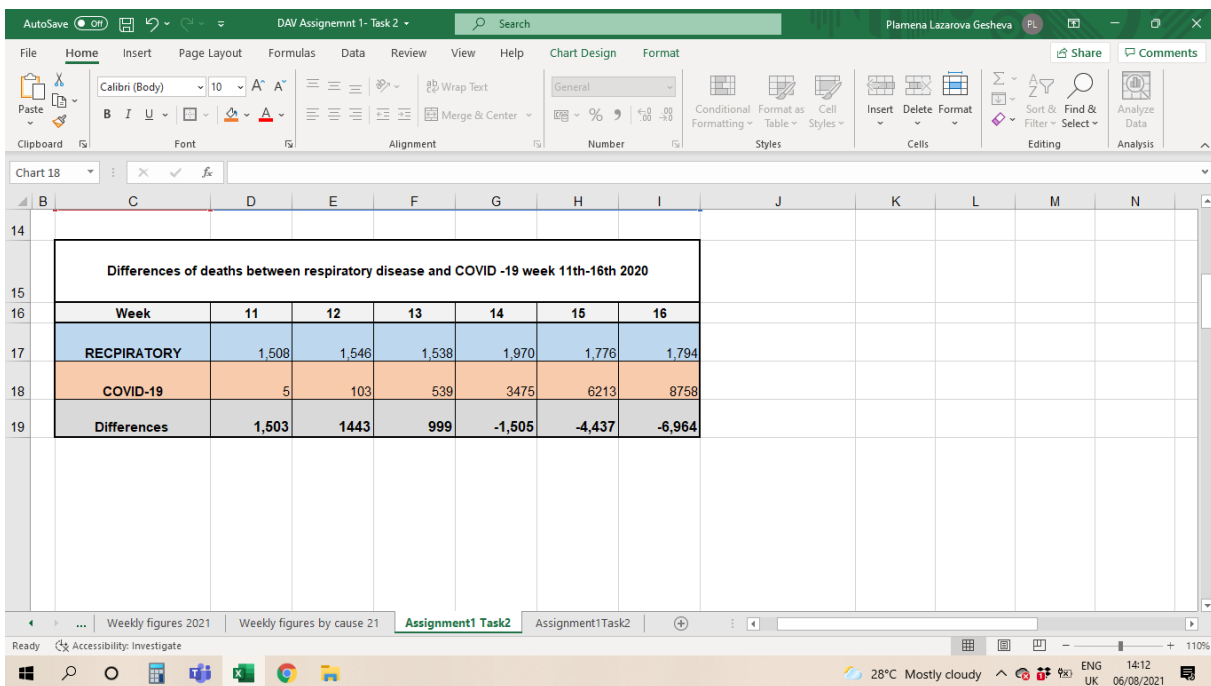
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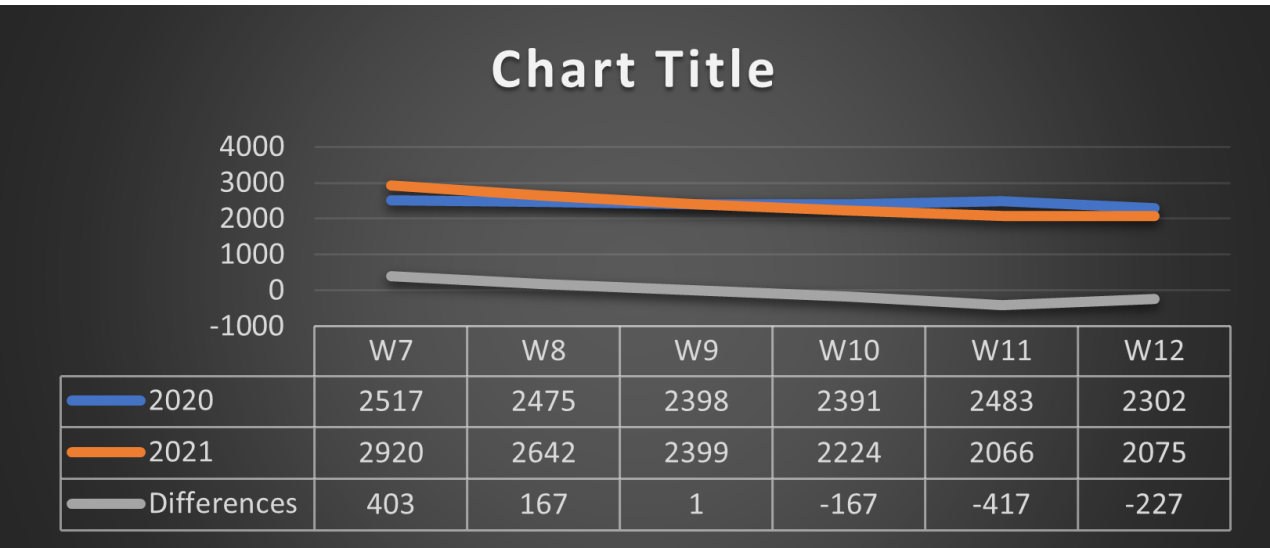
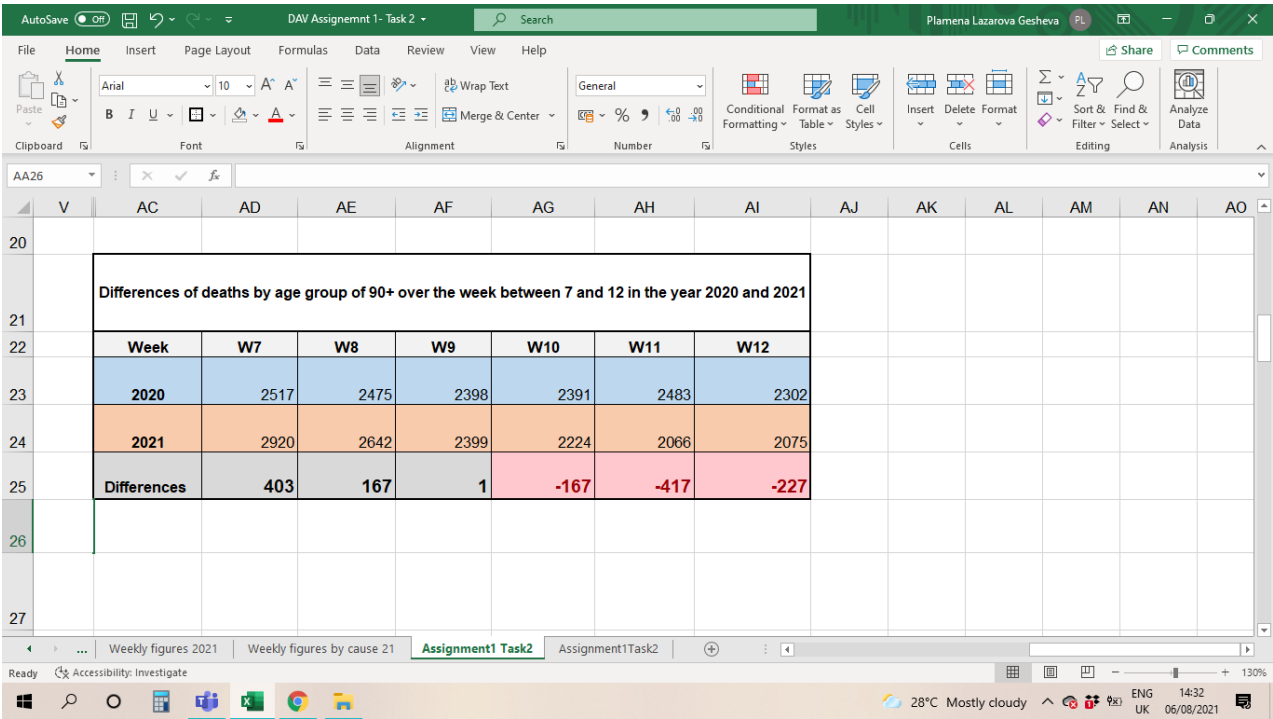
APPENDIX

3. What are the differences of deaths between respiratory disease and COVID -19 over the period of week between 11 and 16 in the year 2020?



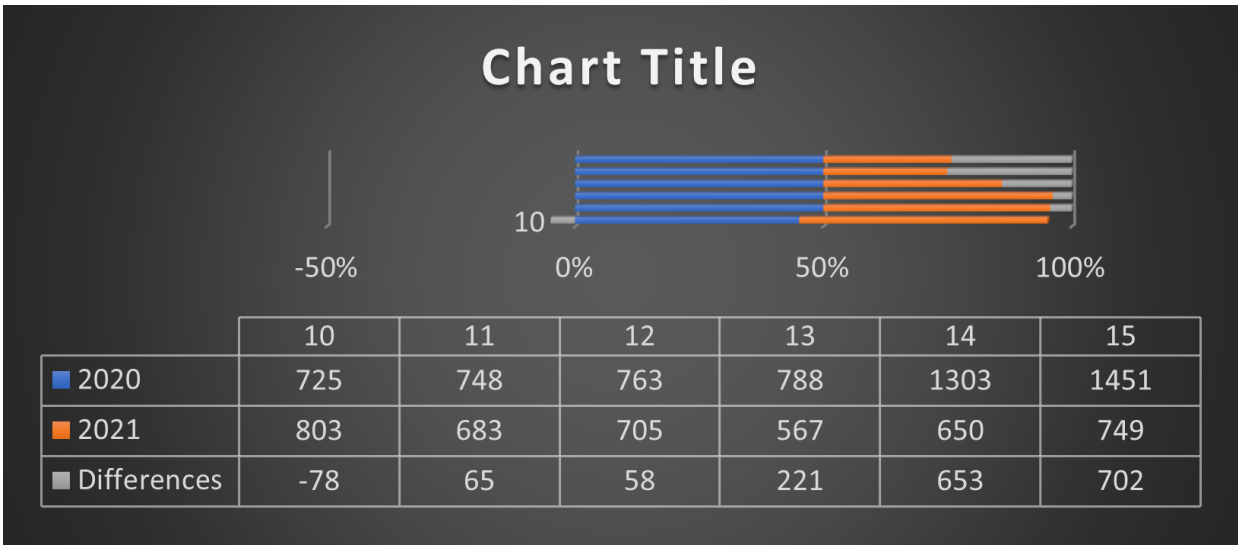
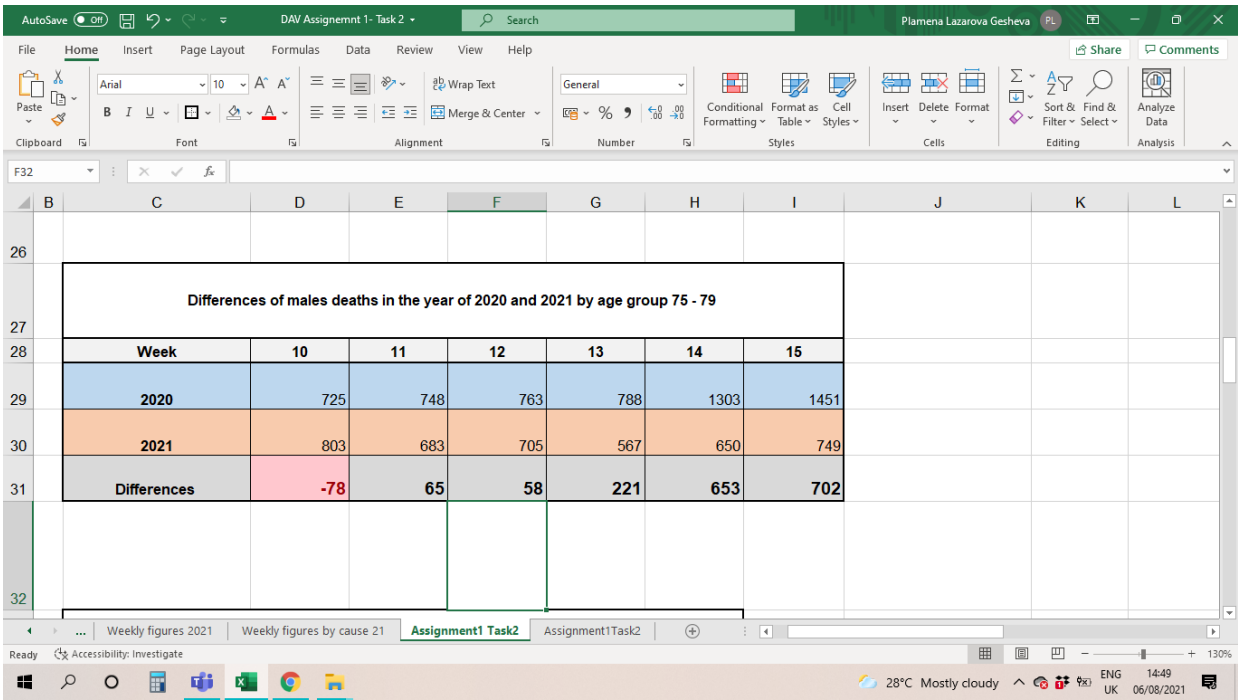
APPENDIX

4. What are the differences of deaths by age group of 90+ over the week between 7 and 12 in the year 2020 and 2021?



APPENDIX

5. What are the differences of males deaths in the year of 2020 and 2021 by age group 75-79 over the week between 10 and 15?



APPENDIX

6. What are the differences of female deaths in the year of 2020 and 2021 by age group 85 – 89 over the week between 1 and 5?

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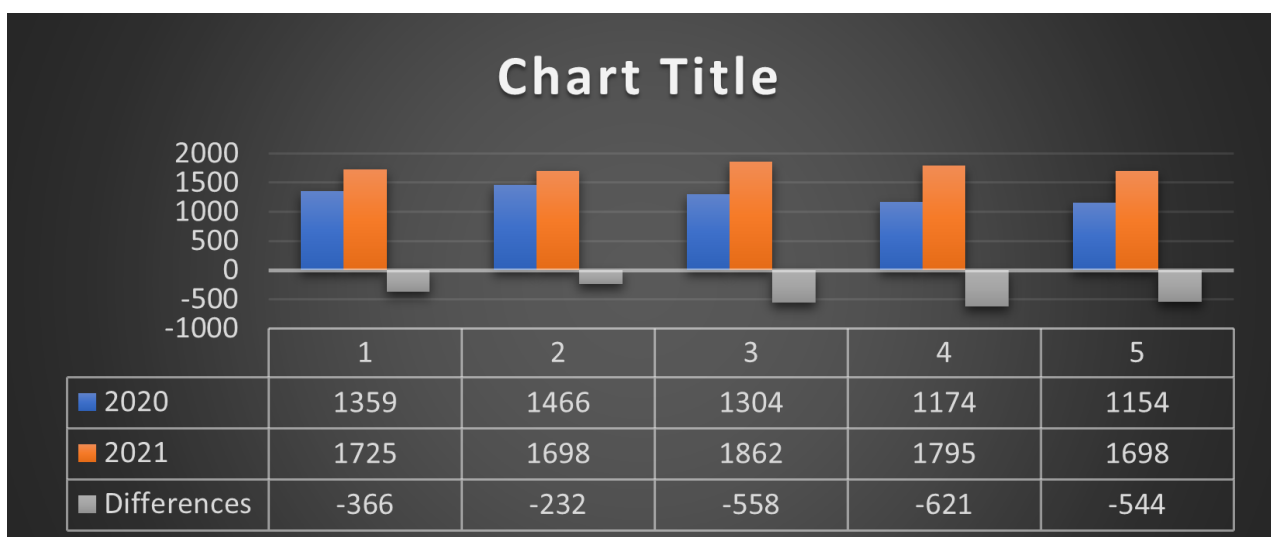
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		C	D	E	F	G	H	I	J	K	L	M
32		Differences of female deaths in the year of 2020 and 2021 by age group 85 – 89										
33												
34		Week	1	2	3	4	5					
35		2020	1359	1466	1304	1174	1154					
36		2021	1725	1698	1862	1795	1698					
37		Differences	-366	-232	-558	-621	-544					
38												

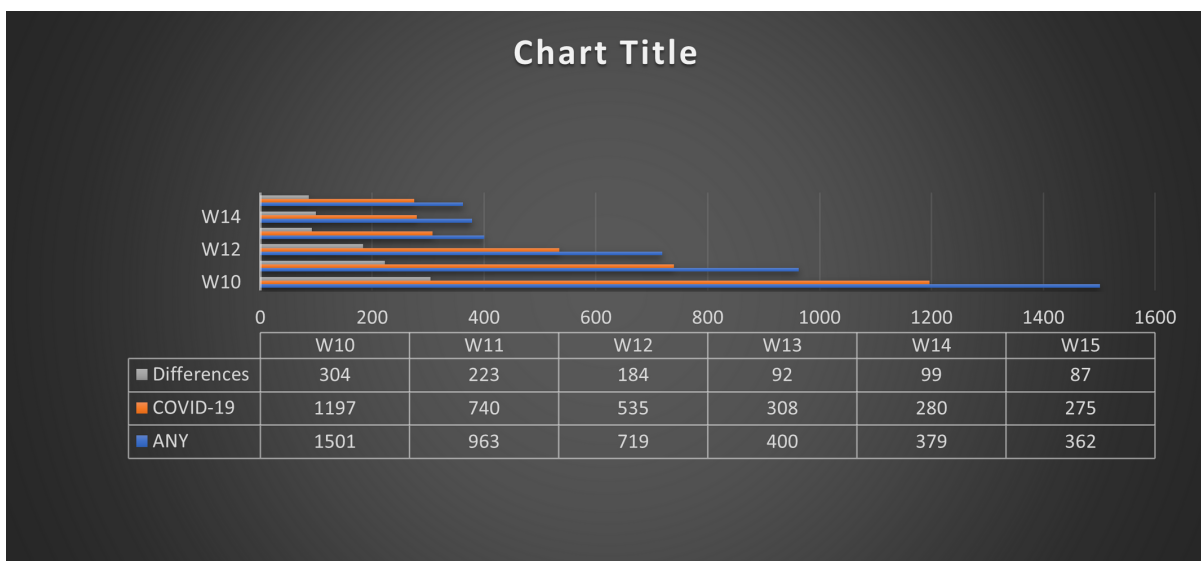
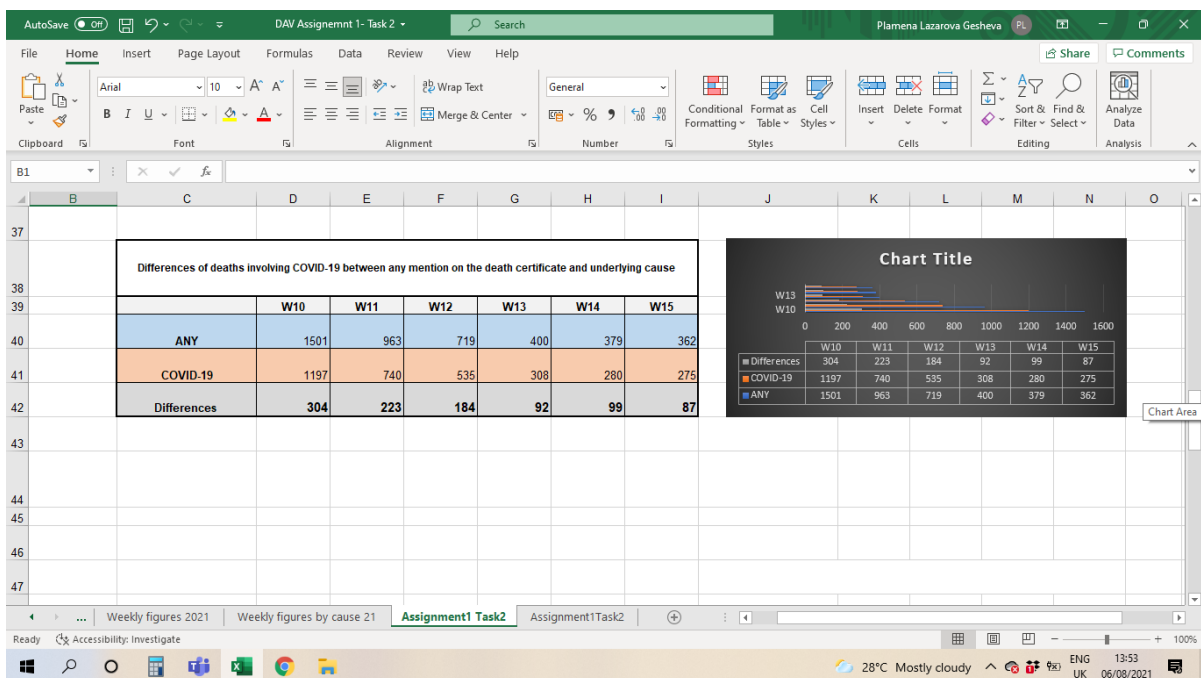
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APPENDIX

7. Identify the differences of deaths involving COVID-19 between any mention on the death certificate and underlying cause between week 10 and 15.



APPENDIX

8. What are the differences of deaths by region between the year 2020 and 2021 over the week between 16 and 20?

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Differences of deaths by region between the year 2020 and 2021 over the week between 16 and 20												
Week	W16	W16		W17	W17		W18	W18		W19	W19	
Region of usual residence	2020	2021	Difference	2020	2021	Difference	2020	2021	Difference	2020	2021	Difference
North East	1,155	509	646	1,103	501	602	922	455	467	769	548	221
North West	3,195	1,345	1,850	3,109	1,281	1,828	2,503	1,089	1,414	1,790	1,282	508
Yorkshire and The Humber	1,960	1,001	959	2,095	943	1,152	1,844	775	1,069	1,328	1,060	268
East Midlands	1,632	849	783	1,711	814	897	1,418	700	718	1,094	921	173
West Midlands	2,536	1,057	1,479	2,481	982	1,499	1,975	788	1,187	1,326	1,112	214
East	2,466	1,054	1,412	2,299	1,062	1,237	1,982	841	1,141	1,321	1,031	290
London	3,275	986	2,289	2,785	908	1,877	1,953	792	1,161	1,213	908	305
South East	3,084	1,489	1,615	3,334	1,519	1,815	2,853	1,168	1,685	1,887	1,525	362
South West	1,854	1,042	812	1,924	1,084	840	1,554	804	750	1,218	1,125	93
Wales	1,169	616	553	1,124	582	542	929	560	369	692	640	52

Deaths by region of usual residence week 16th to 19th for year 2020-2021

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