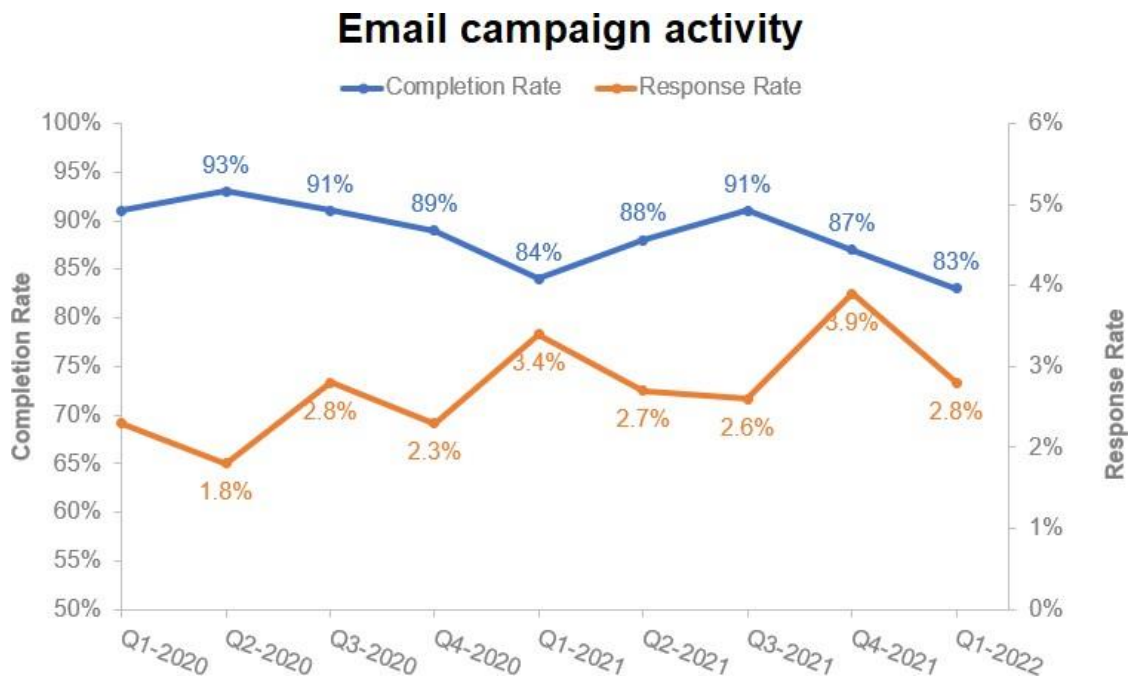


## SIMPLYFYING DUAL AXIS

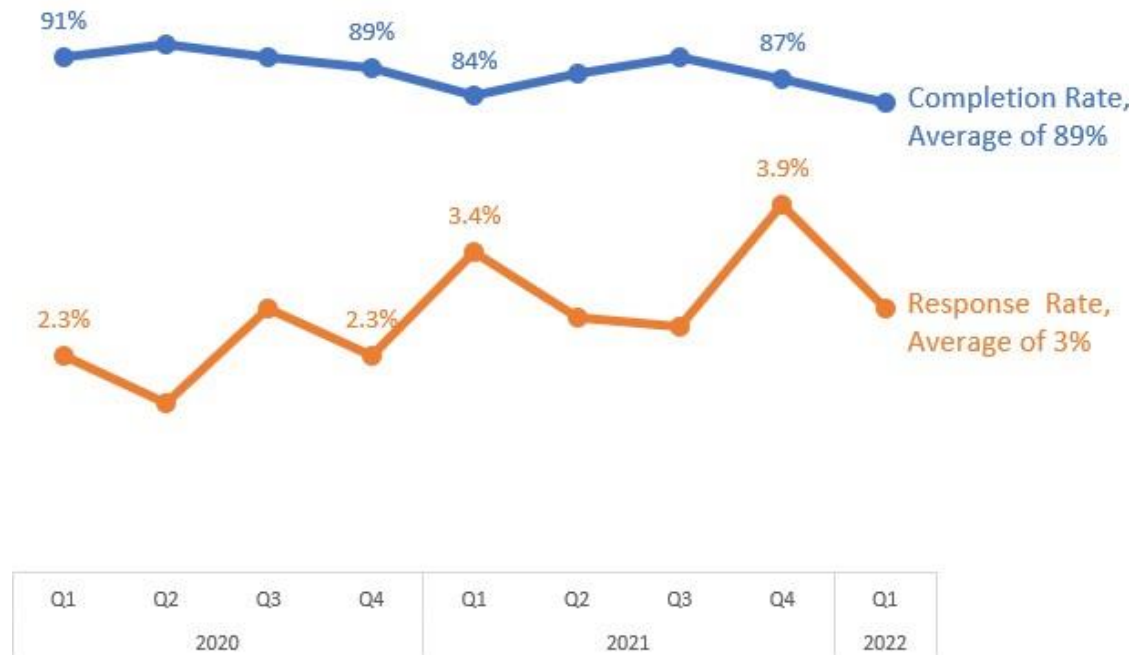
- Intended story.  
A graph that shows response rates and completion rates for the past few years for your company's email surveys to its user base. The completion rate is the proportion of users completing the entire survey and the response rate is the percentage of users who responded to the email survey by starting it.
- Before – Showing Data



- Chart challenges
  - Displaying both axes make the chart look too busy and complicated.
  - Too many data labels
  - Long and untidy x-axis labels

- After – Story telling with Data.

### Email campaign activity

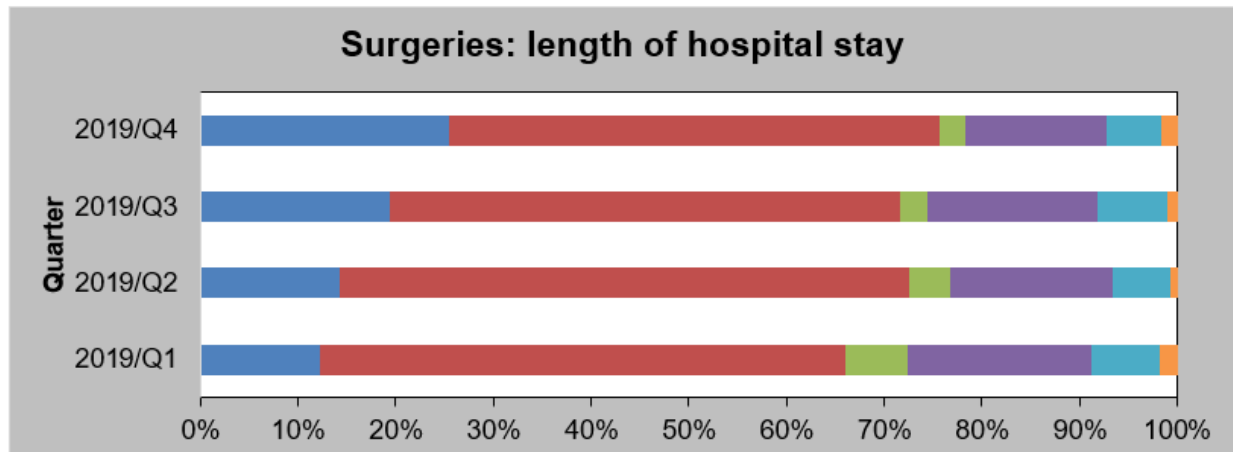


- Design Changes
  - Only crucial points labeled and both axes removed.
  - X-axis labels grouped and simplified so that they fit horizontally.
  - Legend removed and group names added directly to the chart.
  - Average over time added for each category.
  - Chart name aligned to the left and de-emphasized.
  - Line thickness increased.

## SIMPLYFYING STACKED BAR CHART AND TABLE

- Intended story.  
A graph that shows the length of hospital stay in days for patients after surgery in 2019 by quarter.
- Before – Showing Data

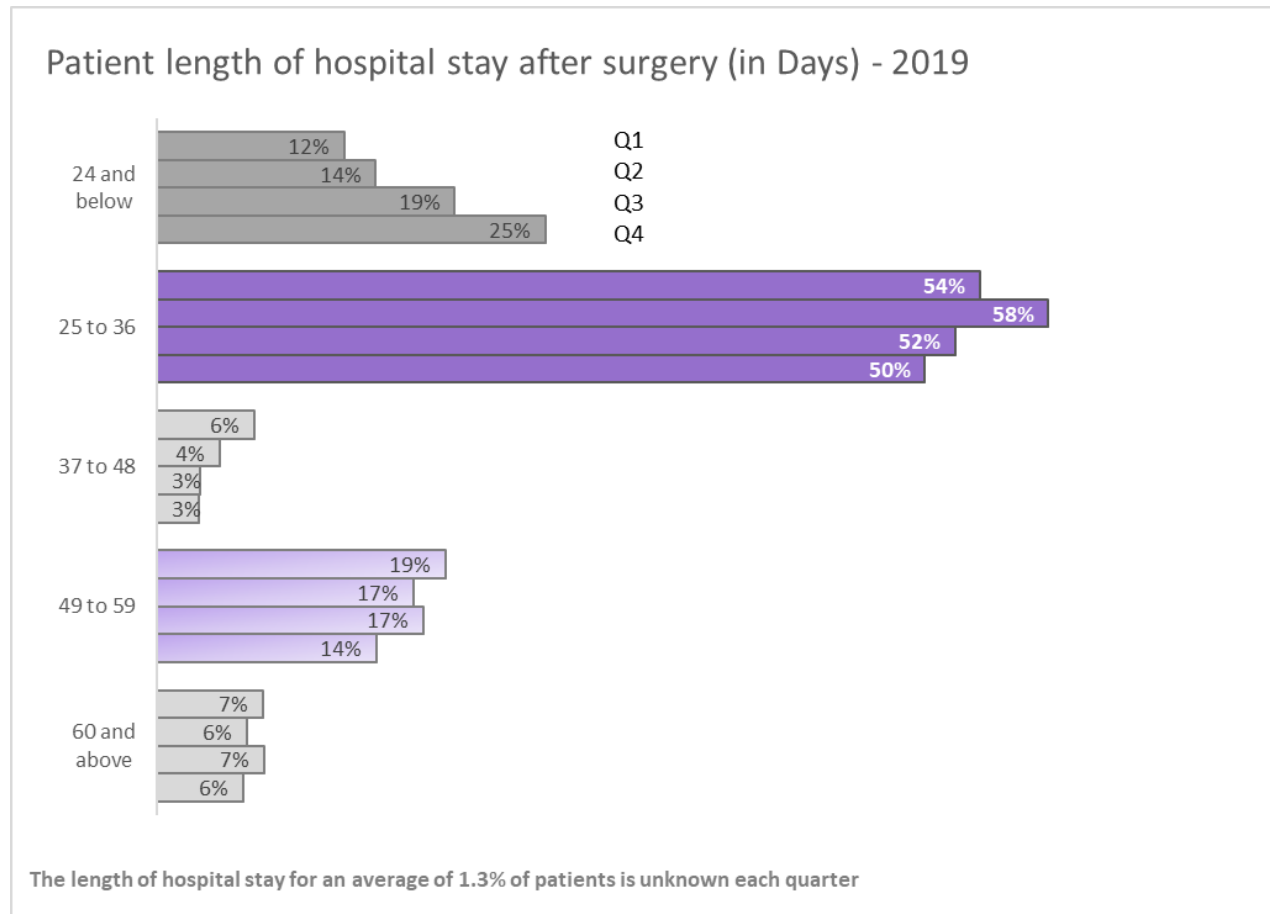
### ORIGINAL VISUAL



	<=24	24 and 36	36 and 48	48 and 59	>=60	Unknown
2019/Q1	12.2%	53.9%	6.3%	18.9%	6.9%	1.8%
2019/Q2	14.3%	58.3%	4.1%	16.7%	5.9%	0.7%
2019/Q3	19.5%	52.2%	2.8%	17.4%	7.0%	1.1%
2019/Q4	25.4%	50.3%	2.7%	14.4%	5.6%	1.7%
	17.8%	53.7%	4.0%	16.8%	6.4%	1.3%

- Chart challenges
  - The title is not clear and easy to understand.
  - Showing the chart and table makes the visual look too busy and clustered.
  - Category labels and overlapping hence confusing.

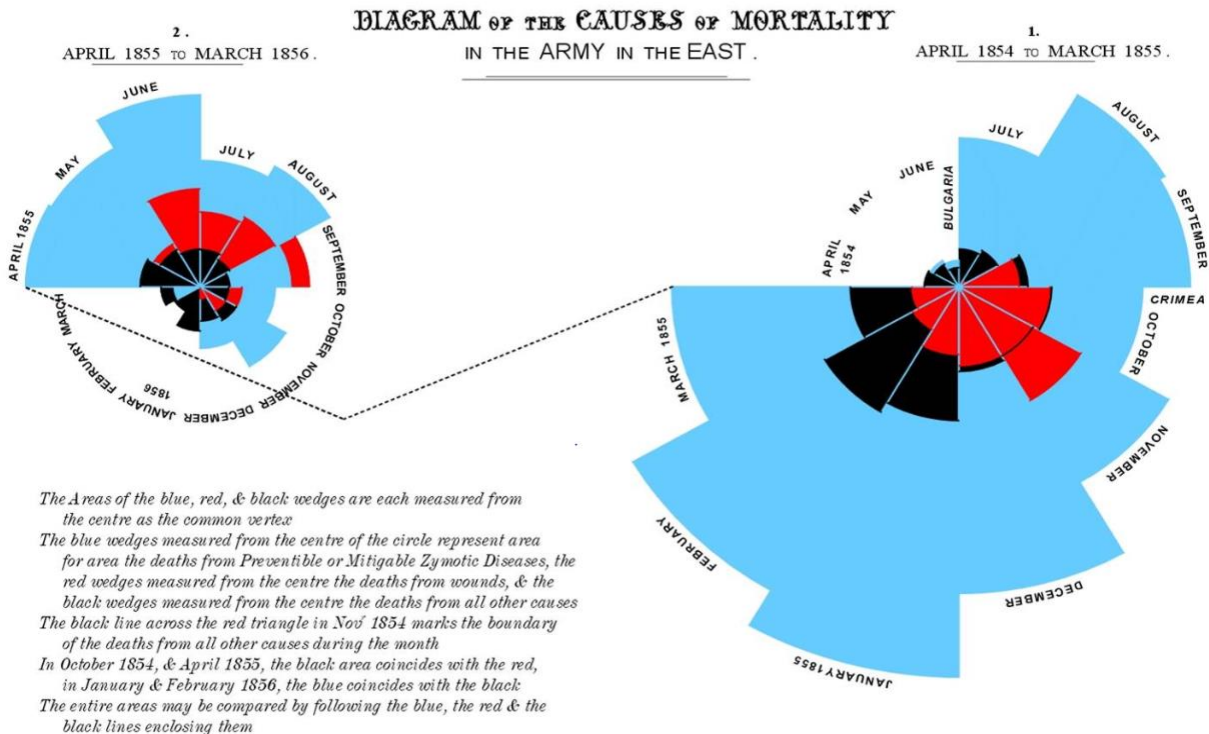
- After – Story telling with Data.



- Design Changes
  - Title edited to a simpler and easy to understand one.
  - Category labels changed and overlapping removed.
  - Table removed and data labels used instead.
  - Horizontal bars used instead of stacked bar.

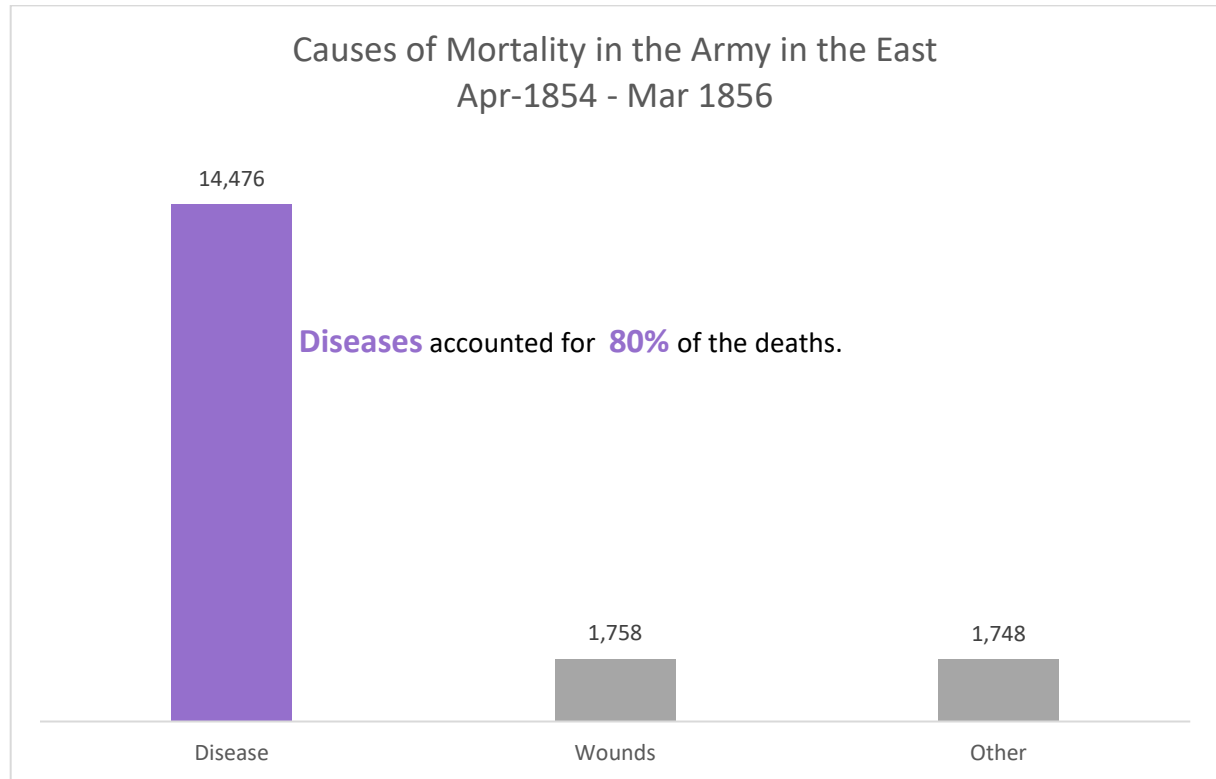
## SIMPLYFYING A FAMOUS CHART

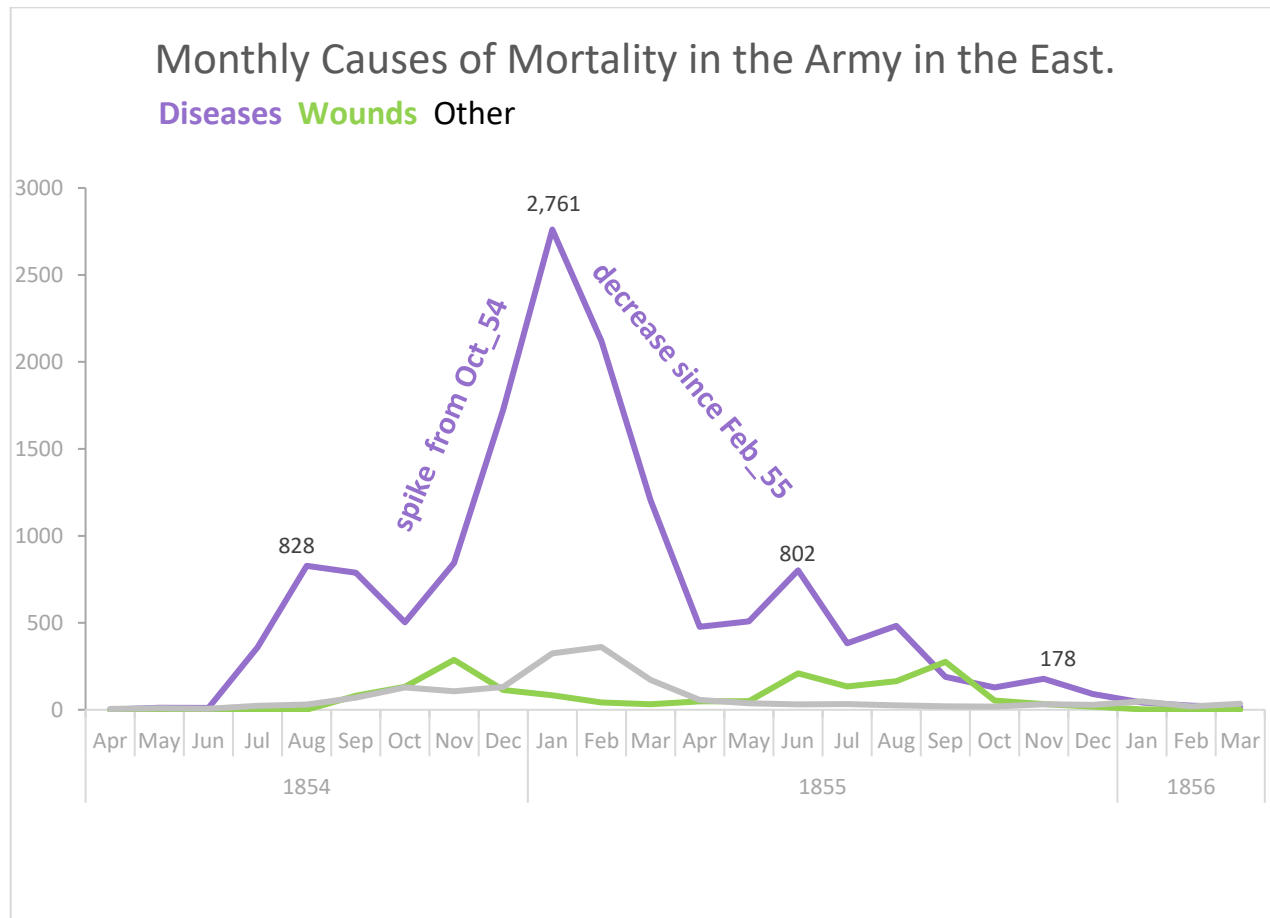
- Intended story.  
Florence Nightingale was a pioneer in data visualization and her innovative approach to representing data using her famous "Rose Chart" was ground-breaking for her time. She created a rose chart to highlight the number of unnecessary deaths during the Crimean War because of preventable infections.
- Before – Showing Data



- Chart challenges
  - The chart is generally complex to interpret.
  - It can only be used for a limited period.
  - The design elements are quite distracting from the data being presented.
  - It is difficult to easily identify the month-on-month trend.

- After – Story telling with Data.



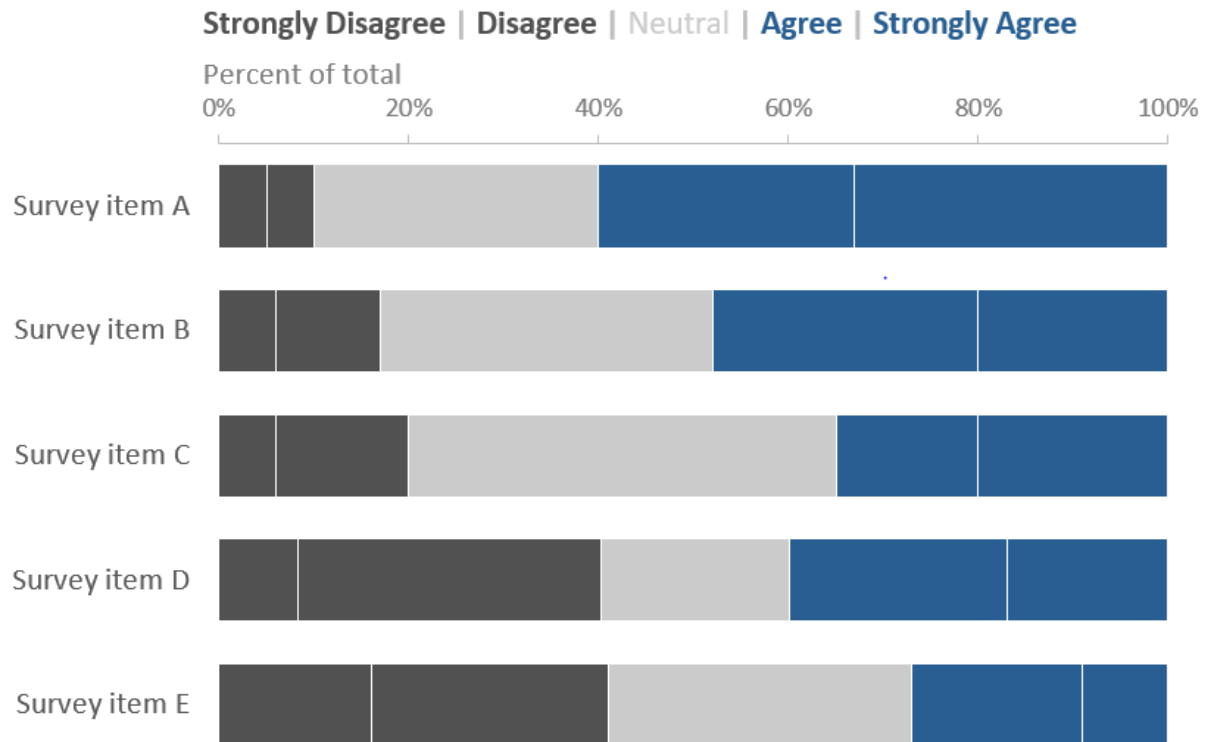


- Design Changes
  - Chart changed to a bar for overall comparison and line chart for monthly trend.

## REMAKING A STACKED COLUMN CHART

- Intended story.  
A graph that compares categories across multiple survey items
- Before – Showing Data

### Survey results

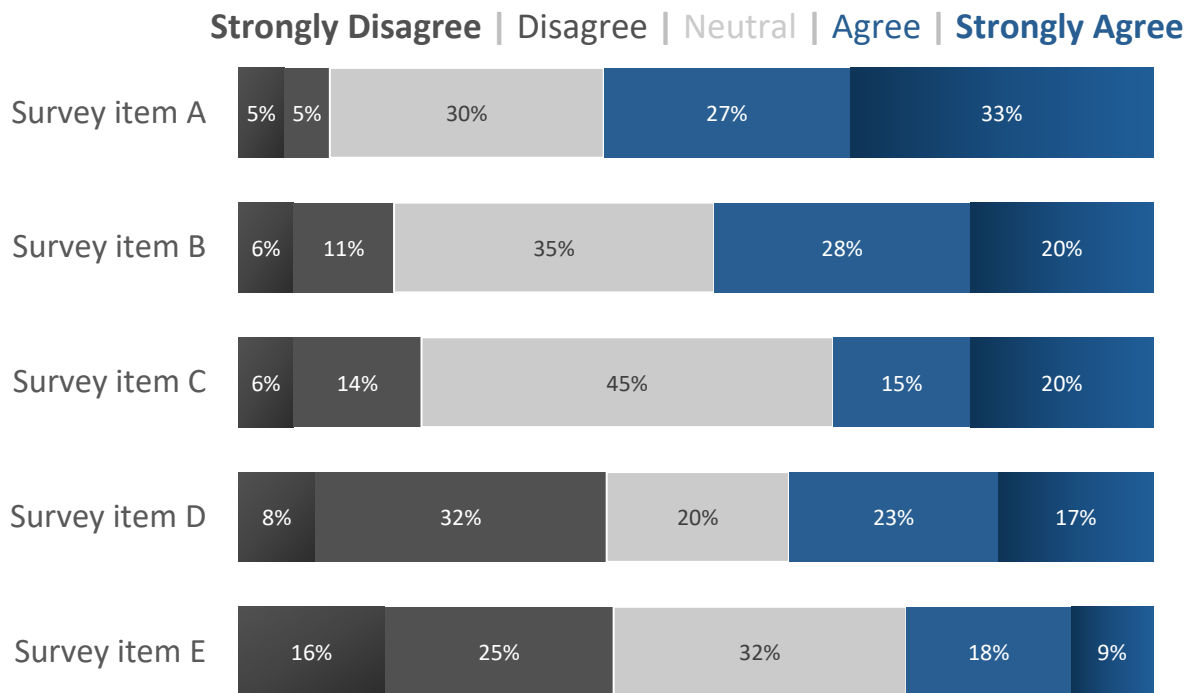


- What I like about the chart
  - A stacked column chart seems like a very good choice for this visual
  - The color selection for the left and right ends makes it quite easy for a simple comparison between Disagree-Neutral-Agree.



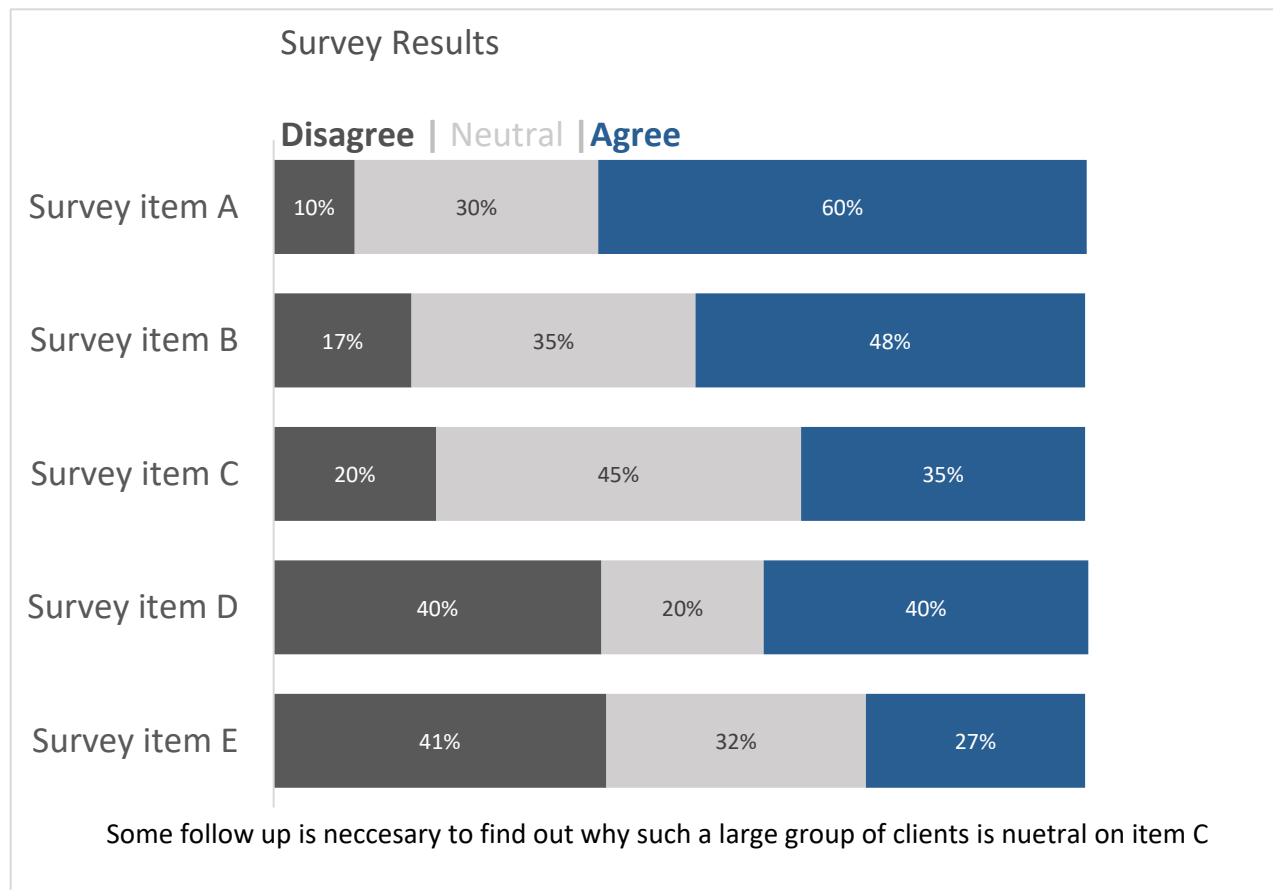
- After – Story telling with Data Version 1
  - Use case 1 – When the comparison between the 2 groups of agree and disagree is important.

## Survey Results



- Design Changes
  - Added data labels and removed the axis.
  - Added 2 hues for the 2 agree and disagree categories. To facilitate comparing them as a group and separately

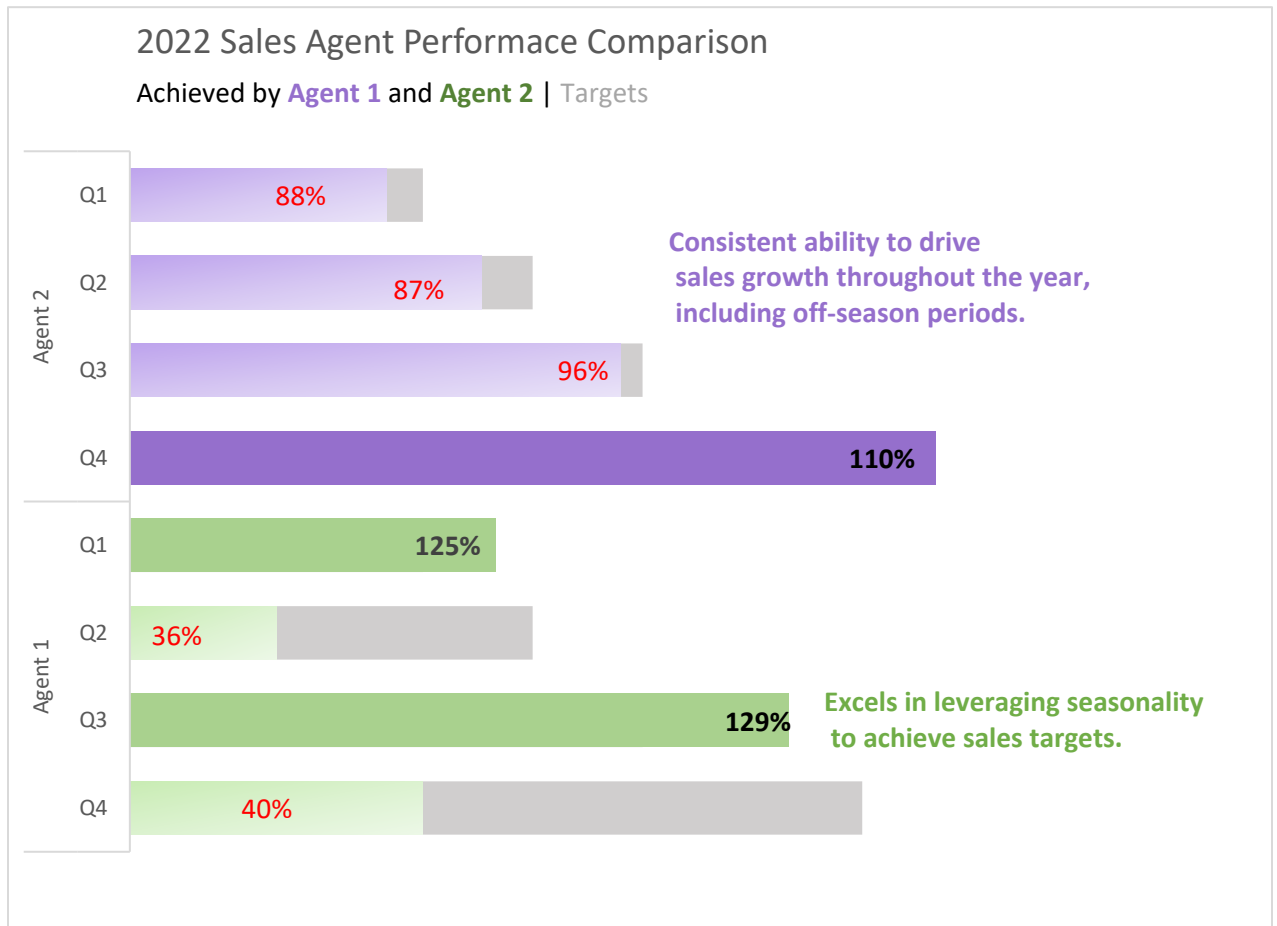
- After – Story telling with Data Version 2
  - Use case 1 – When the comparison between the 2 groups of agree and disagree is not important and more importantly we require the audience to group the chart as Disagree- Neutral - Agree



- Design Changes
  - Added data labels and removed the axis.
  - Grouped the 2 groups of agree and disagree into 1 group each.

## MAKING OR MISSING THE MARK -Visualizing progress against targets.

- Intended story.  
A graph that compares performances against set targets



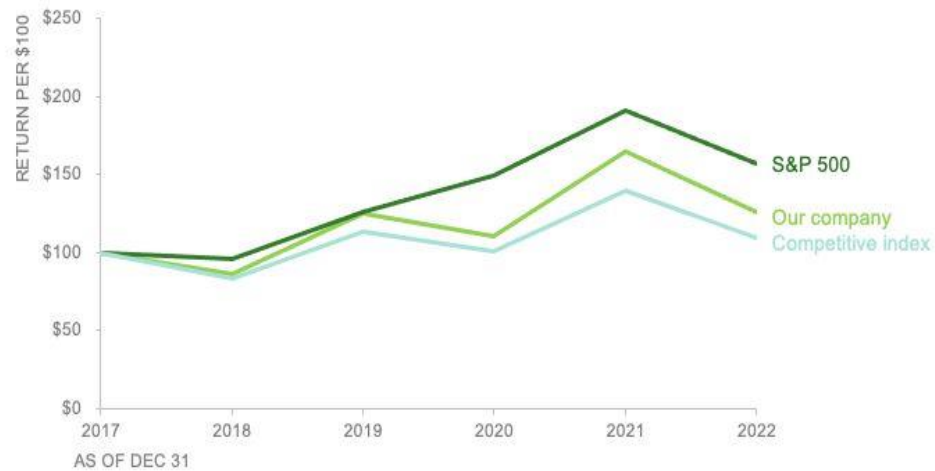
- Design Changes
  - De-emphasized the color of the benchmarks.
  - Added 2 key takeaways.

## Making the So what ? obvious.

- Intended story.  
Design changes to make that takeaway obvious to the audience.

- Before – Showing Data

Cummulative shareholder return over 5 years  
For an initial investment of \$100 in 2017



- What I like about the chart
  - Very well de-cluttered
  - Both the Axes and chart are very clearly and precisely labeled
- After – Story telling with Data.



- Design changes
  - De-emphasized the color of the benchmarks.
  - Added 2 key takeaways.

## **Bubble Charts - Visualizing three-dimensional data.**

Bubble charts allow the comparison of multiple dimensions at once. I found working with bubble charts to be challenging initially, but I now recognize their potential for specific use cases.

They can quickly become complicated, far less intuitive than a simple bar or line chart, and to an unfamiliar audience, confusing and overwhelming but it is possible to create an effective and engaging bubble chart.

### **When not to use a bubble chart:**

- When the additional dimensions don't add enough incremental value to make up for their presence.
- When your audience needs to easily judge the relative differences in magnitude between variables
- When the cognitive effort it takes to process the chart isn't worth your audience's brainpower.

### **Design tips:**

- Narrate and build the chart piece-by-piece - The uninitiated reader needs to understand how to read a bubble chart and be convinced the benefit will be worth the effort.
- Use interactivity - Dynamic visuals can educate the audience about how to read the chart through tooltips and navigation features like animation and filters.
- Particularly for a static bubble chart: include words - It's always a good idea to label your axes, provide clear chart titles, and annotate important data points with illuminating context.

## Story telling with Data.

Breakdown of marketing expenses,sales and profits by store

Store 1   Store 2

