

Analysis of the Determinants and Drivers Life Expectancy in North Africa

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ABSTRACT

This paper empirically investigated the drivers of life expectancy in North Africa using secondary data from World Development Indicators (WDI) for the period between 1985 and 2018. The study utilized a Panel Fixed Effect Least Square Dummy Variable Regression model. The result revealed that carbon (iv) oxide emissions per capita, total fertility rate, old-age dependency ratio, infant mortality rate significantly affect life expectancy in North Africa and real per capita gross national income is insignificant. The study recommended that the governments in this sub-region should adequately formulate and implement policy blueprints to improve health outcomes (life expectancy, infant and child mortality rates) and provide adequate social protection measures for the elderly so as to reduce the financial burden on the working population.

Keywords: Life Expectancy, health outcomes, infant and child mortality rates

JEL Classification: H51, I14, I15

1. INTRODUCTION

Africa is the second largest continent in the world in relation to population. However, the continent is riddled with dismal health outcomes such as high mortality rate, rising infant mortality rate (IMR), high under-five mortality rate (U5MR) and low life expectancy (Orji, Ogbuabor, Mba, and Anthony-Orji, 2021). Although the different regions of the continent have at various points, made giant strides aimed at economic growth and development so as to enhance the quality of life of its teeming populace. This study aims to investigate the drivers of life expectancy of specific countries in the North African region based on population size and they include: Egypt, Algeria Sudan, Morocco and Tunisia. It is noteworthy that Africa comprises five sub-regions which include North Africa,

Central Africa, West Africa, East Africa and Southern Africa.

Arguably, North Africa has the most impressive estimates of life expectancy and other health outcomes as well as relatively high human development indices (HDI). Life expectancy measures the mean or average length of life of an individual given a prevalent age-specific death rate in a specific population for a given time period. Life expectancy can be interchangeably used with life expectancy at birth (LEB). Globally, life expectancy at birth- a statistical estimation of the number of years an infant would live if exposed to the same mortality trend over the course of its lifetime- averaged 73 years in 2019 (United Nations, Department of Economic and Social Affairs, Population Division, 2019). An improvement in life expectancy is an indication of socioeconomic progress made by a country but it is safe to say that significant variations exist among nations in different regions of the world for obvious reasons which may include, differences in level of development occasioned by institutional quality and government effectiveness. Comprehending the imperatives of life expectancy and its various drivers are both a necessary and sufficient conditions for policy formulation and implementation towards the attainment of sustainable development goals (SDG).

“Global Health and Well-Being” as a component of SDGs encapsulates specific targets whose achievement can impact positively on life expectancy. In 2015, the average life expectancy at birth in Africa where approximately 16% of the global population is domiciled, was 61 years old while in other regions of the globe where the remaining 84% of the global population lived, ranged from 70years and 80years. North Africa had the highest life expectancy which averaged 71years; East Africa had a life expectancy of approximately 62 years, Southern Africa had 61years, Central Africa’s life expectancy was 58years while Western Africa had the least average of 55years.

According to UNDESA (2019), in 2019, North Africa also had the highest life expectancy at birth of 72years; East Africa was 64years, Southern Africa’s life expectancy at birth was 63years, Central Africa had an average of 59 years and West Africa also had the least which averaged 57 years, though the overall average life expectancy at birth in Africa was approximately 63 years representing an increase of 3%. These figures represent a considerable shortfall in life expectancy at birth in the continent in relation to other regions of the globe as well as the global average of 72years (UNDESA, 2019). Life expectancy at birth (LEB) just like other