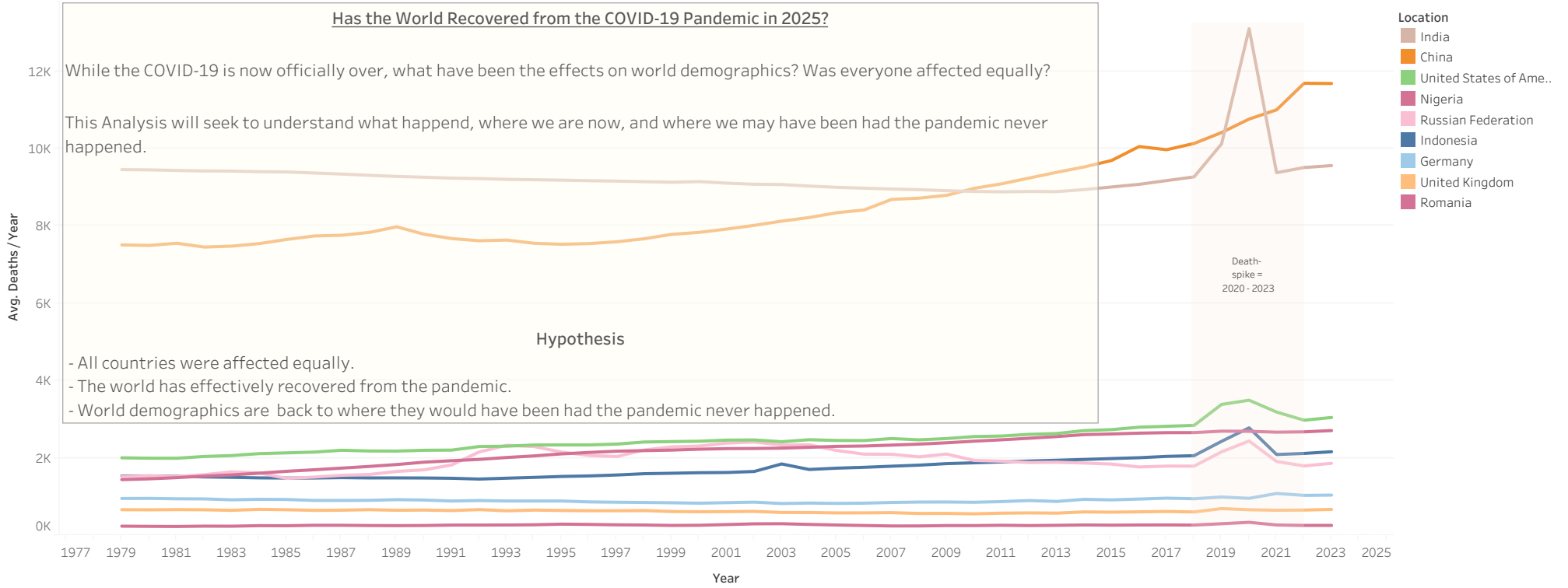
COVID-19's effects on Worldwide-Demographics - 2025

Has the World Recovered from the COVID-19 Pandemic in 2025? - Scope of the Analysis	The increase in Death was not evident for all countries	Forecasting from before/after the pandemic to determine if Deaths have recovered to pre-pandemic levels	Cluster Analyses - Only 'High GDP', 'High Median-A..

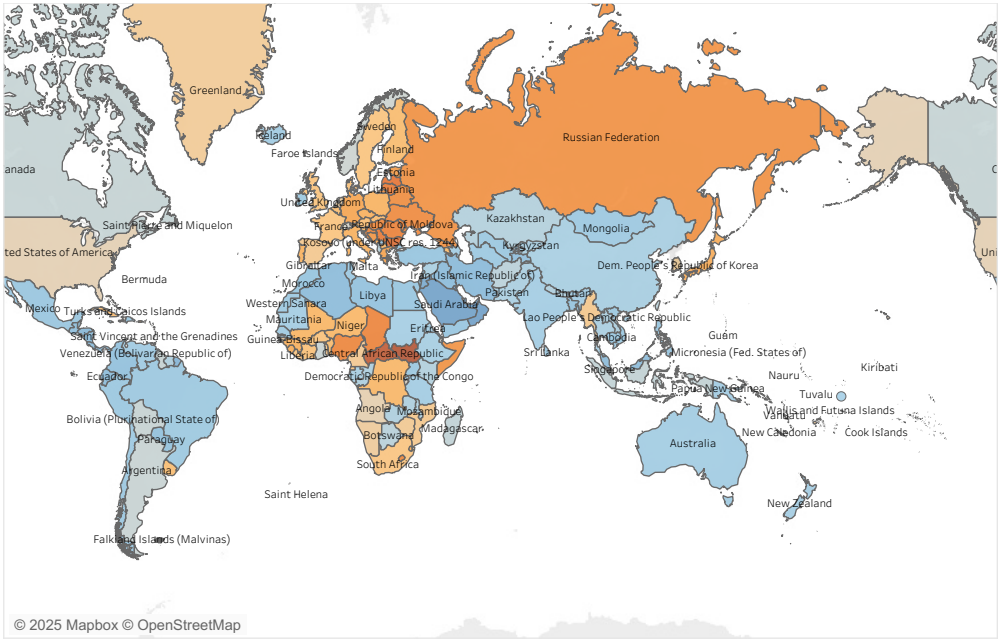


COVID-19’s effects on Worldwide-Demographics - 2025

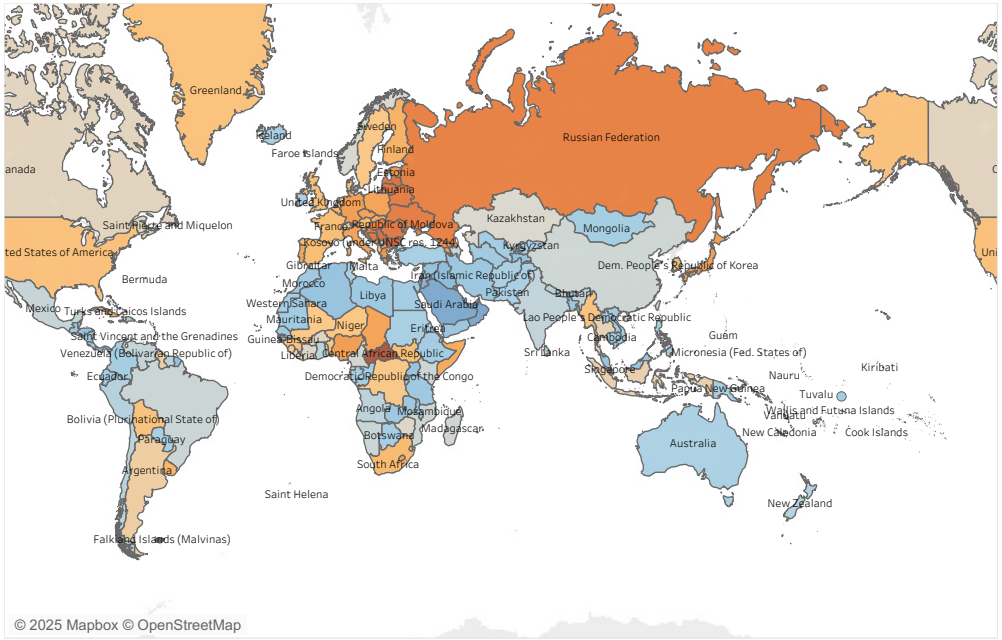
Has the World Recovered from the COVID-19 Pandemic in 2025? - Scope of the Analysis	The increase in Death was not evident for all countries	Forecasting from before/after the pandemic to determine if Deaths have recovered to pre-pandemic levels	Cluster Analyses - Only ‘High GDP’, ‘High Median-A..

Average De.. 1.00 — 20.00

PRE-COVID (2014-2019)



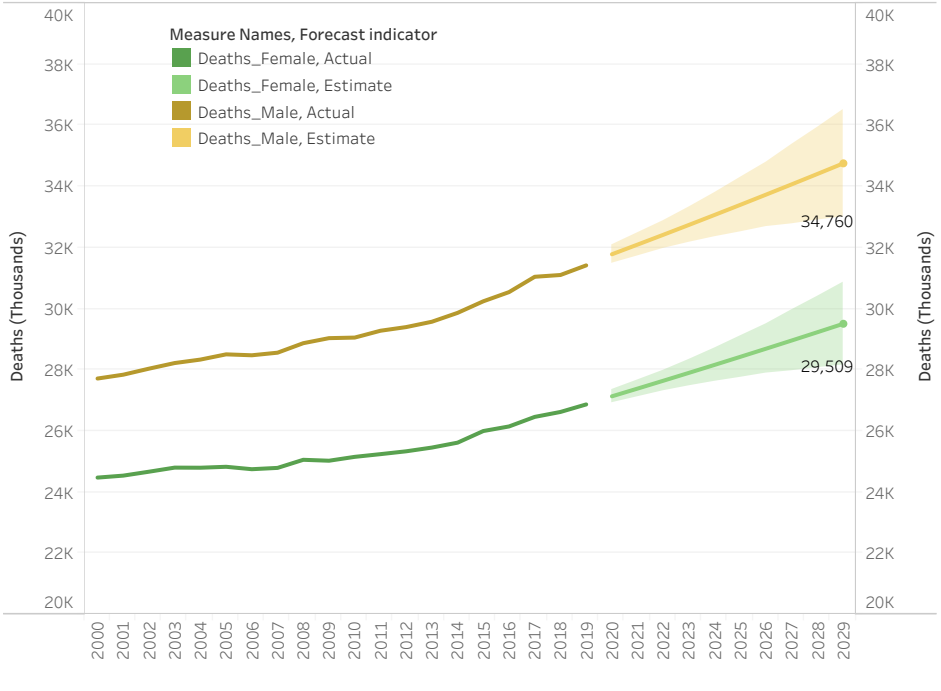
During COVID-19 (2020 - 2023)



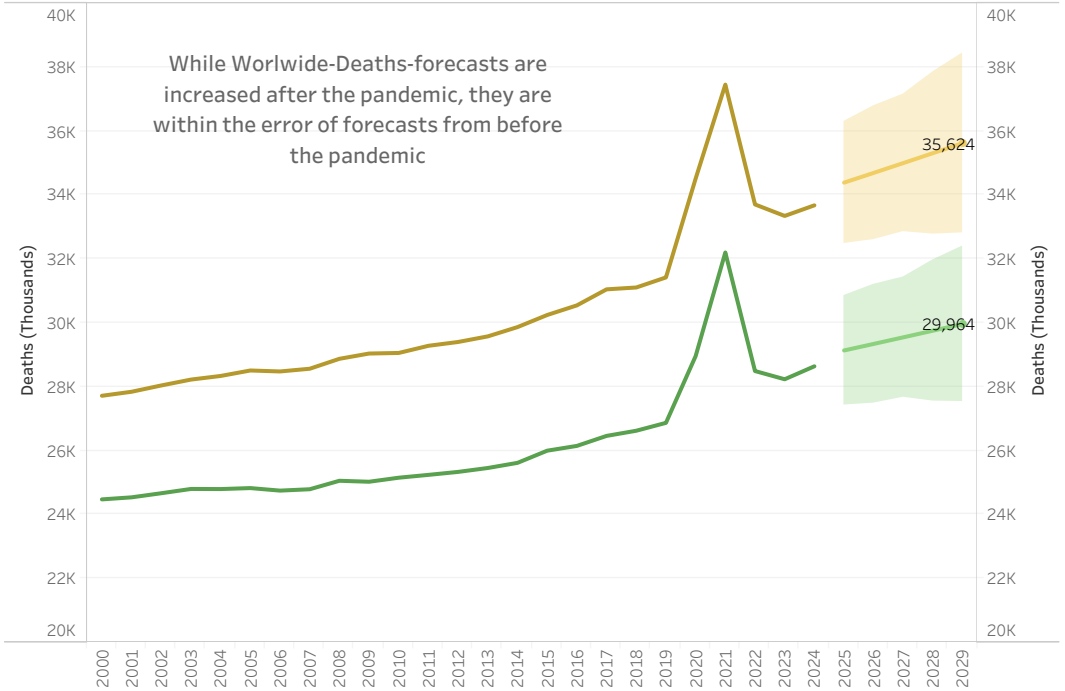
COVID-19's effects on Worldwide-Demographics - 2025

Has the World Rec..	The increase in Death was not evident for all countries	Forecasting from before/after the pandemic to determine if Deaths have recovered to pre-pandemic levels	Cluster Analyses - Only 'High GDP', 'High Median-Age' (Cluster 0) countries saw a statistically significant increase in Death Rate during the pandemic	Cluster Analyses - COVID-19 ..

Death Forecast Before COVID-19



Death Forecast after COVID-19



COVID-19's effects on Worldwide-Demographics - 2025

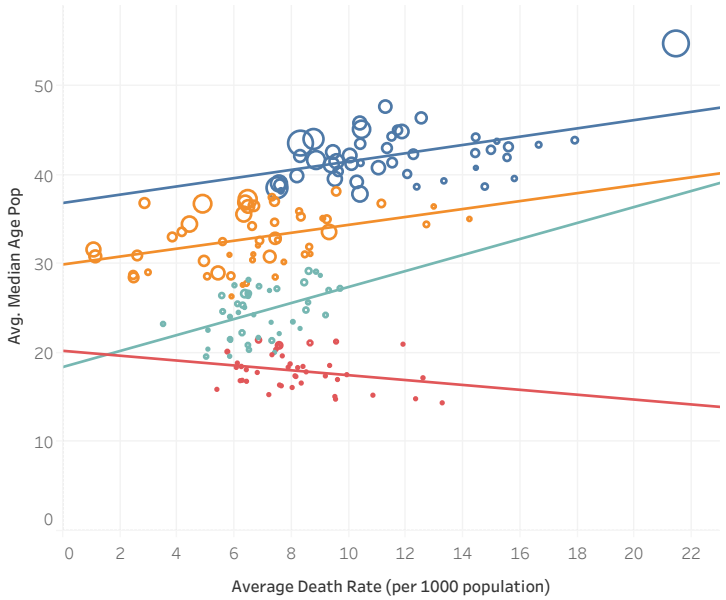
The increase in Dea..	Forecasting from before/after the pandemic to determine if Deaths have recovered to pre-pandemic levels	Cluster Analyses - Only 'High GDP', 'High Median-Age' (Cluster 0) countries saw a statistically significant increase in Death Rate during the pandemic	Cluster Analyses - COVID-19 may have affected the populations of Higher-Median-Age-Countries	Demographics unaffected by C..

GDP per capita
210
50000
100000
150000
176892

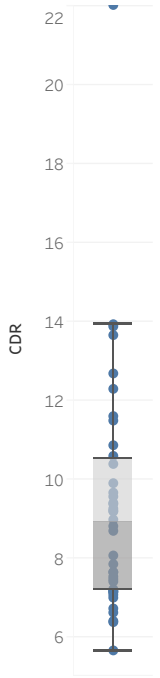
Clusters
0
1
2
3

YEAR 2020

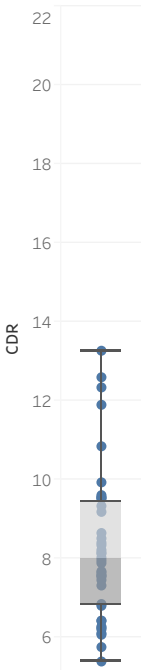
Country Median-age is positively associated with GDP (2020)



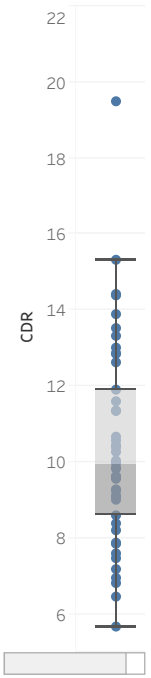
Cluster 2 - 2015



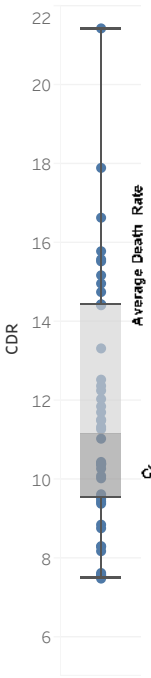
Cluster 2 - 2020

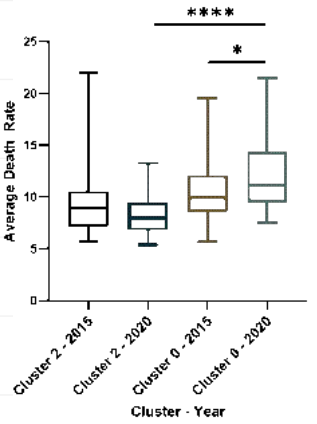


Cluster 0 - 2015



Cluster 0 - 2020





COVID-19's effects on Worldwide-Demographics - 2025

Forec astin g fro m b..

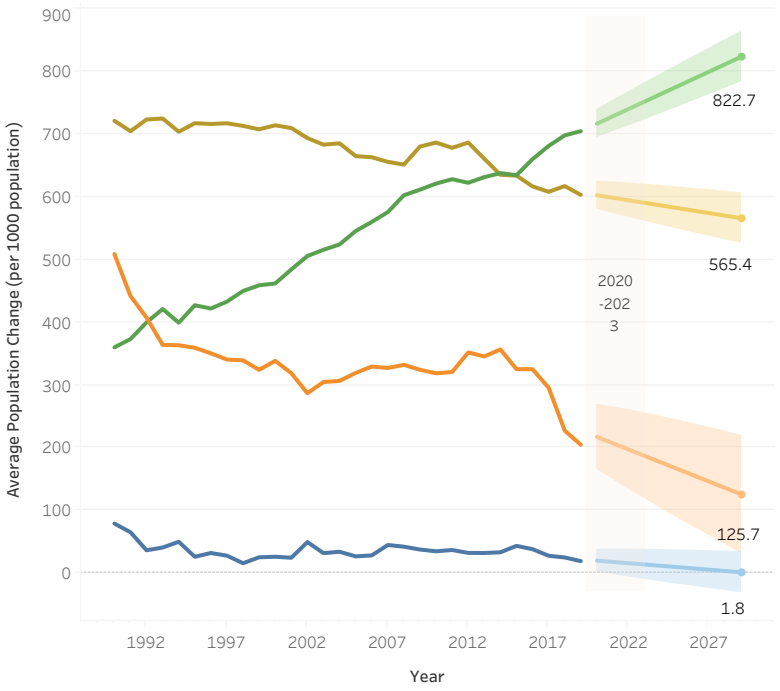
Cluster Analyses - Only 'High GDP', 'High Median-Age' (Cluster 0) countries saw a statistically significant increase in Death Rate during the pandemic

Cluster Analyses - COVID-19 may have affected the populations of Higher-Median-Age-Countries

Demographics unaffected by COVID-19 include MIgration Rate, Life Expectancy, Mean Childbearing-Age, and Birth Rate

Final Su mmary a nd Reco mmend..

Average Population Change Forecast **BEFORE COVID-19**



Clusters, Forecast indicat..
- 0, Actual
- 0, Estimate
- 1, Actual
- 1, Estimate
- 2, Actual
- 2, Estimate
- 3, Actual
- 3, Estimate

Cluster 0 - High Median Age, High GDP, Increased Death-rate during COVID-pandemic

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Cluster 1

.

Cluster 3

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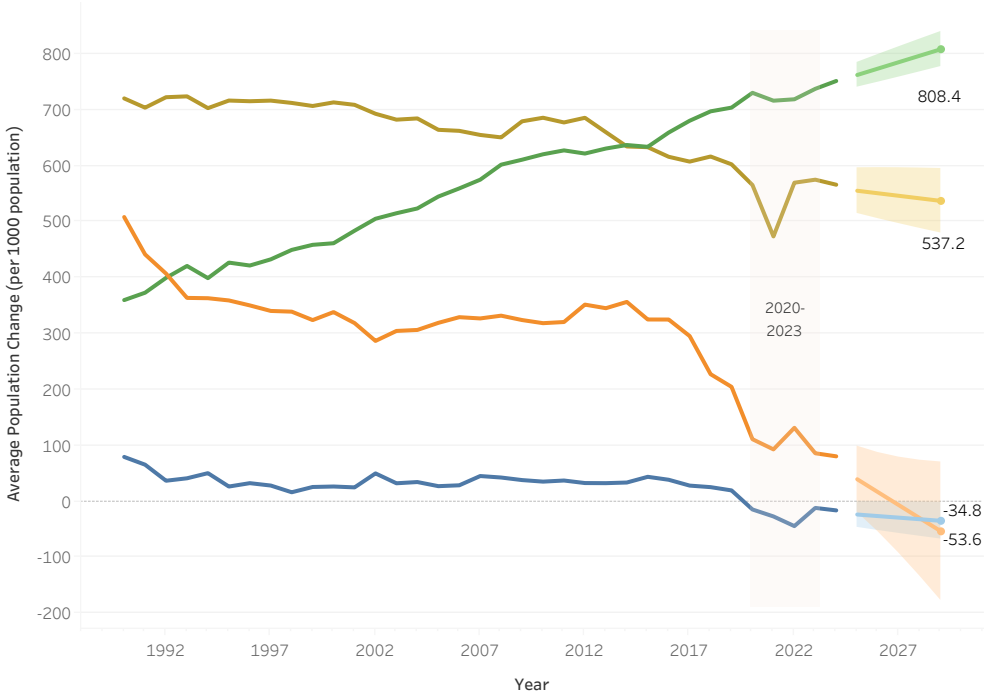
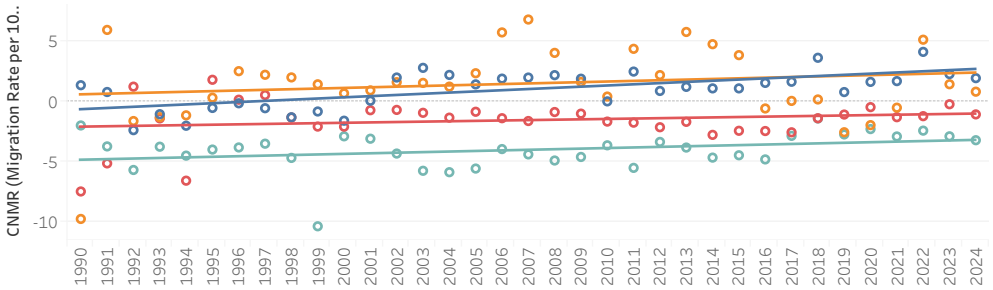
Cluster 2 - Low Median Age, Low GDP, less-affected Death-rate during COVID-pandemic

Average Population Change Forecast **AFTER COVID-19**

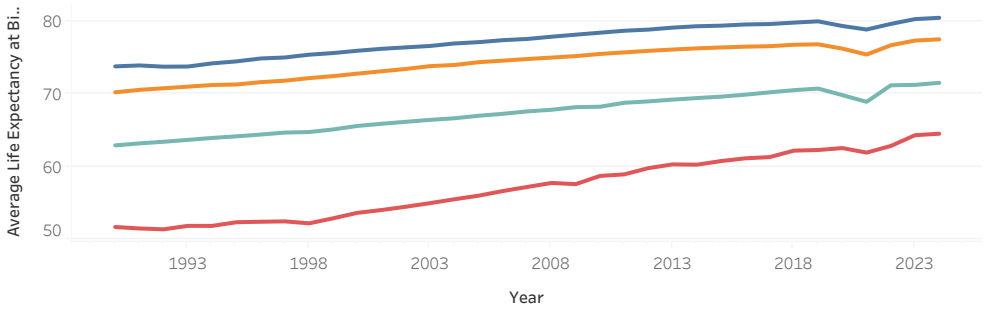


COVID-19's effects on Worldwide-Demographics - 2025

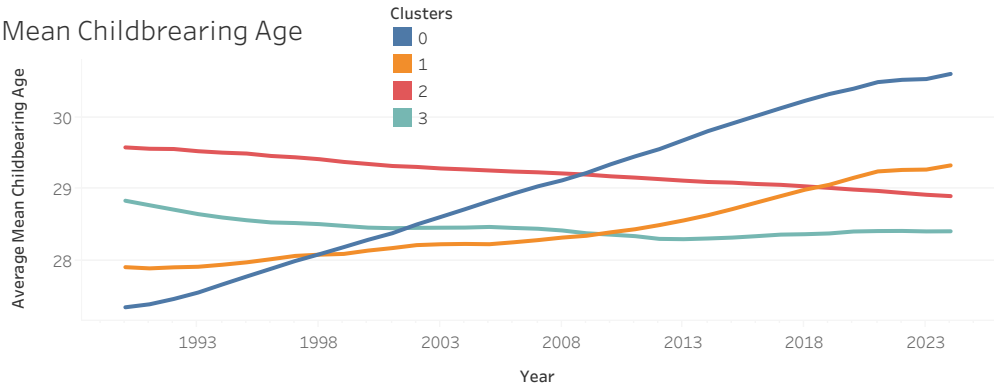
Migration Rate



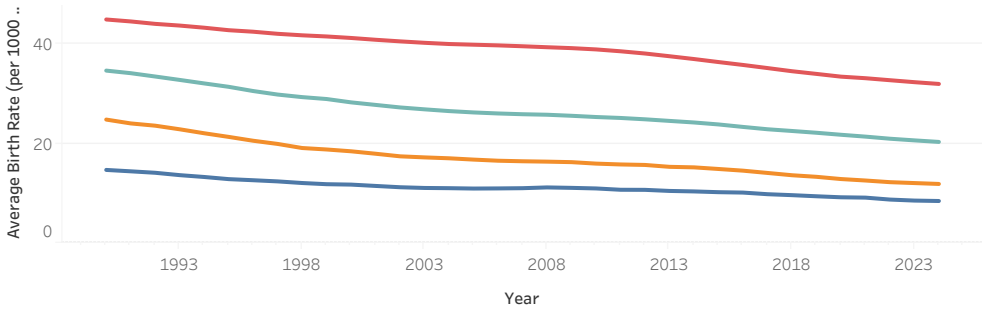
Average Life Expectancy at Birth



Mean Childbearing Age



Birth Rate



COVID-19’s effects on Worldwide-Demographics - 2025

Summary and Hypothesis responses

All countries were **not** affected equally by the COVID-19 pandemic.

Countries which saw the most drastic changes and who should perhaps be the most prepared in the face of another viral-airborne-pandemic should be Countries which fall into **Cluster 0** which have: Higher-Median Age, Larger-GDP-per-capita, Higher-Life-Expectancy, Lower-Mean-Childbearing-Age.

The world **has** effectively recovered from the pandemic, now in 2025

For the most-part this seems to be accurate. Worldwide-deaths have recovered to a slightly elevated but similar level to what would have been forecasted if the pandemic had not happened.

One exception could be Population-Change in Cluster 0 and Cluster 1 countries.While before the pandemc they were approaching negative-population change, the pandemic may have accelerated this with both clusters now forecasting negative population change.

Recommendations

Countries which fall into Clusters 0 and 1 would benefit the most from pandemic preparedness, assuming that the next pandemic is viral, airborne, and infection-mortality is associated with age.

Limitations of this study included the use of only one pandemic data-set. Data was sourced from https://population.un.org/wpp/downloads?folder=Special%20Aggregates&group=Economic%20and%20trading%20groups as well as https://data.worldbank.org/