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## **Alexion Analytics Challenge**

Based on the clinical trial data given, our group discovered a direct correlation between the amount of funding provided and the amount of successful trials per disease. Our group decided to take the top 10 highest funded and 10 top lowest funded studies to create a line graph for both instances. Visually, the line graph displays the highs and lows of clinical trials based on the amount of funding sources provided.

The rare diseases that had the most trials based on the data are lymphoma, leukemia, cancer, acute myeloid leukemia, melanoma, multiple myeloma, brain and central nervous system tumors, ovarian cancer, cystic fibrosis and glioblastoma. All the listed rare diseases receive funding from a number of sources ranging from 669-2360 and have outcome measures ranging from 654-1647.

We chose to display our results in the form of a line graph because it highlights the correlation between the amount of funding sources and the number of successful trials. The graph of the ten diseases with the most sources of funding shows that the number of successful outcomes is directly related to the amount of funding sources. As a result, the lines on the graph are fairly close to each other and follow a similar trend. Through the utilization of a line graph the data we sampled is easy to understand from a viewer's perspective and has relatively no unnecessary data ink.

The table shows the exact number of funding sources and successful outcomes for each disease. Although the line graph may show some contrast in the number of sources and completions, the table displays a more precise picture of the data. In the table one can see that without a significant number of sources of funding it is very unlikely to experience a successful outcome.