

Do Income and Income Distribution affect Health Outcomes in Nigeria?

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Abstract

Adopting a multilevel approach, the crux of this study is on the impact of income and income distribution on health outcomes in Nigeria. Data from the National Demographic and Household Surveys (NDHS) (2008) are used for empirical analysis. The results show that absolute income has significant impact on population health in Nigeria. However, there are significant variations in the effects of absolute income after controlling for the measure to prevent malaria using insecticide-treated nets, percentage distribution of the population by type of toilet facility, percentage distribution by type of refuse disposal facility and access to healthcare facility in Nigeria. The results also show that relative income has no significant impact on population health. Also, the Gini coefficient and the Pietra inequality indices mimic each other for both absolute and relative incomes. The Gini coefficient expresses a near maximum inequality for the population health due to absolute income, and a near perfect equality of the population health due to relative income. This empirical evidence therefore reveals that income distribution has significant impact on health variations across states in Nigeria. We therefore conclude that there is need for sustained implementation of sound health and income policies that will raise absolute incomes, ensure more equitable income distribution, and enhance better healthcare delivery in order to improve the living standard of Nigeria's teeming population.

Keywords: Income; Income Distribution; Income Inequality; Population Health; Health Outcomes; Absolute Income Hypothesis; Relative Income Hypothesis

JEL Classification: D31; D63; E24; I10; O15

1. Introduction

Theoretically and empirically, the quest to alleviate population health problems has intensified globally since the Millennium Declaration of September 2000. As countries strive to attain the Millennium Development Goals (MDGs), three of which focus directly on health, policymakers, politicians and multilateral institutions are becoming increasingly concerned with investigating the factors that affect population health, especially income. Consequently, it has become a top priority in the development agenda of both developed and developing countries to examine how population health is affected by income and income distribution (Deaton, 2003). This investigation is particularly essential for developing countries in Sub-Saharan Africa where the fight against poor health, low incomes and widening income gaps seem most frustrating. Nigeria is a good case study. With an estimated population of over 170 million people, Nigeria holds approximately 17% of the population on the African continent and 2% of the world's total population (Central Intelligence Agency, CIA, World Fact Book, July 2012). To a large extent, then, health conditions in Nigeria would reflect the health status of Sub-Saharan African countries and, in fact, many other developing countries of the world.

In spite of the health gains that Nigeria has witnessed in recent times, a closer look at the health conditions across the country reveals that health status indicators in Nigeria are still among the poorest in the world, considering her GDP per capita. For example, Nigeria's GDP (PPP) per-capita of \$2600 by 2011 estimates is more than double the Sub-Saharan average of \$1258, yet her life expectancy of 47.56 years in the same year is far below the region's average of 53 years. Nigeria is said to shoulder 10% of world disease burden and the 4th highest TB burden in the world (National Health Strategies Development Plan, NHSDP, 2010-2015). According to the latest United Nations report, Nigeria has the largest number of children infected with HIV worldwide. With 60,000 children currently infected, the country accounts for one third of all new HIV infections among children in the 21 priority countries in Sub-Saharan Africa (Joint United Nations Programme on HIV/AIDS, JUNP, 2013). Life expectancy in Nigeria has for the past 10 years consistently fallen below the minimum benchmark set for developing countries and infant mortality is almost double the developing countries' average. About one million children die each year before their fifth birthday. The maternal mortality rate, estimated at 545 per 100,000, is among the highest in the world, and many other health status indicators are worse than the average for Sub-Saharan Africa (United States Agency for International Development, USAID, March 2012). Recent estimates equally show that 20% of global malaria cases occur in Nigeria, with about 110 million people affected (CIA World Fact Book, July 2012). While health conditions are deteriorating, income inequality has continued to worsen over the years. The Gini Coefficient for Nigeria, according to World Bank report, was 48.8 in 2010 as against 43.7 in 2003 (World Bank, 2012).

These figures, together with worsening income inequality across states within the country, constitute a major challenge to the attainment of the MDGs targets in Nigeria. Moreover, the National Planning Commission is currently pursuing Vision 20:2020 which is a transformation programme to make Nigeria one of the top 20 economies in the world by the year 2020. This vision can be attained if only the well-being and productivity of the people are guaranteed by tackling health problems within the population. Several researchers have paid attention to the relationship between health and income at international levels, but health inequalities also exist within countries (WHO, 2007). Understanding health inequalities across states in Nigeria as well as the impact of income and income distribution on these health inequalities is critical to addressing health problems in the country. Besides, most of the available within-country studies were carried out in developed countries, whereas it has been observed that research on health and income inequality is as relevant to developed countries as it is to developing ones (Braveman and Tarimo, 2002).

While most researchers agree that income is a determinant of health, there is no consensus on whether it is absolute income or relative income that has a greater impact on population health. It is also a hot debate whether income distribution in a place has an independent effect on the population health, apart from absolute income. This study, therefore, seeks to ascertain whether health variations in the 36 states of Nigeria can be explained by the income or the distribution of income, using the