UNIVERSITI PUTRA MALAYSIA

WILLINGNESS TO PAY FOR COMMUNITY-BASED HEALTH INSURANCE AMONG SECONDARY SCHOOL TEACHERS IN KATSINA STATE, NIGERIA

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By

RUQAYYA AHMAD FALAKI

Thesis Submitted to the School of Graduate Studies, Universiti Putra Malaysia, in Fulfillment of the Requirements for the Degree of Master of Science

June 2017

DEDICATION

I dedicate this work to my late father Professor Ahmad Mustapha Falaki, my mother Hajia Ghada Ahmad, my husband Dr. Bello and my kids Ahmad and Asma.

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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June 2017

Chairman : Associate Professor Muhammad Hanafiah Juni, PhD
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Introduction: Universal health coverage is a major challenge in Nigeria where out-of-pocket payments still dominates health care financing. Out-of-pocket health financing makes it difficult for the poor and low income earners to access quality health care services. The World Health Organization views out-of-pocket spending an obstacle to health care coverage and suggested that, the only way to reduce reliance on out-of-pocket fees is for government to encourage the risk pooling payment approaches. The community based health insurance scheme was introduced in Nigeria through the National Health Insurance Scheme as an alternative means of financing health care especially for the rural poor and low income earners. The community based health insurance scheme is a stepping-stone in ensuring that all individuals have equal access to effective public health and private health care. Given the importance of such a prepayment scheme, the objective of this study is to assess the willingness of secondary schoolteachers of Katsina Local Government Area to pay for this community based insurance scheme.

Methods: A cross-sectional study was conducted among 534 secondary schoolteachers from five secondary schools. Schools were selected using the cluster sampling technique. Teachers in these schools who fulfilled the inclusion criteria were recruited in the study. Data was collected from 26th July to 17th August 2016, using a self -administered questionnaire. The study used the double bounded dichotomous choice contingent valuation method to elicit the amount the secondary schoolteachers are willing to pay to enrol in the community based health insurance scheme. The respondents were asked if they are willing to pay ₦2000 to enrol in the scheme. Respondents who answered yes were asked if they were willing to enrol for ₦2500, the amount was further increased to ₦3000 for those who still said yes. They are then asked what the maximum amount they are willing to pay is. Respondents

who were not willing to pay up to ₦2000 to enrol were asked if they were willing to pay ₦1500, which was further decreased to ₦1000 for those who are not willing to pay that amount.

Results: The response rate was 88.4%. The mean age of the respondent's was 36.32±7.58 years. More than 62% of the respondents were males, almost half of the respondents 44.1% (n=208) have a family size of 6 to 10 family members. Mean monthly income of respondents was ₦39,192.03± ₦10,900.99. The results indicated that minimum WTP amount was ₦200 and the maximum was ₦5000. Results show age, monthly income, health status, recent illness, perceived good health status, cost of treatment, satisfaction level of quality of care, distance to health facility and awareness of health insurance to be statistically significantly associated with WTP. The predictors of willingness to pay for the community based health insurance were ages 51 to 60 years (AOR=0.207; 95%CI: 0.051-0.831; P=0.026), not having good health status (AOR=2.013; 95%CI: 0.061-0.751; P=0.016) and distance taken to health facility. That is 15mins to 30mins taken to get to a health facility (AOR=6.662; 95%CI: 3.123-14.215; P<0.001) and 15mins taken to get to a health facility (AOR=2.885; 95%CI=1.287-6.468; P=0.010).

Conclusion: Our study finds that majority of the secondary school teachers of Katsina LGA of Katsina State (75.16%) were willing to enrol and pay for the community based health insurance scheme. The average amount they were willing to pay for the scheme was ₦1585 per month. Factors such as Age, Income, health status, recent illness, health status, level of care, distance to health facility and awareness off health insurance were found to be associated with willingness to pay for community based health insurance scheme. In conclusion, Community Based Health Insurance Scheme is feasible among secondary school teachers of Katsina LGA of Katsina State.

Keywords: Nigeria, Willingness to pay, Community based health insurance, Out of pocket, Universal health coverage.

Abstrak tesis yang dikemukakan kepada Senat Universiti Putra Malaysia sebagai memenuhi keperluan untuk Ijazah Master Sains

KESANGGUPAN UNTUK MEMBAYAR SKIM INSURANS KESIHATAN BERASASKAN KOMUNITI DI KALANGAN GURU SEKOLAH MENENGAH DI KATSINA, NIGERIA

Oleh

RUQAYYA AHMAD FALAKI

Jun 2017

Pengerusi : Profesor Madya Muhammad Hanafiah Juni, PhD
Fakulti : Perubatan dan Sains Kesihatan

Pengenalan: Liputan kesihatan sejagat merupakan cabaran utama di Nigeria, di mana pembayaran dari wang saku sendiri masih lagi menguasai kaedah pembiayaan penjagaan kesihatan. Kelaziman kaedah pembiayaan sebegini menyebabkan golongan miskin dan berpendapatan rendah mengalami kesukaran untuk mendapatkan perkhidmatan penjagaan kesihatan yang berkualiti. Pertubuhan Kesihatan Sedunia menyuarakan pandangan bahawa perbelanjaan menggunakan wang saku sendiri adalah merupakan halangan dalam perlindungan penjagaan kesihatan dan mencadangkan bahawa satu-satunya cara untuk mengurangkan kebergantungan daripada wang saku ialah dengan menggalakkan pendekatan pengimpulan risiko pengumpulan pendekatam. Skim insurans kesihatan berasaskan komuniti telah diperkenalkan di Nigeria melalui skim insurans kesihatan kebangsaan sebagai satu kaedah alternatif pembiayaan penjagaan kesihatan terutamanya bagi golongan miskin dan berpendapatan rendah di luar bandar. Skim insurans kesihata berasaskan komuniti adalah langkah awal dalam memastikan semua individu mendapat peluang yang sama dalam penjagaan kesihatan awam dan peribadi yang berkesan. Melihat kepada kepentingan skim ini, kajian ini dijalankan dengan objektif menilai kesanggupan guru-guru sekolah menengah di Kawasan Kerajaan Tempatan Katsina untuk membayar skim insurans berasaskan komuniti ini.

Bahan & Kaedah: Satu kajian keratan rentas telah dijalankan di kalangan 534 guru sekolah menengah dari lima buah sekolah menengah yang telah dipilih dengan menggunakan teknik persampelan kluster dan semua guru-guru di sekolah-sekolah yang memenuhi kriteria kemasukan telah menyertai kajian ini. Data dikumpulkan dari 26 Julai-17 Ogos 2016, menggunakan borang soal-selidik yang diisi sendiri oleh responden. Penilaian dalam kajian ini dibuat menggunakan kaedah *double bounded dichotomous choice (DBDC) contingent valuation method (CVM)* untuk mendapatkan

maklumbalas bagi jumlah yang sanggup dibayar (WTP) bagi menyertai skim. Responden telah ditanya jika mereka sanggup membayar sebayak ₦2000. Bagi responden yang menjawab 'Ya', seterusnya ditanya jika mereka sanggup membayar sebanyak ₦2500, dan jumlah itu terus meningkat kepada ₦3000 bagi mereka yang masih menjawab 'Ya'. Mereka kemudian ditanya 'Berapakah jumlah maksimum yang sanggup dibayar?'. Responden yang tidak sanggup membayar sehingga ₦2000 untuk menyertai skim, seterusnya ditanya jika mereka sanggup membayar sebanyak ₦1500, dan jumlah itu dikurangkan lagi kepada ₦1000 bagi mereka yang tidak bersedia untuk membayar jumlah itu.

Hasil: Kadar respons adalah 88.4%. Min umur respondent ialah 36.32±7.58 tahun. Lebih daripada 62% responden ialah lelaki. Kurang daripada separuh daripada responden (44.1%, n=208) mempunyai saiz keluarga seramai 6 hingga 10 orang. Purata Pendapatan bulanan responden adalah ₦39,192.03± ₦10,900.99 . Keputusan menunjukkan bahawa jumlah minimum yang responden sanggup bayar adalah ₦200 dan maksimum adalah ₦5000. Keputusan menunjukkan umur, pendapatan bulanan, status kesihatan, penyakit baru-baru ini, status kesihatan yang baik, kos rawatan, tahap kepuasan kualiti penjagaan, jarak ke kemudahan kesihatan dan kesedaran mengenai insurans kesihatan secara statistik secara signifikan dikaitkan dengan kesediaan untuk membayar.

Faktor yang membawa kepada kesanggupan membayar skim adalah peringkat umur 51 hingga 60 tahun (AOR = 0.207; 95% CI: 0.051-0.831; P=0.026), status kesihatan yang tidak baik (AOR=2.013; 95%CI: 0.061-0.751; P=0.016) dan jarak ke kemudahan kesihatan, yang, 15mins to 30mins diambil untuk mendapatkan kemudahan kesihatan (AOR=6.662; 95%CI=3.123-14.215; P<0.001) dan 15mins diambil untuk mendapatkan kemudahan kesihatan (AOR=2.885; 95%CI=1.287-6.468; P=0.010).

Kesimpulan: Kajian ini mendapati majoriti guru sekolah menengah Katsina kawasan kerajaan tempatan, Negeri Katsina (75.16%) ingin menyertai skim insurans kesihatan berasaskan komuniti dan sanggup membayar secara purata ₦1585 sebulan. Keputusan menunjukkan umur, pendapatan bulanan, status kesihatan, penyakit baru-baru ini, status kesihatan yang baik, kos rawatan, tahap kepuasan kualiti penjagaan, jarak ke kemudahan kesihatan dan kesedaran mengenai insurans kesihatan secara statistik secara signifikan dikaitkan dengan kesediaan untuk membayar.
Dapat disimpulkan, skim insurans kesihatan berasaskan komuniti boleh dilaksanakan di kalanga guru sekolah menengah Katsina kawasan kerajaan tempatan, Negeri Katsina.

Keywords: Nigeria, Kesanggupan untuk membayar, Insuran kesihatan berasaskan komuniti, Biaya dari wang saku sendiri, Perlindungan kesihatan sejagat

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Finally, I would like to thank all those who have contributed and given me immense support in making this study a success.

I certify that a Thesis Examination Committee has met on 14 June 2017 to conduct the final examination of Ruqayya Ahmad Falaki on her thesis entitled "Willingness to Pay for Community-Based Health Insurance among Secondary School Teachers in Katsina State, Nigeria" in accordance with the Universities and University Colleges Act 1971 and the Constitution of the Universiti Putra Malaysia [P.U.(A) 106] 15 March 1998. The Committee recommends that the student be awarded the Master of Science.

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This thesis was submitted to the Senate of the Universiti Putra Malaysia and has been accepted as fulfilment of the requirement for the degree of Doctor of Philosophy. The members of the Supervisory Committee were as follows:

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This is to confirm that:

- the research conducted and the writing of this thesis was under our supervision;
- supervision responsibilities as stated in the Universiti Putra Malaysia (Graduate Studies) Rules 2003 (Revision 2012-2013) were adhered to.

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LIST OF ABBREVIATIONS

AOR	Adjusted odd ratio
CBHI	Community Based Health Insurance
CI	Confidence Interval
CV	Contingent Valuation
CVM	Contingent Valuation Method
DCDC	Double Bounded Dichotomous Choice
df	Degree of Freedom
GDP	Gross Domestic Product
HI	Health Insurance
LGA	Local Government Area
NHIS	National Health Insurance Scheme
SE	Standard Error
SHI	Social Health Insurance
OOP	Out Of Pocket
UHC	Universal Health Coverage
WHO	World Health Organisation
WTP	Willingness to Pay

CHAPTER 1

INTRODUCTION

1.1 Background of the Study

Nigeria officially known as the Federal Republic of Nigeria is a federal constitutional republic comprising of 36 states and the federal capital territory Abuja. Nigeria is located in Western Africa, and borders the Gulf of Guinea, between Benin Republic on the west, Cameroon and Chad in the east and Niger in the north. It has a compact area of 923,768 square kilometers (Kaccima, 2012).

Nigeria is an oil rich nation with a population of about 173 million people. Nigeria is the largest country in Africa and accounts for 47% of West Africa's population (World Bank, 2015). Nigeria has emerged as Africa's largest economy with 2015 gross domestic product (GDP) estimated at US$1.1 trillion (WFB, 2015).

However, majority of Nigerians still find it difficult to afford and access health care services. This is because of the high out-of-pocket (OOP) health financing in Nigeria which makes it difficult for the poor and low income earners to afford and access quality health care services. The challenge facing Nigeria is to reduce the burden of out-of-pocket payment on health by expanding prepayment schemes which helps reduce catastrophic health expenditure and spreads financial risk (WHO, 2000).

The federal government of Nigeria started the National Health Insurance Scheme (NHIS) prepayment scheme in 1999 to ensure every Nigerian has access to good health care services (Oyekale, 2012). Even though the law was signed in 1999, the NHIS did not become fully operational until 2005 (Metiboba, 2011). The NHIS was designed as a Social Health Insurance (SHI) program. Its main purpose is to provide easy access to healthcare for all Nigerians at an affordable cost (Hounton et al, 2013).

So far, only the formal sector federal government employees have been enrolled in the scheme. In a bid to expand the inclusiveness of the NHIS, the federal government in 2008 started a rural community based social health insurance program. It is believed the community health insurance (CBHI) scheme has the ability to provide improved health care access and financial security which can be achieved through decreasing OOP expenditures (Christian Aid, 2015).

1.2 Health Care Financing

Health care financing refers to the function of a health system concerned with the mobilization and allocation of money to cover the health needs of the people. The purpose of health care financing is to make funding available, as well as to set the right financial incentives to providers to ensure that all individuals have access to effective public health and personal health care (WHO 2000).

There are a number of different health financing options available to different countries such as; Tax based financing, Out-of-pocket health financing, health insurance (social health insurance, community health financing) and donor funding.

1.2.1 Tax Based Financing

Tax based financing is a Health financing systems where government revenues are the main source of health care expenditure are referred to as tax-based systems. Funds are usually generated through taxation or other government revenues. Most developed countries have efficient tax system and could therefore not have problem in using tax revenue to finance health services (Adams, 2014)

1.2.2 Out of Pocket

The World Health Organization (WHO) defined Out-of-pocket payment for health care as the direct outlay of households, including gratuities and payments in kind, made to health practitioners and supplies of pharmaceuticals, therapeutic appliances and other goods and services whose primary intent is to contribute to the restoration or to the enhancement of the health status of the individual or population groups. Out-of-pocket (OOP) payments have severe consequences for health care access and utilisation and are especially catastrophic for the poor (Onah and Govender, 2014). High level of out–of–pocket health spending by the households has been identified as one of the main causes of poverty as low–income populations often stretch all financial resources, including the disposal of their assets, to pay for the health care they need (Adam, 2014).

1.2.3 Donor Funding

Donor funding is a form of health care financing that comes from bilateral or multilateral international organizations. Donor funding may take the form of loans, which have to be repaid along with interest charges, or of aid grants, which do not have to be repaid. There is heavy reliance on this by low–income countries exceeding about a quarter of health care funding in 35% of countries (Mctyre D, 2007).

1.2.4 Health Insurance

Health Insurance (HI) is a pre-payment plan providing services or cash indemnities for medical care needed in times of illness or disability, (WHO, 2003). Health insurance has been defined as a financing scheme where money is pooled into a common fund and used for paying for health care cost of members (WHO, 2007). Health insurance is meant to improve access to health care, thus promoting good health. There are different types of health insurance such as the social health insurance, private health insurance and the community based health insurance.

1.2.4.1 Social Health Insurance

Social health insurance (SHI) is a form of health of health care financing which is generally sponsored by the government. The SHI schemes rely on mandatory pre-payment and pools health revenues so that they can be distributed equitably across the population. The objective of the SHI scheme is to provide healthcare that avoids large out of pocket spending, better utilization of services and improvement of health status (Acharya et al, 2011)

1.2.4.2 Private Health Insurance

Private Health Insurance (PHI) is a type of voluntary health insurance which is funded by insured members. PHI can also involve some kind of medical retainership where employees of an institution receive medical care from an arranged health facility at a cost to the employers (Obansa and Orimisan, 2013). Eventhough the PHI scheme can increase financial protection and improve access to health services to those who are able to afford the premium, its high premium means that few people can afford it.

1.2.4.3 Community Based Health Insurance

Community based health insurance (CBHI) is a type of health insurance that is organized at a community level and it is on voluntary basis. Community based health insurance scheme can be defined as a means of providing financial protection against the cost of ill health (Chuma, 2013). Community based health insurance schemes ensures that health services meet community need and make primary health care services accessible and affordable to members by pooling their resources. Community based health insurance schemes are seen as means of providing insurance coverage for the rural communities who are unlikely to be immediately covered from the social or private health insurance scheme (Shimeless, 2010).

1.3 Health Care Financing In Nigeria

The various sources of health care financing in Nigeria include the tax based public sector which comprises of local, state and federal government, private sector financing, Health insurance schemes, OOP household expenditures and external financing through grants and loan from donor organizations (Hodo and Emmanuel, 2012).

1.3.1 Tax Based System

The Nigerian government generates revenue through taxation. Revenues are raised at the federal, state, or local government levels. However, the federally generated revenue forms the majority of the funds for the other tiers of government. The states and local governments being closer to primary health care (PHC) are expected to provide adequate funding for PHC, but owing to their low internal revenue generation capacities, most of them still largely depend on the allocation from the federal government (Olakunde, 2012).

1.3.2 Out of Pocket

Out of pocket payment for health is the dominant mode of health financing in Nigeria. A report by WHO (2015) shows that 69% of health expenditure in Nigeria is OOP. On an average, about 4% of households spend more than half of their total household expenditures on healthcare and 12% spend more than a quarter (Uzochukwu et al, 2016). Out of pocket health financing in Nigeria is a big challenge in Nigeria as it affects the ability of households and individuals to meet basic needs and push many below the poverty line (Aregbeshola, 2016).

1.3.3 Donor Funding

Donor funding is one of the sources of health care financing in Nigeria. Some of the donors for health care in Nigeria are UNICEF, the World Bank, WHO, UNDP and UNAIDS. These organisation's contributions to health in Nigeria come in various forms, namely: financial assistance (loans and grants), commodities (drugs, medical equipment), technical expertise, training, study tours and fellowship, research funding among others (Alfred et al, 2016).

1.3.4 Health Insurance

There are various health insurance schemes in Nigeria. Of such include the formal sector social health insurance programme (FSSHIP), community based health insurance schemes (CBHIs) and private health insurance schemes. The FSSHIP has so far covered only 4% to 5% of the formal sector employees (John et al, 2014). The beneficiaries of the FSSHIP are expected to pay 15% of their monthly salary to the

scheme but the federal government pays 10% of this while the remaining 5% is paid by the beneficiary (Uzochukwu et al, 2016).

The CBHI scheme which was introduced to cover the people employed in the informal sector and the rural areas has been piloted on a small scale in Anambra, Lagos and Kwara States (Ayeleso O, 2011). About 110 communities across the country have been identified to benefit from this and there are about 100 others that have approached the NHIS to roll out the scheme in their communities (Uzochukwu et al, 2016). The scheme is contributory in which individuals are expected to make regular financial contributions of per head into a pool.

1.4 Problem Statement

Universal health coverage (UHC) has been very difficult to achieve in Nigeria with payment for health care mainly out-of-pocket or payment at point of service (Ataguba et al, 2008). A report by WHO (2015) shows 69% of health expenditure in Nigeria is out-of-pocket. As a result, the poor and low income earners find it difficult to access health care services at the time of need due to their low level of earnings.

One of the major issues in achieving UHC in Nigeria is the over dependence on government funding which is inadequate. The total health expenditure on health as a percentage of GDP in Nigeria was last measured at 3.88% which falls short of the 15% expected of a developing country in order to achieve the WHO's recommendation for optimum health coverage (WHO, 2015).

Even though the government has been trying different solutions to overcome healthcare barrier, access to health is still a problem (Onwujekwe et al., 2010). This is notably among the rural dwellers that constitute of about 65% of the Nigerian population. The CBHI scheme was created through the NHIS as an alternative means of financing health care in Nigeria especially for the rural poor and low income earners. However, the CBHI schemes in Nigeria have had limited success as it is affected by factors such as trust by the community, the attractiveness of the benefit packages, affordability of the premiums, quality of the health care and proper awareness and knowledge of benefits of the scheme (Onwujekwe et al., 2011)

1.5 Significance of the study

This study aims to determine the willingness to pay for CBHI scheme among secondary schoolteachers and the factors associated with it as community based health insurance is now seen as a better tool through which universal coverage can be achieved. This study focuses on teachers as the welfare package of the Nigerian teacher is among the worst in the country. Teachers pay in Nigeria is so low that most of them can barely put on food on their tables by the time they settled their children's school fees, utility and medical bills (Dayo et al., 2015).

It is hoped that the findings in this study will contribute to the advancement of knowledge on CBHI scheme and also serve as a guide for health policy makers and other stakeholders in planning sustainable community based health insurance programs. Finally, it is hoped that the study will serve as a baseline reference for future researchers on community based health insurance.

1.6 Research Questions

1. Are secondary schoolteachers of Katsina LGA of Katsina State willing to pay for community based health insurance scheme?
2. What are the factors associated with willingness to pay for community based health insurance scheme among secondary school teachers of Katsina LGA of Katsina State?
3. What important factors will contribute to or hinder the willingness to pay for community based health insurance scheme among secondary school teachers of Katsina LGA of Katsina State?

1.7 Research Objectives

1.7.1 General Objective

To determine willingness to pay for community based health insurance scheme among secondary school teachers of Katsina LGA and factors associated with it.

1.7.2 Specific Objectives

The specific objectives of this study were:

1. To identify the socio-demographic, socio-economic, health related, external factors and awareness and health insurance status of the respondents.
2. To determine the level of willingness to pay (WTP) for CBHI scheme among secondary school teachers of Katsina LGA.
3. To determine association between willingness to pay with factors associated with willingness to pay for CBHI scheme (socio-demographic, socio-economic, health related, environmental factors and awareness and health insurance status).
4. To determine the predictors of willingness to pay for CBHI scheme.

1.8 Research Hypothesis

H_1: There is a significant association between socio-demographic factors (age, gender, ethnicity, marital status and family size) and WTP for community based health insurance scheme.

H_2: There is a significant association between socio-economic factors (income, wealth, level of education) and WTP for community based health insurance scheme.

H_3: There is a significant association between health related factors (health status, past health care expenditure) and WTP for community based health insurance scheme.

H_4: There is a significant association between environmental factors (distance to health facility, access to health services) and WTP for community based health insurance scheme.

H_5: There is a significant association between insurance factors (level of awareness and health insurance status of respondents) and WTP for CBHI scheme.

REFERENCES

Adams, R.,Chou,Y. J., & Pu, C. (2015) Willingness to participate and pay for proposed national health insurance in St. Vincent and the grenadines: A cross-sectional contingent valuation approach.*BMC health services research,15(1),148*.

Adinma, E. D., & Adinma, B. J. (2010). An untapped option to a more effective health care funding in Nigeria, *Nigeria med journal 2010, 51:95-100.*

Adebayo, E. F., Uthman, O. A., Wiysonge, C. H., Stern, E. A., Lamont, K. R., & Ataguba, J., E. (2015). A systematic review of factors that affect the uptake of Community Based Health Insurance in low-income and middle-income countries. *BMC health services research* (2015) 15:543.

Ahmed, S., Hoque, M. E., Sarker, A. R., Sultana M., Islam, Z., Gazi, R., & Khan, M. K. (2016) Willingness to pay for community based health insurance among informal workers in Urban Bangladesh *PLoS One 2016 1;11(2):e0148211.* Epub 2016 Feb

Agago, T. A., Woldie, M., & Ololo, S. (2014). Willingness to join and pay for the newly proposed social health insurance scheme among teachers in Wolaita Sodo town Ethiopia. *Ethiopian journal of Health Sciences, 24(3), 195-202.*

Akanni, O. L., & Mohammed, N. I. (2012) Willing to Pay for Community Based Insurance: A study of hygeia operations in Shonga and Afon community in Kwara state. *African journal of Health Economics, (4) 1: pp 1 to 5.*

Alkenbrach, S. Jacobs, B. & Lindelow, M. (2013). Achieving Universal Health Coverage Through Voluntary Insurance: What Can We Learn From The Experience of Lao PDR? *BMC Health Services Research 2013*, 13:251

Anyika, E. A. (2014). Challenges of implementing sustainable health care delivery in Nigeria under environmental uncertainty. *Journal of hospital adminitration, volume 3,* No 6

Asgary, A., Willis, K., Taghvaei, A. A., & Rafeian, M. (2004). Estimating rural households' willingness to pay for health insurance. The Euro[ean journal oh health economics, formerly: HEPAC, 5(3), 209-215.

Akande, T., Salaudeen, A. & Babatunde, O. (2011). The effects of National Health Insurance Scheme on utilization of health services at university of Ilorin Teaching Hospital Staff Clinic, Ilorin. Nig health science journal, 98-106.

Asense-Okyere, W. K., Osei-Akoto, I., Anum, A., & Appiah, E. N. (1997) Willingness to Pay for Health Insurance in a developing economy. A pilot study of the informal sector of Ghana using contingent valuation. *Health Policy, 42, 223-237.*

Ataguba, J., Ichoku, E. H., & Fonta, W. (2008). Estimating the Willingness to Pay for Community Based Health in rural Nigeria. *Available at SSRN 1266163.*

Babatunde, O. A., Akande, T. M., Salaudeen, A. G., Aderibigbe, S. A., Elegbede. O. E., & Ayodele, L. M. (2012). Willingness to pay for community health insurance and its determinants among household heads in rural communities in North-Central Nigeria. Int rev soc sci humanitie, 2(2), 133-142.

Babatunde, R. O., Oyedeji, O. A., Omoniwa, A. E., & Adenuga, H. (2016). Willingness to Pay For Community Based Health Insurance By Farming Households: A case study of hygeia community health plan in Kwara State, *Nigerian journal of sciences, no3, pp 281-286.*

Bamidele, J. O. & Adepimbe, W. O. (2013) Awareness and Willingness of Artisans in Osun State, South Western Nigeria to Participate in Community Based Health Insurance. *Journal of community medicine and primary health care: 24(1&2*) 1-11

Banwat, M. E., Agbo, H. A., Hassan, Z., Lassa, S., Osagie, I. A., Ozoilo, J. U., & Ogbonna, C. (2012). Community based health insurance knowledge and willingness to pay: A survey of a rural community in North-Central Zone Nigeria. *Jos journal of medicine, 6(1), 54-59.*

Barnighausen, T., Liu, Y., Zhang, X., & Sauerborn, R. (2007). Willingness to pay for social health insurance among informal sector workers in Wuhan, China: A contingent valuation study. *BMC Health services research, 7(1) 114.*

Bawa, S. K., & Ruchita, M. (2011). Awareness and willingness to pay for health insurance: an empirical study with reference to Punjab India. *International journal of humanities and social science [special issue-june 2011], 1(7) 100-08.*

Bennet, S., Creese, A., & Monasch, R. (1998). Health insurance schemes for people outside formal sector employment. *Geneva:WHO, 69-67.*

Carrin, G., & James, C. (2005). Social health insurance: Key factors affecting the transition towards universal coverage. *International social security review, 58, 45-64.*

Carrin, G. (2003). Community based health insurance in developing countries: Facts, problems and perspectives. *Discussion paper 1, Geneva: WHO.*

Carson, R., Flores, N. E., Martin, K. M., & Wright, J. L. (1996). Contingent valuation and revealed preferences methodologies: Comparing estimates for quasi-public goods. *Land economics, 72(1), 80-99.*

Central Intelligence Agency. (2015). Nigeria. *In The world factbook*. Retrieved from https://www.cia.gov/library/publications/the-world-factbook/geos/br.html

Chika, S., Stephen, J., & Rebecca, I. (2012) The application of Contingent Valuation surveys to obtain willingness to pay data in road safety research: *Methodological review and recommendations.* sakashita@george.inst.org.au

Chunling, L. U., Brian, C., Jiwon, L. L., Paulin, B., Lisa, R., Kenneth, H., Megan, M., & Agnes B. (2012). Towards universal health coverage: An evaluation of Rwandan Mutuelles in its first eightyears. http://dx.doi.org/1o.137/journal.pone.0039282.

Chuma, J., Mulupi, S., & Mcintyre, D. (2013). Providing financial protection and funding. Health service benefits for the informal sector: Evidence from Sub-Saharan Africa. *London school of hygiene and tropical medicine.*

Christian Aid, (2015). A review of Community Based Health Insurance scheme: Lessons learned from Nigeria and Ghana, Nigeria: Christian aid. www.christianaid.org.uk

Churchill, C. (2006). What is insurance for the poor? In protecting the poor. *In: C, C. (ed). A microinsurance compendium. Geneva: International labor organisation*.

Dayo, A., Amaka A., Tare, Y., Glory, E., Kelechukwu I., & Chiebuka, E. (2015). Nigerian teacher: A poorly paid professional expected to deliver gold. http://www.vanguardngr.com/2015/10/nigerian-teacher-a-poorly-paid-professional-expected-to-deliver-gold/.

Dror, D. M., Radermacher, R., & Koren, R. (2007). Willingness to pay for health insurance among rural and poor persons: field evidence frm seven micro Health insurance units in India. *Health policy, 82(1), 12-27.*

Dror, D. M., & Preker, A. S. (2002) Social re-insurance: A new approach to sustainable community health financing. Washington: *World bank; 2002. P. 627*

Deaton, A. (1997). The analysis of household surveys: A Microeconometric Approach to Development Policy. *John Hopkins University Press, Baltimore, Maryland. http://go.worldbank.org/UWQRT802H0.*

Doan, T. D., & Hoang, M. V. (2011). Willingness to Pay For Health Insurance among informal sector workers: A case study from Hanoi Capital Vietnam. *Vietnam journal of public health. http://www.vjph.vn/index.php/tapchiytcc/issue/archive*

Donfouet, H. P., Edimo, J. R. E., Mahieu, P. A., & Malin, E. (2011). Social capital and willingness to pay for community based health insurance in rural Cameroon. Global journal of Health Science, 3(1), 142.

Dong H, De Allegri M, Gnawali D, Souares A, Sauerborn R. Drop-out analysis of community based health insurance membership at Nouna, Burkina Faso. Health Policy. 2009;92:174–9.

Entele, B. R., & Emodi, N. V. (2016) Health Insurance Technology in Ethiopia: Willingness to Pay and Its Implication for Health Care Financing. *American Journal of Public Health Research* Vol 4, No.3. pp 98-106.

Elisabetta, S., & Calia, P. (1998) Bias and efficiency of single versus double bounded models for contingent valuations: A Monte Carlo Analysis, University of Coglial, Strazzera @ unica.it.

Ghosh, M. (2013). Awareness and willingness to pay for health insurance: A Study of Darjeeling District. *IOSR Journal of Humanities and Social Science, 12*(1),41-47

Haile, M., Ololo, S., & Megersa, B. (2014). Willingness to join community based health insurance among rural households of Debub Bench District, Bench Maji Southwest Ethiopia. *BMC Public Health, 14(1),* 591.

Hodo, B., & Emmanuel, S. (2012). Health financing and health outcomes in Nigeria: A state using multivariate analysis. *International journal of humanities and social sciences. 2(1), 123.*

Hounton, S., Byass, P., and Kouyate, B. (2012) "Assessing effectiveness of a community based health insurance in rural Burkina Faso," BMC Health Services Research, 12:36

Huyen, T. T., & Hoang, M. V. (2011). Willingness to pay for Health insurance among informal worker: A case study from Hanoi Capital Vietnam. *Vietnam journal of public health, 5(2),*cl

Jahangeer, A., & Haq-ul, R. (2015) Willingness to purchase health insurance in Pakistan. *Population and health working paper series* PIDE-CPHSP-3

Jutting, J. P. (2003). 'Health Insurance For The Poor? Determinants of Participation In Community Based Health Insurance schemes Schemes in Rural Senegal. *Development Center Working Paper no 204 Paris: OECD.*

Kano chamber of commerce, industry, mines and Agriculture (2012). www.kaccima.org/about-us/about-kaccima

Kerr, G. (2001). Contingent Valuation Elicitation Effects: Revisiting the Payment Card Paper presented to Australian Agricultural and Resource Economics Society, *Adelaide; 2001. p23-25.*

Kebede, A., Gebreslasssie, M., & Yitayal, M. (2014). Willingness to pay for community based health insurance scheme among households in the rural community of Fogera District , North West Europe. *International Journal of Economics, Finance and Management Sciences, 10(2),116-130.*

Lahkar, R. and Sundaram-Stukel, R. (2010) Protecting the poor through community based health insurance. *http://www.isid.ac.in/*pu/conference/dec_10_conf/Papers/RatulLahkar.*

Lang, H. C., & Lai, M. S. (2008). Willingness to pay to sustain and expand National Health Insurance Services in Taiwan. *BMC Health Serv Res, 2008 7;8:261*

Lawanson, A., & Olaniyan, O. (2013). Health expenditure and health status in Northern and Southern Nigeria: A comparative analysis using National health account framework. *Afr j health econ 2013;2:31-46.*

Metiboba, S. (2011). Nigeria's National Health Insurance Scheme: The need for beneficiary participation. *Research journal of int studies.2011;22:51-56.*

Morestin, F. & Ridde, V. (2009). How can the poor be better integrated into health insurance programs in Africa? *An overview of possible strategies. Universite de Montreal.*

Micheal, F. (2014) Achieving universal health coverage Nigeria: Assessing the community based health insurance in Lagos. *Christie research foundation, cppa.research.org*

National Health Insurance Scheme, N. (2009). Blueprint for the Implementation of *Community-based Social Health Insurance Programme*. Abuja: Interactive Media Services.

Nosratnejad, S., Rashidian, A., Mehrara, M., Sari, A. A., Mahdavi, G., & Moeini, M. (2014). Willingness to pay for the social health insurance in Iran, *Global journal of health science,* 6(5), 154.

Nwakaego, E. A. (2012) Occupational Diversification among Rural Women in Anambra State, Nigeria. Department of Agricultural Extension University of Nigeria, Nsukka. PG/Phd/08/48871.

Obansa, S. A., & Orimisan, A. (2013). Health care financing in Nigeria: Prospects and challenges. *Mediterranian journal social science 2013;4:221-236.*

Odeyemi, A. O. (2013). Community based health insurance scheme and the National health insurance scheme of Nigeria; Challenges to uptake and integration. *Int journal for equity in health. P 31-20.*

Olakunde, B.O. (2012). Public health care financing in Nigeria: which way forward? *Annal of Nigeria Medicine Journal, vol 6, issue 1*

Onah, M. N., & Govender, V. (2014). Out of Pocket Payment, Health Care Access and Utilisation in South-Eastern Nigeria: A Gender Perspective. PLoS ONE, 9(4). e93887. http://doi.org/10.1371/journal pone-0093887.

Onwujekwe, O., Okereke, E., Onoka C., Uzochukwu, B., Kirigia, J., & Petu, A. (2010). Willingness to pay for community based health insurance in Nigeria: Do economics status and place of residence matter? *Health Policy and Planning 25(2), 155-161.*

Onwujekwe, O., Onoka, C., Uguru, N., Tasie, N., Uzochukwu, B., Kirigia, J., & Petu, A. (2011). Socioeconomic and geoghraphical differences in acceptability of community-based health insurance. *Public Health, 125,* 806 - 808.

Oo, W. M., Lwin, K. T., Soe, P. P., Lwin, S. H., Win, M. O., Bo, T. Z. C., & Aung, M. S. (2015). Awareness and acceptance on health insurance, and willingness to pay: a community based study in Myanmar. 2015; 5(3): 44 - 51.

Oriakhi, H. O., & Onemolease, E. A. (2012). Determinants of rural household's willingness to participate in community based health insurance scheme in Edo State, Nigeria. *Studies on Ethno-Medicine, 6(2), 95-102.*

Oyekale, A. S. (2012). Factors Influencing Households' Willingness to Pay for National Health Insurance Scheme (NHIS) in Osun State, Nigeria. *Ethno Med,* 6(3)**,** 167-172

Sawar, A., & Qureshi, H. A. (2013). Awareness and willingness to buy private health insurance and a look into its future prospects in Pakistan. European Journal of Business and Social Sciences, 2(1), 69-81.

Shafie, A. A., & Hassali, M. A. (2013). Willingness to pay for voluntary community based health insurance: Findings from exploratory study in the state of Penang, Malaysia. *Social Science & Medicine,* 96, 272-276

Soors, W., D. Devadasan, V. Durairaj, and B. Criel. 2010. Community Health Insurance and Universal Coverage: Multiple paths, many rivers to cross.*World Health Report (2010) Background Paper, 48*. Geneva: World Health Organization.

Tundui, C., & Macha, R., (2014) Social Capital and willingness to pay for community based health insurance: Empirical evidence from tanzania. *Journal of finance and economics volume 2, issue 4 (2014),* 50-67

Usman, A. B. (2013) Willingness to pay for community based health care financing scheme: A comparative study among rural and urban households in Osun State, South Western Nigeria. *International journal of healthcare management,* 6(2), 95-103

Uzochukwu, B., Ughasoro, M. D., Etiba, E., Okwuosa, C., Envuladu, E., & Onwujekwe, O. E. (2012). Health care financing in Nigeria: Implications for achieving universal health coverage. *Niger J Clin Pract 2015;18:437-4*

Wagstaff A (2005). Health Insurance Impacts on Health and Nonmedical Consumption in a Developing Country *World Bank Policy Research Working Paper 3563.* New York: The World Bank.

Wang, H., Yip, W., Zhang, L., Wang, L., & Hsiao, W. (2005) *Community-based Health Insurance in Poor Rural China: The Distribution of Net Benefits.* London School of Hygiene and Tropical Medicine, 2 September, 2005, pp.1-9.

WHO (2000). World Health Organization Health systems: improving performance *World Health Report.* Geneva: The World Health Organization.

WHO, Macroeconomics, & Health. (2003). *Increasing Investments in Health Outcomes for the poor: Second Consultation on Macroeconomics and Health*. Geneva.

WHO (2005). Sustainable health financing, universal coverage and social health insurance. . *WHA Resolutions and Decisions* Geneva: The World Health Organization.

WHO (2006). Health financing, a strategy for African region Addis Ababa: The World Health Organization Regional Committee for Africa.

World Bank Institute (2002). Contingent Valuation: Session 28. Lesson From The Environmental Economics and Development Policy Course, Washington, D C, July 15-26, 2007.

World Health Organisation (2007). Social health protection. World Health Organization, Factsheet No.320, 2007.

World Health Organization. The World Health Report 2010: Health systems financing: the path to universal coverage. Geneva: World Health Organization; 2010.

WHO (2015). Global Health Expenditure database

Yap, K. H., & Tzeng, C. J. H (2012) Consumer Awareness and Potential Market Toward Organic Rice in Sabah, Malaysia: A Market Segmentation Perspective. Department of Applied Economics and Management, National Ilan University.

Zhang, L., Wang, H., Wang, L. and Hsiao, W. (2006) Social capital and farmer's willingness-to-join a newly established community-based health insurance in rural China. Health Policy, 76(2), pp. 233– 242.