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Research Title

A study to review the existing health financing systems of four Sub-Saharan African countries and measuring their progress towards achieving Universal Health Coverage.

Research Questions

I. What are the existing health financing options in different Sub-Saharan African countries?

II. What is the impact of the existing schemes in achieving universal Health Coverage?

III. How different class of economies (World Bank classification of countries) can proceed forward in their way towards UHC?

Research Objective

I. To understand and study the existing health system, the health financing mechanism and insurance coverage of various Sub-Saharan African countries.

II. To measure the progress of countries in achieving UHC based on health indicators and financial protection reforms.

III. To identify the gaps and suggest recommendations in filling the lacunae.

Study Methodology

1. A situational analysis of individual country to provide detailed description of each country's profile (demography, geographical, economical, political, health care reforms, healthcare infrastructure, existing financial risk protection schemes and insurances)

2. A comparative analysis of the Health indicators of each country was done to measure progress within the country and between different Sub-Saharan African countries.

3. For measuring financial coverage, change in government spending (GDP, THE, CHE) on health and out of pocket expenditure from year 2000 to 2018 were computed and compared.

4. Lastly, a gap analysis was conducted to identify gaps and scope of existing health policies, reforms in financial health protection schemes were compared.

Study Methodology

- **Data Sources**

The study involved review of research papers from the research databases on health financing systems, National Health surveys, Demographic health surveys and review of conference proceedings were collected from online databases **namely PubMed, Google Scholar, Scopus and government websites.**

Data for health and financial indicators was extracted from reports of World Bank. National health reports and Demographic Health Surveys.

Keywords used were: Health Financing, UHC, Health indicators, Health expenditure, Health care systems, Health Insurance and financial risk protection.

- **Inclusion criteria:** On the basis of strikingly contrasting economies and myriad health systems and similar disease profile along with expert's opinion four countries were selected. These **include Zambia, Namibia, Tanzania and Ghana.**

- **Exclusion Criteria:** Any country other than mentioned above shall be excluded from study.

Study Methodology

Study Setting: AXA France Vie- India Reinsurance Branch office, New Delhi

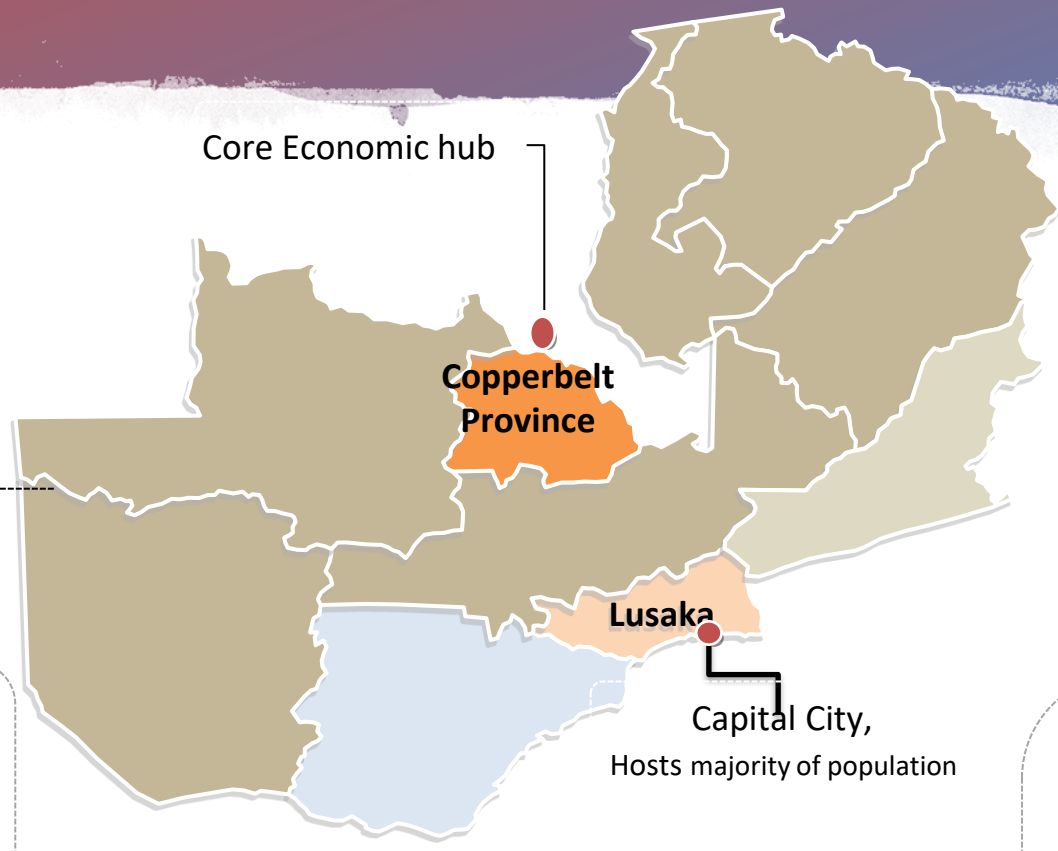
Duration: February to May 2020 (3 months)


ZAMBIA

Zambia Country Profile

Population

- Total – 17,351,822
  Rural vs Urban = 56.48 : 43.52
- Young Population : Median 17 years
- Ethnic Group: Bembas, Tonga
- Official Language: English



Government

- Independence- October 24, 1964.
- Multi-Party Democracy
- Patriotic Front
- President: Edgar Chagwa Lungu
- Progressive reforms: HR, HIS, and SHI.

Geography

- Landlocked country
- Located in Southern Central Africa
- Area: 752,614 km2
- Divided into 10 provinces, 117 districts, 156 constituencies and 1281 wards.

Economy

- Lower Middle-Income Country
- GDP- USD$ 27 Bn
- Annual Growth Rate- 3.0%
- Mining Sector – 20% of GDP
- Largest producer of Diamond in world and fourth largest of Uranium

Policy Environment

SDG 3: Ensure Healthy Life and promote well-being for all at all ages.

The National Health Strategy Plan (2017-2021)

- Outlines strategies for healthcare reform in Zambia, primarily geared towards reaching its SDG targets.

Vision 2030

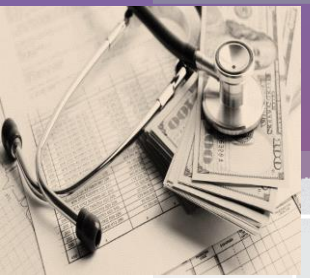
- Equitable access to cost-effective and quality health care by 2030
- Within the health arena, the areas of focus are **increasing access to health facilities** and **availability of health workers** because Zambia has a shortage of health workers and brain drain.

SWAp The Sector Wide Approach (SWAp)

- It is a memorandum of understanding between various stakeholders in the health sector on how activities shall be carried out between government and its partners.
- This includes processes of reporting and monitoring, meetings and working groups.

Major stakeholders- the Executives, Members of Parliament, local councillors, traditional village councils and smaller stakeholder includes Church bodies.

Health Indicators in Zambia



Health as % of GDP	4.5%
Annual total health expenditure (%)	9.3%
$ health expenditure per person	USD $90

No. doctors/ 1000 population	0.091
No. nurses/ 1000 population	0.07

% births with skilled attendance	80%
Infant mortality rate	42 per 1000

Under 5 mortality-rate	61 per 1000
Maternal Mortality Rate	183 per 100,000 live births

Average Life Expectancy	63.2 years

Healthcare in Zambia – Disease Profile

HIV/AIDS Prevalence – 11.3%

Deaths from HIV/AIDS – 18.42%

In 2016, infectious diseases, including malaria, tuberculosis, and HIV/AIDS and other sexually transmitted diseases accounted for 59% of total health expenditure.

The burden of NCD is slowly increasing.

In 2017, 29% of deaths were attributed to NCD (Ischemic Heart disease, Stroke and Cirrhosis).

Healthcare in Zambia - Health Financing

Zambia has a **hybrid health financing system** that incorporates public, external, and private financing.

Public financing (government health expenditure) comes from taxes collected by the central government and executed by the Ministry of Health (MOH) and other government agencies.

External financing comes from bilateral and multilateral development partners that provide resources to the government as grants or loans or to NGO's.

Private financing is primarily in the form of direct health expenditure by households (out-of-pocket expenditure) and by private employers and private third-party insurers**.**

The Government Health Expenditure (GHE) as percentage of Total Health Expenditure (THE) on health has increased significantly from years 2006 to year 2018, from **38% to 68%.**

Healthcare in Zambia - Health Insurance

- Health Insurance industry comprises of **public** and **private** health insurers.
- Private health insurance covers **3.9%** of total population.

- The private insurance market in Zambia is primarily composed of four main prepayment and insurance schemes:
- ❑ **private health insurance**
- ❑ **employer-based insurance**
- ❑ **government facility high-cost schemes and**
- ❑ **private facility medical schemes.**

- Largest is **Employer based insurance scheme**, (covering 44% of insured) wherein an employer manages a group scheme for its employees.

- Government launched in 2015 a National Health Insurance that aims to cover 4.5 million Zambian.


NAMIBIA

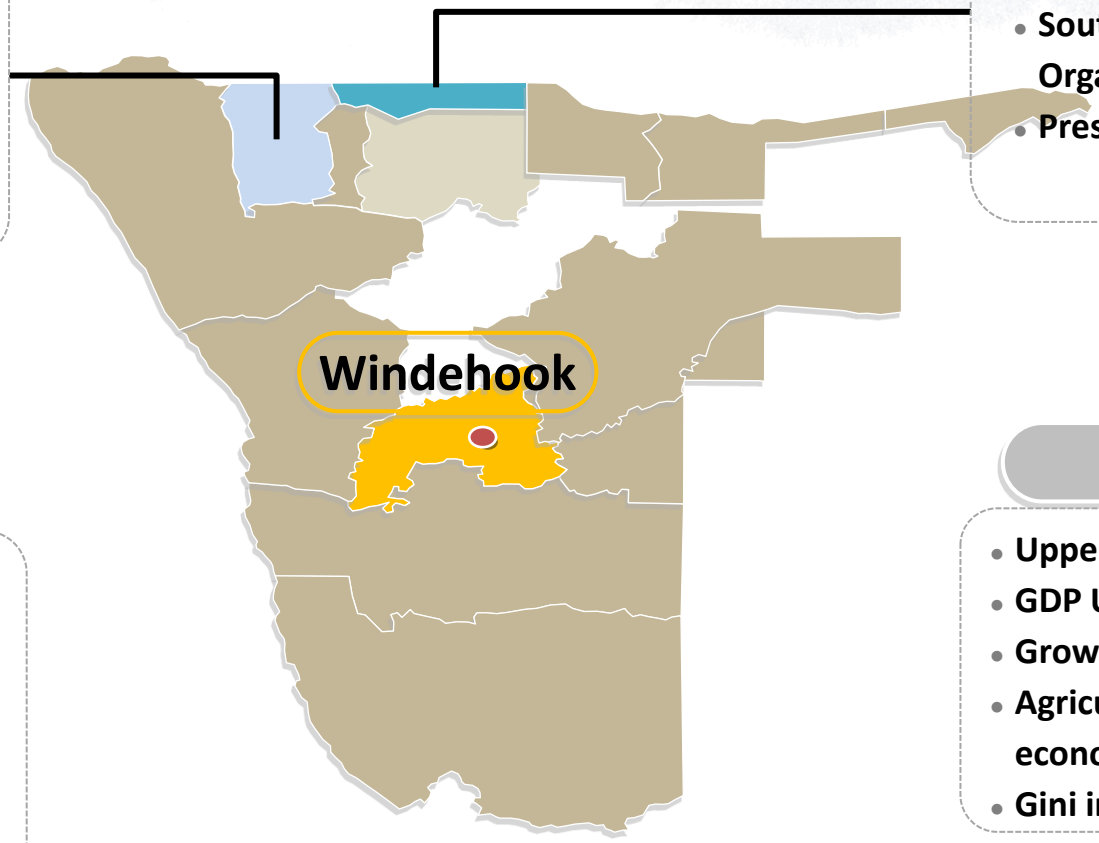
Namibia Country Profile

Population

- Population 2.54 Million
  Rural vs Urban - 49.97 : 50.03%
- 2nd Least Densely populated country
- Largest Ethnic group – Ovambo (49.5%)
- Language- Bantu

Government

- Independence- 21 March 1990.
- Transition from Apartheid rule to a multi party democracy.
- South West Africa People's Organization (SWAPO)
- President



Geography

- Named after Namib Desert
- Situated between Namib and Kalhari desert.
- Area 825, 615 km 2
- Largest city Windehook
- Least Rainfall

Economy

- Upper Middle-Income Country
- GDP USD $27.1 Bn
- Growth rate 3%
- Agriculture main driver of economy
- Gini index 59.1

Policy Environment

- **In 1998, the first National Health Policy Framework** introduced
  - PHC Approach for providing health services

- **The Ministry of Health and Social Service (MoHSS)** is the sole custodian of the health of the people in the country.

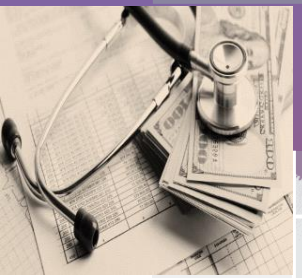
The National Health Policy 2010-2020

- Outlines strategies for healthcare reform in Namibia, primarily geared towards reaching its SDG targets.

Vision 2030

- Within the health arena, the areas of focus are attaining health-related SDGs, **increasing access to health facilities** and **availability of health workers.**
- **Emphasis on a healthy nation free of the diseases of poverty & inequality.**

Health Indicators in Namibia



Health as % of GDP	8.85%
Annual total health expenditure (%)	11.4%
$ health expenditure per person	USD $403

No. doctors/ 1000 population	0.37
No. nurses/ 1000 population	2.8

% births with skilled attendance	80.3%
Infant mortality rate	31.8 per 1000

Under 5 mortality-rate	44.2 per 1000
Maternal Mortality Rate	195 per 100,000 live births

Average Life Expectancy	63.4 years

Healthcare in Namibia – Disease Profile

HIV/AIDS Prevalence – 11.8%

Deaths from HIV/AIDS – 2700 (2017)

The total HIV/AIDS expenditure from government was only 13% of THE in 2016-17 that was 44% of total contribution to HIV/AIDS.

Rest was contributed by donors (PEPFAR, UNAIDS).

The burden of NCD is slowly increasing.

Chronic diseases like Ischemic heart disease, stroke and diabetes were among 10 leading cause of mortality and morbidity.

Health Financing in Namibia

- **The total health expenditure allocated for year 2019-20 is allocated N$6.8 billion or 11.4 percent of the total non-statutory budget of N$60.1 billion.**

Revenue Collection

75 % of it's THE is financed from domestic funds.

Govt contributes 54%, employers 11% and employees 16% of THE.

OOP expenditure 11%

Donor funding 8%

Pooling of Resources

Two schemes-

1.Medical Aid Scheme

2.Public sector employee and private medical aid scheme (PSEMAS).

Purchasing of Services

Govt. manages purchasing pf services.

70% spent on curative services.

Through PSEMAS user-fee- for service model, it purchases services who are directly recruited in contract mode.

Health Insurance

The Namibian health insurance industry is relatively well developed and primarily organized into medical aid funds that are either open or closed.

I. Closed funds limit membership to employees in a particular firm or industry.

II. Open medical aid fund "is optional, with employers usually providing some subsidy for premiums, a fringe benefit that is subject to individual income tax."

- There are total ten medical aid funds, six closed and four open MAF.
- Public Sector Employee Medical Aid Scheme fund is largest of all insuring 43 per cent of all insured.
- Overall, access to financial risk protection is limited, with only 19% of the population covered through some form of health insurance.

Tanzania

Tanzania Country Profile

Population

- Total Population - 54.2 million
- Rural vs Urban – 66:54
- Median age – 18 years
- 125 ethnic group
- Linguistically diverse

Government

- De facto One-Party System democracy
- Gained Independence from Britishers on December 9, 1961
- President – John Magufuli

Capital of Tanzania

Geography

- Total Area – 945,087 sq km
- Eastern side of Africa
- Bordered by Kenya, Zambia, Rwanda
- Flourished trade due to Indian Ocean

Economy

- GDP USD$ 62.2 Bn
- Economic Growth rate 6.8%
- Gini Index 40.5 HDI – 0.528
- Agrarian Country – 77%employment
- Gold, Diamond Kaolin and gypsum mining.

Policy Environment

The healthcare policy reforms in Tanzania have come a long way since the 70's.

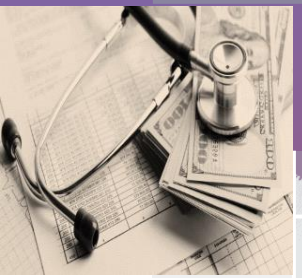
In 1977 government banned **private for-profit** clinical practice.

1991, owing to **liberalization** this decision was **revoked** along with introduction of user fee system.

Every five years a **Health Sector Strategic Plan** is released by **MoHSW** that outlines targets and goals to be achieved.

NHP 2017 in lines of HSSP IV 2015-20 highlights need to quality services and applying **evidence-based interventions** through **intersectoral coordination**.

Health Indicators in Tanzania



Health as % of GDP	3.5%
Annual total health expenditure (%)	5.9%
$ health expenditure per person	USD $827

No. doctors/ 1000 population	0.04
No. nurses/ 1000 population	2.8

% births with skilled attendance	80.3%
Infant mortality rate	37.6 per 1000

Under 5 mortality-rate	53 per 1000
Maternal Mortality Rate	576 per 100,000 live births

Average Life Expectancy	63.9 years

Healthcare in Tanzania – Disease Profile

HIV/AIDS Prevalence – 4.6%

Deaths from HIV/AIDS – 18.42%

Deaths due to chronic disease – 26.83%

The burden of NCD is slowly increasing.

Among NCD's Cancer followed by ischemic heart disease stroke and sepsis are leading cause of mortality.

Healthcare in Tanzania
Health Financing

- Health spending by government has remained at an average of 7%.
- In 2019/20, 5.9% of the total government budget i.e., $0.84 billion was allocated for health sector

Health Basket Mechanism – Launched in 1999

A pooling mechanism to achieve sector wide approach

Funded by six main donors- Canada, Ireland, Switzerland,. UNICEF,UNFPA, and World Bank.

Pooling- plans to introduce a Social National Health Insurance Scheme

Premiums will be collected by National Health Insurance fund.

It will be Compulsory scheme.

Revenue collection is done from existing community Health Funds regulated by Ministry of Health.
Purchasing of services is done at central level with major spending on procurement of drugs and salaries. Less investment on Infrastructure.

Health Insurance

- Coverage – 34 % of Tanzanian have an insurance coverage.
- 8 % are members of NHIF (National Health Insurance Fund), 25 percent are members of Community Health Fund (CHF), while 1 % members of private health insurance companies.
- There are many insurance schemes available targeting either the employed formal sector or the vulnerable population like children, mothers and poor.
- A myriad of schemes fail to cover larger proportion of population.
- Hence, government has planned to introduce a Single National Health Insurance Scheme.
- SNHI will cover formal and Informal sector.
- Formal sector employ will contribute 6% of their total salary.

Ghana

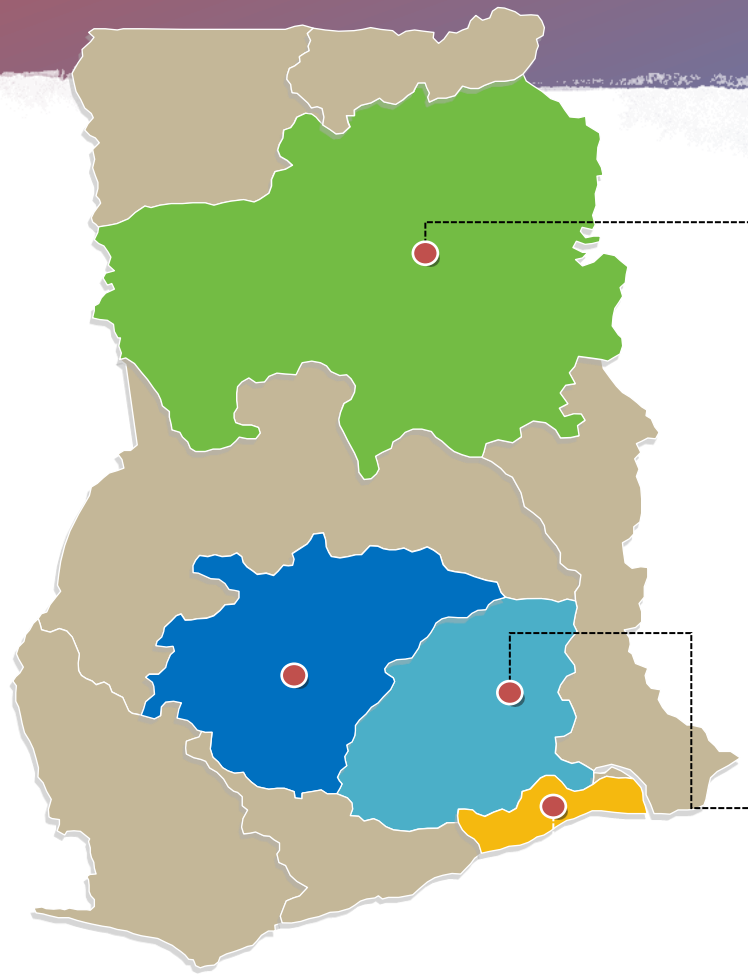
Ghana Country Profile

Population

- Total Population 30.95 million
- Rural vs Urban – 43.3% : 56.7%
- Median Age – 25 years
- Official Language – English
- Major Ethic group – Akan, MoleDaangme

Government

- Multi-party Democracy
- First sub-Saharan country to gain independence from colonial rule.
- President – Mr. Nana Akufo Addo



Geography

- Located in Western Africa
- Home to Lake Volta – World's largest artificial Lake.
- Population concentrated in southern part of country.

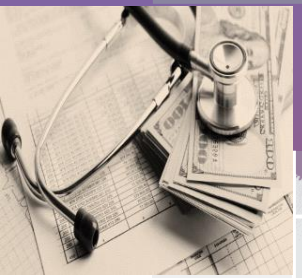
Economy

- A UMIC, Oil is major driver of economy
- GDP – 66.07 Bn
- Economic Growth – 6.7%
- Gini Index - 43.6 HDI – 0.59
- Unemployment – 6.7%
- Major producer of Cocoa

Ghana
Policy Environment

- Progressive policy environment.
- From providing free healthcare to all to introducing a cash and carry system that was later revoked in order to achieve UHC Ghana's policies have always been health committed.
- Pioneer in introducing a National Health Insurance Scheme that dates to 2003.
- To monitor the progress, ministry releases a report every four year by name of Medium-Term Development Plan.
- Aim is identifying the key partners, ensuring quality and monitoring the progress of services delivered.

Health Indicators in Ghana



Health as % of GDP	3.26%
Annual total health expenditure (%)	8.0%
$ health expenditure per person	USD $90

No. doctors/ 1000 population	0.12
No. nurses/ 1000 population	1.25

% births with skilled attendance	78%
Infant mortality rate	8.36 per 1000

Under 5 mortality-rate	47.9 per 1000
Maternal Mortality Rate	147 per 100,000 live births

Average Life Expectancy	63.2 years

Healthcare in Ghana
Disease Profile

- HIV/AIDS prevalence – 2.10%
- Major cause of mortality – Malaria followed by LRTI, Neonatal disorders, Ischemic Heart diseas and Stroke.
- HIV is the 6th leading cause of death unlike its other comparators.
- Communicable disease like Tuberculosis and Diarrhea are also less prevalent.

Healthcare in Ghana
Health Financing

- For 2018, a total amount of GHS4.4bn (USD913mn) was allocated towards the healthcare sector in the state budget, highlighting its commitment to increasing investments into the sector.

Pooling – Resources are pooled in form of taxes collected by govt.

Formal sector pay direct taxes of 5% of their total income.

Collected taxes pooled into Social Security organization

The National Health insurance scheme collects premium based on income.

The rates range from 0% for income less than GH¢180 to 28% for income exceeding GH¢720.

This constitutes 5% of Total health expenditure.

Revenue collection is monitored by NHIS that relies on a diverse set of progressive funding sources.

It has a demand side financing of health

Health Insurance

- Ghana renewed its commitment to Universal Health Coverage in 2003 through the passage of the National Health Insurance Scheme (NHIS).
- 40% of Ghanaian population (i.e. 10.5 million) are covered under NHIS.

- The NHI Act established three main health insurance schemes:

1. District Mutual Health Insurance Schemes
2. Private Mutual Health Insurance Schemes
3. Private Commercial Health Insurance Schemes

The NHIS collects funds in form of value added tax of 2.5% and premiums, paid by both formal and informal sector employees.

All enrolled, except for core poor, pregnant women and children below 5 years, pay a registration fee and wait for 3 months before accessing services.

Analysis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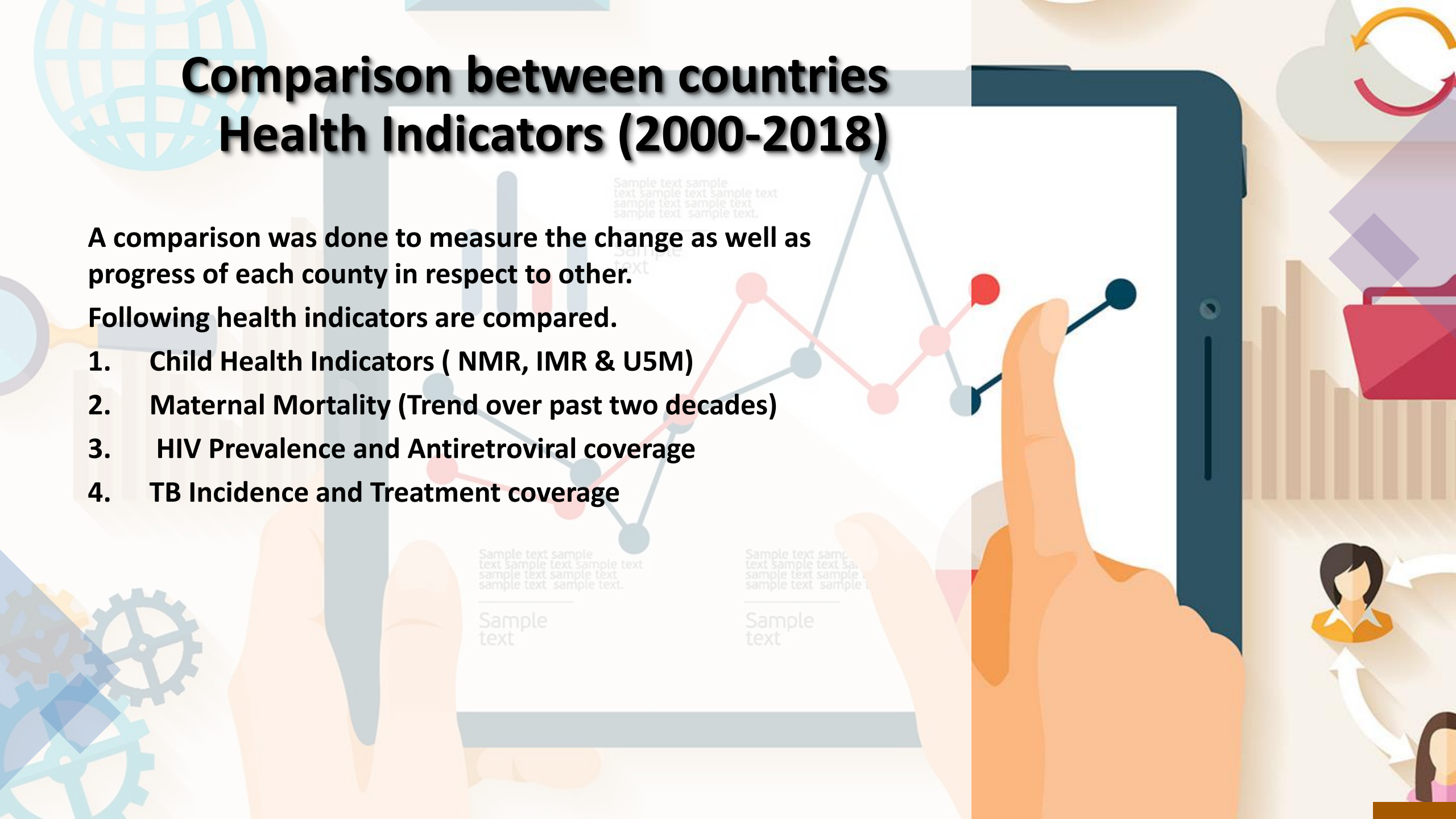
Comparison between countries Health Indicators (2000-2018)

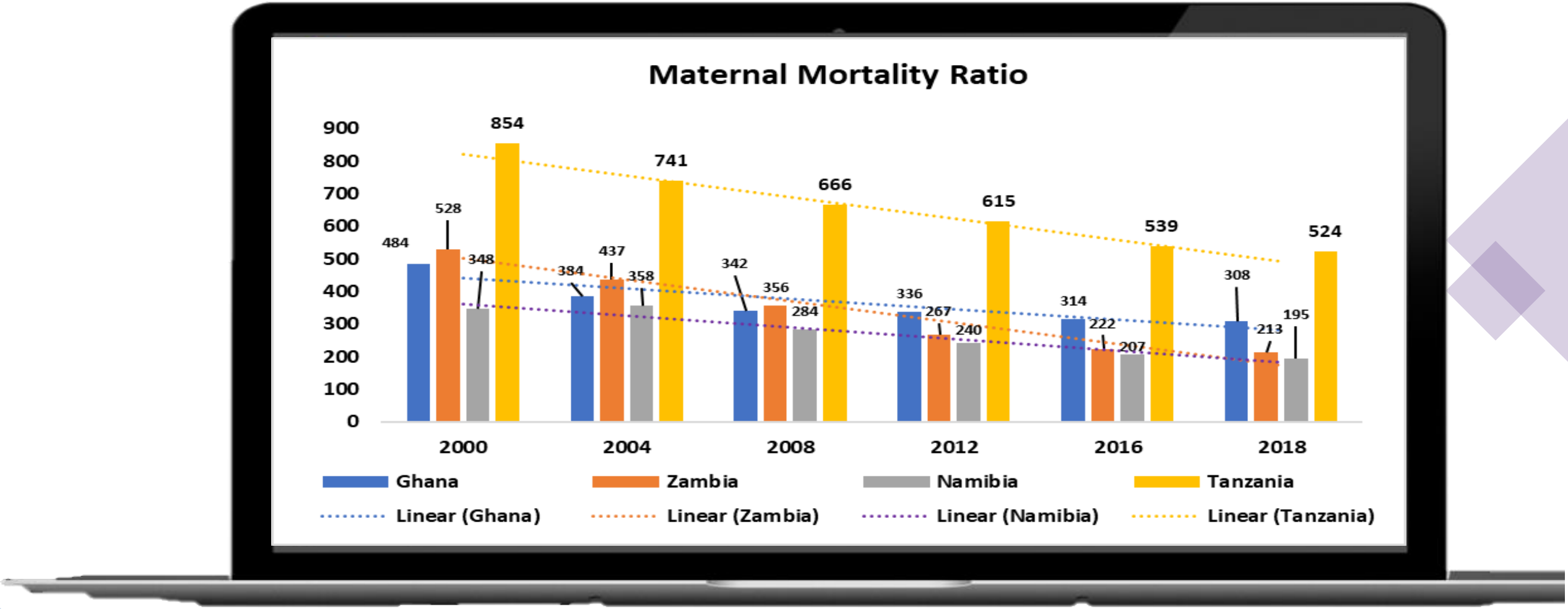
A comparison was done to measure the change as well as progress of each county in respect to other.

Following health indicators are compared.

1. Child Health Indicators (NMR, IMR & U5M)
2. Maternal Mortality (Trend over past two decades)
3. HIV Prevalence and Antiretroviral coverage
4. TB Incidence and Treatment coverage



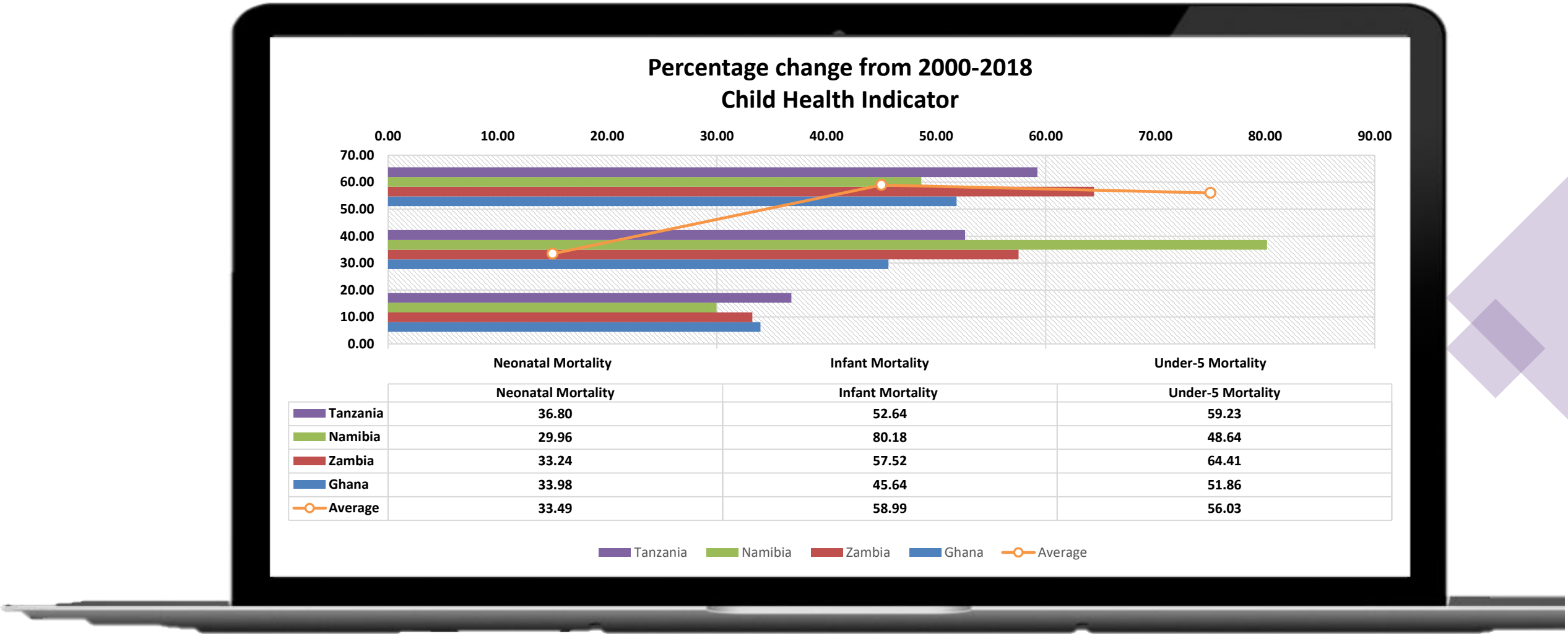
Trend Analysis of Maternal Mortality Ratio



Inference:

Trends in Maternal mortality ratio (MMR) have also shown a linear regression. Though the MMR for Tanzania still remains high, it has shown a sharp decline from 854 maternal deaths per 100,000 in 2000 to 524 maternal deaths per 100,000 in 2018. Amongst the four countries, Namibia leads the race towards achieving SDG 3.1 target of reducing MMR to 70.

Percentage change in Child Health Indicators (2000-2018)

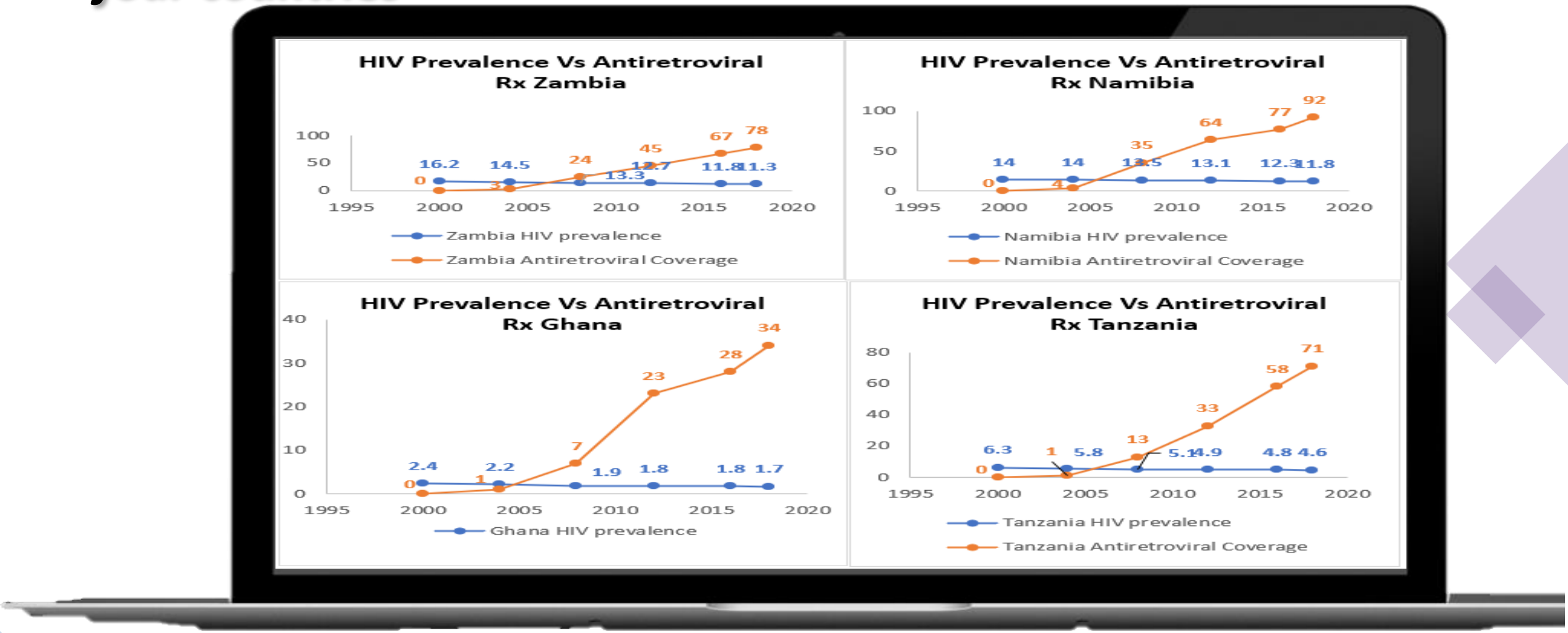


	Neonatal Mortality	Infant Mortality	Under-5 Mortality
Tanzania	36.80	52.64	59.23
Namibia	29.96	80.18	48.64
Zambia	33.24	57.52	64.41
Ghana	33.98	45.64	51.86
Average	33.49	58.99	56.03

Inference:

The mean change for neonatal mortality between Ghana, Zambia, Namibia and Tanzania remained 34% while that for infant mortality rate (IMR) and under-5 mortality rate (U5M) were 59% and 63% respectively. Namibia showed a significant 80% reduction in IMR and the percentage reduction of U-5M for Zambia was the highest when compared to rest. Reduction in NMR for all remained below 40%.

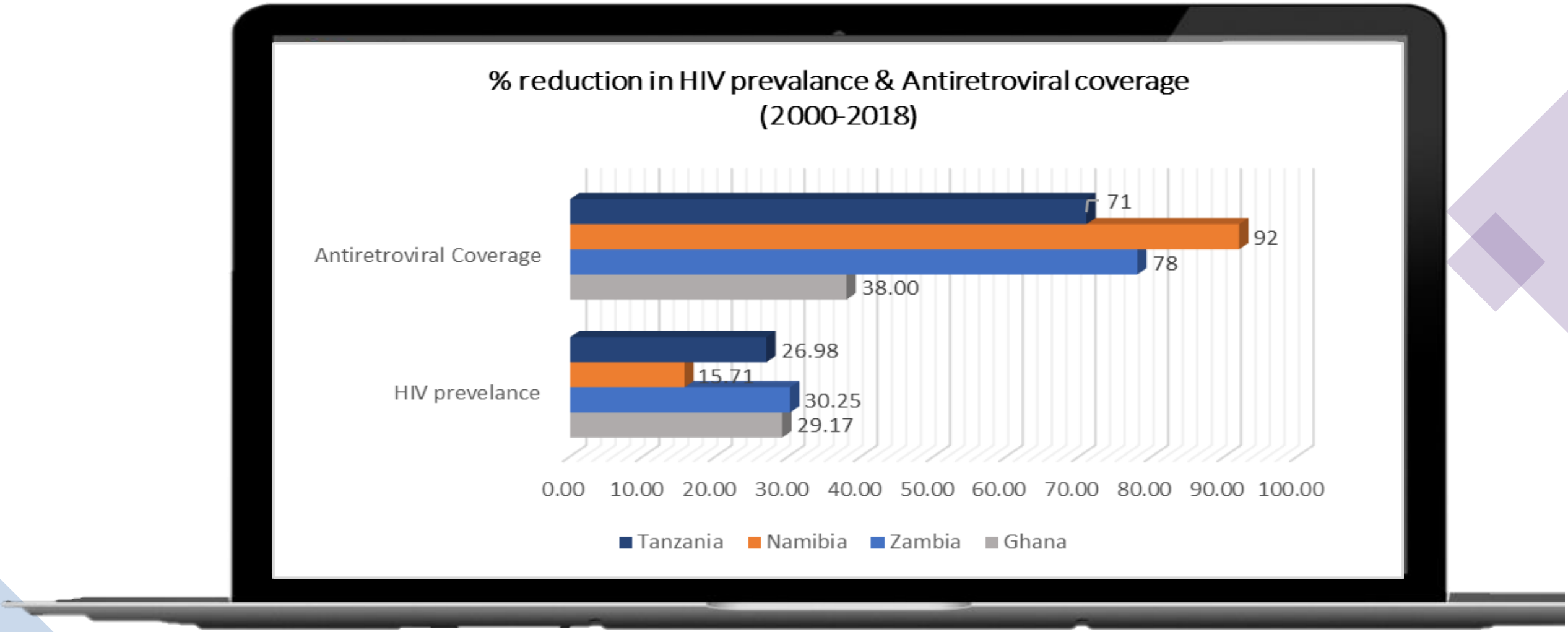
Trend Analysis of HIV prevalence and Antiretroviral Treatment of four countries



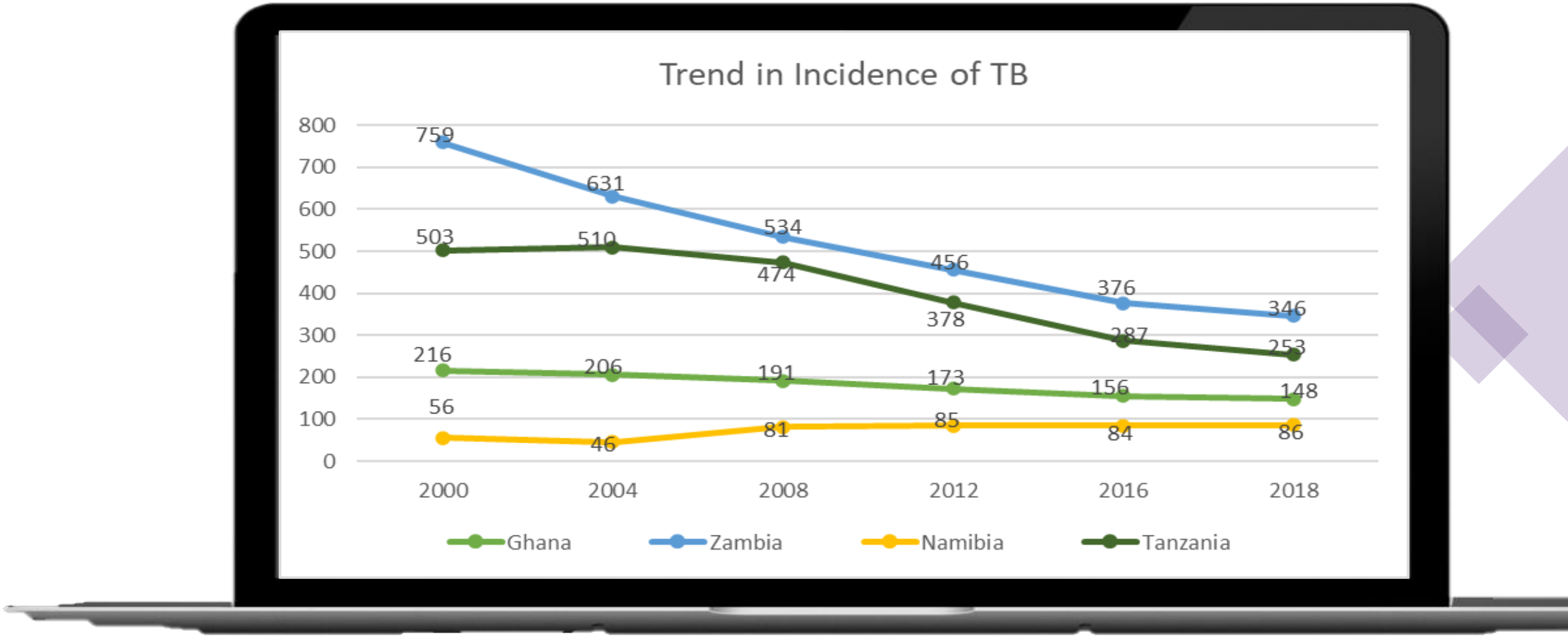
Inference:

Zambia has shown maximum reduction in HIV prevalence from 16.2% to 11.3% in 2018 (% change of 30%). Namibia on otherhand also has shown significant reduction in prevalence it's Antiretroviral coverage has crossed the mark of 90%. Countries like Tanzania and Ghana had lower incidence of HIV/AIDS as compared to these two.

Percentage reduction in HIV prevalence and increase in Antiretroviral coverage



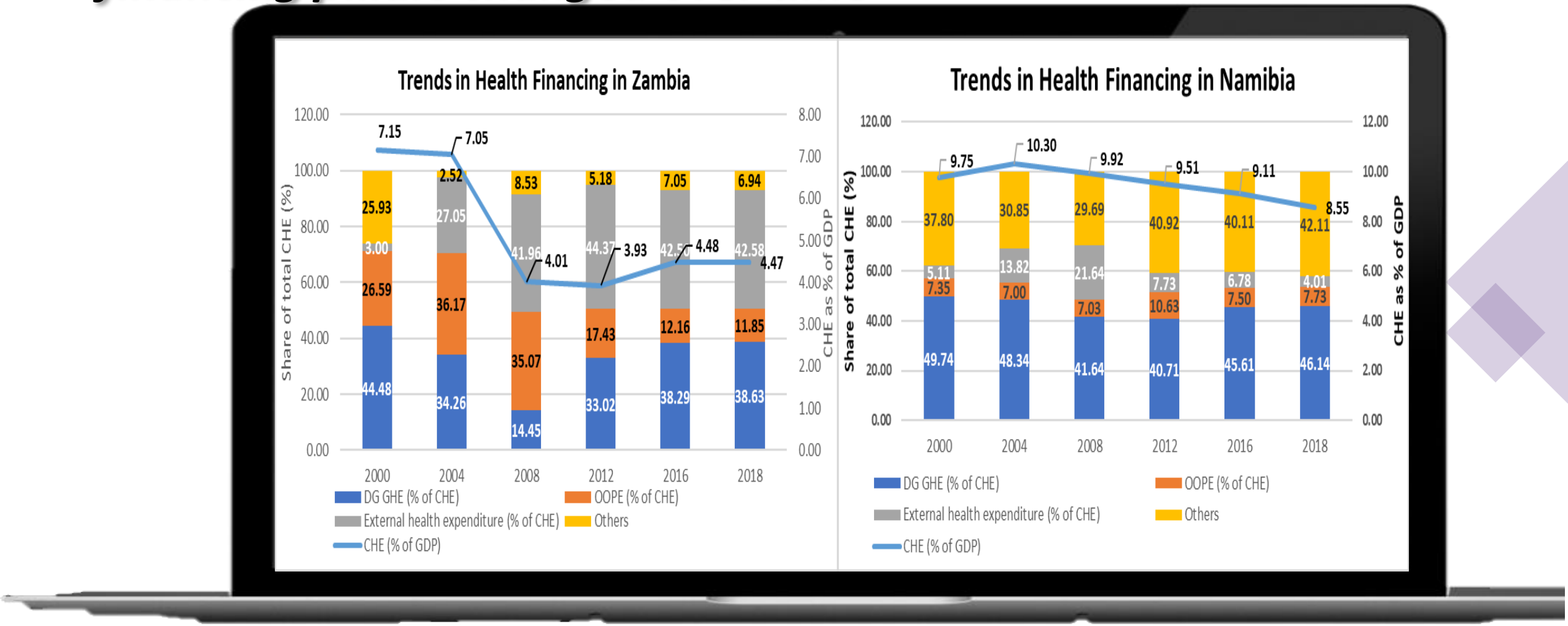
Trend Analysis of Tuberculosis Incidence 2000-18



Inference:

Amongst infectious diseases, TB burden has remained high. With TB treatment coverage programs in such countries, there has bee a drop in incidence rate over last two decades. Zambia, has been quite successful in tackling the new case incidence of TB.

A Trend Analysis of respective country was done to track how financing pillars changed over time

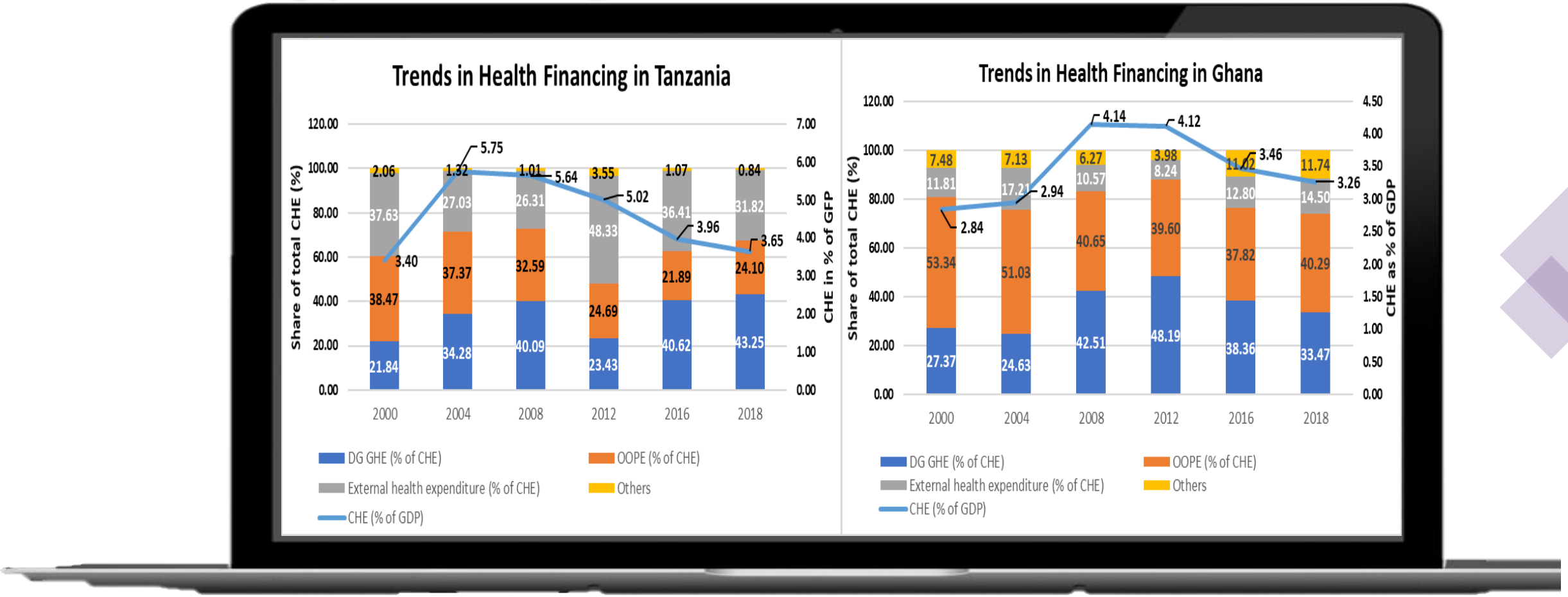


Inference:

Zambia, donor's contribution increased linearly from 2008 and on same side government tried to contribute 40% of their revenues in total CHE.

In Namibia, the domestic government contribution to general health expenditure have remained almost same, with the private contributions (in form of either private insurance or other agencies) increasing linearly from 29.69% in 2008 to 42% in 2018.

A Trend Analysis of respective country was done to track how financing pillars changed over time.



Inference:

Tanzania has a mixed financing approach, where government has co-dependent relation with external financing. Whenever donor contribution increase govt decrease. Private agencies played a little to minimum role. OOPE was still high.

Ghana, is a country where a mandatory insurance exists, still OOPE exists that are direct or indirect form (taxes/premiums). Donor contribution is extremely low as compared to other countries and health expenditure is also just 3.26% of GDP.

Findings

- Universal Health Coverage is a continuous process that requires long term commitments towards achieving the set goals.
- My research suggested that there was a strong relation between financial protection and total health expenditure on improvement of health indicators of a country.
- But unfortunately there is a huge gap in the financial protection mechanism of these countries as they are majorly focused on the employee section of the society leaving the poor and vulnerable section of the society exposed.
- Moreover, as the health facilities are majorly concentrated in the urban areas that constitutes only 30% of the nation's population, those covered under any kind of financial protection schemes remain prone to increased out of pocket expenditures.
- Also, since countries rely heavily on donors for funding, any form of withdrawal of their support cripples the health sector.

Findings

- For achieving UHC it is important to understand how the financial health systems that protects individuals and households from catastrophic health expenditure operates in context to different economies.

- For this it was important to understand the macro-economic context of a country before understanding financial protection environment.

- The average GDP growth rate of these countries was 4.25% (3.36-6.8) and poverty levels were as high as 41%. It should also be observed that almost 62% population lived in rural areas and major driver of economy was agriculture or mining with 86% of population eligible for working (Median age 21 years)

- The spending by government in form of tax revenues and share of health insurance are other two important factors for financial risk protection.

- All these countries had some for of community-based health insurance scheme with varying percentage of population coverage.

Findings

- Ghana has the highest insurance coverage of 40% but still the OOPE's contributes 41% of total health expenditure. This was due to many reasons (Indirect expenses from travelling, drugs and diagnostics and for working class in form of premiums).
- Approach to introduce a mandatory insurance scheme was launched by Zambia in 2019 and Namibia and Tanzania are also on their way towards a single national health insurance scheme.
- The challenge with that is of population coverage and equity.
- Private Health insurance market penetration was low in countries except Namibia.
- An association was also found between health expenditure as percentage of GDP and decrease in OOP expenditure.

Recommendation

1. Governments should focus on providing an equitable financial protection mechanism
2. Health should hold an important position in budget allocation.
3. National health insurance scheme or a single insurance scheme with predefined pre-payment criteria covering entire population are crucial for financial protection.
4. Health infrastructure should be distributed equally and an increase in health workforce a priority of government.
5. Involvement of private sector in providing insurance has shown a significant reduction in OOP expenditure for example in case of Namibia, hence government should involve private sector or come in some form of agreement for PPP mode.
6. All the sections of the societies should be taken into considerations for Universal Health Coverage.

Conclusion

- **As we move forward, a plan for equitable distribution of healthcare services (infrastructure and HR) and risk protection where total expenditure on health becomes a priority should be constituted by the government for each and every sections of the society to achieve complete Universal Health Coverage.**


Thank You
For your Patience