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# Results: COVID and Spotify Trends

## Optimization of Spotify User Recommendations for a Better User Experience Based on the Effects of Global Catastrophic Events

**Key indicators:** valence (happiness in a song) and COVID cases and deaths.

Valence varies between countries. Hispanic and Latin countries such as Brazil and México have higher mean valence than European countries such as Germany and the UK. This already highlights the cultural differences that impact music taste in different countries, highlighting why recommendations based on location are effective. Moreover, mean valence between 2019 and 2020 was significantly different in some countries. México and Spain both had significant differences in their trends when comparing 2019 and 2020. México had a significant drop in mean valence from one year to the other, while in Spain it increased. This is also relevant because globally, there was no significant change in mean valence.

When comparing valence vs. cases per million, the global tendency shows a strong positive correlation, and some countries match this relationship between the variables, such as Germany and the US. On the other hand, México, Spain and India show from a moderate to a strong negative correlation, which is completely opposite to the global tendency. On the other hand, while comparing valence vs. deaths per million the global tendency also shows a strong positive correlation, and Germany and the US also match the trend. México, Brazil, Italy and India show moderate and strong negative correlations. It is relevant to note that tendencies stayed the same whether COVID cases or deaths were compared: it had the same effect in valence.

This adds value, because Spotify can use the data obtained to offer more personalized suggestions to users depending on the country, and optimize exclusive contracts with certain artists that match the 'mood' of each country.