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**GOVERNMENT HEALTH EXPENDITURE, EDUCATION AND UNDER-5 MORTALITY RATE IN
NIGERIA**

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Abstract

Given Nigeria's persistently poor health throughout the years, this research looked into the third Sustainable Development Goal (SDG-3), aimed at ensuring a healthy lifestyle and promoting the well-being of all people of all ages. Nigeria was the world's poorest performer in 2019, with a rate of 117.2 per 1000 live births. This study explored the extent to which government health expenditure in Nigeria has promoted health outcomes in the context of education level, based on existing theories that support the relevance of finance in promoting health outcomes. The time series between 1982-2019 were used in the study as a measure of health results, the study used the under-five mortality rate (U5MR). Other variables in this study include the primary school enrolment rate and federal government health spending throughout the period under consideration. The study uses a quantitative research method to describe and analyse the impacts of health expenditure and education on the under-5 death rate in Nigeria. A Co-integration econometric approach was employed on the Eviews-9 econometric package to evaluate the interactive effect of healthcare spending and education on the under-five mortality rate using Nigerian data. The analysis revealed that neither government spending nor education alone will be sufficient to reduce U5MR in Nigeria in the short run. According to the study, econometric and statistical models used to analyse health and other social issues should be developed to reflect reality.

Keywords: Education, Health, Government Expenditure, Under-5 Mortality Rate.

Introduction

The third Sustainable Development Goal (SDG-3) focuses on ensuring that all people of all ages lead healthy lives. In 2030, one of the main goals of this target is to reduce the under-five mortality rate to at least 25 per 1,000 live births. Half a decade into the pursuit of this target, global under-5 mortality stands at 37.7 per 1,000 (World Bank, 2021). Statistics available in the World Bank's Development Indicators (2021) show that Nigeria is the world's most underperforming country showing a figure of 117.2 per 1000 live births in 2019. Another disturbing fact from available statistics is that all the African countries that had worse performance than Nigeria in 1970 have improved tremendously. Cases worth mentioning are Malawi (from 341.3 in 1970 to

41.6 in 2019) and Senegal (287.9 in 1970 to 45.3 in 2019); while that of Nigeria declined from 281.4 in 1970 to 117.2 in 2019.

Finance in general, and government health expenditure in particular, has a favorable effect on health outcomes, according to both theoretical and empirical evidence. According to an analysis of general government health spending in 2018, Norway, the United States of America, and Botswana spent \$7029, \$5355, and \$374 per capita, respectively; the Nigerian government spent only \$12 per capita. Unexpectedly, health outcomes (U5MR) in these countries are 2.4 (Norway); 6.5 (United States), and 40.6 (Botswana). This correlation calls for an investigation to

ascertain the extent to which finance promotes health outcomes in a country.

Aside from income, other non-economic factors such as education also influence health outcomes as shown by both theories and empirical findings. Income and education are considered exogenous variables in empirical research that look at them as predictors of health outcomes. However, it is logical to reason that the level of education could influence the extent to which income promotes health outcomes. Thus, education could be regarded as an interactive variable or a moderator. That is the extent to which government spending on education reduces U5MR is contingent on the level of education.

According to the suggestion, the Nigerian government has assumed the responsibility to provide a good health care centre for its citizens by increasing healthcare allocation in an effort to demonstrate its commitment to the reformation of the health sector in its exemption from taxation.

Quality health care, according to WHO (2005), is a result of widespread economic growth and a means of avoiding poor health traps in poverty. The world has made great strides in the reduction of infant mortality in recent decades. In 2016, the number of children under five years of age deaths rose from 12.6 million in 1990 to 5.6 million in 2016-15,000 per day, down from 35 thousand in 1990. Furthermore, the world under-five mortality rate has declined by 56% to 41 deaths per 1,000 live births in 2016, compared to 93 deaths per 1,000 live births in 2015. 2.6 million babies died in 2016 worldwide, an average of seven thousand per day.

It should be noted that child survival differs by region and country. One in thirteen children in sub-Saharan Africa dies before the age of five. (Bello 2020). In high-income countries, it was found that the ratio was 1 out of 189. One new-born in 36 in sub-Saharan Africa dies in their first month, compared to one in three hundred and thirty-three in high-income countries around the world. (UNICEF,2017). If current trends persist, over 50 countries will fail to meet the SDG child survival target,

leading to the death of 60 million children under five years of age during the period 2017 to 2030.

In light of the foregoing, this study employs Nigeria as a case study in order to look at the impact of income and education, as well as their interaction, on health outcomes (under-5 mortality rate).

Literature Review

On the one hand, under-five mortality refers to the probability expressed in percentages per 1,000 live births of a child born in a given year before the age of five if present mortality rates by age are used. Nigeria continues to contribute significantly to the global under-five mortality rates. At 156.9 deaths per 1,000 live births, Nigeria has one of the world's highest under-five mortality rates. (ICF Macro and NPC, 2009). Furthermore, there is significant geographical variation in mortality trends for children under the age of five in Nigeria with the least rate of 89 per 1000 live births within the south-west and the most elevated rate of 222 per 1000 live births within the north-east. A number of components have been faulted for the enormous territorial dissimilarity.

Griffiths et al. (2004), who studied the multilevel comparison of the determinants of child dietary status utilizing DHS information from seven nations, counting Nigeria, emphasized the significance of person and household-level characteristics such as age, breastfeeding term, and child estimate at birth, as well as maternal instruction. Concurring to later discoveries, formal education, as well as wellbeing education, altogether increments child survival (Chirdan et al, 2008; Kravdal, 2004).

Anyamele's (2009) investigate of DHS information from a few Sub-Saharan African nations, counting Benin and Nigeria, affirmed Chirdan's (2018) discoveries that proficiency is emphatically related to child mortality. A few other considers on under-five mortality in Nigeria are basically hospital-based. A few ponders have been conducted to decide the effect of medicate utilize,

treatment, and hospitalization on the wellbeing results of children (Adeboye et al., 2010).

Bokhari et al. (2007), Gupta et al. (2002), and Cremieux et al. (2002) found solid positive connections between health investing and childhood mortality (1999). Other studies, such as Lawanson (2012), Anyanwu and Erhijakpor (2009), Murthy and Okunade (2009), have found that public wellbeing investing increments life expectancy and diminishes newborn child and under-five mortality rates. Mallaye and Yogo (2012) and Mishra and Newhouse (2009) found a positive relationship between health care aid and wellbeing results within the case of SSA. Within the case of SSA, for illustration, Lawanson (2012) inspected the impacts of public wellbeing investing on health outcomes such as newborn child mortality, under-five mortality, rough passing rate, and life anticipation. Utilizing board information from 45 SSA countries between 2003 and 2007, the researchers found that the relationship between public health uses and wellbeing results was negative for mortality rates but positive for life expectancy. They used two-stage least squares estimation and fixed effect estimation.

In a previous research, Anyanwu and Erhijakpor (2007) studied the impact of government health spending on two health outcome measures specifically under-five mortality and newborn child mortality rates, across African countries. They discovered that total and per capita public health spending in Africa had a significant impact on under-five and newborn child mortality using panel data and two-stage ordinary least squares estimation. According to their findings, a 10% increment in total health spending per capita decreased under-five and newborn child mortality by 21% and 22%, while a 10% increment in public health consumption per capita diminished under-five and newborn child mortality by 25% and 21%, respectively.

Bokhari et al. (2007) used under five mortality and maternal mortality as health outcome measures to gauge the relationship between health care spending, per capita income, and health results. Studies found elasticities for under-five mortality extending from -0.25 to -0.42 and

maternal mortality extending from -0.42 to -0.52 in connection to health-care spending.

One important element that impacts health status is income, and there is usually a strong connection between low income and hygienic poverty. According to studies, a decline in financial position resulted to a rise in the amount of disease and mortality in society. While distinctive criteria such as mortalities, serious diseases, degree of utilizing health administrations, and clinic admission are utilized to gauge a society's health status, the inverse association amongst underprivileged wellbeing and income level is valid, except in extreme situations. It is obvious that having an adequate income is a requirement for having access to other factors housing, diet, and education all play a role in defining one's health, and this issue takes on even more significance (Javadipo & Mojtahed, 2005).

Evidence suggests that the poor and their families suffer from higher rates of sickness, mortality, and injury than the general population. As a result, it is assumed that investing in poor societies' health is unavoidable. Furthermore, research shows that relative poverty, like abstract poverty, is linked to bad health, and studies demonstrating the link between (relative) poverty and health status have been conducted more frequently in industrialized countries. Because poverty prevents people from fully participating in economic and social activities, it appears that eliminating poverty is the best method to alleviate the negative effects of poverty on society's health (Byrne, 2003).

However, education offers individuals with the opportunity for employment and income in a different way, and this might have an impact on their health (Pedrick, 2001:22). According to Robinson's (1997) idea, a cohesive society is one in which individuals work together to achieve common goals, despite the fact that diversity and distinctions exist in the society. Strong social networks in neighborhoods and small groups appear to be able to provide circumstances for a better existence in a variety of ways (Robinson, 1997).

Methodology

This study hinges on Rajkumar and Swaroop's (2009) theoretical framework, which models the result of a public program, such as public health spending, as:

$$\text{Outcome} = \text{GEH}\alpha * \text{EDU}\beta \dots\dots\dots 1$$

where $\alpha > 0$; $\beta \geq 0$ (1)

GEH stands for government expenditure on health and EDU is primary school enrollment rate.

Statistics of health position, such as life prospect, new-born child mortality, or under-5 mortality rates, are examples of outcomes. According to Equation (1), the outcome (for instance, the under-5 mortality rate) does the following: (a) improves as government spending on health increases; (b) improves (or does not worsen) as education improves. Taking the logs of equation (1), we get the linear form of (1), which is shown in equation (2) below.

$$\ln \text{Outcome} = \alpha \ln \text{GEH} + \beta \ln \text{EDU} \dots\dots\dots 2$$

In order to model the connection between public expenditure and result as indicated in equation (2) above, an examiner would typically use spending data from public financial plan papers. Health-care spending input

does not automatically guarantee perfect health. The level of literacy is important for any government intervention.

According to Pritchett (1996), the coefficient of public expenditure on the p program in equation (2) is expressed as follows:

$$\alpha = \gamma(.) * \alpha p \dots\dots\dots 4$$

αp = signifies the efficiency of public investment generated by spending on program p.

Conceptual Framework

The effect of education in relations to the connection between government expenses and health outcomes needs to be investigated as few studies have examined this nexus. Many studies have examined the proximate factors that exist between the main socioeconomic determinants of health and their outcome. The proximate factors often employed are mediators. This study considers education as a moderator.

Thus, the role of government spending in promoting health outcomes is dependent on the level of education as presented below.

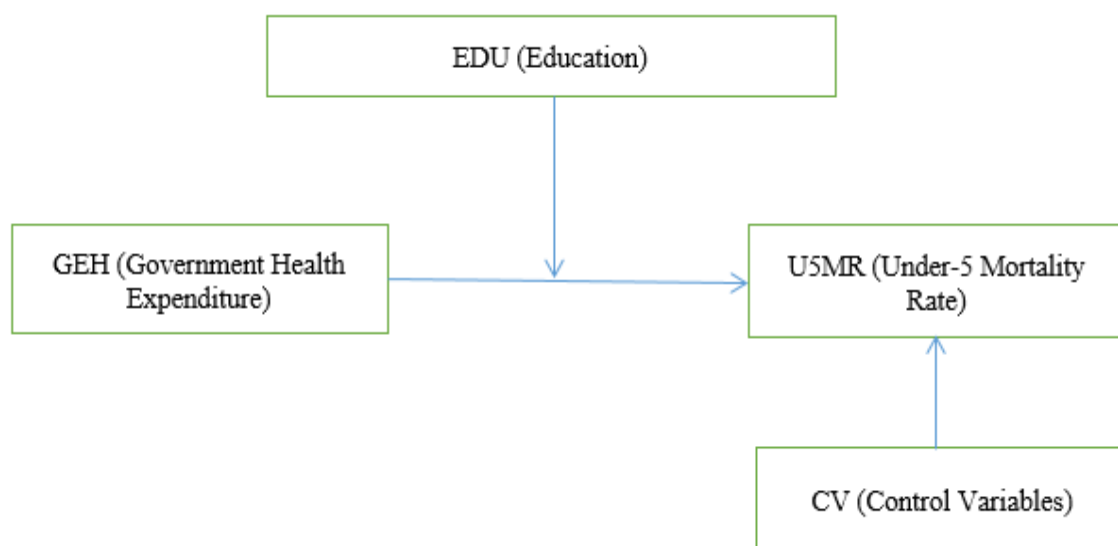


Figure 1: A Moderation Model of Government Spending, Education and Under-5 Mortality Rate.

A moderation model influences the magnitude, direction, or presence of a variable-to-variable link. It reveals who,

when, and under what circumstances a relationship will be successful. Moderators usually help you determine the

external validity of your study by pointing out the constraints of when a relationship between variables holds.

Figure 1 depicts a simple moderation model diagram illustrating the effect of GEH (Government Health Expenditure) on the outcome of U5MR (Under-5 Mortality Rate), which is influenced or dependent on the moderator EDU (Education). In other words, education moderates the connection between government health expenses on under-5 mortality rate.

The hypothesis to be tested in the moderation model is to show the relationship between government health spending (GEH) on under-5 mortality rate. The higher the level of education (EDU) of the people, the greater the effect of government health expenditure and under-5 mortality rate in Nigeria.

Model Specification

Given the conceptual framework above, the regression equation for the study is stated as follows:

$$HOC_t = f(GEH, EDU, GEH*EDU) \dots \dots \dots 4$$

Where;

HOC is health outcome measured by Under-5 mortality rate;

GEH is Amount of government expenditure on health;

EDU is education measured by primary school enrollment

GEH*EDU is the interactive term between government spending and education

The explicit form of the equation is as presented below.

$$HOC_t = \beta_0 + \beta_1 GEH_t + \beta_2 EDU_t + \beta_3 GEH*EDU + \mu .5$$

Where;

t = time period;

β_0 , β_1 , β_2 and β_3 = represent the various coefficients

μ , = stands for stochastic error term

Presentation and Discussion of Results

Descriptive Analysis of Variables

Table 1 shows statistical properties of under-5 mortality and government expenditure on health and education in Nigeria from 1982 to 2019.

Under-5 mortality rate (U5MR) for the period under review averaged 172.4 per 1000. Its highest level for the period is 209.7 which was attained in 1989; while the least rate for the period stands at 117.2 per 1000 in 2019. Generally, there has been a downward trend in under-5 mortality rate in Nigeria as shown.

Table 1: Descriptive Analysis of Variables

	U5MR	GEH	EDU
Mean	172.4237	75.52053	84.89462
Median	180.4000	20.58000	91.52970
Maximum	209.7000	388.3700	113.0788
Minimum	117.2000	0.040000	40.94025
Std. Dev.	34.55342	103.8369	20.71477
Skewness	-0.269086	1.349911	-0.867339
Kurtosis	1.403485	3.782933	2.583382
Jarque-Bera	4.494276	12.51153	5.039240
Probability	0.105701	0.001919	0.080490
Sum	6552.100	2869.780	3225.996
Sum Sq.Dev	44175.75	398937.9	15876.76
Observations	38	38	38

Source: Researcher's Compilation using Eviews (2021)

Unit Root Test for Stationarity

The Augmented Dickey-Fuller test was adopted to test for the Stationarity of the variables. The result is presented as follows.

Table 2: Stationarity Test

VARIABLE	t-statistic at Levels	t-statistic at first difference	Test critical value	Level of Significance
U5MR	0.26	-4.34	-3.64	1
GEH	2.93	-3.71	-3.56	5
EDU	-2.44	-3.15	-2.95	5

Source: Researcher's Computation from Eviews (2021)

The table shows all variables are co-integrated of order 1. meaning they are all are I(1) series.

Short Run Autoregressive Distributed Lag (ARDL) Result

ARDL Result (Short run Analysis)

Prior to estimation, a maximum lag of 6 was selected. The model was evaluated after 2058 estimations. The selected lag length for each variable are 6, 6, 5, 6, for U5MR, GEH, EDU and GEHEDU respectively. The

ARDL estimation of the relationship between health outcomes, represented with under-5 death rate (U5MR) while GEH, EDU and GEHEDU on the other, shows an R^2 and $\bar{R}^2$ of 0.999 each. This shows that the model signifies a great fit. The F-statistic of 222977 shows that the model is significant. The result is obtainable in Table 3.

Table 3: The Results of Autoregressive Distributed Lag (ARDL) Short Run Test

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
U5MR(-1)	3.051946	0.352440	8.659475	0.0003
U5MR(-2)	-3.297316	0.728747	-4.524636	0.0063
U5MR(-3)	2.97E-05	0.974946	3.05E-05	1.0000
U5MR(-4)	3.534145	0.778420	4.540152	0.0062
U5MR(-5)	-3.300020	1.006504	-3.278695	0.0220
U5MR(-6)	1.027143	0.577476	1.778677	0.1354
GEH	0.052877	0.017220	3.070732	0.0278
GEH(-1)	-0.195056	0.071927	-2.711867	0.0422
GEH(-2)	0.276599	0.085894	3.220240	0.0235
GEH(-3)	0.024923	0.071051	0.350771	0.7401
GEH(-4)	-0.131659	0.042964	-3.064385	0.0280
GEH(-5)	0.004108	0.119285	0.034435	0.9739

Bounds Test

The Bounds test was used in determining whether or not a long-

run relationship exists in Nigeria among health status (U5MR) and health expenditure as well as education (EDU).

The Akaike's Information Criteria (AIC) were used to determine the best lag length for each variable. At a 1%

GEH(-6)	0.201901	0.099918	2.020677	0.0993
EDU	0.018134	0.008574	2.114995	0.0881
EDU(-1)	-0.044737	0.011735	-3.812296	0.0125
EDU(-2)	0.069394	0.013585	5.108111	0.0037
EDU(-3)	-0.080701	0.020093	-4.016350	0.0102
EDU(-4)	0.053219	0.019894	2.675084	0.0441
EDU(-5)	-0.019117	0.017669	-1.081945	0.3287
GEHEDU	-0.000864	0.000196	-4.400977	0.0070
GEHEDU(-1)	0.002439	0.000750	3.252250	0.0226
GEHEDU(-2)	-0.003049	0.001017	-2.997436	0.0302
GEHEDU(-3)	-0.000337	0.000706	-0.476369	0.6539
GEHEDU(-4)	0.001459	0.000449	3.248809	0.0227
GEHEDU(-5)	-0.000344	0.001069	-0.321592	0.7608
GEHEDU(-6)	-0.001565	0.000834	-1.875514	0.1196
C	-3.415102	18.11789	-0.188493	0.8579
R-squared	0.999999	Mean dependent var		165.9156
Adjusted R-squared	0.999995	S.D. dependent var		33.88180
S.E. of regression	0.078348	Akaike info criterion		-2.424103
Sum squared resid	0.030692	Schwarz criterion		-1.187388
Log likelihood	65.78564	Hannan-Quinn criter.		-2.014167
F-statistic	222977.8	Durbin-Watson stat		2.971292
Prob(F-statistic)	0.000000			
*Note: p-values and any succeeding tests do not account for model assortment				

level of significance, the calculated F-statistic is 7.2, which is larger than the

upper bound critical value of 5.62. Meaning that the null hypothesis of no co- integration can be overruled with a 1% probability. As a result, in Nigeria, there is a long-run relationship between health status (U5MR) and the explanatory variables. The outcome is shown in Table 4.

Table 4: The Result of Autoregressive Distributed Lag (ARDL) Bounds Test

Test Statistic	Value	K
F-statistic	7.202241	3
Critical Value Bounds		
Significance	I0 Bound	I1 Bound
10%	2.72	3.77
5%	3.23	4.35
2.5%	3.69	4.89
1%	4.29	5.61

Co-Integration Results (Long Run Results)

The long run model corresponding to ARDL (6, 6, 5, 6) for the relationship among health outcomes, health

expenditure and education in Nigeria can be written as follows:

$$U5MR = 214.4 - 14.6721*GEH + 0.2390*EDU + 0.1419*GEHEDU \dots\dots\dots 6$$

The estimated long run relationship coefficients are negative for income (GEH), government spending on health. It is beneficial to education and the interaction between GEH and EDU. While GEH met a priori expectations, EDU and GEHEDU did not in the long run. Which means that, in the long run, a rise in government spending on health will result in a decline in the under-5 mortality rate. The positive coefficient of GEHEDU indicates that education is unable to moderate the consequence of government health spending on health outcomes in Nigeria in the long run. In the short run, this contradicts findings.

The outcome offered above implies that in the long run, holding all other factors constant, a rise in government health expenditure by N1 billion will reduce under-5 mortality rate by 14.6 per 1000 in Nigeria.

Error Correction Model (ECM) Estimation

The ECM comparing to the model's long run assessments is appeared in Table 5 underneath. The assessed ECM is partitioned into two. The primary section contains the anticipated coefficients of short run dynamics, and the second section contains the estimates of the error correction term, which assesses the speediness with which short run dynamics congregate to the long run equilibrium path in the model.

The short run coefficients for DGEH, DEDU, and DGEHEDU are statistically significant at the 5%, 10%, and 1% levels, respectively. The error correction term's coefficient is negative, but not statistically significant. The fact that the ECM is negative indicates that the model converges in the long run.

Table 5: Bounds Test

ARDL Co-integrating and Long Run Form				
Cointegrating Form				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
$\square(U5MR(-1))$	2.036019	0.401594	5.069839	0.0039
$\delta(U5MR(-2))$	-1.261297	0.595237	-2.118983	0.0876
$\delta(U5MR(-3))$	-1.261268	0.517400	-2.437703	0.0588
$\delta(U5MR(-4))$	2.272877	0.521755	4.356213	0.0073
$\delta(U5MR(-5))$	-1.027143	0.577476	-1.778677	0.1354
$\delta(GEH)$	0.052877	0.017220	3.070732	0.0278
$\delta(GEH(-1))$	-0.276599	0.085894	-3.220240	0.0235
$\delta(GEH(-2))$	-0.024923	0.071051	-0.350771	0.7401
$\delta(GEH(-3))$	0.131659	0.042964	3.064385	0.0280
$\delta(GEH(-4))$	-0.004108	0.119285	-0.034435	0.9739
$\delta(GEH(-5))$	-0.201901	0.099918	-2.020677	0.0993
$\delta(EDU)$	0.018134	0.008574	2.114995	0.0881
$\delta(EDU(-1))$	-0.069394	0.013585	-5.108111	0.0037

$\delta(\text{EDU}(-2))$	0.080701	0.020093	4.016350	0.0102
$\delta(\text{EDU}(-3))$	-0.053219	0.019894	-2.675084	0.0441
$\delta(\text{EDU}(-4))$	0.019117	0.017669	1.081945	0.3287
$\delta(\text{GEHEDU})$	-0.000864	0.000196	-4.400977	0.0070
$\delta(\text{GEHEDU}(-1))$	0.003049	0.001017	2.997436	0.0302
$\delta(\text{GEHEDU}(-2))$	0.000337	0.000706	0.476369	0.6539
$\delta(\text{GEHEDU}(-3))$	-0.001459	0.000449	-3.248809	0.0227
$\delta(\text{GEHEDU}(-4))$	0.000344	0.001069	0.321592	0.7608
$\delta(\text{GEHEDU}(-5))$	0.001565	0.000834	1.875514	0.1196
CointEq(-1)	-0.015928	0.088730	-0.179506	0.8646
Cointeq = U5MR - (-14.6721*GEH + 0.2390*EDU + 0.1419*GEHEDU + 214.4137)				
Long Run Coefficients				
Variable	Coefficient	Std. Error	t-Statistic	Prob.
GEH	-14.672113	63.08897	-0.232562	0.8253
EDU	0.238968	0.824088	0.289979	0.7835
GEHEDU	0.141903	0.621163	0.228447	0.8283
CONSTANT	214.413724	60.74165	3.529929	0.0167

Discussion of Results

In terms of the connection between government health expenditure, education, and health results, both the short and long run evaluations produce mixed results.

Expenditure on Health and Under-5 Mortality Rate

The short run ARDL result reveals that current government health disbursement has a positive outcome on U5MR in Nigeria. The 2nd, 3rd, 5th and 6th lags also affect U5MR positively. On the other hand, the 4th and 6th lags had an inverse effect on U5MR. In terms of level of significance, all the lags including the contemporaneous values were statistically significant except the 3rd and 5th lags. The positive correlation between GEH and U5MR changed to adverse effect when GEH was interacted with EDU. This implies that educations speeds up the effect of

expenditure on health. In other words, education acts as a catalyst to the health expenditure.

This result has brought to the fore that finance alone is not sufficient to ensure health outcomes. When many of the citizens are uneducated, the efforts of government at ensuring good health through expenditure on health will be limited. Therefore, any plan to enhance the health status of the citizens especially in less developed countries which are characterized with low level education, the literacy level of the citizens must be taken into consideration.

Education and Under-5 Mortality Rate

Holding all other factors constant, the influence of education on U5MR is similar to that of GEH. Contrary

to a priori expectation, education was found to have a positive outcome on U5MR in Nigeria. The 2nd and 4th lags also had a similar effect. However, the 1st, 3rd and 5th lags all have an inverse relationship with U5MR. All the coefficients were statistically significant except that of the 5th lag.

However, as observed, the interaction between GEH and EDU was found to conform to a priori expectation. It therefore follows that any plan to enhance the health status of Nigerians especially with respect to under-5 mortality rate, it must be considered within the context of the education of the citizens.

The result from this study has confirmed Todaro's proposition that both health and education are interrelated in development. They complement each other either as final goods or as factors of production. As final goods, the utility derived from health inputs cannot be maximized fully in the absence of education and vice versa.

Conclusion and Recommendations

This study adopts under-5 mortality rate (U5MR) as its measure of health outcome. Applying the time series data for the period 1982 - 2019. The other variables for this study are primary school enrolment rate and health expenditure by the federal government during the period under review.

Quantitative research method was employed to describe and analyse the influence of health spending and

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education in under-5 mortality rate in Nigeria. The interactive multiple regression model was also adopted. A Co-integration econometric approach was employed on the Eviews econometric package to evaluate the interactive effect of health expenditure and education on under-5 mortality rate using Nigerian data.

Based on the analysis conducted, it was discovered that in the short run neither government spending nor education had alone is sufficient to bring about meaningful reduction in U5MR in Nigeria. The study confirmed the claim by Todaro that both education and health play complementary roles in human capital development.

This study recommends that firstly, econometric and statistical models used to analyse health and other social issues should be designed such that they capture reality. If this is not the case, the results obtained from such models and inferences drawn from them could be misleading. Secondly, since education and health are both social variables that contribute to the development of human capital specifically and human development in general, the federal government as well as the various state governments should ensure a conscientious harmony between the two ministries. That is the ministry of health and the ministry of education. This will no doubt result in greater synergy, thus leading to greater efficiency of national resources.

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