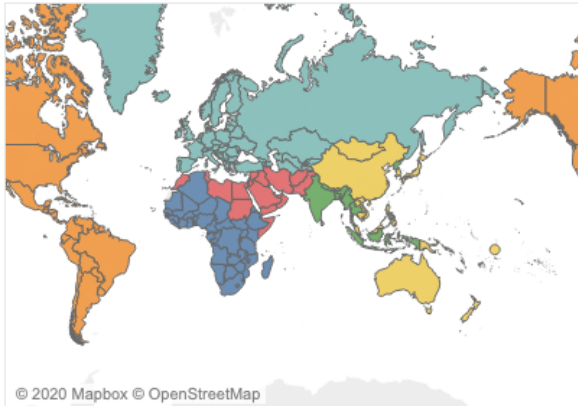


WORLD WIDE TUBERCULOSIS DATA ANALYSIS USING TABLEAU

By: Deepika Dittakavi

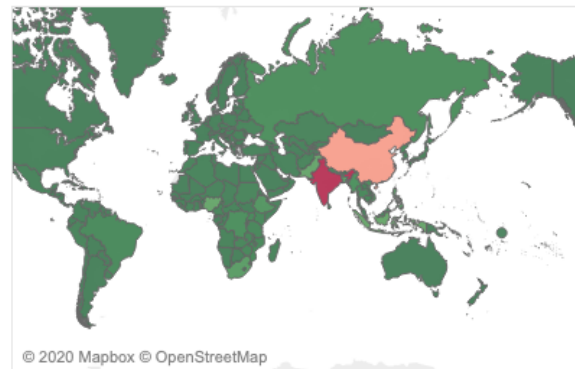
Data Science and Analytics Bootcamp with Stack Education
Framingham State University

Different Regions

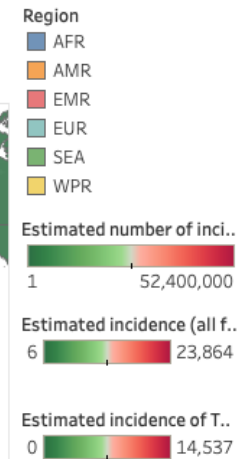


Map based on Longitude (generated) and Latitude (generated). Color shows details about Region. Details are shown for Country or territory name.

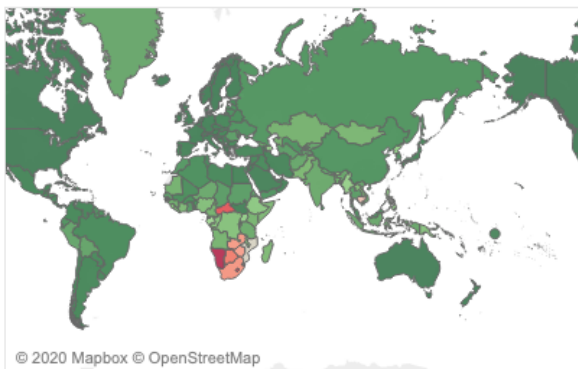
Total number of TB incident cases 1990-2013



Map based on Longitude (generated) and Latitude (generated). Color shows sum of Estimated number of incident cases (all forms). Details are shown for Country or territory name and Region.

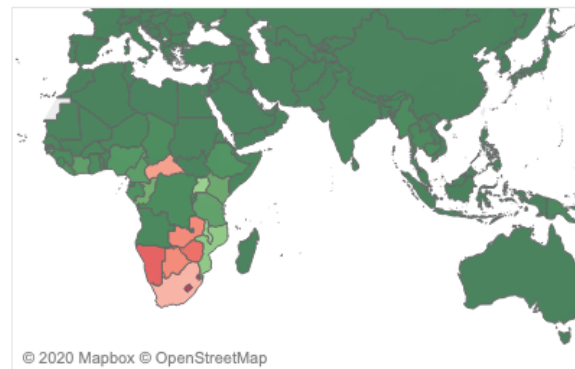


TB incidence for 100,000 population 1990-2013



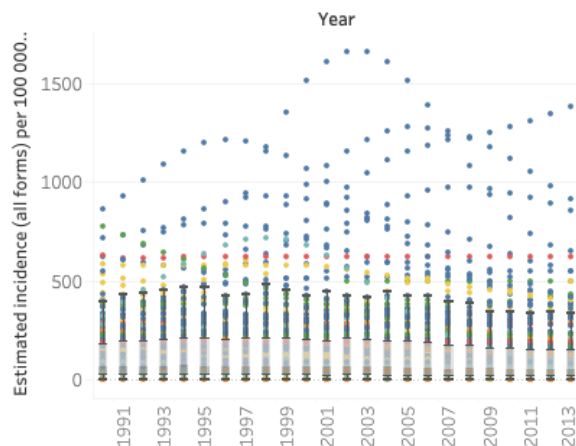
Map based on Longitude (generated) and Latitude (generated). Color shows sum of Estimated incidence (all forms) per 100 000 population. Details are shown for Country or territory name.

Countries with TB incidence when HIV positive 1990-2013

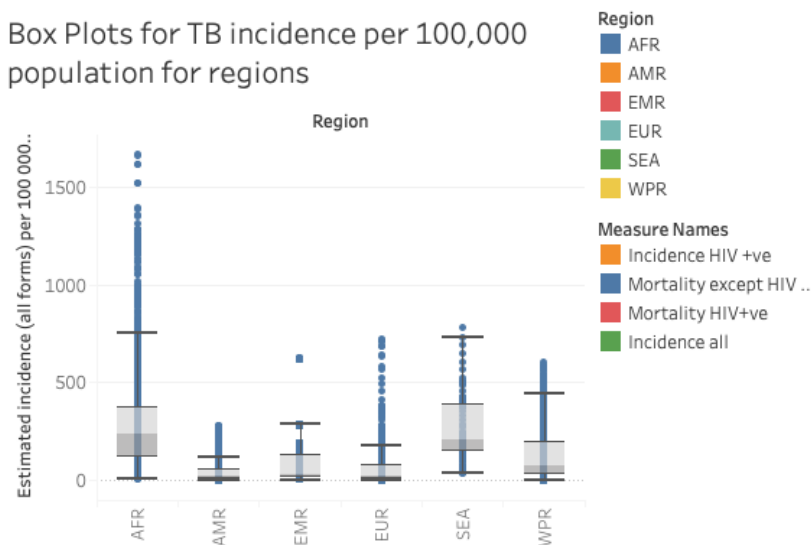


Map based on Longitude (generated) and Latitude (generated). Color shows sum of Estimated incidence of TB cases who are HIV-positive per 100 000 population. Details are shown for Country or territory name.

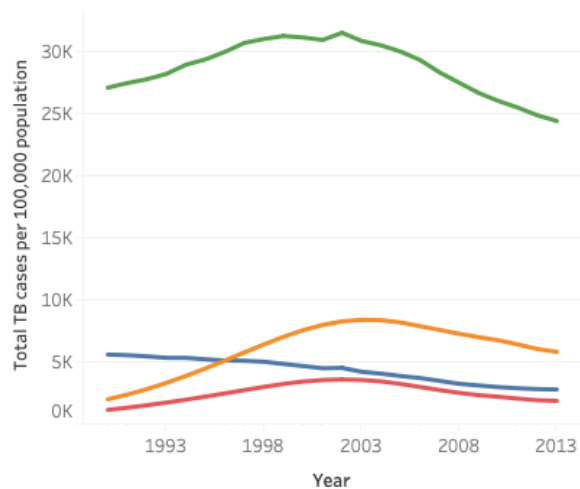
Box Plots for TB incidence per 100,000 population across years



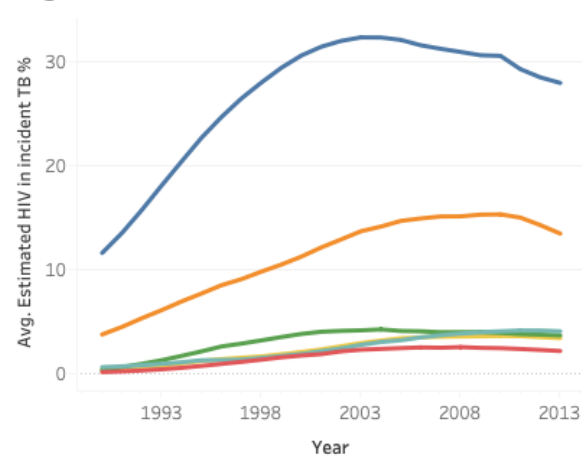
Box Plots for TB incidence per 100,000 population for regions



Total TB data across years



HIV incidence as a percentage for all Regions



Story on World TB Data (Part VI)

India and China have
predominant Incidence
of TB

However, African
countries have higher
Incidence of TB per 10..

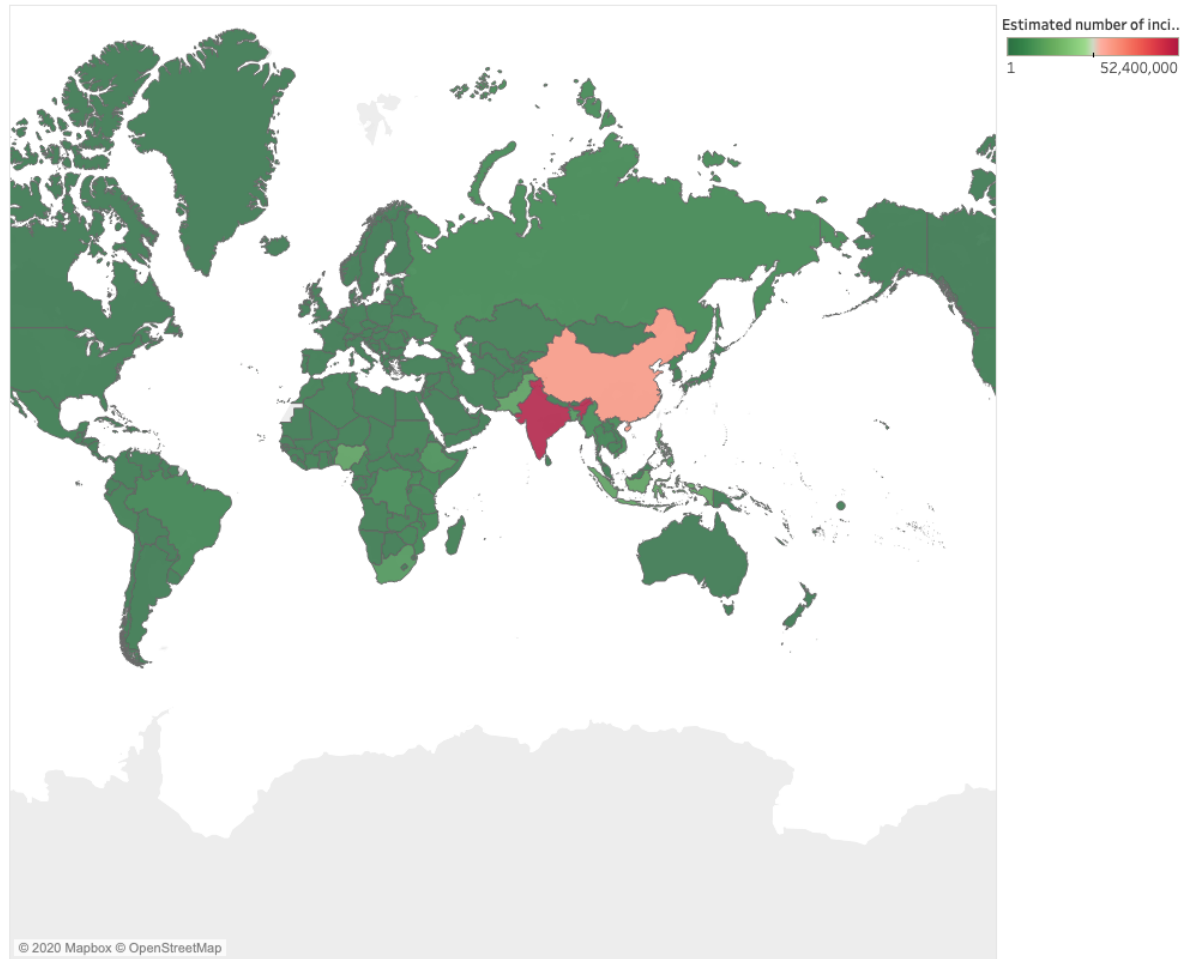
Mortality for TB
non-HIV cases has
varied rates for differ..

Mortality for TB
non-HIV cases is
significantly higher fo..

African and American
Regions show higher
Incidence of HIV across..

Mortality for non-HIV
cases show decreasing
trend

Most of
data for
African Re..



Story on World TB Data (Part VI)

India and China have predominant Incidence of TB

However, African countries have higher Incidence of TB per 100,000 population

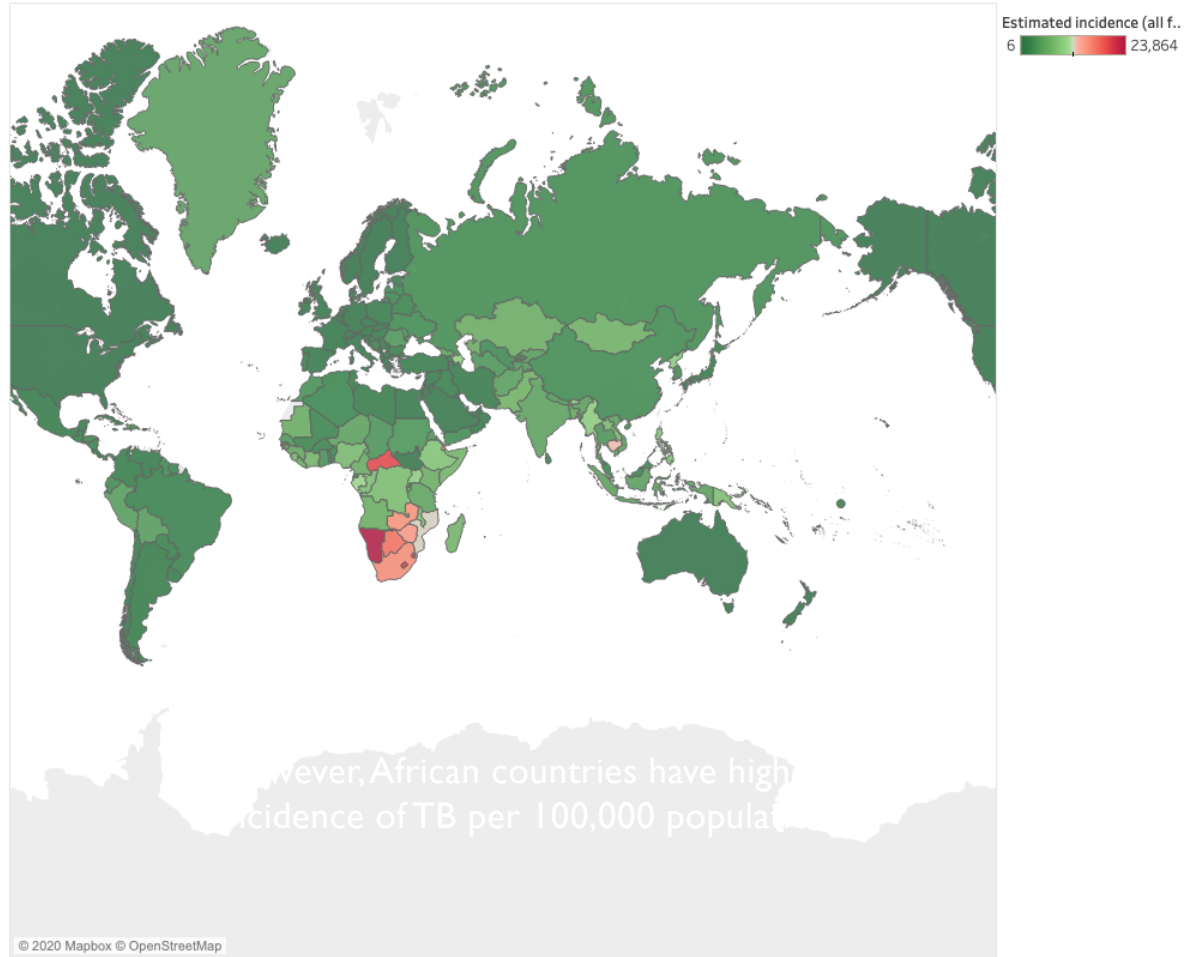
Mortality for TB non-HIV cases has varied rates for different regions

Mortality for TB non-HIV cases is significantly higher for some regions

African and American Regions show higher Incidence of HIV across the world

Mortality for non-HIV cases show decreasing trend

Most of data for African Region is estimated



Story on World TB Data (Part VI)

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However, African countries have higher Incidence of TB per 10..

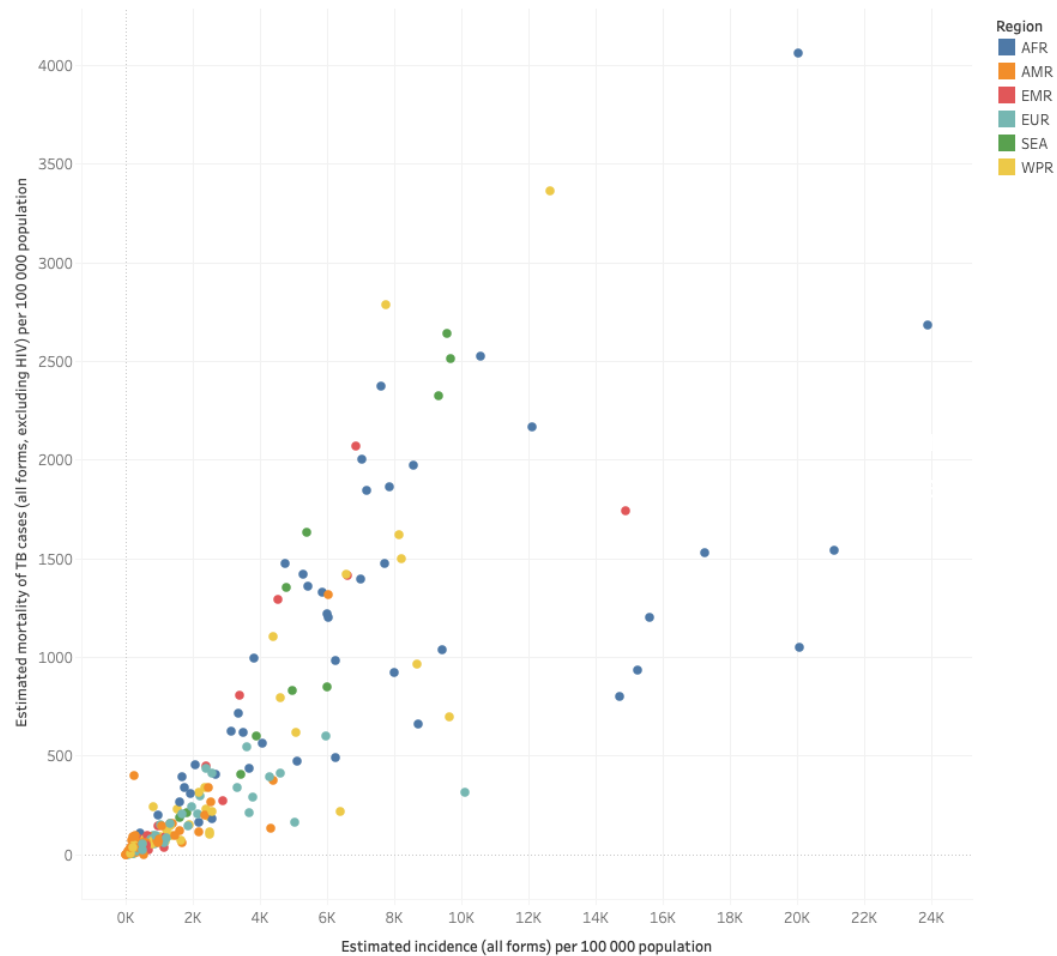
Mortality for TB non-HIV cases has varied rates for differ..

Mortality for TB non-HIV cases is significantly higher fo..

African and American Regions show higher Incidence of HIV across..

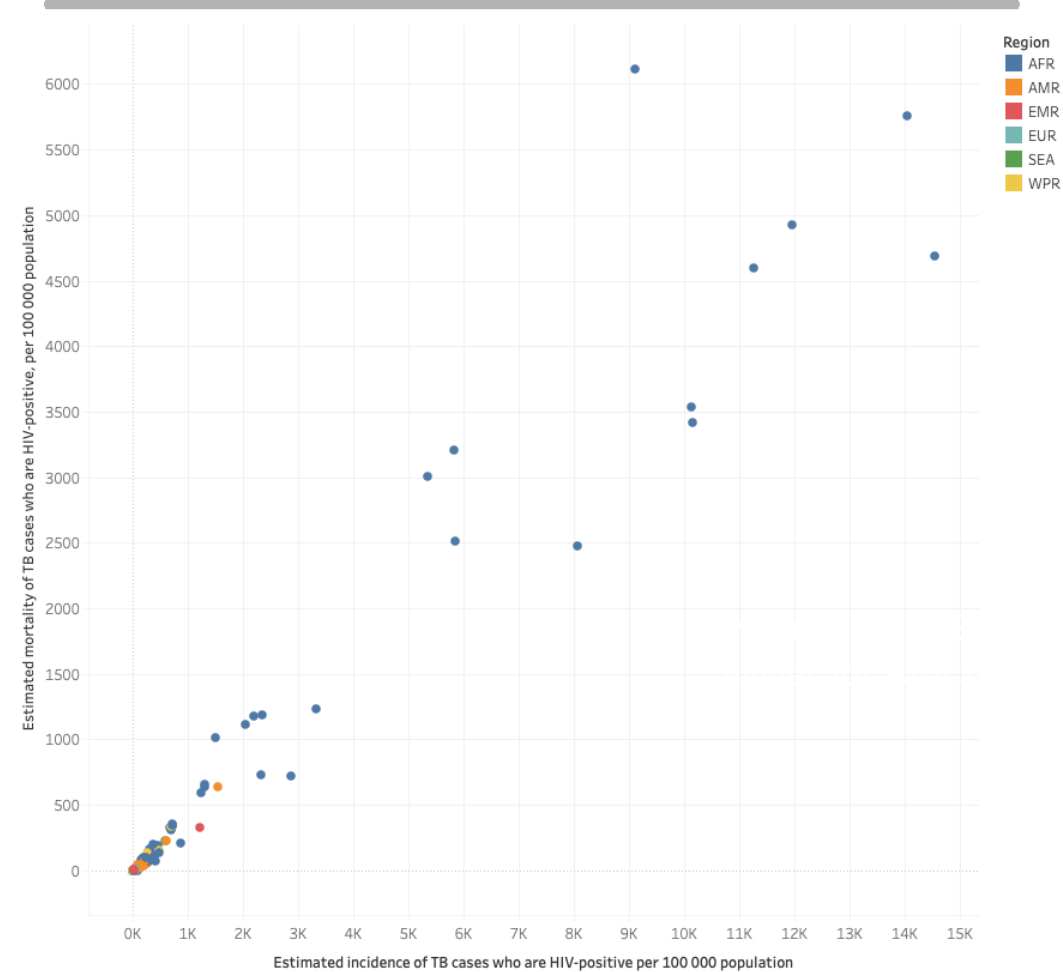
Mortality for non-HIV cases show decreasing trend

Most of data for African Re..



Story on World TB Data (Part VI)

- India and China have predominant Incidence of TB
- However, African countries have higher Incidence of TB per 100,000 population
- Mortality for TB non-HIV cases has varied rates for different regions
- Mortality for TB HIV cases is significantly higher for African countries
- African and American Regions show higher Incidence of HIV across the world
- Mortality for non-HIV cases shows a decreasing trend
- Most of the data for the African Region is concentrated in the lower-left corner of the plot



significantly

Story on World TB Data (Part VI)

However, African countries have ..

Mortality for TB non-HIV cases has varied rates for differ..

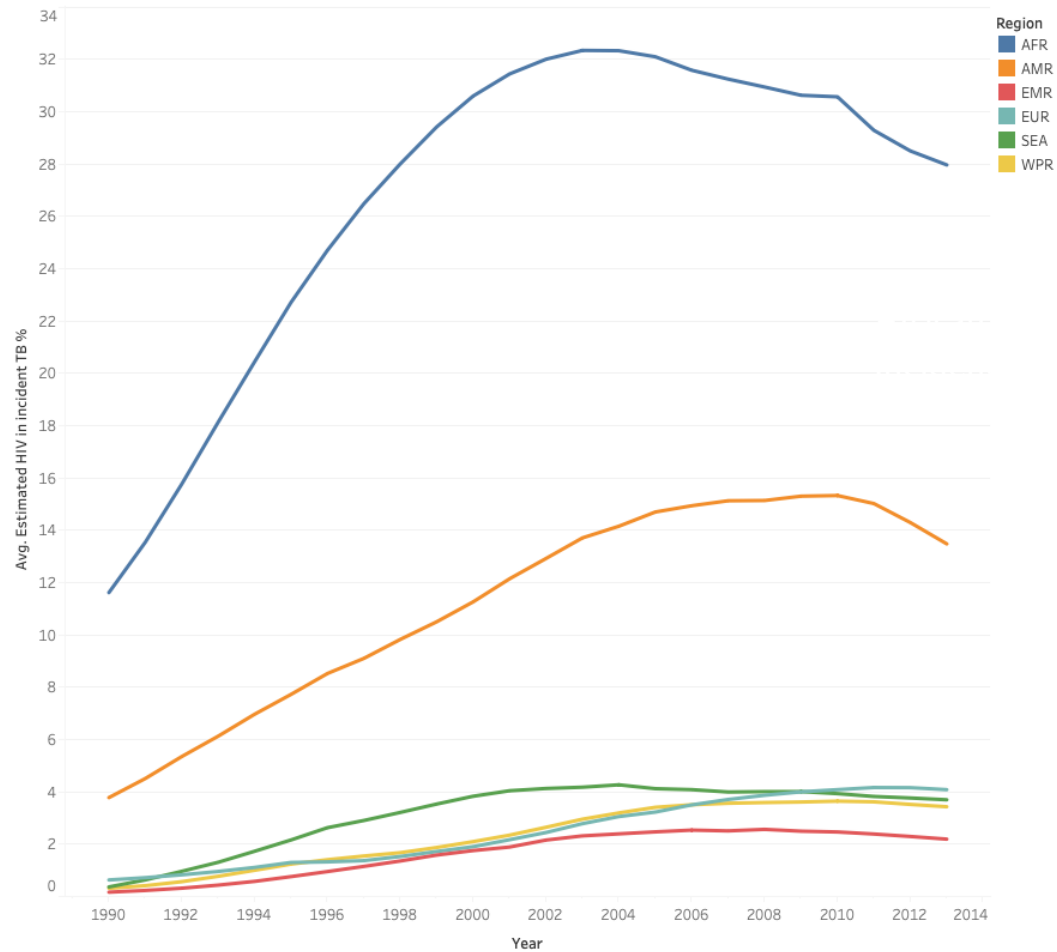
Mortality for TB non-HIV cases is significantly higher fo..

African and American Regions show higher Incidence of HIV across..

Mortality for non-HIV cases show decreasing trend

Most of data for African Region is concentrated similar t..

Most data similar across years except for some countrie..



h Regions show higher
oss years peaking
010

Story on World TB Data (Part VI)

However, African countries ..

Mortality for TB non-HIV cases has varied rates for differ..

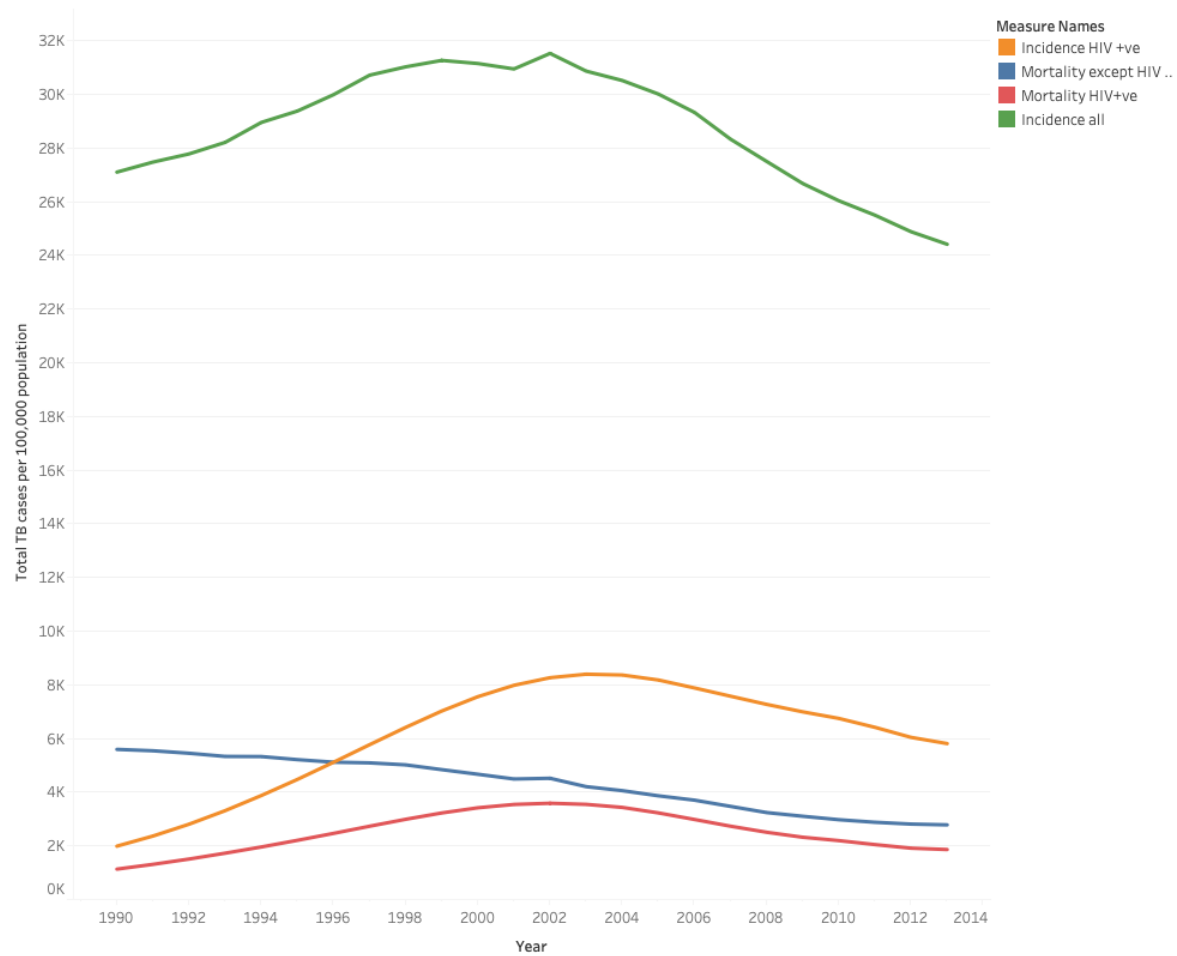
Mortality for TB non-HIV cases is significantly higher fo..

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Mortality for non-HIV cases show decreasing trend

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Most data similar across years except for some countries in Afri..



cases show

Story on World TB Data (Part VI)

However, African countries ..

Mortality for TB non-HIV cases has varied rates for differ..

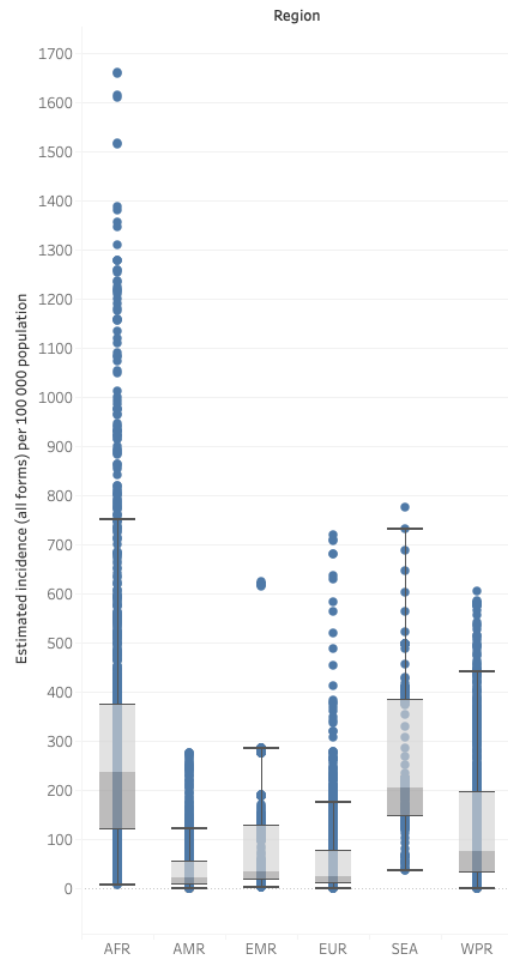
Mortality for TB non-HIV cases is significantly higher fo..

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Mortality for non-HIV cases show decreasing trend

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on is
Regions

Story on World TB Data (Part VI)

However, African countries ..

Mortality for TB non-HIV cases has varied rates for differ..

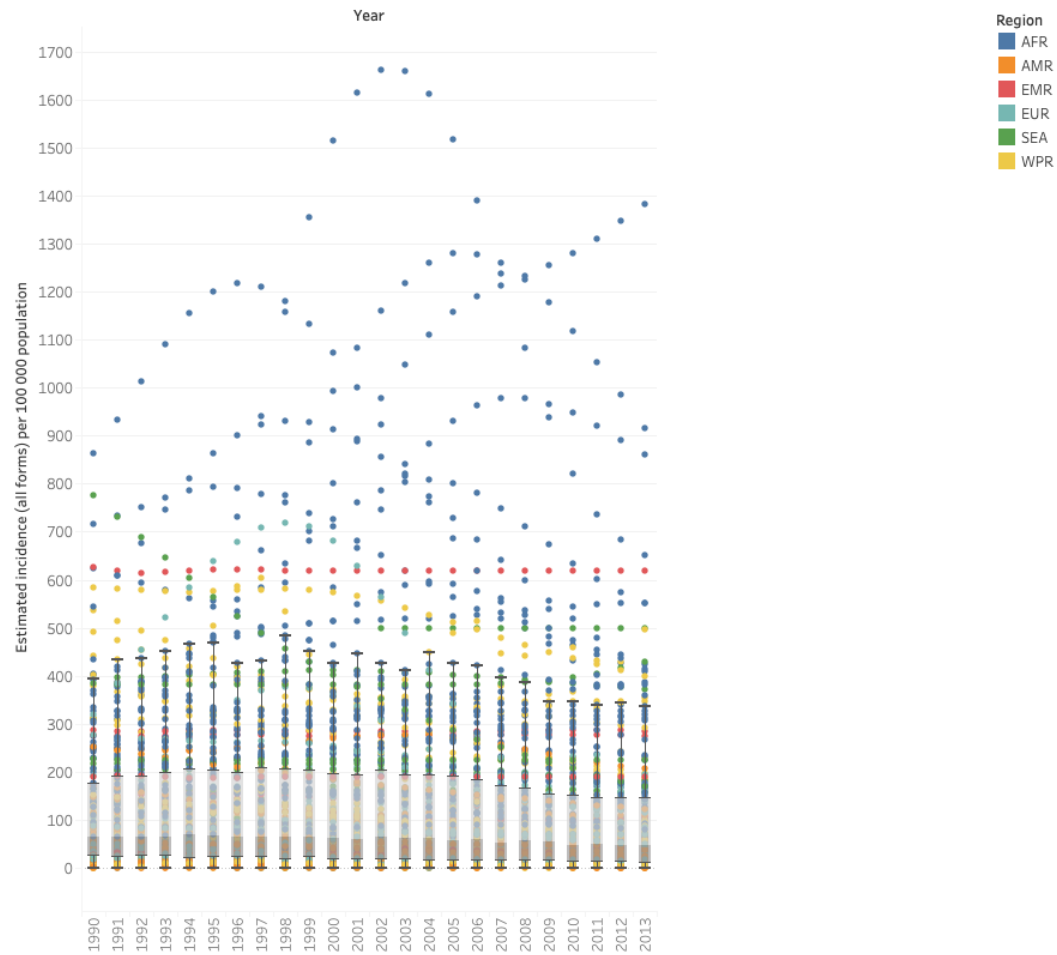
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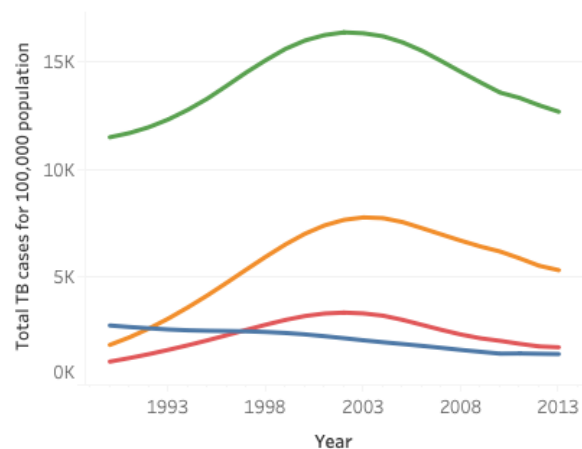
Most of data for African Region is concentrated similar t..

Most data similar across years except for some countries in Afri..

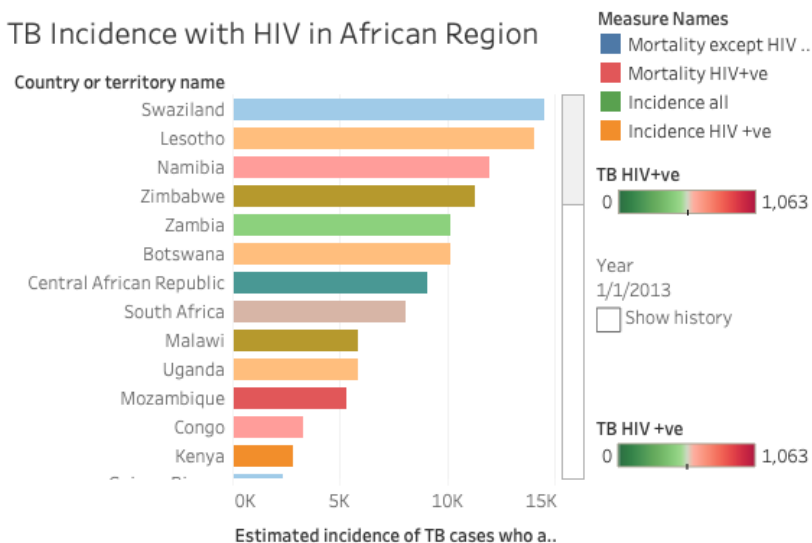


years except for

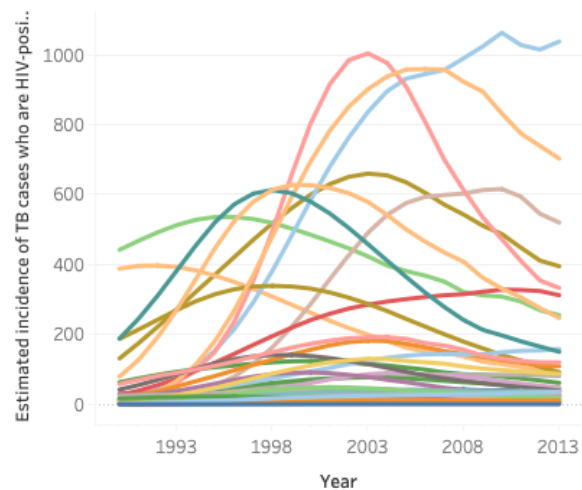
Estimates of TB in African Region across years



TB Incidence with HIV in African Region



Different Countries



Maximum TB Incidence with HIV +ve from 1990-2013



TB Incidence with HIV +ve in 2013



Final Story of TB Data (Part VII)

India and China have predominant Incidence of TB

However, African countries have higher Incidence of TB per 1..

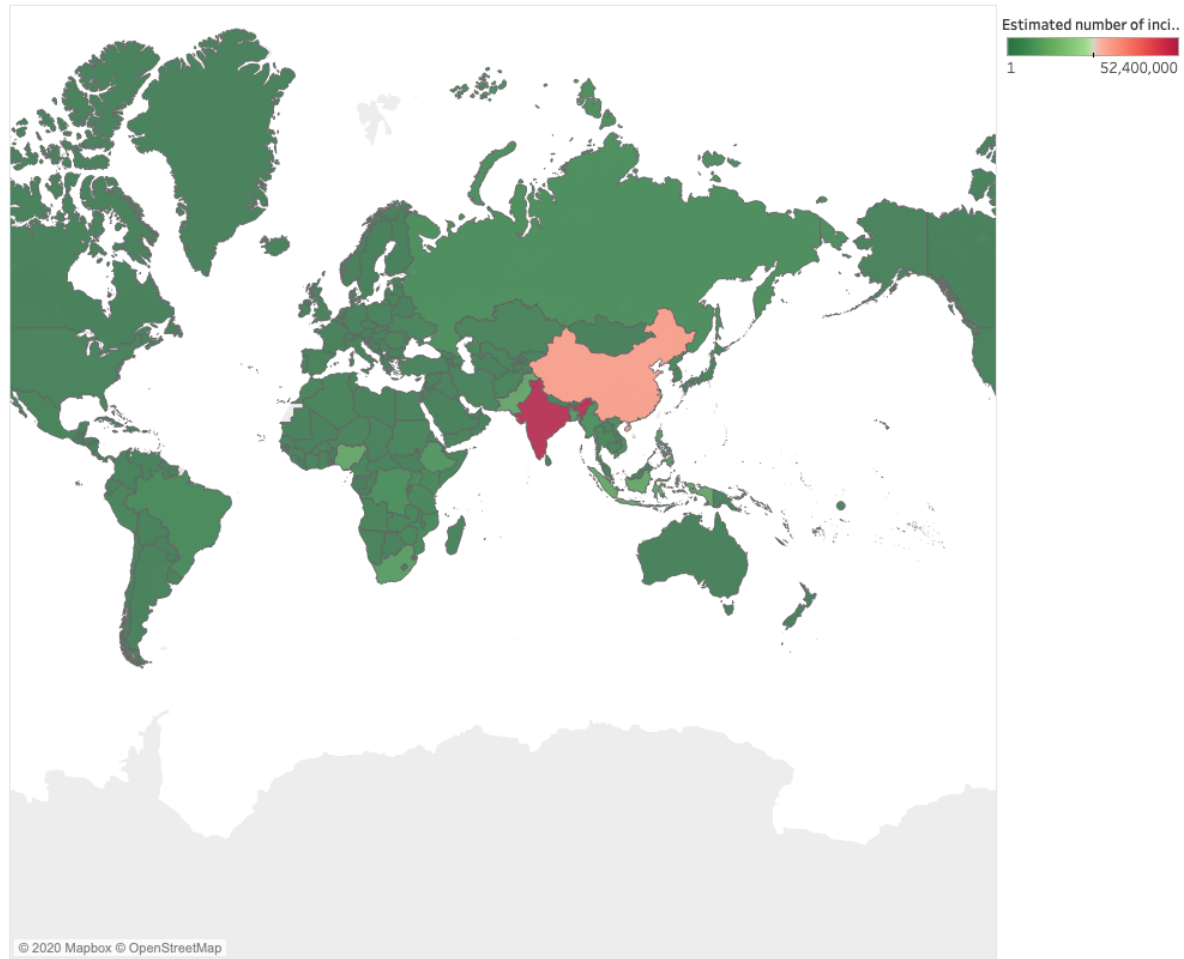
Mortality for TB non-HIV cases is significantly higher f..

Most data similar across years except for some countries in Afri..

Swaziland, Lesotho, Namibia & Zimbabwe top countries with Inc..

TB with HIV+ve in Swaziland has an increasing trend over ..

TB with HIV+ve in Lesotho pea..



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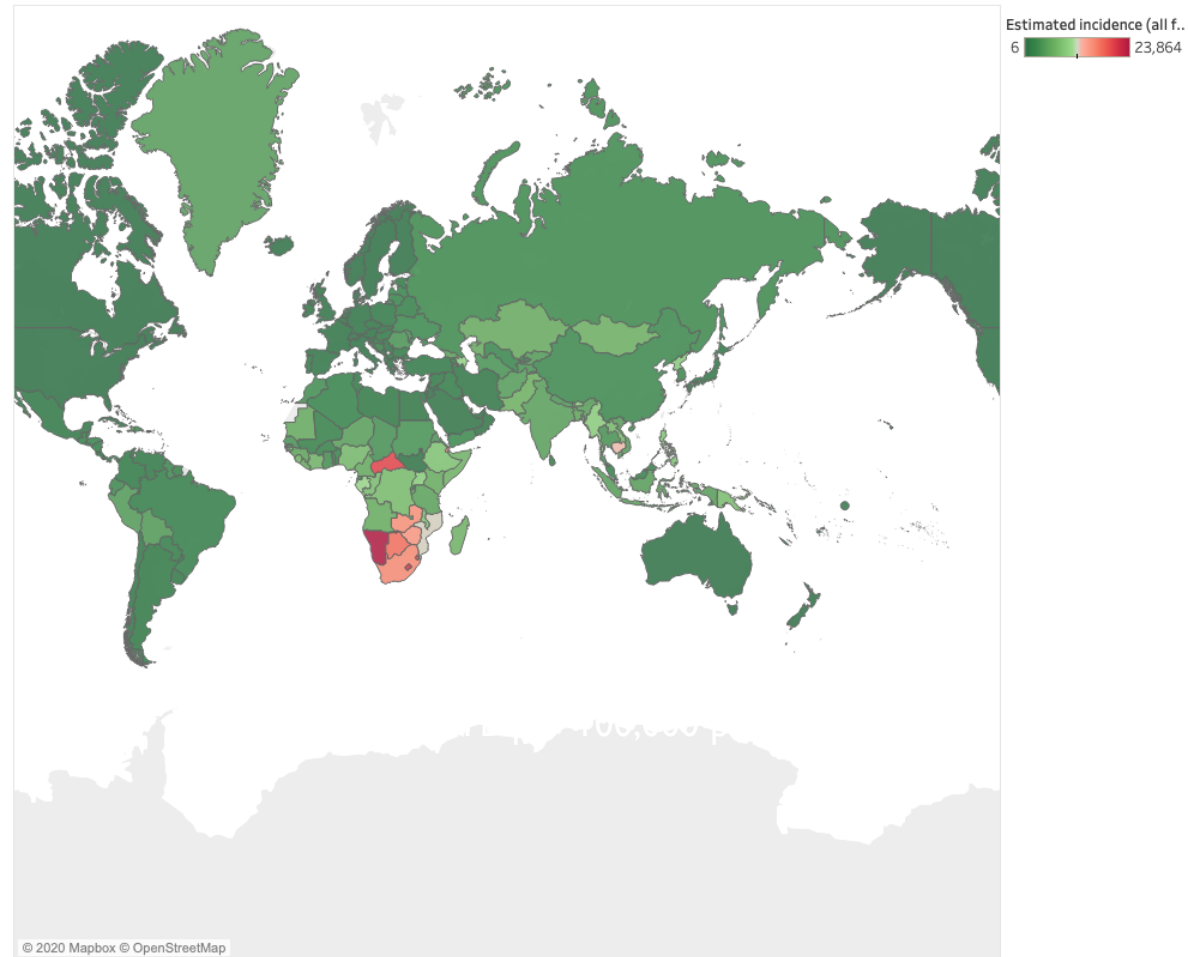
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Story on World TB Data (Part VI)

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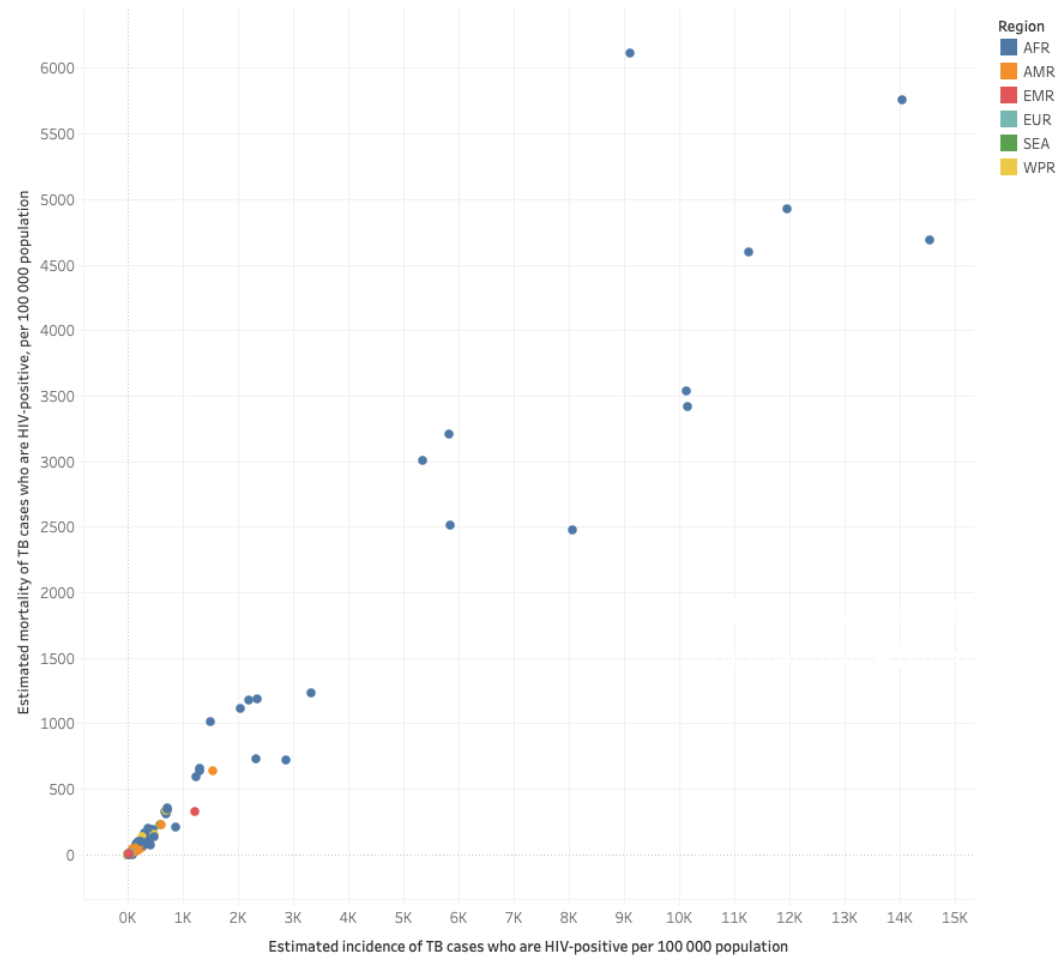
Mortality for TB non-HIV cases has varied rates for different regions

Mortality for TB HIV cases is significantly higher for African countries

African and American Regions show higher Incidence of HIV across the world

Mortality for non-HIV cases shows a decreasing trend

Most of the data for the African Region is concentrated in the lower range of incidence



significantly

Final Story of TB Data (Part VII)

India and China have predominant Incidence of TB

However, African countries have higher Incidence of TB per 1..

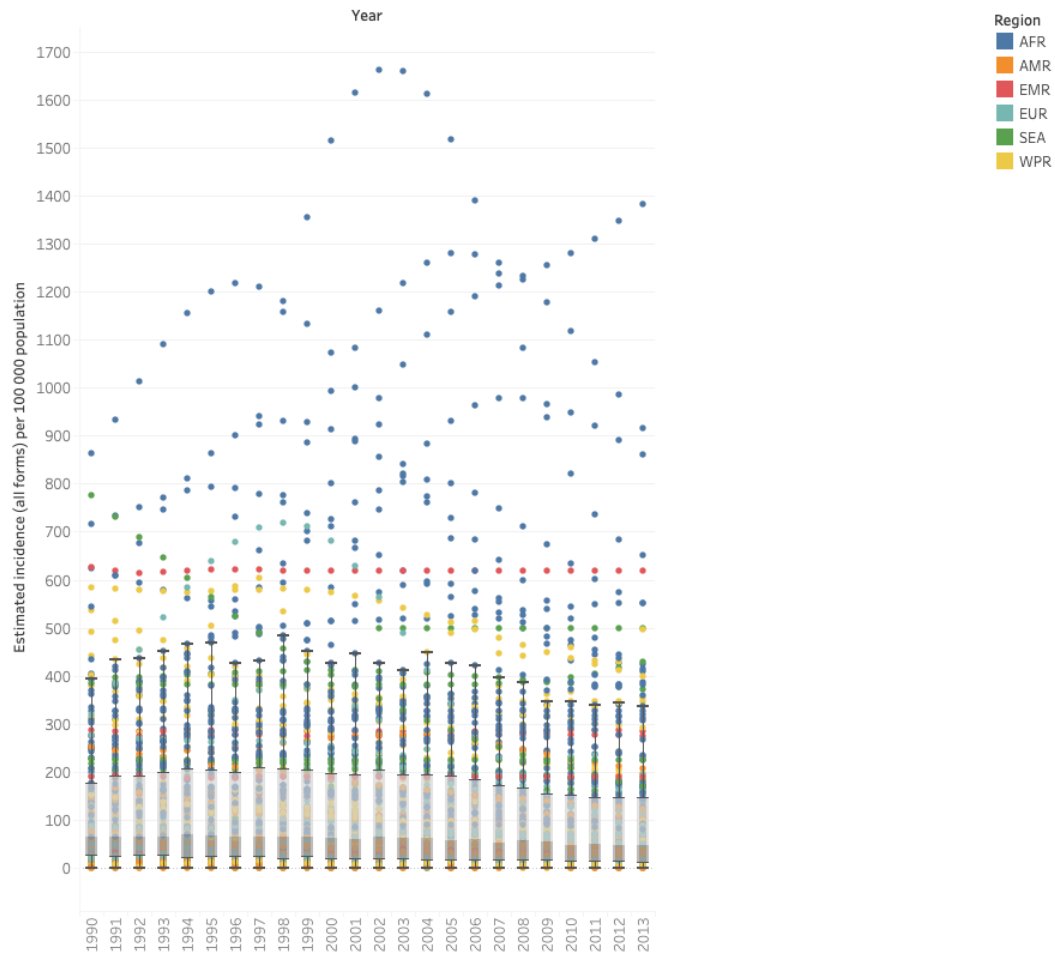
Mortality for TB non-HIV cases is significantly higher f..

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Swaziland, Lesotho, Namibia & Zimbabwe top countries with Inc..

TB with HIV+ve in Swaziland has an increasing trend over ..

TB with HIV+ve in Lesotho peaked at 2005 and seems to ..



ars except for

Final Story of TB Data (Part VII)

However, African countries have higher Incidence..

Mortality for TB non-HIV cases is significantly higher f..

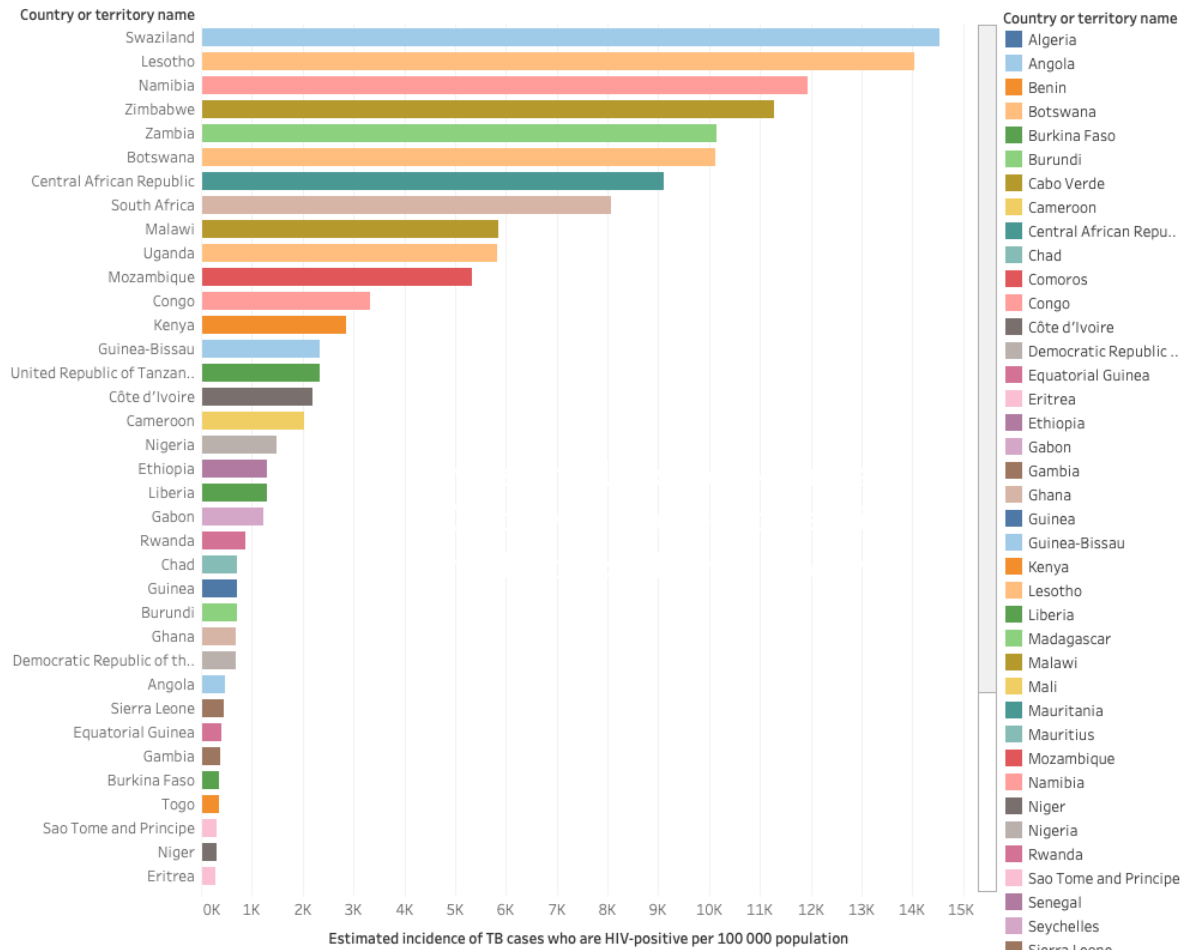
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TB with HIV+ve in Swaziland has an increasing trend over ..

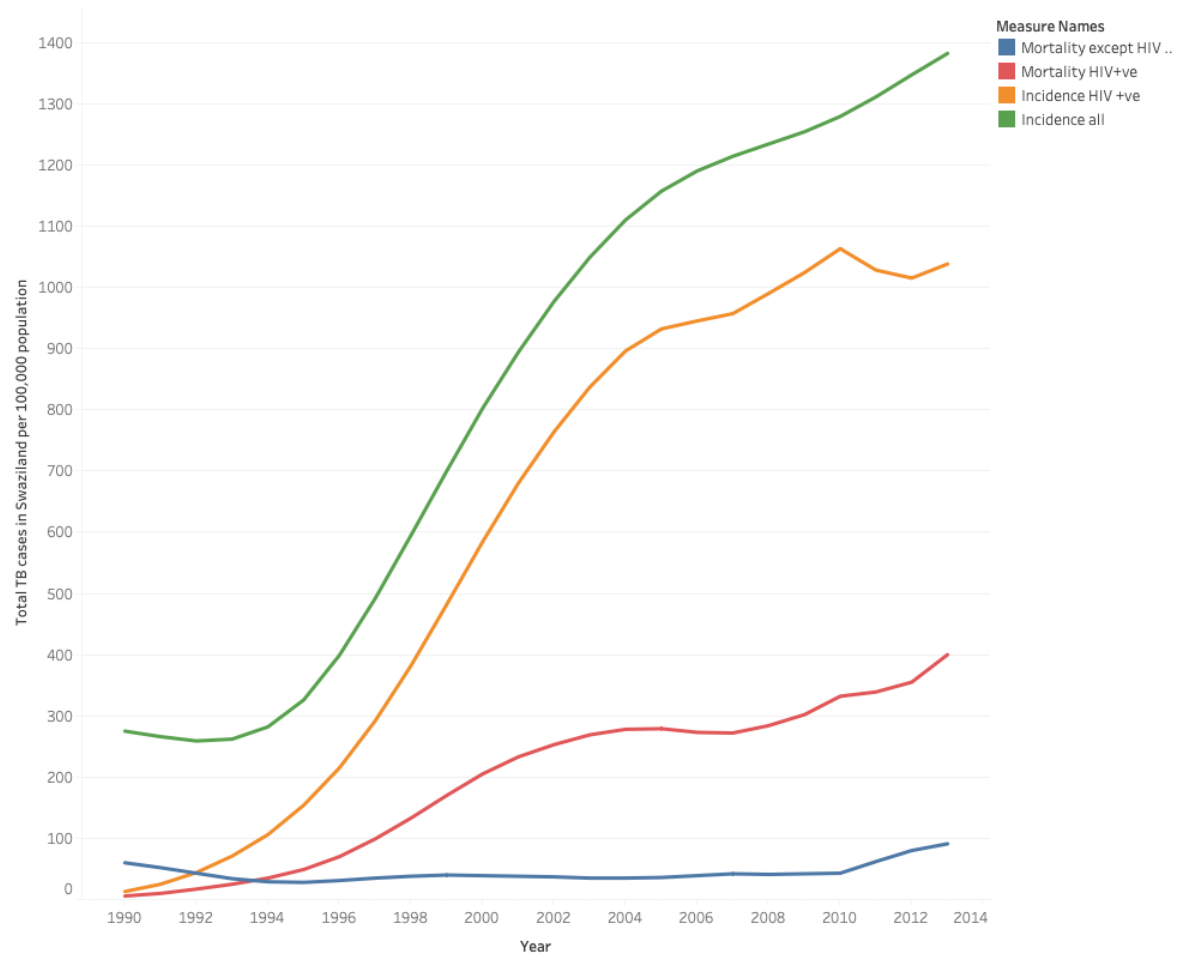
TB with HIV+ve in Lesotho peaked at 2005 and seems to be..

TB with HIV+ve in Namibia peaked at 2002 and seems to ..



Final Story of TB Data (Part VII)

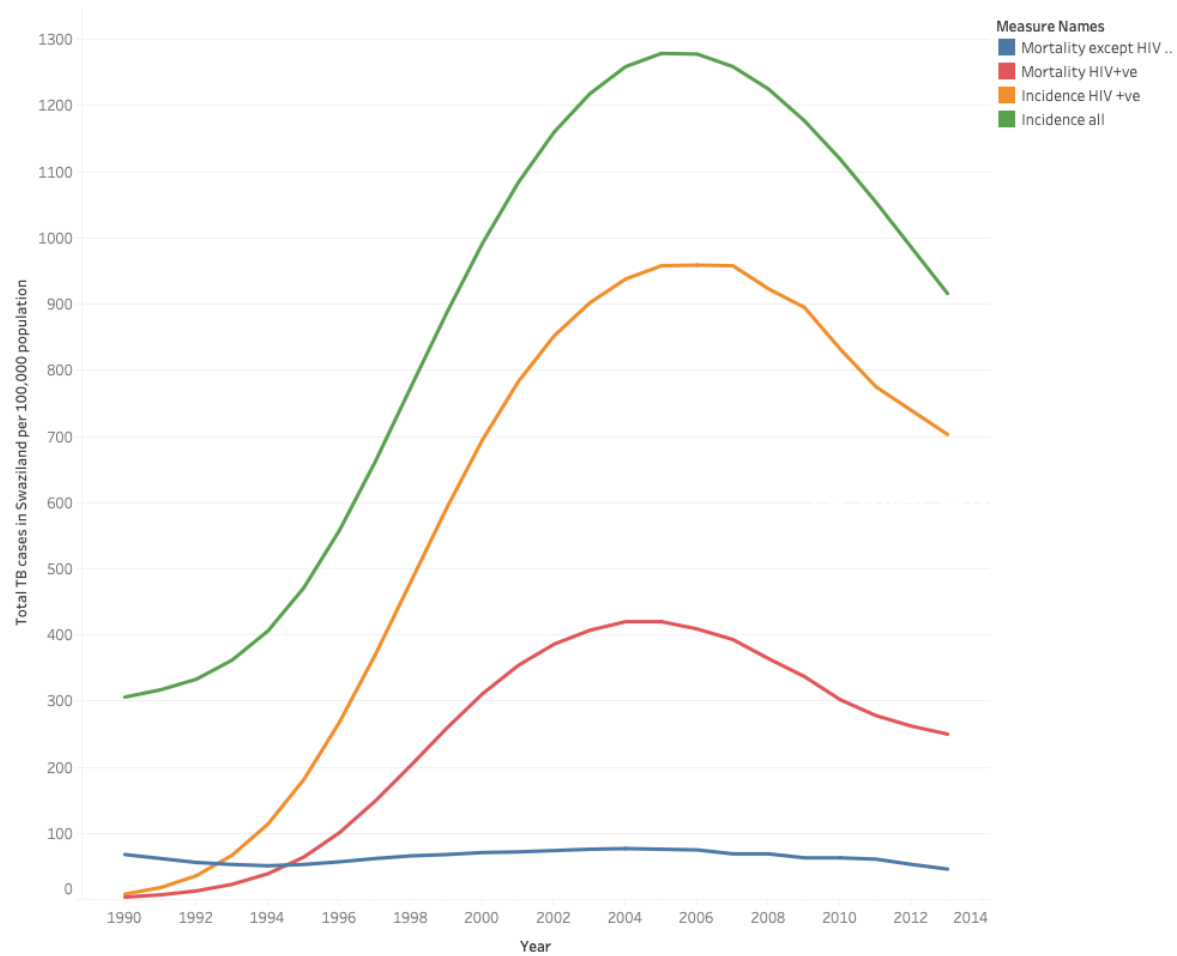
Mortality for TB non-HIV cases is significantly hig..	Most data similar across years except for some countries in Afri..	Swaziland, Lesotho, Namibia & Zimbabwe top countries with Inc..	TB with HIV+ve in Swaziland has an increasing trend over ..	TB with HIV+ve in Lesotho peaked at 2005 and seems to be..	TB with HIV+ve in Namibia peaked at 2002 and seems to be..	Maximum TB Incidence with HIV +ve during 1990-20..
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has
years

Final Story of TB Data (Part VII)

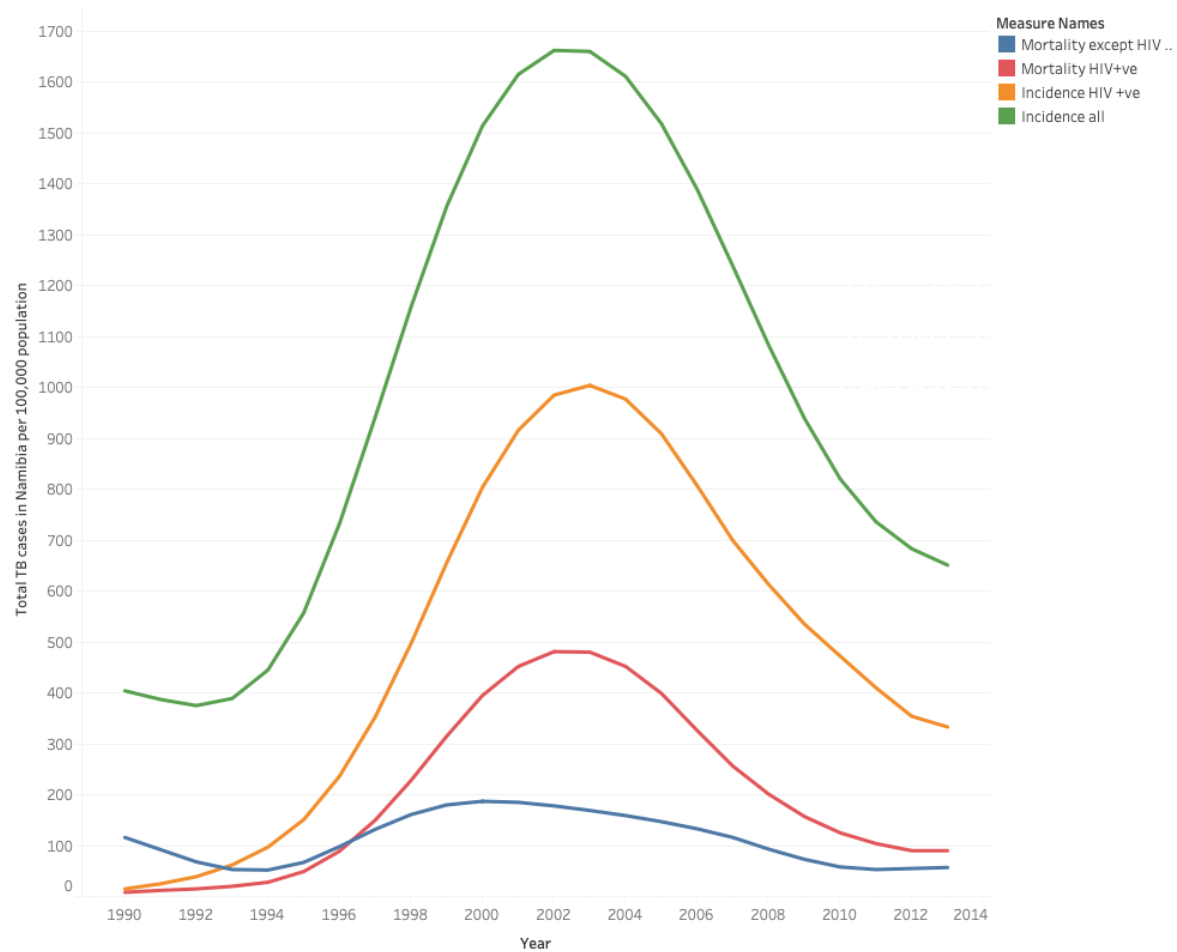
Most data similar across years except for some ..	Swaziland, Lesotho, Namibia & Zimbabwe top countries with Inc..	TB with HIV+ve in Swaziland has an increasing trend over ..	TB with HIV+ve in Lesotho peaked at 2005 and seems to be..	TB with HIV+ve in Namibia peaked at 2002 and seems to be..	Maximum TB Incidence with HIV +ve during 1990-2013	By 2013, most countries have shown improvement
---	---	---	---	--	--	--



no peaked
on a

Final Story of TB Data (Part VII)

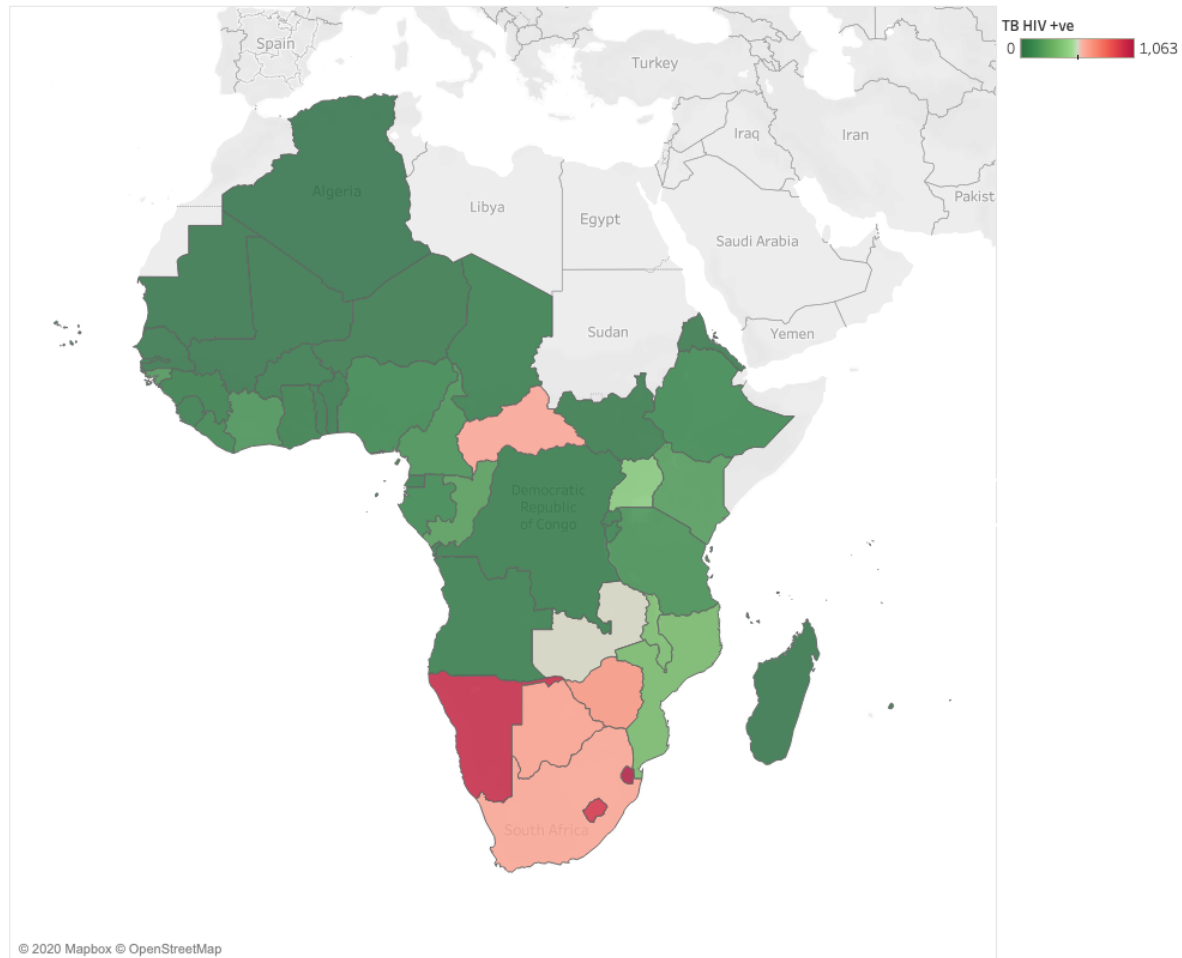
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Namibia peaked
on a

Final Story of TB Data (Part VII)

Most data similar across years except..	Swaziland, Lesotho, Namibia & Zimbabwe top countries with Inc..	TB with HIV+ve in Swaziland has an increasing trend over ..	TB with HIV+ve in Lesotho peaked at 2005 and seems to be..	TB with HIV+ve in Namibia peaked at 2002 and seems to be..	Maximum TB Incidence with HIV +ve during 1990-2013	By 2013, most countries have shown improvement
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e with HIV

Final Story of TB Data (Part VII)

Most data
similar across
years except..

Swaziland, Lesotho,
Namibia & Zimbabwe
top countries with Inc..

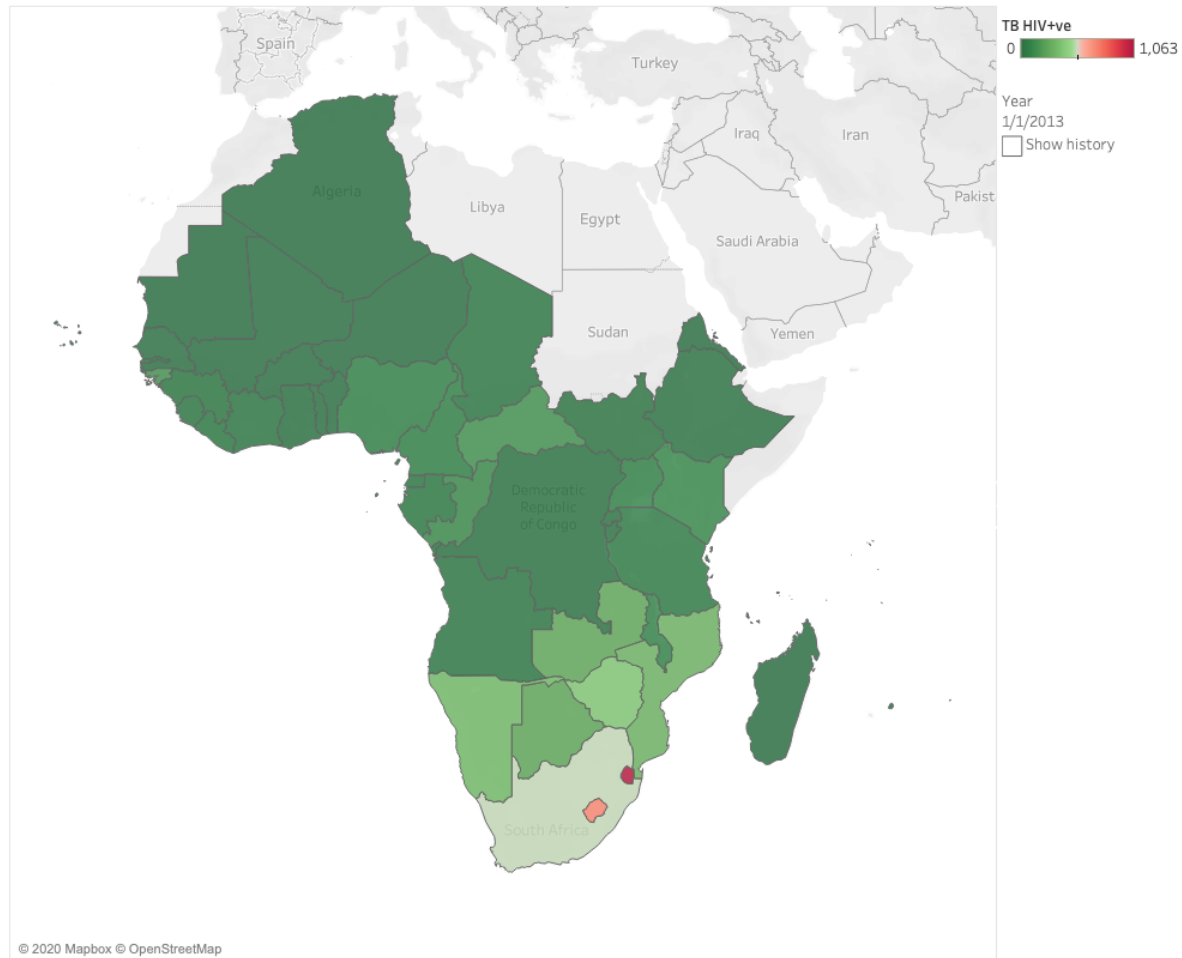
TB with HIV+ve in
Swaziland has an
increasing trend over ..

TB with HIV+ve in
Lesotho peaked at
2005 and seems to be..

TB with HIV+ve in
Namibia peaked at
2002 and seems to be..

Maximum TB Incidence
with HIV +ve during
1990-2013

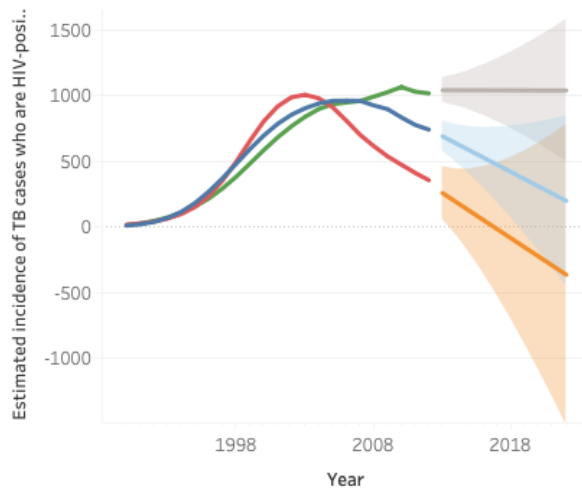
By 2013, most
countries have shown
improvement



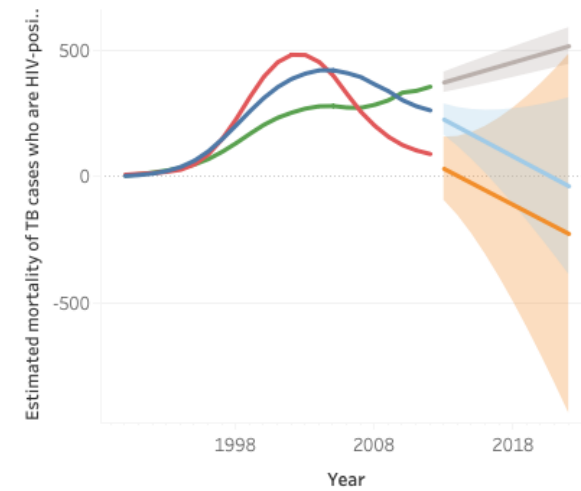
countries have
improvement

BONUS LAB

Forecast for TB Incidence with HIV+ve



Forecast for TB Mortality with HIV+ve



Country or territory nam..

- Lesotho, Actual
- Lesotho, Estimate
- Namibia, Actual
- Namibia, Estimate
- Swaziland, Actual
- Swaziland, Estimate

inci_mort

- Incidence
- Mortality

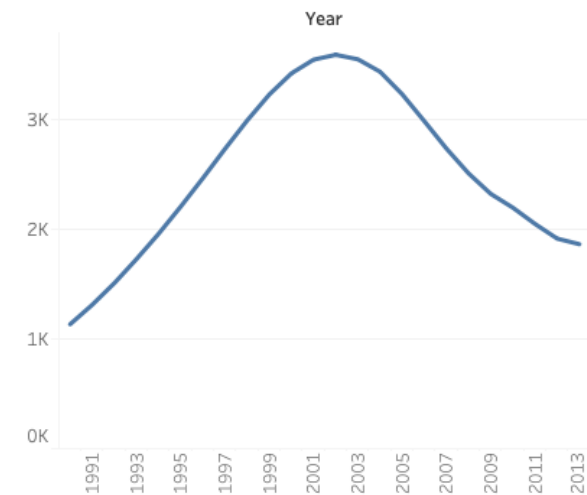
Region

- AFR
- AMR
- EMR
- EUR
- SEA
- WPR

HIV_Inci_reduce

- 10% reduction
- 15% reduction
- 20% reduction
- Original

Mortality for TB in HIV+ve per 100,000



HIV Incidence in TB as % with 15% reduction

