

[2009]

P

riorities of Health Economics in Africa

La Palm Royal Beach Hotel, Accra, Ghana. 10th - 12th March
2009

**AfHEA Inaugural Conference -
2009**

Programme and Abstract Book

Conference of the African Health Economics and Policy Association (AfHEA)

Priorities of health economics in Africa

Compilation of the programme and abstracts of the presentations

Published by AfHEA © 2009

Cover photo: <http://africaphotos.usaid.gov/>

(R. Nyberg, M. Camara, K. Burns, R. Zurba)

The scientific contents of the abstracts are entirely the responsibility of the authors. The declarations and opinions do not necessarily reflect the position of AfHEA.

For further information, kindly write to: afhea08@gmail.com

Visit the AfHEA web site for updates on its activities: www.afhea.org

Table of content

Agenda	2
The agenda at a glance	3
The detailed agenda	5
Oral presentations.....	11
Parallel session 1: User fees - removal and exemptions	12
Parallel session 1: Benefit incidence of health services	17
Parallel session 1: Economic evaluation.....	20
Parallel session 2: Financing and policy.....	25
Parallel session 2: HIV/AIDS: Financing and reporting research results	30
Parallel session 2: Preferences and willingness to pay	33
Plenary session 3: The business case for private investment in Africa's health sector ..	36
Plenary session 4: User fee competition presentations.....	38
Parallel session 3: Consequences of out-of-pocket payments.....	54
Parallel session 3: Maternal health and quality of care	57
Parallel session 3: Human resources for health	62
Parallel session 4: Community and national health insurance.....	65
Parallel session 4: Economics and Policy Research to Improve Malaria Control	69
Parallel session 4: Financing and reporting health research results	73
Plenary session 5: International health financing mechanisms	76
Parallel session 5: Insurance and affordability issues	79
Parallel session 5: Microeconomic techniques and issues.....	83
Parallel session 5: Drugs / Medicines: economics and policy	86
Parallel session 6: New trends and debates in international health financing	90
Parallel session 6: Facility funding, Costing and Budgeting of health services	95
Parallel session 6: Public health research issues: measurement of health; community based health services; prescription practices; and determinants.....	100
Poster presentations	104

Agenda

The agenda at a glance

Monday 9 March 2009

17:00 Pre-registration
18:00

Tuesday 10 March 2009

08:00 Registration
09:00

Plenary 1			
09:00 11:00	Main conference hall Adae Kesie		
	Official opening ceremony		
11:00	Opening speech by His Excellency the Vice President of the Republic of Ghana, Mr John D Mahama		
11:00 11:30	BREAK / FAMILY PHOTO / POSTER PRESENTATIONS		
Parallel session 1			
11:30 13:00	Room: Adae Kesie	Room: Hogbetsotso	Room: Kundum
	User fees - removal and exemptions	Benefit incidence of health services	Economic evaluation
13:00 14:00	LUNCH		
Parallel session 2			
14:00 15:30	Room: Adae Kesie	Room: Hogbetsotso	Room: Kundum
	Financing and policy	HIV/AIDS: Financing and reporting research results	Preferences and willingness to pay
15:30 16:30	BREAK / POSTER PRESENTATIONS		
Plenary 2			
16:30 17:45	Main conference hall: Adae Kesie		
	- George Dzakpallah - From SWAP to General Budget Support: Ghana's experience of pooling, harmonization and alignment		
	- Ras Boateng - Ghana's National Health Insurance System: design, implementation and perspectives		
	Chair: Dr Moses Adibo, ex-Deputy Minister of Health, Ghana		
19:00	WELCOME RECEPTION AND DINNER		

Wednesday 11 March 2009

Plenary 3	
08:30 10:00	Main conference hall: Adae Kesie
	The business case for private investment in Africa's health sector Session organizer : <i>Alex Preker</i> PLUS Response from Max Lawson, Oxfam UK
Plenary 4	
10:00 11:00	Main conference hall Adae Kesie
	USER FEE COMPETITION PRESENTATIONS
11:00 11:30	BREAK / POSTER PRESENTATIONS

Parallel session 3			
11:30 13:00	Room: Adae Kesie Consequences of out-of-pocket payments	Room: Hogbetsotso Maternal health and quality of care	Room: Kundum Human resources for health
13:00 14:00	LUNCH		
Parallel session 4			
14:00 15:30	Room: Adae Kesie Community and national health insurance	Room: Hogbetsotso Economics and Policy Research to Improve Malaria Control	Room: Kundum HIV/AIDS: Financing and reporting health research results
15:30 16:00	BREAK / POSTER PRESENTATIONS		
Plenary 5			
16:00 17:30	Main conference hall: Adae Kesie International health financing mechanisms		
17:30 19:00	Main conference hall: Adae Kesie AfHEA ASSEMBLY		
20:00	GALA DINNER		

Thursday 12 March 2009

Plenary 6			
08:30 09:30	Main conference hall: Adae Kesie The health economist as a member of the health planning team: the role of health economics in the design, planning and implementation of health policy in Africa Key note speaker: <i>Dr. Marty Makinen</i>		
Parallel session 5			
09:30 11:00	Room: Adae Kesie Insurance and affordability issues	Room: Hogbetsotso Microeconomic techniques and issues	Room: Kundum Drugs / Medicines: economics and policy
11:00 11:30	BREAK		
Parallel session 6			
11:30 13:00	Room: Adae Kesie New trends and debates in international health financing	Room: Hogbetsotso Facility funding, Costing and Budgeting of health services	Room: Kundum Public health research issues: measurement of health; community based health services; prescription practices; and determinants
13:00 14:00	LUNCH		
Plenary 6			
14:00 15:00	Main conference hall: Adae Kesie Provisional title: Neglected tropical diseases: The financing challenges Key note speaker: <i>Jacqueline Leslie</i>		
15:00 16:00	AWARDS PRESENTATION AND CLOSING CEREMONY		

The detailed agenda

Tuesday 10 March 2009

Plenary 1	
09:00	Main conference hall Adae Kesie
11:00	Official opening ceremony
11:00	BREAK / FAMILY PHOTO / POSTER PRESENTATIONS
11:30	
Parallel session 1 (Tuesday, 11:30 - 13:00)	
PS 01 / Room: Adae Kesie	
User fees - removal and exemptions	
PS 01/1	User Fees in Zambia: behaviour and experiences of communities and health care providers <i>Mary Hadley, Collins Chansa</i>
PS 01/2	Does the free delivery and caesarean policy in Senegal offset user fees constraints in reproductive health? <i>Sophie Witter, Amadou Hassan Sylla, Thierno Dieng, Daouda Mbengue, Vincent de Brouwere, Isabelle Moreira</i>
PS 01/3	To Alter or Not to Alter: The Fate of User Fee Exemptions for Vulnerable Groups Under National Health Insurance <i>Mr. Patrick Apoya, Theophilus Ayugane, Elizabeth Awini</i>
PS 01/4	Twenty stories behind the policy... a case-study approach to evaluate the impact of user fee removal in the health sector <i>Barbara Carasso, Caesar Cheelo, Nicholas Chikwenya, Lucy Gilson, Dick Jonsson, Natasha Palmer, Chris Simoonga</i>
PS 01 / Room: Hogbetsotso	
Benefit incidence of health services	
PS 01/5	Public spending on health care in Africa: a benefit incidence analysis of Ghana, Tanzania & South Africa <i>B. Garshong, J. Ataguba, F. Kessy, J. Borghi, D. McIntyre, F. Meheus</i>
PS 01/6	Barriers to Antiretroviral Therapy in Malawi: An assessment of socioeconomic inequalities <i>Talumba Chilipaine-Banda, Eyob Zere, Bertha Simwaka, Amit Prasad, Erik Schouten, Ireen Makwiza</i>
PS 01/7	Socioeconomic inequalities in treatment and prevention of malaria in Tanga district, Tanzania <i>Fred Matovu, Faculty of Economics and Management, Makerere University, Kampala, Uganda</i>
PS 01 / Room: Kundum	
Economic evaluation	
PS 01/8	Cost effectiveness analysis of the training of medical doctors in emergency surgery compared to alternative training strategies for improving access to emergency obstetric care in Burkina Faso <i>Dr Sennen Hounton, Danielle Belemsaga, David Newlands, Nicolas Meda, Vincent de Brouwere</i>
PS 01/9	Economic Evaluation of Flying Doctor Services in KZN - South Africa <i>Emmanuelle Daviaud, M. Chopra</i>
PS 01/10	Etude du coût de la prise en charge des personnes vivant avec le VIH/SIDA dans 3 associations de Bujumbura (Burundi) <i>Adrien Renaud, Dr Basenya Olivier</i>
PS 01/11	La contribution financière de l'Etat à la lutte contre l'onchocercose au Cameroun <i>Njoumemi Zakariaou, Ntep Marcelline, Epo Boniface Ngah</i>
13:00	LUNCH
14:00	

Parallel session 2 (Tuesday, 14:00 - 15:30)	
PS 02 / Room: Adae Kesie Financing and policy	
PS 02/1	Improving Equity in the Subsidies for Healthcare in South Africa Heather McLeod
PS 02/2	Equitable Financing of Primary Health Care under a Fiscal Federal System: Swimming Against the Tide? Okore Okorafor
PS 02/3	The Impact of Coordination and Policy Networks on the National Health Insurance Policy in Ghana Gina Teddy
PS 02 / Room: Hogbetsotso HIV/AIDS: Financing and reporting research results	
PS 02/4	HIV/AIDS financing and health policy in South Africa C. Tsafack Temah
PS 02/5	Harmonisation and Alignment of Aid for HIV and AIDS - Progress in the Southern African Development Community since the Paris Declaration Teresa Guthrie
PS 02/6	Too much of a good thing? The effects of new HIV/AIDS financing mechanisms on overall health system performance Karen A Grépin
PS 02 / Room: Kundum Preferences and willingness to pay	
PS 02/7	Using discrete choice experiments to elicit preferences for maternal health care in Ghana Laura Ternent, Aba Daniels, David Newlands
PS 02/8	Willingness to Pay for Health Care and Antiretroviral Drugs: Evidence from Rural Southern Region of Malawi Tchaka Ndhlovu
PS 02/9	Perceptions and willingness to pay for private voluntary health insurance in southeast Nigeria Obinna Onwujekwe and Edit V. Velényi
15:30 16:30	BREAK / POSTER PRESENTATIONS
Plenary 2: Tuesday	
16:30 17:45	Main conference hall: Adae Kesie - George Dzakpallah - From SWAP to General Budget Support: Ghana's experience of pooling, harmonization and alignment - Ras Boateng - Ghana's National Health Insurance System: design, implementation and perspectives Chair: Dr Moses Adibo, ex-Deputy Minister of Health, Ghana
WELCOME RECEPTION AND DINNER	

Wednesday 11 March 2009

Plenary 3: Wednesday	
08:30 10:00	Main conference hall: Adae Kesie The health economist as a member of the health planning team: the role of health economics in the design, planning and implementation of health policy in Africa Key note speaker: <i>Dr. Marty Makinen</i>
Plenary 4: Wednesday	
10:00 11:00	USER FEE COMPETITION PRESENTATIONS
PL 04/1	The right price for health! <i>Aida Zerbo</i>

PL 04/2	Socio-economic study on the costs and financial accessibility of population groups to health care in Eastern Chad <i>Morbé Mbaïnadjina Ngartelbaye, Dr Itama Mayikuli Christian, M. Naïbei Mbaïbardoum Nathan</i>
PL 04/3	User fees in Africa: from theory and evidence, what next? <i>Araoyinbo, Idowu D., Ataguba, John E.</i>
PL 04/4	User Fees for Health Services in Africa. <i>Anne Kangethe</i>
PL 04/5	When user fee is a necessity of life: what role for policy in Uganda? <i>Charles Birungi</i>

11:00

11:30

BREAK / POSTER PRESENTATIONS

Parallel session 3 (Wednesday, 11:30 - 13:00)

PS 03 / Room: Adae Kesie

Consequences of out-of-pocket payments

PS 03/1	Examining catastrophic costs and benefit incidence of subsidized anti-retroviral treatment (ART) in south-east Nigeria <i>Obinna Onwujekwe, Nkem Dike, Benjamin Uzochukwu, Chinwe Chukwuka, Chima Onoka, Anselem Onyedum</i>
PS 03/2	The economic burden of malaria in Kenya: a household level investigation <i>Urbanus Kioko</i>
PS 03/3	Impact of a community based health insurance scheme on household costs for institutional delivery in Nouna district, Burkina Faso <i>Dr Sennen Hounton, David Newlands</i>

PS 03 / Room: Hogbetsotso

Maternal health and quality of care

PS 03/4	Evaluation d'un processus qualité au niveau communautaire : Programme Santé USAID Kenya Ciwara 2003 – 2008 <i>Oumar Ouattara, Kwamy Togbey, Uwe Korus</i>
PS 03/5	The effect of maternal morbidity on productivity: a household level analysis in Ghana <i>David Newlands, Paul McNamee, Cornilius Chikwama, Felix Asante</i>
PS 03/6	An economic evaluation of a delivery fee exemption policy on maternal and child health outcomes in Ghana <i>Karen A. Grépin</i>

PS 03 / Room: Kundum

Human resources for health

PS 03/7	Health delivery complements and health worker emigration from Africa <i>Eric Keuffel</i>
PS 03/8	Measuring Health Worker Motivation in District Hospitals in Kenya <i>Patrick Mbindyo, Dr. Duane Blaauw, Prof. Lucy Gilson, Dr. Mike English</i>
PS 03/9	Trend of remuneration and motivation of the health workforce in Burkina Faso <i>F. Y. Bocoum, S. Kouanda, R. Guissou, C. Dao/Diallo, B. Sondo</i>

13:00

14:00

LUNCH

Parallel session 4 (Wednesday, 14:00 - 15:30)

PS 04 / Room: Adae Kesie

Community and national health insurance

PS 04/1	Contractual arrangements between Community Health Insurance schemes and health care providers as a means to improve the quality of care: an overview in sub-Saharan Africa <i>Ndiaye Pascal, Lefèvre Pierre, Vanlerberghe Veerle, Criel Bart</i>
PS 04/2	From Community to National Health Insurance: A new Approach to Social health Insurance in Africa? <i>Bocar M Daff, Naomi Tlotlego, Chris Atim, A Adomah</i>
PS 04/3	Financing Outpatient Care - Kenyan Experience <i>Chacha Marwa</i>

PS 04 / Room: Hogbetsotso
Economics and Policy Research to Improve Malaria Control
Session organizer: Catherine Goodman

PS 04/4	Free Distribution or Cost-Sharing? Evidence from a Randomized Malaria Prevention Experiment <i>Jessica Cohen, Pascaline Dupas</i>
PS 04/5	Piloting the global subsidy: The impact of subsidized distribution of artemisinin-based combination therapies through private drug shops on consumer uptake and retail price in rural Tanzania <i>Oliver Sabot, Alex Mwita, Margareth Ndomondo-Sigonda, Justin Cohen, Megumi Gordon, David Bishop, Moses Odhiambo, Yahya Ipuje, Lorryne Ward, Catherine Goodman</i>
PS 04/6	Importance of strategic management in the implementation of private medicine retailer programmes: Case studies from three districts in Kenya <i>Timothy Abuya, Greg Fegan, Abdinasir Amin, Abdisalan Noor, Sassy Molyneux, Simon Akhwale, Robert Snow, Lucy Gilson, Vicki Marsh</i>

PS 04 / Room: Kundum
HIV/AIDS: Financing and reporting health research results

PS 04/7	Commodity forecasting for the scaling up of the ART for the treatment of HIV/AIDS in both public and private sectors in Kenya <i>Korir, J and Kioko, U.</i>
PS 04/8	Tracking Expenditure for HIV and AIDS in Africa: a cross-country comparative study <i>Urbanus Kioko, Teresa Guthrie</i>
PS 04/9	Resource Allocations for HIV and AIDS in Ghana ~ Alignment with the National Strategic Priorities <i>Asante, F., Pokuu, A., Ahiadeke, C., Guthrie, T.</i>

15:30

16:00 BREAK / POSTER PRESENTATIONS

Plenary 5: Wednesday

16:00	Main conference hall: Adae Kesie
17:30	International health financing mechanisms
PL 05/1	Resource Allocations for HIV and AIDS in Southern Africa ~ Are Funds being Aligned to National Strategic Priorities? A cross-country comparative study <i>Guthrie, T., Kioko, U., Chitama, D., Banda, P., Chitsomia, A., Madadume, B.</i>
PL 05/2	Are current debt relief initiatives an option for scaling up health financing in beneficiary countries? <i>Mr Miloud Kaddar, Ms Eliane Furrer</i>
PL 05/3	Global Action for Health System Strengthening: The key financing challenges <i>Dr Ravindra P. Rannan-Eliya</i>
17:30	Main conference hall: Adae Kesie
19:00	AfHEA ASSEMBLY
20:00	GALA DINNER

Thursday 12 March 2009

Plenary 6: Thursday

08:30	Main conference hall: Adae Kesie
09:30	The health economist as a member of the health planning team: the role of health economics in the design, planning and implementation of health policy in Africa Key note speaker: <i>Dr. Marty Makinen</i>

Parallel session 5 (Thursday, 09:30 - 11:00)	
PS 05 / Room: Adae Kesie Insurance and affordability issues	
PS 05/1	Distance mediates the effect of removing financial barriers to accessing care: results of a randomized controlled trial in Ghana <i>Evelyn Ansah, Kara Hanson, Solomon Narh Bana, Brian Greenwood, Anne Mills, Christopher Whitty</i>
PS 05/2	A Comparison of fee exemptions and health insurance for providing financial access to primary clinical care for children under five in Ghana <i>Richard A Nagai, Irene Akua Agyepong</i>
PS 05/3	Costing the Provision of Health for All in rural Tanzania and Ghana and implications for social health insurance premium pricing <i>Joel Negin, Maame Nketsiah, Samuel Afram, Eric Akosah, Deusdedit Mjunga, Gerson Nyadzi</i>
PS 05 / Room: Hogbetsotso Microeconomic techniques and issues	
PS 05/4	Substitution effects in household demand for antimalarial bed nets in a rural are of southern Mozambique <i>Claire Chase, Elisa Sicuri, Charfudin Sacoar, Ariel Nhacolo, Clara Menéndez</i>
PS 05/5	Optimizing efficiency gains - A situational analysis of technical efficiency of hospitals in Ghana <i>Caroline Jehu-Appiah, Frank Nyonator, Martin Adjui, Selassi D'Almeida, James Akazili, Charles Acquah, Eyob Zere</i>
PS 05/6	Does Ghana's National Health Insurance Scheme Encourage Moral Hazard? An Approach using Matching Estimation <i>Eugenia Amporfu</i>
PS 05/7	An Empirical Analysis of Cigarettes Demand in Kenya: New Health Policy Perspective <i>Scholastica Achieng Odhiambo</i>
PS 05 / Room: Kundum Drugs / Medicines: economics and policy	
PS 05/8	Providing affordable essential medicines for African households: The missing policies and institutions for price containment <i>Ebenezer Kwabena</i>
PS 05/9	The Economic costs associated with Irrational Prescribing in children: Implications for reducing Childhood Mortality in South east Nigeria <i>BSC Uzochukwu, Dr BSC Uzochukwu, Onwujekwe OE, Nwobi EA, Ezeoke U, Chukwuogo OI.</i>
PS 05/10	Patent medicines vendors - a resource for tuberculosis case detection. <i>Dr. Obi, Ikechukwu Emmanuel, Professor Onwasigwe C. N.</i>
11:00 11:30	BREAK
Parallel session 6 (Thursday, 11:30 - 13:00)	
PS 06 / Room: Adae Kesie New trends and debates in international health financing	
PS 06/1	Towards equitable and sustainable health financing systems through coordinated international effort. Proposed pathways of the Providing for Health (P4H) initiative <i>Dr. Varatharajan Durairaj</i>
PS 06/2	African health priorities and the new international health financing mechanisms <i>Moustapha Sakho</i>
PS 06/3	Can we wean African countries off donor funding? <i>Joses Muthuri Kirigia & Alimata J. Diarra-Nama</i>
PS 06 / Room: Hogbetsotso Facility funding, Costing and Budgeting of health services	
PS 06/4	Estimation du coût de santé du nouveau-né, de la mère et de l'enfant dans le cadre de la stratégie de renforcement du système de santé en RD Congo <i>Dieudonné KWETE, Narcisse TONA, Mathias MOSSOKO</i>

PS 06/5	Assessing the implementation and effects of direct facility funding in health centres & dispensaries in Coast Province, Kenya <i>Catherine Goodman, Antony Opwora, Margaret Kabare and Sassy Molyneux</i>
PS 06/6	Household costs estimate of hospital care for low birth weight infants in a rural area of southern Mozambique <i>Elisa Sicuri, Claire Chase, Ariel Nhacolo, Charfudin Sacoar, Delino Nhalungo, Maria Maixenchs, Clara Menéndez</i>
PS 06 / Room: Kundum Public health research issues: measurement of health; community based health services; prescription practices; and determinants	
PS 06/7	The challenge of measuring need for health care in household surveys <i>F. Meheus, D. McIntyre, M. Aikins, J. Goudge, O. Okorafor, M. Ally, N. Nxumalo, B. Garshong</i>
PS 06/8	The river blindness control programme among farming communities in Benue state: an assessment of community-directed distributors of ivermectin in the north-central zone of Nigeria <i>UMEH, J.C. AND AMUTA, R.</i>
PS 06/9	A comparison of prescribing practices for the treatment of malaria in public and private health facilities in southeast Nigeria <i>Pharm. Nzewi Ifeoma, Uzochukwu BSC, Onwujekwe OE, Ezeoke U, Chukwuogo OI</i>
PS 06/10	Child Health in Nigeria: An Empirical investigation of determinants <i>Ataguba, John E; Ichoku, Hyacinth E; and Okorafor, Okore</i>
13:00	LUNCH
14:00	
Plenary 7: Thursday	
14:00	Main conference hall: Adae Kesie Provisional title: Neglected tropical diseases: The financing challenges Key note speaker: <i>Jacqueline Leslie, Health Economist, Imperial College, London</i>
15:00	
15:00	AWARDS PRESENTATION AND CLOSING CEREMONY
16:00	

Oral presentations

Parallel session 1: User fees - removal and exemptions

PS 01/1

User Fees in Zambia: behaviour and experiences of communities and health care providers

Mary Hadley¹, Collins Chansa²

¹ Independent researcher

² Ministry of Health, Lusaka, Zambia

Aim and Objectives

In Zambia, user fees were removed in April 2006 in rural and July 2007 in peri-urban centres. Preliminary information collected during ad hoc visits to health facilities suggests that trends in utilisation of facilities alone do not give sufficient detail on the effect of implementation of a user fee removal policy to inform future policy, whether at regional or national level. A qualitative study is underway to provide a deeper understanding of the impact of user fee removal at health centre to individual level.

Methods

The presence of both fee paying and non fee paying facilities serving the same populations allows for comparisons to be made. Rural and urban facilities as well as those situated near national borders are included in the study. The study design is cross-sectional and descriptive using a series of qualitative methods that include the use of key informants to guide the direction of data collection; in depth interviews at health facility and household level; group discussions with key stakeholders; and observations within the health facility and at household level. Themes and concepts are identified and data triangulation identifies only those concepts that can be validated through a combination of data sources.

Results

Results indicated that neither cost sharing nor user fee removal policies were implemented at facility and district level as intended. Of concern, non adherence to the clause exempting certain categories of patients, more especially those unable to pay was evident. The impact of increased utilization reported in many facilities after the user fee removal policy on the health of the population was unclear. When cost sharing policies were in place deaths associated with inability to raise the fees were reported. However, the circumstances associated with increased utilization suggest that the benefit to both individual patients and the health system in general is in question.

PS 01/2

Does the free delivery and caesarean policy in Senegal offset user fees constraints in reproductive health?

Sophie Witter¹, Amadou Hassan Sylla², Thierno Dieng³, Daouda Mbengue⁴, Vincent de Brouwere⁵, Isabelle Moreira⁶

¹ Research Fellow, Impact, Health Sciences Building, Foresterhill, Aberdeen

² CEFORP research coordinator

³ Health economist consultant, CEFORP

⁴ National Reproductive Health Program Officer, UNFPA Dakar

⁵ Professor, Department of Public Health, Institute of Tropical Medicine, Antwerp

Purpose: The purpose of the presentation is to share with other participants how user fees are barriers in accessing maternal health services in Senegal.

This article presents the results of an evaluation of the Free Delivery and Caesarean Policy (FDCP) in Senegal. The policy was introduced into five poor regions in 2005 and in 2006 was extended at regional hospital level to all regions apart from the capital (Dakar). The aim of the policy was to reduce financial barriers for maternal health services, and thus to increase supervised delivery rates and decrease maternal mortality. The evaluation was carried out in 2006-7. There were four research components: a financial analysis of expenditure on the policy and wider health financing in selected health facilities in five districts, as well as the five regions and nationally; 54 key informant interviews from national down to facility level; 10 focus group discussions and 8 in-depth interviews in five districts in FDCP regions; and analysis based on clinical record extraction of 761 major obstetric interventions.

The evaluation found that significant increases in utilisation were found in normal deliveries (from 40% to 44% of expected deliveries in FDCP areas over 2004-5) and in caesareans rates (rising from 4.2% to 5.6% in FDCP areas). Using the evaluation data, the cost per *additional* caesarean under the policy was \$382 and the cost per *additional* supervised normal delivery was \$55. In order to achieve its full potential, however, it requires improved systems for planning and allocating resources, and new channels to reimburse lower level facilities. Without these, facilities will be able to continue to act opportunistically to re-coup lost income. It is also important that all complicated deliveries (not just caesareans) are included in the package. In the case of Senegal, a complementary strategy of investment in facilities and staffing are also required to bring greater geographical access and upgrade services.

Keywords: Deliveries; caesareans; Senegal; exemptions; evaluation; cost effectiveness

PS 01/3**To Alter or Not to Alter: The Fate of User Fee Exemptions for Vulnerable Groups Under National Health Insurance**

Mr. Patrick Apoya¹, Theophilus Ayugane², Elizabeth Awini³

¹ Community Partnerships for Health and Development

² Royal Netherlands Embassy, Accra, Ghana

² Dodowa Health Research Centre, Dodowa, GAR

Inadequate utilisation of health facilities due to financial constraints posed by the imposition of user fees has led to high mortality rates, especially among children under five years and women. Exemptions from payment of user fees in government health facilities for certain demographic groups, and the implementation of the National Health Insurance Scheme are major social policies that the government of Ghana has implemented to mitigate the problem. These two schemes work together or individually to mitigate the problems resulting from user fees. However, the actual extent to which these two schemes are alleviating the financial burden of health care for households in Ghana has not been adequately established. This paper has addressed questions surrounding the extent to which:

- The total share of the health care costs for the exempted groups is financed by the exemptions scheme only, assuming optimal performance, or in addition to health insurance.
- Exemptions and health insurance as financing mechanisms are dependable in terms of population coverage, ease of access, continuity of service, sustainability, equity, satisfaction of beneficiaries

Structured questionnaires were administered to 223 households in the Nkoranza District to obtain information on members within the exempted groups that visited a health facility during the period November 2005 –November 2006. All health facilities that were reported to have been visited by a member of the exempted group were visited to review patient records to obtain information on different services provided, costs of the different services and how these costs were financed, involving 308 patient records.

Out of 306 exempted group members recorded in households, 66.7% were enrolled with the Nkoranza District Mutual Health Insurance Scheme whilst 33.3% were not insured. The total percentage of the financing burden legitimately payable by insurance was 89.57%, and the financing burden actually borne by insurance was 88.21%, recording an effectiveness rate of 98.5%. The financing burden actually borne by exemptions only was 0.7%, instead of 89.1% of costs that were legitimate for coverage, translating to an effectiveness rate of 0.8%. Under ideal implementation of both schemes, the additional value of health insurance over the exemptions would be a marginal 0.56%, but under current implementation circumstances, this has increased to 89.5%. This study makes a strong case for redesigning the exemptions scheme, given that its potential value is high whereas the current design and implementation yields only 0.8% of that potential value.

PS 01/4

Twenty stories behind the policy... a case-study approach to evaluate the impact of user fee removal in the health sector

Barbara Carasso¹, Caesar Cheelo², Chitalu Chama², Gabriel Pollen², Mylene Lagarde¹, Collins Chansa³, Natasha Palmer¹

¹ London School of Hygiene & Tropical Medicine, London, UK

Corresponding author: barbara.carasso@lshtm.ac.uk

² University of Zambia, Lusaka, Zambia

³ Ministry of Health, Lusaka, Zambia

Rationale

Following the example of other African countries, user fees for health services were removed in rural districts in Zambia in 2006, and this policy was extended to cover peri-urban areas in 2007. Since the debate over the merits and drawbacks of this type of health care financing policy is ongoing, it is essential to evaluate the impact of user fee removal on utilization and document the perspectives of health staff and patients.

Objectives

The study aims to explore the changes that occurred at facility-level after the national policy change was decided. These changes were assessed in terms of health services utilisation, motivation of health workers, and perspectives of health providers and end-users. In addition, the way in which the policy has been implemented at facility-level was documented.

Methods

A case study approach was used whereby charging (6) and non-charging (14) facilities in rural and urban districts were selected as the unit of analysis. Monthly health utilization data were collected from each facility, and motivational issues of health staff were recorded using self-administered tools. Key informant interviews were carried out at district and facility level to explore implementation issues and providers' perspectives. Finally the perspective and experiences of patients are captured through patient exit interviews. Data were analysed by comparing quantitative indicators before & after fee removal (for facilities that had removed fees), and comparing cross-sectionally between charging and non-charging facilities.

Findings

Results will be presented on the impact of the removal of user fees at facility-level. Issues surrounding the implementation of the policy will be assessed: when it was exactly implemented, which services it applies to, and which patients receive free care both before and after the policy change. Then, the study will map monthly attendance rates at facility-level over the past three years, and possible alternative explanations for a potential increase in utilization – or absence thereof - will be sought. Staff job satisfaction will be compared between charging & non-charging

facilities. Finally, the perspectives of health personnel and patients on the merits and drawbacks of user fee removal will be documented in detail.

Conclusion

Lessons from the individual case studies will be drawn up on how the policy change has affected the situation in terms of utilization, as well as for staff and patients. Experience from these case studies will help to inform the discussion on user fee policy at the national and international level.

Parallel session 1: Benefit incidence of health services

PS 01/5

Public spending on health care in Africa: a benefit incidence analysis of Ghana, Tanzania & South Africa

B. Garshong¹, J. Ataguba², F. Kessy³, J. Borghi^{3,4}, D. McIntyre², F. Meheus⁵

¹ Ghana Health Services, Accra, Ghana

² Health Economics Unit, University of Cape Town, Cape Town, South Africa

³ Ifakara Health Research and Development Centre, Dar Es Salaam, Tanzania

⁴ London School of Hygiene and Tropical Medicine, London, United Kingdom

⁵ Institute of Tropical Medicine, Antwerp, Belgium and Royal Tropical Institute, Amsterdam, The Netherlands

Objectives: Public subsidization of health care may improve access to health care and the financial well-being of households by reducing out-of-pocket expenditures. However evidence has shown that public health care subsidies are often not well targeted to less wealthy population groups. This paper examines the distribution of public spending on health care across individuals ranked by living standards in three African countries using benefit incidence analysis.

Methods: Benefit incidence analysis combines information on the cost of providing public health services with their utilisation to assess how benefits from public spending are distributed across individuals ranked by some measure of living standards. The public subsidy received by an individual for a specific service is calculated by multiplying the utilisation of the service by its unit cost and subtracting any payment the individual made to receive the service.

Data on public health care utilization, need and out-of-pocket expenditures were derived from household surveys organized in each country. Individuals were ranked in quintiles on the basis of a composite index constructed through the use of principal components analysis. Unit costs across health services and facilities were derived from secondary sources such as national health accounts and supplemented with facility based costing studies when available. Need was based on self-assessed health status.

Findings: The distribution of public health subsidies over quintiles and disaggregated by various types of care (e.g. hospital/non-hospital, inpatient/outpatient care) will be presented for each country. Inequality in the use of (public) health care is measured with the concentration index and compared with the need for health care to assess the degree of horizontal inequity.

It is expected that in countries with health insurance covering a large proportion of the population such as in Ghana, or in countries with substantial tax funding and limited or no user fees such as in South Africa, public health care subsidies will be more progressively distributed across socio-economic groups.

PS 01/6

Barriers to Antiretroviral Therapy in Malawi: An assessment of socioeconomic inequalities

Talumba Chilipaine-Banda¹, Eyob Zere², Bertha Nhlema-Simwaka¹, Erik Schouten³, Ireen Makwiza-Namakhoma¹

¹ Research for Equity and Community Health (REACH) Trust

² World Health Organization

³ Ministry of Health, P.O Box 30377, Lilongwe, Malawi.

Background: Despite access to health services being free at the point of service delivery, evidence suggest that the poor in Malawi wait longer, receive fewer drugs and pay more in comparison with the non-poor. These conditions are worse for people living in rural and geographically remote areas. For a country heavily affected by HIV/AIDS, the situation would be worse for patients on Antiretroviral Therapy (ART) whereby costs, long distances and long waiting times are highlighted as some of the barriers to treatment adherence.

Methods: This study interviewed ART patients using a structured questionnaire. Data was collected in two districts of Malawi namely, Lilongwe and Rumphi. A total of 947 ART patients were interviewed in almost all public sites providing ART in these two districts. Information was collected on patient's demographic and household characteristics as well as asset ownership. The Principal Component Analysis (PCA) was used to obtain asset indices and wealth quintiles among patients on ART. The analysis was done using STATA SE 10.1.

Results: Based on the wealth quintiles, there were wide differences between the two extreme wealth quintiles- the poorest 20% and the richest 20%. The poorest 20% travel a longer distance to get to a health facility as compared to the richest 20%. Furthermore, the poorest 20% incur higher transport costs and on average take longer time traveling to the facility as compared to the richest 20%. Also the poorest 20% from rural areas travel long distances, incur higher transport costs and take longer to get to the facility as compared to the poorest 20% in urban areas.

Conclusion: The results indicate that the current ARV treatment is inequitable. It is therefore imperative that the government should devise new treatment mechanisms that would enable the poor and other vulnerable groups access treatment at minimal cost. The government would, for example, increase the number of clinics that operate in rural areas or use mobile clinics.

PS 01/7

Socioeconomic inequalities in treatment and prevention of malaria in Tanga district, Tanzania

Fred Matovu, Faculty of Economics and Management, Makerere University, Kampala, Uganda

Abstract

Studies show that the burden of malaria remains huge particularly in low-income areas. Effective malaria control measures such as insecticide-treated nets (ITNs) and antimalarial combination therapy (ACTs) have been promoted but relatively little is known about their equity dimension. In addition, empirical studies on inequalities in access and utilisation of malaria control measures tend to adopt a quantitative analytical approach and seldom explore community perspectives on the likely causes of the inequalities. This study addresses this gap by analysing the extent of inequalities in access, utilisation and expenditure on malaria treatment and prevention, using data from Tanga district, Tanzania. It also explored community perspectives on the barriers to access and use of ITNs and antimalarials.

Data were collected in a household survey of 1603 households (863 households in the rural areas and 740 in the urban areas) and 16 focus group discussions (FGDs) within rural and urban areas. Inequalities in malaria treatment and prevention were analysed using bivariate inequality measures and multivariate regression models across socioeconomic groups, based on an asset-based wealth index and education class, and by location. FGD data were subjected to manual content analysis.

The results showed that inequalities in the utilisation of ITNs and obtaining antimalarials (AMs) favoured the least poor and were much larger within the rural areas. Utilisation of ITNs both within the rural and urban areas and by age groups fell far short of the RBM targets of 80% coverage, yet households spent more than 4 times on other prevention strategies such as repellents than on nets. Majority of the nets used had not been treated in the past six months. Only 38% of households used a treated net compared to 80% with any net. Access to referral health care facilities remains poor in rural areas. Although retailers were a key source of treatment for households in rural areas and the poor, very few patients received AMs at these sources. Lack of money was a key barrier to obtaining AMs and using ITNs.

There is need to promote net treatment, and use of ITNs particularly in the rural areas and for under5s. Free mass distribution of ITNs should be promoted, and the subsidised ITNs for pregnant women currently should be extended to cover under5s. Rural facilities should be better equipped to handle severe malaria and subsidised AMs should be available at private health facilities as well to improve coverage and promote equity.

Parallel session 1: Economic evaluation

PS 01/8

Cost effectiveness analysis of the training of medical doctors in emergency surgery compared to alternative training strategies for improving access to emergency obstetric care in Burkina Faso

Hounton Sennen¹, Danielle Belemsaga², Newlands David³, Meda Nicolas^{2,4}, De Brouwere Vincent⁵

¹ University of Aberdeen, Scotland, UK & WHO Multi Disease Surveillance Centre (shounton.muraz@fasonet.bf)

² Centre MURAZ, Burkina Faso

³ University of Aberdeen, Scotland, UK (d.newlands@abdn.ac.uk)

⁴ University of Ouagadougou, Burkina Faso (nmeda.muraz@fasonet.bf)

⁵ Institute of Tropical Medicine, Antwerp, Belgium and Institut de Recherche pour le Développement INAS, Rabat, Morocco (VDBrouwere@itg.be)

Objectives:

The aim of this paper was to assess the cost effectiveness of a training strategy in emergency surgery for medical doctors at district level compared to alternatives.

Methods:

Case extraction forms were used to systematically record data on caesarean sections performed in 2004 and 2005 in district hospitals of 6 out of the 13 health regions of Burkina Faso. Effectiveness was assessed using post caesarean complications (haemorrhage, infections, and loosening surgical sutures) and case fatality rates of mothers and newborns. A macro approach was used for costing caesarean section, to derive costs estimates per selected outcomes from the health system's perspective, and incremental cost effectiveness ratios were computed per outcomes and providers. All costs were annualised using useful lifespan for type of providers and capital items, and 3% discount rate. The allocation of total costs to caesarean section and all other care was by appropriate proxies of the volume and time of caesarean section. Sensitivity analysis was conducted on major costs categories.

Results:

Overall, cases-mix per provider was comparable. Newborn CFR (per thousand) varied significantly among obstetricians, general practitioners and clinical officers and were 99, 125 and 198 respectively. The estimated average cost per averted one additional newborn death (x 1,000 live births) for obstetricians led teams compared to general practitioners led teams and for general practitioners compared to clinical officers were \$11757 and \$200 international dollars respectively. Training of general practitioners appears therefore to be both effective and cost-effective in the short run. Clinical officers are associated with a high level of newborn CFR.

Conclusion:

Training substitutes is a viable option to increase access to life saving operations in district hospitals. Trained nurses' strategy requires an immediate attention to reduce the case fatality rates of newborns after caesarean sections. This high newborn CFR could be addressed by a refresher course and closer supervision. These findings may assist in addressing supply shortage of skilled health personnel towards safer delivery in Sub Saharan Africa.

Keywords: Human resources, emergency obstetric care, cost-effectiveness, Burkina Faso

PS 01/9**Economic Evaluation of Flying Doctor Services in KZN – South Africa**

*E Daviaud, M. Chopra, Health Systems Research Unit, Medical Research Council.
Cape Town, South Africa*

Background and aim

Differential access to clinical specialist care remains an important cause of inequities in health outcomes. South Africa is considering the use of outreach by specialists and other cadres of workers to improve access to care. Policy makers require a good understanding of the opportunity costs incurred by this form of intervention. We therefore conducted an economic evaluation of a specialist air outreach programme in a rural province in South Africa in 2004.

Methods

This economic evaluation focused on providers costs and compared two strategies for the delivery of specialist care for rural districts in South Africa. Strategy A was based upon the existing programme and consisted of flying specialists and other health care staff not available in district hospitals. Outreach services are organised by an NGO and includes paid public sector health workers and volunteers from the private sector. Strategy B was modelled: 17% of patients seen in strategy A would not received any service, 83% would be referred to secondary and tertiary hospitals for consultation or admission and 7% of patients referred would have road ambulance transport. Three outcome measures were identified: the total cost of each alternative, the cost per patient serviced and the number of patients not receiving services.

Findings

The air outreach strategy services was 47% cheaper than Strategy B, explained by the higher cost of consultations and admissions at higher levels of care, and by the avoided cost of ambulance transport. Other probable savings attributable to the outreach services are not included: savings linked to earlier diagnosis and treatment and improvements in overall quality of care in visited hospitals due to support-training provided by outreach, savings for patients and relatives.

Important factors contributed to these results:

- High density of the rural population combined with the number of hospitals visited increases the efficiency of the outreach services.
- Detailed assessment of needs and gaps to improve optimal deployment, medium term planning and controlled growth.
- Efficient co-ordination with visiting specialists and district hospitals
- Air service enables visits in 1 day, reducing staff costs and facilitating involvement of volunteers from the private sector

PS 01/10

Cost of management of persons living with HIV/AIDS study in 3 associations in Bujumbura (Burundi)

Adrien Renaud¹, Dr BASENYA Olivier²

1. Freelance consultant

2. National Public Health Institute, Burundi (NPHI)

The study aimed to analyse the costs of managing people living with HIV/AIDS in three associations in Bujumbura involved in HIV/AIDS management namely, « Association de Soutien aux Séropositifs et Sidéens (ANSS) » -Association of Support to HIV Positive Persons and AIDS patients, the Society for Women Against AIDS (SWAA), and « Nouvelle Esperance » -New Hope.

We therefore examined the cost of managing PLWHIV in these three structures, by separating persons on ARVs and persons on prophylaxis against Opportunistic Infections (OI). Services considered included both medical and psychosocial management.

The method used separated internal costs from external costs. The internal cost centres selected were medical consultation, the pharmacy, the laboratory, voluntary testing, observance, day hospitalisation, psychosocial management and food support. In the case of the external, they concerned external hospitalisation, helper T cell counting and viral load measuring tests.

A direct unit cost was calculated for each of the cost centres. This unit cost was obtained by dividing the resources utilised by each cost centre (payroll, consumables and fixes assets), by each of the costs centres' annual income for 2007 (number of consultations, number of prescriptions issued, and number of tests conducted, etc.) To this direct unit cost we added an indirect unit cost, i.e. the portion of the Association's activities that do not directly fall under the management of patients, but which are instrumental in its realisation.

The study was conducted in February 2008.

The findings of our study reveal an average cost of annual management of patients on ARVs of US\$ 590, with values ranging from US\$ 471 and US\$ 764 depending on

the association. The annual average cost of management of persons on prophylaxis against opportunistic infections varies between US\$ 82 and US\$ 204 depending on the association.

The costs structure reveals that ARV drugs account for between 30 and 50% of the total cost of depending on the association. The direct internal costs account for 66 to 76% of the overall cost.

Key words: Cost analysis/ HIV/AIDS/Associations of Bujumbura

PS 01/11

The financial contribution of the State to the fight against the river blindness in Cameroon

Njournemi Zakariaou¹, Ntep Marcelline², Epo Boniface Ngah³

¹ Département de Santé Publique, Faculté de Médecine et des Sciences Biomédicales, Université de Yaoundé I

² Programme National de Lutte contre l'Onchocercose, Ministère de la Santé Publique, Yaoundé Cameroun.

³ Health Economics Research and Evaluation (HEREG), Yaoundé - Cameroon

Introduction: In Cameroon, the river blindness is a public health problem affecting roughly 7 million people. The fight against river blindness is carried out through the Ivermectin Treatment under Community Directive strategy (ITCD). The performance of these ITCD activities depends on the financing available. The purpose of this article is to evaluate the financial contribution of the Cameroonian State to the activities of ITCD over the period 2005-2007.

Objectives: Evaluate the annual amount of public funds from direct State allocations starting from the central and provincial levels or of funds locally budgeted for and disbursed for the effective implementation of ITCD activities in the health districts and regions. Consider the financial contribution of the State per treated person.

Methodology: The data were collected by means of a questionnaire relating to the State's financing from the technical, administrative and financial officers of the four levels of intervention of the health system: central, provincial, district and regional health. In addition to the interviews, the following public accounting books were used: budget allocation cards, debt security confirmation, expenditure authorisation slip, purchase-delivery-reception slips of goods and consumables, contracts with suppliers and service providers, cash receipts, travel and supervision expenses discharge cards, inventory cards, receipts and paid and signed invoices and annual financial reports.

Results: The annual financial contribution of the State rose to US\$1,468,579, US\$1,689,580 and US\$ 1,904,396 in 2005, 2006 and 2007 respectively. However, this annual financial contribution remained stable with roughly US\$0.41 per person

treated during the same period. The various fields of ITCD which received State financing are the following: the functioning of the departments, the motivation of Community distributors and staff, production, on a national scale of communication material (Advocacy, Social Mobilization, Communication for the change of behaviour), training, distribution of Mectizan and the management of the side effects, supervision, monitoring and evaluation of the ITCD activities.

Conclusion: The sustainability of the activities of ITCD still requires a lot of financial efforts on the part of the State beyond US\$41 per treated person. When the external financing, the bulk of which comes from the African River Blindness Control Programme (APOC) is withdrawn, the performance of the river blindness control activities will depend on official financing.

Parallel session 2: Financing and policy

PS 02/1

Improving Equity in the Subsidies for Healthcare in South Africa

Heather McLeod. Department of Public Health and Family Medicine, University of Cape Town; Department of Statistics and Actuarial Science, University of Stellenbosch

Background

In May 2005 the World Health Assembly endorsed a resolution¹ calling on member states to work towards universal coverage and pre-payment for healthcare services. Countries were called on to share experiences on different methods of health financing, including the development of social health insurance schemes, with particular reference to the institutional mechanisms that are established to address the principal functions of the health-financing system. A report in 2006 on the status of healthcare funding in Africa² concluded that countries need a comprehensive health financing strategic plan with a clear roadmap of how to transit to universal coverage.

The South African health system has long been characterised by extreme inequalities in the allocation of financial and human resources. The delivery system is a mix of robust private sector, struggling public sector and some non-governmental not-for-profit organisations. Private health insurance has been in existence since 1889 but remains voluntary and serves only the 14.8% of the population with higher incomes. There is a tax subsidy for private healthcare which favours the highest income but gives no subsidy to those using private insurance that earn below the tax threshold. Out-of-pocket payments account for almost a quarter of private health care financing, partly due to the use of personal individual medical savings accounts in many health insurance funds.

South Africa intends to implement major reforms in the collection and pooling of financing for healthcare. Free market reforms in private health insurance in the late 1980s and early 1990s had produced adverse results in terms of health care equity and access, with the elderly and those with chronic disease being most vulnerable.

The new democratic government in 1994 began a process of re-regulation, with the re-introduction of open enrolment, community-rating and minimum benefits from January 2000. A system of national health insurance with income cross-subsidies, risk-adjusted payments and mandatory membership was envisaged in policy papers

¹ World Health Organization (2005b) *Sustainable Health Financing, Universal Coverage and Social Health Insurance. Resolution*. Fifty-Eighth World Health Assembly WHA58.33, Agenda item 13.16, 25 May 2005. Available on <http://www.who.int>

² Kirigia J.M., Preker A., Carrin G., Mwikisa C., Diarra-Nama A.J. (2006) *An overview of health financing patterns and the way forward in the WHO African Region*. East African Medical Journal, September 2006 (Supplement). Available on <http://www.who.int>

from 1994 onwards³. Subsequent work has seen the design of a Risk Equalisation Fund (REF) that will operate between competing private health insurance funds. The REF is also envisaged as the vehicle to distribute the government subsidy for healthcare. The diagram below indicates the steps that are envisaged in moving to a mandatory health system⁴.

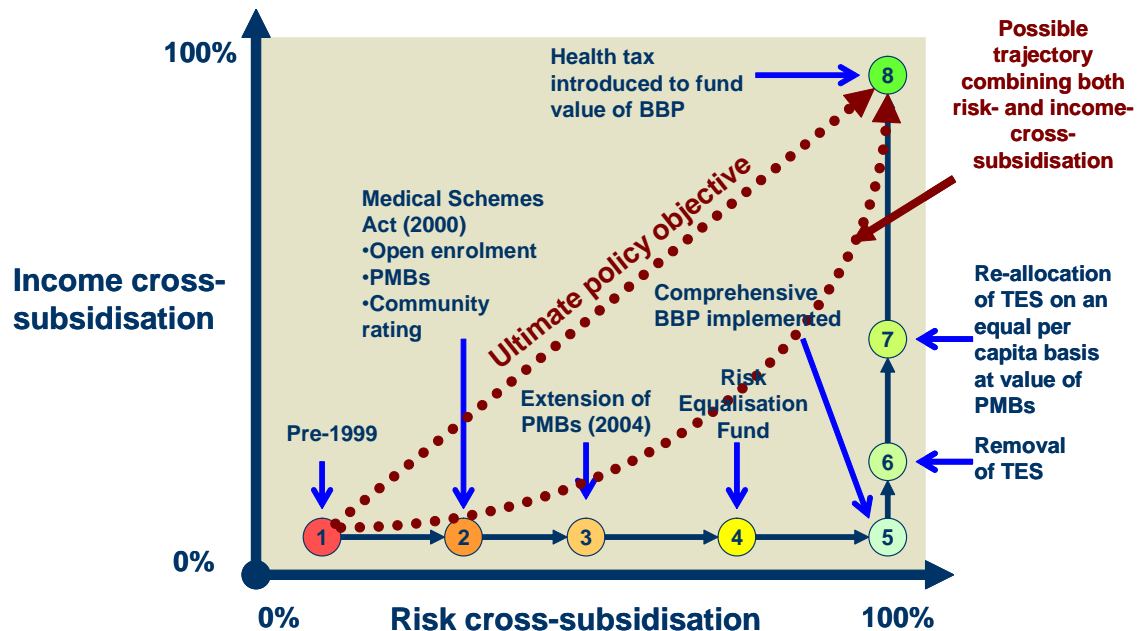


Figure 1: Policy trajectory for the implementation of mandatory health insurance
Source: Ministerial Task Team on Social Health Insurance, July 2005

This presentation will focus on steps 6 and 7 in Figure 1. A critique of the system of subsidies for private health insurance was prepared initially⁵ using data adjusted to calendar 2005. The subsequent tax reforms of 2006 did not substantially change the shape of the subsidies or ease the problem that those earning below the tax threshold do not benefit from any subsidy. The level of the subsidy for private healthcare is also not linked in any way to the funding of public sector care. With

³ McIntyre D., van den Heever A. (2007) Social or National Health Insurance. In: Harrison S., Bhana R., Ntuli A., editors. *South African Health Review 2007*. Durban: Health Systems Trust; 2007. URL: <http://www.hst.org.za/publications/711>

⁴ The "Removal of TES" refers to the removal of the tax expenditure subsidy created by the tax subsidy for private health insurance. "PMBs" are the prescribed minimum benefits that must be offered by all health insurance funds. "BBP" is an expanded set of minimum benefits.

⁵ McIntyre D., McLeod H. and Thiede M. (2005) *Comments on the National Treasury Discussion Document on the Proposed Tax Reforms Relating to Medical Scheme Contributions and Medical Expenses*. Unpublished report from Health Economics Unit and Department of Public Health and Family Medicine, University of Cape Town, 21 September 2005.

very high healthcare inflation in the private sector, the subsidy for private health insurance is growing faster than public sector funding.

The technical work on evaluating the subsidy would be updated to 2008 and the revised tax tables for 2008 used in the model. The lack of equity in the subsidy for private insurance would be demonstrated using model families and particularly low income families. An approach which would equalise the subsidies and link them to public sector expenditure per person would be demonstrated. This would substantially improve the equity in the subsidy structure.

The difficulty of sequential implementation of complex reforms will be raised as a concern in the implementation of a mandatory health insurance system. Problems associated with implementing step 4, the Risk Equalisation Fund, before implementing the change in subsidy in step 7 will be considered. The adverse impact of risk equalization on low income workers in the absence of income cross-subsidies and mandatory membership will be demonstrated. Risk equalization is a critical component in moving towards a system of social or national health insurance in competitive markets, but its implementation in isolation while the market remains voluntary could be damaging.

This material is critical for the debate needed in South Africa on the rapid implementation of a mandatory health insurance system. The material should be of interest to researchers from other African countries in high-lighting obstacles to avoid in moving from voluntary to mandatory health insurance.

PS 02/2**Equitable Financing of Primary Health Care under a Fiscal Federal System: Swimming Against the Tide?**

Okore Okorafor, Health Economics Unit, University of Cape Town

Background The introduction of fiscal federalism is a reform not done primarily with health sector concerns. Many countries have adopted this form of government structure. In general, the objective has been to promote democracy and efficiency in service delivery, through better responsiveness to local needs and preferences. A key concern for the health sector is that the decentralisation of expenditure responsibilities for health care can lead to or exacerbate existing inequities in the allocation of health resources across geographic areas. However, the philosophy of the primary health care (PHC) approach subscribes to the provision of PHC services by lower government levels or health administrations such as local governments and health districts. Thus, many health systems have been encouraged to decentralise the responsibilities for financing and provision of PHC services.

Objective The objective of the study was to assess the impact of intergovernmental structures within the South African fiscal federal system on equity in the financing of PHC services. Influence of factors such as levels of autonomy, intergovernmental

transfer mechanisms, community participation, budgeting and resource allocation processes were considered in the analysis.

Methods The primary site for the study was South Africa, with Nigeria as a study site for comparative analysis. The study made use of both qualitative and quantitative data. Qualitative data was from interviews with government officials involved in decision making for intergovernmental transfers and budgeting processes that determine the size of PHC allocations to districts (South Africa) and local governments (Nigeria). Quantitative data was used to assess the changes in the pattern of PHC allocations, based on health needs. Health needs were measured by the use of deprivation indices. The study also reviewed the experience of other fiscal federal systems in the financing of PHC.

Research Findings Countries where SNGs enjoyed higher levels of autonomy in the financing of PHC, experienced inequity in PHC financing along existing socio-economic differences in local jurisdictions. In older and more advanced federal systems, basic services such as health (and PHC) was financed jointly by the central and SNGs. This allowed the central government the option to intervene in fiscal arrangements in order to achieve a more equitable distribution of PHC services. In the case of South Africa, the increased involvement of the central government in fiscal matters at the level of the province coincides with convergence of PHC expenditure per capita across local jurisdictions. Although the study focused on federal systems, the results also have implications for decentralised health systems.

Key words: Equity, fiscal federalism, health care financing.

PS 02/3

The Impact of Coordination and Policy Networks on the National Health Insurance Policy in Ghana

Gina Teddy, gt501@york.ac.uk

Background: Implementation of public health policies and programmes rely heavily on coordination of multiple stakeholders. However the agencies involved often have conflicting organizational structures, aims and priorities, and their complex relationship and interests potentially impact on the overall functioning of such programmes. This paper explores these challenges in the context of the National Health Insurance Programme (NHIP) in Ghana, which was introduced in 2003 to reduce inequalities in healthcare by improving access to health services.

Aims: The purpose of this paper is to examine how implementation of the National Health Insurance Programme (NHIP) brought together multiple agencies and stakeholders in the process of implementing a national policy that aims to achieve the removal of financial barriers and increase accessibility to health care and services. This paper highlights two different parts of the implementation of the NHIP (i) it illustrates the complexities of the structure of policy networks and coordination in implementing the NHIP and (2) it analyzes the process of coordination and policy

networks among acting agencies at the three levels of implementation and how these processes create facilitators or barriers to the policy implementation process.

Data and Methods Data was collected using purposive sampling from 27 acting agencies and organizations at the national, regional and district levels. The study was carried out in two phases within two years; in 2005 and 2007. Key informant (KI) interviews, group interviews and semi-formal conversation were held with 55 officers from the 27 institutions. At these interviews, discussions on participation, functions and contributions toward the implementation and operation of the NHIP and the coordinated challenges in performing those functions were discussed in details. In both phases, interviewees represented senior officers of their institutions and were mostly in charge of implementation of NHIP policy. Their response reflected a population of experienced implementers and coordinators of the scheme.

Results and Conclusion Findings from the study demonstrate that, there are multiple actors involved in a complex structure of implementation, operation and coordination at the macro, meso and micro levels. The data however, portrayed a huge amount of gap in coordination at the meso level that links the national to the district-local level, and this has created a barrier in horizontal coordination and operation of the NHIP. Thus, the structure of horizontal coordination is weak and distorted due to the break in policy networks at the meso level that is supposed to provide a linkage between the national and district local level institutions. The study also revealed in terms of vertical coordination that, policy networks at the macro level is highly limited, official and largely undertaken as a legal requirement based on institutional policies, politics and bureaucracies that defines the autonomy of individual actors and this has impacted on the implementation process. Macro level coordination was proven to be particularly problematic between the National Health Insurance Council and the rest of the national level actors. At the meso level however, coordination is undertaken by a single institution as compared with the micro level where coordination and involvement of actors is highly participatory. Meanwhile, in all three levels, the study showed no clear guidelines and provision for coordination among implementing actors; and this has impacted on implementation process and policy networks as a whole.

Parallel session 2: HIV/AIDS: Financing and reporting research results

PS 02/4

HIV/AIDS financing and health policy in South Africa

C. Tsafack Temah

Economic Affairs Officer, Economic Commission for Africa, Sub-Regional Office for Central Africa P.O Box: 14935 Yaoundé, Cameroon. ctsafack@uneca.org, Tel: + 237 22 14 61, Fax: 1 237 22 23 31 85.

Although HIV/AIDS is a big public health and even a development issue in South Africa, many other affections contribute to the disease burden. In term of financing, HIV/AIDS also receives an important share. Since its creation in 2002, the Global Fund to fight AIDS, Tuberculosis and Malaria has funded many projects in developing countries. In South Africa, it has disbursed more than 128 million dollars, mostly for the fight against HIV/AIDS. Fundings from alternative sources added to this amount to make up a substantive sum, which can make a significant contribution to the fight against the epidemic in this country where 5 700 000 people were estimated to be living with HIV/AIDS at the end of 2007. The purpose of this paper is to examine the adequacy of HIV/AIDS financing with national health policy and whether the resources allocated to the fight against HIV/AIDS are efficiently used.

First, we intend to assess how HIV/AIDS financing fits into overall health financing in South Africa; we then present health system, health financing and HIV/AIDS different sources of financing in the country. While only primary health care is offered free, HIV/AIDS interventions, which are not all included in the primary health care package, also tend to be free of charge for patients. Even the relatively expensive antiretroviral therapy is offered free to those who receive it. Our second objective is to assess whether the resources allocated to the fight against HIV/AIDS are used efficiently. So we look at the evolution of health indicators, the possibility of a “crowding out” effect of other health issues by the financing of HIV/AIDS, and finally the absorption capacity in the country concerning HIV/AIDS financing.

Using data from the Health System Trust, Health Economics and AIDS research Division (HEARD) and South African provincial departments of health; we describe South African health system and its different sources of health financing. Then, we look at the sources of financing of the fight against HIV/AIDS, both domestic and external. Finally, we try to estimate the efficiency of HIV/AIDS financing. To this end, we decompose the resource allocation within health sector and the burden of disease and mortality by causes. We also estimate the costs of treating HIV/AIDS in the country and we compare them with two important health issues, namely vaccination and oral rehydration. Last, we look at absorption capacity issues concerning HIV/AIDS financing.

PS 02/5**Harmonisation and Alignment of Aid for HIV and AIDS – Progress in the Southern African Development Community since the Paris Declaration**

Teresa Guthrie, Centre for Economic Governance and AIDS in Africa (CEGAA), Cape Town, South Africa

Background: Since the 2005 Paris Declaration on Aid Effectiveness, there have been initiatives to improve the harmonisation and alignment of aid generally. Within the field of aid for HIV and AIDS, this has been even more necessary, due to the large numbers of funders, the increasing amount of funding, and the complexity and fragmentation of activities.

This study sought to assess the progress of SADC countries towards harmonisation and alignment of funds for HIV and AIDS, to review the existing declarations, instruments and funding mechanisms, to identify the blocks and challenges, and to make suggestions for required actions.

Methods: This study used literature review and interviews with key respondents from various countries in the SADC. It also drew data from existing country National AIDS Spending Assessments.

Findings: Much progress has been made in many of the SADC countries with regard to the harmonisation and alignment of aid for HIV and AIDS. These have been facilitated through the implementation of funding mechanisms such as Joint Development Strategies, Common Funds for Health, and basket funding for National AIDS Commissions. Development Partner Forums have been established and most donors have made efforts to align their activities to national priorities, with the exception on a few. The International Health Partnership is the most recent efforts to enhance a coordinated response to health systems strengthening. However, there are still many factors which continue to reduce the effectiveness of these efforts, and ultimately of the effectiveness of the aid. Various recommendations are made, which fed into a SADC Framework for Action.

PS 02/6**Too much of a good thing? The effects of new HIV/AIDS financing mechanisms on overall health system performance**

Karen A. Grépin, Ph.D. Candidate in Health Policy, Harvard University

HIV/AIDS is one of the most important epidemics to have ever affected humankind. Sub-Saharan Africa (SSA) has been disproportionately affected, and given the relatively weak health infrastructure in the region, it has also been the area least able to mount an effective response against the disease (UNAIDS, 2007a). In recent years, however, the international community has responded to the needs of these countries by providing billions of dollars of new funding to mount national prevention, treatment, and control programs (UNAIDS, 2007b). There has been a

massive increase in HIV/AIDS funding through the creation of new international health financing mechanisms, such as the Global Fund to fight AIDS, Tuberculosis, and Malaria and George W. Bush's President's Emergency Plan for AIDS Relief (PEPFAR), over the past decade (Bernstein & Sessions, 2007).

SSA is also facing a severe shortage of health workers (Chen, Evans, Anand, Boufford, Brown, Chowdhury et al., 2004). Many experts have suggested that the shortage of health workers is the most important constraint on the development of health systems and improvements to health in the region. Given that human resources are already very constrained, and given the tremendous new demands being placed on these health systems from HIV/AIDS programs, some have argued that these new HIV/AIDS financing mechanisms are inefficiently diverting resources away from more cost-effective interventions, and could even be causing more harm than good (Garrett, 2007). However, to date there has been little empirical evidence to support these claims.

Using data on health system indicators (e.g. mortality, immunization coverage, access to basic health services, etc) collected at the national and sub-national level in SSA, I investigate the relationship between HIV/AIDS funding from international donors (e.g. by exploiting variation in the timing, level, and relative size of HIV/AIDS funding as compared to national health budgets) and overall health system performance using a cross-country regression analysis framework. In particular, I am interested in how these effects are modulated by the availability health human resources and affected by other international aid initiatives. I then instrument for HIV/AIDS funding using a set of political variables. My preliminary results indicate that these programs may have both positive and negative impacts on health system performance, and that the interaction between different financing mechanisms is important. These findings suggest that a greater share of new international aid for global health should be directed towards health system strengthening activities.

Parallel session 2: Preferences and willingness to pay

PS 02/7

Using discrete choice experiments to elicit preferences for maternal health care in Ghana

Laura Ternent¹, Aba Daniels David Newlands²

¹ University of Aberdeen, Health Economics Research Unit

² University of Accra, Ghana

Objective: To analyse the validity of discrete choice experiment (DCE) methods to elicit preferences for hospital based maternal health care in Ghana and assess the wider implications for the use of this technique in low income countries generally.

Methods: 5 attributes and their appropriate levels were selected to represent the most important determinants of hospital based care. Attributes were selected via focus group discussion conducted in Ghana, literature review and expert opinion. An orthogonal main effects design was used to reduce the number of alternative scenarios to a feasible number.

Two forms of the questionnaire were administered. Firstly, a part enumerator part self administered questionnaire of individuals in certain professions (e.g. teachers, health service workers, civil servants) which require them to be literate, in the Cape Coast region of Ghana were purposively selected to answer the DCE. Secondly, an enumerator administered visual aid version of the DCE was administered to general community respondents, using specially designed pictures representing each of the levels of the attributes. 600 purposively sampled individuals and 200 general community members answered the questionnaire

Key findings: Results from the baseline logit model which includes all respondents and logit models for the purposively selected sample and community sample (those who received the visual aids) show that the results are intuitive, with all coefficients being of the expected sign and all significant.

Tests of internal validity, which included two tests of rationality (whether individuals presented with a choice set in which one option was better on all levels would chose the best option) and a test of consistency, that is given the same choice set at different points in the questionnaire would the respondent choose the same option twice, suggest high levels of both rationality and internal consistency for both samples.

Results from the pre-test, pilot and analysis of the final data set suggest that the DCE method is feasible in developing country settings and, in particular, that with the employment of visual aids it can be used among non-literate respondents.

If DCEs are to be more widely used in developing countries, they have to be applicable to a general cross section of community respondents rather than being restricted to the educational elite. Hence, the importance of testing the feasibility and validity of using visual aids to represent attributes and their levels as in this study.

PS 02/8**Willingness to Pay for Health Care and Antiretroviral Drugs:
Evidence from Rural Southern Region of Malawi**

Tchaka Ndhlovu, Research for Equity and Community Health Trust

The decade-long and emotional debate about unavailability of life-saving antiretroviral (ARV) treatment in resource-poor countries is no longer fashionable. It is no longer fashionable because, in recent years, donor resources mainly from the Global Fund have enabled poor countries to scale up treatment. A critical issue however remains the long term sustainability of ARV treatment. The concern is that ARV treatment is for an individual's lifetime while there are no guarantees for continuous funding from donor. For example, the Global Fund is transitory project with a lifespan of five years. In light of this, poor countries need to explore new financing mechanisms for treatment. This study investigates the feasibility of using traditional risk pooling mechanisms that are widely available in traditional societies to finance treatment. We employ contingent valuation method (CVM) to generate total societal value of ARV treatment. CVM generates use and nonuse values of a good or service. It has widely been used in environmental economics. Its use in health economics is more recent even though it is growing.

The results indicate that ARV treatment has high societal value. In particular, both patients and nonpatients are willing to contribute to a community-based drug revolving fund. Users of ARV have a higher WTP than nonusers; income has a positive effect on WTP; price of ARV has negative influence on WTP; male-headed households have a higher WTP than female-headed households and young men have a higher WTP than old men.

The main implication of our study findings is that it is possible for the government to implement a reasonable cost-sharing scheme in form of informal health insurance. An uphill task for the government however is how to target subsidies to people who cannot afford to pay and how much it should pay in the form of subsidies given our WTP estimates. In particular, an effective cost-sharing scheme should balance the desire for an ARV programme which is both equitable and sustainable. The problem is that general subsidies to health care, such as free or low priced services intended for the poor, but extended to all, can and usually, result in leakages to affluent beneficiaries. This therefore calls for an effective waiver system that has the ability to discriminate between affluent and non-affluent members of the society, disseminate information to potential beneficiaries about the available waiver system and procedures; and provide clear criteria for the granting of waivers.

PS 02/9**Perceptions and willingness to pay for private voluntary health insurance in southeast Nigeria**

Obinna Onwujekwe¹ and Edit V. Velényi²

¹ Health policy Research Group/Department of Health Administration and Management, University of Nigeria, Enugu-Campus, Enugu, Nigeria.

² The World Bank, Washington DC.

ABSTRACT

The real challenge of health care financing in Nigeria as in many sub-Saharan African (SSA) countries lies not primarily in the acute scarcity of resources, but also the presence of inefficient resource allocation and purchasing practices, due primarily to limited use of health insurance. The feasibility of private voluntary health insurance (PVHI) was assessed in southeast, Nigeria, using pre-tested questionnaire to elicit stated levels of willingness-to-pay (WTP) from a random sample of respondents. Most respondents were willing to enroll and pay for PVHI. The mean monthly WTP of respondents for their premium was 396 Naira (\$3.3), whilst the mean monthly WTP of respondents for other household members was 261 Naira (\$2.2) per household member. Notably, rural dwellers and poorer socio-economic status (SES) groups stated smaller WTP than urbanites and better-off SES groups. PVHI appears to be a feasible method of paying for healthcare in southeast Nigeria. Unsubsidized PVHI may never cover everybody especially indigents, but if it covers some of the people willing and able to pay such as the better-off SES classes, that is at least better than having them face high OOPS, such as was found in this study.

Plenary session 2:

- George Dzakpallah - From SWAP to General Budget Support: Ghana's experience of pooling, harmonization and alignment
- Ras Boateng - Ghana's National Health Insurance System: design, implementation and perspectives

Chair: Dr Moses Adibo, ex-Deputy Minister of Health, Ghana

Plenary session 3: The business case for private investment in Africa's health sector

This session will present the IFC's new Health in Africa (HiA) strategy to invest in Africa's private health sector and provide a forum for discussing opportunities for a better engagement of the private health sector in achieving broader health goals.

Speakers

- Scott Featherston, Team Leader for the Health in Africa (HiA), IFC
- Alexander S. Preker, Head Health Investment Policy (CICIG), World Bank Group

Panelists:

- Max Lawson, Senior Policy Adviser at Oxfam, Oxfam (London, UK)
- Onno Schellekens, Managing Director, PharmAccess (Amsterdam, Netherlands)
- Anne Rooney, Vice President, Joint Commission International (JCI) (Chicago, IL)
- Stefan Nachuk, Associate Director from the Rockefeller Foundation, (New York, NY)
- Gina Lagomarsino, Managing Director, Results for Development (Washington, DC)

Background

As described in a recent report on The Business of Health in Africa released by the IFC (www.ifc.org/healthinafrica), the private sector is already a significant contributor to the health system – often providing the only option in rural regions and poor urban slums. Private providers (for-profit and not-for-profit) serve all income levels and have broad geographic reach. As African health expenditure will keep growing rapidly, with the private sector playing a key role, the private sector must work with the public sector to develop viable, sustainable, and equitable health care systems. But it can help expand access to services for the poorest people and reduce the financial burden on governments. But there are a number of impediments to the health sector today including limited access to capital, burdensome regulations, shortages of skilled workers, and a lack of risk-pooling mechanisms that can mobilize revenues for providers.

Presentations

The Business of Health in Africa, the IFC's Health in Africa Strategy

The World Bank's Health, Nutrition, and Population strategy emphasizes working with countries (governments, the private sector, and civil society) and international partners to achieve results on the ground including health-related Millennium Development Goals ("MDGs") and strengthening health systems, financing, and economics. Within this strategic framework, the IFC with the assistance of the Bill & Melinda Gates Foundation and McKinsey formulated a Health in Africa (HiA) initiative to: (i) step up its engagement and support of Africa's private health sector; (ii) to contribute to the implementation of the HNP strategy; and (iii) complement the work of other parts of the World Bank Group that support health services. This

presentation will discuss the findings of the joint IFC-McKinsey report and the details of the resulting IFC strategy to invest in Africa's private health sector.

Scott Featherston and Alexander S. Preker will present the main IFC strategy for better engagement of the private sector, followed by a Panel Discussion by Max, Lawson, Onno Schellekens, Anne Rooney, Stefan Nachuk, Lagomarsino on the challenges of engaging the private sector and importance of addressing quality, equity, efficiency and affordability issues. The session will provide an opportunity to discuss both the opportunities and risks associated with the new IFC strategy and work by other organizations working actively in this area: Oxfam, PharmAccess, the Joint Commission International, the Rockefeller Foundation and Results for Development.

Plenary session 4: User fee competition presentations

PL 04/1

The right price for health!

Aida Zerbo, Dental surgeon, Health economist (Advanced Scientific Studies Undergraduate) - CESAG

«There is a whole world of difference between treating people equally and trying to make them equal. If the first is the condition of a free society, the second is but a form of servitude ». (Hayek)

We have the habit of saying that health is priceless. Health however has inherent costs that must be recovered. There is no doubt about this. Hence, if in the beginning, medicine was practised free-of-charge, States and bodies responsible sooner or later found themselves overwhelmed by the huge amounts that went into health, thereby threatening the survival of health structures. The solution seemed to be outlined through the ideology and principles advocated by the Alma-Ata declaration: priority to the most vulnerable, involvement of the community.

Africa is particularly concerned. Sooner or later however, in view of the slow growth, a weak purchasing power of the population groups, and burdened by the weight of increasingly high operating expenses, a development geared towards self-sufficiency and the self-determination of the health systems became obvious.

Solution: "The population must pay" African ministers decided through the Declaration of intention of the « Bamako Initiative », which advocates cost recovery and community participation. This new direction driven by donor pressure led to the « privatisation of health in Africa», thus further dashing the hope of a possible convergence towards «free universal health coverage».

User fees: a means or finality?

When we recall that apart from households, donors, the State and sometimes companies constitute the main sources of health financing. Whether the State's resources come from direct taxes (income taxes) and indirect taxes ((VAT...); we are tempted to wonder whether « community participation » limited to the economic concept is not becoming a finality other than a means?

Since health financing henceforth « private » ¹, comes up in this case to make households pay directly or indirectly either through – contribution – flat rate – for the care and/or drugs, user fees can be applied only for these two.

¹ SAKHO, CISSE, CODIA: Study of resource mobilisation strategies in the health sector : case of Senegal, 1996 Massachusetts.

This measure was initially justified by the need for cost recovery « **complementary financing alternative** » which was to encourage the population groups to contribute by generating constant resources to finance the operations and activities of the health structures. Health services would no longer be threatened with closure; quality of care was expected to improve in view of the very poor and very substantial resources, health coverage extended and the motivation of care providers revitalised; which was proven over time².

Both poor and rich could thus attend the hospital and be requested to make a financial contribution. Do they pay: Equally? According to the risk? According to the benefit? According to capabilities?

If social justice claims that the last would be the most equitable, the reality on the ground is totally different. During the international conference on community financing (Sierra Leone, 1989) reservations were expressed about the consequences of the tariff policy on the poorest people. As a matter of fact, direct payment, is practically never calculated according to the financial capability of the population groups. It could also differ very much from one health centre to the other within the same health district. Hence, for the same affordability, some will pay more than others.

Nowadays, it is not surprising to hear people say: *«here people have no money; they prefer to die with their diseases! »*. Has the generalising cost recovery, imposed by donor on public health facilities³, not transformed these structures into fee-charging care centres: **no money, no care...?** ... sometimes to the extent of emptying the structures of them. Consultation fees, far beyond the reach of 59% of the poor population groups, are the first and foremost cause of non-consultation (2).

You could imagine my surprise when during the visit to dentist in a regional hospital in Burkina Faso, I realised that, this dentistry, highly equipped on top of that with 2 dental units, received only between 2 and 4 patient per week: just emergencies! Why? People lack the means of paying the consultation fee (FCFA 300F). What is the fate of all these anonymous people, dying at home or having resorted to unorthodox solutions to reduce their pain, those who die at the entrances of our hospitals for lack of means? *« Only cares are available, medicines also ! »* In spite of the BI, 65.5% of the poor find it difficult paying for the prescriptions⁴. On the whole, the utilisation of the services of (and preventive cares)⁵ and fairness of access to cares are adversely affected.

² SOURA: Impact of tariffing and quality of care on the utilisation of Boromo hospital services / BURKINA FASO.

³ SARDAN: Neglected health policies, 2004.

⁴ INSD, 1997

⁵ HADDAD, FOURNIER, 1995

Judicious applicability in Africa

In spite of the growth in the active population (509 million, Africa 2005) 57.7% in sub-saharan Africa live with less than one US dollar per day and 87.1% with less than two dollars,⁶ one easily imagines that the lack of management of destitutes increases the financial barrier for the vulnerable stratum, for whom seeking care means to become impoverished which a doctor qualifies as «*iatrogenic poverty* ». Furthermore, social change, has advocated justice that is closest to equality than equity, and reduced solidarity behaviours, widen the the pit which the destitutes find themselves and push them into a «*medical poverty trap* ».

Furthermore, health expenditures in Africa are supported to a large extent by foreign donors. On this account, the countries generally content themselves to following the successful changes in orientations dictated to by the international institutions with the re-tailoring of the related financial flows: primary health care – costs recovery – reorganisation of the health pyramid – hospital reforms today – not to mention the multiple vertical operations regularly driven around pathologies « fashionable » (AIDS, Malaria...). Furthermore, the BI gave the impression that at the end of donor support, the health centres, managed by the population groups – indeed African governments – would become financially independent. Also the relatively low health budget represents less than 10% of national budgets (3.1% Cameroon 1999; 5.32% Côte d’Ivoire 1999; 6.5% Senegal 2007) ⁷. In addition to this is huge portion of of direct payment in private financing (97.90% Burkina Faso; 68.20 The Gambia, 94.50 Senegal in 2004)⁸. Considering the current priority of governments to resolve the problem of « high cost of living », we are tempted to think that the chapter on user fees will be delayed.

« Any service » has a price! However, the application of low tariffs would promote an irrational consumption of services and an abuse of the care system in its entirety (1). In view of the high risks of completely opposing results of a possible « free care », and those already encouraging but very sensitive, it is proper to find the formula that is most adapted to the African context and realities. As a matter of fact, Africa has this advantage of having imported the experience of other traditional systems even if they are still undergoing reforms. « Pure » private financing of health has largely shown its weaknesses thereby justifying the creation of a parallel health-financing in the USA for the aged and destitutes. However, indirect financing –pre-participation – compulsory (England) or voluntary - contributions (France, Germany) seem most reliable, justifying the fact that Europe, which in the 80s had laid emphasise on the limitation of budgets and direct payment, has for over a decade been considering more refined actions of internal management of the system.

Of course the poverty burden, dependence on foreign financial and policy dependence, the sharp disparity among countries or even among regions, the predominance of the informal sector do not foretell a sure future of for direct health

⁶ ILO, 2006

⁷ WHO

⁸ LAFARGE, 2008

payment. Nevertheless, African values being what our mothers do all the time a relative suffers a misfortune or good fortune: family councils, contributions, tontines, etc, African population groups have demonstrated that they are ready to support health; as seen through the membership of micro health or mutual health insurance schemes.

Furthermore, numerous self-financing perspectives such as – pre-financing – income taxes – specific taxes (VAT) – integrated formalisation of traditional medicine- are in the offing. However, importing or applying experiences as wholesale measures without prior prudent adaptation will be « suicide ». Every one could participate according to his/her capabilities. This research-action requires the provision of predictive tools, establishment of a reliable data base for a more specific analysis and the institution of « tailor-made reforms », undeniable result of the joint and multi-disciplinary effort of qualified African leaders who are conscious of their duty and obligation.

The situation of destitute people does not in principle have all the characteristics of a public problem. Nevertheless, it seems urgent, for scientific and solidarity reasons, to <work out> the formula ideally adapted to curb this exclusion. Libya like The Gambia, where there is a high political will not refute this. Only good intentions, poorly oriented, works in a bad way, eventually, “something happen on the way to heaven...”

PL 04/2

Socio-economic study on the costs and financial accessibility of population groups to health care in Eastern Chad

Morbé Mbainadjina Ngartelbaye¹, Dr. Itama Mayikuli Christian², Mr. Naïbei Mbaïbardoum Nathan³

¹ Health economist, WHO/Chad

² Public health Doctor, MH Sub Office/Abéché-Chad

³ Data processing specialist, consultant

Introduction:

The civil war in Darfour forced over 200 000 Sudanese to take refuge in the Eastern Chad where they receive support from the humanitarian agencies and NGOs for their protection, their health, among others.

At the health level, this presence of the refugees disrupted the care cost recovery system as care provided was free, and also made it possible to reinforce the health system in the care structures close to the refugee camps that are supported.

Faced with the prospect of the short and medium term withdrawal of the humanitarian agencies and NGOs, what would be the best health care tariffing system which should be set up and which would takes account of the population's

ability to really pay? The purpose of this study is to provide an answer to this question.

Methodology:

This study is based on a survey covering a total cross-section of 375 citizens distributed as follows: 150 breadwinners of the urban centres of Iriba, Goz-Beida and Biltine (these urban centres are also major towns of health district with district hospitals), 120 patients or nurses of hospitals in the district in these same towns and 105 patients or assistants of urban health centres also in these towns.

While the households were selected at random, the others were selected according to logic. Another questionnaire was designed, supplemented by reports, for the study of the management of three district hospitals. Data were entered Epi-Info (Computer file) before being transferred on SPSS for analysis and interpretation.

Results:

With respect to the methodology, total sampling was slightly changed, dropping from 375 people to 348 and distributed as follows: households, maintained at 150, the sick and/or nurses in district hospitals, 91 instead of 120, the sick and/or assistants, 107 instead of 105.

With regard to the households, 61% of them visit the care structures when they fall sick, 20% visit to the religious/traditional healers and 19% resort to self- medication. There is a great majority with nearly 100% of the households which have declared being capable of paying amounts not exceeding FCFA 5000 for care. A new tariff structure will have to take this into account. Among these households, 85% are in favour of joining a mutual health insurance company and nearly 100% intend to contribute between FCFA 100 and FCFA 495 per month, for its functioning. Beyond this interval, the number of these potential members drops gradually. This means that the establishment of a mutual health insurance scheme in the area should take this information into consideration. Income frequency analysis reveals that half of these potential members have no regular income.

In the case of the Biltine and Goz-Beida district hospitals where care is not free as in Iriba, the costs of the bulk of admission ranges between FCFA 5000 and FCFA 20 000, but care is more expensive in Biltine. More than 41% those interviewed stated that the costs of admissions were affordable against 32%, but ranging between FCFA 500 to FCFA 5000, 90% find the costs affordable.

In the health centres, the costs of care vary between FCFA 200-FCFA 3000 for more than 97% of those interviewed at Goz-Beida as against 60% in Biltine. Compared to the views, there is a strong concentration (roughly 70%) which declares that costs within the range of FCFA 200 - FCFA 2000 FCFA are within their range. Concerning the analysis of the management of the hospitals, it revealed that free medical care offers a better accessibility, certainly, but it increases irrelevant consultations, causes additional expenditure in drugs, increases the workload, stifles the role of the management committees and creates a strong dependence of management staff

with vis-à-vis humanitarian partners of the funds. The health centres close to the care structures where the care is free experience a dysfunction in terms of reduction in consultations, followed by a fall in revenue thereby bringing about the problems of replenishment of drugs and the difficulties in covering recurrent expenses. The covering of care costs improves secondary cares (complementary package) at Goz-Beida, while this is not the case in Biltine. It also appeared that payment for care in the DHs is a real obstacle to accessibility to care, particularly in Biltine. Even if the Goz-Beida DH has posted some successes, analyses showed that this success is due to the presence of a third-party payer for admitted refugees who account for half of the customers. Lastly, the analysis showed that the payment of the proportional allowances in the DH generally causes an exaggerated demand for care among the customers and this impacts negatively on the quality of the admissions.

Conclusion and recommendations:

When the population has an easy access (free) to care, recourse to other types of care loses its importance, but when this free care has no support measures, it rather has adverse effects on the functioning of the structure and the entire indicators. A great majority of the population (almost 100%) is prepared to pay for cares with costs not exceeding FCFA 5000 and 85.3% of the households interviewed were in favour of joining a mutual health insurance scheme as an alternative to increase access to care and nearly 100% of them have the intention of contributing amounts not exceeding FCFA 500 per month, for its functioning. In the DHs, 95% of people interviewed find the costs of admission affordable where they are not in excess of FCFA 5000. The study recommends that the exemption from payment for care which a partner could offer should always be coupled with necessary support measures. Elsewhere where care is paid for, tariffing must take account of the population's real ability to pay. With a very high percentage of people in favour of joining a mutual health insurance scheme, it appears proper for the Government to formulate a policy for the development of the micro-health insurance schemes and to seek a partner to assist it in its implementation.

Limits of the study:

Some limitations were recorded, particularly the people interviewed at the Biltine district hospital which was reduced by 60% as against to initial planning, the difficulties accessing financial data and the lack of sensitivity test compared to comprehension of the concept of mutuality by the people interviewed.

PL 04/3

User fees in Africa: from theory and evidence, what next?

Araoyinbo, Idowu D.¹, Ataguba, John E.²

¹ Medical Research Council (MRC) Cape Town South Africa

² Health Economics Unit, University of Cape Town (UCT)

User fees are defined as amounts levied on consumers of government goods or services in relation to their consumption. They are also the amounts of money levied on individuals for the use of goods and services from which they receive 'special benefits' (Duff, 2004). Arguments in favour of user fees include: (i) increasing economic efficiency whereby scarce resources are allocated to their most valuable uses both within the public sector and between the private and the public sectors; (ii) the levies charged enhance the accountability of the public sector, making it more responsive to differing preferences and changes in the demand for publicly provided goods and services; (iii) cost recovery and increased equity; and (iv) the idea of benefit taxation is applied based on the principle of 'fairness' as every payer pays only for the goods and services that they use.

For the opponents of user fees, it may impose a heavier burden on the poor who are most likely to face a higher burden of disease (Nyanator and Kutzin, 1999; Gilson, 1997) where in this case, the distribution of publicly provided health care services on the basis of these fees contradicts the very purpose for which public provision was intended and budgetary flexibility will be limited where revenues are earmarked to health expenditures on the publicly provided health services from which the revenues are derived. This has led to sustained decreases in service utilization (Nyanator and Kutzin, 1999). Also, attitudes of individuals towards user fees can adversely impact on government revenues as well as their political viability.

Based on economic theory and on the ground of efficiency, imposition of user charges in public health centres is justified only where the value of the publicly provided service that are financed by the user fees exceeds the value of the health care service that the payer could otherwise obtain in the private sector. This simply implies that user fees are appropriate only where the marginal value of an additional dollar of user fees on health services in the public sector exceeds the marginal value of an additional dollar in the private sector (Duff, 2004). Evidence has shown that increased user charges have acted as signal for private sector providers to increase their fees (Jacobs and Price, 2004)

In the early 1980s studies showed that prices may not be important determinants of the demand for health care or worse still, a positive impact on the demand (Akin *et al.*, 1984). Later studies show that previous studies were bereft of quality data and that prices do have a significantly negative impact on the demand for health care especially in developing countries (Gertler and van der Gaag, 1988; Mwabu, 1986) and on the poor. Studies in Africa have shown user fees not to be viable considering over 15 African countries over a range of time (Vogel, 1991). This is because the poor are usually very sensitive to small changes in prices even for goods that are

necessities such as health care. With the strong link between health and poverty, there is no doubt that user fees are likely to induce the medical poverty trap phenomenon. This is because the poor who cannot afford private health care services due to the high costs can also no longer afford to use the public facilities. This leads to untreated morbidity, reduced access to health care, long-term impoverishment, and irrational drug use (Whitehead *et al.*, 2003). Evidence has further shown increased inequities associated with user fees (Nyanator and Kutzin, 1999).

Experiences in some African countries such as Uganda where user fees were abruptly removed in 2001, South Africa in 1994 during the period of transition to democracy has led other similar countries such as Rwanda, Zambia, Burundi, Democratic Republic of Congo and Niger to implement similar reforms though on selected facilities or services. These have been instructive in increasing the utilization rates of public health services (Yates, 2007) and women are also likely to benefit from reduction in user fees (Lawson, 2004). In other countries such as Ghana, it is difficult to monitor the impact of fees on the population as facility managers duplicate and establish their own pricing and fee collection system (Nyanator and Kutzin, 1999).

The elimination of user fees in some African countries was driven mainly by political motivation for vote maximization in line with William Nordhas' submission¹. Even at these instances, utilization rates increased. It is most likely that the poor show 'internal' resentment but due to their low representation, it is often difficult for their views to be considered in Africa. A case of efficiency can be made if the revenue from user fees are channeled into provision of good quality health care, increase availability of drugs, and prompt services which should mitigate the negative effects created by lack of access to quality care (Nyanator and Kutzin, 1999). However, it is usually not the case that such revenues are well accounted for. Sometimes, certain conditions and policy measures need to be put in place for implementation of user fees to have a minimal undesirable effect (Gilson, 1997) but these could in themselves reinforce the adverse effect of user fees which is suffered by the poor. While some of the policies are good, they are often open to abuses that render them ineffective in achieving the aim in the African setting. Outside Africa, experimentation of user fees has also been a poor experience.

In Africa specifically, the bulk of the problem is financing health care for the poor and predominant rural dwellers. While the poor are more sensitive to price changes, it is not to say that utilization of health care services should be 'free-of-charge'. In pure economic sense, under competition, every economic agent should be made to face the marginal cost of their actions. The case of health care is special given that health care is a right, a necessity and possesses externalities. Poor individuals cannot face both their private and social costs. In this regard, the use of community health insurance or prepayment schemes have been found to be viable even from experiences in parts of Africa and they are further viable when integrated into the

¹ This is based on the theory of political business cycle.

broader perspective of national health insurance schemes or to microfinance institutions.

The idea of universal coverage is likely to increase access of the poor to health care most especially when cross-subsidization is possible. This is because user fees have generated questions of equity and efficiency and we need a way forward. While we argue that there is hardly any fit-it-all solution for most societal problems, there is likely to be solutions that increase buy in from most stake holders. We need, therefore, indigenous and innovative methods of financing health care that imposes financing health care according to ability to pay but at the same time benefits and access to care are distributed according to 'need' for care. This will involve a form of 'internal' private bargain such as that achievable under the Coase Theorem such that the demand for health care does not depend on the distribution of income². This is more related to social solidarity which is very likely to produce valuable results in the African setting.

Conflict of Interest (COI) Professor Diane McIntyre was a lecturer to the authors and also a colleague of one of the authors.

References

- AKIN, J., GRIFFIN, S. C., GUILKEY, D. K. & POPKIN, B. M. (1984) *The Demand for Primary Health Care in Developing Countries*, Totowa, NJ, Littlefield, Adams.
- DUFF, D. G. (2004) Benefit Taxes and User Fees in Theory and Practice. *The University of Toronto Law Journal*, 54, 391-447.
- GERTLER, P. & VAN DER GAAG, J. (1988) *Measuring the willingness to pay for social services in developing countries*, World Bank, Washington, DC, USA.
- GILSON, L. (1997) The Lessons of User Fee Experience in Africa. *Health Policy and Planning*, 12, 273-285.
- JACOBS, B. & PRICE, N. (2004) The impact of the introduction of user fees at a district hospital in Cambodia. *Health Policy and Planning*, 19, 310-321.
- LAWSON, D. (2004) Determinants of Health Seeking Behaviour in Uganda - Is it Just Income and User Fees that are important? , An unpublished manuscript, University of Manchester, UK.
- MWABU, G. (1986) Health Care Decisions at the Household Level: Results of a Rural Health Survey in Kenya. *Social Science and Medicine*, 22, 315-319.
- NYANATOR, F. & KUTZIN, J. (1999) Health for some? The effects of user fees in the Volta Region of Ghana. *Health Policy and Planning*, 14, 329-341.
- VOGEL, R. J. (1991) Cost Recovery in the Health-Care Sector in Sub-Saharan Africa. *International Journal of Health Planning and Management* 6, 167-191.
- WHITEHEAD, M., DAHIGREN, G. & EVANS, T. (2003) Equity and health sector reforms: can low-income countries escape the medical poverty trap? *The Lancet*, 358 833-836.
- YATES, R. (2007) The Impact of Abolishing User Fees in Africa - Recent Developments in Six African Countries. UK Department for International Development - Human Development (Abstract).

² This simply imply that we assume that consumers' preferences are quasi linear.

PL 04/4**User Fees for Health Services in Africa**

Anne Kangethe Pharm. D, International Graduate Student, University of Georgia, Athens, Georgia

The concept of user fees continues to be a “hot topic” in African health financing forums and discussions. In recent years some African countries such as Uganda have done away with the fee requirements. Others have made modifications to their policies. For example, Zambia removed fees only in rural health facilities, in Burundi fees were removed for maternal and child health services while in the Democratic Republic of Congo, Rwanda and Niger fees were removed at selected facilities (Yates 2007).

The controversy started in 1987, when the World Bank recommended that the principle of cost recovery be incorporated into an agenda for financing publicly provided health services in developing countries (Shaw and Griffin 1995). Opponents of the user fees have purported the idea that less utilization of healthcare services has been experienced especially by vulnerable communities such as women and children in poorer societies. Additionally, out of pocket payments are a regressive form of healthcare financing as they capture higher proportion of income among poor households than wealthier ones (Gilson and McIntyre 2005). The elimination of cost sharing fees coincided with an increase demand of government provided healthcare among women in Uganda (Lawson 2004).

There are few examples available from proponents of the user fee policy. Perhaps this is due to the fact that in the past, too much emphasis was placed on raising revenues and too little on how cost sharing a form of user fees, might contribute to the efficiency, equity, and sustainability of national health systems (Shaw and Griffin 1995). This paper’s objective is to present a case for the continual utilization of user fees for health services in Africa.

In Kenya, cost sharing was introduced in December 1989 (Ngugi 2000). From the experience of Kenyatta National Hospital (KNH) a tertiary care and teaching facility in Nairobi Kenya, cost sharing has provided an additional source of funds. Revenue has increased from 1% of KNH recurrent income in 1986/87 to around 10% in 1993/94 (Collins, Njeru et al. 1999). As the funding increases from the user fees, the financial support originally intended for allocation at this hospital by the ministry of health can now be reallocated to other primary care facilities at local and district levels. This would be in line with the longstanding concern of governments and donors in Africa of reallocation of funds from tertiary to primary levels of healthcare (Shaw and Griffin 1995).

Previous studies have suggested that donor funding might be used to support user fee removal (Gilson and McIntyre 2005). Generally, most donor funding goes to capital or development budgets rather than financing of recurrent operating expenses such as salaries, drugs equipment and maintenance (Shaw and Griffin 1995) that user fees provide. Additionally, donor funding would be best utilized for

emergency or catastrophic purposes such as the recent election violence experienced in Kenya after the December 2007 elections. The violence resulted in the creation of internally displaced persons that could not provide user fees for care in which case the use of donor funding would be appropriate.

While user fees have been touted as inappropriate due to the exclusion of poorer communities, they have also decreased the phenomenon of moral hazard at hospitals. Before implementation of cost sharing at KNH, it was not uncommon to have would be patients show up for care because treatment was “free.” Although the statistics are not available it can be assumed that consumption of healthcare increases because it is subsidized (Feldstein 1998). This resulted in inappropriate use of medications prescribed leading to increased prescription costs and in cases of antibiotics, drug resistance. At the same time, these “patients” that did not really require medical attention would request time off from work because they could get documentation that they had been attended to and given medications. Eventually, this would result in overcrowding of facilities, decreased quality of care and escalation of costs of care to society. Costs to society would also be seen in relation to absenteeism from work.

The user fees seen in cost sharing creates the expectation of better services (Ngugi 2000). In a recent Ugandan study where other determinants of health seeking behavior was analyzed, increased levels of education was associated with significant transfer away from government healthcare indicating government provided healthcare to be of an inferior quality (Lawson 2004). The study was conducted after a recent change in policy where user fees were eliminated. Additionally, decrease in morale for the healthcare workers who may see their wages decline as a result of user fee removal, may provide poor quality care related to increases in work load from increased utilization.

To prevent such negative impacts of removal of fees, there are other options of providing healthcare to the poor while maintaining sources of revenues for hospitals. At KNH, patients who cannot afford the user fees are assigned social workers to assist in provision of care. This ensures that no patient in need of care is turned away and at the same time preventing misuse of resources.

Another idea that has been implemented by health systems in India is the provision of community level affordable insurance. In Karnataka region the Yeshasvini insurance scheme provides insurance for milk cooperatives, teachers and in the future families living in a common area. Such an insurance scheme would help offset user fees and other medical expenses and at the same time ensuring financial sustainability of health systems.

Although not meant as a deterrent to seeking healthcare, user fees have been criticized as creating a barrier to healthcare yet few studies have been done to assess the fees effect on efficiency, equity, and sustainability of national health systems. While user fees may pose a problem to the poor there are solutions to ensuring provision of care to the patients in need. Solutions such as utilization of social

workers and implementation of community level insurance projects may provide sustainable ways of meeting healthcare needs of the African communities.

References:

- Collins, D., G. Njeru, et al. (1999). "Hospital autonomy: the experience of Kenyatta National Hospital." *Int J Health Plann Manage* 14(2): 129-53.
- Feldstein, P. J. (1998). *Health care economics*. Albany, NY, Delmar Publishers.
- Gilson, L. and D. McIntyre (2005). "Removing user fees for primary care in Africa: the need for careful action." *BMJ* 331(7519): 762-5.
- Lawson, D. (2004). "Determinants of Health Seeking Behaviour in Uganda – Is it Just Income and User Fees That Are Important?" Retrieved 4/28, 2008, from <http://unpan3.un.org:8080/query.html?qt=mwea&charset=iso-8859-1>.
- Ngugi, R. (2000). "Health Seeking Behaviour in the Reform Process for Rural Households : The Case of MWEA Division, Kirinyaga District, Kenya." Retrieved 04/28, 2008, from <http://unpan3.un.org:8080/query.html?qt=mwea&charset=iso-8859-1>.
- Shaw, R. P. and C. C. Griffin. (1995). "Cost Sharing: Towards Sustainable Health Care in Sub-Saharan Africa" Retrieved 04/28, 2008, from <http://www.worldbank.org/afr/findings/english/find63.htm>
- Yates, R. (2007). "The Impact of Abolishing User Fees in Africa - Recent Developments in Six African Countries " Retrieved 4/28, 2008, from http://papers.ssrn.com/sol3/papers.cfm?abstract_id=993482#PaperDownload.

PL 04/5

When user fee is a necessity of life: what role for policy in Uganda?

Birungi Charles, Student, Faculty of Health Sciences, Uganda Martyrs University, Nkozi

Introduction

One evening late in December 2007, I had an interesting discussion with my friend, Alex. He argued that user fee is an “unnecessary evil” and fronted a lot of evidence, drawing from the Ugandan experience, to justify his stand. To this line of reasoning, I had no objection, having read the evidence by more qualified voices that have ably documented the effects of this failed reform. Then, the discussion moved to the “dilemma” faced by the Ugandan health sector, compounded by the macroeconomic stability arguments – a way of economic management that has conscripted the entire country to believe there is only one way of managing the national economy.

As I write this short essay, which I prefer to call a “viewpoint”, my mind races to this memorable discussion. Having grown up in a rural village in mid-western Uganda, my childhood memories of the 1980s are full of two main actors on the scene of health care delivery in Uganda: the publicly owned and the church owned health facilities. Most of the literature on user fees concentrates on its impact on government provided (and financed) health services. However, I am aware that there are several actors in health care in Uganda. This is my point of departure in this essay where I examine the role that policy can (and should) play for the private-not-for profit

(PNFP) health sub-sector – a key feature of Uganda’s healthcare delivery system, for whom user fee is a necessity of life.

The PNFP: what is it?

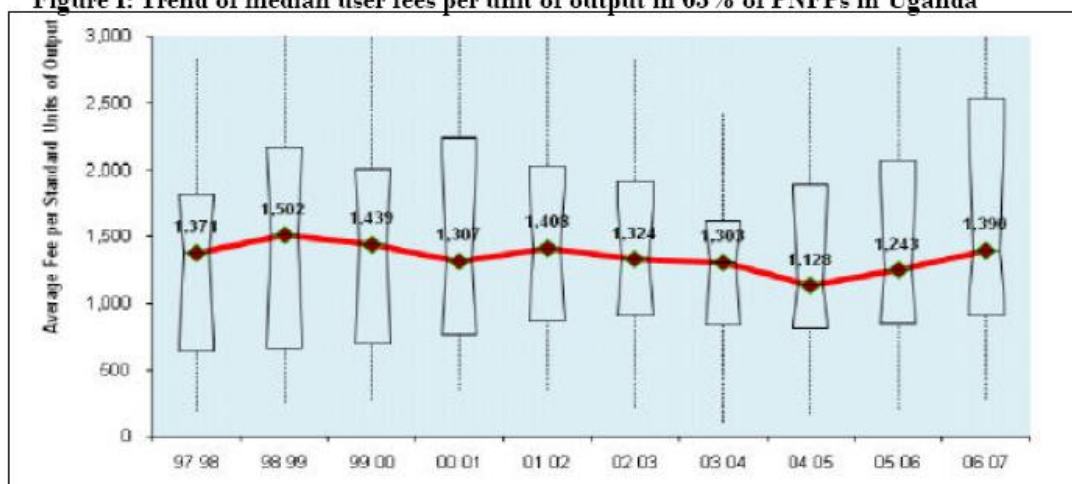
The term “PNFP” is used to describe the hitherto vaguely referred to as “mission” or “voluntary” health facilities. Simply put, it is a group of large networks of service delivery points spread all across the country that started operating towards the end of the 19th century and has kept developing in the first half of the 20th century, long before the establishment of the national health system. They are both facility and non-facility based. The former are for the largest majority belonging to religious denominations, coordinated by three Medical Bureaux (Uganda Catholic Medical Bureau, Uganda Protestant Medical Bureau and Uganda Muslim Medical Bureau). In terms of size, these own 42.3% of the hospitals, 22% of the lower level health facilities and 70.7% of the health training institutions in Uganda, with 85% of these located in the rural areas where the majority poor live. In 2006/7 alone, this sub-sector produced 17% of out-patients, 35% of deliveries and 35% of DPT3 doses of all national health sector outputs.

User fees: a necessity of life for PNFPs in Uganda

From the above, it is evident that establishing these facilities entails sizeable capital investments and efforts. I am also aware that the founders of these facilities desire(d) that they pursue a specific aim and be able to sustain their operations over and beyond the actors that started them. This, in itself, requires PNFPs to operate in faithfulness to the original intent (i.e. treating patients, promoting health, training people, etc. moved by social aims) and, servicing the assets, lest the organization starts shrinking and eventually dies.

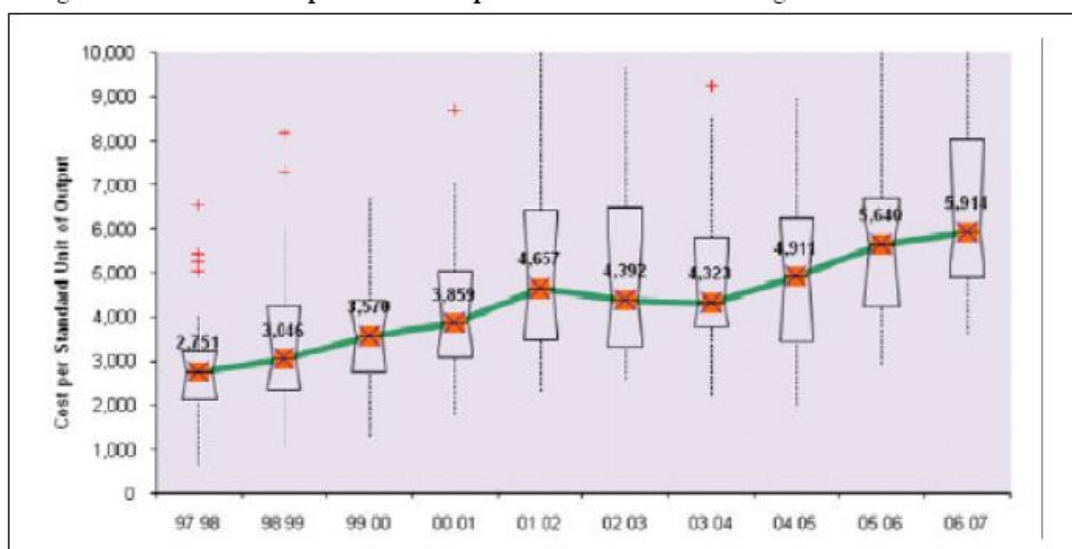
For organizational sustainability, be it in business or social enterprises, the above are *conditio sine qua non*. Cost and price are two key economic concepts that suffice introduction at this juncture. Viewed from the PNFPs’ perspective, cost is the value of resources that a health unit uses to produce its services while price is the fee paid by patients to acquire the health units’ services. From economic theory, price must always exceed cost, and this intrinsic relationship needs to be respected at all times. Figures I and II below show the status of the relationship in PNFPs in Uganda:

Figure I: Trend of median user fees per unit of output in 65% of PNFPs in Uganda



Source: Giusti D, 2008

Figure II: Trend of cost per unit of output in 65% of PNFPs in Uganda



Source: Giusti D, 2008

From the above graphics, a steady drop in fee per unit of output over the years is observable, despite the effects of inflation, rising cost of services and reduced government budget support. This is a result of deliberate efforts of the PNFP facilities. The mild upward trend of fees observable in 2004/5 reflects the pressure on the sub-sector of the increased cost of service production and reduced government support (see Fig. III below). Taking recourse to basic health economics, I have no doubt that people are paying now less than they were in 1997/98, even without adjustment for time discount. In the fact, in the face of the macro-economic policy pursued by the country, I have no doubt regarding the PNFPs' pro-poor outlook.

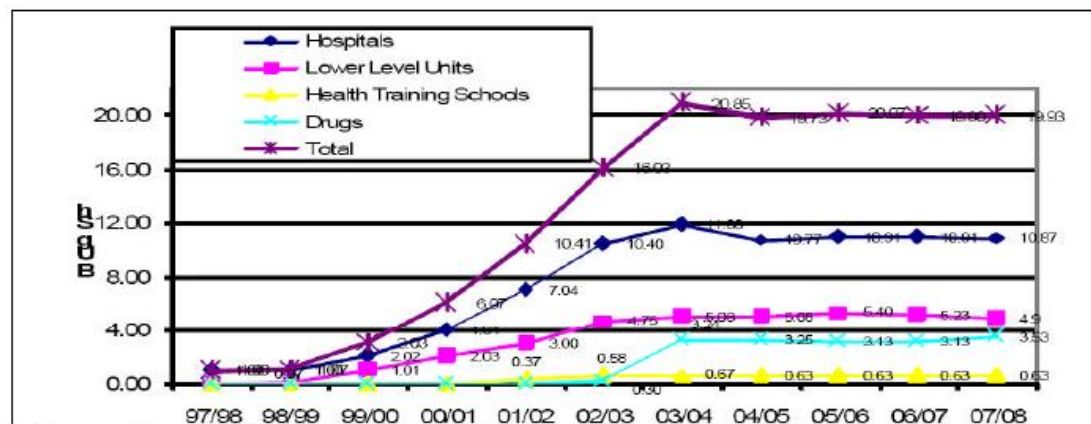
The understanding I have come to over the years is that it if the fundamental economic rule that says that income must exceed expenditure is not respected; the balance sheet will show a net loss of worth of the organization, thereby announcing that it is sick. It is apparent to me that "profit" is a necessity of life, subject to the

“non-distribution” constraint (i.e. the profit realized – if any - cannot be distributed to the owners, managers etc but re-invested to develop the organization further). As variously noted (Giusti D et al, 2004), any attempts by the PNFPs to set user fees at levels equal to the cost or above becomes a deterrent to consumption of the good/service they produce.

In light of the above and motivated by altruism, the PNFPs have always tried to find “price substitutes” to finance their operations. These have taken the form of subsidies, grants/donations, and sometimes loans. When these “price substitutes” are either not found or are insufficient, a few options are left to avoid abandoning social goals. Erosion of the “endowment” or increasing user fee charges (with the ensuing negative impact on access, equity, efficiency etc.) are some.

Policy dilemma: imagined or real?

Figure III: Trend of cumulative Government of Uganda allocations to PNFP health facilities



Source: Giusti D, 2008

Figure III above shows that Government of Uganda has ‘frozen’ allocations to the PNFP. This move, when gauged against the fact that PNFPs are a sizeable component of the system and that they aim at delivering health care out of a concern of equity and social justice, demonstrates – albeit in a subtle way - a public administration with a policy framework that does not value and protect not-for-profit organisations for social benefit.

Uganda has reduced and capped its social expenditure. All this, in the name of macroeconomic stability – as a prime policy interest. Hiding behind theoretical currency overvaluation allegedly arising from donor funds meant to provide basic services for the poor, donor funds have been rejected. In light of the very high infant and child mortality, low and fragmented access to safe water and sanitation, high numbers of orphans and other vulnerable children and, high maternal mortality rates – some among the highest in the world, I find the macro-economic stability argument (especially when viewed as an end in itself, as is oft the case in Uganda) unacceptable.

Economists such as Arthur Louis have argued and even got Nobel Prizes for theorizing that for development to occur, a first increase in inequality is inevitable and then equity can be achieved gradually afterwards. Countries such as China, Japan and Taiwan have proven them wrong, in the long run. As a matter of fact, inequity is not inevitable for growth to occur. This doctrine – the Washington consensus, which Uganda has embraced without any questions, is likely to result into the poor becoming poorer (including inequities in health) as it did in USA in the 1980s, where growth was achieved at the cost of social welfare. In fact, signs are beginning to emerge on the Ugandan horizon – whereas in 1992 the gini coefficient was 0.35, by 2003 it had risen to 0.43. This is evidence of an anti-poor policy.

Conclusion

The stagnating subsidies to the PNFP health sub-sector are threatening equity objectives pursued by the sector. The market economic policy, in the name of macro-economic stability, is not in the best interest of Ugandans given the poor social welfare in the country. Neither is it for a socially-oriented sector – the PNFP, among others. Whereas the PNFP sector has expressed and demonstrated (in word and actions) a serious intention of continuing to be a permanent feature in the health system of the country, it is increasingly evident that there are signs of an ongoing crisis that can be averted only if major and bold policy decisions are taken and enacted. Macroe-economic stability is not a *conditio sine qua non* for economic growth and development to take place. Our strategy should be to maximize social benefits to the people. A new generation of economists, with original thinking, putting welfare as first interest is urgently needed to save the “bad condition from getting worse”. It is only then that a balance between stability, growth and welfare can be struck. This is the hope for the poor in Uganda. This is my vision for Uganda.

References

- Giusti D., et al (2004) “Pro poor health services: the Catholic Health Network in Uganda.” In the Development Outreach – World Bank Institute.
- Giusti D (2008) “Non governmental service providers: improving opportunities through strategic positioning and co-operation.” in Bulletin von Medicus Mundi Schweiz Nr. 107, February 2008.
- Okuonzi S (2004) “Dying for economic growth? Evidence of a flawed economic policy in Uganda.” in the Lancet 364: 1632-37.
- Rice T (1998) Health Economics Reconsidered Chicago: Health Administration Press, USA
- Shutt R (1998) The trouble with capitalism: An enquiry into the causes of global economic failure. London and New York: Ned Books.

Parallel session 3: Consequences of out-of-pocket payments

PS 03/1

Examining catastrophic costs and benefit incidence of subsidized anti-retroviral treatment (ART) in south-east Nigeria

Obinna Onwujekwe, Nkem Dike, Benjamin Uzochukwu, Chinwe Chukwuka, Chima Onoka and Anselem Onyedum, Health Policy Research Group, College of Medicine, University of Nigeria, Enugu-Campus, Enugu, Nigeria

Rationale: It is important to understand the burden on people living with HIV/AIDS (PLWHA) of financing HIV/AIDS care and treatment, because HIV/AIDS could lead many households, especially those belonging to the poor socio-economic status (SES) groups into poverty through loss of income and high cost of frequent medical treatment. Also, as important as determining whether the costs of ART programmes are catastrophic, is the issue of determining who benefits from the subsidized or free programmes and whether such programmes militate against the potential catastrophic costs of seeking treatment for HIV/AIDS.

Objectives: The paper examines the extent that costs of subsidized ART programmes are catastrophic to different socio-economic status groups and rural/urban dwellers, as well as the level of benefit incidence that accrues to different socio-economic status groups and rural/urban dwellers.

Methods: Data was collected from all consenting patients attending the ART clinic over a three month period, by trained interviewers using an interviewer-administered questionnaire. The patients were interviewed just after registering their attendance for the clinic for the day but before they saw the medical team.

Results: More than 95% of people belonging to all SES quartiles spent money on ARV in past month. On average, patients spent 990 Naira (US\$8.3) on ARV per month. They also spent an average of \$8.2 on other drugs in past month. However, people that bought ARV from elsewhere apart from the ART centre spent on average of \$88.8 per month. Investigations were major expenditure items and patients spent an average of \$95.1 per month. Total expenditure on treatment (drugs and investigations) depleted more than 100% of household income or total household expenditure. Overall, subsidized ARV depleted 9.8% of total household expenditure, other drugs depleted 9.7%, ARV from elsewhere depleted 105%, investigations depleted 112.9% and total expenditure depleted 243.2%. The level of catastrophe was generally more with females, rural dwellers and most poor patients. Females and urbanites had more benefit incidence than males and rural dwellers. There were no SES differences in benefit incidence.

Conclusion: Subsidized ART programme lowers the cost of ARVs since the drugs bought from outside the programme are ten times more expensive than what

patients spend in the ART centre. However, other major costs are also incurred in the ART programmes, which make the overall expenditure/cost of accessing and consuming ART programme to be excessive and catastrophic. The skewed incidence of benefits to females and urbanites should also be addressed so that all segments of the population that have HIV have equal benefits from the ART programme.

PS 03/2

The Economic Burden of Malaria in Kenya: A Household Level Investigation

Dr. Kioko, U.M

Background: Malaria is the most important infectious cause of morbidity and mortality in Kenya and accounts for 19% of hospital admissions and between 30-50% of outpatient cases. However, despite its devastating health effects, empirical evidence of the economic impact of the disease on farm production, household income and individual wage earnings in the country remains largely unknown. This paper estimates the economic burden of malaria at the household and individual levels, and simulates economic effects of malaria control investments on farm output and household incomes.

Methods: The data used for the study was obtained from the welfare monitoring surveys conducted by the Government of Kenya, Ministry of Planning and National Development. Structural models of crop production, household income and wages were used to measure the economic burden of malaria, controlling for other covariates in these models. In all the models, malaria is endogenous but valid instruments are used to vary it exogenously.

Results: The analysis finds that malaria imposes large economic burdens on households in Kenya. In some seasons households lost up to 70% of their crop output and almost 93% of their income to malaria in the early 1990s. Moreover, the results show that the economic burden due to malaria is substantially greater than the burden imposed by other diseases. The analysis further shows that crop output, household income and individual wage earnings are lower among households inflicted with malaria compared to healthy households.

An important finding of this thesis is that government expenditures on malaria control and schooling has a large mitigating effect on malaria burden. Thus, malaria control activities can greatly contribute to poverty reduction in malarious environments in the country. Indeed, investments in malaria control programmes have large economic returns. The explanation for these returns is that malaria control makes an immediate contribution to output or income by increasing the quantity and quality of labour, primarily through reductions in morbidity, debility, and absenteeism from work.

Conclusions: Malaria control is economically beneficial because malaria control efforts make an immediate contribution to agricultural output by increasing the

quantity and quality of labour. The benefit from malaria control should be a motivating factor for the government and development partners to inject additional resources in malaria control. Thus, poverty reduction programmes geared at improving incomes of people living in malaria prone areas will also reduce the economic burden of malaria and enable them to reach a higher standard of living.

PS 03/3

Impact of a community based health insurance scheme on household costs for institutional delivery in Nouna district, Burkina Faso

Dr Sennen Hounton¹, David Newlands²

¹ WHO Multi Disease Surveillance Centre

² University of Aberdeen, Scotland, United Kingdom

Objectives: The aim of this paper was to assess the effects of a community based health insurance (CBHI) scheme on household costs of institutional delivery rates in Nouna district, Burkina Faso.

Methods: A cross sectional study was conducted in April-May 2007 at the Nouna demographic surveillance site in Burkina Faso. Eligible participants were women with experience of delivery during the last 12 months prior to the survey. Out-of-pocket expenses from women and families for antenatal care, kits, laboratory exams, transport, and lodging fees for delivery were recorded using a structured questionnaire. In addition, data were collected on household membership to the Nouna CBHI, age and educational level of mothers, child survivorship, and delivery within institution, average distance from village to health facility, assets ownership, and household revenues. Descriptive statistics of household costs estimates and differentials by socio-demographic characteristics, membership to the Nouna CBHI and household revenue were calculated.

Results: 251 women were interviewed among whom 43 (17%) were enrolled in the Nouna CBHI scheme. Institutional delivery among women enrolled and not enrolled in the CBHI were 53.5% and 45.2% respectively but this difference is not statistically significant. The average cost borne by women and their families for an institutional delivery was 8.7 (0 – 157.5) \$US. Variation in household delivery costs are also analysed by age, educational level, income and location. There are estimates of the extent to which delivery costs represent catastrophic expenditures for women and their families.

Conclusion: While there is no firm evidence as yet that the Nouna CBHI scheme has led to an increase in institutional delivery rates, this analysis of the costs borne by households for institutional delivery will help improve the ability of the scheme to reduce financial barriers to the utilisation of health services and thus contribute to safer delivery care in rural Burkina Faso.

Keywords: Household cost, institutional delivery, impact, community based health insurance, rural Burkina Faso

Parallel session 3: Maternal health and quality of care

PS 03/4

Evaluation of a quality process at the community level: USAID Keneya Ciwara 2003 – 2008 Health Programme

Oumar Ouattara¹, Kwamy Togbey², Uwe Korus³

¹ Chief of Party Programme Santé USAID Keneya Ciwara II, Care International au Mali, ououattara@caremali.org

² Chief of Party PKC 2003 – 2008

³ Deputy Director of programmes Care International in Mali

Abstract

As part of its support to Mali, USAID financed the Keneya Ciwara health programme. This programme was managed by a consortium of NGOs together with Care International as the leader. Keneya Ciwara (PKC) provided technical, material and financial assistance to 15 health districts in Mali. The programme was implemented from October 2003 to September 2008. An independent evaluation was conducted of the programme in March –April 2008. The purpose of this presentation is to share the conclusions of this evaluation.

Objectives

The objective of Keneya Ciwara is to increase the use high-impact services and the improvement of health behaviours /practices. These services relate to child survival, (vaccination, malaria, diarrhoea diseases, acute respiratory infections, nutrition and vitamin A).

The final evaluation survey, which took place in April-May 2008 sought to assess the extent to which the indicators retained by the PKC had been attained.

Methodology

2029 households were interviewed on the basis of a random sampling in clusters over the entire 15 health districts. The same method was followed for the initial evaluation, the mid-term evaluation and this evaluation. The 2029 households made it possible to interview 2750 women of child-bearing age and 2787 children aged under five.

Results

Among the major results recorded were:

- The major topics treated by the community relays are vaccination of children (54%), pre-natal consultation (40%), vaccination of pregnant women (32%) and family planning (24%).
- Of the encouraging results recorded, two examples can be mentioned:

- The promotion of family planning services by community women's associations;
- The « CSCOM Ciwara d'or » initiative.

a. The promotion of family planning services by community associations (community relays, women's associations)

Building the capacities of community relays and women's associations is an effective factor for the support and promotion of family planning services. As a matter of fact, as part of the promotion and offer of high-impact services including family planning, the role of community relays and women's associations proves to be decisive and has tremendously improved the use of these services. As an example, within an interval of one month, the leaders of the Bandiagara circle women's association, after a three-days training and equipped with educational aids and information sheet, were able to refer 177 clients towards the health structures mainly for family planning services and other maternal health services.

In the areas of intervention of the USAID / Keneya Ciwara Health Programme, there was a marked increase in the number of new users (NU) of the FP services during the second half of the fiscal year (AF05): 16.574 new users as against 12.141 of the previous semester.

The annual target of 25.000 was largely exceeded because a total of 28.715 NU was recorded during the two semesters, or 15%. This increase was possible thanks to three factors:

- (i) the availability of contraceptive products at the services provisions centres, ,
- (ii) the aggressive communication activities during the FP campaign at the community and household levels,
- (iii) the references made by the community relays and women's associations.

The role of the community networks was very visible during the FP campaign in the circles. This visibility is demonstrated by the number of mobilisation sessions both at the community and household levels, the number of contraceptive products sold by the relays, and the number of requests for services made through the information sheets distributed to the clients. It becomes evident that after a long period of dormancy in FP interventions, the shortage of contraceptive products, inactivity of community-based distribution agents, this campaign which has repositioned FP, has opened a new era for Mali. The number of new users of modern contraceptive methods and the number of pregnant women receiving pre-natal consultation have increased markedly.

Also, building the capacities of the service providers, and their regular supervision are vital not only for their commitment, but also to improve the promotion and use of the FP services by a great number of beneficiaries.

b. The « CSCOM Ciwara d'or », an initiative for improving the quality of health services in Mali

The « Ciwara d'or » approach is a quality service initiative aimed at improving supply and demand of quality health services at the Community Health Centres (CSCOM). This approach is implemented in 236 « CSComs » in the USAID / Keneya Ciwara Health programme area of intervention (11 Circles and 2 Communes of the Bamako district). It is an initiative that establishes a permanent dialogue between the communities and the service providers, enables the community to define its standards in terms of quality and agree with the service providers on the type of quality to be offered to them. Consequently, the service providers offer efficient services and avoid shortage of drugs such as iron and folic acid used to fight anaemia, sulfadoxine pyrimethamine (SP), and insecticide treated mosquito nets to control malaria, and contraceptive products for birth spacing and controlling unwanted pregnancies.

The community representatives and service providers have drafted a manual of criteria for the selection and accreditation of the « CSCOM Ciwara d'or » in Mali. A team of quality supervisors constituted at the health district and comprising representatives of community and service providers has classified the CSComs on the basis of pre established criteria. In each health district, the CSComs occupying the first 5 positions compete by improving the quality of their health services. The CSCOM that meets the pre-established conditions of excellence, would be accredited by the « CSCOM Ciwara d'or » Ministry of Health. To be able to arrive at this ultimate stage, each CSCOM would have put in place a quality local team from among the member community and service providers dialogue groups. The CSCOM quality group: (i) analysed the situation in order to identify, analyse and prioritise the health problems of the health area; (ii) draft and validate an action plan to solve the priority problems relating to quality; and (iii) implement the plan of action. The evaluation of the level of implementation of the plan is done together with the quality supervision team of the health district. The CSCOM that will have the « Ciwara d'or » label is a collective decision from the quality supervision team of the health district and the administrative and political authorities of the District / Circle, the Region and the national Health Directorate.

During the programme 12 CSComs were given « Ciwara d'Or » accreditation

Conclusion

The community mobilisation and participation through the relays and women's associations, and the institution of a fruitful community dialogue in terms of quality of health services has greatly contributed to increasing demand and the use of quality health services in communities and households.

The community relays and women's associations play a decisive role in the promotion and use of family planning services in the communities and households.

The « Ciwara d'or » approach, by instituting a permanent dialogue between the communities and service providers, contributes to improving the supply and demand for quality health services at the Community Health Centres (CSCOM).

PS 03/5**The effect of maternal morbidity on productivity: a household level analysis in Ghana**

David Newlands¹, Paul McNamee², Cornilius Chikwama, Felix Asante

¹ Impact, University of Aberdeen, Scotland, UK

² University of Aberdeen, Scottish Executive

³ University of Ghana

Aim:

To investigate the productivity losses of maternal morbidity in Ghana

Objectives:

- To estimate the magnitude of productivity losses of maternal ill health
- To estimate the magnitude of household coping strategies
- To examine the extent to which productivity losses vary by poverty status

Methods:

A survey was conducted in three districts of Central region in Ghana in 2005 among 233 women who had delivered within the preceding four months. Maternal morbidity, defined as occurring during the puerperium, the period of six weeks after delivery, was self-assessed by respondents. Productivity losses were measured by the inability to attend fully to normal daily activities. Respondents were asked to estimate the time they were unable to work at all, their reduced effectiveness of working while ill and the contribution of others who assisted them with their normal activities. Per capita household expenditure was used as a measure of poverty status.

Key findings:

Over half of the sample (51%) was unable to attend fully to normal daily activities in the six weeks after delivery. The productivity losses associated with maternal morbidity are significant and comparable with losses from other types of illness. On average, 14.1 days were lost through absence from work. A further 3.7 days on average were lost through reduced effectiveness in working while ill. Household coping strategies, in the form of assistance from others, recovered about a third of the total productivity losses. Estimated productivity losses were smallest among the poorest quintile of households, reflecting their lesser ability to take time off from normal activities when ill. These estimates are important because, if losses in the production of market and household goods and services are taken into account, maternal health strategies may in effect pay for themselves in monetary terms. The reduction of productivity losses may also contribute to poverty reduction goals.

Key words: Maternal morbidity, productivity losses, Ghana

PS 03/6

An economic evaluation of a delivery fee exemption policy on maternal and child health outcomes in Ghana

Karen A. Grépin, Ph.D Candidate in Health Policy, Harvard University

User fees are believed to represent important barriers to access to essential health services, and eliminating user fees for maternity services has been advocated to improve maternal and child health. Few studies, however, have been evaluated the impact of these fees on the utilization of maternity services in developing countries. In late 2003, Ghana introduced a delivery-fee exemption policy, initially rolling the policy out to 4 of its 10 regions, creating a natural experiment to evaluate the effect of user fees on the utilization of maternity services. Using nationally representative household survey data and routine administrative data on reproductive health services, I do a national evaluation of the effectiveness of this policy using a difference-in-difference study design comparing early-intervention regions with the other regions in the country. My findings suggest that this policy was effective at increasing the proportion of births supervised by trained medical personnel and other maternal and child health outcomes.

Parallel session 3: Human resources for health

PS 03/7

Health Delivery Complements and Health Worker Emigration from Africa

Eric Keuffel, University of Pennsylvania, Wharton School

Aim/Rationale:

Economic frameworks identify multiple determinants which influence the decision of physicians and nurses to emigrate from Africa. In order to make rational and cost effective decisions, policy makers ideally wish to identify the crucial factors affecting emigration. Recent findings suggest that non-wage determinants may play an important role in the supply decision (Vujicic et al., 2003). Given the stark wage differentials between developed and developing countries, alternative mechanisms to retain health workers are being explored by multilateral and national policy making bodies. The preliminary research presented here explores the role of health production complements on the extent of emigration at the country level. The primary hypothesis posits that countries with lower per capita levels of complements to physician (or nurse) care have a greater emigration shares, ceteris paribus.

Objective:

Estimate the effect of health production complements, such as complementary healthcare workers (nurses), public health infrastructure or pharmaceutical access, on the aggregate share of emigration by health workers.

Data:

Measures of the outcome variable, the percentage of physicians (nurses) emigrating at the country level relative to the total number of physicians (nurses), are derived from the Center for Global Development (CGD) database on health profession emigration from Africa (Clemens and Patterson, 2006). Country level independent variables are sourced from the World Bank World Development Indicator database (country financial data), WHO dataset on pharmaceutical tariffs and imports (pharmaceutical data), CIA World Factbook (country characteristic data) and the CGD data. The reference year is 2000.

Methods:

At the country level (n=48), I run a weighted linear regression of emigration share of MDs on complements (nurses/1000 population, pharmaceutical import value \$US PPP), per capital health expenditure, indicator variables for historical colonial presence (UK, France), GDP per capita (\$US PPP, 2000) and DTP immunization coverage (a proxy for public health complements). Weights equal the number of MDs in each country. I also run a similar specification for nurses.

Key Findings: Physician emigration shares ranged from 5 percent to 75 percent (mean: 36 percent). In the base case, an increase of 1 additional nurse per 1000 population (mean: 0.99 per 1000) reduced the physician emigration by 16 percent

($p < .01$). A similar analysis seeking to explain nurse emigration found no spillovers. Caution is warranted given the cross-sectional nature of the data, but this result suggests that improved nurse retention will have spillover effects in reducing physician emigration. Future research with panel data will improve causal interpretation.

PS 03/8

Measuring Health Worker Motivation in District Hospitals in Kenya.

Patrick Mbindyo¹, Dr. Duane Blaauw², Prof. Lucy Gilson^{2, 3}, Dr. Mike English^{1, 4}

1. Kenya Medical Research Institute Centre for Geographic Medical Research Coast-Wellcome Trust Collaborative Programme
 2. Centre for Health Policy, School of Public Health, University of the Witwatersrand
 3. Health Policy Unit, London School of Hygiene and Tropical Medicine
 4. Department of Paediatrics, University of Oxford, UK.
-

Context: Many of the influences affecting health worker performance can be summarised by a health worker's degree of motivation. Although it is likely that motivation influences performance directly and mediates or modifies the effect of interventions aimed at changing performance, there are few studies on its influence on practice change in health workers in low-income settings.

Objectives: We wished to try and account for worker motivation as a key factor that might affect the success of a practice change intervention being implemented in 8 District Hospitals in Kenya. In the absence of available tools we therefore aimed to develop a tool that could enable a rapid measurement of motivation at baseline and at various points during the 18 months intervention study.

Methods: After literature review, a comprehensive self-administered questionnaire aimed at Kenyan government hospital staff to assess the outcomes and determinants of motivation was developed. This report focuses only on motivational outcomes data that were used to construct a rapid, motivation measurement tool. Parallel qualitative work was undertaken to assess the relevance of the questions chosen and the face validity of the tool.

New Findings: Mean hospital 10-item scores from approximately 80 health workers from each of the 8 sites studied suggested variability in aggregate levels of motivation between hospitals not explained by health worker type, sex or clinical department. Parallel qualitative work in general supported these conclusions and contributed to our understanding of the latent factors identified.

Conclusions: The 10 item score identified may be useful to monitor changes in motivation over time within our study or for more widespread, rapid assessments of motivation in Kenya.

PS 03/09

Trend of remuneration and motivation of the health workforce in Burkina Faso

F. Y. Bocoum¹, S. Kouanda², R. Guissou³, C. Dao/Diallo⁴, B. Sondo⁵

1 Health economist, researcher, Institut de Recherche en Science de la Santé

2 MD, PhD in public health, researcher, Institut de Recherche en Science de la Santé

3 Health economist, research assistant, Institut de Recherche en Science de la Santé

4 Specialised nurse, research assistant, CHU Yalgado Ouédraogo

5 MD, Tenure in public health, director of Institut de Recherche en Science de la Santé

Context

The human resources know a crisis in most of the developing countries and in Africa in particular. In Burkina Faso, one of the major problems remains the motivation of health professionals which is among the causes of the low performance of the health system. Although the financial motivations only are not enough, they have an essential role. These are important especially when the remuneration is not enough to cover the basic needs of the workers and their families. Does this situation explain the high demand of the health workforces for the cities where they have opportunity of exerting as well in the public as the private one? The objectives of the paper are (1) to determine trend of remuneration from 1976 to 2006 and the factors which influence this trend and (2) to analyze the perception that the health workers have on their remuneration.

Method

Cross-sectional study was conducted from December 2007 to February 2008 in rural and urban areas covering 15 public, private, confessional and associative health centres. We collected quantitative data through an auto administrated questionnaire with different categories of the health workers and the qualitative data through interviews with the health workers and the managers. This collection gave us data on the perception that the health workers have on their remuneration. Information about trend of remuneration were collected at the human resources department of ministry of health and the ministry of economy and finance.

Results

From 1976 to 2007, the net monthly of physicians increased from 65 699 FCFA (≈ 140\$USD) to 96 437 FCFA (≈205 \$USD). In spite of the introduction of financial incentives measurements (guard, risk allowance...) and pay rises, the health professionals of the public sector judge their level of remuneration lower than the health workforce exerting in the private one and the NGO structures. Likewise, in comparison with civil servants whose work in education, finances and justice sector, and the cost of living, health workers judge that their remuneration is low. In urban area the mobility of the personnel in the public sector is related to the level of their remuneration and a feeling of lack recognition.

Acknowledgements: this research study was funded by Alliance for health policy and Systems research and Global Health Workforce Alliance (project ID HWS 40)

Parallel session 4: Community and national health insurance

PS 04/1

Contractual arrangements between Community Health Insurance schemes and health care providers as a means to improve the quality of care: an overview in sub-Saharan Africa.

Ndiaye Pascal, Lefèvre Pierre, Vanlerberghe Veerle, Criel Bart¹

¹ Department of Public Health, Institute of Tropical Medicine, Antwerp, Belgium

Community Health Insurance (CHI) aims to improve the access to health care. Quality of care is one of the most important determinants of enrollment, as well as a condition for retaining members. Then it could be the cement of the partnership between CHI and health care providers.

Stakeholders (CHI managers, health care providers, organizations that provide technical support to CHI development and the managers of the health system) agree that CHI have role in the improvement of quality of care but they don't use or know how to use properly the contract to define and activate the role of each partner.

Actions to involve CHI in the improvement of the quality of the care should necessarily pass by the backing of health care providers to reinforce and maintain the partnership, and especially organizations that provide technical support to CHI that they can prepare CHI in this specific mean and the health system managers for the surveillance of the partnership.

Health systems analysts endorse the hypothesis that CHI, through the intense dialogue it implies between users and providers, could be a lever capable of influencing quality of care. This partnership is sealed in a contractual arrangement (in French the term *convention* is often used). Several actors are involved in the development, management and follow-up of such contractual arrangements: the CHI managers, the health care providers, the organizations that provide technical support to CHI development, and the managers of the health system at both national and local level.

We carried out an extensive mail survey composed by open and closed questions and a series of statements, in 14 countries of West and Central Africa. We investigate in a systematic way the potential of such contractual arrangements for improving quality of care. A contextual and comparative analysis is achieved through qualitative and quantitative methods.

The mail survey gathered about 400 respondents from Benin, Burkina Faso, Burundi, Cameroon, Ivory Coast, Guinea, Mali, Mauritania, Niger, Democratic Republic of Congo, Rwanda, Senegal, Togo and Chad. The analysis shows whether quality of care

is being addressed in these contracts, the nature and suitability of the wording used to describe quality of care, the perception by the various stakeholders of whether such contractual arrangements are the proper tools to influence quality of care, the existence of good practices of joint action to improve quality of care, and, finally, recommendations from all stakeholders on the use and appropriateness of such contractual arrangements.

Thirty years after the declaration of Alma Ata, access to quality health care remains a challenge. CHI contributes to better financial access through the pooling of resources. In addition to this financial function, however, CHI can empower the community in its relationship with the supply-side. The preliminary results of our investigation show that quality of care is a formal demand of CHI members. CHI, in its position at the interface between supply of and demand for health care, can modify the relationship between the two. As such, CHI is a new actor in local health systems with which it will be necessary to deal for matters of quality of care.

PS 04/2

From Community to National Health Insurance: A new Approach to Social health Insurance in Africa?

Bocar M Daff¹, Naomi Tlotlego², Chris Atim³, A Adomah⁴

¹ Millenium Villages Project, Dakar, Sénégal

² Lecturer, University of Botswana

³ PATH Malaria Vaccine Initiative, France

⁴ Sheffield Hallam University, Sheffield, United Kingdom

Introduction:

Heavy reliance on out of pocket spending reduces access to health services and often pushes families into poverty. Some countries have recently abolished the fees altogether, at least for some services. The following are known to have modified the operation of user fees, abolishing them for some services (usually at least maternal and child health): Uganda, Zambia, South Africa, Burundi, Niger, Kenya, Burkina Faso, and Sudan.

Other countries have piloted or implemented different innovations including community-based health insurance (CBHI) or mutuelles. In some African countries, these latter schemes appear to have served as pilot schemes or stepping stones to the introduction of national health insurance schemes or funds (NHIS /NHIF). We examine this apparently novel approach to introducing social health insurance (SHI) in Africa and compare the advantages and constraints in this approach.

Aim and objectives:

The overall aim of the study is to analyse the introduction of social health insurance via the route of community based health insurance schemes in a number of African countries, including Ghana, Rwanda, Nigeria, and Tanzania.

Methods used:

We use a combination of primary data (from PhD theses), administrative records, scheme data, and literature review to analyse the rise of these apparently new forms of SHI in Africa. The study examines the conditions that favoured their development, their differences with the classical social health insurance schemes that were prevalent in Africa at the time of independence and at least up until the era of structural adjustment in the 1980s, and their advantages, constraints and prospects vis a vis the classical SHI schemes of the past.

The dimensions examined include: community ownership and control, population coverage, equity, rural versus urban focus, and sustainability.

Results: The study provides insights into the performance of NHIS schemes in Africa, including the extent to which they remain community-owned, address equity and rural health coverage, and may be financially sustainable.

PS 04/3**Financing Outpatient Care – Kenyan Experience**

Chacha Marwa, Senior Planning Officer

The National Hospital Insurance Fund (NHIF) has been in existence since 1966 and has been financing only in patient care on a per diem basis. From the year 2005, the Fund has been looking into ways of enhancing the benefit package to members and is currently in the threshold of rolling out an outpatient cover to cater for its two million principal members and seven and a half million dependants.

Objectives:

- To illustrate how a national health provider can co-pay for the cost of outpatient care
- To analyse the real risks that OPC financing faces in sub Saharan Africa (the case of Kenya)
- To show the possible ways to mitigate these risks, Prevent fraud and reduce adverse effects as far as possible
- To ensure the financial sustainability of the NHIF during the implementation phase and in the long run.

Methods used:

- Desk reviews and data analysis
- Reviews of various commissioned studies on cost analysis of health care services
- Other literature review

Key Findings:

- Adoption of the flat rate is most appropriate for a national wide scheme such as NHIF; in this way the organization fixes the cost of the outpatient cover and limits the number of visits.

- Outpatient cover can be implemented alongside the well established inpatient cover
- The need to increase premiums to accommodate the outpatient cannot be overemphasized. The premiums increase will be between 20% - 300% depending on income level and in line with the solidarity principle

Technological leverage is key to curbing fraud; the use of the magnetic stripe card for identification, notification and claims processing would cushion the organization from cost escalation and moral hazard.

Parallel session 4: Economics and Policy Research to Improve Malaria Control

Session organiser – Catherine Goodman, KEMRI-Wellcome Programme, Kenya and Health Policy Unit, LSHTM.

Effective tools for treating and preventing malaria exist, but their coverage remains well below the 80% target set by the World Health Assembly. Only 23% of children sleep under an insecticide treated net (ITN), and only 3% of children with fever are treated with the recommended Artemisinin-based Combination Therapy (ACT). This session presents data from 3 health economics and policy studies in Africa, which aimed to explore strategies to improve access to malaria prevention and treatment. Two studies look at the impact of subsidies: Jessica Cohen assesses how the level of subsidy on an ITN affects its uptake and use by pregnant women in Kenya, and Catherine Goodman evaluates the impact of an ACT subsidy on retail price and uptake in Tanzania. Many strategies to improve coverage through the retail sector involve some kind of shopkeeper training: Timothy Abuya shows how the nature of implementation of such training programmes can influence their effectiveness. In combination, these papers raise many important issues surrounding the scale up of effective malaria control required to achieve the MDGs.

PS 04/4

Free Distribution or Cost-Sharing? Evidence from a Randomized Malaria Prevention Experiment

Jessica Cohen and Pascaline Dupas*

*Presenting author - Global Economy and Development, Brookings Institution; jcohen@brookings.edu

It is often argued that cost-sharing—charging a subsidized, positive price—for a health product is necessary to avoid wasting resources on those who will not use or do not need the product. We explore this argument in the context of a field experiment in Kenya, in which we randomized the price at which prenatal clinics could sell long lasting anti-malarial insecticide-treated nets (ITNs) to pregnant women. We find no evidence that cost-sharing reduces wastage on those that will not use the product: women who received free ITNs are not less likely to use them than those who paid subsidized positive prices. We also find no evidence that cost-sharing induces selection of women who need the net more: those who pay higher prices appear no sicker than the prenatal clients in the control group in terms of measured anemia (an important indicator of malaria). Cost-sharing does, however, considerably dampen demand. We find that uptake drops by 75 percent when the price of ITNs increases from zero to \$0.75 (i.e. from 100 to 87.5 percent subsidy), the price at which ITNs are currently sold to pregnant women in Kenya. We combine our estimates in a cost-effectiveness analysis of ITN prices on child mortality that

incorporates both private and social returns to ITN usage. Overall, given the large positive externality associated with widespread usage of insecticide-treated nets, our results suggest that in some settings free distribution might be as cost-effective as cost-sharing, if not more.

PS 04/5

Piloting the global subsidy: The impact of subsidized distribution of artemisinin-based combination therapies through private drug shops on consumer uptake and retail price in rural Tanzania

*Oliver Sabot, Alex Mwita, Margareth Ndomondo-Sigonda, Justin Cohen, Megumi Gordon, David Bishop, Moses Odhiambo, Yahya Ipuge, Lorryne Ward, Catherine Goodman**

*Presenting author – KEMRI-Wellcome Programme, Kenya and Health Policy Unit, LSHTM.

INTRODUCTION: Tanzania has piloted artemisinin-based combination therapy (ACT) subsidy at the wholesaler level for private sector distribution. Starting in October 2007, ACT was distributed to two rural districts, with the primary outlets being drug stores. A third district served as a control. The pilot was designed to measure the impact of a subsidy on the price and uptake of ACTs, and the effect of a Suggested Retail Price (SRP) on these outcomes.

METHODS: Data were collected at baseline in August 2007 and four times during the year of the intervention. Four methods were used: exit interviews, retail audits, mystery shoppers, and public facility audits. Each shop was assigned a competition index based on the number of other drug shops within one kilometer, with categories ranging from 0 to 5.

RESULTS: There was a pronounced increase in the proportion of shops stocking ACT in the intervention districts, from zero in August 2007 to 72.2% in August 2008, but no change in the control area. Shops with two or more other shops in their competition radius were significantly more likely to stock ACTs in August 2008 (81.2%) than those with 0 or 1 competitor (54.0%). The proportion of anti-malarial consumers in the intervention districts who purchased ACTs increased strikingly, from 1.0% in August 2007 to 44.2% in August 2008, with uptake as high as 53.0% for children under 5. The average price paid for a full ACT dose was \$0.35 for children under 5, and \$0.70 for adults. In general ACT prices were similar to those for older antimalarial monotherapies, and did not vary significantly by either the socio-economic status of the consumer or the competition category of the shop. Contrary to expectations, consumers paid more for ACTs in the district with SRPs.

DISCUSSION: This pilot demonstrates that if a subsidy on ACTs is implemented at the wholesaler level, uptake of the product can increase rapidly, particularly for children under five. The benefit of the subsidy has been transferred to the customer, with prices of subsidized ACTs remaining comparable to other anti-malarials. However,

SRPs must be calculated carefully to avoid artificial price inflation. Additional interventions may be needed to increase ACT access by the poorest of the poor, as these patients appear to use private sector drug shops less frequently, and to ensure access in the most rural areas, as ACT stocking was skewed towards shops in towns and other population centers.

PS 04/6

Importance of strategic management in the implementation of private medicine retailer programmes: Case studies from three districts in Kenya

Timothy Abuya, Greg Fegan, Abdinasir Amin, Abdisalan Noor, Sassy Molyneux, Simon Akhwale, Robert Snow, Lucy Gilson, Vicki Marsh*

*Presenting author - Kenya Medical Research Institute/Wellcome Trust Centre for Geographic Medicine Research-Coast, Kilifi, Kenya

Background: The retail sector has a role in improving access to appropriate malaria treatment. As part of scaling up malaria home management strategy, Kenya implemented a number of private medicine retailers (PMR) interventions. Examining implementation processes is critical to understanding intervention outcomes. This study explored factors influencing programmes' experiences of scaling up of three different PMR interventions. These were a Ministry of Health (MoH)-led participatory skill-based PMR training in Kwale district; a non-governmental organization (NGO)-led participatory skill-based PMR training programme in Kisii central district; and a social marketing approach targeting wholesalers and mobile vendors supported through USAID/AMREF in Bungoma district.

Methods: Findings are based on data from 26 focus group discussions with clients and PMRs, and 19 in-depth interviews with implementing actors. A field diary of events, informal discussions and review of documents allowed a deeper understanding of implementation experiences. Using both inductive and deductive approaches, a range of analyses were conducted to examine experiences within and across sites including stakeholder analysis. The final step of interpretive analysis drew on conceptual frameworks about the scaling up of health care innovations and the diffusion of innovations.

Findings: Implementation in the NGO-led participatory PMR training in Kisii was underpinned by a good relationship between the resource team and the user organisation, flexibility in budgetary and decision making process responsive to local contexts and use of memorandum of understanding to manage inter-organisational networks. The MoH-led PMR training in Kwale was characterised by complex and inflexible funding system, changes in leadership and low communication between actors. Although the social marketing approach in Bungoma was characterised by a flexible funding system, perceived lack of transparency in management of funds, inadequate management of inter-organisational relationships and passive response to contextual changes led to implementation challenges.

Conclusions: The study highlights the importance of deliberate attention to the management of the implementation process while scaling up PMR interventions. Key issues of management include a strong and transparent management system with a flexible decision-making processes that responds to immediate contextual features, managing relationships between actors and the stability of district leadership. It points to the complexity of working with district health teams during scale up of innovative public health interventions, particularly where these are in competition with existing conventional programmes.

Parallel session 4: Financing and reporting health research results

PS 04/7

Commodity forecasting for the scaling up of the ART for the treatment of HIV/AIDS in both public and private sectors in Kenya

Korir, J and Kioko, U.

Background

Successful implementation and expansion of antiretroviral therapy (ART) services depends on the continuous availability of high-quality antiretroviral (ARV) drugs and on the supply of a wide range of HIV/AIDS-related commodities. The government of Kenya has demonstrated high level political commitment in the fight against HIV/AIDS epidemic. One of the major constraints in the scale up ART is the inability of the national programmes to ensure commodity security. The main objective of the study was to quantify ARV commodities in order to deliver effective ART so as to increase quality of life and survival by eligible individuals.

Methods

The process of quantification involved four steps: forecasting demand for ARTs in Kenya, estimating requirements, and calculating the costs for procuring the ART requirements and estimation of available financial resources to identify the financing gap. The number of patients requiring ARV drugs in the different commodities was estimated based on service utilisation data from Logistics management Information System (LMIS) at Kenya National Medical Supplies Agency (KEMSA), service utilisation from PEPFAR and MSF. The Cape Town Antiretroviral Costing Model was used to estimate the number of patients in the first and second line treatment. The model estimates the number of patients who will be in the first and second line treatment, through series of assumptions about survival of the patients, patients lost to follow up and failure rates of the treatment. The national standard treatment protocol and testing guidelines informed the quantification process.

Results: The estimated cost of ARV drugs for adults' patients and associated supply chain was US \$ 106.9 million, US \$ 148.5 million, and US \$ 185.9 million for 2007/08, 2008/09 and 2009/10 respectively. The cost of ARV drugs for children was US \$ 6.63 million, US \$ 8.82 million and US \$ 10.85 million whilst the cost of the CD 4 reagents and the associated supply chain was US \$ 45.49 million, US \$ 50.12 million and US \$ 51.59 million during 2007/08, 2008/09 and 2009/10 period respectively. The overall financing gap was estimated at \$74.2 m, \$115.58 m and \$ 285.55m in 2007/08, 2008/09 and 2009/10 respectively.

Conclusions

The results of the forecasting will enable the government and development partners to calculate specific ART order quantities and to plan shipment schedules for short-term procurement planning, to assist in medium- to long-term program planning and mobilise financial resources for ART commodities.

PS 04/8**Tracking Expenditure for HIV and AIDS in Africa: a cross-country comparative study***Guthrie, T., Kioko, U.*

Background:

Over the last decade, there have been significant increases in allocations of funds to HIV/AIDS at international and national levels to respond effectively and efficiently to the demands, particularly in scaling up the delivery of treatment. The main challenge however, is to establish how much is being spent on HIV and AIDS in-country, who is spending the funds, on what funds are spent and who benefits from the spending. In Botswana, Ghana, Swaziland and Zambia, the study objectives were to: 1) determine the total flows of financing and expenditures for HIV/AIDS, from all international and public (domestic) sources of financing and 2) to identify the flow of expenditures by sources, agent functions, providers of services, and target population and 3) to make recommendations for improved efficiency and prioritization of HIV and AIDS spending, and for improved financial information systems. This paper will present a cross-country comparison of the country findings.

Methods:

The National AIDS Spending Assessment (NASA) approach was used to track the flow of resources, from their origin to the end activity and beneficiary groups.. The method captures all HIV/AIDS spending according to the priorities found in national strategic framework, and thus allows countries to monitor their own progress towards the national and international commitments.

Results:

In Swaziland, the results indicate that total expenditure on HIV/AIDS increased from approximately US\$ 40 million in 2005/06 to US\$ 51 million in 2006/07, representing an increase of 25.7 % of the 2005/2006 total HIV/AIDS expenditure. In Botswana, the total expenditure on HIV/AIDS was Pula 1,138 million in 2005/06 with the public sector contributing for the significant proportion of the total funds spent. In Ghana, the total expenditure on HIV/AIDS activities increased from \$28,414,708 in 2005 to \$32,067,635 in 2006, representing an 11.4 percent increase. The findings further shows that the total expenditure falls short of the estimated required resources for effective response to HIV/AIDS epidemic.

Conclusions:

Overall, donors contributed the largest share of the total expenditure on HIV/AIDS accounting for over 70% on average of the total expenditure. It is imperative therefore that sustainable and innovative health care financing mechanism be explored. Attention must also be paid to enhancing the efficiency of existing financing mechanisms in the country.

PS 04/9**Resource Allocations for HIV and AIDS in Ghana ~ Alignment with the National Strategic Priorities**

Asante, F., Pokuu, A., Ahiadeke, C., Guthrie, T.

Background:

The Ghana AIDS Commission undertook a National AIDS Spending Assessment for the years 2005/6 and 2006/7.

The objectives of the NASA were to:

1. Compare levels of spending, both domestic and international, for HIV/AIDS in Ghana.
2. Measure the spending according to the National Priorities.
3. Identify the beneficiaries of the spending.
4. To make recommendations for improved funding mechanisms to enhance efficiency of spending.

Methods:

This study applied the NASA approach, which tracks the funds from source, through financing agent, to provider and ultimately to the activities and beneficiaries of spending. The data was analyzed in Access and Excel.

Results:

The total expenditure on HIV/AIDS activities in Ghana increased from \$28,414,708 in 2005 to \$32,067,635 in 2006, representing an 11.4 percent increase. External sources contributed almost 70% to the total in each year. Considering the spending priorities of public and external sources found that prevention spending accounted for 23%, treatment and care for 22%, OVCs very little at 1%, 10% going to HIV-related research, and the bulk (40%) going to general programme development and systems strengthening activities. In 2006, PLWHA only benefitted from 30% of the spending, while the largest portion (56%) went to the general population (mainly due to the spending on prevention activities).

Many obstacles were identified in the absorption of funds, and in the equitable allocation of resources.

Conclusions: the study findings made many recommendations with regard to priorities of spending for HIV and AIDS, for improved efficiency of financing, and for enhanced financial information systems, and thus will enhance evidence-based decision-making in Ghana regarding HIV/AIDS financing.

Plenary session 5: International health financing mechanisms

PL 05/1

Resource Allocations for HIV and AIDS in Southern Africa ~ Are Funds being Aligned to National Strategic Priorities? A cross-country comparative study

Guthrie, T.¹, Kioko, U., Chitama, D., Banda, P., Chitsomia, A., Madadume, B.

¹ Centre for Economic Governance and AIDS in Africa (CEGAA), Cape Town, South Africa

Background: With the increasing financial resources for HIV/AIDS in recent years and the emphasis on harmonization and alignment (since the Paris Declaration), many Southern Africa governments are taking measures to monitor the degree of alignment of the actual spending of both domestic and external funds for HIV and AIDS. Botswana, Mozambique, Swaziland, Lesotho and Zambia recently undertook National AIDS Spending Assessments (NASAs) for 2005/06 and 2006/07.

This study sought to compare the findings of the NASAs undertaken in Botswana, Lesotho, Swaziland and Zambia.

The **objectives** were: To compare levels of spending, both domestic and international, for HIV/AIDS in the four countries.

1. To consider the adequacy and alignment of the funds for the attainment of their National Strategic Plans (NSPs).
2. To measure the absorption of these funds according to the different funding mechanisms.
3. To compare unit costs for key interventions (where output data was available - the NASA methods would not provide the data for a full economic evaluation to compare the efficiency of spending).

Methods: This study relied on the data captured by the in-country studies which used the NASA approach, which tracks the funds from source, through financing agent, to provider and ultimately to the activities and beneficiaries of spending. The study made use of quantitative comparative indicators, using Access, Excel and Stata for further investigation.

Results: The findings are not yet ready since the country NASAs are not complete. However, it is expected that the findings will provide evidence regarding:

1. Levels of domestic and international funding commitments and actual expenditure for HIV/AIDS in Swaziland, Lesotho and Zambia in 2005 and 2006. Initial results show an average of 70% coming from external sources.
2. Comparison of spending with the anticipated costs of rolling out their NSPs found that the NSPs were poorly costed and therefore meaningful

comparison was difficult. However, proportionally, priorities appear to be being addressed.

3. There are definite improvements in donor harmonization and alignment, with the exception of a few specific sources of funds.
4. The funding mechanisms appear to influence the degree of absorption of funds, among many other factors.
5. Comparison of unit costs of key interventions within the SADC region has been difficult due to poor or non-comparable output indicators.

Conclusions: the study findings will enhance evidence-based decision-making in the SADC region on issues relating to HIV/AIDS financing.

PL 05/2

Are current debt relief initiatives an option for scaling up health financing in beneficiary countries?

Mr Miloud Kaddar¹, Ms Eliane Furrer²,

¹ Health Economist, Department of Immunization Vaccines and Biologicals, World Health Organization

² Consultant, World Health Organization

33 Sub-Saharan African countries are currently eligible to benefit from debt reduction under the enhanced HIPC Initiative and the more recent Multilateral Debt Relief Initiative (MDRI). Many hopes and promises were attached to the launch of these initiatives. For the first time, the provision of debt relief was explicitly linked with the goal of poverty reduction: budgetary resources no longer needed for debt service are meant to be used for scaling up expenditures conducive to poverty reduction and the attainment of the MDGs. Given the important role of health in the achievement of the MDGs, this sector was expected to benefit considerably from additional resources. One decade after the launch of the HIPC Initiative and two years after the implementation of the MDRI it has become clear that things are far more complicated. A dollar debt relief does not necessarily translate into one additional dollar of pro poor (or even health) spending. The successful realization of the initiatives' objective with regard to increased poverty expenditures depends on many factors.

The aim of this paper is to shed some light on the opportunities and challenges arising from recent debt relief initiatives to scale up health financing in beneficiary countries. Our main focus is articulated around the following questions: How much fiscal space is annually created in the government budget as a result of debt relief? What is the share of resources allocated to the health sector? What mechanisms and procedures had been put in place to manage debt relief resources and how can health officials use them for their advocacy? And most importantly, are debt relief funds additional at national and international level? Case studies have been undertaken in 2007 for nine countries: Burundi, Cameroon, Madagascar, Malawi, Mauritania, Mozambique, Tanzania, Uganda and Zambia. A main finding is that

countries have chosen very different approaches to manage and integrate the potential savings resulting from debt relief initiatives into their public expenditure systems. The questions outlined above can not be answered systematically for all beneficiary HIPC, but must be assessed in the specific country context. The paper therefore introduces a typology consisting of three typical settings which can be found among countries already qualified for the HIPC Initiative. Our ability to measure whether debt relief resources are being devoted to the health sector and the resulting policy implications for (health) officials are intimately linked to the type of setting in which the country operates.

Key Words: Debt relief, HIPC, MDRI, health financing

PL 05/3

Global Action for Health System Strengthening: The key financing challenges

Dr Ravindra P. Rannan-Eliya

Parallel session 5: Insurance and affordability issues

PS 05/1

Distance mediates the effect of removing financial barriers to accessing care: results of a randomized controlled trial in Ghana

Evelyn Ansah¹, Kara Hanson², Solomon Narh Bana¹, Brian Greenwood², Anne Mills², Christopher Whitty²

¹ Dangme West District Health Directorate, Dodowa, Ghana

² London School of Hygiene & Tropical Medicine, UK

Background:

Many countries are seeking to improve financial access to health care as part of health sector reforms. In 2005 Ghana passed legislation to create a national health insurance scheme (NHIS) which aligns a number of district-level schemes. Observational studies of the impact of health insurance enrolment on health service utilization are potentially biased because of risk selection, particularly where overall coverage is low. This study used a randomized controlled trial (RCT) design to examine the impact of health insurance on service use. The study was carried out in the Dangme West District, southern Ghana, and was part of a broader study examining the effect of improved financial access on childhood anaemia.

Aims and objectives:

To assess the impact of health insurance coverage on health service utilization among children under 5 years of age, and the interactions with socioeconomic status and physical distance.

Methods:

The study used a two-arm, open, randomized controlled design. Insurance coverage prior to the study was 10.8%. All households in the Dodowa and Prampram sub-districts with at least one child aged 6 to 59 months who had not already enrolled in the insurance scheme for the year were eligible to participate in the study. 2194 households with 2592 children were randomly selected from among the households who had not enrolled. Households in the intervention group were enrolled into a pre-payment scheme operating in the area. The control group continued to pay user fees for health services. A baseline survey in May 2004 documented household characteristics and asset ownership. A follow-up survey was conducted in December 2004. Socioeconomic status was measured using an asset index constructed from a mix of asset ownership and housing characteristics.

Health service utilization was assessed by means of picture log sheets completed by the mother of the child each month, indicating what illnesses the child had suffered from during the month and from where health care had been sought. The options for illnesses included fever, diarrhoea, vomiting, convulsion, unconsciousness and difficulty in or fast breathing. The sources of care included the clinic and hospital which were categorized as formal care. Home care, treatment from a traditional

healer or chemical seller were categorized as informal care. The completed forms were picked up by a fieldworker at the end of the month and a new set left with the mother for the following month. This was done for the six months of the peak malaria transmission season. Logistic regression was used to analyse the effect of improved financial access to health care on utilization of services.

Findings:

Overall health service utilization decreased with increasing distance from a health facility in both groups. Although households in the intervention group living within 5 km of a health facility utilized primary care services more than the control households in the same vicinity, this was of borderline statistical significance. In contrast, intervention households living within 5 km of a health facility used significantly fewer informal sources. At distances 5 to 10 km away from the nearest health facility, intervention households used primary care services significantly more than the control and although they tended to use non formal sources of care less, the difference between groups was not statistically significant. However, among those households living more than 10km away from a health facility, there was no significant difference between the intervention and control households in the use of primary care services or in use of non-formal sources of care. These findings suggest that non-financial barriers are important influences in care-seeking in this environment.

PS 05/2

A Comparison of fee exemptions and health insurance for providing financial access to primary clinical care for children under five in Ghana

Richard A Nagai & Irene Akua Agyepong, Ghana Health Service, Greater Accra Regional Health Directorate

Health sector out of pocket fees at point of service use in Ghana have improved public sector health service financing, but proved an access barrier to needed services especially for the poor. To address the problem, several fee exemptions including exemptions for primary clinical care for children under five were introduced in the nineties followed by national health insurance in 2003. This paper compares the effectiveness of the exemptions and national health insurance policies in providing financial access to primary clinical care for children. Data was collected using a review of OPD utilization data, focus group discussions, in-depth interviews and a structured questionnaire.

Target groups were principal child care takers, service providers and households with children under five. Household awareness of the existence of exemptions and health insurance was high but with limited knowledge of the details of the programs and how to benefit. Users who knew or suspected their exemption entitlements often failed to ask because of fear of negative reactions from health providers. Providers expressed problems with the exemptions policy that motivated their behavior. Delays, erratic and uncertain reimbursement from central government made them

reluctant to fully implement the exemption program which was seen as a threat to their financial viability.

The result of this combination of client, provider and payer factors was that the majority of children under five paid fully or partially for exempt services despite the existence of the policy. The insurance scheme appeared to be better at providing financial protection for the insured because providers had more confidence in the likelihood of reimbursement. Enrolment was however low because of the newness of the scheme, lack of information, administrative and premium payment problems. Only about half of children in the rural and a quarter in the metropolitan study sites were covered. Without prompt and guaranteed reimbursement to providers, as well as extensive education and empowerment of clients, it is unlikely that exemptions schemes will be effectively implemented. The Health insurance scheme needs to utilize the lessons from the failures of the exemption scheme and make sure that it has reliable provider payment arrangements that maintain provider confidence in the scheme. Given the voluntary nature of enrolment in the health insurance scheme there is a need for much community education and exploration of ways of increasing coverage especially among the poor and vulnerable.

Key Words: Health Care Financing, Africa, User fees, Fee exemptions, Health Insurance

PS 05/3

Costing the Provision of Health for All in rural Tanzania and Ghana and implications for social health insurance premium pricing

Joel Negin (University of Sydney School of Public Health), Maame Nketsiah, Samuel Afram, Eric Akosah, Deusdedit Mjungu, Gerson Nyadzi

Health for All has remained elusive for rural communities in sub-Saharan Africa since the Alma Ata declaration. The Millennium Villages Project, which works in 14 communities in 10 African countries, is committed to ensuring access to primary health services for all in their project sites. In those countries, a number of methods of community health financing have been adopted with social health insurance being one of the most heavily promoted systems. However, the premium for membership in insurance schemes is prohibitive for the majority of residents in poor rural areas leading to low rates of enrolment.

This presentation aims to communicate experiences in providing primary health services to all along with a rigorous costing of the intervention. The costing of the provision of primary health services to all community members along with a deep understanding of community health financing is then used to propose appropriate pricing for insurance premiums in rural areas. The study was conducted in sites in Ghana and Tanzania with lessons from other sites providing additional information.

The study uses time series data from comparable health facilities in each of the sites with at least one of the facilities in each country serving as a control. Utilisation

rates, epidemiological data, and health insurance coverage rates were collected monthly from each health facility and community. Comprehensive primary care interventions were provided in Millennium Village sites and were rigorously costed.

Providing access to simple cost-effective interventions led to increased clinic utilization and improvement in health system goals including malaria control and increased institutional deliveries. The provision of services was conducted through a more effective use of existing funds and the inclusion of additional funds well within the per capita bounds proposed by the United Nations Millennium Project.

There is a huge latent need for improved access to health services that is not met in communities where few can afford social health insurance. Based on a rigorous analysis of costs and funding streams, a reduction in insurance premiums for rural areas in Tanzania and Ghana would be feasible and sustainable and would lead to significantly higher enrolment rates. This provides a model for more realistic insurance premiums that can sustain rural health services. The complexity and cost of health insurance schemes in rural Africa has hampered provision of free health for all. Lessons from successful sites are valuable for policy makers and practitioners.

Parallel session 5: Microeconomic techniques and issues

PS 05/4

Substitution effects in household demand for antimalarial bed nets in a rural area of southern Mozambique

Claire Chase¹, Elisa Sicuri², Charfudin Saco³, Ariel Nhacolo³, Clara Menéndez^{2,3}

¹ Harvard School of Public Health, Boston, MA

² Barcelona Centre for International Health Research (CRESIB) - Hospital Clinic - Universitat de Barcelona, Barcelona, Spain

³ Centro de Investigação em Saúde da Manhiça (CISM), Maputo, Mozambique

The aim of this paper is to present new evidence on household willingness to pay for antimalarial bed nets in a rural area of southern Mozambique, and to draw attention to the potential substitution effects of combined malaria control interventions such as Indoor Residual Spraying (IRS) and ITNs. Willingness to pay is examined for households who have received IRS as part of a government program.

A random sample of households from the Manhiça Demographic Surveillance Site (DSS) study area was invited to participate in a short questionnaire developed to elicit hypothetical willingness to pay, market knowledge, and bed net ownership and past purchase behavior, with interviews taking place during routine census rounds over a period of three weeks in August 2007. The questionnaire was administered to the head of household or a representative over the age of 18. Survey data were supplemented with demographic surveillance data routinely collected in the study area and include an indication of household fumigation by indoor residual spraying (IRS). A total of 983 household observations were used in the analysis.

Tobit regression was used to investigate variations and determinants of household willingness to pay for antimalarial nets in the presence of alternative methods for mosquito prevention. Multiple regression analysis was used to investigate other determinants of net ownership, purchase behavior, and hypothetical willingness to pay. Ordinary least squares regression was used to explain the variation in number of nets owned and the amount paid for net. All models were subject to rigorous testing.

Substitution with alternative methods of mosquito prevention appears to play a role in demand for nets, with households using alternative methods and households that had received Indoor Residual Spraying (IRS) both willing to pay slightly less on average for nets ($p=0.048$ and 0.088 respectively). In terms of stated willingness to pay, households that had received IRS were willing to pay \$0.18 less on average for a net, after inclusion of covariates. The magnitude of the effect is similar for households who report using an alternative method of prevention during the previous mosquito season, such as coils, sprays, or traditional methods such as burning of herbs. These findings suggest that malaria control programs which rely on a combination of prevention methods to achieve program effectiveness should consider the potential substitution effects of such strategies. Further research regarding the substitution effects of combined malaria prevention methods is an urgent priority.

PS 05/5**Optimizing efficiency gains - A situational analysis of technical efficiency of hospitals in Ghana**

Caroline Jehu-Appiah, Ghana Health Service, Frank Nyonator, Martin Adjuik, Selassi D'Almeida, James Akazili, Charles Acquah, Eyob Zere

Background:

The main objective of this study was to measure and analyze the technical efficiency of district (Public, Quasi Government, Private and Mission) hospitals in Ghana.

Methodology:

Data Envelopment analysis was used to estimate the in/efficiency of 74 government, 43 mission, 7 private and 6 quasi district hospitals in Ghana.

Results:

Of all district level hospitals assessed 64% were technically efficient. Of these 15 (13%) hospitals were scale inefficient. Quasi-government hospitals had an average TE score of 80.5% and a standard deviation (STD) of 22%, government hospitals 64% and a STD of 24%, mission hospitals 61% and a STD of 23% and private hospitals 43% and a STD of 9%. There is a potential to improve OPD by 27%, admissions by 12%, laboratory services by 19%, reduce beds by 3% nonclinical staff by 2%

Conclusion:

The study has demonstrated the versatility of DEA to policy makers in measuring the inefficiencies among hospitals by ownership. Results serve as a strong guide to health care decision making with practical ways of increasing technical efficiency in the hospital sector.

PS 05/6**Does Ghana's National Health Insurance Scheme Encourage Moral Hazard? An Approach using Matching Estimation**

Eugenia Amporfufu, Kwame Nkrumah University of Science and Technology

Health care financing scheme in Ghana is now switching from out of pocket payment system to a prepayment system. The reason for the switch is the impoverishing effect of the out of pocket system. Under the prepayment system registered members can have access to health care without any financial obligation. There is thus some incentive for members to over utilize health care. This study used maternity data to test for the existence of moral hazard in the demand for caesarean section. The matching estimation approach used was able to randomize the data and so made unbiased comparison of insured and uninsured patients possible. The results showed that moral hazard exists. In addition the study also found a high correlation between caesarean section and the National Health Insurance regardless of the risk type of the patient. The study made some recommendations to help improve the efficient operation of the scheme.

PS 05/7**An Empirical Analysis of Cigarettes Demand in Kenya: New Health Policy Perspective***Scholastica Achieng Odhiambo*

University of Malawi (Malawi)/ Regional Institute of Business Management (Nairobi, Kenya)

The advent of rigorous campaigns against consumption of cigarettes and tobacco related products is one of the key millennium challenges to Kenya and Africa as a whole. Health policies regarding this issue have to look deeply into social, economic and health impacts of enacting restrictive policies towards the consumption of cigarettes in Kenya. This study emphasized on myopic demand modeling of addictive behaviour (based on the premise that previous consumption of cigarettes per capita had a positive impact on current cigarette consumption per capita) in regard to cigarette consumption in Kenya. Factors such as cigarette prices (influenced by increase in excise tax overtime), income and regulations on advertising were used to measure the demand response. Cigarette prices rise over time were found to have a negative significant impact on cigarettes consumption. Rise income had a negative impact on the capita consumption of cigarettes which implied for a smoker cigarettes are inferior goods and rise income does not necessarily mean that the consumption of cigarettes will increase overtime. Past consumption of cigarettes had a positive impact on present consumption supporting the myopic theory of addiction. Advertising also had a significant impact on increasing the consumption per capita of cigarettes. Time series analysis was used in the empirical evaluation of cigarette demand from the period 1970 to 2005 with the application of OLS and Maximum Likelihood ARCH Methods.

The study reinforced the need for higher prices in regulating cigarette consumption, ban on advertising and use of health scare message which results in positive health outcomes to the population of Kenya.

Parallel session 5: Drugs / Medicines: economics and policy

PS 05/8

Providing affordable essential medicines for African households: The missing policies and institutions for price containment

Ebenezer Kwabena Tetteh, London School of Economics, UK – London School of Hygiene and Tropical Medicine, London, UK

Medicines are integral of any healthcare system, and limited access to medicines undermines health systems' objectives of equity, efficiency and health development. In African countries, where it is estimated that 50–60% of the populace lack “access” to essential medicines, health problems associated with limited drug benefits are more damaging. However, there is no single solution to medicine access problem given its multiple dimensions: availability, acceptability, affordability and accessibility.

The paper explores affordability dimension of medicine access and concentrates solely on price regulatory policies and institutional structures that national and international policy makers may consider in making prices of essential drugs compatible to the purchasing power of African households. The main theme is the application of the concept of bilateral dependence in creating price-sensitive purchasers to exert countervailing market power on drug price setting in African healthcare systems.

The thesis of the paper is that “hard-bargaining”, country-specific, price-sensitive procurement agencies represent a more sustainable mechanism for making essential medicines affordable to African households; in contrast to external multinational buying cooperatives who may find their usefulness restricted to a selective group of “similar” African nations with regards to medicinal needs, epidemiology, macroeconomic conditions, regulatory procedures, language and cultural backgrounds.

The paper adopts the following methodology: the first part, through literature research and qualitative analysis on price regulatory policies, notes that current state of drug pricing in African health systems can best be characterized as “unconstrained free pricing” with its attendant inflation in pharmaceutical expenditures that African households cannot afford. It notes that considering significant administrative and organizational costs and difficulties in implementing price controls, the next pricing regulatory option is “constrained free pricing” that relies on creating and maintaining price elastic demand conditions to control drug prices: an approach adopted by pharmacy benefit managers (PBMs) in the US.

The paper argues that the business activities of PBMs in the US are consistent with economic model of bilateral monopoly, and theories of price competition and price discrimination. It goes on to develop the bilateral dependence concept and discusses

relatively less cumbersome means of market segmentation needed to make price discrimination feasible. The second part looks at applying the bilateral dependence solution to procurement process in African nations and highlights to some extent similarities and consistency with recommended procurement practices elsewhere, for which empirical evidence shows appreciable lowering effects on drug prices.

PS 05/9

The Economic costs associated with Irrational Prescribing in children: Implications for reducing Childhood Mortality in South east Nigeria

Dr BSC Uzochukwu, Onwujekwe OE, Nwobi EA, Ezeoke U, Chukwuogo OI.

Health Policy and Management unit, Department of Community Medicine, College of Medicine, University of Nigeria, Enugu-campus

Background:

In Nigeria, many children under the age of five still die from acute respiratory infection (ARI), diarrhea diseases (DD), malaria and other diseases that are preventable or treatable with low cost drugs which are mainly bought from Patent Medicine Sellers (PMS). These services which are mainly accessed by the poor are also the first choice in health care and a recognized primary source of orthodox drugs for these Childhood diseases in both rural and urban communities.. One of the reasons for preferring PMS include lower cost and flexible pricing policies. However, in most cases the PMS is unaware of the correct dosages and duration of treatment leading to irrational prescribing. While acknowledging their major role, little has been reported on the economic costs associated with inadequate drug prescribing for childhood illnesses.

Objectives:

To assess the economic costs of inadequate drug prescribing by Patent Medicine Sellers for malaria, ARI and DD.

Method:

A descriptive cross sectional study involving exit interviews with 395 primary caregivers who sought care in patent medicine stores for their children for malaria, ARI and DD in rural Nigerian communities.

Results:

About 80% of the caregivers received treatment for presumptive malaria, 12% for DD and 8% for ARI. The average number of drugs per prescription was 6.8, average percentage of prescription with injections was 72.5%, average percentage of prescription with one or more antibiotics was 59.7% and the percentage of prescription with non essential drugs was 45.9%. The additional costs to the standard treatment were 255 Naira per malaria prescription, 350 Naira per ARI prescription and 175 Naira per DD prescription. Losses attributable to irrational prescribing averaged 4,500 Naira.

Policy considerations:

Irrational prescribing imposes a considerable economic burden of unnecessary cost on health care users especially the poor who are the ones more prone to malaria, ARI and DD. An effort to train the PMS in rational drug prescription is advocated so as to improve the quality of drug prescription and hence reduce the cost of treatment to caregivers. This is necessary if we are to achieve the MGD goal of reducing infant mortality in Nigeria by the year 2015.

PS 05/10**Patent medicines vendors - a resource for tuberculosis case detection.**

By Dr. Obi, Ikechukwu Emmanuel¹, Professor Onwasigwe C. N.²

¹ Senior Registrar. Department of Community Medicine, University of Nigeria Teaching Hospital (UNTH), P. M. B. 01129, Enugu, Nigeria.

² Lecturer/Consultant. Department of Community Medicine, University of Nigeria Teaching Hospital (UNTH), P. M. B. 01129, Enugu, Nigeria.

Aim:

To train patent and proprietary medicines vendors to recognize a suspect case of pulmonary tuberculosis and refer to a tuberculosis diagnostic and treatment service.

Objectives:

To determine the referral input from patent and proprietary medicines vendors on new clients presenting with cough at tuberculosis diagnosis and treatment services, as baseline.

- To train patent and proprietary medicines vendors to recognize a suspect case of pulmonary tuberculosis and refer to tuberculosis diagnostic and treatment services.
- To determine the effect of this training on the knowledge of patent and proprietary medicines vendors of a suspect case of pulmonary tuberculosis.
- To observe the post intervention referral input from patent and proprietary medicines vendors on new clients presenting with cough at a tuberculosis diagnosis and treatment service.

Methodology:

An intervention on patent and proprietary medicines vendors in a local government area as study group, with patent and proprietary medicines vendors in another local government area, same state as control. The study period was six months from June to December 2007. Data on sources of referral of new clients with cough were collected from one tuberculosis diagnosis and treatment service center each, in the study and control areas for a two month period. Knowledge on recognition of a suspect case of pulmonary tuberculosis was assessed in both the study and control groups. The study group were then trained (by lecture and role play) on recognition and referral of a suspect case of pulmonary tuberculosis and issued pre-written referral notes to facilitate referral to the tuberculosis diagnostic and treatment

centre in the study area. The control group received a health talk on recognition of diarrhea and the benefit and method of early rehydration with oral rehydration salts or salt sugar solution. Data on sources of referral of new clients with cough were collected from the same tuberculosis diagnosis and treatment service centers, in the study and control areas over another three month period. Knowledge on recognition of a suspect case of pulmonary tuberculosis was re-assessed in both the study and control groups. The referral input from different sources in both areas and any change in the knowledge of a suspect case of pulmonary tuberculosis were analyzed between the study and control groups and within the groups.

Results:

Patent and proprietary medicines vendors initially made no referral input to new clients with cough at the centers. Post-intervention, a referral input of 8.2% of the total number of new clients were from the patent and proprietary medicines vendors in the study area ($\chi^2 = 5.53$; Fisher's Exact $P = 0.018$). 71.4% of these clients were sputum smear positive. Knowledge of a suspect pulmonary tuberculosis case rose from a percentage total correct score of 49.2% to 77.7% post intervention.

Parallel session 6: New trends and debates in international health financing

PS 06/1

Towards equitable and sustainable health financing systems through coordinated international effort. Proposed pathways of the Providing for Health (P4H) initiative

Dr. Varatharajan Durairaj (WHO)

The rationale to develop equitable and sustainable national health financing systems so as to allow the disadvantaged populations to seek needed health care without the risks of financial catastrophe and impoverishment is now well established. Systems to raise adequate resources, to pool them and to ensure funds are used effectively and equitably are often not in place in many low- and middle-income countries, particularly in Africa and Asia. Heavy reliance on unorganised and impoverishing out-of-pocket resources, besides denying appropriate health care access to the most vulnerable, renders health financing management complex.

A large number of low- and middle-income countries, while acknowledging the need for more resources, are now realizing that mobilizing adequate resources for health is a necessary but not a sufficient condition for health development. Weak health financing systems prevent them from fully expending the mobilized resources and from extracting desirable health outcomes out of absorbed resources. As a result, there have been increasing demands from countries for technical support to develop their health financing and social security systems to increase the level and adequacy of health care access. Such demands often exceeded the ability of various international and bilateral organizations to respond. Moreover, dealing with several international and bilateral organizations introduced fresh set of problems for recipient countries.

Many global health partnerships have emerged in response to this scenario. Many of them are disease-specific with the goal of improving health systems in a way that will allow expansion of services aimed at their target diseases. The increased availability of money for specific interventions on a global scale calls for the efficient horizontal strengthening of national health systems and their organization as well as improved aid effectiveness. Mechanisms need to be explored for the effective channelling of targeted international interventions through existing structures and for combining them effectively with national action to develop health systems at user level, so as to provide coherent health services that efficiently respond to national health priorities.

This paper presents an overview of the existing international health partnerships and discusses the principles, design and proposed activities of the Providing for Health (P4H) initiative. The pathways of P4H are built around the objectives of the recent global responses such as the Paris Declaration, the Global Campaign on the Health MDGs and the International Health Partnership. Its rationale lies in complementing

efforts to raise more funds by helping countries develop their own national health financing policies, systems and institutions that can achieve and maintain universal coverage and linking them with coordinated international support.

PS 06/2

African health priorities and the new international health financing mechanisms

Moustapha Sakho

Introduction:

Africa, with 10 percent of the world's population, accounts for 25 percent of the global disease burden and 60 percent of the people living with HIV/AIDS, as well as the highest disease burden for TB and malaria in the world. Yet Africa accounts for less than 1 percent of global health spending and contains only 2 percent of the global health workforce.

By almost any measure, most African countries are spending far less on health than they need to in order to either ensure a reasonable package of priority health services for their populations, or to meet targets signed on to by African leaders. Given that estimates of the amount of resources required to achieve the Millennium Development Goals (MDGs) all show huge sums are needed, well beyond what the low income countries could possibly afford, the question is: Where should the extra resources come from?

In 2001 African Union (AU) countries set the Abuja target of attaining a 15% share of national budgets for the health sector. Although no corresponding deadline was set for achieving the target, it is significant to note that by 2005 (according to the AU's own data), only about a third of Sub-Saharan African (SSA) countries were allocating 10% or more of their national budgets to the health sector. But even if the Abuja target was achieved, what impact would this make on national health priorities and financing needs? Similarly, in this same connection, how relevant is the Commission on Macroeconomics and Health's (CMH) recommended target for spending on health of \$34 per capita?

The international community has been steadily increasing the resources going into health in Africa in recent years, through such mechanism as GAVI, the Global Fund, PEPFAR, etc. Have these investments been targeted at Africa's health priorities, and how do they address the health financing gaps? How sustainable are these new investments?

Aim and objectives:

The overall aim of the study is to analyse the health financing situation in Africa today in terms of the relationship between health (including financing) priorities in Africa and the new financing mechanisms that form the core of several recent global health partnerships. More specifically, we examine the relevance of related

international health financing targets, and the role of the new international health financing mechanisms such as GAVI, PEPFAR and the Global Fund. The analysis will explore gaps in health financing and the match between new financing and the needs and priorities of African countries.

Methods used:

We analyse financing data available from international institutions (such as OECD-DAC, WHO, WBI, IMF, the African Union, etc) as well as available national data sets. Data available from the web sites of new international financing bodies such as GAVI and the Global Fund will also be mined for insights related to the paper's theme.

Results:

- While achieving the Abuja target is important to show commitment towards increasing the share of public spending going to health, in many African countries, this would not be enough to assure a decent package of health services to the population. It is not even clear that the CMH target of at least \$34 per capita spending on health will be sufficient, however it is a superior approach to thinking about what is required than the Abuja approach. More important though, is the need to move away from universalistic one-size-fits-all, targets to country-specific analyses of what is required to provide a decent health services to their populations.
 - The advent of the new global health partnerships and increased bi- and other multilateral assistance for specific health interventions has met with some criticism for accentuating certain problems associated with the international aid architecture: unpredictability and volatility of donor funding; proliferation of disease- and intervention-specific programs, which are often not integrated into any particular country's on-going programs; large numbers of new actors and donors; other macro-economic distortions, and lack of accountability of donors for the absence of results and progress.
 - The new financing mechanisms tend to be aligned more with donor priorities for health than with country needs and priorities. Some potentially distort the health financing situation of countries.
 - The recurrent costs of GHP investments (human resources required to deliver the new programmes, new treatment centres, costs of vaccines and life-saving drugs, etc) are not sustainable for many African countries.
-

PS 06/3**Can countries of the WHO African Region wean themselves off donor funding for health?**

Joses Muthuri Kirigia & Alimata J. Diarra-Nama

Division of Health Systems and Services Development, World Health Organization
Regional Office for Africa, Brazzaville, Congo

Context: In 2004, 18 countries received less than 11% of their total health expenditure (THE) from external sources; 9 countries received 11-20%; 7 countries received 21-30%; 6 countries received 31-40%; and the remaining 6 countries received 41-60% of their THE from external sources. Given the unpredictability of donor funding, which is likely to be exacerbated by the currently global financial crisis, countries of the Region ought to implement strategies for weaning donor funding for health.

Objective: To provide an overview of health financing in the WHO African Region and explore various strategies that African countries can employ to wean-off donor funding for health.

Methods: (a). The health financing analysis reported in this paper is based on the national health accounts (NHA) data for the 46 WHO Member States in the African Region. (b). Data Envelopment Analysis (DEA) is applied to estimate technical efficiency of 46 WHO African Member States national health systems in producing life expectancies. (c). Potential savings from reductions in military expenditures among 32 African countries was estimated using military expenditure data from the CIA factbook. (d). Potential for raising additional tax revenues was estimated for 39 African countries whose secondary data on mean observed tax level as a percentage of gross domestic product were available. (e). Corruption Perceptions Index (CPI) secondary data on 46 WHO African Member States was analyzed.

Results: (a). In 2004, the total health expenditure in the WHO Region was about US\$ 35.53 billion, of which approximately US\$ 2.23 billion (6.25%) was from external sources. (b). DEA revealed that the NHSs of 35 (76.1%) WHO African countries were operated inefficiently and had potential for efficiency savings. (c). The average military expenditure per person among African countries was US\$16.02 and the eight countries whose per capita military expenditure was above the average have a scope for reducing military expenditures for use in health. (d). Thirteen countries whose tax share of GDP is less than 15% have a scope to increase it to 15%, with improved efficiency of tax administration systems. (e). All the countries in the African Region had a Corruption Perceptions Index (CPI) score of less than six. Perceived levels of corruption and lack of transparency is worst in the 32 countries that scored below three.

Conclusion: Armed with a clear vision for freedom from donor dependence and backed by effective programmes for improving economic efficiency of public and

private expenditures; identifying and pruning unproductive public expenditures; strengthening tax administration systems; creating an environment for enabling private health sector growth; and boosting health development governance, countries of the African region have a high probability of weaning off donor funding for health in this century. Pursuit of such a noble vision should be supported by an enabling macroeconomic and political environment.

Parallel session 6: Facility funding, Costing and Budgeting of health services

PS 06/4

Estimating the health cost of the new born, the mother and the child as part of the strategy for the capacity building of the health system DR Congo

Dieudonné KWETE¹, Narcisse TONA², Mathias MOSSOKO³

¹ Dieudonné KWETE, Master health economy professional in developing and transition countries, CERDI, University of Auvergne, Clermont 1, France.

² Narcisse TONA, Public Health Doctor, Kinshasa Public Health school.

³ Mathias MOSSOKO, Epidemiologist, Department of Epidemiology, major endemia and degenerative pathologies department.

1. Context

DR Congo is coming out of the bloodiest war the world has ever seen since the Second World War, and that has left in its trail almost 3.9 million people dead. During this time, a population and health study (PHS) conducted in 2007 revealed that mortality among children under the age of five was estimated at 148 for every 1000 for the period 2002-2006, chronic malnutrition among children under the age of five also increased : it stood at 31% in 2001 and increased to 45% in 2007. In the case of maternal mortality, available estimates are among the highest in the world: 1289 of every 100,000 births (National study on the condition of children and women of 2001, MICS 2). Prevalence of moderate or aggravated anaemia among women aged 15-49 stood at 18% 2001

DR Congo has since 2006, defined and adopted its health system capacity building strategy one of whose priority area is the development of the health regions. Several partners, who subscribe to this strategy, require information concerning the cost of the Minimum Package of Activities particularly the cost of the new-born, mother and child.

In order to provide this answer, we used a costing mechanism instituted by the WHO to calculate the cost of interventions aimed at improving the health of the new – born, mother and child. It is thus the results of this costing exercise that we are going to present within the scope of this conference.

2. General objective

Estimate the cost of interventions aimed at improving the health of the new-born, mother and child.

3. Methods

preparation of a data base comprising scenario-writing in relation with the health of the new-born, mother and child based on the health care flow charts (5th

Department, Primary Health Care Department), the performance standards documents of the health regions was exploited, the epidemiological profile of each scenario established, incorporation in each scenario of technologies (salaries for human resources, prices of drugs, laboratory reagents, prices of small medical machines and equipments, proportional cost of utilisation of the premises etc.).

The IHTP (Integrated Health Care Technology Package) designed by the WHO is the tool that made it possible for us to estimate the costs. To draft the entire scenario-writing, we drew from the WHO reference database scenario design logic and South Africa's reference scenario-writing on HIV/AIDS.

4. Results

With these results, we are currently able to hold discussions with the health partners on the level of financing per capita. Here in DR Congo, almost all the partners invest roughly US\$ 3 per capita per annum whereas the costing we have just made gives us the figure of US\$ 23 per capita per annum.

The shortfall of US\$ 23 could be lead to the discussion on the choice of priority interventions, geographical coverage, effectiveness of the interventions ; with a view to avoiding the scattering of resources and thereby improve the efficiency of general, continuous and integrated care interventions that would make it possible to improve the health segment of the Millennium Development Goals.

PS 06/5

Assessing the implementation and effects of direct facility funding in health centres & dispensaries in Coast Province, Kenya

¹ Catherine Goodman, Antony Opwora, Margaret Kabare and Sassy Molyneux

¹ Kenya Medical Research Institute/Wellcome Trust Research Programme and London School of Hygiene and Tropical Medicine

Background

Health centres and dispensaries are a major source of primary level care for poor groups in rural Kenya, but there are a number of problems with their performance. This partially reflects inadequate access to resources at the facility level, especially since the reduction in official user fees charged. Moreover, there are concerns that the reduction in funds has in turn reduced community engagement through facility committees.

To address these issues, direct facility funding (DFF) has been piloted in all government facilities in Coast Province since 2006. Very few examples of similar funding mechanisms exist internationally for such peripheral health facilities. The funds can cover basic operating and maintenance expenses at facility level. The money is transferred directly into the facility's bank account, and each facility prepares a workplan and budget. As far as possible facility management committees

(made up of community members and the facility in-charge) should be involved in planning and use of funds.

Aim

To explore the implementation and effects of direct facility funding in health centres and dispensaries.

Methods

This study was based on a conceptual framework which maps out how DFF may be hypothesized to increase utilization, improve quality of care, and reduce the financial burden of health care on households. The study aimed to document these hypothesized pathways, and any breakdowns in the chain, as well as looking for other unexpected consequence of facility funding.

The study was conducted in 2007-8 in two districts in Coast Province, purposively selected to include one stronger and one weaker performer based on managerial views. Quantitative data collection at a random sample of 30 public health centres and dispensaries included an interview with the facility in-charge, record reviews, and exit interviews with 10 patients per facility. In addition, in-depth interviews were conducted with the facility in-charge, and members of the health facility committee at a sample of 12 purposively selected health facilities, as well as with district staff and other stakeholders.

Key Findings

Results will be presented on

- DFF income and expenditure, and how this complements existing health facility resources
- Key activities financed by DFF and their reported impact on health worker performance, quality of care and accessibility
- User fees charged
- Patients' knowledge and experience of health facility committees and other community engagement mechanisms
- Challenges encountered in DFF implementation

The implications for the planned nationwide rollout of DFF will be discussed.

PS 06/6

Household costs estimate of hospital care for low birth weight infants in a rural area of southern Mozambique

Elisa Sicuri¹, Claire Chase³, Ariel Nhacolo², Charfudin Saco², Delino Nhalungo², Maria Maixenchs², Clara Menéndez^{1,2}

1. Barcelona Centre for International Health Research (CRESIB) - Hospital Clinic - Universitat de Barcelona, Barcelona, Spain
 2. Centro de Investigaçao em Saude da Manhiça (CISM), Maputo, Mozambique
 3. Harvard School of Public Health, Boston, MA
-

Abstract

The aim of this paper is to fill the gap in the health economics literature regarding the estimate of household cost related to hospital care of low birth weight (LBW) infants in developing countries. Our primary aim is to estimate household total costs incurred in case the weight of the new born is between 1,5 and 2,5 kilograms. Our secondary aim is to analyse the magnitude of the relation between total household costs for LBW care and weight at birth. It is a short term evaluation: only costs incurred immediately after birth and till the weight of 2,5 kg is reached, are included in the analysis.

The study was undertaken at the Centro de Investigaçao em Saúde da Manhiça (CISM) in Manhiça District, southern Mozambique. A sample of 90 caretakers of LBW infants with no other particular complications and no matter the cause of the low weight, has been interviewed at the Manhiça Health Center (MHC), a 110 bed health facility adjacent to CISM. Caretakers were administered a questionnaire in two different situations:

- when leaving the hospital after delivery (both in the case the LBW child is released just after
- birth and in the case he/she was admitted for a few days after birth);
- when leaving the outpatients clinic for weight control a few weeks after birth.

Both household direct and indirect costs were collected and considered in the analysis. The economic burden of deaths as a consequence of LBW is, instead, not considered. Total costs incurred by each family are calculated according to the whole pattern of care babies receive at the hospital (both as in- and outpatients) till babies reach normal weight.

Results show that total costs incurred by families have a high variability (mean = 145 MZN; Std. Dev. 120 MZN; Min = 17 MZN; Max: 745 MZN) depending on two main factors:

- admission at the hospital and for how long;
- number of times a baby has to be taken to the hospital for weight control till she/he reaches normal weight (that depends on weight at birth and on weight gain velocity after birth).

The estimate of the magnitude of the relation between household total costs and weight at birth (in the range 1.5 - 2.5 kgs) shows that:

- families have to incur a fix cost no matter the size of the baby at birth;
- an increase of 100 grs in babies weight at birth allows families to spend 25% less in infant hospital care.

Results offer further economic reasons for policy makers to invest and promote all possible interventions and behaviours that might increase babies weight at birth, such as improving Ante Natal Clinic attendance, malaria prevention during pregnancy, prevention and treatment of maternal HIV, improvement of maternal nutrition.

Parallel session 6: Public health research issues: measurement of health; community based health services; prescription practices; and determinants

PS 06/7

The challenge of measuring need for health care in household surveys

F. Meheus^{1,2}, D. McIntyre³, M. Aikins⁴, J. Goudge⁵, O. Okorafor³, M. Ally⁶, N. Nxumalo⁵, B. Garshong⁷

¹ Institute of Tropical Medicine, Antwerp, Belgium

² Royal Tropical Institute, Amsterdam, the Netherlands

³ Health Economics Unit, University of Cape Town, Cape Town, South Africa

⁴ College of Health Sciences, University of Ghana, Accra, Ghana

⁵ Centre for Health Policy, University of the Witwatersrand

⁶ Ministry of Health and Social Welfare, Dar es Salaam, the United Republic of Tanzania

⁷ Ghana Health Services, Accra, Ghana

Background: A growing number of analyses of household survey datasets in African (and other low- and middle-income) countries have highlighted problems with the use of self-reported illness as an indicator of need for health care. In particular, these analyses have found that, in most cases, self-reported illness by households produces the counter-intuitive finding that poorer socio-economic groups report less illness within a specified recall period (usually two weeks or a month) than richer groups. In contrast, other indicators that are sometimes included in household surveys, such as anthropometric measures and infant and child mortality, show a very clear socio-economic gradient with the highest occurrence in the lowest socio-economic groups. However, these indicators are difficult and time consuming to include in household surveys.

The objectives of this research were:

- To investigate whether self-assessed health status demonstrates a clearer socio-economic gradient than self-reported illness as an indicator of the relative need for health care; and
- To explore reasons underlying the counter-intuitive findings of self-reported illness.

Methods: This research draws on three household survey data sets, undertaken as part of a larger research project, in Ghana, South Africa and Tanzania. Households are divided into quintiles using a specially designed composite index of socio-economic status. The socio-economic gradient of self-assessed health status is compared with that of self-reported illness. The interpretation of these analyses is underpinned by a review of relevant literature.

Key findings: Although the analysis of these household surveys is yet to be concluded at the time of abstract submission, we hypothesise (based on preliminary research in South Africa) that this research will demonstrate that self-assessed health status reflects a socio-economic gradient that is more in line with measures of morbidity (such as anthropometric measures) and mortality (such as infant and child mortality) than self-reported illness. There is a growing literature on the greater likelihood of 'ignoring' illness among lower than higher socio-economic groups, which impacts on the reliability of using self-reported illness as an indicator of the relative need for health services. Based on this research, we will argue that the use of self-assessed health status should be prioritised over self-reported illness in household surveys, to promote more accurate estimation of the relative need for health care.

PS 06/8

The river blindness control programme among farming communities in Benue state: an assessment of community-directed distributors of ivermectin in the north-central zone of Nigeria.

UMEH, J.C. AND AMUTA, R.

Department of Agricultural Economic, University of Agriculture, Makurdi, Benue State, Nigeria

ABSTRACT

River blindness poses very serious health and therefore socio-economic problems to the rural inhabitants of Africa and particularly West African coastlines. The total population of the meso and hyper endemicity within the study area is 2,779,524 in 2007. The health problems of the disease include blindness, leopard skin, nodules, etc. The use of ivermectin to control the disease is economical as it is provided free to the communities who select and train some of their subjects (known as Community-Directed Distributors, CDDs) for the administration of the drug.

The study analysed the perceptions of farming communities in the North-Central Zone of Nigeria with regards to their CDDs. It also examined the problems of the CDDs along with solutions suggested by community leaders, government health workers and the CDDs as well. A total of 186 randomly sampled respondents comprising 94 community members, 42 CDDs, 25 government health workers and 25 community leaders who could be located were interviewed. The data were analysed using tables, percentages, frequencies, and a chi-square test. Though the CDDs were perceived as being effective in ivermectin distribution by the community members, the CDDs however identified their problems as lack of mobility (42%), lack of incentives (24%) uncooperative attitudes by the drug recipients (29%) in the course of carrying out their duties. These problems could be threats to the sustainability of the Community-directed Treatment with Ivermectin (CDTI) Programme in combating river blindness in endemic areas. Majority of the respondents suggested that cash incentives should be given to the CDDs either by the government (17.6%) or through community-generated efforts (28.7%).

PS 06/9**A comparison of prescribing practices for the treatment of malaria in public and private health facilities in southeast Nigeria**

Pharm. Nzewi Ifeoma¹, Uzochukwu BSC, Onwujekwe OE, Ezeoke U, Chukwuogo OI

¹ Pharmacy unit, University of Nigeria Teaching Hospital (UNTH) Enugu, Nigeria

Background:

Drug use problems such as polypharmacy and irrational prescription of antimalaria and injections are indications of irrational prescribing practices and may lead to drug resistance. The prescribing practices in the public and private health facilities in the treatment of malaria is not well known in Nigeria. Therefore this study set out to determine the prescribing practices for the treatment of malaria in public and private health facilities in an urban area of south east Nigeria.

Method:

Treatment records from Primary health centers were randomly selected retrospectively and prescriptions from the private clinics were collected prospectively using surrogate patients. 100 prescription records were collected from 4 health centers, and four prescriptions each were collected from 10 private clinics in Enugu urban, south east Nigeria. These prescriptions were analyzed to know the % of drugs appropriately prescribed; % injection prescriptions; % antibiotics prescriptions and average number of drugs/case.

Results:

Prescriptions were significantly poorer in the private health facilities compared to the public. More chloroquine injections (87.7 vs 45.6%) and more antibiotics (64.3 vs 23.4%) were prescribed in private than public health facilities ($p < 0.05$). Polypharmacy and irrational prescription of vitamins and other combination preparations was common in both public and private facilities. However, the public health centers had an average 6.2 drugs per prescription against 3.2 in the private facilities.

Policy considerations:

Prescribing practices by both private and public health workers are highly irrational and more with the private. This calls for strategies to ensure appropriate and rational drug prescribing among health workers in both private and public health facilities.

PS 06/10**Child Health in Nigeria: An Empirical investigation of determinants**

Ataguba, John E^{1,2}; Ichoku, Hyacinth E²; and Okorafor, Okore¹

¹ Health Economics Unit, University of Cape Town, Cape Town, South Africa

² Department of Economics, University of Nigeria, Nsukka

Background/Objectives

Poverty, inequality and health statistics for Nigeria paint a disturbing picture. Large inequalities exist in the distribution of resources and over half of the population is poor with poor health statistics. Children from poorer households are more likely to be deprived of access to basic care. Based on this, the authors attempt a construction of a composite index of selected child health variables and to assess the predictors and determinants of a child's denial or lack of access to basic child health care services.

Methods

Principal Components Analysis is used to construct an index on selected child health variables that is used to assess the deprivation of the child from basic child health care services. From the composite measure, without imposing any distributional assumption, the Kernel density estimates is used to account for inequalities in the distribution of the index as opposed to the traditional linearity assumption. Probit and OLS estimations are further used to obtain the predictors and determinants of lack of access of children to basic child health care services.

The Core Welfare Indicator Questionnaire Survey data obtained by the National Bureau of Statistics (NBS) on children was used for the analysis. The data contains information on over 42,000 children drawn from all the 36 states of Nigeria including Abuja.

Preliminary Findings

Though the study is not completed at the time of this abstract, likely determinants and predictors of a child's lack of access to basic child health care include whether the mother is the head of the family, the length of time the child was breastfed, the current age of the child, the gender of the child, the weight of the child at birth, the place of child delivery, and who actually delivered the child.

Poster presentations

Posters

Code	Title	Authors
PT 01	Making community health insurance equitable and pro-poor - lessons from the Dangme west health insurance scheme	<i>Irene Akua Agyepong, Solomon Narh Bana, Evelyn Ansah, Edward S. Bruce and Margaret Gyapong</i>
PT 02	Health Sector Reforms in Developing Countries: A Study of the Financial, Institutional and Social Dynamics of Mutual Health Organisations in Ghana.	<i>Augustine Adomah-Afari</i>
PT 03	Health care financing incidence Analysis in Africa: The experience of Ghana, Tanzania and South Africa	<i>James Akazili, Gemini Mtei, John Ataguba, Di McIntyre, Jahangir Khan Clas Rehnberg</i>
PT 04	The feasibility and challenges of establishing a national health economics association, a case of Uganda	<i>Robert Basaza, Arthur Rutaro and Isa Makumbi</i>
PT 05	Probabilistic methods for economic evaluation alongside a multi-country trial in sub-Saharan Africa: a case study from the clinical trial of GlaxoSmithKline Biologicals' RTS,S/ASO1 malaria vaccine candidate	<i>Chris Atim, Damian G Walker, Louis Niessen, (+ Principal Investigators from the sites in Africa)</i>
PT 06	The state of tobacco control in Sub-Saharan Africa: strengths, opportunities, weaknesses and threats	<i>Evan Blecher</i>
PT 07	Reaching the poor with infectious disease programmes: a review of concepts and available evidence	<i>Marianela Castillo-Riquelme¹ and Michael Thiede¹</i>
PT 08	Removing user fees for primary health care in Kenya: Policy on paper or policy in practice?	<i>Jane Chuma, KEMRI, Vincent Okungu, Janet Musimbi, Catherine Goodman, Catherine Molyneux</i>
PT 09	The variation in reported costs of treating malaria: implications for CEA outcomes	<i>Lesong Conteh, Valerie Crowell, Fabrizio Tediosi, Elisa Sicuri, Damian Walker</i>
PT 10	Achieving universal coverage in health to promote equity and redistribution in South Africa: lessons from 'successful' countries.	<i>Di McIntyre and Gabila Fohtung</i>
PT 11	A pooled economic evaluation of Intermittent Preventive Treatment of Malaria in Infants (IPTi)	<i>Elisa Sicuri, Fatuma Manzi, Benson Obonyo, Prosper Bio, Paul Masika, Fred Matovu, Fabrizio Tediosi, Guy Hutton, Lesong Conteh</i>
PT 12	On Social Norms, Regulation and Demand for Cigarettes	<i>Nazmi Sari</i>
PT 13	The HIV Anticipatory Saving Motive: An Empirical Analysis in South Africa	<i>Judith Lammers, Gijs van de Kuilen, Judith Lammers</i>
PT 14	Exploring the impact of introducing user charges for reproductive health services in Archipelago Zanzibar: Challenges and opportunities	<i>Njau JD & Mwisongo AJ</i>
PT 15	A review of costing tools: an exercise to inform a design of a costing tool	<i>L Nkonki, E Daviaud, J Lawn</i>
PT 16	Inequity in Childhood immunization coverage in Southeast Nigeria	<i>Pharm. Nzewi Ifeoma, Uzochukwu BSC, Onwujekwe OE, Ezeoke U, Chukwuogo OI</i>
PT 17	Overweight and Obesity in Sub-Saharan Africa: An existing threat partly covered by HIV/AIDS	<i>Darjusch Tafreschi</i>
PT 18	Generating composite indices as a proxy for consumption expenditure	<i>Okore Okorafor, James Akazili, Josephine Borghi, Evan Blecher, John Ataguba, Di McIntyre, Jahangir Khan, Filip Meheus</i>
PT 19	Geographical distribution of Primary Health Care (PHC) workers and the determinants of variations in their distribution in South East in Nigerian	<i>Chukwuogo, Ogoamaka, I Uzochukwu BSC, Onwujekwe OE, Umeh DC</i>

PT 01

Making community health insurance equitable and pro-poor – lessons from the Dangme west health insurance scheme

Irene Akua Agyepong¹, Solomon Narh Bana, Evelyn Ansah¹, Edward S. Bruce and Margaret Gyapong¹

¹ Ghana Health Service, Regional Health Directorate, Greater Accra region

² Dangme West District Health Directorate, Ghana Health Service, Greater Accra Region

³ Dangme West Health Research Centre, Ghana Health Service, Greater Accra Region

In Ghana, it is current government policy to replace out of pocket fees at point of service use with health insurance through district based mutual health insurance schemes. Using data from a household survey and community group discussions of the performance of the Dangme West Mutual health insurance scheme, this paper examines the possibilities and way forward to make sure that health insurance in a developing country like Ghana is pro-poor and equitable. Selected proxy indicators of economic status of households in the survey suggest that less poor households are insuring in disproportionately higher numbers than the poorest households. Providing the option of health insurance - even with a subsidized premium - may not be enough to improve equity and make health insurance more pro-poor if efforts to get poorer households to join the scheme do not succeed. Other specific interventions are required to make this happen and they need to be simultaneously addressed. Interventions to improve geographic access to health services for poorer families who tend to live in more remote and underserved areas, more information and communication to help people understand and voluntarily enroll in insurance schemes and improvements in quality of health services, including their customer friendliness are all needed to provide an incentive for enrolment for poor and non-poor alike.

Key Words: Community Health Insurance, Pro-poor, Equity, Developing Country, Ghana

PT 02

Health Sector Reforms in Developing Countries: A Study of the Financial, Institutional and Social Dynamics of Mutual Health Organisations in Ghana.

Augustine Adomah-Afari

PhD Student - Sheffield Hallam University, U.K.

Introduction

The enthusiasm with which developing countries, especially, those in sub-Saharan Africa region have embraced the Community-based health insurance schemes concept as newly emerging institutional arrangement for financing and increasing

access to quality and modern health care services; within the past decade or two under the health sector reforms, has been momentous. The enthusiasm has been boosted by the fact that governments believe that the schemes could easily be utilised as platforms for initiating Social Health Insurance strategies to reach the economically deprived people who would otherwise be catapulted into chronic poverty because they would have had to dispose of family's wealth in order to treat a member who falls sick.

However, as governments seek to provide equitable health to their people, it is glaring that there are major difficulties especially, as there are no strongly developed social and public administration structures in place. This gives the impetus for a study of this nature which delves into issues pertaining to the financial viability, institutional framework and social dynamics and the effects these have on the overall sustainability of the Mutual Health Organisations. Ghana, a developing country in West Africa has introduced a National Health Insurance scheme which is fused with Social health insurance and Community-based health insurance schemes. Pro-active plans to address issues around financial viability of the schemes to prevent them from going insolvent are crucial.

Study aims

The study generally aims to review the health sector reforms in the context of developing countries and Ghana in particular. More specifically, we aim to analyse the problems of financial access to health in developing countries and to evaluate the Financial, Institutional and Social dynamics of Mutual Health Organisations as innovative and newly-emerging mechanisms seeking to help resolve these problems with reference to Ghana.

Study methods

Four operating District Mutual Health Insurance Schemes and one Private Mutual Health Insurance Scheme were selected using geographical locations, among other criteria, and used for case studies. Data is gathered through interviews with members and non-members of the schemes, scheme managers, health policy makers, political activists, NGO and donor organisation representatives, traditional leaders, the clergy and other stakeholders in health. Secondary data is also based on analysis of documentary evidence from the schemes including reports, financial statements and health facility attendance records. The findings of the empirical study are analysed based on the development of themes and patterns that emerged from the interview transcripts and interpreted using social policy and community field theories with the support of available documents.

Key Findings

The evidence from the study generally concludes that whilst Government's intervention (implementation of NHI) has increased and expanded the membership base of the schemes: from small group-based to district-wide schemes under the ambit of the District Assemblies, such intervention has equally led to diminished community initiatives in establishing on one hand and the complete collapse of the original small group-based schemes on the other hand.

The study also finds among other things that the schemes are financially viable as long as there will be government subsidy. However, they may not be financially viable beyond subsidy-funding due to uncontrollable high utilisation rate, occurrence of fraud, moral hazard and associated exorbitant claims made on them by health care providers. There are problems with late release of reimbursement funds for discharging with claims by the central government as this has impacted heavily on the financial and strategic management and decision making processes of health institutions in the operating districts. Health managers are unable to fulfil their contractual obligations to their suppliers as their capital funds are locked up with the mutual health organisations that are also unable to provide front loading for the health providers even up to a period of three (3) months of their financial operational requirements. There is therefore, a perceived tension between the schemes and the health institutions as the health institutions prefer to treat clients who come under the 'cash and carry' group since they provide prompt payment; to the detriment of insured clients whose reimbursement is delayed causing the institutions to be cash-trapped. This requires immediate attention.

PT 03

Health care financing incidence Analysis in Africa: The experience of Ghana, Tanzania and South Africa

James Akazili¹, Gemini Mtei, John Ataguba, Di McIntyre, Jahangir Khan Clas Rehnberg

¹Ghana Health Research Unit

Introduction

Examination of health care financing mechanisms to establish their level of progressivity as well as the evaluation of the factors influencing the incidence of health care financing are critical for achieving health system equity goals. However limited studies have been done on the distribution of the burden of health care financing on the populations of low and middle income countries, particularly in the African context.

Objective

The study will evaluate the distributional impact of health care financing by specifically evaluating the relative progressivity as well as the overall progressivity of the major health care financing mechanisms in Ghana, Tanzania and South Africa.

Method

The paper draws on national household survey data to quantify the burden of various health care financing mechanisms on different socio-economic groups in Ghana, Tanzania and South Africa. Detailed data on general tax payments (Personal Income tax, corporate taxes, VAT, petroleum or fuel tax, import and export duties) are estimated from national household survey data and distributed to households across socio-economic groups (using both consumption expenditure and a specially

constructed composite index approaches for measurement of socio-economic status using principal components analysis). The same principle is applied to the other financing mechanisms such as private health insurance, community and national health insurance and out-of-pocket payments. The estimated figures are triangulated with received revenue from country Treasuries or Finance ministries, health insurance organizations and other relevant sources. Specifically, the study employs the Kakwani and the Suits indices to evaluate the progressivity of health care financing. A further decomposition analysis will be used to decompose the typical Gini index across the various financing mechanisms.

Results

The analysis of the household survey data is yet to be completed at the time of abstract submission, and since incidence is affected by a range of factors (contribution mechanism, rate of pooling and purchasing) which may differ across countries, it will be difficult to predict the progressivity or otherwise of the various health care financing mechanisms in these countries. However, these results will prove critical in identifying which health care financing mechanisms are progressive or regressive and hence which mechanisms should be prioritized in order to promote health system equity.

PT 04

The feasibility and challenges of establishing a national health economics association, a case of Uganda

Robert Basaza¹, Arthur Rutaro and Isa Makumbi

¹ Ministry of Health Uganda and Institute of Tropical Medicine, Belgium.

The objective of this paper is to present the establishment of a national health economics association in Uganda; Uganda Health Economics Association (UHEA) so that there is sharing of country experience and possibly provide lessons to other countries already with one or planning to set up a national association.

Membership of UHEA is open to every one with training in health economics; It's currently from Ministries' for finance, health, water, Universities, private sector, donor groups and WHO country office. UHEA is a body corporate and its key objectives are to: (a) act as a legal non-profit making entity dedicated to promoting the health economics (b) sensitise policy makers, health workers and other stake holders on application of health economics (c) build capacity and institutional development. UHEA's has now established a data base of health economists in Uganda and used to hold frequent thematic presentations and consultative meetings on key and possible areas of intervention.

The methodology employed in this paper was review of records and key informant interviews. What was the trigger to start UHEA? (1) The idea that there is a global association called International Health Economics Association. (2) Some Ugandans heard received training in UK and got exposed to health economics. (3) Teaching of

health economics in the undergraduate and post graduate programs at Ugandan Universities. (4) Communication from WHO Country office and MOH of establishing a project of “health futures” meant to develop a long term vision for the health sector. UHEA was to carry out this assignment. UHEA faces a number of challenges; so far the enthusiasm has gone in the limbo. This is a consequence of three conditions: the features project which never materialized and secondly, HEPNET a regional group which has funded programs and thirdly lack of funding.

Way forward: (1) WHO Country Office and MOH Uganda could nurture this country initiative. (2) Such first regional meeting of this kind will rekindle and fertilize the country current membership and potential ones. (3) Donor groups interested in health economics could work through the existing country mechanisms. (4) Exchange visits between functional national health economics associations in the North and Africa including sabbaticals could improve functionability of African Associations.

PT 05

Probabilistic methods for economic evaluation alongside a multi-country trial in sub-Saharan Africa: a case study from the clinical trial of GlaxoSmithKline Biologicals' RTS,S/AS01 malaria vaccine candidate

Chris Atim¹, Damian G Walker, Louis Niessen, (+ Principal Investigators from the sites in Africa)

¹ PATH Malaria Vaccine Initiative, catim@path.org

Introduction

Evidence from economic evaluations can assist policy-makers in identifying interventions representing the best value for money. Therefore, as the PATH Malaria Vaccine Initiative (MVI) and partners begin to prepare for Phase 3 clinical trials of RTS,S in seven sub-Saharan African countries, there is a need to plan for economic and financial data collection alongside these trials, which would enable economic evaluation as well as budget impact analysis of this vaccine candidate to be performed should it successfully reach the licensure stage.

Aim and objectives

The overall aim of the study is to develop a protocol to estimate the cost-efficacy as well as budget impact analysis of the RTS,S/AS01 candidate malaria vaccine.

Methods used

The primary perspective of the analysis will be societal, but other key perspectives will include those that are most likely to interest national decision-makers, i.e. the healthcare system and patients and their families. The incremental vaccine costs will be estimated outside of the trials by using standard WHO guidelines. Data will be collected on direct medical costs, non-medical direct costs and indirect costs. Key features of the approach will include:

- Using a healthcare utilization survey to collect information on household costs associated with cases that do not seek formal care (i.e. traditional healers, pharmacies, or home care);
- Information on healthcare resource use (visits, medications, diagnostics) will be collected using a separate abstracting form based on clinical records. Information on costs associated with long-term consequences (nutritional deficits, impaired cognitive development) captured in a follow up questionnaire will also be considered;
- Unit costs associated with each input (medication, test, visit, hospital day) will be determined using standardized costing approaches;
- Total costs per case will be calculated using the caregiver information, healthcare resource use, and unit costs of those resources;
- Cost per child and national annual costs will be estimated by combining cost per case with epidemiological information on incidence in the different age groups.

Key findings

While external validity is an important consideration for economic evaluations, the key advantage of doing economic evaluation alongside the vaccine clinical trial is that it allows patient-level data related to the incremental costs and effects of the vaccine to be collected from the trial participants. Such patient-specific distributional data are attractive for reasons of high internal validity associated with the clinical trial design and also allows for statistical analysis of the uncertainty and variability around costs, effects and the interaction between them, including country-level effects.

PT 06

The state of tobacco control in Sub-Saharan Africa: strengths, opportunities, weaknesses and threats

Evan Blecher

Health Economics Unit, University of Cape Town

Globally tobacco control has been one of the most effective public health advocacy groups over the last 30 years. The success of this is seen by declining indicators of tobacco usage and the accession of the Framework Convention on Tobacco Control, the first global public health treaty. The success of tobacco control in the developed world has led to declining sales volumes of the tobacco industry. This has resulted in the tobacco industry paying greater attention on the developing world where sales are still relatively low and growth prospects are positive.

As the industry pays greater attention to the developing world effective tobacco control strategies are necessary to curb the growing epidemic. Industry strategies including low prices and marketing will attempt increase the number of smokers and the amount they smoke. It is likely that they are to use similar strategies that brought them so much success in the developed world. In order to counter this many developing nations are implementing effective and comprehensive tobacco control

strategies. Yet Africa has been left behind in that many African countries are placing so-called 'economic' considerations above public health considerations. Strong industry lobbies are hindering the efforts of tobacco control advocacy.

This paper attempts to consider the tobacco control *status quo* on the African continent. Even though smoking prevalence is still relatively low growing economies and the strength of tobacco multinationals makes Africa one of the most important future markets. We will consider what African governments are doing to implement tobacco control strategies by assessing the state of tobacco control in a broad cross section of African countries. The data considered will include smoking prevalence, cigarette consumption, price, taxation and affordability as well as non-price interventions including advertising restrictions and bans, smoke free areas and restrictive sales practices.

PT 07

Reaching the poor with infectious disease programmes: a review of concepts and available evidence

Marianela Castillo-Riquelme¹ and Michael Thiede¹

¹ Health Economic Unit, Department of Public Health and Family Medicine, Faculty of Health Sciences, University of Cape Town

Keywords: equity, poverty, infectious diseases, literature review, utilisation

Abstract

Background: There is an increasing awareness that control programmes for infectious diseases in the context of social and economic inequalities might not sufficiently benefit the poorest and most vulnerable groups. In health care, the challenges of targeting the poor are associated with the complex socio-economic and demographic context surrounding poor households and the technical nature of health care programmes. Previous research has highlighted the problems of equitable access to interventions, measured by the resulting patterns of health services uptake.

Objective

The aim of this study was two fold. Firstly, to develop a conceptual framework that can assist in the design, implementation and evaluation of the pro-poorness of infectious disease programmes. Secondly, to critically assess the evidence on the extent to which infectious diseases programmes reach and benefit the poor.

Methods: A systematic literature review on infectious diseases programmes that report coverage on poor population in developing countries was undertaken. The development of the conceptual framework was based on a synthesis of lessons drawn from previous research. We critically evaluate the success of specific disease programmes at reaching the poor. These include malaria, tuberculosis and HIV/AIDS as well as the group of diseases so-called "the neglected diseases of the poor".

Results

Evidence on the distribution of benefits of health programmes across socioeconomic groups is very sparse. Programmes focusing on a “single” infectious disease or vertically delivered frequently fail to effectively reach the poor. Poverty itself may become one of the main constraints for the poor with regard to utilisation of services and long-term benefits from service utilisation. Utilisation patterns are not necessarily an indicator of health gains as this varies across socioeconomic groups.

Conclusions

Poverty as an underlying cause of disease must not be ignored. Poverty will influence relapses, lack of treatment adherence and sustain effects on health gains. Pro-poor approaches can be systematically evaluated and its effectiveness monitored by addressing the degree of fit between programmes characteristics and patients’ needs. Intersectoral or structural approaches will be more likely to work in favour of the poor.

PT 08

Removing user fees for primary health care in Kenya: Policy on paper or policy in practice?

Jane Chuma, KEMRI¹, Vincent Okungu, Janet Musimbi, Catherine Goodman, Catherine Molyneux

¹ Wellcome Trust Research Programme

Background: Removing user fees for primary health care is one of the most critical policy issues being considered in African countries. Kenya removed user fees in primary health care facilities in July 2004, and introduced a flat registration fee that catered for all services. Children under five and specific illness conditions are exempted from paying the registration fees. An initial evaluation of the policy six months after implementation revealed high levels of compliance to recommended charges. Whether compliance to the new policy was sustained remains unclear.

Objectives: The study investigates the extent to which primary care facilities in Kenya adhere to a user fees removal policy, 3 years post-implementation. It documents the challenges that health workers face in their attempts to comply with the new policy, and captures communities’ perceptions and understanding of charging levels prior and post user fees removal. The potential impacts of user fees removal on revenue generation and service provision are also considered.

Methods: The study was conducted in Makueni and Kwale districts in Kenya. Data collection methods included: semi-structured interviews with health workers and facility committees (n=14 health facilities in Kwale; 20 Makueni); exit interviews (n=175 Kwale; 184 Makueni); focus group discussions (n=16); and a household survey (n=184 Kwale; 141 Makueni).

Findings: Strict adherence to the new policy in both districts was low. Only 4 facilities in Kwale and 10 in Makueni charged the recommended fees. In Kwale, 57% of the exit interview participants reported paying fees that were higher than the official rates, compared to 11% in Makueni. Reasons given for charging extra fees included: to generate funds to cater for drug shortages and to meet the costs of laboratory services; to enable facilities to continue paying support staff; and because service users felt that low charges were indicative of poor quality. Health centers were less likely to adhere to the policy than dispensaries because they offered a wider range of services, including inpatient care and maternity services. Community awareness of the recommended fee levels under the new policy was relatively low.

Conclusions: User fees removal in Kenya is a policy on paper. We recommend that caution be taken when deciding on whether or not to remove fees and that all potential consequences are considered; that policy guidelines be clearly defined to enable health workers to implement the policy appropriately; and that awareness of the recommended charges at the community level be promoted.

PT 09

The variation in reported costs of treating malaria: implications for CEA outcomes

Lesong Conteh, Valerie Crowell, Fabrizio Tediosi, Elisa Sicuri, Damian Walker

Swiss Tropical Institute,

Aim and Objectives: Crucial to many cost effectiveness analyses (CEAs) of malaria treatment are the costs per case of malaria averted, especially if morbidity data is unavailable and it is not possible or appropriate to use DALYs as an outcome measure. Malaria disease is normally categorised as either 'severe' or 'uncomplicated', or alternatively, as 'inpatient' or 'outpatient' with unique treatment algorithms and unit costs associated with each. The cost can be based on that incurred by the provider alone, or in some studies the burden to the household is also included. The aim of this paper is to find out how comparable the methodology and the final costs per case of malaria treatment are across studies and countries, and ultimately across CEAs. This is important as CEAs continued to grow in importance and influence public health decision making.

Methods: The analysis uses both primary data from costings the authors have been directly involved in calculating and data from an extensive literature search of secondary sources; these include costing papers and reports from both the published literature and the grey literature.

Key Findings: It is often difficult to get disaggregated information about what lies behind the average 'inpatient' cost or 'outpatient' cost. The cost of treating malaria included in CEAs do not always use comparable approaches. The time perspective differs across studies; some follow patients for a 'visit' to a health facility, others over the 'episode' to assess costs to the health system and household of multiple

treatments. When comparing alternative interventions or delivery strategies, many studies take an incremental approach to costing which does not describe the full value of resources used to produce a given health outcome. Different cost categories are included/ excluded in different studies. This difference in methodology is not always due to the approach used but to the lack of available records and data at the health facility level on costs and resource use. Less variation exists when identifying household costs of treating malaria, but this approach also has its challenges. Unit costs estimates also vary due to disparate quantities and prices of inputs required across epidemiologic, economic and operational settings.

PT 10

Achieving universal coverage in health to promote equity and redistribution in South Africa: lessons from 'successful' countries.

¹ *Di McIntyre and Gabila Fohtung*

¹ Health Economics Unit, University of Cape Town

South Africa has a two tier health system, fragmented along socio-economics lines, with the minority rich accessing the private health sector for all their health requirements covered by private health Insurance (Medical schemes), and the majority of the population dependent on relatively under-resourced, tax funded public sector health facilities (McIntyre et al,2006:81).The absence of a defined benefit package of health services accessible to all, irrespective of ability to pay, is a major challenge with regard to equity in health services in South Africa. The fact that a person's socioeconomic status is very often a determinant of the level and quality of health care that they are able to access testifies to the presence of great inequities within the country's health system that require rectifying policy action.

Taking cognisance of the context, this paper seeks to make a case for South Africa to adopt universal coverage as its principal health policy objective. Universal coverage in health care depicts a situation where the population of a country has access to good quality services according to needs and preferences, regardless of income level, social status, or residency. Implying the features of 'equity of access', 'financial risk protection' and equity in financing, meaning contributions are made on the basis of the ability to pay (Mills, 2007:6).This objective shall be accomplished by drawing lessons from the experience of countries that have attained universal coverage in health care as defined above. The focus shall not be exclusively on the health system and its evolution but also on the economic, political and social context (and the other determinant factors) in each country at the time of initiation of the move to UC and through the period of move towards UC. This is expected to bring out clear pointers to the South African situation providing a framework through which it can assess its readiness to move towards a universal coverage policy and the areas and factors that must be prioritized in adopting such a move. It is expected that the findings obtained will contribute to the debate on the adoption of policies that would promote equity and redistribution in South Africa.

PT 11**A pooled economic evaluation of Intermittent Preventive Treatment of Malaria in Infants (IPTi)**

Elisa Sicuri¹, Fatuma Manzi, Benson Obonyo, Prosper Bio, Paul Masika, Fred Matovu, Fabrizio Tediosi, Guy Hutton, Lesong Conteh

¹ CRESIB (Centre de Recerca en Salut Internacional de Barcelona)

Aims and Objectives:

This paper focuses on the economic evaluation of IPTi (Intermittent Preventive Treatment of Malaria in Infants). IPTi is the delivery of a treatment dose of an antimalarial drug during the first year of life when receiving EPI (Expanded Program on Immunization) vaccines. This paper aims to undertake a pooled economic evaluation of IPTi, part of the IPTi Consortium (www.ipti-malaria.org). IPTi trials were undertaken in several sub-Saharan African countries (Mozambique, Kenya, Tanzania and Gabon) and in a South-Pacific country (Papua New Guinea).

Methods:

A range of cost effectiveness and implementation issues were investigated using efficacy results from the various sites. Information on provider and household costs averted (both inpatients and outpatients), together with data on the potential absorption capacity of IPTi into the existing health system were analysed. Sensitivity analysis was conducted on the different characteristics of the trial settings and how these influenced costs. Such issues included the different antimalarial drugs used; different malaria incidence levels; and the different levels of capacity of EPI to accommodate IPTi.

Results:

Previous results of two trials delivering SP in Manhica, Mozambique and Ifakara, Tanzania have shown efficacy and safety of IPTi and the economic evaluation of the two sites also appeared highly cost-effectiveness. Further analysis suggests that this cost effectiveness extends to a wide range of other scenarios and settings.

Key Findings:

Early results show the potential of IPTi as a health intervention. As a preventive intervention, its implementation is cheap because of its delivery alongside EPI; this allows minimisation of household opportunity costs, and the increase in health system costs is, in many cases, marginal.

PT 12**On Social Norms, Regulation and Demand for Cigarettes**

Nazmi Sari

Associate Professor, University of Saskatchewan. Department of Economics.
Saskatoon, Canada

Abstract

This study examines the effectiveness of regulations such as advertising bans and smoking restrictions or bans in public places on demand for cigarettes when an influence of social norms on demand are taken into account. The paper uses panel data from OECD countries in the period of 1990 and 2004, and tests the impacts of regulations on demand for cigarettes.

The results suggest that strong smoking bans in public places have continuous impact on demand for cigarettes. Having strong bans implemented in a country decreases average smoking by 6.6 percent. It is also likely that implementing comprehensive bans would change smoking norms; therefore have indirect impacts on demand. The results show that this indirect effect would be 1.3 percent decrease in smoking for each year strong bans in place.

Keywords: smoking, demand for cigarettes, anti-smoking policies, social norms

JEL Classification: D12, I18

PT 13**The HIV Anticipatory Saving Motive: An Empirical Analysis in South Africa**

Judith Lammers¹, Gijs van de Kuilen, Judith Lammers

University of Amsterdam, Amsterdam Institute for International Development

Abstract

This paper studies the effect of the HIV/AIDS epidemic on saving behaviour. Two important characteristics of HIV result in opposing forces on savings: mortality increases, which reduces savings, and long-term illness risk increases, which enhances savings. We use a two period life-cycle model with uncertain lifetime including perceived HIV contamination risk to illustrate both the opposing effects of the HIV epidemic on individual savings and test the predictions of our model with data obtained from an economic experiment with real monetary incentives performed in South Africa. The empirical results show that increased mortality decreases the amount of savings and that having a high perception of HIV contamination risk increases savings. The latter effect confirms the HIV anticipatory saving hypothesis.

PT 14

Exploring the impact of introducing user charges for reproductive health services in Archipelago Zanzibar: Challenges and opportunities

Njau JD¹ & Mwisongo AJ²

¹ Ifakara Health Research and Development Centre (IHRDC)

² National Institute for Medical Research in Tanzania (NIMR)

Goal: To assess the major – physical, economic; gender and socio-cultural factors that impede access to quality reproductive health services (from both the providers and users perspective) with a special focus on user fee and cost sharing in archipelago Zanzibar.

Objectives: Review existing cost sharing practices for reproductive health services; assess household willingness and ability to pay for reproductive health services throughout the Zanzibar islands. The study also explored on existence of weaver/exemption mechanisms for the socio-economically vulnerable groups while analyzing the impact of user fees on reproductive health service utilization.

Methods: The study mainly involved review of existing documents on cost sharing and reproductive health services in Zanzibar and also primary qualitative and quantitative data collection. A total of five data collection tools were designed and used for primary data collection. These included structured and semi-structured questionnaires for households, health facility users and health workers. Others were FGDs guide, facility checklist and questionnaires for program managers and key health policy makers. Primary data collection points were carried out at Households, Facility exit interviews, Health workers, Policy and program managers and finally community level through FGDs.

Five districts were sampled based on socio-economic status and also geographical locations to constitute the primary data collection sources. These were, Urban, North A and Central Districts in Unguja Island, and Chakechake and Micheweni districts in Pemba Island. Ten health facilities were randomly selected from each of the districts of which at least two were health centers or hospitals. For each district, 10 shehias were sampled for inclusion into the study of which 10 households were interviewed and at least two FGDs were held in each shehia.

Findings: Less than 50% of child bearing age women interviewed had attended ANC or delivered at formal health facilities whereas 51.4% said they had delivered while at home through TBAs. Despite the fact that to date there is no formal policy on cost sharing practices in Zanzibar, reproductive health services were provided at cost and user charges were widely reported to be collected at most public health facilities. Over 86% of respondents interviewed said they paid for reproductive healthcare services. Reproductive health services charged include those related to purchase of surgical gloves and other hygienic supplies needed during delivery at health facilities. Other payments related to child registration cards, laboratory services, admission at

MCH wards etc. There were no standard payment schemes and the rates mentioned varied from across places and people.

Majority of respondents were willing to pay for perceived life threatening services like caesarean section and post abortion care. Over 60% of those interviewed were less willing to pay for ANC or post natal services, child vaccination or family planning services. The amount of money the reproductive health care users were willing to pay varied from place to place and often mirrored the rates already being charged to obtain similar services in both Pemba and Unguja.

Conclusion: Utilization of reproductive health service in Zanzibar remains low for many reasons. The major ones being informal cost sharing practices leading to sporadic cost fluctuations making it difficult for service users to predict the actual costs they will be faced with. Quality of care remains another major obstacle to use of reproductive health services in the island with feeble reproductive health service delivery at frontline health facilities coupled by lack of trained health personnel as well as lack of drugs and medical supplies.

In order for millennium development goals to be realized, there is need to address reproductive health care service bottlenecks so as to reduce maternal and child mortality especially in resource constrained settings like Zanzibar.

PT 15

A review of costing tools: an exercise to inform a design of a costing tool

L Nkonki¹, E Daviaud¹, J Lawn²

¹ Health Systems Research Unit, Medical Research Council.

² Save the Children

Background and aim

Costing studies collect, analyse and report cost information in different ways. Because cost data is highly dependent on contextual factors, it cannot be generalisable. Therefore comparisons of similar interventions within and between countries are limited. Costing studies should, however, be transferable to similar settings. Our aim was to review costing tools in order to identify gaps and strengths in methods used to collect cost information for health care intervention. Information gathered through this exercise was used to design a costing tool aimed at collecting comparable data for community based interventions aimed at improving neonatal health in seven African countries.

Methods

We were interested in tools that focused on HIV; or maternal and child health, and that were developed recently (2000-2005). We therefore purposefully selected four tools. We reviewed the selected tools by examining four broad pre-agreed categories. First, we examined the target audience for the tool and how data would

be collected using this tool. The second category addressed the remit of costing tool, such as the costing perspective, whether the tool measures total cost or incremental cost, and whether it included a community based aspect. Thirdly, we assessed the output that could be generated from the tool, for instance financial and economic costs, capital –and- recurrent costs and start up costs. Finally we identified other strengths and weaknesses, such as issues relating to the measurement of staff time.

Findings

The content of the various tools, especially the level of detail included, reflected their different purposes. Two tools were intended for programme managers whilst the other two were research tools. One common limitation related to the approach to the assessment of staff time, hence costs. Three tools examined and distinguished between intervention and non-intervention time, only accounting for time explicitly spent on intervention. This approach could result in an underestimation of staff time. In addition it does not allow for an explanation of staff time differences. Another notable gap in relation to community health worker interventions was the fact that attrition was not measured, nor its costs.

Conclusion

This exercise demonstrates the importance of reviewing costing tools as they inform the design and conduct of economic evaluations. The review of the tools was useful in identifying overlaps and challenges. In addition, we were able to identify areas that required strengthening, such as collecting data on aspects important to CHW's and approaches to collecting data on staff time.

PT 16

Inequity in Childhood immunization coverage in Southeast Nigeria

Pharm. Nzewi Ifeoma¹, Uzochukwu BSC, Onwujekwe OE, Ezeoke U, Chukwuogo OI

¹ Pharmacy unit, University of Nigeria Teaching Hospital (UNTH) Enugu, Nigeria

Background:

Nigeria's universal child immunization coverage is said to be improving in the last two years. However the socio-demographic and socio-economic characteristics of the population utilizing immunization services and immunization status of their children are not well known.

Method:

A cluster sampling design was adopted as the sampling method to select districts and respondents. The Socio-demographic and socio-economic characteristics of the population, utilization of immunization services and immunization status of 685 children under the age of 5 years from 462 households were determined by using interviewer-administered questionnaires to 462 mothers of children less than 5 years. Odds ratios for the socio-demographic and socio-economic characteristics were assessed as possible related factors with the immunization coverage rates for children under 5 years and under 1 year using the backward elimination method in

logistic regression.

Results:

Immunization coverage was as follows: diphtheria, tetanus, pertussis third dose (DPT3), 65.3%; oral polio virus third dose (OPV3), 78.0%; measles, 55.8%; The full immunization rates for children under 5 years and under 1 year were 49.8 and 65.2%, respectively. Higher socioeconomic status was associated with a higher rate of complete immunization for children under 5 years of age.

Conclusions:

Complete immunization rates for children aged less than 1 year are lower than the national target and there are differences in immunization coverage rates between different socio-economic groups in the area. Therefore, an intervention programme should be considered to achieve the national targets particularly in socio-economically disadvantaged groups

PT 17

Overweight and Obesity in Sub-Saharan Africa: An existing threat partly covered by HIV/AIDS

Darjusch Tafreschi

Swiss Institute for Empirical Research (SEW), St. Gallen, Switzerland
darjusch.tafreschi@unisg.ch

Abstract

Research in health economics often focuses solely on the threat of obesity in developed societies, mostly neglecting the existence of the phenomenon in the developing world. For example, obesity is a growing problem in Sub-Saharan Africa. While malnutrition is clearly still a major concern, one can also observe decreases in malnutrition and increases in the number of overweight people respectively. At the same time, many countries in the region continue to suffer from high prevalence of HIV/AIDS whereby the highest rates occur consistently among females and wealthier individuals respectively. One well-known phenomenon related to HIV/AIDS is wasting, a syndrome leading to involuntary loss of more than 10% of one's body weight (implying a reduction of BMI).

This research investigates three main issues using pooled DHS data for the economies of Zimbabwe, Lesotho, and Malawi. First, the BMI distribution for females in several SSA countries is analysed per se. It is shown that each economy consistently shows a significant proportion of overweight and obesity with over 20% of the sub-populations having BMIs greater than 25. Second, we use descriptive statistics to identify the key determinants of excess weight gain and obesity. As expected, wealth and education turn out to be key variables related to individual's BMI. In other words, females facing a higher probability of becoming HIV/AIDS positive are also more likely to suffer from obesity as both are positively correlated to wealth. The third part aims to sketch the BMI distribution in a hypothetical

HIV/AIDS free environment, *ceteris paribus*, by using semi-parametric matching methods. In such a scenario, the BMI distribution would undergo a significant rightward shift, therefore HIV/AIDS is *de facto* confining obesity. Furthermore, using unconditional quantile treatment regression we quantify the average weight loss related to HIV/AIDS disaggregated by wealth levels. We prove that not only the aggregated mean BMI should be larger in the absence of HIV/AIDS, but one should also expect the ratio of overweight to underweight individuals to increase drastically (as the former are disproportionally affected by HIV).

Our analysis predicts that a better control of the HIV/AIDS epidemic would lead to an increase in pressure on health systems in SSA due to a more pronounced distribution of the non-communicable disease of obesity. Therefore, policy makers should increase public awareness of the hazards related to obesity and adjust health systems in order to deal with upcoming problems arising from obesity.

PT 18

Generating composite indices as a proxy for consumption expenditure

Okore Okorafor¹, James Akazili², Josephine Borghi³, Evan Blecher¹, John Ataguba¹, Di McIntyre¹, Jahangir Khan⁴, Filip Meheus⁵

¹ Health Economics Unit, University of Cape Town, South Africa

² Ghana Health Research Unit, Ghana

³ Ifakara Health Research and development Centre, Tanzania

⁴ Medical Management Centre, Karolinska Institutet, Sweden

⁵ Institute of Tropical Medicine, Antwerp, Belgium and Royal Tropical Institute, Amsterdam, The Netherlands

Introduction

Measures of socio-economic status are frequently used in identifying specific population groups (such as the deprived) for policy targeting. In the health sector, such measures have also provided the basis for assessing equity in the distribution of access, utilisation, financing and benefits of health care services. The accurate measurement of socio-economic status (SES) in low income settings presents challenges. Self reported income has been found to be unreliable and the measurement of total household expenditure can be prohibitively expensive and time consuming. Consequently, in recent years, wealth indices have become increasingly popular as a proxy measurement for SES, enabling the ranking of households in terms of wealth. Such indices have traditionally focused on the inclusion of assets and housing particulars in the form of categorical variables. However, there is some evidence that indices derived in this way may not be well correlated with consumption expenditure.

Objective/Methods

The aim of this study is provide an alternative approach to measuring socio-economic status using a composite index that is a better approximation of

consumption expenditure to the traditional wealth indices. The study compares the performance of two indices that measure SES. The first comprises conventional assets and housing particulars measured as categorical variables. The second index includes a broader range of socio-economic and demographic variables (such as educational level and gender of the household head), that are routinely collected in household surveys. The two indices will be generated using Principal Components Analysis and compared in terms of their strength of association with consumption expenditure and the reliability of the resulting ranking of households into quintiles. The analysis will be carried out for the sample as a whole and for urban and rural populations. The data will be drawn from the most recent national household surveys in Ghana, Tanzania and South Africa, and the findings contrasted across countries.

Results

Data analysis is currently underway and results are therefore preliminary. However, we hypothesise that using a broader range of variables for generation of composite indices of relative SES and increased variability achieved by using some continuous variables will allow for greater correlation between the index and consumption expenditure, especially in lower income settings where variability in asset ownership is more limited.

PT 19

Geographical distribution of Primary Health Care (PHC) workers and the determinants of variations in their distribution in South East in Nigerian

Chukwuogo, Ogoamaka¹, I Uzochukwu BSC, Onwujekwe OE, Umeh DC

¹Department of Community Medicine, University of Nigeria Teaching Hospital, Enugu, Nigeria.

Background The geographical distribution of health personnel refers to their spatial allocation and it determines which services, and in what quantity and quality, will be available. Imbalances raise problems of equity and efficiency. In Nigeria, PHC health workers are essential for the delivery of Public health interventions, but their distribution and reasons for such distribution is not well known. This is necessary because the health-related MDGs cannot be achieved if vulnerable populations do not have access to skilled personnel.

Objectives To document the distribution of PHC workers and the factors responsible for variations in their distribution in the Nigerian PHC system.

Methods This was a cross sectional exploratory study carried out in Anambra state southeast Nigeria using document review, IDIs with 5 policy makers and questionnaire survey with 610 health workers to elicit information on the geographical distribution of PHC workers and the determinants of variation in the distribution.

Results More than 60% of the PHC workers are in urban areas where less than 30% of the people live. The results also showed that the variations are the result of a mix of decisions and indecisions by individuals, communities and governments, which in turn are influenced by personal, professional, organizational, economic, political and cultural factors.

Policy Implications A good understanding of the dynamics and determinants of health worker distribution is needed to achieve an equitable and efficient distribution. It is necessary that both financial and non financial incentives to attract health professionals to otherwise unattractive locations be created. Government should also recruit workers from their areas of origin and train them in schools of Health technology and Nursing/Midwifery schools with a signed bond to work in their areas of origin for a specified period on graduation.