

Executive Summary

April 30, 2022

1 Executive Summary of Discovering and Tracking Disease Outbreaks

After extracting geographic information from the news headlines, clustering the headlines based on locations, and analyzing the headlines in each cluster, we come up with the following worldwide Zika outbreaks.

```
[1]: from IPython.display import Image  
Image("database\\world Zika outbreak.png")
```

[1]:



The analysis reveals one stark fact: **there is a worldwide outbreak of Zika concentrated in 6 areas.**

1.1 Zika Outbreaks

The number of headlines mentioning Zika in each outbreak are:

- Eastern United States and Mexico: 91 headlines

- Eastern Asia: 43 headlines
- Eastern South America: 28 headlines
- Western South America: 20 headlines
- Western United States: 18 headlines
- India: 13 headlines

These can be used to prioritize the worldwide response.

2 Conclusion

The recommended next steps for the CDC are to find the dates associated with the headlines to see how the disease outbreaks are evolving and to direct assistance to the areas where the disease is spreading quickest. With a rapid response - and additional data science - the worldwide Zika outbreak can be contained and vanquished by a coordinated global health campaign.