Child Mortality

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How Long Will This Child Live?

Child mortality is an everyday tragedy

In 2017, 5.4 million children died before they had their fifth birthday. On any average day, that’s 15,000 young children.

Child mortality is an everyday tragedy.

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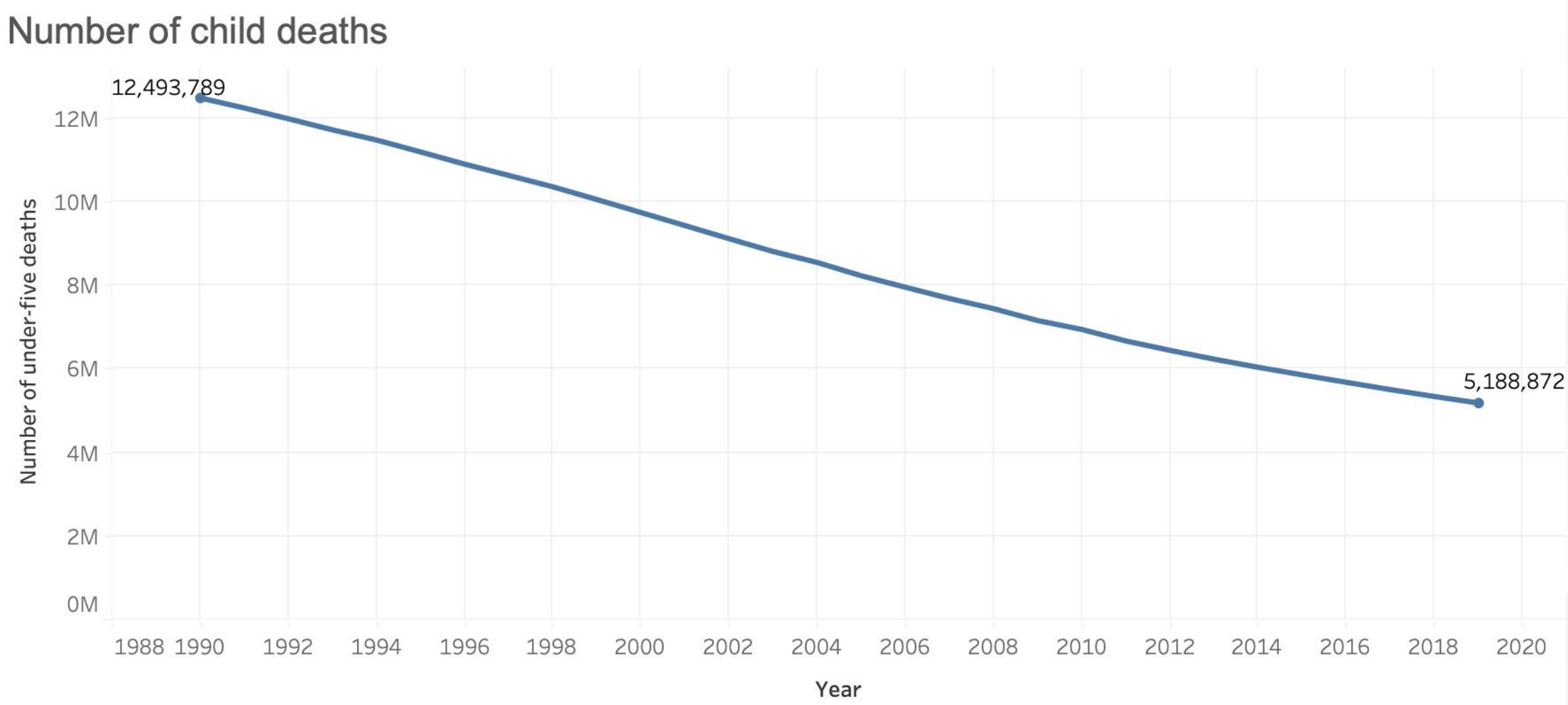
01

Current Situation of the World

The trend of world'd child mortality

01 Current Situation



This line chart show the number of deaths of children under five years old in the world.
In less than three decades child mortality has more than halved — from 12.5 million in 1990 to 5.2 million in 2019.

01 Current Situation

The goal of world is to reduce the child mortality rate to at least as low as 2.5% in all countries by 2030.

Now, globally 3.9% of all children die before reaching the age of five. We are currently far away from the goal for 2030.

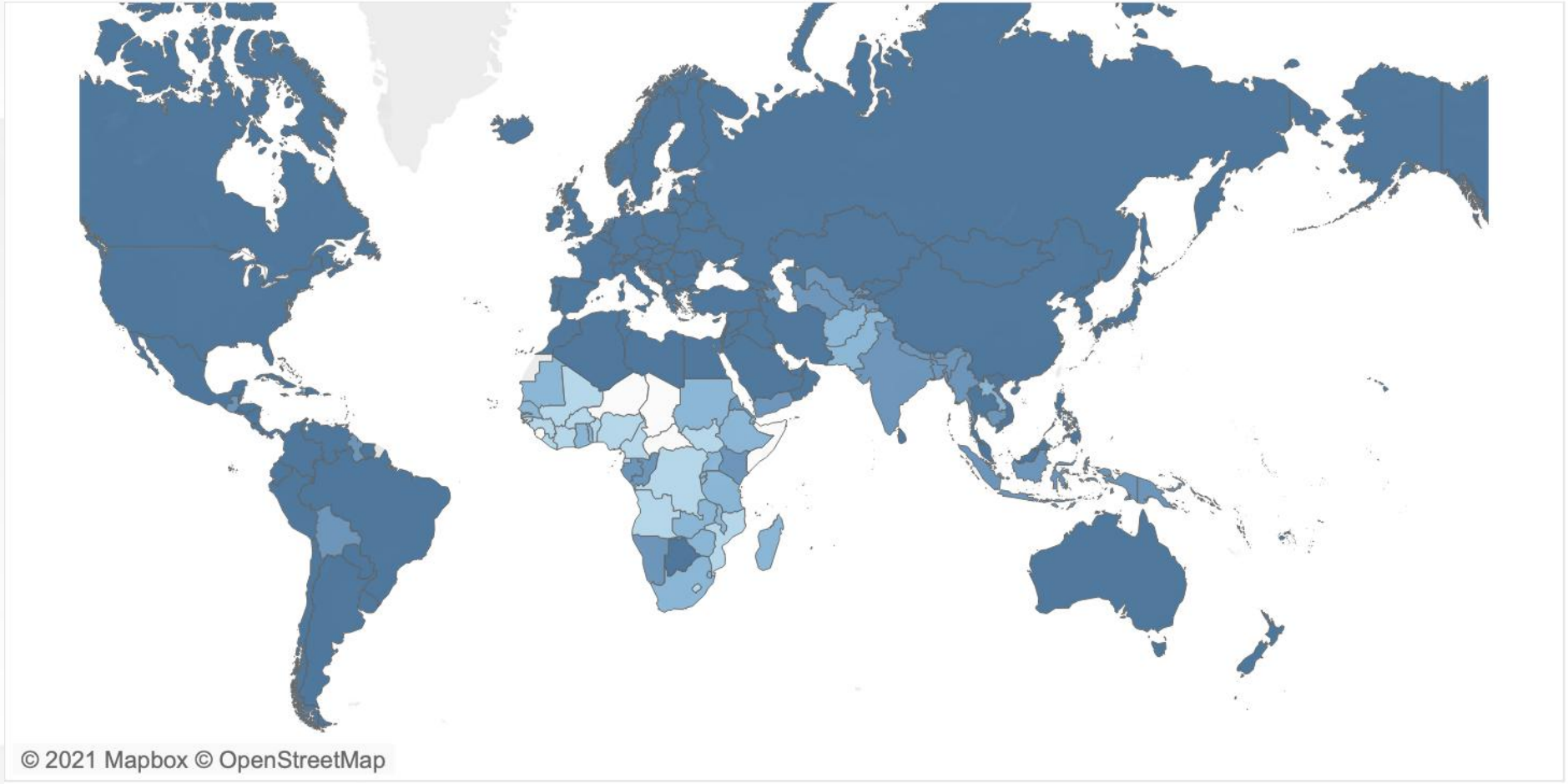
02

Where do children die today

Child mortality in each country

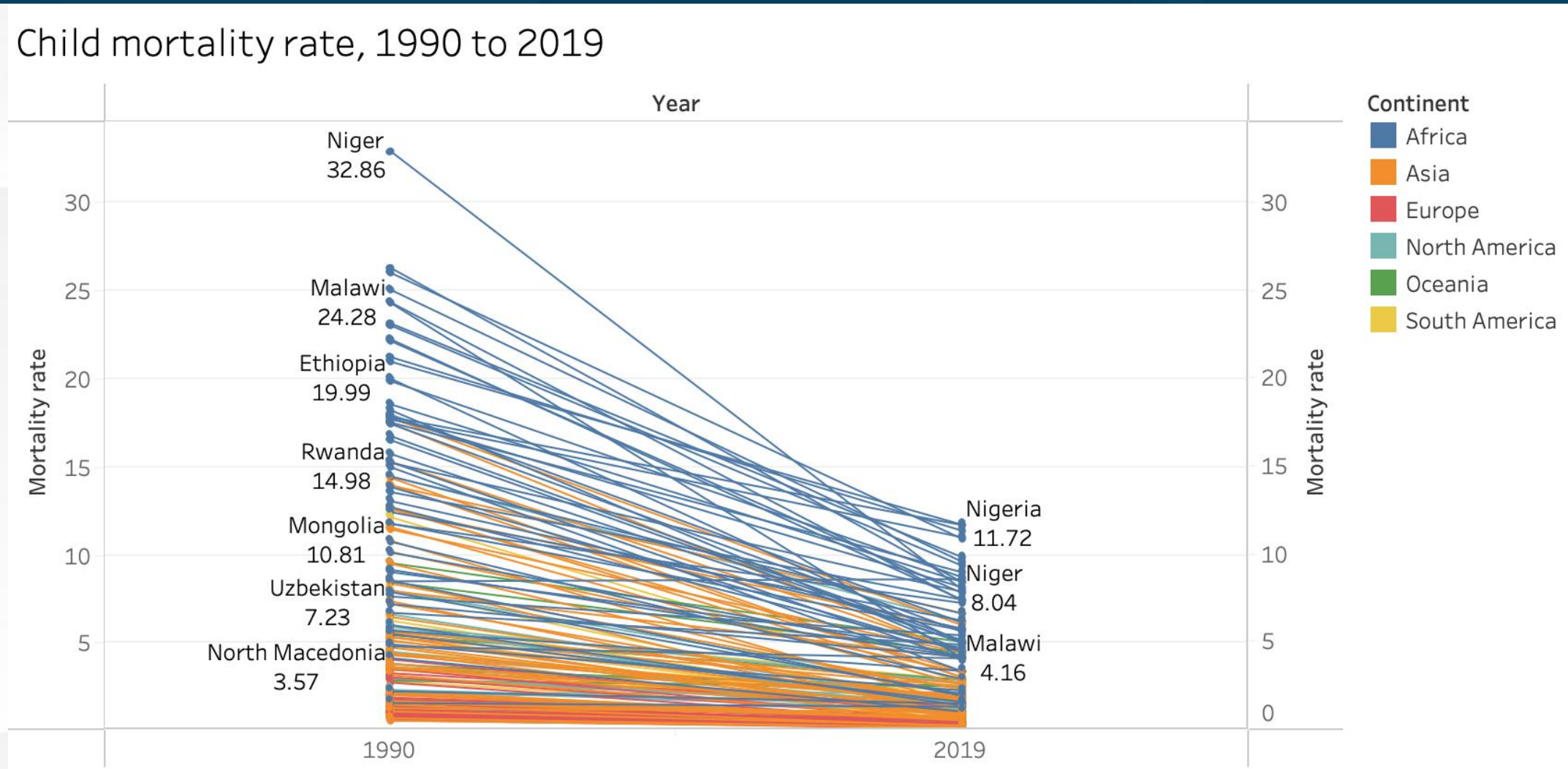
02 Where do children die today

Child mortality Rate under-5 (per 1000 lives births)



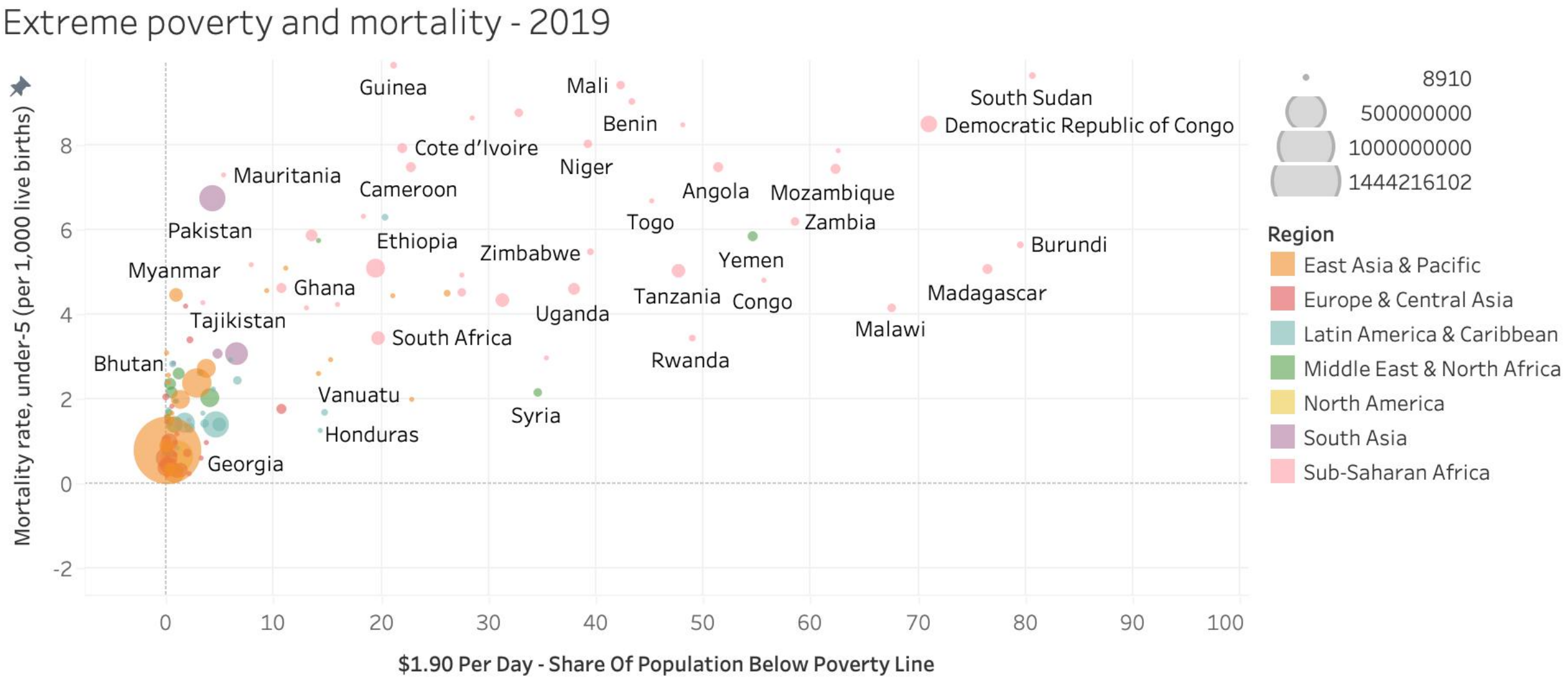
As the map shows, except for some countries in Central Africa, most countries have child mortality rates below 5%.
The highest child mortality rates are in Sub-Saharan Africa, where we still have countries with child mortality rates greater than 10%.

02 Where do children die today



The slope chart show us the trends of the child mortality rate between 1990 and 2019.
Our goal is to reduce the child mortality rate to at least as low as 2.5% in all countries by 2030.
The visualization shows that while the child mortality rate declined around the world there are still many countries in which the mortality rate is higher than 2.5%.

02 Where do children die today



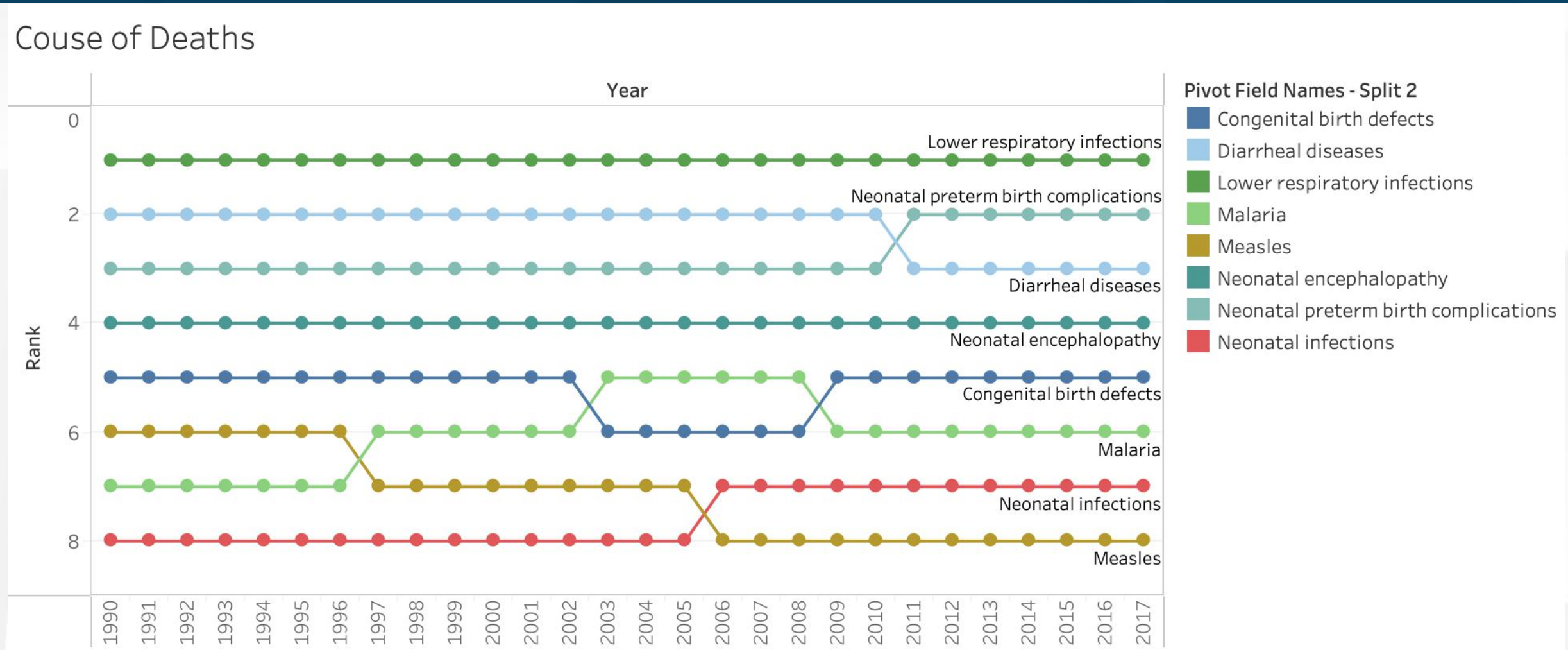
As one would expect, income level of the country is extremely correlated with child mortality rate. The poorest countries have the highest levels of child mortality, and the countries with the highest income have the lowest rates. This relationship has remained the same as demonstrated in the chart.

03

Why do children die

The reason of children death

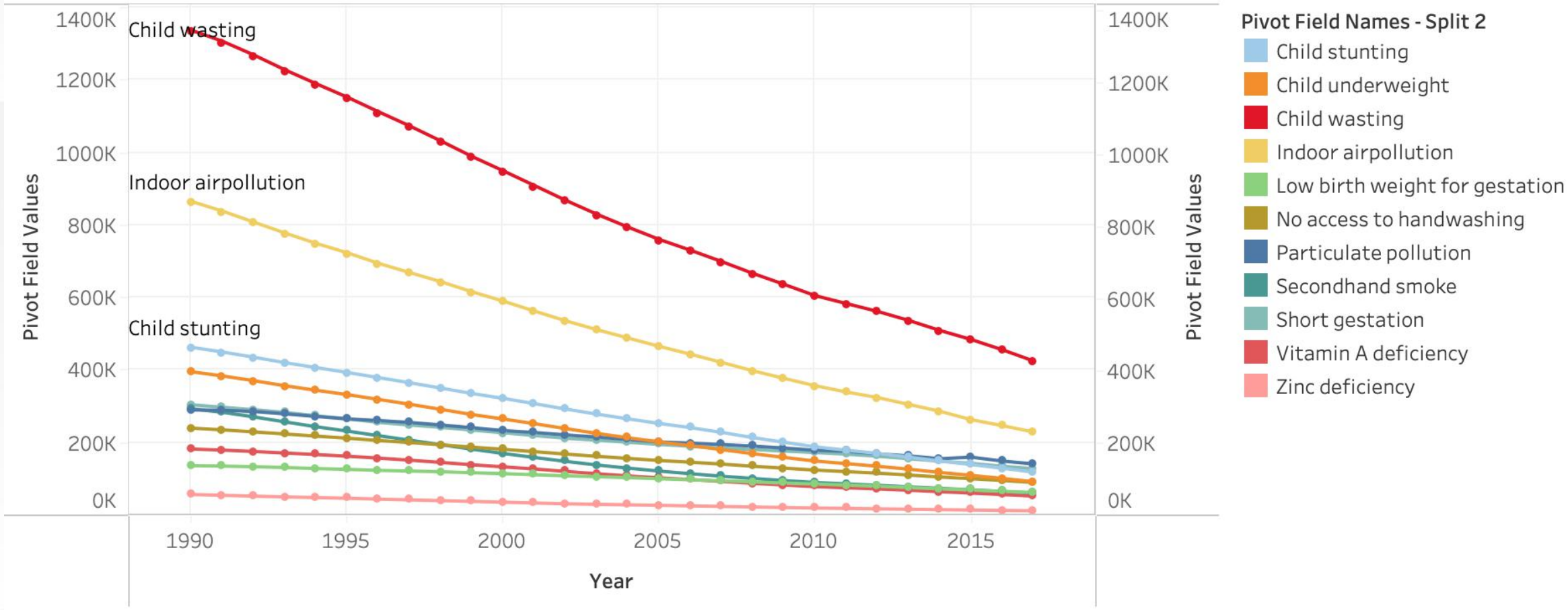
03 Why do children die



In the bump chart presented, we see the major causes of death of children under 5.
The lower respiratory infection (LRI), is the leading cause of mortality over the past three decades.
Pneumonia is the leading LRI.
Preterm birth complications is the leading cause of death among neonates.
Diarrheal diseases are the third leading cause of child mortality.

03 LRI risk factors

03 LRI risk factors



Undernutrition, especially so called ‘child wasting’, is the major contributor to pneumonia mortality, undernourished children are between two and four times more likely to be admitted to hospital due to pneumonia and up to 15 times more likely to die from it.
Indoor air pollution is the second one. High indoor air pollution in households can double the chances a child develops pneumonia and makes recovery less successful.

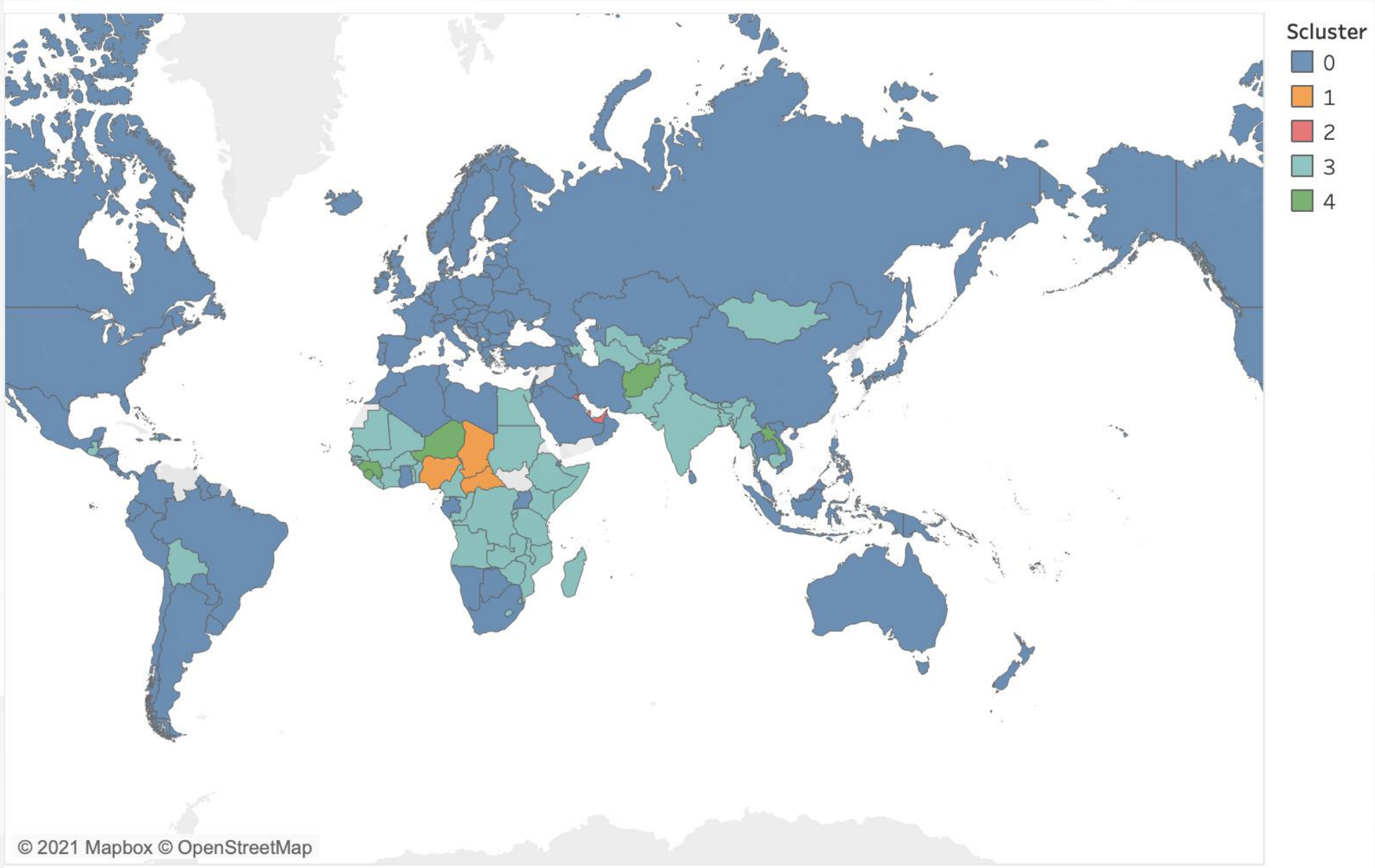
03 Where are children dying from LRI

Using MDS method show the relative position of countries in the multidimensional data, GDP per capital and number of deaths from LRI.

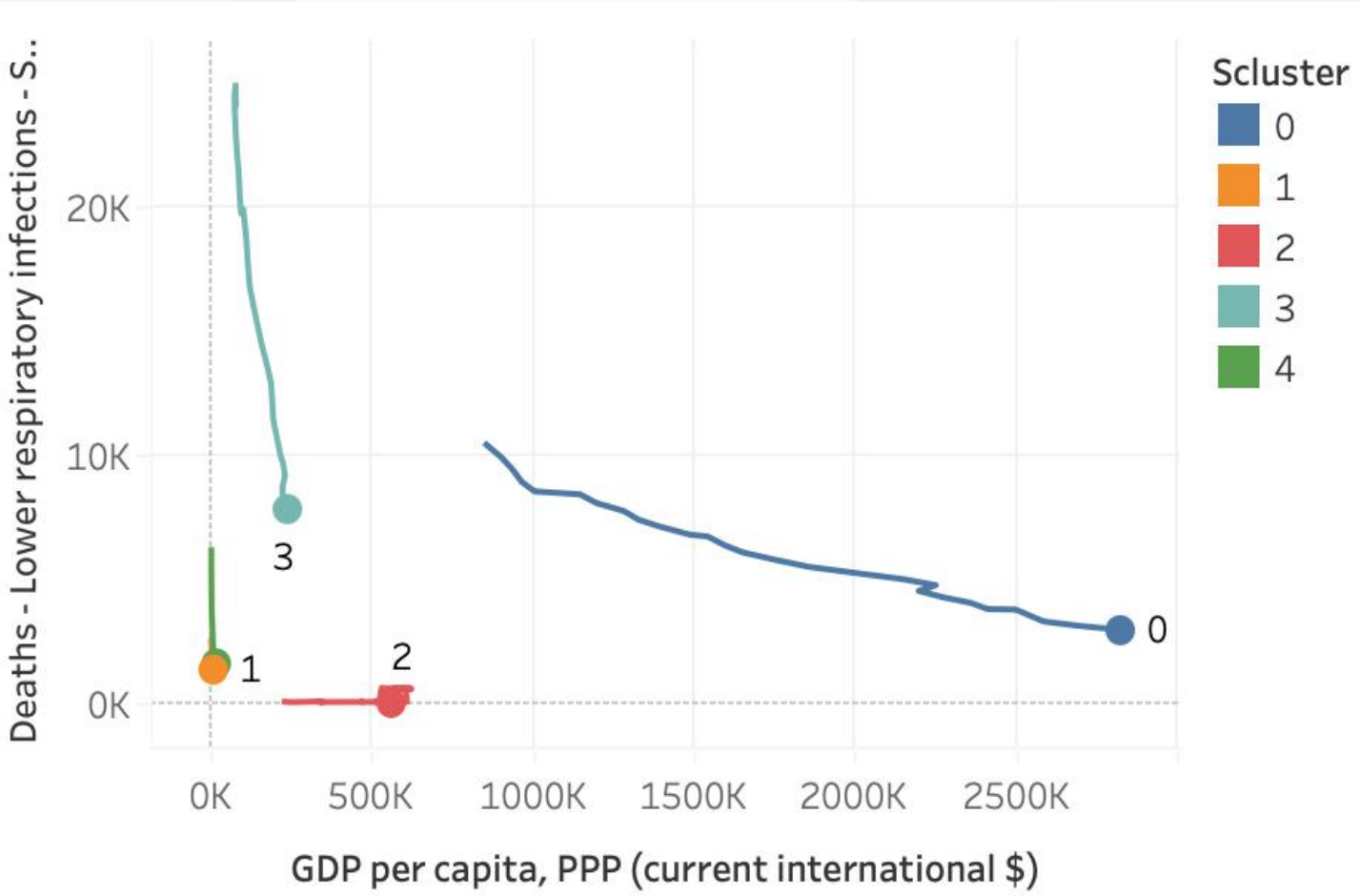
03 Where are children dying from LRI

Then apply the spectral clustering algorithm and divide the countries into five clusters

03 Where are children dying from LRI

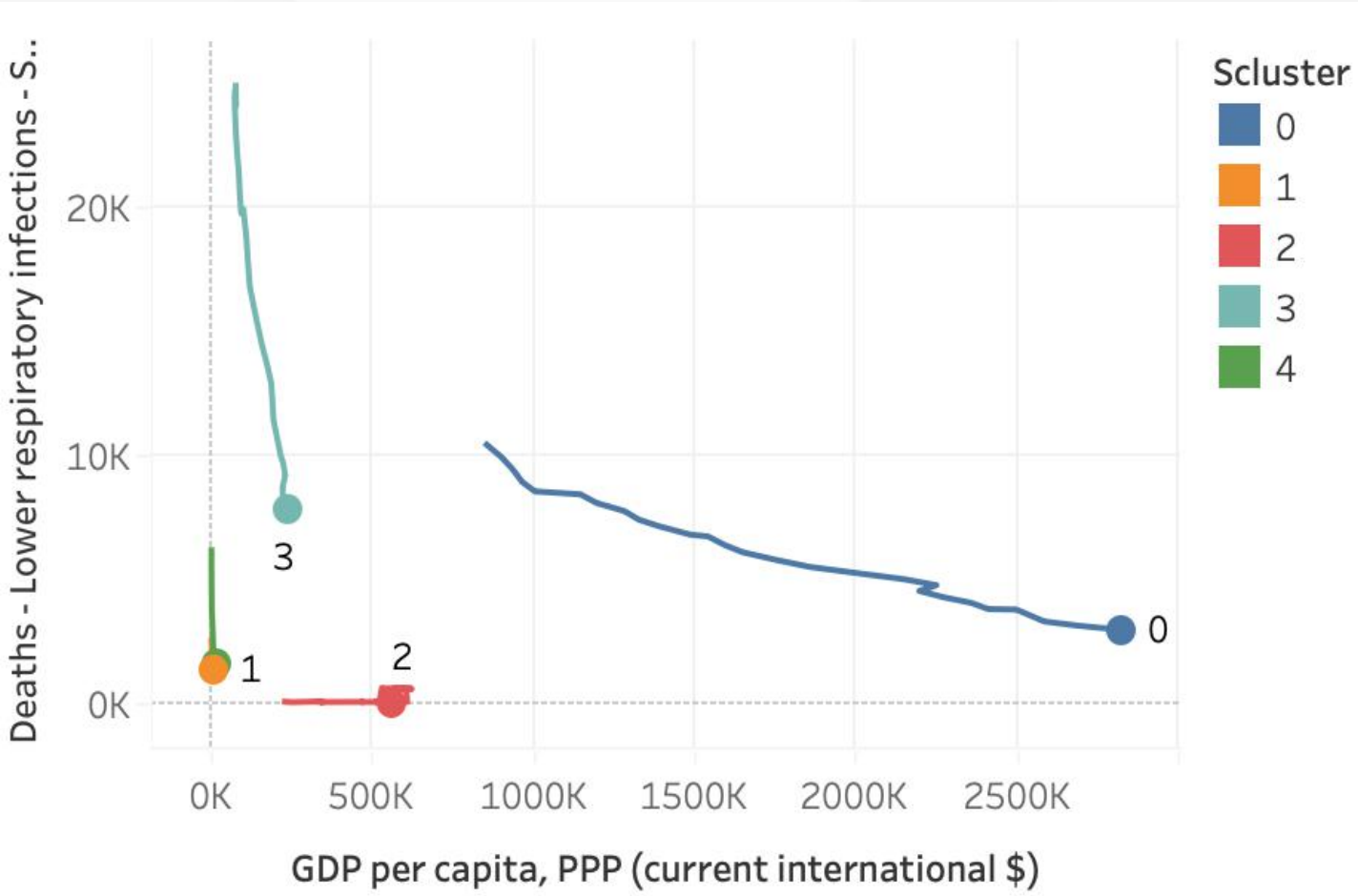


03 Where are children dying from LRI



- The cluster 0 starts with a higher GDP per capita and a lower death rate. With time going, GDP grows rapidly, and the death rate decreases slowly.
- The cluster 1 little changes in GDP per capita and mortality.
- The cluster2 started to have a minimum death rate. During 30 years, the per capita GDP developed rapidly, and the death rate rose slightly and then declined.

03 Where are children dying from LRI



- The cluster 3 starts to have a higher death rate and lower GDP. In 30 years, the death rate dropped rapidly but the GDP growth rate was slow.
- The cluster 4 has basically no GDP growth in 30 years, and the mortality rate is slowly decreasing.

04

Summary

04 Summary

- Now the world’s child mortality rate is 3.9% and it is currently far away from the goal for 2030.
- The poorest countries have the highest levels of child mortality, and the countries with the highest income have the lowest rates.

04 Summary

- Lower respiratory infection (LRI) was the leading cause of mortality over the past three decades.

- Childhood undernutrition, especially so called 'child wasting' (children who have a weight too low for their height), is the biggest risk factor for pneumonia in children.

THANKS YOU