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Health Expenditure and Life expectancy in Côte d'Ivoire versus the other ECOWAS states: 2004-2014 data analysis.

Abstract:

Healthcare cost is an important issue for all countries regardless of their level of wealth. In African countries, the challenge is to increase funding for health, optimizing it, with the objective of solidarity health in an equitable system. Thus, the African Union countries met and pledged to set a target of allocating at least 15% of their annual budget to improve the health sector and urged donor countries to scale up support. In this comparative panel study, our aims and objectives were to examine and compare trend of health expenditure, life expectancy at birth in Côte d'Ivoire versus the other Economic Community of West African States (ECOWAS) from 2010 to 2014.Data were collected from World Bank database: per capita Gross Domestic Product (GDP) health expenditure per capita, public and private health expenditure, total health expenditure and life expectancy were compared among the selected counties. Total health expenditure, private and public expenditure. However, with one of the highest per capita Gross Domestic Product and health expenditure in ECOWAS, life expectancy at birth was one of the lowest. Additional research is needed to investigate associations between health expenditures and health outcomes in Côte d'Ivoire. This research will help decisions makers; health professionals who need evidence on how to manage and regulate health spending to achieve better health outcomes.

Keys words: health expenditure, life expectancy, health system, Côte d'Ivoire, ECOWAS

1. Introduction:

Healthcare costs is an issue of concern to all countries regardless of their level of wealth, and the development of the right to health has created a population that demands more and better health services¹. Therefore, the issue of providing adequate funds for health remains fundamental for all health systems, so that nowadays, one of the challenges is to obtain the maximum possible results from the resources invested.

In addition, the rapid and rising growth of healthcare expenditures has created great concern for the governments and people around the world and has become one of the main concerns of managers and decision-makers in health system^{2,3}.

However, in many countries, health expenditure is below the critical threshold for the provision of a series of basic health services⁴. While in developed countries the challenge is to ensure that health expenditure does not increase with ageing of the population and the rising costs as a result of the technological progress; in African Countries it is rather a question of increasing funding for health, optimizing it, with the objective of solidarity health in an equitable system⁴.

In April 2001, the African Union countries met and pledged to set a target of allocating at least 15% of their annual budget to improve the health sector and urged donor countries to scale up support⁵. These commitments were in Gaborone in 2005, Ouagadougou in 2006 and Bamako in 2008. Ten years later, only one African country reached this target. Twenty-six countries had increased the proportion of government expenditures allocated to health and 11 had reduced it. In the remaining nine countries there was no obvious trend up or down⁵.

In 2009, among the countries of the Economic Community West African States (ECOWAS), Côte d'Ivoire was one of the countries to have made progress since Abuja 2001⁵. As many African countries, as many countries in ECOWAS, the Ivorian health system faces a burden of disease such as malaria, are malaria, respiratory tract infections, diarrhea, intestinal worms, HIV/AIDS, anemia and malnutrition; poor health indicators, human resource crisis⁶.

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Considering the above mentioned points, and the fact that health spending and health indicator are linked. We conducted this study in order to examine health care expenditure and life expectancy at birth in Côte d'Ivoire versus the other ECOWAS.

2. Methods:

This retrospective and comparative panel study investigated health expenditures and life expectancy at birth trends in Côte d'Ivoire versus ECOWAS countries from 2010 to 2014.

ECOWAS is made up of fifteen member countries that are located in the western African region. These countries have both cultural and geopolitical ties and shared common economic interest. ECOWAS including the following fifteen states: Benin, Burkina Faso, Cape Verde, Côte d'Ivoire, the Gambia, Ghana, Guinea, Guinea Bissau, Liberia, Mali, Niger, Nigeria, Senegal, Sierra Leone, Togo.

As regards, variables of the current study, they were selected according to the literature reviews and field investigations, and they included: per capita Gross Domestic Product (GDP) total health expenditure as a share of GDP, health expenditure per capita as a share of GDP, private and public health expenditure as a percent of total health expenditures, per capita GDP and life expectancy at birth. Variables have been adjusted based on purchasing power parity (PPP)^{7,8,9}. Data have been collected according to the World Bank. The World Bank publishes a report about economic performance of countries, and the collected data are available in the World Bank¹⁰.

After determining the variables and collecting data, we compared the trends of health expenditures in Côte d'Ivoire and the other ECOWAS countries to identify similarities and differences between health expenditures and life expectancy.

3. Results:

3.1. Change in total expenditure on health as a share of GDP from 2010 to 2014

As displays in Figure 1, the ECOWAS states knew an irregular variation of their total health expenditure from 2010 to 2011. In Côte d'Ivoire, total health expenditures increased by 1.58% from 2010 to 2011, and then fell between 2011 and 2013 with a negative value; before increasing from 2013 to 2014. Nonetheless Côte d'Ivoire was below the ECOWAS average.

3.2. Total health expenditures as a share of GDP from 2010 to 2014

Figure 2 shows that Côte d'Ivoire spent less than 6% of GDP on health, over the four years which was below the ECOWAS average. Sierra Leone, followed by Liberia spent more than 9% of their GDP over the four years and got the higher total health expenditures.

3.4. Private and public expenditure as a percent of total health expenditure

As displays in figure 3, in 2014, the share of public expenditure as a percentage of total health expenditure in Côte d'Ivoire (29%) was below the average of the ECOWAS countries (39%). In Cape Verde and the Gambia, public health expenditure accounted for more than 65% of the total health expenditure. In Sierra Leone, public spending represented only 17% of total health expenditure.

Figure 3 also shows that private spending was higher in Mali, Nigeria, Liberia, Côte d'Ivoire, Sierra Leone and Guinea Bissau compared with ECOWAS average.

3.5. Change in health expenditure per capita as a share of GDP, 2010-2014

As displays in Table I, in 2010 and 2014, Côte d'Ivoire ranked third after Cape Verde and Nigeria in terms of per capita health expenditure with 78.2\$ and 88.3\$ respectively. Per capita health expenditure in Côte d'Ivoire was above the ECOWAS average. Over the two years, the lowest per capita health expenditure was registered in Niger and the highest in Cape Verde with values above 150\$. In Côte d'Ivoire, per capita health expenditure increased with a percentage of 13.1%: Only Guinea and to a lesser extent Nigeria have seen their per capita health spending doubled in four years.

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3.6.Health spending per capita and life expectancy at birth, 2014

As demonstrated in figure 4, in 2014 Côte d'Ivoire with a per capita GDP of \$3218, spent \$88.38 per capita on health, with a life expectancy around 53.8 years; about 6 years less than the ECOWAS average (59.7 years). Cape Verde had the highest life expectancy (72.25%), followed by Senegal (66.7 years). The lowest life expectancy was registered in Sierra Leone which occupied the last rank after Côte d'Ivoire and Nigeria.

4. Discussion:

Health, factor of development, is an important issue for African countries. Therefore, health system performance must be a priority for governments⁴. A well-functioning health system must be able to meet the demands of users while being cost effective and equally accessible. This health system must be organized in such a way as to ensure that healthcare costs are managed and regulated.

This study was conducted to examine and compare trend of total health expenditure (private, public) as a share of GDP, health expenditure per capita, GDP per capita and life expectancy at birth in Côte d'Ivoire versus the other ECOWAS states from 2010 to 2014; life expectancy.

4.1. An irregular growth rate of total health expenditure in Côte d'Ivoire from 2010 to 2014:

The growth rate of health expenditure in Côte d'Ivoire from 2010 to 2014 did not show a regular and steady trend. For instance, the growth of rate was more positive in 2012, then decreased in the next year; and even still negative until 2014.

In terms of total health expenditure as a share of GDP and public expenditure as a percent of total health expenditure, Côte d'Ivoire was below the ECOWAS average. However, it is important to highlight the disparities between the countries. The countries with the higher total health expenditure are mostly English speaking countries.

The decrease in the share of GDP allocated to health in Côte d'Ivoire could be explained by the reduction of pharmaceuticals spending with the promotion of generics medicines could explain this decrease. Indeed, in many countries, medicines which account for a share of public spending are the target of health expenditures control policies¹². Another explanation to this decrease could be the implementation of free healthcare in public health facilities since 2011. Indeed, Since April 2011, the State has guaranteed treatment free of charge in the public and community healthcare establishments for a cost of 27 billion CFA francs (US\$ 50.715.900). This sum has supplied the public health pharmacy (PSP) with drugs and strategic supplies, paid the wages of healthcare staff in community-based establishments, and settled bills for treatment in all the public healthcare establishments ¹³. However some studies have shown that some form of free care, or subsidized care, while increasing utilization, may not reduce health spending¹⁴ and may actually increase financial risk¹⁵.

4.2. Increasing of health expenditure per capita from 2010 to 2014:

Our study showed, in Côte d'Ivoire an increase of per capita health expenditure from 2010 to 2014 with value above US\$34. Indeed, the WHO Commission on Macroeconmics and Health estimates that the health expenditure per capita must average US\$34 per capita per year to cover the range of essential interventions, including those related to AIDS pandemic. This is a very small amount compared with health per capita in high income countries. Indeed, in these countries, in average, spend with more than US\$2000 per capita per year¹³.

Even though, some of the ECOWAS states have reached US\$34 like Côte d'Ivoire, or more like Nigeria and Cape Verde which spent more than US\$100 per capita. Niger was still far away with less than US\$25.

4.3. Life expectancy at birth increasing but still below the ECOWAS average:

Life expectancy at birth is one the commonly used as health status indicators for measuring the health status of a population¹⁶. Many studies have shown the link between life expectancy at birth, health expenditure per capita. Higher per

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capita GDP and per capita health expenditures are generally associated with longer life expectancy at birth; although this correlation tends to be lower in countries with highest per capita health expenditure¹⁷.

Our findings revealed a that Côte d'Ivoire got a life expectancy of 53.1 years, which is one of the lowest after Sierra Leone and Nigeria.. Moreover, Senegal and the Gambia got a higher life expectancy, while Côte d'Ivoire and Nigeria had a lower life expectancy than their health expenditure per capita would suggest.

Variations in life expectancy from a country to another can be explained by many factors beyond health expenditures per capita and per capita GDP. The low increase in life expectancy observed in Côte d'Ivoire at birth can be attributed to lack of health services accessibility and utilization, education, improved lifestyle. In 2007, only 44% of the population lived within 5 kilometers of a sanitary institution of first contact, 27% between¹⁶ and 15 km, and 29% were forced to travel more than 15 km to access a health facility¹⁸. The 2012 Demographic and Health Survey indicated that 60% of women in the poorest quintile mentioned distance to health services as a major barrier to maternity care, compared to 25% for women in the wealthiest quintile. Additionally, nearly 75% of women in the wealthiest quintile indicated that a lack of money was a major barrier to maternity care, compared to 55% of women in the wealthiest quintile¹⁹.

5. Conclusion:

According to the findings of the present study, total health expenditure, private and public expenditure in Côte d'Ivoire were among the lowest, just below the ECOWAS average in contrast to per capita health expenditure. However, with one of the highest per capita GDP and health expenditure in ECOWAS, life expectancy at birth was one of the lowest. Financial investments in public health have the potential to improve community health; therefore additional research is needed to investigate associations between health expenditures and health outcomes in Côte d'Ivoire. This research will help decisions makers; health professionals who need evidence on how to manage and regulate health spending to achieve better health outcomes.

6. Acknowledgements:

We thank our colleague from the Directorate-General for Health who provided insight and expertise that greatly assisted the research

7. Conflict of interest:

The authors declare that there is no conflict of interests regarding the publication of this paper.

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Authors & Affiliation

- 1. Kadidiatou Raissa KOUROUMA (KOUROUMA KR)*: Researcher at National Public Health Institute of Côte d'Ivoire, Centre for Population, Policy and Health System Research. BPV 47 Abidjan Côte d'Ivoire.
- 2. Appolinaire YAPI (YAPI A): Researcher at National Public Health Institute of Côte d'Ivoire Centre for Population, Policy and Health System Research, BPV 47 Abidjan Côte d'Ivoire.
- 3. Sagou Patrick Olivier YAYO (YAYO SPO): Researcher at National Public Health Institute of Côte d'Ivoire Centre for Population, Policy and Health System Research. BPV 47 Abidjan Côte d'Ivoire.
- 4. Ladji Kalifa DOUMBIA (DOUMBIA LK): Pharmacist of Public Health at Directorate-General for Health of Côte d'Ivoire.