Child and Infant Mortality in Africa: Uncovering Patterns and Driving Strategies

This presentation explores the complex issue of child and infant mortality in Africa, examining key drivers and identifying opportunities for impactful interventions.

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Understanding the Drivers: Analyzing Key Datasets

Identify Key Drivers of Child Mortality

We identify the key drivers of child mortality by analyzing factors such as healthcare access, vaccination coverage, maternal support, and socioeconomic conditions to pinpoint critical areas for intervention.

Socioeconomic Datasets

We indicators such as income levels, poverty rates, education attainment, employment status, access to clean water, sanitation, and health insurance coverage, which help evaluate living conditions and their impact on child mortality.

Visualizations

We simplify complex data by presenting it in an engaging and intuitive way, enabling clear insights and actionable understanding

Identifying Critical Correlations

1 **Maternal Birth Survival**

Maternal survival significantly improves when skilled medical staff attend childbirth, reducing the risk of complications and fatalities.
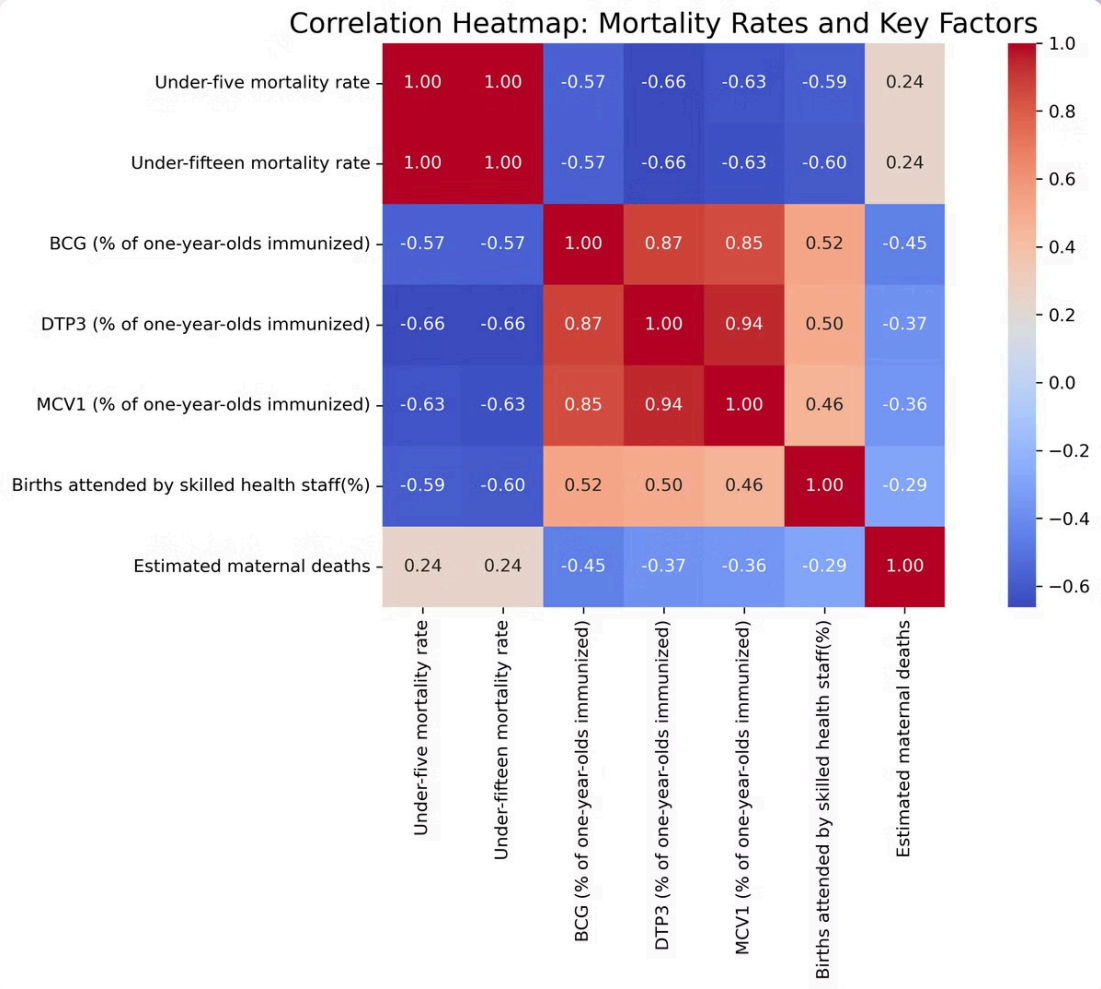
2 **Under-five and under-fifteen mortality**

Under-five and under-fifteen mortality rates highlight the critical survival challenges faced by young children, reflecting overall healthcare access and socioeconomic conditions.

3 **Vaccination**

Child vaccination rates are key indicators of healthcare system effectiveness, directly impacting child survival.

Correlation Heatmap: Mortality Rates and Key Factors

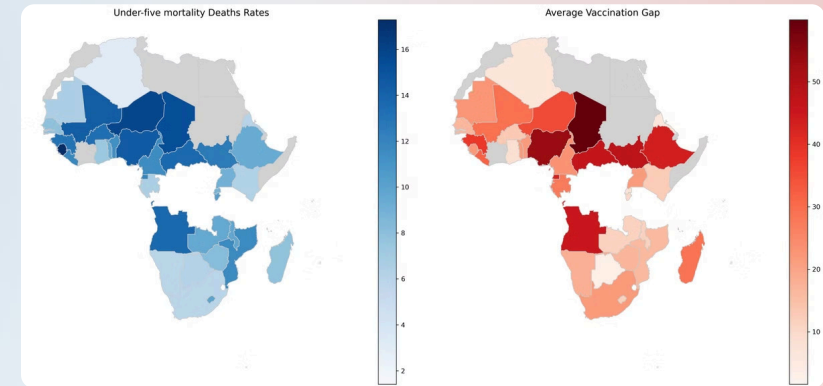|	Under-five mortality rate	Under-fifteen mortality rate	BCG (% of one-year-olds immunized)	DTP3 (% of one-year-olds immunized)	MCV1 (% of one-year-olds immunized)	Births attended by skilled health staff(%)	Estimated maternal deaths
Under-five mortality rate	1.00	1.00	-0.57	-0.66	-0.63	-0.59	0.24
Under-fifteen mortality rate	1.00	1.00	-0.57	-0.66	-0.63	-0.60	0.24
BCG (% of one-year-olds immunized)	-0.57	-0.57	1.00	0.87	0.85	0.52	-0.45
DTP3 (% of one-year-olds immunized)	-0.66	-0.66	0.87	1.00	0.94	0.50	-0.37
MCV1 (% of one-year-olds immunized)	-0.63	-0.63	0.85	0.94	1.00	0.46	-0.36
Births attended by skilled health staff(%)	-0.59	-0.60	0.52	0.50	0.46	1.00	-0.29
Estimated maternal deaths	0.24	0.24	-0.45	-0.37	-0.36	-0.29	1.00

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Mapping Regional Disparities
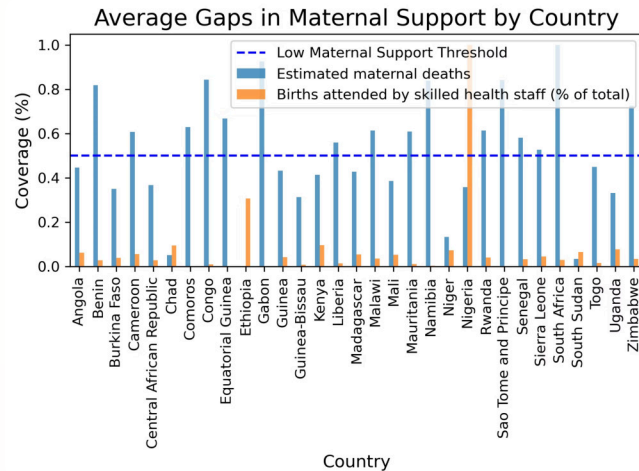
Hotspots

Mali, Nigeria, Chad, Niger and Sierra Leone are the top five countries with the highest number of infant mortality rate.

Vulnerable Communities

Countries with vaccination gap are vulnerable to increase in child deaths according to analysis the highest are Chad, Nigeria, South Sudan, Angola and Central African Republic.
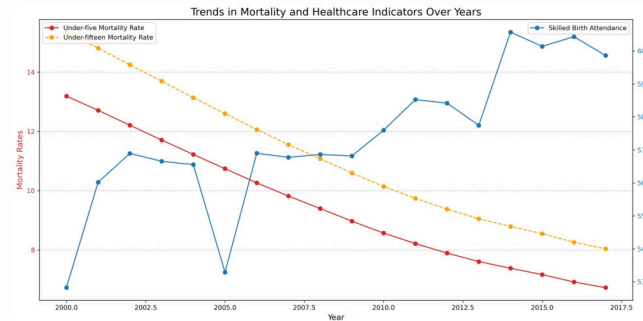

Under-five mortality Deaths Rates | Average Vaccination Gap

Key Data Visualizations

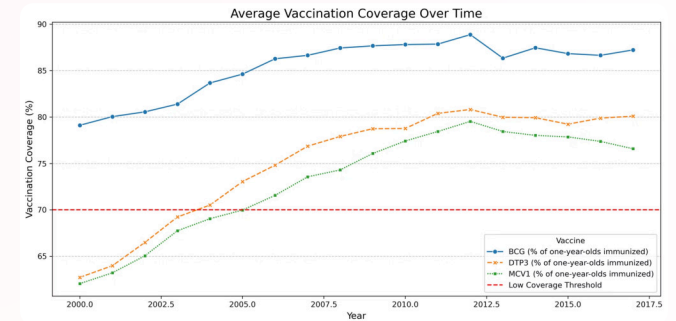Average Gaps in Maternal Support by Country

Maternal Support

Comprehensive maternal support before, during, and after childbirth—through prenatal care, skilled medical attendance during delivery, and postnatal services— significantly reduces maternal and infant mortality while ensuring the health of both mother and child.

Trends in Mortality and Healthcare Indicators Over Years

Healthcare vs Early Death

Limited access to quality healthcare directly contributes to early deaths, as inadequate medical services fail to prevent or treat illnesses, especially among vulnerable populations like children and mothers.

Average Vaccination Coverage Over Time

Vaccination Coverage

High vaccination coverage for key diseases like measles, diphtheria, and tuberculosis is critical in reducing child deaths, as vaccines protect children from preventable illnesses that are major contributors to under-five mortality.

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Recommendation for Successful Interventions

Address Gaps in Vaccination Coverage

Strengthen immunization campaigns in low-performing areas. Collaborate with local organizations to improve vaccine storage and transportation.

Improving Maternal Support

Train more skilled health workers and incentivize their presence in underserved areas. Provide financial assistance or health insurance for maternal care.

Increasing Healthcare Access

Deploy mobile clinics to reach rural areas. Expand community-based healthcare programs focusing on child and maternal health.

Barriers to Progress

1 Funding Constraints

Insufficient funding limits the scale and reach of healthcare interventions.

2 Policy Challenges

Ineffective policies can hinder the implementation of successful interventions.

3 Cultural Practices

Cultural practices that may negatively impact child health require sensitivity and understanding.

Designing Data-Driven Strategies

1

Prioritize High-Impact

Focus on interventions with proven effectiveness and potential for scalability.

2

Invest in Data Systems

Strengthen data collection and analysis capabilities to monitor progress and adapt strategies.

3

Collaborate with Stakeholders

Engage policymakers, healthcare providers, and community organizations in the design and implementation of strategies.

Engaging Stakeholders

1

Policymakers

Advocate for funding, resource allocation, and policy changes.

2

Healthcare Providers

Implement effective interventions and provide quality care.

3

Community Organizations

Raise awareness, mobilize resources, and empower communities.

Conclusion and Call to Action

This presentation examines key factors driving infant and child mortality across Africa, highlighting the role of healthcare, maternal support, and vaccination coverage. High child mortality rates are influenced by socioeconomic challenges, limited access to skilled medical care during childbirth, and low vaccination coverage. Trends reveal progress in some regions but stagnation in others, with significant gaps in healthcare infrastructure and maternal support before, during, and after childbirth. Strategies to reduce child deaths focus on improving vaccination rates, expanding maternal care services, and addressing broader healthcare inequalities to ensure every child receives the care they need to survive and thrive. By leveraging data, collaborating effectively, and investing in evidence-based interventions, we can significantly reduce child and infant mortality in Africa and create a brighter future for generations to come.