



***RELATIONSHIPS AMONG HEALTH CARE EXPENDITURE,  
INFECTIOUS DISEASES, GOVERNANCE AND LABOUR  
PRODUCTIVITY IN AFRICA***

**HASSAN ADAMU MOHAMMED**

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**By**

**HASSAN ADAMU MOHAMMED**

**Thesis Submitted To School of Graduate Studies, Universiti  
Putra Malaysia in Fulfilment of the Requirement for the Degree  
of Master of Science**

**March 2015**

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## **DEDICATION**

This Research Work is dedicated to my father: Late Modibbo Jatau Ganye, who was the founder of all my achievements and in Allah`s will he could not live longer to see this accomplishment. May Allah (SWT) continue to shower on him His Rahma. My living mother: Fadimatu Modibbo (Yeyya) for her support, prayers and affection. My dear wife Zubaida Hassan: who has been a partner for success, progress and indeed a great inspiration towards this great achievement. And lastly my beloved daughter: Fatima (Walida), for her company and regular prayers (Abba Allah hokku sa`a). Which I believed also served as a catalyst towards this success.



Abstract of thesis presented to the Senate of Universiti Putra Malaysia in fulfilment of the requirement for the degree of Master of Science

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**March 2015**

**Chairman: Norashidah Mohamed Nor, Ph.D.**

**Faculty: Economics and Management**

The first objective of the study was to examine the impact of health care expenditure and infectious diseases (IDs), like HIV/AIDS and TB, on labour productivity (LP) in Africa. Using System GMM estimators based on the endogenous growth theory for 50 panels of African countries from 2002–2011, the results show that health care expenditure per capita is positive but statistically insignificant in affecting LP in Africa. However, the result confirmed the negative and statistically significant impact of IDs on LP in the region.

The second objective of the study was to assess the role of governance in health care expenditure and the spread of IDs. The System GMM result revealed that, in the African context, weakness of government effectiveness and control of corruption are found to be positive but statistically insignificant in improving the level of health care expenditure in Africa. On the other hand, political instability and war/conflict are found to be factors that increase the spread of IDs in the region.

Finally, the third objective of the study was to determine the level of the efficiency of health care expenditure among 29 low-income countries and 21 middle-income countries in Africa. The study employed a Stochastic Frontier Approach, and the result showed that low-income countries were slightly more efficient than middle-income countries in the utilisation of health care expenditure. However, none of the countries achieved full efficiency in health care expenditure in the region.

Thus, the study recommended that African governments and health-related development partners increase the fiscal amount allocated to the health sector in accordance with the “Abuja Declaration, 2001” to improve health care financing and provide healthy workers in order to increase LP in the region. In addition, more efforts are needed through strengthened governance in terms of government effectiveness and control of corruption to improve health care expenditure and control the spread of IDs in the region. Governments should improve both socio-economic and environmental factors affecting health, other than health care, to reduce the burden on health care facilities and lessen the spread of disease in the region.



Abstrak tesis yang dikemukakan kepada Sent Universiti Putra Malaysia  
Sebagai memenuhi keperluan untuk ijazah Master Sains

**HUBUNGAN ANTARA PERBELANJAAN PENJAGAAN KESIHATAN,  
PENYAKIT BERJANGKIT, TADBIR URUS DAN DAYA PENGELUARAN  
BURUH DI AFRIKA**

Oleh

**HASSAN ADAMU MOHAMMED**

**Mac 2015**

**Pengerusi: Norashidah Mohamed Nor Ph.D.  
Fakulti Ekonomi dan Pengurusan.**

Objektif pertama kajian ini adalah untuk mengkaji kesan perbelanjaan penjagaan kesihatan dan penyakit berjangkit (IDs) seperti HIV/ AIDS dan TB keatas produktiviti buruh (LP) di Afrika. Dengan mengaplikasikan sistem penganggar GMM berdasarkan teori “endogeneous growth” bagi 50 buah negara di Afrika dari tahun 2002-2011, hasil kajian menunjukkan perbelanjaan penjagaan kesihatan per kapita memberi kesan positif tetapi tidak signifikan dalam mempengaruhi LP di Africa. Walau bagaimanapun hasil kajian mengesahkan kesan negatif dan signifikan IDs keatas LP di rantau ini.

Objektif kedua kajian ini adalah untuk menilai peranan kerajaan di dalam pengurusan perbelanjaan penjagaan kesihatan dan penyebaran IDs., Keputusan dari sistem GMM menunjukkan kelemahan di dalam kecekapan kerajaan dan kawalan ke atas rasuah memberi kesan positif tetapi tidak signifikan dalam meningkatkan tahap perbelanjaan kesihatan di Afrika. Manakala ketidakstabilan politik dan peperangan/konflik didapati antara faktor yang meningkatkan penyebaran IDs di Afrika.

Akhir sekali, objektif ketiga kajian ini adalah untuk mengenalpasti tahap kecekapan perbelanjaan penjagaan kesihatan di kalangan 29 buah negara berpendapatan rendah dan 21 buah negara berpendapatan sederhana di Africa. Kajian ini mengaplikasikan “Stochastic Fronties Approach”, dan hasil kajian menunjukkan negara berpendapatan rendah didapati lebih cekap dalam penggunaan perbelanjaan penjagaan kesihatan berbanding negara berpendapatan

sederhana. Walau bagaimanapun tiada negara yang mampu mencapai kecekapan penuh dalam perbelanjaan kesihatan di rantau ini.

Oleh itu, kajian ini mencadangkan kerajaan Afrika serta pihak berkepentingan untuk menambah jumlah peruntukan yang disalurkan kepada sektor kesihatan mengikut “Deklarasi Abuja, 2001” bertujuan untuk meningkatkan pembiayaan penjagaan kesihatan dan menyediakan pekerja yang sihat bagi meningkatkan LP di rantau ini. Disamping itu juga, lebih banyak usaha diperlukan melalui tadbir urus dari segi kecekapan kerajaan dan kawalan rasuah untuk meningkatkan perbelanjaan penjagaan kesihatan dan mengawal penyebaran IDs di rantau ini. Kerjaan perlu meningkatkan kedua-dua faktor sosioekonomi dan persekitaran yang memberi kesan kepada kesihatan, selain daripada penjagaan kesihatan, untuk mengurangkan beban ke atas fasiliti penjagaan kesihatan dan mengurangkan penyebaran penyakit di rantau ini.



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## **Declaration by graduate Student**

I hereby confirm that:

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This is to confirm that:

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