

Tuberculosis Time Bomb : COVID Imapct



Tuberculosis Facts

- ❑ What is Tuberculosis (TB) ?
- ❑ Worldwide, TB is second leading infectious killer after COVID-19 (above HIV/AIDS)
- ❑ COVID Impact on TB



GLOBAL HEALTH

***‘The Biggest Monster’ Is
Spreading. And It’s Not the
Coronavirus.***

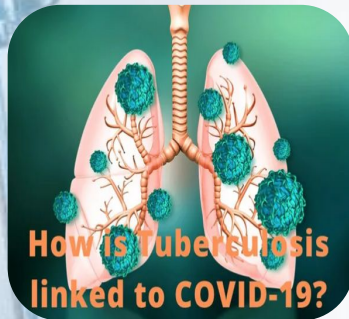
Tuberculosis kills 1.5 million people each year. Lockdowns and supply-chain disruptions threaten progress against the disease :

Opportunity

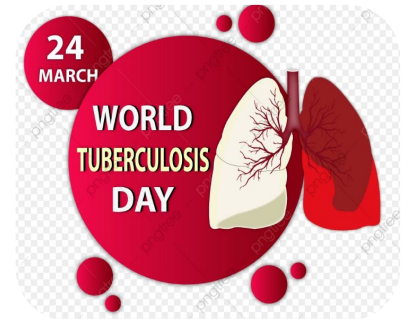
What is the potential impact of COVID-19 on TB next 5 years, in high-burden countries?



World Health
Organization



END TB BY 2030

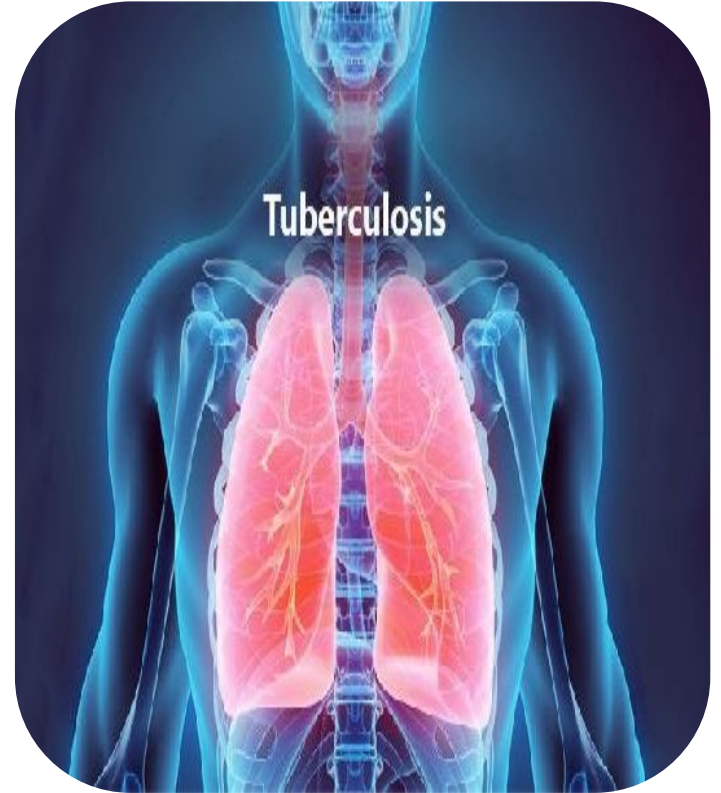


Goal :

To predict which countries are likely target for the next TB outbreak .

Solution:

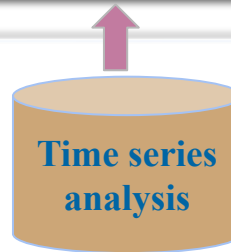
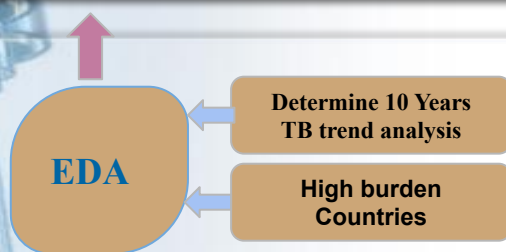
Build a model using Time series analysis.



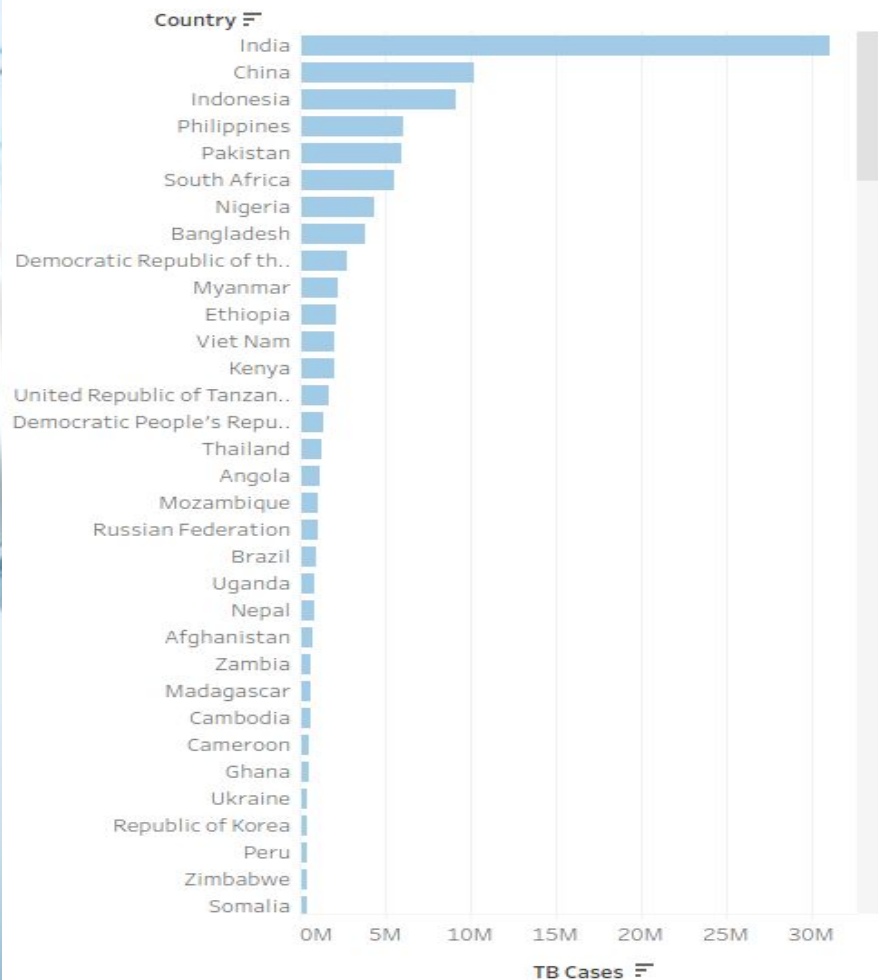
Methodology



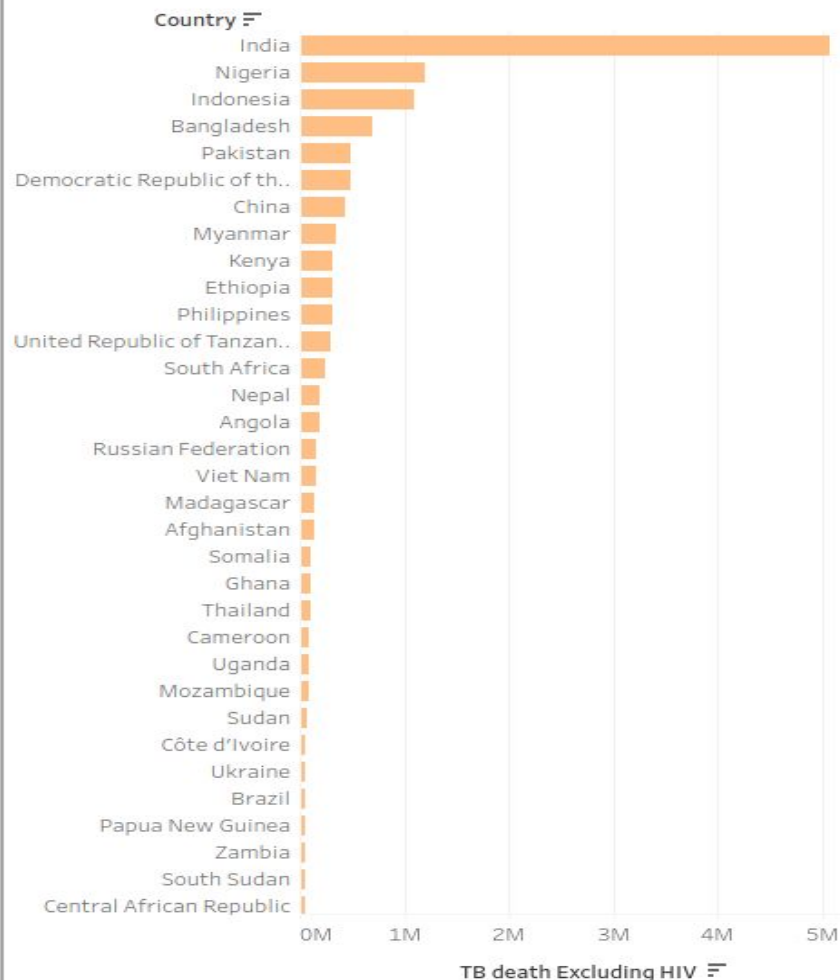
**BUILD
MODEL**



TB Cases

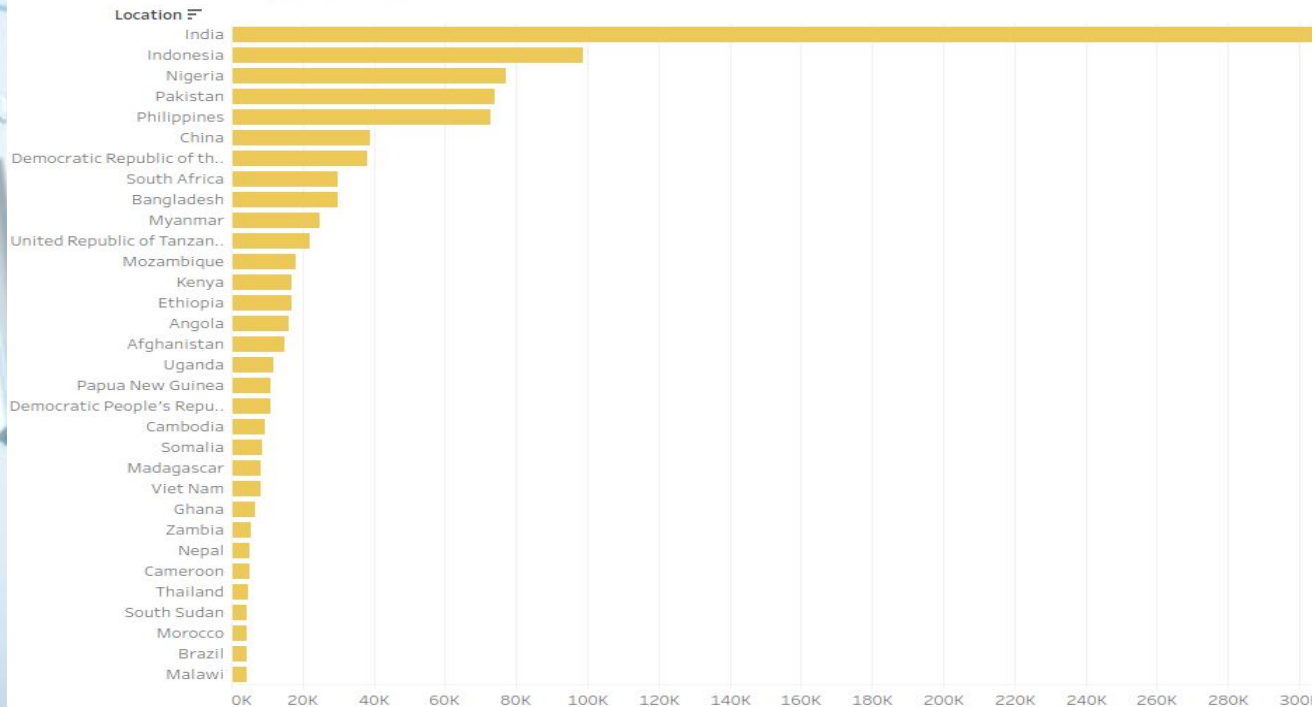


TB Deaths

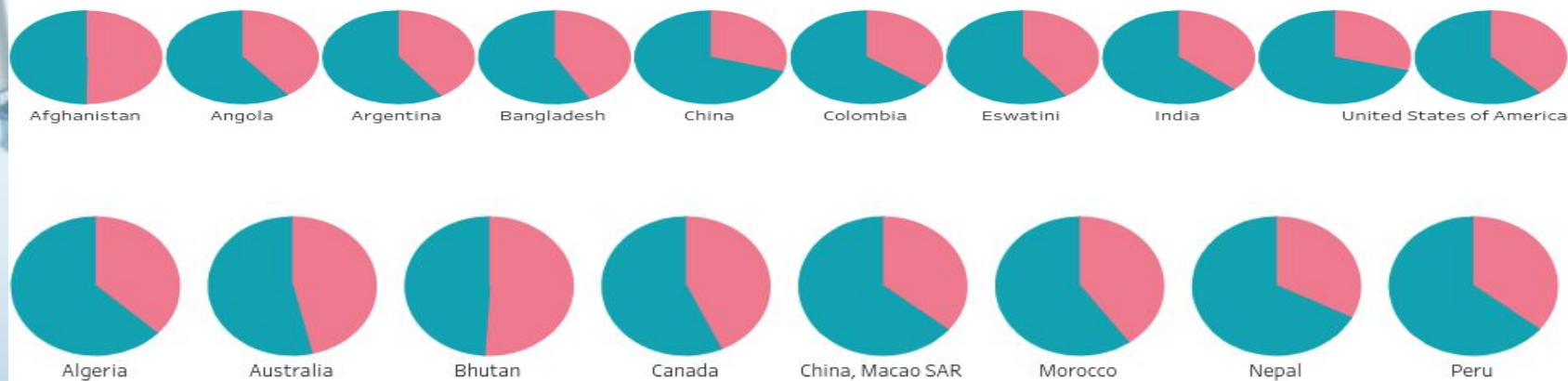


TB cases in kids

TB Cases children aged [0-14]

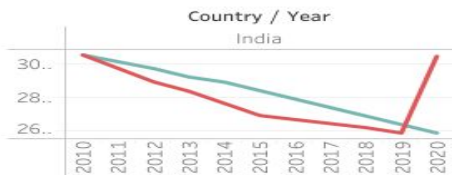


TB cases gender ratio

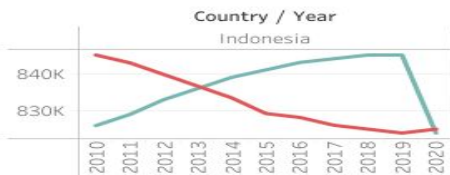


TB trend analysis

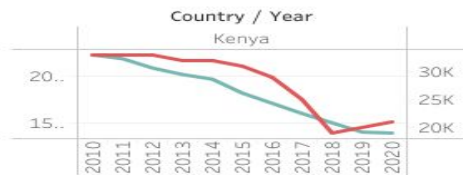
India



Indonesia

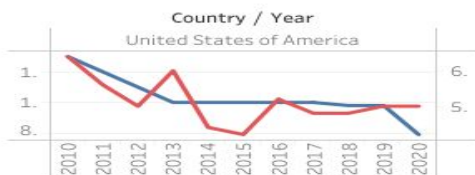


Kenya

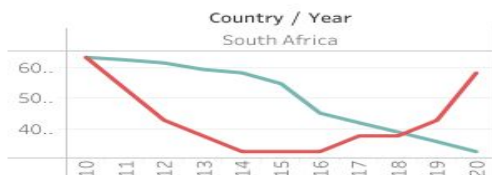


Measure ..
■ TB Ca..
■ TB de..

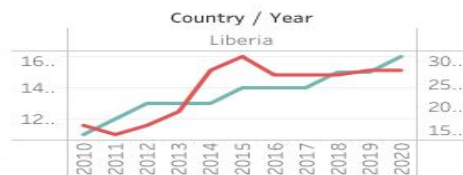
US



South Africa



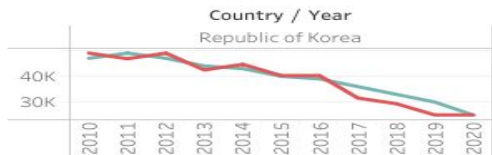
Liberia



Philippines



Republic of Korea



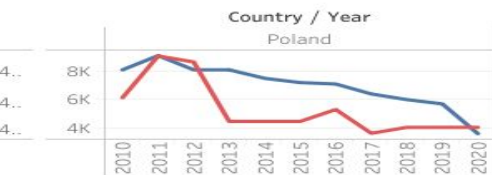
France



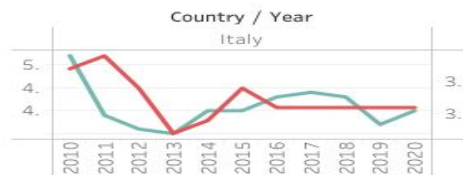
Pakistan



Poland



Italy

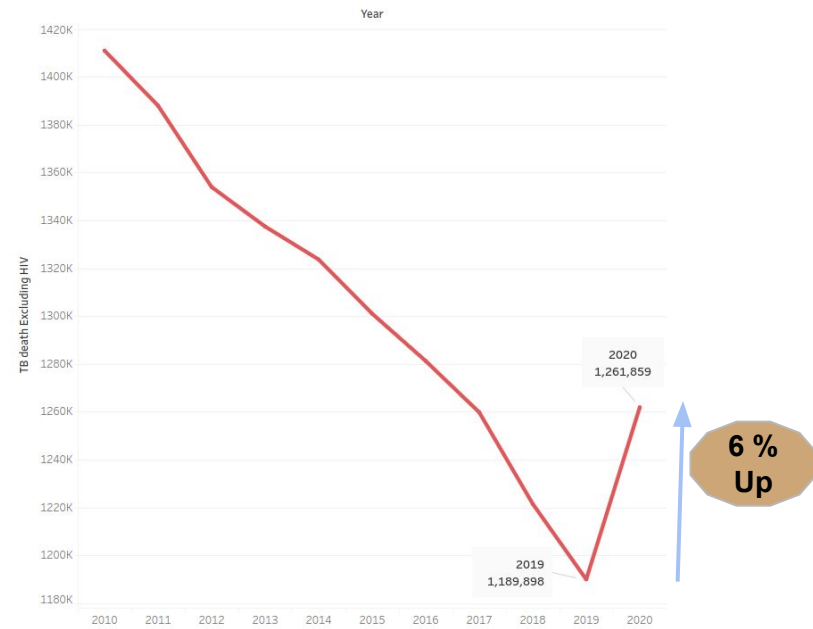


Big Global changes in TB notifications in 2020

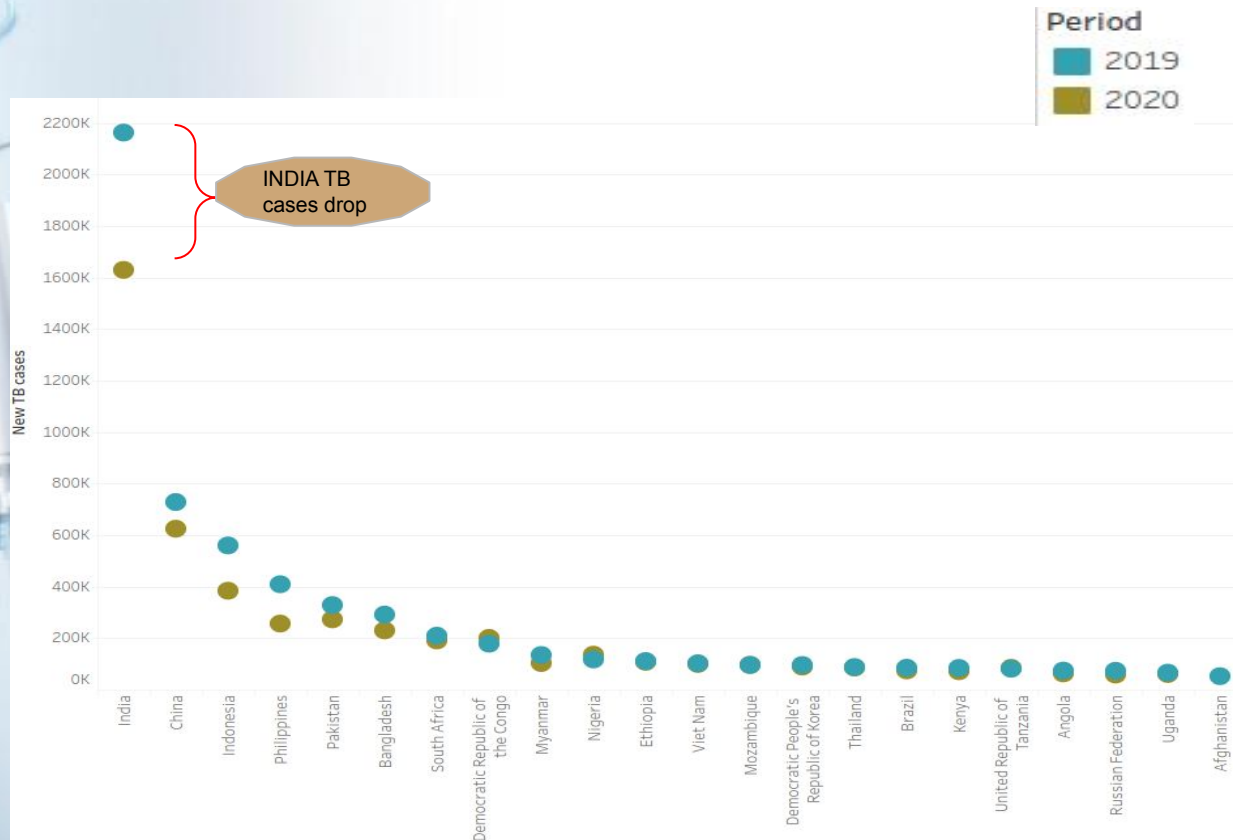
New Tb Cases



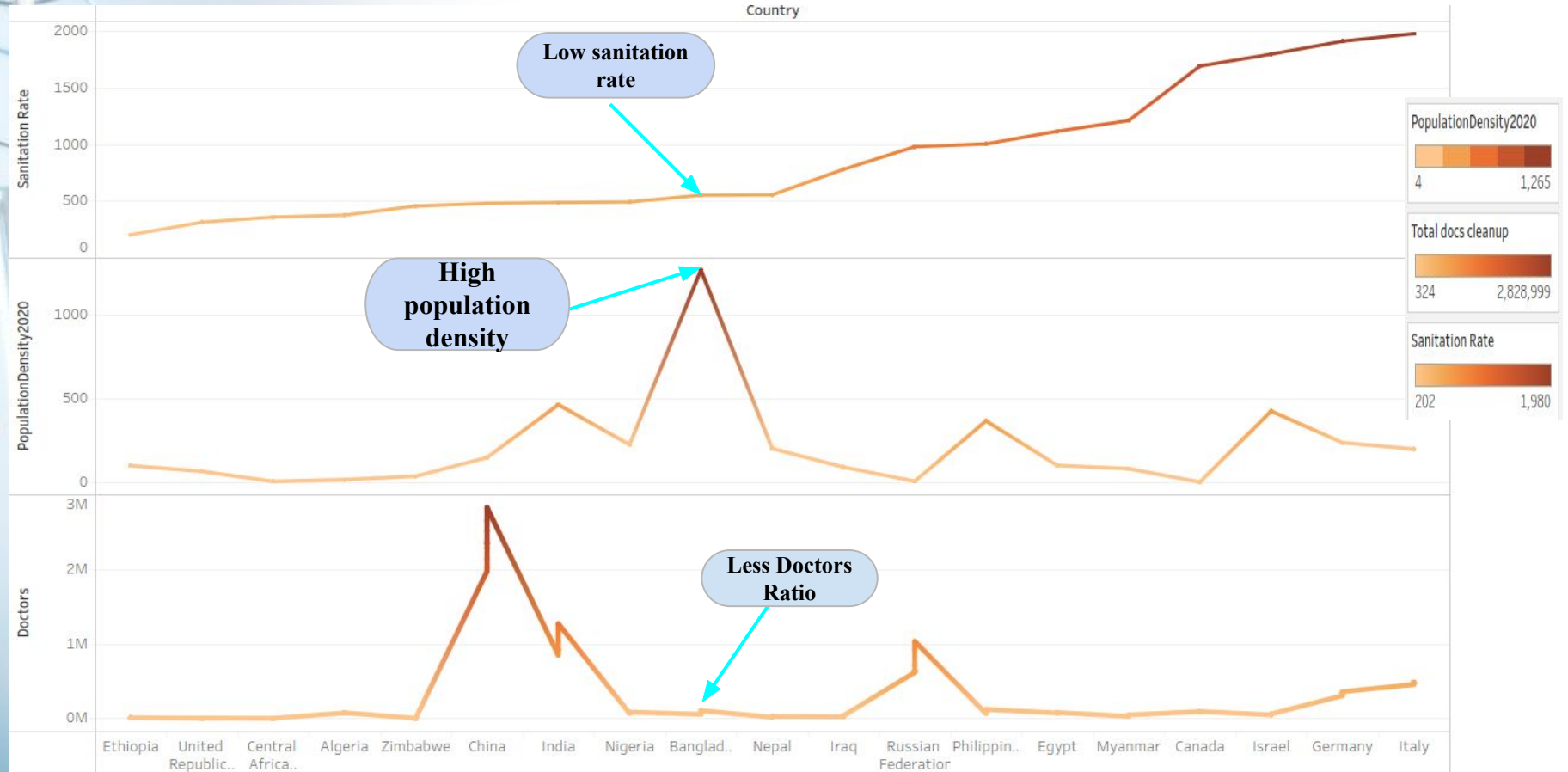
TB Deaths



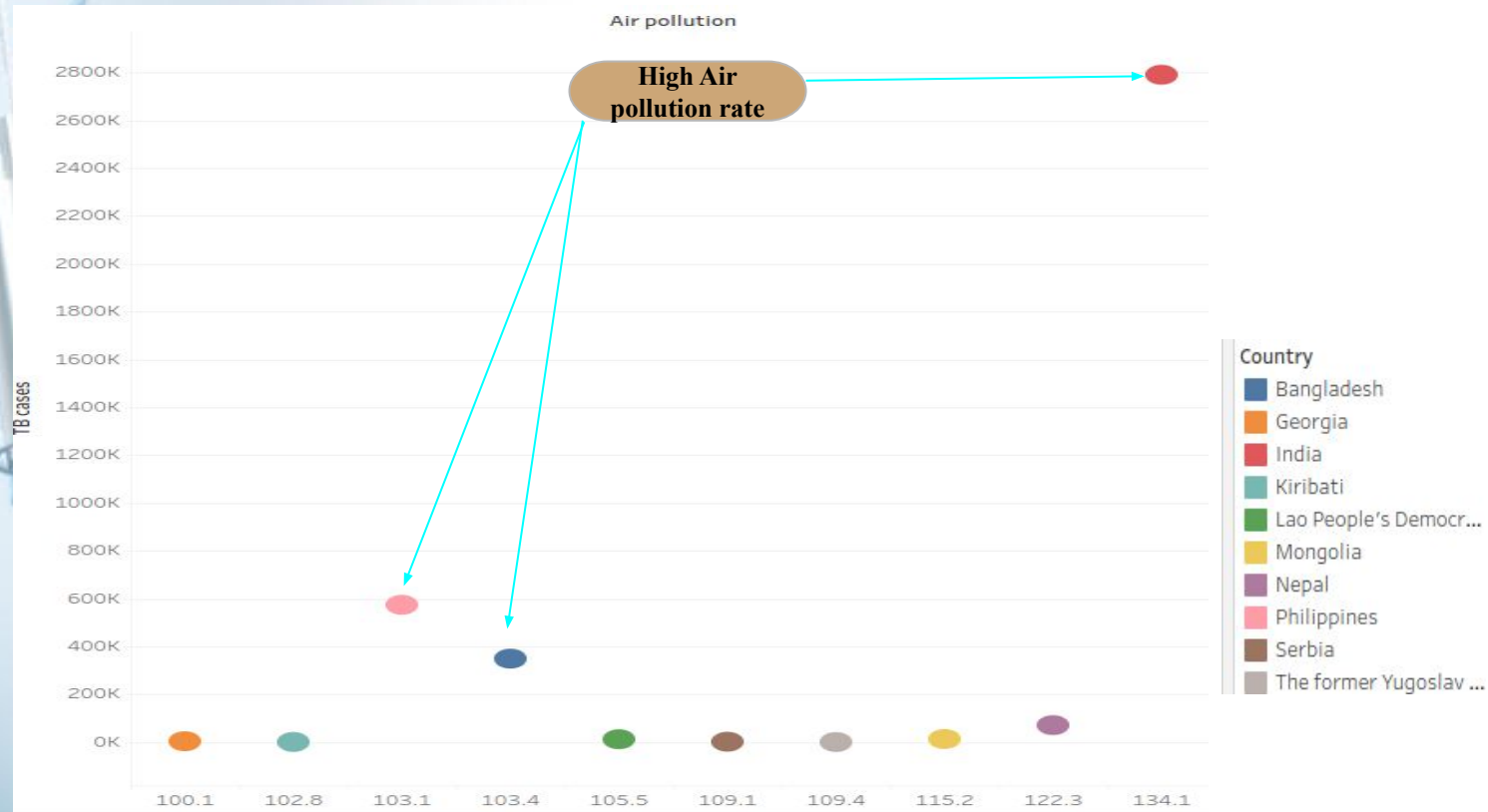
Drop in notification in new TB cases for 2020



Risk Factors of TB



Air pollution rate



Vaccination Rate

BCG RATE

Avg. BCG
0.00 99.00

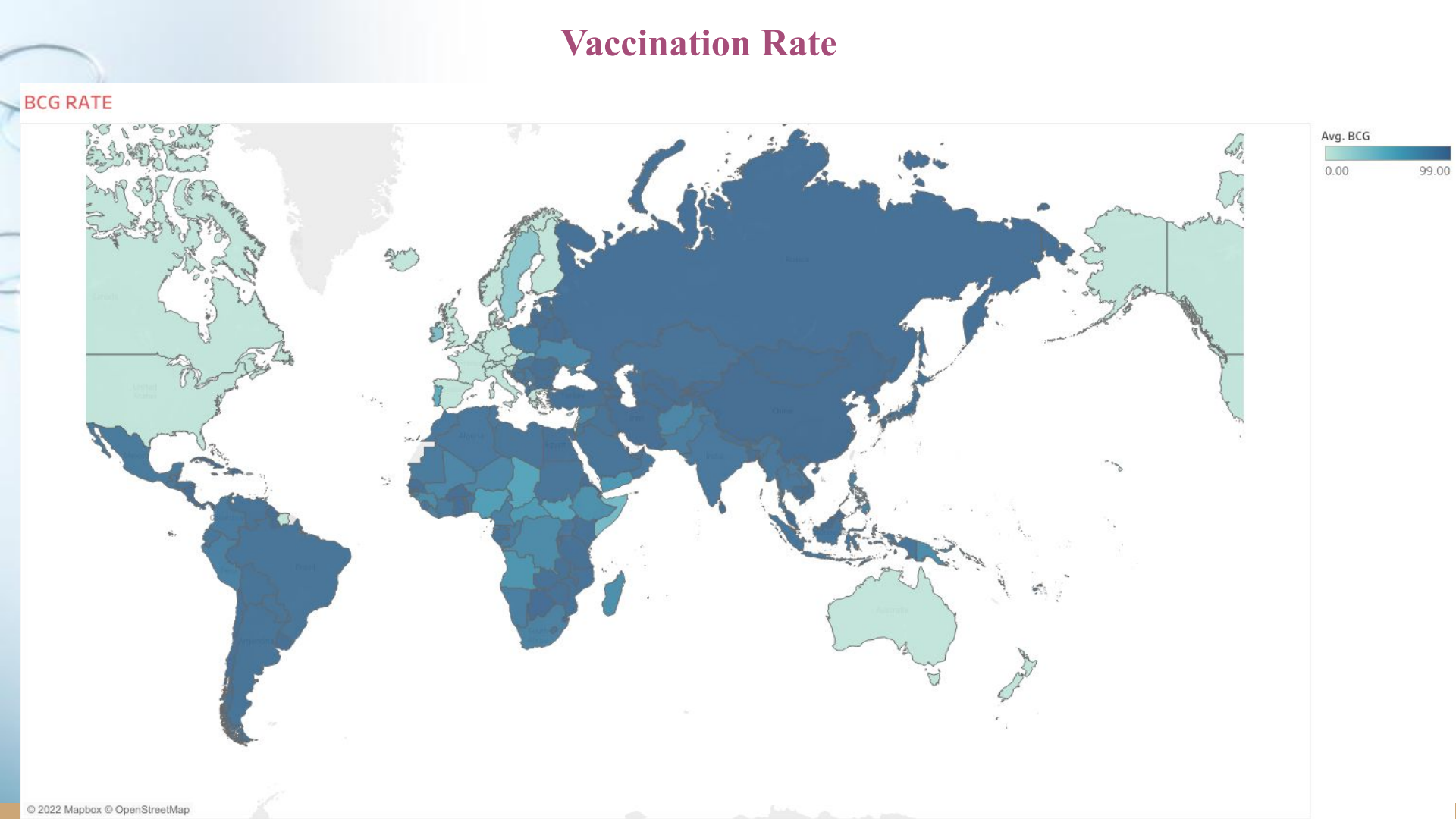
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Vaccination Rate

BCG RATE

Avg. BCG
0.00 99.00

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Vaccination Rate

BCG RATE

Avg. BCG
0.00 99.00

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Vaccination Rate

BCG RATE

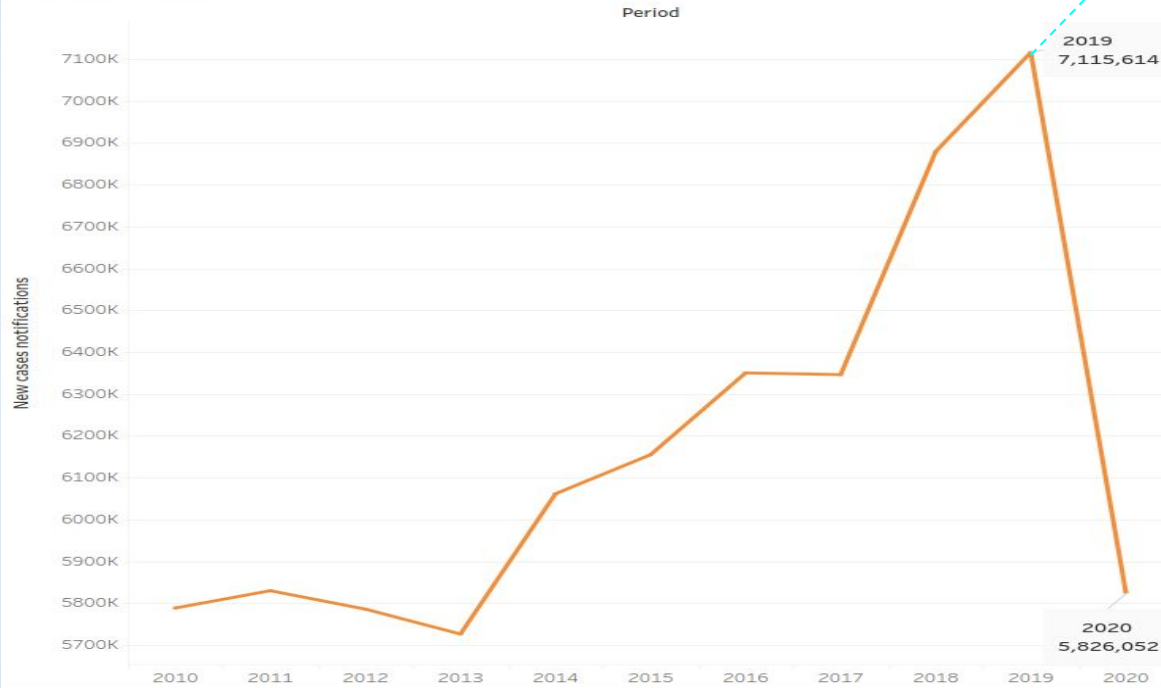
Avg. BCG
0.00 99.00

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MODELING

Using Autocorrelation modeling technique we can forecasts TB cases & death.

New Tb Cases



Conclusion

- ❑ **Actions to mitigate & reverse the impact of the COVID-19 pandemic on TB are urgently needed.**
- ❑ **We need to highlight the worsening tuberculosis epidemic.**
- ❑ **Improving case detection is an urgent priority.**





THANKS

Questions?

