

Data Visualisation

Developed by

AstraZeneca 

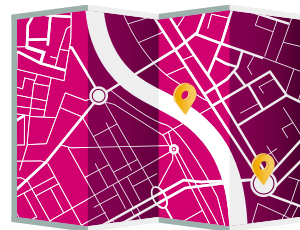
The Power of Visual Storytelling

From pre-history to the present, humans have used imagery to communicate quickly and impactfully.

Examples can be seen in life every day.



Signs that convey important information **quickly** and **memorably**.



Maps with multiple **layers** of **complexity**.



Labels that give guidance **simply** and **visually**.

**Data play a crucial role in clinical decision-making,
but raw numbers alone can be overwhelming.**

Visualisation can...

...help
understand
treatment
effect

...show
outcomes to
patients

...facilitate
data-driven
decision
making

Data are not visual, but when presented in the right way,
data can tell a story that is clear and memorable.

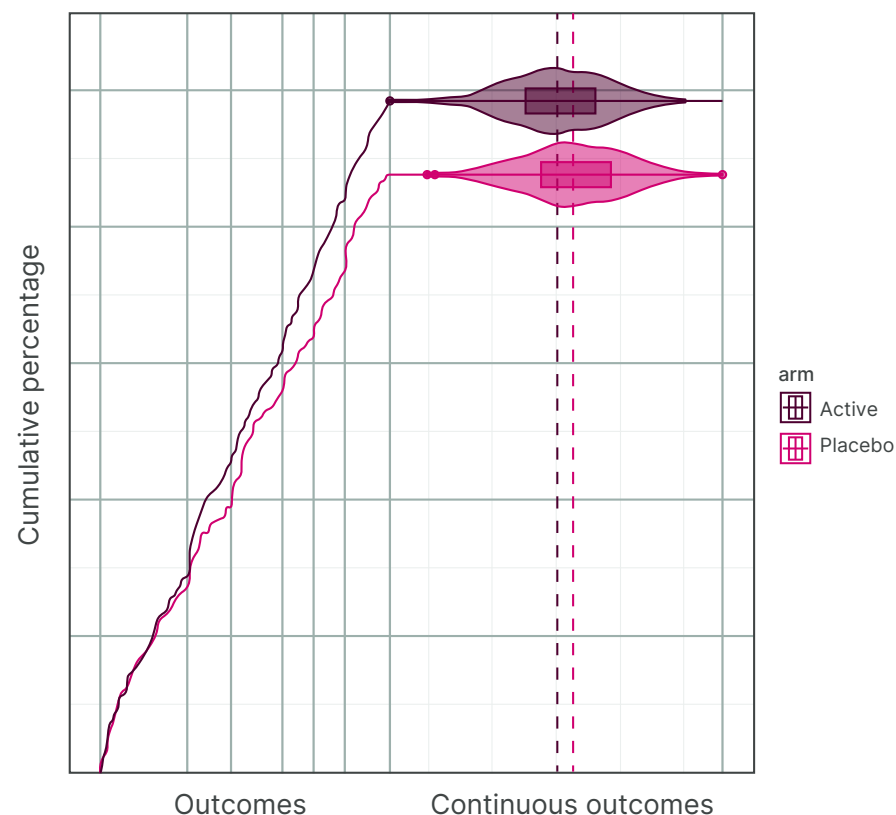


Data Visualisation at AstraZeneca

We understand what data can do. So, we're designing new ways to express our data more impactfully and more effectively.

The Maraca plot¹⁻⁴ was created to explore complex composite endpoints in a simple visual. This provides a more complete picture of the data, including the treatment effect on individual components.

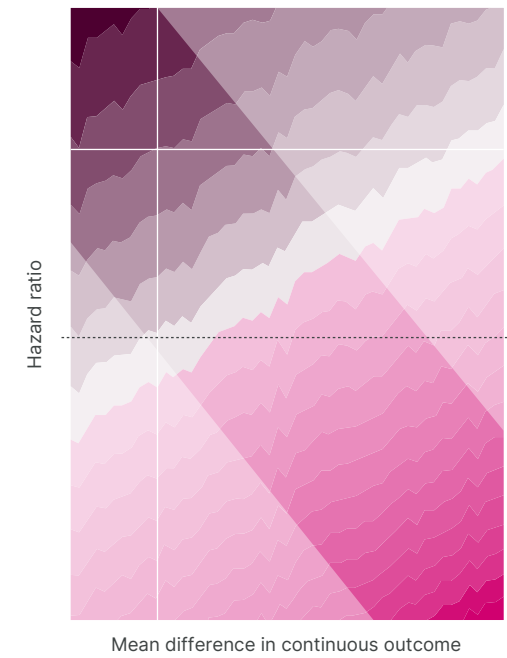
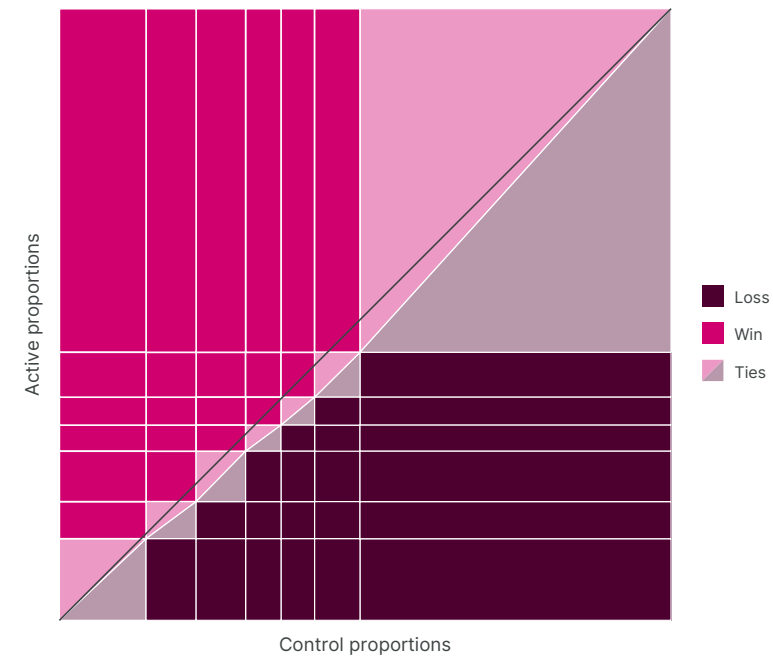
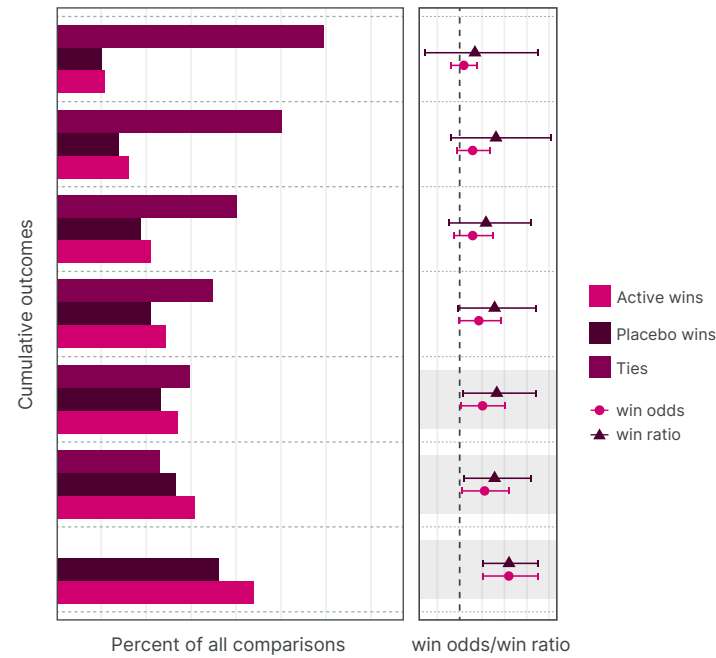
Clinical outcomes are typically displayed in order of severity. The Y-axis represents the cumulative percentage of patients experiencing the event over time. Additionally, a horizontal violin plot can be used to illustrate continuous outcomes, such as eGFR, for patients who did not experience any hard events, thereby offering insight into the distribution of continuous measures.



Learn more about
the **Maraca plot**



*This QR code will take you to a site maintained by
a third party who is solely responsible for its contents.*



The Dustin plot,
a combined bar and
forest plot, shows
details of the different
components as they
are added one by one.

The 2D Mosaic plot
helps infer the win probability of the active treatment versus the control by highlighting areas where the active treatment outperforms the control. This is indicated by deviations from the diagonal line.

The Sunset plot
visually explores various 'what-if' scenarios, such as identifying combinations of hazard ratio and mean difference in continuous distributions that result in the same win odds.



The Impact of these Novel Data visualisations



AstraZeneca is applying these advanced data visualisations in disease areas such as Chronic Kidney Disease (CKD).

CKD is a progressive and irreversible condition that affects millions worldwide.⁵

Where traditional methods of presenting data in CKD often fall short, these plots visually represent complex outcomes in a way that enhances understanding of treatment effects.

By turning abstract and complex data into something that is visual and meaningful, we are able to reveal the true impact of our data.

*AstraZeneca has developed these visualisations in an open manner, and the code for creating them is freely available to the scientific community.*⁶⁻⁷

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References

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