Presentation Capstone BRR

COVID-19 Vaccine Administration

Background

COVID-19 is haunting the globe and the pandemic disrupted the humanity at large. Millions of people lost their lives. More many are suffering and fighting for their lives. The economy is shattered and paralyzed. Many of the sectors are being directly impacted and hit by the pandemic.

Apex Stakeholder:

Government

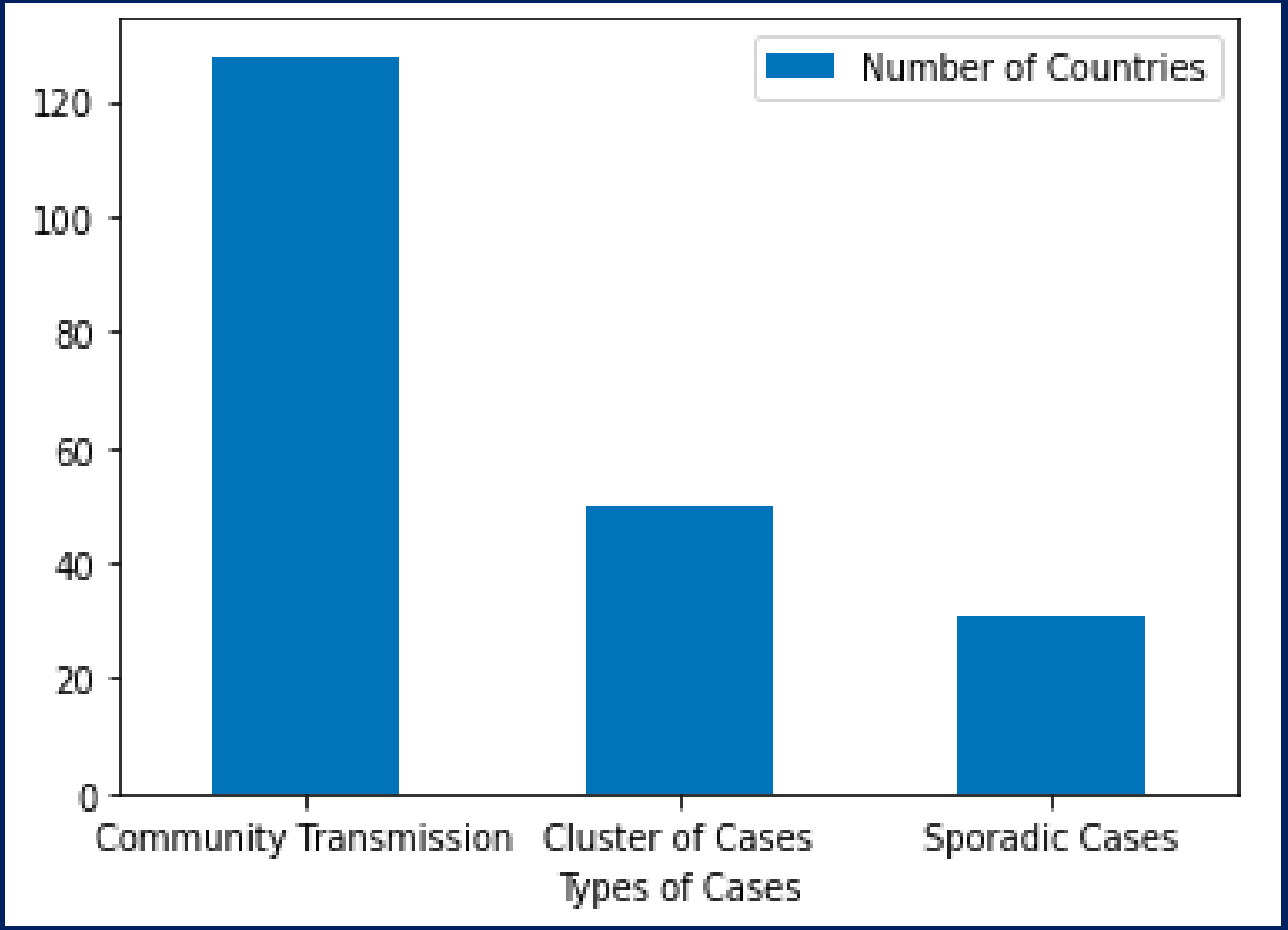
This project is rendered taking the Government's mandate and role in mitigating COVID-19 Pandemic

Data:

Supply Side: COVID-19 Vaccine Data

Demand Side: Clustering and Risk Profiling of People

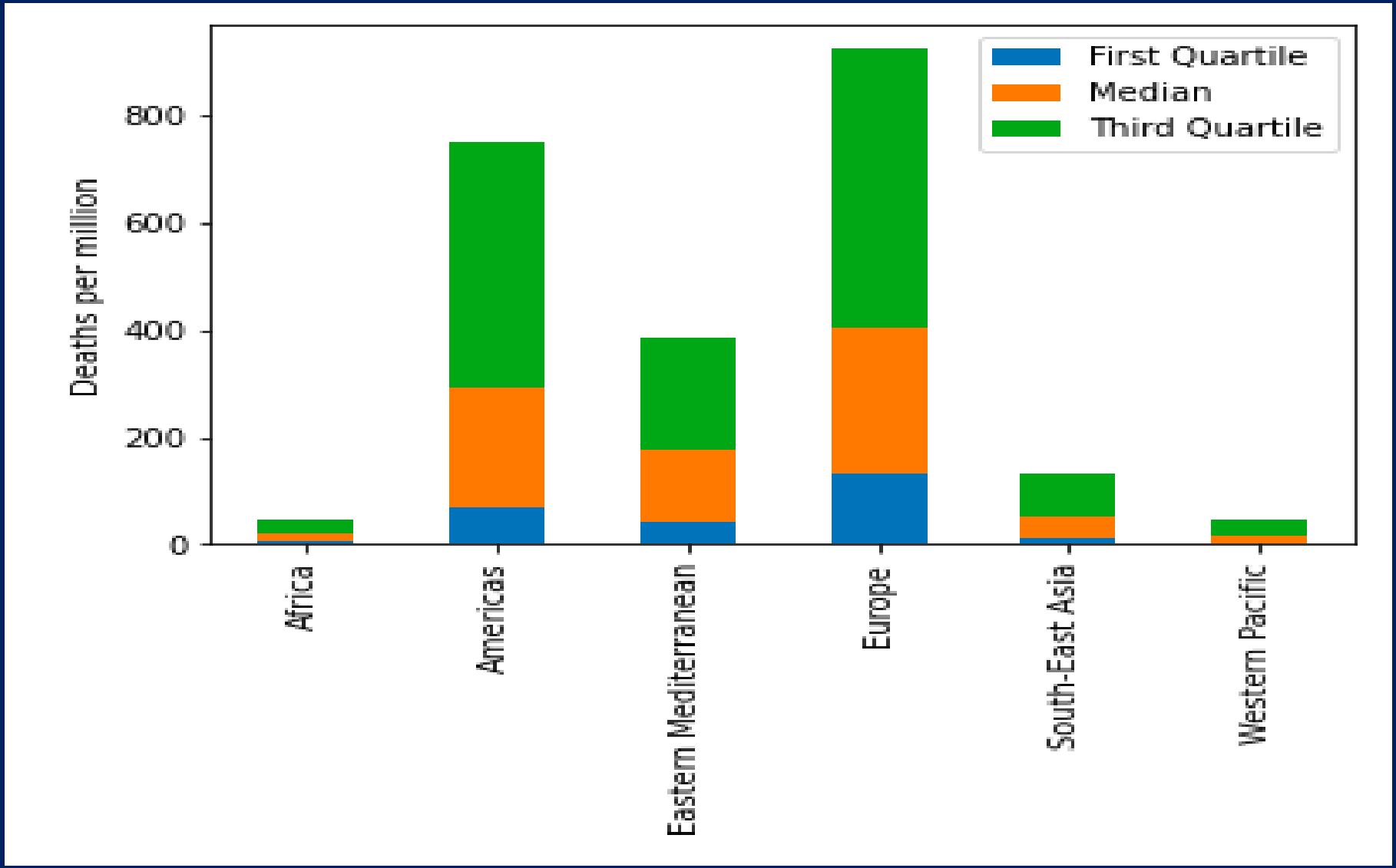
Clustering Groups



Risk Profiling

Category	Risk	Priority
Health Workers	Very High	1
60 Years or Above	High	1
Vulnerable	High	1
Infants	High	1
Essential workers outside health sector	Moderate	2
Personnel needed for vaccines, therapeutics, diagnostics production	Moderate	2
Government leaders and administrative and technical personnel	Low	3
Others	Least	4

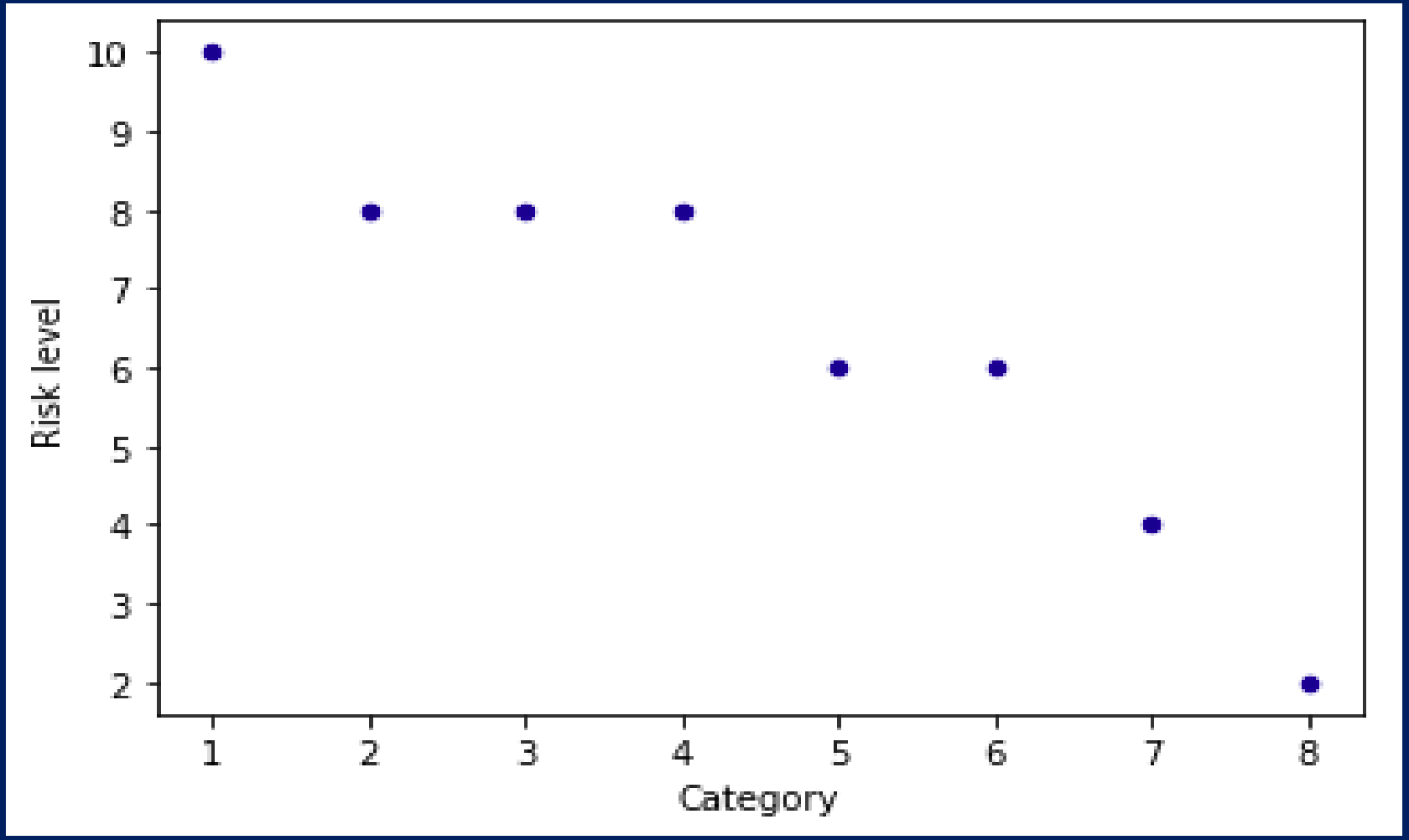
Deaths per Million by Regions



Dashboard for COVID-19 Vaccine Procurement Decision

Particulars	Pfizer	Moderna	Putnik	AstraZeneca
Annual Number of Vaccines	300 Million	400 Million	217 Million	400 Million
Required Temperature for Storage	-20^0	-10^0	0^0	$> 0^0$
Efficiency	95%	97%	90%	70%
Price / Dose	USD 20	USD 10 to 50	NA	USD 4

Risk Profiling Chart



Legend: for X-Axis:

1 = Health Workers; 2 = 60 Years or Above; 3 = Vulnerable; 4 = Infants; 5 = Essential workers outside health sector;
6 = Personnel needed for vaccines, therapeutics, diagnostics production; 7 = Government leaders and administrative and technical personnel; 8 = Others

Results and Discussions

The results show that the pandemic, COVID-19 is devastating and disrupted the entire human community across the length and breadth of the globe. AS the human life is critical, the COVID-19 vaccination needs to be effectively administered and managed. The strategies are built from the top down approach. The first step in the Top down approach is to consider the globe and cluster it in to various clusters depending on the transmission of COVID-19.

This data when compared with the supply data, the gap between the demand and supply may be ascertained. Action plan may be taken up for ramping up the supply and meeting the schedule following the rationing approach. Profiling of People Data is the derived or processed form of data from the previous data set. This helps in planning for administering the vaccine. Logistics Data includes cold storage facilities, supply chains, inward and outward movement of vaccines. This helps in planning the procurement schedule and vaccination schedule. The entire value chain of the vaccine administration is crucial and be planned appropriately. Apart from keeping in mind the principles as laid down by the WHO, the governments, the Pharma companies and the public at large need to be taken on the same page.

Conclusion

The present work goes a long way in appreciating the ecosystem and the value chain of the vaccine administration. It has to balance the priorities, preferences, disadvantaged section, logistics landscape, supply and the demand, gaps thereof, safety of the front line health workers, vulnerable section of the people, efficacy and pricing, subsidizing, documenting to capture the population vaccinated and left over, and to cover the end to end of the vaccine administration.