



4 AfHEA Conference

The Sustainable Development
Goals (SDGs), the Grand Convergence
and Health in Africa

*Les Objectifs de Développement
Durable (ODDs),
la Grande Convergence et la
Santé en Afrique*

RABAT
Maroc,
du 26 au 29 Septembre
HÔTEL SOFITEL, JARDIN DES ROSES

2016



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Sustainable Development Goals
(SDGs), the Grand Convergence and
Health in Africa

Sofitel Jardin des Roses (Rabat-Morocco)

26th - 29th September 2016

4th AfHEA Conference – 2016

Programme and Abstract Book

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“Sustainable Development Goals (SDGs), the Grand Convergence and Health in Africa”

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African Health Economics and Policy Association
Association Africaine d'Economie et Politique de la Santé

4th AfHEA INTERNATIONAL CONFERENCE
Rabat - Morocco 26th - 29th September 2016

The agenda at a glance

Sunday 25 September 2016

Pre-conference Workshop (WHO/HQ and WHO/AFRO)

Bilingual workshop Why and how to approach Universal Health Coverage from a public finance perspective in Africa?
Facilitators: Joe Kutzin, Helene Barroy, Laurent Musango, Ogochukwu Chukwujekwu, Tania Bissouma-Ledjou, Ousmane Kolie, Olivier Basenya, Grace Kabaniha

Monday 26 September 2016

Pre-conference Workshop (PRICELESS SA and IDSI partners)

English only Health Technology Assessment for Universal Health Coverage Package Design
Facilitators: Dr Jeoma Edoke, Mr Tommy Wilkinson, Dr Ant Kinghorn, Ms Laura Morris

Pre-conference Workshop (WHO/HQ)

Bilingual workshop Why track health expenditures?
Facilitators: Joe Kutzin, Hapsa Toure, Tessa Tan Torres Edejer

Official opening ceremony

16:00 Registration
 Participant seating
 Practical information
 Reception of officials
Official opening ceremony

19:00 WELCOME COCKTAIL DINNER

Tuesday 27 September 2016

08:30 Registration
09:30 Participant seating
 Practical information

Plenary 1

09:30 Main conference hall: Room Royal
10:30 Technical Keynotes
10:30 BREAK / GROUP PHOTO / POSTER PRESENTATIONS (Pt-01)
11:00

Parallel sessions 1

11:00 12:30	Room: ROYAL The impact of power and politics on the implementation of health policies in the Sub-Saharan Africa: A multi-country perspective (OS 1)	Room: CELSIANA Performance of the health system in light of the reforms: the Algerian experience (OS 2)	Room: ALBA MAXIMA Cost and financing of maternal health	Room: JARDIN EXOTIQUE Out-of-pocket payments	Room: JARDIN OUDAYAS Health insurance models and experiences
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Parallel sessions 2

12:30 14:00	Room: ROYAL Progressing towards UHC – How do Public-Private Partnerships fit into the picture? (OS 3)	Room: CELSIANA The Grand Convergence and country graduation from international funding mechanisms: fiscal implications for health in Africa (OS 4)	Room: ALBA MAXIMA Cost effectiveness: case studies	Room: JARDIN EXOTIQUE Universal Health Coverage challenges	Room: JARDIN OUDAYAS Data for management and policy making
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14:00 LUNCH
15:00

Parallel sessions 3

15:00 16:30	Room: ROYAL Moving, and assessing progress, towards universal health systems within the context of the SDGs (OS 5)	Room: CELSIANA How well is your UHC System learning? A collaborative multi-country assessment (OS 6)	Room: ALBA MAXIMA Human Resources for Health: innovative approaches	Room: JARDIN EXOTIQUE Economics of Immunization	Room: JARDIN OUDAYAS Payment mechanisms and quality of care
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16:30 BREAK / POSTER PRESENTATIONS (Pt-02)
17:00

Plenary 2

17:00 Main conference hall: Room Royal
18:00 Plenary session 2
18:00 Networking time
19:30

Wednesday 28 September 2016

Plenary 3					
09:00 10:30	Main conference hall: Room Royal Plenary session 3				
Parallel sessions 4					
10:30 12:00	Room: ROYAL What kind of training and research on health economics in the UHC context? (OS 7)	Room: CELSIANA Medical and economic impact of cardiovascular diseases in Tunisia (OS 8)	Room: ALBA MAXIMA Health systems in Transition	Room: JARDIN EXOTIQUE Health policy	Room: JARDIN OUDAYAS Access to maternal health services
12:00 12:30	BREAK / POSTER PRESENTATIONS (Pt-03)				
Parallel sessions 5					
12:30 14:00	Room: ROYAL Achieving the SDGs: How much will it cost, and how can we get there? (OS 9)	Room: CELSIANA Economics of new vaccines introduction in Africa (OS 10)	Room: ALBA MAXIMA Human Resources for Health: country experiences	Room: JARDIN EXOTIQUE Universal Health Coverage monitoring and evaluation	Room: JARDIN OUDAYAS Results-based financing
14:00 15:00	LUNCH				
Parallel sessions 6					
15:00 16:30	Room: ROYAL Is my health system financing supporting UHC and primary health care? An analysis of country results that helps understand how to make use of health expenditure data (OS 11)	Room: CELSIANA Institutional arrangements for priority-setting: what are the key factors countries must consider when institutionalising HTA? (OS 12)	Room: ALBA MAXIMA Health MDGS and SDGs: macro economic analyses	Room: JARDIN EXOTIQUE Economics of malaria	Room: JARDIN OUDAYAS Health Inequalities
16:30 17:00	BREAK / POSTER PRESENTATIONS (Pt-04)				
Plenary 4					
17:00 17:45	Main conference hall: Room Royal Plenary session 4				
18:00 19:30	institutional meetings				
20:30	Networking time				

Thursday 29 September 2016

Plenary 5					
09:00 09:30	Main conference hall: Room Royal Plenary session 5				
Parallel sessions 7					
09:30 11:00	Room: ROYAL Using the workload indicators of staffing needs method in setting the national staffing norms for primary health care settings in the Sultanate of Oman (OS 13)	Room: CELSIANA Challenges in implementing HTA in Maghreb countries (Algeria, Morocco and Tunisia) (OS 14)	Room: ALBA MAXIMA Health financing in the context of MDGs and SDGs	Room: JARDIN EXOTIQUE Access to HIV/AIDS services and integration	Room: JARDIN OUDAYAS Households: support and perceptions
Parallel sessions 8					
11:00 12:00	Room: ROYAL 'Strategic purchasing' in different health financing models – four case studies from 3 Sub-Saharan African countries (OS 15)	Room: CELSIANA Community-based health services: financial and political dimensions	Room: ALBA MAXIMA Priority setting and economic evaluation	Room: JARDIN EXOTIQUE Innovative health financing	Room: JARDIN OUDAYAS Health policy and reform
12:00 12:30	BREAK / POSTER PRESENTATIONS (Pt-05)				
Parallel sessions 9					
12:30 14:00	Room: ROYAL Taking Results-Based Financing from Scheme to System (OS 16)	Room: CELSIANA Social determinants, costs and financing of mental health	Room: ALBA MAXIMA Health MDGS and SDGs: country experiences	Room: JARDIN EXOTIQUE Health systems in fragile and conflict-affected countries	Room: JARDIN OUDAYAS Community-based health services
14:00 15:00	LUNCH				
Plenary 6					
15:00 16:00	Main conference hall: Room Royal Plenary session 6				
16:00 17:00	MESSAGES FROM PARTNERS AND CLOSING CEREMONY				
Social programme (by the Event Organizer)					

Friday 30 September 2016

Post-conference Workshop (WHO/HQ)	
Bilingual workshop	From cost effectiveness to fairness Facilitators: Tessa Tan-Torres Edejer, Melanie Bertram

Oral presentations

Parallel Session 1: Organized sessions

Organized session 1: The impact of power and politics on the implementation of health policies in the sub-Saharan Africa: A multi-country perspective

Dr. Boroto Hwabamugu, University of the Western Cape

Gina Teddy, Health Policy and Planning Division, SOPHFM, Univ of Cape Town, Anzio Road, Observatory, 7925, Cape Town

Martina Lembani, School of Public Health, Univ of the Western Cape, Private Bag X17, Belleville, 7535, Cape Town

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Introduction

Increasingly, policies in developing countries seeking to improve health are based on global health agendas. These policies are usually accompanied by funding enticing governments to prioritise the programs and their implementation. Meanwhile, they do not always translate into the intended health improvement goals due to complex processes associated with their implementation and the lack of capacities to support those programs. Implementing policies such as these are highly influenced by politics and power dynamics as well as external pressures. This study seeks to explore the increasing impact of power and politics on the implementation of health policies in developing countries using experiences from four African countries: Botswana, Malawi, Ghana and South Africa.

Method

Using an interpretive synthesis of four health policies driven by global health agendas in Botswana, Malawi, Ghana and South Africa, an evaluation of the implementation processes is undertaken to unpack the intricate ways that power dynamics and politics influence policy outcomes. A thematic data synthesis from previous studies was used to analyse the processes of implementation following a systematic and multiple iterative processes while capturing multi-country experiences.

Findings

The impact of power and politics on health policies is revealed in different forms and at different levels of implementation. These were manifested through decision making, bureaucratic hierarchies, resource control and allocations, political will and support, the discretionary power of frontline workers and power dynamics exhibited through capacities, skills, knowledge and expertise of actors. Their implication have ranged from being problematic to the setting of unrealistic goals, strong political interference, externally driven and funded programs, lack of ownership, poor sustainability of those programs, lack of trust and accountability issues. This study concluded that power and political dynamics are inherent parts of policy processes and are embedded in the health systems. For policies driven by global agendas, they sometimes enable or constrain intended outcomes, although in most of the cases, power and politics impede the attainment of those goals in the long-term. It is therefore, important that continued deliberations along power dynamics are discussed at various fora so that those with the power to influence policy outcomes are aware of the impacts their actions have towards accomplishing health policy agendas.

Organized session 2: Health systems performance in light of reforms: the Algerian experience

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Algerian health system has been subject to successive reforms since the 1980s to overcome inefficiencies and low endogenous points including inequalities in access to care, and problems inherent in efficiency and quality of care.

Health work was largely based on the use of hospital services, the bed occupancy rate, however, remained very low: 44% in public sector hospitals and 63% in university hospitals and specialized hospitals. The hierarchy of care was not observed due to the low attractiveness of basic care facilities. Primary and secondary health services are underutilized; care applicants preferring to go directly to university hospital centers or specialty hospitals, looking for a suitable accommodation and health services to meet their expectations. Despite substantial investments in the expansion of health infrastructure and training of health professionals, access to health services in rural areas indicated the existence of numerous obstacles: lack of practitioners, equipment breakdowns, and drug shortages. Failures of medical imaging equipment are recurrent making patients to pay for the use of private imaging centers, and those with modest resources to wait for the repair of the faulty equipment with random deadlines.

The challenges of access to public sector health services encourage users to turn to private providers whose network is fully extended. Health system offers a dual and uncoordinated appearance: firstly, public sector healthcare services are very large and diverse but with poor performance as compared with a strong dynamic private sector healthcare services, concentrated in the major urban centers of the North, providing quality services, but practicing fees out of the reach of low-income people. This creates differences in access to care and demonstrates the ineffectiveness of the overall governance of the health system. Medical coverage reveals inequalities in distribution: while the national index was 1.34 doctors per 1,000 inhabitants in 2004, opened in some remote Walayat Province or had low coverage index: El Oued, 0.4 / 1000 inhabitants; Djelfa less than 0.4 / 1000 inhabitants. Nowadays medical coverage has significantly improved through the training of thousands of practitioners each year from a dozen medical schools. The coverage index in 2012 was 1.21 physicians per 1000 inhabitants. But there are still areas in nursing where patients are facing difficulties in access to care because of the disparities in the distribution of health care delivery. "While overall health indicators are relatively good, however, the country is facing a major public health challenge linked to strong regional inequalities in population health and distribution of health care delivery."

Many care services in public hospitals, suffering from lack of specialists - including the University Hospitals in Setif, Constantine, Batna, located in the northern part of the country, - despite the training each year between 1200 and 1500 graduates in different specialties.

We also note inequalities in child mortality and child immunization rates. The explanatory factors reside in the geographical distribution of households, economic and social conditions.

In Algeria about 97% of the deliveries were assisted by skilled birth attendants in the two years preceding the survey. The mortality of children under 5 years was 24% o in the population before the survey (21012-2013). Infant mortality from 14 ‰ in children residing in the North Central part of the country 32 ‰ among those residing in the Southern part of the country. It is also higher in rural areas (25 ‰) compared to urban areas (19 ‰). The full immunization of children at the age of one year was 66% children in the Highlands-centre region against 89% in the North East region. This rate is 76% when the mother has no education and 84% when she has a higher level of education. It is 76% in the poorest wealth quintile and 83% in the richest quintile. Successive reforms have been undertaken to increase the performance of the health system and to improve access to care. The reforms introduced in 2007 were aimed at decentralization of the health system and the reconciliation of health

services users to adapt to the health transition, characterized by the increasing prevalence of non-communicable diseases. Medical specialties in hospital services, are now implanted in extra hospital health structures such as polyclinics to reconcile the permanent availability of medical care (community care). The introduction of the treating physician is streamlining the patient journey and controlling processing costs. The introduction of the third-party digital payment tends to rationalize expenditure and control drug costs; the focus is on the prescription of generics. A new fund for social security was put in place for the recovery of expenses (National Council for Security Sector Reform (CNRSS)). The finding shows that all things being equal, Algeria "has made significant progress" and "several targets already have been achieved" in many of the Millennium Development Goals (MDGs). From the perspective of human development, our country ranked 93rd in 2013, has raised to 83rd in 2014. Algeria, as the international community prepares to achieve new goals, SDGs or health system still reflects shortcomings, despite significant progress made to overcome challenges faced today in terms of access to care, funding, performance and global governance for health system management which constitute a major challenge for sustainable development can be met on time. Having reviewed the progress made in the field of health and highlighted the many shortcomings inherent in our health care system, we will attempt to outline the alternatives that improve operations and increase efficiency, hoping to engage in a debate on key issues of governance and cost control.

Parallel Session 1

Parallel session 1: Cost and financing of maternal health

PS 01/1

Costs and consequences of abortions to women and their households: a cross-sectional study in Ouagadougou, Burkina Faso

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Little is known about the costs and consequences of abortions to women and their households. Our aim was to study both costs and consequences of induced and spontaneous abortions and complications. We carried out a cross-sectional study between February and September 2012 in Ouagadougou, the capital city of Burkina Faso.

Quantitative data of 305 women whose pregnancy ended with either an induced or a spontaneous abortion were prospectively collected on sociodemographic, asset ownership, medical and health expenditures including pre-referral costs following the patient's perspective. Descriptive analysis and regression analysis of costs were performed.

We found that women with induced abortion were often single or never married, younger, more educated and had earlier pregnancies than women with spontaneous abortion. They also tended to be more often under parents' guardianship compared with women with spontaneous abortion. Women with induced abortion paid much more money to obtain abortion and treatment of the resulting complications compared with women with spontaneous abortion: US\$89 (44 252 CFA ie franc of the African Financial Community) vs US\$56 (27 668 CFA). The results also suggested that payments associated with induced abortion were catastrophic as they consumed 15% of the gross domestic product per capita. Additionally, 11–16% of total households appeared to have resorted to coping strategies in order to face costs. Both induced and spontaneous abortions may incur high expenses with short-term economic repercussions on households' poverty. Actions are needed in order to reduce the financial burden of abortion costs and promote an effective use of contraceptives.

PS 01/2**How far can a social franchise cover its costs? An economic analysis of the PROFAM maternal health franchise in Uganda.**

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Background

Social franchising models have been growing rapidly in the private sector in developing countries, aiming at improving quality and increasing utilisation of franchised services. A key issue for sustainability is the overall financial impact on facilities, but this is rarely studied. In Uganda, the PROFAM social franchise network involves provision of maternal health care through 134 private health facilities. We assessed the implications for participating facilities in terms of patient load, facility revenues and costs.

Methods

15 social franchise facilities were randomly selected as case studies. Facility record reviews, a provider questionnaire and interviews with managers and healthcare workers were used to collect data on antenatal care (ANC) and delivery patient volumes, revenues, and costs using a micro-costing approach. We compared patient load, revenue and costs for the year before and the year after the facilities joined PROFAM, and explored other potential reasons for changes in these variables.

Results

Relatively complete data were available for 13 facilities. Of these, 5 experienced increased ANC visits after joining PROFAM, while 7 facilities experienced a decrease. Eight facilities experienced an increase in normal deliveries, and 5 a decrease. Median provider costs per ANC visit and normal delivery were 1.34\$ and 7.3\$, respectively. Median user fees were 2.55\$ for an ANC visit and 12.0\$ for a normal delivery, and some facilities sold clean birthing kits for a median price of 1.5\$ each. For-profit facilities charged around 3 times more than not-for-profit facilities, with some of the latter subsidising ANC and delivery. Facilities incurred minimal investment costs to join the franchise, and franchise fees were only 7.4\$ a year. The median change in overall profits was an increase of 349\$ in 2015, though there was substantial variation.

Discussion

No clear trend in patient volumes was identified following PROFAM membership, despite the marketing campaigns run by Programme for Accessible health, Communication and Education (PACE), and the active work of associated community health workers. Rather, variation in patient load mostly appeared to reflect specific features of facilities, such as the presence of a midwife or her reputation in the community. However, sale of birthing kits did lead to increased revenues. It remains unclear whether franchise membership will increase revenues sufficiently to justify payment of substantial franchise fees by facilities. The challenge of reaching low-income populations and achieving business success remains a central tension for the sustainability of the program.

PS 01/3**Does Public Spending on Health and Investment in Women Matter for Health Outcomes in Nigeria?**

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Aim and Objective

Determining factors associated with health outcomes at the micro and macro levels remains an imperfect process as establishing causality is complex and influenced by exogenous and endogenous factors. This study examines the relationship between health expenditure, female empowerment (education and workforce) and health outcomes (infant mortality and under-five mortality) in Nigeria, using state level data for the years 2003, 2004 and 2005.

Methods

Data on health expenditure was obtained from National Health Accounts as provided by the Federal Ministry of Health, Nigeria. We used the real GDP per capita at 2004 constant prices in international dollars to estimate the share of health expenditure on GDP. The Brass method was used to estimate state level infant and under-five mortality rates and the data source was the National AIDS and Reproductive Health Surveys. Socio-demographic variables included female education, female labour employment, obtained from the National AIDS and Reproductive Health Surveys and income inequality obtained from the United Nations Development Program Country Report. Variables were transformed to logarithmic form which, allowed regression results to be reported as elasticities. The Hausman test was conducted to determine whether a fixed or random effects model was the appropriate model. We used a fixed effect model, which controls for time-invariant state specific unobservable determinants of health outcomes such as culture, religion and ethnicity.

Results

Using fixed- effects models, our results show that health expenditure has a significant effect on health outcomes with elasticities of -0.43 and -0.37, for infant and under-five child mortality respectively, when employing models that do not consider other variables. However, when female empowerment is added to the model, health expenditure loses its significance. Infant and under-five mortality are significantly associated with the proportion of females employed in workforce. A 1% increase in the proportion of females employed in workforce is associated with a 0.4% decrease in infant and under-five child mortality.

Conclusion

Our study showed that female empowerment matters in reducing both infant and under-five child mortality in Nigeria. These findings have significant policy implications and provide new empirical evidence of the importance in investing in women to achieve significant reductions in infant and child mortality in Nigeria.

PS 01/4**Rolling out the Midwives Service Scheme to increase access to essential maternal care in Nigeria's decentralized health system: Design matters**

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Background

Nigeria has among the worst maternal and child health indicators in low and middle income countries (545/100,000 live births & 213 per 1000 live births) and faces multiple health systems constraints to expanding access to essential services. The flagship Midwives Services Scheme, implemented in all 36 states, was thus introduced in 2009 to improve rural staff retention by providing financial incentives and accommodation to rural midwives, and upgraded facilities. The study examines the design of the scheme and how it has reflected the health systems context, resources, needs and population preferences.

Methods

An extensive exploratory qualitative study included 87 in-depth interviews and 8 focus group discussions with policy makers, implementers, midwives and community members at federal level and in two states. Analysis was informed by a new framework examining the fit of the newly designed intervention considering: i) leadership and commitment ii) policy and financing context iii) human resource management capacity and iv) stakeholder participation. Themes were identified and synthesized iteratively.

Results

The broad principle of the scheme was widely supported by program managers and policy makers across the three health systems levels. However, its design was based on federal level program managers' knowledge of maternal health and worker issues, and limited recognition of the decentralized nature of the health system. The design of a uniform financial package irrespective of pay structure in different states damaged equity. Implementation was hampered by inadequate management and logistical capacity to deal with the complex design, poor absorptive capacity of states for the posted midwives, failure to provide supervision, and welfare issues that affected the midwives. Additionally, the insufficient consideration of the nature of the health system, economic and cultural factors, resulted in poor local ownership and commitment.

Discussion/Conclusion

The midwives' services scheme was an ambitious national scheme involving a bundled package of interventions to improve access to skilled workers in rural communities. In designing effective human resource retention schemes, the analysis here underscores the importance of designing such schemes to reflect overall health systems structures and processes, decentralized decision and participation in national level programmes, sub-national level factors including local health workers' preferences and culture. Since decentralisation critically modifies the decision making space, an inclusive process where sub-national actors participate in choosing design options should be a pre-requisite.

PS 01/5**Availability of Emergency Obstetric and Neonatal Care (EmONC) and family planning in West Africa: the case of Côte d'Ivoire**

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Objective: The study aims to give detailed information and an updated mapping of health facilities providing EmONC to policy makers and planners to take effective action for mothers and newborns.

Methodology: Data were collected in October and November 2014, with all public, parastatal, private and faith-based health institutions likely to deliver family planning and basic EmONC services. The collected data were cleaned before the production tables. Maps were made using ArcGIS software.

Results of the study: The country has 5 senior health workers per 10 000 population. Thus, compared to WHO standard, there is a gap of 18 doctors, midwives and nurses per 10 000 population nationally.

In addition, 80.2% of 1584 health facilities surveyed provide family planning. A significant increase of 12.8 points is fully acknowledged compared to 2010. Family planning services are available in Cavally Guemon (59.6%) and Worodougou-Bere (66.7%).

Furthermore, 62.6% of the 107 health facilities of the first reference level have at least one operating room. Among the health facilities surveyed, 1,727 (87.5%) are potentially basic EmONC. The signal functions characterizing basic EmONC (BEmONC) are assisted vaginal delivery with a vacuum extractor or forceps (2.1%) and removal of retained products of conception using manual vacuum aspiration (17.0%). In contrast, administering parenteral antibiotics and administering parenteral uterotonics are the most EmONC functions practiced in 93.4% and 91.9% respectively. Currently, the country has only 19 health facilities that provide all the seven signal functions characterizing basic EmONC (BEmONC) and 14 provide the complete EmONC. Thus, the gap in BEmONC is 223 and the two additional signal functions that comprise comprehensive EmONC (CEmONC) are 46.

Compared to 2010, significant progress has been made in the manual removal of the placenta and blood transfusion with 5.5 points, and 2.4 percentage points respectively.

The supply of certain signal functions has unfortunately experienced a significant decline in four years. The significant finding is the removal of retained products of conception using manual vacuum aspiration remains, with a drop to 14.2 percentage points.

Conclusion: insufficient supply of EmONC and Family planning in Ivory Coast is one of the causes of high maternal mortality at 614 deaths per 100,000 live births in 2012.

PS 01/6**Prospective cost benefit analysis (CBA) of the family planning (FP) programme in Gabon**

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Introduction

A strong national Family Planning (FP) programme gives a country many advantages from the health point of view to socio-economic benefits, and allows families to have the number of children they want, ensuring a better quality of life. This study evaluated the costs and benefits of increased investments in FP by the Government of Gabon from 2014 to 2050.

Method

The OneHealth Tool and The RAPID Model were used. Two scenarios: 1) envisages a trend change in the contraceptive prevalence rate to 56% in 2050 and 2) envisages a substantial increase in Total Patient Care (TPC) to 50.6% in 2025 and 75% in 2050 (strategic objectives). Costs include direct costs of service delivery; activities towards the populations, monitoring and evaluation and other important programme costs.

Results

In 2050, the total population will be 3.4 million for scenario 3 as against 4.4 million for scenario 2. Scenario 3 reduces maternal deaths; this reflects an appreciable level of births spacing resulting in significant declines in early and late pregnancies which are important risk factors. FP has helped avoid 16,748 neonatal and child deaths and 1024 deaths in married women. The FP will make gains of \$ 8.1 million or 4,050 billion CFA in 2050 punctuated by a marked improvement in productivity and living conditions of the population. Costs of family planning services in 2014 is estimated at 1.37 million dollars with 54% of funds allocated to programme costs. About 21% for human resources and 25% for contraceptives, etc. Investment in family planning will have positive impacts on a country in the sense that it guarantees return on investment. Until 2040, for every dollar spent on family planning, Gabon will save \$4 in both sectors (primary education, primary health); and this gain may reach \$10 in 2050.

Conclusion

The analysis shows that the costs of scaling up family planning in Gabon are largely manageable. Recommendations to increase the use of contraceptive methods have been suggested.

Keywords: Cost, Profit, investment, family planning

Parallel session 1: Out-of-pocket payments

PS 01/7

Assessing outpatient care expenditures to inform universal coverage agenda: Baseline results from a quasi-experimental impact evaluation of a health systems strengthening project in the Democratic Republic of Congo

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Background: In the DRC, households incur significant and likely burdensome out-of-pocket expenditures for health, with limited cost-sharing mechanisms available. However, there is limited evidence available with respect to disaggregated cost items incurred for outpatient care and factors of incurring atypically high costs.

Aim: To describe disaggregated primary care cost distributions and to investigate whether incurring excessive costs is associated with geographic location, health-seeking behaviors, health-system related indicators, or socio-economic characteristics of household members.

Method: As part of a quasi-experimental research study to assess the impact of the DFID-funded health systems strengthening project in DRC, a baseline population-based household survey was conducted in four provinces in 2014. The outpatient care module of the survey collected information on type, level, and utilization of outpatient care, accessibility to care, patient satisfaction, and out-of-pocket expenditures, among others. Wealth scores were derived using Principal Component Analysis. Excessive out-of-pocket expenditure for outpatient care was defined as spending greater than double the median cost. This threshold allows us to explore incidence and predictors of atypically high costs incurred by individuals. Cuzik's test for wealth trend and multivariable logistic regression of excessive costs were performed. The logistic model selection was based on using the results of the univariate analysis using backward elimination. Any variable with a p-value less than 0.20 in univariate analysis was included in the multivariable model. Odds ratios are presented after testing covariance in explanatory variables.

Result: Of 2,427 individuals reporting an illness within four weeks of interview, 71.1% sought outpatient care with an average of 1.0 visit per episode of illness. The overall mean expenditure per visit was US\$3.70 (95% IC US\$3.20-4.10) and ranged from US\$2.30 in Equateur to US\$5.30 in Maniema/Orientale. Mean expenditure was US\$5.90, 6.10 and 3.00 in the public, private and informal sectors, respectively. The equity ratio of medical and non-medical expenditures were respectively of 2.7 and 14.0 times greater among the wealthier ($p < .001$). Results from the multivariable model indicate that utilizing public sector medical services (versus private or informal sectors), urban location, residence in Maniema/Oriental, being in the wealthiest quintile, incurring days lost due to illness, and resorting to coping strategies were all predictors of having excessive costs ($p < .001$).

Conclusion: Overall and itemized outpatient expenditures significantly varied to a large extent across regions, wealth quintiles, and care-seeking pathways. Substantial cost-burden of illness associated to outpatient should be further documented and addressed to improve equitable access to primary healthcare and prepare universal coverage.

Keywords: Outpatient costs, Equity, Primary Health Care

PS 01/8**Health expenditure observed at place of residence in Ivory Coast in 2015**

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Introduction

In low-and middle-income countries, health services are poorly used mainly in rural areas because of direct payments, geographical and socio-cultural obstacles. To improve health care delivery, we are witnessing the development of the private sector, the integration of traditional medicine in the modern health care system and the establishment of universal health coverage to update knowledge on health costs. This study aimed to measure the distribution of health spending at place of residence.

Material and Method

The data were obtained from the Households Living Standards Survey 2015. These data were collected from January 23 to March 25, 2015 using a stratified sample from 12,900 households and 47,635 individuals. Measurement of health expenditures were related to different care services such as consumer items, consultation, modern health workers or traditional health practitioners, hospitalization, modern and traditional medicines in the 3 months preceding the survey. Data analysis were performed according to place of residence. The significance of the statistical tests was set at $p < 0.05$.

Results

The sample allocation was 55% (7,030), 35% (4,523), 10% (1,346) in households and 55% (26,227), 34% (16,164) and 11% (5,244) of individuals residing in rural, urban areas and the economic capital Abidjan. About 13%, 14% and 16% of people in rural, urban areas and Abidjan made the health spending. The median expenditure on consultation were estimated at \$ 1.82 (\$ 363.64 to \$ 0.18), \$ 1.82 (\$ 181.82 to \$ 0.18) and \$ 3.64 (\$ 909.09 to \$ 0.55) in rural, urban and Abidjan. The median expenditure on hospitalization and drugs were estimated at \$ 34.55 (\$ 1,090.91 to \$ 0.36) and \$ 18.18 (\$ 3,636.36 to \$ 0.18) in rural areas at \$21.82 (\$9091.77 to \$0.91) and \$18.18 (\$7272.73- to \$ 0.18) in urban areas and \$45.45 (\$2727.27 to \$1.82) and \$21 (\$1818.18 to \$0.18) in Abidjan. The median expenditure on consultation and medicines with traditional healers were \$3.64 (\$363.64 to \$0.19) and \$4.55 (\$2272.73 to \$ 0.18) in rural areas, \$3.64 (\$145.45 to \$0.19) and \$ 3.64 (\$818.18 to \$0.18) in urban areas and \$4.55 (\$90.91 to \$0.91) and \$3.64 (\$363.64 to \$0.18) in Abidjan.

Conclusion

Hospitalization expenses were the first time health spending. The differences in consumption of health services and products could be the basis of estimates for a universal health coverage system in Côte d'Ivoire.

Keywords: Health expenditure, consultations, hospitalizations, medication, traditional health practitioners, Ivory Coast

PS 01/9

Removal of Out-of-Pocket Payments (Catastrophic Health Expenditure) for Health Services in Rural Communities in Ghana- Has the National Health Care Financing Policy made a difference?

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Aims: This study investigate the extent to which NHIS introduction has improved access to health care; and reduced impoverishment from catastrophic healthcare burden among rural communities in Ghana and explore the predictive factors associated with out-of-pocket payment for health care.

Objectives: Out-of-pocket payment for health care leads to economic burden for households and the focus of health financing is to guarantee that all have access to effective health services. In recent years, many developing countries have made attempts to ensure that all citizens have adequate access to health care at affordable cost. The introduction of NHIS is a vital tool to evade financial barriers to health care; and also ensure individuals have protective weapons against catastrophic health expenditure. To remove out-of-pocket payment at the point of service use, and to ensure equitable universal access for all residents of Ghana to acceptable quality health care services; the NHIS was operationalized in 2004. However, the extent to which rural residents have been protected from catastrophic health payment expenditure seems unclear.

Methods: Data source were from a multi-centre cross sectional household survey consisting of about 12,000 households in rural communities in the northern part of Ghana. Using structured questionnaires between July 2012 and December 2012, questions on issues of health care needs and utilization; household income, and household expenditure on health care were ascertained. Catastrophic health care payment was estimated using the catastrophic head count. Data were analysed using the Chi Square test in testing the differences in proportions; and further with multiple level regression model.

Key findings: Results shows that one in every two, one in five and one in three was an NHIS enrollee, a previous enrollee and never enrolled into the scheme respectively. Fifty-three percent had informal type of insurance status, formal/SSNIT formed 2.7% and there rest were exempt (pregnant women, poor, elderly and under 18 years). A 27.0% experienced high and catastrophic health expenditure for outpatient and in-patient health services respectively among rural residents. The burden of transport cost was higher for in-patient care (23.4%) than out-patient care(4.0%). Having chronic illness, valid NHIS card, having a health need and education were associated with out-of-pocket payment for health care services. Achieving equitable universal health coverage as an antidote has the potential of protecting individuals and households of depriving effect of payment for health services; without overlooking at addressing the underlying social, structural, and political determinants of illness and health inequity.

Key words: Out-of-pocket payment, health care burden, health care utilization, NHIS, Ghana

PS 01/10**Effect of Household Catastrophic Health Expenditure on Vulnerability to Poverty in Ghana.**

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Introduction:

Financial protection from poverty is an essential component in healthcare delivery. While Ghana has made significant strides in achieving universal health coverage, direct out of pocket (OOP) payment for health care services continues to prevail. Households' welfare may decline in paying directly for healthcare services. Several studies have considered the effect of catastrophic health expenditure on poverty, however, the effect on future poverty (or vulnerability to poverty) is still missing.

Objective:

In this study, we intend to estimate the effect of catastrophic health expenditure (CHE) on vulnerability to poverty among households in Ghana.

Methods:

Following the World Health Organization, we defined and estimated CHE as total health expenditure exceeding 40% of a household's non-subsistence income available after basic needs have been met. Vulnerability to poverty was defined as the probability of future poverty and estimated using the Feasible generalized least squares procedure. Data was sourced from the sixth round of the Ghana Living Standards Survey which is a nationally representative sample of 16,772 households. The effect of CHE on household vulnerability to poverty will be estimated using a Probit model as the dependent variables was transformed into a dummy variable.

Key findings:

The preliminary analysis shows that about 51.4% of households incurred CHE. Households in rural areas recorded a higher incidence of CHE relative to their urban counterparts. About 34.5% of female headed households experienced CHE while for male headed households it was 65.5%. We also found that compared to the current poverty estimate of 24.2%, vulnerability to poverty is about 36.09%. In our subsequent analysis, we expect to find a positive and significant relationship between CHE and vulnerability to poverty.

Conclusion:

The results so far suggest the presence of catastrophic health expenditure and vulnerability to poverty was also estimated to be higher than current poverty levels. At the end of the study, we expect that the findings will be relevant for policy towards achieving universal health coverage in Ghana.

Key words: Catastrophic health expenditure, vulnerability to poverty, health expenditure, Ghana

PS 01/11

Rural Tunisian household catastrophic health expenditure: witch determinants before and after establishment of the insurance system

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Although evidence is available on the impact (or the evolution) of health care expenditure in developed countries, little empirical evidence has been reported for developing countries. This paper seeks to analyze the evolution of health care expenditure in developing countries using the particular case of Tunisia. This is an interesting case study. The country has experienced a rapid demographic and epidemiologic transition during the last few decades (particularly since 1970).

It is well-known that efforts to decrease healthcare are rather challenging. Today, it's increasingly argued that these efforts should focus on measures to control exponential increase in healthcare expenditure. This is particularly pertinent for countries that have limited resources such as Tunisia. Indeed, the healthcare system in Tunisia suffers from several problems. For instance, several reforms have been undertaken to adjust the composition of healthcare expenditure, in a way to increase the proportion of direct out-of-pocket made by households. The latter source of healthcare funding is known to be associated with catastrophic and impoverishing effects on households.

Using the logit model, we will try to determine the factors that may generate a state of catastrophic expenditures for Tunisian households living in rural areas.

We will use data from the National Survey on Household Budget, Consumption and Standard of Living (EBCNV) for 2005 and 2010. The 2005 and the 2010 surveys are the eighth and ninth of its kind that were carried out by the National Institute of Statistics (INS) in Tunisia to explain evolution of health expenditure across a three group of variables: Socio-economic variables and demographic variables.

Results show that, Socio-economic variables regrouped the total expenditure, food expenditure and education expenditure are significant in our model but between 2005 and 2010. Demographic variables in our model explain a part of the out-of-pocket health care payments.

Parallel session 1: Health insurance models and experiences

PS 01/12

Eliciting Preferences for Social Health Insurance in Ethiopia: A Discrete Choice Experiment

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As low income countries are encouraged to introduce health insurance schemes, Ethiopia is also planning to move away from out-of-pocket private payments to health insurance. The success of such a policy depends on understanding and predicting preferences of potential enrolees. This is because a scarce health care budget forces providers and consumers to make trade-offs between potential benefits of a health insurance. An assessment of preferences of potential enrolees can therefore add important information to optimal resource allocation in the design of health insurance.

We used a discrete choice experiment (DCE) to elicit preferences for social health insurance (SHI) among formal sector employees in Ethiopia. Respondents were presented with 18 binary hypothetical choices of SHI. Each insurance was described by eight attributes: premium, enrolment, exclusions, providers, and coverage of inpatient services, outpatient services, drugs, and tests. A mixed logit model was estimated to determine respondents' willingness to pay (WTP) for the different health insurance attributes. We also predicted probabilities of uptake for alternative SHI scenarios.

Health insurance packages with 'no exclusions', 'public and private' providers, low rate of premium, and full coverage of tests and drugs were highly valued and had greatest impact on choice of health insurance packages. Other things equal, respondents were willing to contribute 1.52% (95%CI: 0.71, 2.32) of their salary for SHI package with no service exclusions having public and private service providers. This is substantially lower than the proposed 3% premium in the draft SHI strategy. For the typical SHI package proposed by the SHI strategy at the time, uptake probability was predicted to be 29% (95%CI: 0.25, 0.33).

The lower uptake probability and WTP for the proposed SHI package suggests considering preferences of the potential enrolees' in revisions of the draft SHI strategy for introduction of optimal SHI scheme.

PS 01/13

The Medical Assistance Scheme (RAMED): A progress report

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The adoption of the Law No. 65-00, enacted in 2002 and brought into force in 2005, led to a significant progress in the establishment of basic medical coverage, through the extension of the compulsory medical insurance (AMO) and the generalization of the Medical Assistance Scheme for poor people (RAMED). About 4 years after its generalization, RAMED reached a phase of evolution characterized essentially by the registration of more than 9 million beneficiaries and the dispensation of more than 11 million RAMED beneficiaries received medical assistance from the Kingdom hospitals from simple consultations to highly specialized interventions including organ transplants. However apart from the progress made, certain constraints need to be addressed in depth to overcome them and thus enable the RAMED to achieve the objectives. To name only those that are most significant and which impact its evolution are:

- Securing the funding for the plan;
- Management of resources allocated to the plan;
- Improving the governance of the scheme.

Being aware of the need to overcome these shortcomings and to ensure its sustainability, several efforts are underway, particularly in terms of funding, upgrading of health facilities and the technical platform and its governance. Also, the type of operational constraints have been drawn from observation following a situation analysis after the 4th year of extension of the RAMED and has attracted the interest of various stakeholders related to the lack of communication and awareness of the beneficiaries on their rights and obligations.

PS 01/14

Utilization of Healthcare Services and Renewal of Health Insurance Membership: Evidence of Adverse Selection in Ghana

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Background

Utilization of healthcare under Ghana's novel National Health Insurance Scheme (NHIS) has been increasing since inception with associated high claims bill which threatens the scheme's financial sustainability. This paper ascertain the presence of adverse selection by assessing the effect of healthcare utilization and frequency of use on NHIS renewal.

Method

Routine enrolment and utilization data from 2008 to 2013 in two regions in Ghana was analyzed. Pearson Chi-square test was performed to test if the proportion of insured who utilize healthcare in a particular year and renew membership the following year is significantly different from those who utilize healthcare and drop-out. Logistic regressions were estimated to examine the relationship between healthcare utilization and frequency of use in previous year and NHIS renewal in current year.

Results

We found evidence of adverse selection in the NHIS. Majority of the insured who utilize healthcare renew their membership while most of those who do not utilize healthcare drop-out. The likelihood of NHIS renewal was found to be significantly higher for those who utilize healthcare than those who do not and also higher for those who make more health facility visits.

Conclusion

The NHIS claims bill is high because high risk individuals who self-select into the scheme makes more health facility visits and creates financial sustainability problems. Policy makers should adopt pragmatic ways of enforcing mandatory enrolment so that low risk individuals remain enrolled; and sustainable ways of increasing revenue for the scheme while ensuring that the societal objectives of the scheme are not compromised.

PS 01/15

Micro-health insurance and sustainable access to care: between adverse selection and moral hazard in Ivory Coast

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To live long if not for eternity, people prefer good medical coverage. It is in this vein that we are witnessing decades of emergence of health insurance systems. The principle of health insurance systems is a kind of solidarity that is characterized by the payment of a contribution and collective management of disease risks. In this report, the insured objective is to maximize health improvements and maximize prescribed care costs. From that moment, the insurer will ensure that the insured is satisfied with a good premium. Now on the market there are two categories of customers: those who represent a high risk of developing a disease and those that present less risk. Smaller risk will tend to pay less for small coverage premiums. Taken to the extreme this finding poses a problem of adverse selection of the insurer's side and a moral hazard problem on the side of the insured. This is likely to undermine the viability of the system.

The objective of this study is to understand whether the social factors may affect the sustainability of the system. The study adopted a qualitative approach aimed at comprehensive focus on semi-structured interviews with insurers and insured in the Abidjan district. The observed facts led to the result as to whether the nature of insurers-insured relationships limits access of the population to quality health care and also undermines the financial viability of the system. In effect, moral hazard and adverse selection occur in both the population and the insurance system and are factors of non-sustainability of the health system and, consequently, limits the sustainable access of the population to quality of health services. For example, the interviews show that at moral risk, insurers require their customers to prevent endemic diseases, which generates an extra cost coverage. And if policyholders are able to meet this condition in case of illness, they will access more care than expected. Without developing the intense contemporary debate on insurance industry, through this study, we find the double face of the insurer. Many perceived facts may affect the viability of insurance systems and population with sustainable access to health care.

PS 01/16

An assessment of Community Based Health Insurance Scheme in rural Ethiopia

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This study aims to provide policy relevant knowledge regarding the performance of the Ethiopian pilot CBHI scheme. The study, particularly, focuses on understating factors driving the scheme initial enrollment, drop out and re-enrollment decisions. It also looks at the effectiveness of this intervention in terms of creating access to care and providing financial protections. Unlike the existing studies, it relies on a rich longitudinal household survey which includes baseline information and three follow up surveys which allow to assess trends in the CBHI uptake and the dynamic effect of the scheme on the outcomes of interest. The baseline survey covers 1632 randomly selected households from pilot and non-pilot woredas. Health facility survey collected in 2011 before the introduction of the scheme is also used in the analysis. Moreover, it uses qualitative information gathered through key informant interviews and focus group discussions.

It is found that the uptake of the scheme has been 41% of the target households in 2012 and this has increased to 58% in 2015. Membership renewal is more than 80% of the initially enrolled households. The Ethiopian scheme enrollment and retention rates are impressive as compared to the experiences of other African countries. In terms of uptake, there are substantial differences across the pilot regions. It is found that Amhara is the best performing region with coverage rate of 68% while Tigray is the lowest one with 49% uptake rate. Variations in the extent of ownership and commitment from local administration bodies to concerted mobilization effort during the defined renewal time frame, waiting time, renewal timing, and allocation of targeted subsidies for indigent groups contributed to the differences in the coverage of the scheme across the pilot regions.

The results from multivariate analysis show that, similar to the experience of many countries, the poorest households are more likely to be excluded from the scheme mainly because the poor are unable to afford membership contribution. However, participation in productive safety net program which targets food insecure households increases the incidence of being member of the scheme by at least 13 percentage points. This is attributed to better access to CBHI knowledge and some sort of enforcement mechanisms. An increase in household size boosts the scheme uptake since the premium level is constant pre core household members regardless of family size.

Overall, this study demonstrates that the Ethiopian scheme can play a crucial role to achieve the goals of universal health coverage. However, there are a number of implementation challenges which need the attention of the concerned bodies. These include limited political commitment to mobilize the target households, lack of quality health care services, and shortage of drugs in the facilities, health workers attitude for insured patients, moral hazard behavior in services utilization, low financial capacity and difficulty to settle reimbursement claims to the contracted health facilities, and limited knowledge about the detail of the scheme design feature

Parallel Session 2: Organized sessions

Organized session 3: Progressing towards UHC – How do Public-Private Partnerships fit into the picture?

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Contextualisation

One of means of engaging private sector on public health strategy compliant objectives to strive and progress towards Universal Health Coverage (UHC) is through complex contracting arrangements branded « public-private partnerships » or PPPs to private sector participation in public service delivery or facilitation of a stream of services in relation with the provision of infrastructures, clinical and non clinical (e.g. ancillary) services, equipments, care, or a mix of these services. The variety of PPPs models requires clarification as to the core components of these innovative contracts, which can be summarized as cooperative ventures between public and private sector stakeholders aimed at best addressing a clearly defined public need through the appropriate allocation of resources, risks and rewards.

Aims and objectives

This session aims at offering neutral insight in PPP projects in health to offer operational guidance for policy makers and health systems stewards to help them make informed choices as regards the relevance, adequacy and potential type of PPP which can help build resilient and transformative health systems. In order to achieve that, the session will:

- Explore how PPPs and broader rules of engagement with the private health sector can effectively contribute to better performing and transformative health systems that deliver value for money and strive for UHC.
- Delineate models of PPPs adapted to match the needs of the health sector based on case studies and experiences of « goods and bads ».
- Recommend and provide guidance as to how design, implement, manage and adjust PPPs over the project duration or life cycle.
- tap into the operational knowledge of WHO in-house legal and PPP specialists as well as institutional and governance experts to recommend the best use of complex contracts from a neutral broker's perspective and to fit the needs of public health decision makers and stewards.

Expected results

The 40+ participants (health decision makers, hospital managers, governance specialists, health system stewards) will have grasped the breadth and depth of PPP models and how best to address UHC and health systems needs and challenges with contracting instruments to engage private health stakeholders in order to strengthen care service delivery performance and health services availability.

Outputs

Potential topics to be explored during the sessions include:

- Presentation of the added value of Public-Private Partnerships in health as regards procurement options: contribution to health systems stewardship performance, in particular in the field of health infrastructures and health services development

- Understanding the diversity of PPP business models: adapting transformative models of engagement with the private sector to address health needs in the context of UHC (availability, accessibility, equity and quality of health services)
- Securing Value for Money and efficiency in partnering arrangements across the health sector
- Developing PPPs: how to ensure legal framework attractiveness for investors and private capital-investment growth? How to generate projects and opportunities for the national labour market?
- Versatile contracting techniques for the health sector: how can PPP address technological, design and innovation shift in health?

Overview – Rationale and Scope

With Universal Health Coverage (UHC) gaining impetus as the overarching framework to progress towards equitable, fair access to quality, adequate care for everyone, the tantalizing question remains: how to design UHC-prone policies in such a way that not only financial protection is ensured for everyone, but high-performance service delivery is also possible. Against this background, the underlying issue pertaining to UHC related to governance, institutions and the effective, agile stewardship of transformative, resilient health systems that can deliver appropriate care to everyone.

In this context, engaging the private sector to ensure that the variety of stakeholders involved in the delivery of care are streamlined and supportive of defined public health needs is instrumental and in some cases key to efficiency in progressing toward UHC. This is the case when public health authorities need to tap into private sector expertise that is lacking in the public sector (e.g. management of facilities, supply chain development) or densifying networks of health infrastructures and facilities whenever health care services deployment is lagging behind plan.

One of means of engaging private sector on public health strategy compliant objectives is through complex contracting arrangements branded « public-private partnerships » or PPPs. Behind the branded term is a set of contracting instruments that enables private sector participation in public service delivery or facilitation of a stream of services in relation with the provision of infrastructures, clinical and non clinical (e.g. ancillary) services, equipments, care, or a mix of these services.

The variety of PPPs models requires clarification as to the core components of these innovative contracts, which can be summarized as cooperative ventures between public and private sector stakeholders aimed at best addressing a clearly defined public need through the appropriate allocation of resources, risks and rewards.

While the term PPP has been coined to designate long term (average duration of PPP contracts is 25 to 30 years) aggregate contracts based on risk sharing between public and private sectors, materialized by payments based on predefined performance objectives, the range of contracts illustrate versatile possibilities often represented by an « alphabet soup » of acronyms which encapsulate the services provided (e.g. the most famous type of infrastructure PPP being the DBFOM, which stands for Design Build Finance Operate and Maintain).

PPPs can potentially unlock efficiency gains for the public sector in management of services and/or infrastructures in health. If managed well and with proper guidance, they empower health systems stewards with the capacity to benefit from knowledge and skill transfers, bring added performance in health infrastructure and services availability and quality. However, the conditionalities for PPPs to positively contribute to UHC require additional research, evidence of good practices and capacity building for public health managers.

This session will explore how PPPs and broader rules of engagement with the private health sector can effectively contribute to better performing and transformative health systems that deliver value for money and strive for UHC.

It will delineate models of PPPs adapted to match the needs of the health sector based on case studies and experiences of « goods and bads ».

It will recommend and provide guidance as to how design, implement, manage and adjust PPPs over the project duration or life cycle.

It will tap into the operational knowledge of WHO in-house legal and PPP specialists as well as institutional and governance experts to recommend the best use of complex contracts from a neutral broker's perspective and to fit the needs of public health decision makers and stewards.

Organized session 4: The Grand Convergence and country graduation from international funding mechanisms: fiscal implications for health in Africa

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Session background

In 2013, the Lancet Commission on Investing in Health (CIH) published *Global Health 2035: A World Converging within a Generation*. The report showed that with enhanced investments to scale up existing and new health tools, most low-income (LIC) and lower-middle-income (LMIC) countries could achieve a “grand convergence” in health – a reduction in the rates of avertable infectious, maternal, and child deaths to those presently seen in the best-performing middle-income countries. *Global Health 2035* estimated that closing the health equity gap would cost an additional \$70 billion/year from 2016 to 2035. The report found that most of this incremental investment could come from domestic spending by LICs and LMICs, provided these countries allocate a proportion of their economic growth over the next 20 years towards the health sector. The report makes a powerful case for increased health investments, showing that the returns to investing in a “grand convergence” would be impressive—with a benefit: cost ratio of about 9-20 to 1.

The CIH’s call for increased domestic health investment is particularly important for LMICs, and those countries transitioning to LMIC status, where development assistance for health is declining or anticipated to decline. For example, the thresholds used by large multilateral donors such as the Global Fund and GAVI tend to exclude middle-income countries. As countries reach these income thresholds, they will have to find new resources to replace the reduction in external aid, as well as generate additional revenue to meet the commitments required to achieve convergence. In order to ensure that both current health funding (pre-graduation) and the grand convergence agenda are not compromised, countries must explore alternative sources of financing. In 2015, the African Health Economics and Policy Association (AfHEA) commissioned a project to assess the fiscal and health implications of the graduation of Ghana and Kenya to LMIC status. This project assessed the implications of reduced funding on health outcomes; estimated the funding requirements to achieve convergence; explored alternative funding sources to fill health financing gaps; and explored options for achieving efficiency gains within the health system to expand fiscal space for health. In this session, the AfHEA and the CIH will present a feasible pathway for Ghana and Kenya to reach grand convergence, outlining the countries’ health financing needs over the coming years, strategies and opportunities for meeting the health financing gap, and priorities for domestic health spending in order to achieve convergence.

Paper 1. The grand convergence agenda: Implications of the report of the Commission on Investing in Health for Ghana and Kenya

Presenter: CIH Commissioner Dr. Helen Saxenian

Overview: This presentation will provide an overview of the report of the Commission on Investing in Health, highlighting the key conclusions of the Commission and discussing the primary implications for health financing in Ghana and Kenya. This presentation highlights the substantial health improvements that are possible for Ghana and Kenya to achieve in the coming years, if the countries prioritize health sector investments that build the capacity of the health system and expand delivery of high impact and cost-effective health interventions for maternal, child, and infectious conditions.

Session Objectives:

- To outline the health investments – both levels and priorities – needed from now through 2035 to achieve convergence in Ghana and Kenya, and the estimated returns on these investments
- To outline the health improvements that could be realized in the coming 20 years through targeted investment
- To discuss the key roles that various stakeholders (i.e. country governments, international funding agencies and development partners, civil society groups) could play in ensuring progress towards the grand convergence.

Methods: The researchers used the World Health Organization OneHealth Tool to project the estimated costs and benefits of achieving convergence. Benefit:Cost analysis was then completed to assess returns on investment. All analysis was done replicating the methodology used in the CIH's Global Health 2035 report.

Key Findings: Increased strategic health investments could result in rapid health improvements.

By increasing public spending on health by about \$US 566 million annually, Ghana could avert an average of over 55,000 deaths annually from now through 2035, with sustained reductions in the future. In the case of Kenya, the estimates suggest that a \$US 18.6 billion annual investments in the health sector could avert an average of over 80,000 deaths annually from now through 2035. These investments would also positively impact economic growth. For every dollar invested in convergence in Ghana and Kenya, about \$US 10 – 14 would be returned over the years 2016 to 2035, indicating a significant economic returns on health investment. These very high returns to investment make a powerful case for increasing domestic resource allocation to health.

Paper 2. Graduation from low- to lower-middle income status: fiscal implications for health in Ghana

Presenter: Dr. Justice Nonvignon/Dr. Genevieve C. Aryeetey

Overview: The attainment of the Grand Convergence as proposed by the CIH depends, to a large extent, on the sustained funding of health in low-income countries, many of which continue to rely heavily on external funding sources (primarily international donors) to finance the health system. However, with some LICs now moving into the lower-middle-income category, the level of donor funds is declining, resulting in new health financing gaps and challenges for these countries. The AfHEA assessed the fiscal implications of Ghana's graduation to lower-middle income status on health and health finance, and explored alternative funding sources such as indirect taxes, health insurance premiums, hospital internally generated funds and other local funding initiatives that could be used to fill health financing resource gaps that result from transitions away from development assistance.

Session Objectives:

- To summarize the estimated funding gap for Ghana's health system, particularly emphasizing funding needs relative to health outcome targets
- To outline promising approaches for increasing fiscal space for the health sector
- To discuss options for achieving efficiency gains within the health system

Methods: Analysis included fiscal space analysis, trend analysis, literature review, and policy analysis. To complete the analysis, data was drawn from the following sources: Ministry of Health health and finance data; Government budgetary data, including from the Ministry of Health; World Bank health financing data, and others.

Key Findings: The results suggest a general decline in donor support to the health sector over recent years. A notable decline in donor health sector budget support was observed after Ghana's transition to lower-middle income status in 2011. Estimates suggest a total health sector funding need of about GH¢3,494 million in 2015 and is expected to increase to

GH¢3,509 million in 2016. Three key areas were identified as potential additional fiscal space for the health sector. These include (i) enhanced tax revenue (ii) improved health system efficiency and (ii) enhanced private-public partnerships. Additional sources of fiscal space were also identified for the National Health Insurance Scheme.

Paper 3. Rebasings of GDP: Fiscal implications for health financing in Kenya, a country case study

Presenter: Dr. Bernadette Wanjala

Overview: Kenya recently moved from low- to lower-middle-income status, as a result of the rebasing of its GDP in 2014. Along with the new income designation, Kenya potentially faces new health financing challenges as international partners may reduce the amount of development assistance for health to the country. The AfHEA undertook analysis to assess the health and finance implications of this transition, and identify opportunities for Kenya to continue to improve health sector performance as the sources of its health finance shift.

Session Objectives:

- To summarize the estimated funding gap for Kenya's health system, particularly emphasizing funding needs relative to health outcome targets
- To discuss the implications of the decline in donor funding on priority health interventions in Kenya
- To outline promising approaches for increasing fiscal space for the health sector

Methods: Analysis included fiscal space analysis, trend analysis, literature review, and policy analysis. To complete the analysis, data was drawn from the following sources: Treasury data; Ministry of Health health and finance data; Government budgetary data, and others.

Key Findings: Similar to the Ghana analysis the Kenya case study sought to estimate the funding gap in the Kenyan health sector as well as identify likely sources of additional revenue for the health sector. The findings show that Kenya faces a total health system financing gap of about ksh 207,561 million. This gap will have important repercussions for the ability of Kenya to achieve convergence. Specifically, our analysis demonstrates that the areas of child health, maternal health, HIV/AIDS, and TB treatment and prevention are all expected to be negatively affected by the financing gap. Our analysis identified three opportunities for generating additional revenues that could be allocated to the health sector. These include: (i) enhanced tax revenue (ii) improved health system efficiency and (ii) enhanced private-public partnerships.

Paper 4. The policy implications of country income classification and transition for health systems and finance in Africa

Presenters: Representatives of the Ministry of Health, Ghana, and Ministry of Health, Kenya

Overview: Over the coming decade, many low-income countries are anticipated to reach lower-middle-income status as a result of rising national incomes. With this transition, the role of development assistance for health in financing health systems will change and the importance of domestic health finance will grow. This transition will have important implications for how health services in LMICs are financed and delivered. Specific questions include: How can countries raise and allocate the necessary resources to the health sector? How can countries ensure that health investments are efficient and targeted to the highest priority interventions to sustain progress in improving health outcomes? How can Ministries of Health work with key stakeholders – including the financial sector and international partners – to ensure sustainable financing for health? Using the lessons learned and recommendations from Ghana and Kenya, we will discuss the policy implications of graduation for health policy, health finance, and the achievement of a grand convergence in health in Africa.

Session Objectives:

- To outline the health policy implications for Ghana and Kenya of the rebasing of GDP and consequent move to lower-middle-income status, including implications for health finance
- To discuss the broader health policy implications of transitions from development assistance for health for the ministries of health and finance in Africa
- To discuss the promising policy pathways to achieve a Grand Convergence in Africa

Key Findings: Through the AfHEA and CIH research, together with engagements led by AfHEA and the CIH with policy-makers from the Ministries of Health and Finance in Ghana and Kenya, we have identified priority opportunities for health policy in regards to ensuring adequate investment in the health sector to achieve convergence. These include: resource mobilization strategies and opportunities for efficiency gains to increase fiscal space for health; identification of high-impact and priority interventions and delivery platforms for focused health investments; recommendations for donor agencies on strategic health investments to achieve convergence; and opportunities for engagement between governments, donors, and other health sector stakeholders to ensure health gains are maintained as sources of health finance shift within countries.

Parallel Session 2

Parallel session 2: Cost effectiveness: case studies

PS 02/1

Cost-effectiveness analysis of the fight against malaria Madagascar

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Context

The fight against malaria in Madagascar has seen great progress since the 2000s; the number of cases and deaths has steadily declined over the period from 2000 to 2011 and in 2013, the epidemiology of malaria indicated that over 70% population was subject to a low risk of transmission (0-1 cases per 1000 inhabitants) against less than 30% to a high transmission profile (> 1 case per 1000 population). However, this downward trend has reversed in 2011 and continued until 2013¹, leading WHO to call for continued vigilance and funding in the fight against malaria until its final disposal.

The purpose of this paper is to estimate the efficiency (cost-effectiveness) of the fight against malaria in Madagascar over the period 2009-2013.

Method

Cost data were collected from 2009 to 2013 (corresponding to the implementation of two strategic plans) with agents and institutions involved in the fight against malaria in Madagascar: the *National Program for the Fight Against Malaria* (PNLP), IMF, The *President's Malaria Initiative* (PMI) through USAID, WHO and UNICEF. The methodology is the classic cost analysis broken down to strategy, activities and inputs. The total cost of the fight against malaria is then estimated. The efficacy data (number of cases, number of cases prevented) are from the World Malaria Report and field surveys.

The cost-effectiveness ratio, represents the costs of a given malaria intervention divided by a given outcome, with the outcome usually expressed in terms of the number of malaria cases prevented over the *study period* (lives or life-years saved, the latter sometimes corrected for quality and with future years discounted).

Results

The cost-effectiveness ratio was \$ 2,405, which is 8 times of GDP per capita of Madagascar.

Conclusion

If the cost-effectiveness of the fight against malaria is relatively high compared to GDP per capita, the fight against malaria is however mainly financed by technical and financial partners. Moreover, the results are considered good, in 2014, over 88% of the Malagasy population lived in areas of low transmission 70% as compared to 2012.

¹ World Malaria Report, 2015. 2014 data indicate a recovery in downtrend.

PS 02/2**Cost-effectiveness of diagnostic-therapeutic strategies for pediatric visceral leishmaniasis in Morocco**

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Background and objectives

Visceral leishmaniasis (VL) is a neglected parasitic disease that is fatal if left untreated. VL is endemic in Morocco and other countries in North Africa where it mainly affects children from rural areas. In Morocco, the direct observation of Leishmania parasites in bone marrow aspirates is used to diagnose VL and Glucantime (SB) is the first line of treatment. In this study we evaluate the cost and cost-effectiveness of alternative diagnostic-therapeutic strategies for pediatric VL in Morocco. In particular we evaluate the use of liposomal amphotericin B (L-AmB), the safest and most effective anti-leishmanial drug.

Methods

A decision-analysis model was used to estimate the cost-effectiveness of using RDT and/or short course L-AmB to manage VL pediatric cases in Morocco compared to the current clinical practices. Incremental cost-effectiveness ratios (ICERs), expressed as cost per death averted, were estimated by comparing costs and effectiveness of the alternative algorithms with the current practices. Additionally, a threshold analysis was undertaken to evaluate the cost-effectiveness of introducing both L-AmB regimens at different prices of the drug.

Results

This study shows that using RDT and/or implementing short course L-AmB treatments would be cost-effective in the Moroccan context according to the World Health Organization threshold: ICER less than three times the gross domestic product (GDP) per capita. In particular, if L-AmB is purchased at a preferential price (18 US\$ per vial) the use of this drug to treat pediatric VL cases would be less expensive than SB.

Conclusions

The results of this study should encourage the implementation of RDT and/or short course L-AmB treatments for pediatric VL in Morocco and other countries in North Africa facing the same challenges, while governments and international organisations should advocate for a negotiated reduction of L-AmB price for establishing the drug as first-line treatment of VL in children.

PS 02/3**Cost of illness evaluation for cholera disease and cost of cholera vaccination campaign on Lake Chilwa and surrounding harbor population**

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Background- The cost of cholera illness provides an important reference for evaluating the cost-effectiveness of OCV campaign. The rural population around Lake Chilwa-southern Malawi, compared to other inland populations, has particularly limited access to health facilities during their stay on the lake. This increases the cost of illness and risk of death. This study aims to generate further evidence of the cost of cholera disease for the population that has difficult access to health facilities. A reactive campaign has been conducted on the Lake Chilwa and surrounding harbour population.

Objectives

1. To measure the cost of cholera treatment for health service providers
2. To measure the cost of cholera for patients and their households
3. To measure the additional investment (public and private) in response to a cholera outbreak.
4. To measure the cost of implementing a cholera vaccination campaign, including delivery costs

Methods

Cost of illness study in households and health centers targeting three districts Machinga, Zomba. Standardized questionnaires were developed for cost of illness. A sample of 100 patient households and 15 facilities were surveyed. On the patient side, the expenditures and income losses incurred in the course of a cholera episode were captured and will be evaluated. On the health facility side, the services offered for cholera inpatient and outpatient treatment will be systematically collected and costed. A standardized tool will be used to collate the cost of the campaign.

Findings

- The financial losses of the patient's household induced by one cholera episode will be calculated. The main cost drivers, such as distance to health facility, income losses, illness severity, will be analyzed.
- Cost per cholera case for health facilities will be evaluated by service item and by hospitalization day.
- Cost for the response to the last cholera outbreak around Lake Chilwa will be evaluated.
- Total societal cost of cholera illness will be the sum of all the above-mentioned costs.
- An estimate of overall Cost of the campaign will be calculated.

Conclusions These results are expected to provide further evidence on the cost of cholera and cost effectiveness of cholera vaccination for decision makers at national and global level.

PS 02/4**The use of specialty training to retain doctors in Malawi: a cost-effectiveness analysis**

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Background

Few medical schools and high emigration have led to low numbers of doctors in many sub-Saharan African countries. The opportunity to undertake specialty training has been shown to be particularly important to retain doctors. Yet limited training capacity means that doctors are often sent to other countries to specialise, increasing the risk that they may not return after training. Expanding domestic training, however, may be constrained by the reluctance of doctors to accept training in their home country. We modelled different policy options in an example country, Malawi, in order to examine the cost-effectiveness of expanding specialty training to retain doctors in sub-Saharan Africa.

Methods

We designed a Markov model of the labour market for doctors in Malawi, incorporating data from tracing studies, doctors' preferences for specialty training and local cost data. This is the first time to our knowledge such a model has been constructed for the medical workforce in sub-Saharan Africa. A government perspective was taken with a time horizon of 40 years. Expanded specialty training in Malawi or South Africa with varying mandatory service requirements were compared against baseline conditions. The outcome measures were cost per doctor year and cost per specialist year in the Malawian public sector.

Results

The most cost-effective intervention was expansion of specialty training within Malawi. Longer periods of service before training were more cost-effective, with five years' mandatory service adding the most value in terms of doctor-years. At the end of 40 years of expanded training in Malawi, the medical workforce would be over fifty percent larger and there would be over six times the number of specialists compared to current trends. These policies, however, would cost more than current government spending. The government would need to be willing to pay at least 3.5 times more per doctor-year for a five percent minimum increase in total doctor-years over baseline and at least fifty percent more per specialist-year for a maximum six-fold increase. The most optimal option differs between subgroups of doctors, with greater increases in doctor- and specialist-years possible in those with more flexible preferences.

Conclusions

Sustained funding of specialty training could lead to improved retention of doctors in sub-Saharan Africa.

PS 02/5**Evaluating the Costs and Efficiency of Integrating Family Planning Services into HIV and AIDS Treatment Services in Zambia**

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Background: Integrating HIV and AIDS services with other health services is a key strategy to achieving an AIDS-free generation. In particular, integrating family planning (FP) and HIV services can improve health outcomes and continuity of care, and make service delivery more sustainable by supporting the efficient utilization of resources. At the request of USAID's Office of HIV/AIDS and the USAID Zambia mission, the Health Finance and Governance project used quantitative indicators to assess the costs and efficiencies of two models of FP and ART service integration in Zambia.

Methods: We conducted a cross-sectional, non-randomized comparison of two integration models – “internal referral” (IR), where patients can be counselled on FP within the ART clinic but are referred to the FP clinic onsite for further services, and “one-stop-shop” (OSS), where patients can be counseled and receive an FP method within the ART clinic. The models were compared using three indicators of efficiency: percentage of missed FP opportunities at ART clinics, time spent counseling ART patients on FP, and unit cost per ART patient counseled on FP and given an FP method. Data were collected from health management information systems, patient files, and exit interviews at ten sites in Zambia for the period from October 2013 to September 2014.

Results: The study found no statistically significant difference in efficiency between OSS and IR models for any of the proposed indicators, including cost. Additional costs of FP provision were US\$3 on average per patient using OSS, and USD\$8 on average per patient using IR. FP counseling added an average of 3 minutes to ART consultation time ($p=0.03$), but there was no statistically significant difference in that added time between the two models ($p=0.65$). There was widespread variation in the practice of integration among sites and models. Weak referral systems and poor client tracking limited potential integration gains.

Conclusions: Providing a comprehensive package of ART and FP services to HIV-positive women costs relatively little regardless of the integration model used. However, improved referral and client tracking systems could increase efficiency. Additional time and effort is required for facilities to consistently collect data on efficiency, referrals, and client tracking.

Parallel session 2: Universal Health Coverage challenges

PS 02/6

Growth of health maintenance organisations in Nigeria and the potential for a role in promoting universal coverage efforts

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Introduction: There remains little evidence of the potential of private health insurance (PHI) and private organisations to contribute to universal health coverage (UHC) in low and middle-income countries (LMICs). This paper examines the evolution of health maintenance organisations (HMOs) in Nigeria, the nature of the PHI plans and social health insurance (SHI) programmes, and the implications of their business practices for UHC.

Methods: An embedded case study design was used with multiple subunits of analysis (individual HMOs and the HMO industry) and mixed (qualitative and quantitative) methods. The study was guided by the structure-conduct-performance paradigm that has its roots in the neo-classical theory of the firm.

Results: HMOs first emerged in Nigeria to supply PHI, but expanded because of their role as purchasers in the government's national health insurance scheme that finances SHI programmes, and a weak accreditation system. HMOs' characteristics distinguish the market they operate in as monopolistically competitive with considerable product differentiation and consequent risk selection, and HMOs as multiproduct firms operating inefficient and multiple risk pools through parallel administrative systems. While the uniform nature of the Formal Sector SHI programme means that HMOs do not have to promote the products, the Tertiary Institutions' SHI programme, has increasingly become like the differentiated private plans of HMOs.

Conclusions: The existing private plans of HMOs has a poor potential to extend healthcare coverage in Nigeria, warranting the adoption of a critical position towards PHI in efforts to promote UHC in such settings. Weak regulatory systems allowed introduction of market behaviours that impede UHC objectives.

Recommendations: Where HMOs and similar private organisations play roles in health financing systems in LMICs, effective regulatory institutions and mandates must be established to guide their behaviours and to identify and control undesirable business practices, if they are to contribute to UHC objectives.

PS 02/7**The challenges of fragmentation in the march towards universal health coverage: an assessment of the impact of the coexistence of diverse health protection arrangements for the Tunisian National health insurance fund (CNAM)**

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If the accomplishments of Tunisia's health system are noteworthy (legal coverage for the majority of the workforce and completed by a medical assistance program for the poor and vulnerable population), the issues and challenges of equity, expansion of health coverage and efficiency are still relevant today and those related to the sustainability of the health financing system and the balance of the national health insurance fund become increasingly acute.

The reform of the health insurance system started in 2007 helped unify multiple existing insurance plans into a single plan covering substantially all the insured, managed by the CNAM (National Health Insurance Fund).

A single contribution rate was applied to all insured. They, however, have the choice of three courses that introduce different methods of access to public and private providers depending on the scope and terms of co-payment, thereby generating a fragmentation within a deemed single system.

This study aims to assess the impact of the existence of these three tracks on the objectives set out in the reform: improving access, equity, quality, control of expenses etc. The first section is an analysis of the relevance of health insurance reform. It includes:

- A brief description of the establishment of CNAM, expected goals by establishing three branches;
- An analysis of choice through a synthesis of the views and arguments and institutional users and a census of the challenges and opportunities encountered with the implementation and the reimbursement system;
- A reminder of the theoretical arguments with regard to the coexistence of various modalities of risk pooling arrangements resulting in an analytical framework and a set of hypotheses to be tested.

The second section is developed on the basis of a quantitative analysis using CNAM statistics and the National Survey Data on Food Consumption in 2010 from the National Institute of Statistics (INS). The impact of the reform implemented will be analyzed taking stock of the actual use of care according to the affiliate schemes, challenging the impacts in terms of equity and solidarity, and finally challenging the efficiency of the mechanisms implemented and their impact on the balance of CNAM.

In conclusion here are some proposed options to improve the coverage offered.

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PS 02/8**Improving capacity for universal health coverage: Situational evidence of the health care regulatory landscape Lagos State**

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Background

Achieving universal health coverage is critical for attaining the Health SGD. Healthcare regulation is a key governance function that ensures healthcare services are safe, effective, of good quality, accurate while combining availability, accessibility, affordability of health care services within required standards. The government through its State Development (2012-2025) plan has committed to ensuring unfettered access to quality health care services for its citizens. This necessitated the development of legislative frameworks for reforming health and improving healthcare financing. The success of this is hinged on the capacity for regulating healthcare service provision within public and private healthcare.

Aim and Objectives

This research aimed at assessing the current state of the regulatory landscape with a view of providing situational evidence on identified gaps, establish a base score to monitor improvements and design interventions for strengthening capacity for regulation in these agencies. In regulation the Health Facility Monitoring and Accreditation Agency (HEFAMAA) and Traditional Medicine Board (TMB) have mandate for regulating health services in formal and informal private and public facilities

Methods

For this research desk review of existing legislative frameworks was conducted. Key informant interviews were deployed with relevant government officials. A checklist was adapted from matrix for assessment of health facility accreditation/regulation. It was used to establish a base score for health care regulation in Lagos with ratings from the lowest score of 0 to the highest score of 2.

Key findings

The findings show that legislations and plans exist providing the broad framework for healthcare regulation in Nigeria and Lagos State but areas of overlap in the regulatory functions of SMOH and its agencies exist. Agencies are grossly understaffed with lack of technical capacity for regulatory actions. The regulatory scope is limited and fragmented with evidence of uncoordinated actions and delegations. Regulatory methodologies are limited to certification and licensure. Regulatory tools are inadequate with no operational guideline; Weak system for inspection, monitoring and evaluation with funding challenges. Monitoring reports are not consistently used for follow up visits with couples of cases of quackery

Conclusion

The weak regulatory landscape compounds the real challenges of huge population, associated demand for health services and poor health indices. It poses a challenge in assuring quality for health care services delivered to citizens for the planned roll out of mandatory health insurance, or purchase from providers at public or private health facilities. It is critical to strengthen the regulatory systems and support quality improvement.

PS 02/9

The Markets for healthcare services, Government Regulations and the attainments of Universal Health Coverage (UHC) in Nigeria: Study of the Nexus

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Background: Healthcare due to its centrality to humankind is classified as a “special” category of goods and services in the markets. While some school of thoughts believe it should be best left outside of the domain of the market (forces of demand and supply), others have equally valid reasons for not dismissing the value the market could bring on the performance especially pluralism and competitiveness. However, in the face of global glamour for collectivization of health care i.e demand for everyone to have access to healthcare regardless of income or status based purely on normative principle of fairness and justice. As well the increasing prominent role of the for-profit private health care providers whose ideology is profit maximization, then the central challenge for policy makers in healthcare is thus the optimum balance between the markets and the other alternatives.

Methods: The work deploys a mixed methodology using primary data to triangulate data from secondary sources. It also applies existing economic theories to analyze the healthcare landscape and environment of Nigeria drawing lessons for policy from the behavior and interactions of the various economic agents involved in the process.

Result: The result shows that taken to the extreme both the market and strict government regulations especially in developing settings offer unsavory results. Market failure is endemic and at the very least requires regulation. Also, government failures cannot also be overlooked. But more importantly, markets say nothing about whether the outcome will be fair and equitable. However, granted that rather complex nature of the health care, the public-private mix market can deliver real benefits but only in an environment that is properly regulated especially in developing economies.

Conclusion: Without effective stewardship mechanism to intervene and control health markets and provide incentives for quality, equity and affordability, health markets will continue to produce poor outcomes that favour the wealthier segments of the population and thus negates the principle of universal health coverage (UHC).

Keywords: healthcare, markets, universal health coverage (UHC), regulation.

PS 02/10**Institutional design and organizational practices to support vulnerable groups and informal sector as part of the Universal Health Coverage (UHC): a comparative analysis of the options in the ECOWAS (DIPO)**

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UHC is included in the agendas of the majority of the 15 ECOWAS countries. Progress is variable depending on social and sanitary context, countries capacities and strength of political commitments. These countries face high level of poverty and prevalence of primary activities and informal sectors. Several initiatives have been undertaken to reduce financial barrier to access to health care, especially for vulnerable groups and informal sector workers. They are far from being sufficient and effective. The legislative and regulatory framework of the UHC and current operating practices of mechanisms and schemes intended to help achieve the UHC themselves constitute challenges.

Objective: Analyze the design / Institutional arrangements (DI) and Organizational Practices (OP) most common in UHC strategies to support vulnerable groups and informal sector workers.

Method: Based on keywords such as design / institutional structure, UHC, organizational, ECOWAS ... After applying selection criteria, we identified and analyzed 23 strategic and technical documents from Mali, Senegal, Ivory Coast, Burkina Faso (considered to have significant advance in implementing UHC).

Results Literature review allowed us to consider i) institutions as combination of formal and informal rules and ii) organizational practice, as interpretation and application of formal rules, organizational capacity and practices. Definitions and studies on the DIPO permitted to go beyond analytical framework built around health financing functions (collection, pooling and purchasing services)¹ adding the political dimension. Overall, most of the ECOWAS countries do not have specific sovereign framework for UHC. In the studied countries, it was noted fragmentation of laws, regulations and operating procedures by social insurance scheme. Same conclusion applies with sub regional documents.

Institutional arrangements of organizations that support vulnerable groups and rural population (including community health insurance, exemption and subsidy initiatives, whether targeted on social categories or diseases) are also organized by regimes. 80% of documents explicitly refer to management and administrative practices prior to UHC strategy. Political mechanisms of consultation and articulation are not organized. At regional level, harmonization of management practices and legislation is implemented, but only for mutual health insurances. Normative devices are not accompanied with implementation rules. For other mechanisms, there is no common dynamic.

In terms of technical and policy coordination mechanisms, all countries have institutions by regime. However, for insurance, collection points are not always accessible, and the procedure not always consistent. This reveals five critical points:

- Collection of resources: all countries still adopt the voluntary nature of membership to community health insurance, which leaves room for major risks such as adverse selection.

¹ Mathauer I, Carrin G. The role of institutional design and organizational practice for health financing performance and universal coverage. *Health Policy* 2011;99(3):183-192. doi:10.1016/j.healthpol.2010.09.013.

- All initiatives based on gratuity are not institutionalized and have no credible sustainability plan.
- Pooling of resources: fragmentation of regimes undermines risk sharing and search for equity. There is a tension between allocation of resources based on need and that based on socio-professional category.
- Purchase of services: methods of paying providers do not offer protection against catastrophic risks.
- Significant weaknesses and shortcomings are noted in relations between beneficiaries - payers – care providers.

Conclusion

Mode of functioning of organizations, poor cooperation and implementation of standards and rules do not facilitate neither progress towards UHC and measurement, nor evaluation of performance and adaptation ability of institutions. Results of this initial research on DIPO of some African countries suggest urgent necessity to refine the DIPO's analytical framework and determinants of progress towards UHC. Exceeding the administrative framework and promoting of a Community based framework will produce an effective economical and organizational gain and will ultimately facilitate monitoring and implementation of a real community approach for regional groupings.

Parallel session 2: Data for management and policymaking

PS 02/11

Role and use of evidence in policymaking: an analysis of case studies from the health sector in Nigeria

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Background: Health policymaking is a complex process and analysing the role of evidence is still an evolving area in many low- and middle-income countries. Where evidence is used, it is greatly affected by cognitive and institutional features of the policy process. This paper examines the role of different types of evidence in health policy development in Nigeria.

Methods: The role of evidence was compared between three case studies representing different health policies, namely the (1) integrated maternal neonatal and child health strategy (IMNCH); (2) oral health (OH) policy; and (3) human resource for health (HRH) policy. The data was collected using document reviews and 31 in-depth interviews with key policy actors. Framework Approach was used to analyse the data, aided by NVivo 10 software.

Results: Most respondents perceived evidence to be factual and concrete to support a decision. Evidence was used more if it was perceived to be context-specific, accessible and timely. Low-cost high-impact evidence, such as the Lancet series, was reported to have been used in drafting the IMNCH policy. In the OH and HRH policies, informal evidence such as experts' experiences and opinions, were reported to have been useful in the policy drafting stage. Both formal and informal evidence were mentioned in the HRH and OH policies, while the development of the IMNCH was revealed to have been informed mainly by more formal evidence. Overall, respondents suggested that formal evidence, such as survey reports and research publications, were most useful in the agenda-setting stage to identify the need for the policy and thus initiating the policy development process. International and local evidence were used to establish the need for a policy and develop policy, and less to develop policy implementation options.

Conclusion: Recognition of the value of different evidence types, combined with structures for generating and using evidence, are likely to enhance evidence-informed health policy development in Nigeria and other similar contexts

PS 02/12

Seeking health information on the internet: analysis on Cameroonian data

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From public health point of view, the Internet has quickly emerged as a potentially useful tool for patient information and health promotion. The objective of this study is to determine whether to Cameroon, use the Internet to inform health benefits more to certain categories of the population. To do this, we hypothesize that the use of the Internet for health issues is primarily based on the socioeconomic characteristics of individuals. Our empirical analysis is based on an econometric specification based on the logit with selection bias correction based on an original and recent database. The sample covers 2266 individuals in 5 cities (Douala, Yaounde, Bafoussam, Limbe and Buea) and surveys were conducted in 2015 by the Research Group in Theoretical and Applied Economics from the University of Douala with financial support from the African Economic Research Consortium (AERC).

Considering the only variables of socio-economic type, it appears that the likelihood of using the Internet for health issues is greater in males who have a high level of education and income and living urban area. By cons, age has no influence on the search for health information via the Internet. By incorporating the only variable character of individuals, our results show that owning a computer, a smartphone or a home internet connection positively influences the use of the Internet to research information health.

The results of this study could help to guide public health policies with respect to the use of ICT in general and the Internet specifically to inform health.

PS 02/13**Improving primary health care financing in Ghana: potential fiscal space from efficiency analysis**

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Background

Following the Alma Ata Declaration, primary health service delivery has become crucial in many countries. In resource limited regions like Sub-Saharan Africa (SSA), primary health facilities bridge the health care inequity gap against deprived and vulnerable communities. However, most primary health care facilities are faced with inadequate resources. While health policy makers seek to increase resources committed to primary healthcare, it is important to understand the nature of inefficiencies that exist in these facilities. Studies that analyze the efficiency of primary health facilities are very limited especially in SSA. Therefore, the objectives of this study are threefold; (i) estimate efficiency among primary health facilities (health centers), (ii) examine the potential fiscal space from improved efficiency (iii) investigate the efficiency disparities in public and private facilities.

Methods

Data was from the 2015 Access Bottlenecks, Cost and Equity (ABCE) project conducted by the Institute for Health Metrics and Evaluation. The Stochastic Frontier Analysis (SFA) was used to estimate efficiency of health facilities. Efficiency scores were then used to compute potential savings from improved efficiency. Outpatient visits was used as output while number of personnel, hospital beds, expenditure on other capital items and administration were used as inputs. Disparities in efficiency between public and private facilities was estimated using the Nopo matching decomposition approach. Robustness checks were conducted using different distributional assumptions and functional forms of the production function.

Results

On average, efficiency across all health centers included in the sample was estimated to be 0.53. Also, average efficiency among primary health facilities was estimated to be about 0.61 and 0.52 for private and public facilities, respectively. Significant disparities in efficiency were identified across the various administrative regions. With regards to potential fiscal space, we found that, on average, facilities could save about 46.5% of total revenue if efficiency was improved. Rural and urban facilities could save 46.8% and 46.0% of total revenue, respectively, on average. Similarly, private and public facilities could save 38.8% and 47.4% of total revenue, respectively, if best practices were followed. The matching decomposition showed an efficiency gap of 0.23 private and public facilities. Also, the efficiency difference between the two facilities is unexplained in our model.

Conclusion

There is need for primary health facility managers to improve productivity via effective and efficient resource use. Efforts to improve efficiency should focus on training health workers and improving facility environment alongside effective monitoring and evaluation exercises.

Keywords: Primary health care, Efficiency, SFA, Fiscal space for health, Matching decomposition, Ghana

PS 02/14

Using self-directed Videovoice diaries for policy analysis in Ethiopia

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Background

The use of audio and video diaries to collect data on daily routines of study participants is extensive in anthropology but relatively new to health policy analysis. These methods are thought to have significant advantages: a) participant-led and authentic in reflecting unique individual experiences; b) capturing experiences in real time, thereby minimising recall bias; and c) reflexive, stimulating the maturation of respondents' ideas over time, and d) motivating for respondents—in particular video, which is seen as more interactive.

Methods

We report on the usefulness of a modified *Videovoice* method as a policy analysis tool; specifically to understand the role of community health volunteers as mediators of accessible primary health care in Ethiopia. Footage is obtained over 3-4 months, from 30 Health Development Army cell leaders (a cell of five families) in 3 woredas (districts) with diverse health system performance and population contexts. Following community engagement and training, participants receive an encrypted phone with recording capability. They are supported by experienced researchers through regular communication and visits, to establish trust and monitor preferences (e.g. for audio), ensure data validity and reduce social desirability of responses and other biases. Participants view their diaries, and are interviewed about their experience of participating in the study. The videos and qualitative data are analysed and compared using MAXQDA 12. A co-production workshop with participants and researchers aims to support interpretation.

Results

Findings explore the potential added value of the methodology: ability to capture more accurately health volunteers' perspectives, better recall, emergence of new ideas or follow-up of previously discussed issues, respondent motivation, and complementarity with other methods, e.g. helping to interpret quantitative findings. The contribution of the co-production workshop to interpret and prioritise reoccurring themes, identify 'blind spots', and as an advocacy tool, is discussed. Some social desirability is likely to persist, especially where there are concerns about anonymity and data confidentiality and clashing social norms. Importantly, data obtained through diaries, and reflexivity over time, may itself act as an intervention, changing respondent's perceptions of their reality.

Discussion

Our proposition is that the *Videovoice*—in format adapted to context—can be a useful tool to inform policy development. The approach can provide real-time findings, capturing the perspectives of health service volunteers within their spacial and temporal context. The approach may enable participants to understand better their own needs, and those of their community, ensuring that these are reflected in developing effective PHC policies.

PS 02/15**Implementing Evidence-Informed Primary Healthcare Operational Planning: Lessons from a Northern Nigerian State***Ejemai Eboreime¹*ejemaim@gmail.com, Usman Garba²**1 School of Public Health, University of the Witwatersrand, Johannesburg, South Africa**2 Kaduna State Primary Health Care Agency, Kaduna, Nigeria***Background:**

To ensure improved performance and equitable coverage of quality Primary Healthcare (PHC) interventions, Nigeria's National PHC Development Agency initiated the PHC Reviews in 2011. The reviews involve a facilitated quarterly evaluation of PHC performance along with evidence-based operational planning of PHC interventions by Local Government (LG) PHC managers using routine data.

Methods:

PHC reviews are implemented using a 4-step Diagnose-Intervene-Verify-Adjust (DIVA) process. 'Diagnose' identifies constraints to effective coverage using a modified Tanahashi Health Systems Bottleneck Analysis Model. 'Intervene' develops and implements action plans addressing identified constraints. 'Verify/Adjust' monitor performance and revise action plans.

We observed the processes and outcomes of PHC reviews in Kaduna state following one year of implementation. Kaduna state conducted its first PHC reviews in 2013 involving all LGs the DIVA framework. The reviews focused on determinants for Availability of Health Commodities; Human Resources for Health; Geographical Accessibility; Initial Utilization; Continuous Utilization; and Quality Coverage of four PHC tracer interventions (Immunization, Integrated Management of Childhood Illnesses, Antenatal Care, and Skilled Birth Attendance). Another Bottleneck Analysis was conducted in 2014 to assess performance of operational plans developed in 2013.

Results/ Discussion:

Marginal improvements in effective coverage were observed across all interventions with the highest (11%) occurring in vaccination coverage while skilled birth attendance was least with only 1% coverage improvement. Lack of trained human resources was identified by all LGs as the principal bottlenecks across all tracer interventions. This persisted after a year in spite of development of work plans to address identified constraints. Poor quality of services ranked next, however this may be largely attributable to human resource constraints.

Assessment of work plan implementation showed that 6 out of 23 LGs completed at least 50% of planned activities for the year. Of 1562 activities planned to address PHC intervention bottlenecks in the state, only 568 (36%) were completely implemented.

Although all LGs performed the "Diagnose-Intervene" steps of the reviews, implementation of the Verify-Adjust steps was weak due principally to constraints in financing and political will. This may have been responsible for the weak results observed. Furthermore, attendance sheets showed that, contrary to the design, the community was not involved in the process.

Conclusion:

DIVA holds promise for effective bottom-up evidence-informed PHC planning in Nigeria, thus we recommend that government and all stakeholders provide adequate support for the complete process which can enhance PHC performance in Nigeria.

PS 02/16

A comparative analysis of the Health Service Delivery Indicators Surveys of Kenya, Tanzania and Nigeria – extended abstract

Zlatko Nikoloski and Jacob Novignon

Introduction and objective

In the past decade policy makers and international organisations have devoted much attention to the state of health in sub-Saharan Africa. Development assistance to health in the region has doubled in the 2000s and much of the funding targeted key health concerns such as HIV and malaria (Van de Maele et al, 2012). Such efforts significantly contributed to reach important achievements with prevalence rates of both HIV and tuberculosis gradually decreasing. However, despite these improvements, the healthcare system in the region remains undermined by shortages of qualified staff and key healthcare inputs. Given the well-known link between health and economic development, it is imperative to fully understand the quality of healthcare services in low-income countries in order to identify areas of weakness and potential policy interventions.

The World Bank has initiated a new set of surveys; the Service Delivery Indicators which assess service delivery in education and health. The Service Delivery Indicators (SDI) provide a set of metrics to benchmark the performance of health clinics in Africa and they can be used to track progress within and across countries over time, and aim to enhance active monitoring of service delivery to increase public accountability and good governance. Ultimately, the goal of this effort is to help policymakers, citizens, service providers, donors, and other stakeholders enhance the quality of services and improve development outcomes.

Against this background, this research effort aimed at comparatively analysing the Health Service Delivery Indicators for Kenya, Tanzania and Nigeria. In addition, this research effort aims to fill a significant gap in the literature on topics covered in the SDI modules (absenteeism rates, diagnostic accuracy, equipment availability, management of maternal and neonatal conditions, adherence to clinical guidelines and drugs/infrastructure availability). Moreover, most of the existing studies in this area were conducted on small scale within-country surveys and paint a fairly dismal picture vis-à-vis some of the studied indicators (particularly, management of maternal and neo-natal conditions and adherence to clinical guidance). Hence, this research exercise takes a stab at the SDI surveys for selected countries in Sub Saharan Africa, so as to assess the performance of the primary healthcare sectors in those selected countries, by looking at the following indicators: caseload per clinical worker, absenteeism and absence rates, diagnostic accuracy, process quality (adherence to clinical guidelines and management of maternal and neonatal conditions) as well as inputs in healthcare facilities (drug availability, equipment availability and infrastructure availability).

Main findings

Few messages stemmed from our analysis of the SDI datasets. First, there was a great variation in the caseload across countries. Caseload was higher in Kenya at 9, and around 3-4 in Tanzania and Nigeria. In all countries the caseload was greater in private facilities. While in Tanzania it was greater in rural facilities, caseload in Nigeria and Kenya was greater in urban facilities.

Second, the absence rate varied quite considerably across the countries considered. It was highest in Nigeria, at 32%, followed by Kenya, at 26%, and lowest in Tanzania around 14%. For what concerns differences across facilities location and ownership, public facilities had higher absenteeism compared to private ones in both Nigeria and Kenya. This seemed an issue particularly in Nigeria, where the rates in public facilities reached 41%.

Third, a fairly wide variation in the diagnostic accuracy was also observed across the countries studied. The diagnostic accuracy was relatively high in Tanzania and Kenya, at 63% and 76% respectively. The performance of Nigeria was disappointing, as diagnostic accuracy

and such rate stood at 36%. In the three countries for which data on facilities ownership was available (Tanzania, Kenya and Nigeria), diagnostic accuracy was greater in private compared to public facilities. This rate varied across conditions. Typically, tuberculosis was the condition with the highest diagnostic accuracy, while malaria had a disappointing rate of 20-30% in both Nigeria and Kenya. Unsurprisingly, in all countries, doctors outperformed other health personnel in term of diagnostic accuracy.

Fourth, adherence to clinical guidelines was modest across the three countries. For example, adherence to clinical guidelines was 22% in Nigeria and 49% in Kenya. Similar messages stemmed from the available data on management of maternal and neonatal conditions.

Fifth, data on management of maternal and neonatal complications (MMNC) was also modest and stood at 16% in Nigeria and 28% in Tanzania. Both process quality indicators were typically higher in private facilities compared to public, moreover urban facilities outperformed rural ones. As in the case of diagnostic accuracy, doctors had higher rate of adherence to clinical guidelines and of management of maternal and neonatal complications compared to other personnel.

Sixth, the study showed drug availability as high as 75% in Tanzania, however the performance of Nigeria and Kenya were disappointing. In Nigeria drugs availability was only 46%, and 55% in Kenya. Once again private facilities outperformed public facilities with respect to drug availability. Such a difference can be quite substantial. For instance in Kenya, drug availability was 61% in private facilities and only 53% in public facilities. With the exception of Kenya where there was little difference across location, urban facilities had greater drug availability compared to rural ones. Moreover, in all countries, drugs were more widely available in hospitals compared to lower level facilities. For instance in Tanzania, drug availability was as high as 83% in hospitals but only 69% in health centres.

Seventh, generally the availability of specific equipment was high in most countries and across facilities type. In Tanzania and Kenya for example, the availability of specific equipment such scales or thermometer was over 90% across facilities ownership and location. The overall equipment availability was quite high in Tanzania and Kenya, respectively 84% and 73%, whereas Nigeria's performance was much lower with respect to the rest of the indicators.

In line with what has been discussed above, private facilities outperformed public ones. Such a gap is particularly substantial in Nigeria, where overall equipment availability was 63% in private facilities but only 2% in public facilities. With the exception of Kenya, equipment was more widely available in urban facilities compared to rural ones.

Eighth, overall infrastructure availability was quite high in Kenya, at 57%, but disappointing in Tanzania – 21% and Nigeria-17%. Generally infrastructure was more widely available in private facilities compared to public and in urban compared to rural location. Differences between countries were also observed vis-à-vis availability of specific infrastructure. For instance in Kenya the availability of toilet and electricity was over 90%. Toilet availability was particularly poor in Nigeria, which scored only 32%.

In conclusion, whilst the data showed a fairly high variation across countries, most of the disaggregated analysis showed that healthcare facilities located in urban centres outperformed those in the rural and private ones outperform the public ones.

In addition to the descriptive analysis, we also conducted a regression analysis which explored the determinants of healthcare facilities utilisation. In our specification, we regressed the number of outpatient on several measures of healthcare quality (i.e. absenteeism, diagnostic accuracy, availability of drugs, equipment and infrastructure) and facility characteristics (i.e. ownership, location and facility level). Private, rural and lower level facilities showed significantly lower utilisation compared to other providers. Moreover our results revealed that the availability of drugs, infrastructure and equipment had positive and significant impact on utilisation. In Nigeria, greater diagnostic accuracy was associated with greater utilisation. The findings overall suggested that improvements of important

aspects of healthcare providers quality can have a significant impact on utilisation and therefore on access to healthcare.

Conclusion and policy recommendations

There are a few policy recommendations that stemmed from our analysis. First, in each country- (Kenya, Nigeria and Tanzania), the caseload was higher in private facilities. This finding highlights that in the public sector there is likely some spare capacity and there is probably room to increase caseload of public healthcare providers. Second, in Nigeria and Kenya public sector facilities suffer from high absence rate. This is likely to impact adversely on the healthcare sector overall efficiency and productivity. Hence, appropriate measures should be introduced not only to increase monitoring but also provide incentives to health personnel. However, given that the datasets do not provide any information on the facilities monitoring processes nor on the system of incentives (i.e. wages and promotions), we leave this for future research. Third, there are severe shortcomings in diagnosing key health conditions such as malaria and tuberculosis. Once again such a failing is particularly evident in public facilities. Several approaches may be adopted to improve the quality of care. For instance, investment in education and training of health personnel could significantly improve the quality of the diagnosis. Moreover, the implementation of legal mandates, accreditation, and regulations that control entry into the healthcare profession and ensure that only adequately qualified personnel enters the healthcare system is worth noting. Finally, as highlighted in our regression analysis (but also in the literature review in the previous chapter of the report), improving infrastructure and drugs availability can have beneficial impact on diagnostic accuracy and hence on the overall quality of care.

Parallel Session 3: Organized sessions

Organized session 5: Moving, and assessing progress, towards universal health systems within the context of the SDGs

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Session background There has been a titanic battle around the formulation of the health-related SDG (SDG 3), with some arguing that it should focus on the unfinished MDG agenda of lowering maternal and child mortality and addressing the ATM (AIDS, TB and malaria) diseases, others that the coming tsunami of non-communicable diseases and injuries should be prioritised and yet others that the focus should not be on specific diseases, but on strengthening the health system and promoting universal health coverage (UHC). The final targets for SDG 3 reflect this heated debate; there are targets that address the concerns of each of these constituencies. There has been even greater debate and controversy around how to measure progress on some of these targets, particularly in relation to the UHC target. The SDG indicators ultimately selected for measuring UHC were influenced not only by conceptual but also by data availability considerations.

This organised session will critically engage with alternative indicators for measuring a country's current status, and changes over time, relative to the goals of UHC. It draws on the work of the Global Network for Health Equity (GNHE) and goes beyond the SDG indicators, which focus on global rankings, to consider other UHC indicators that are of value at the country level and ways in which countries can gain a better understanding of what is contributing to or hindering progress towards UHC within their context. The session is conceived as being very interactive. There will be three brief presentations to raise key issues and to stimulate debate. The first paper will consider issues related to measuring the UHC goal of financial risk protection, while the second will focus on the UHC goal of access to needed care and will introduce the importance of moving beyond measuring the 'ends' (achievement of UHC) to exploring the 'means' (enablers for achieving UHC). The final paper will draw together the key findings from country level UHC assessments undertaken in seven African countries by GNHE partners. The majority of the session will be devoted to facilitated discussion, which will be structured around a set of key questions. Participants will be encouraged to express their views (rather than simply posing questions to the presenters) and the presenters will form a panel to assist in provoking debate among participants.

Paper 1: Assessing financial risk protection in the context of UHC

Presenting author: John Ataguba, Health Economics Unit, University of Cape Town

One of the dimensions of UHC is to achieve financial risk protection (FRP) for all. Currently, FRP is understood as protection from financial hardships, *including possible impoverishment*, resulting from direct out-of-pocket payments for health services. To date,

two broad traditional measures are used in the literature to assess FRP – impoverishment and financial catastrophe. Briefly, financial catastrophe results from a situation where a household spends more than a certain proportion of their total consumption directly out-of-pocket on health services while impoverishment occurs when direct out-of-pocket spending on health services pushes a monetarily non-poor individual into poverty. There are debates around the choice of poverty line or catastrophic payment thresholds, for example. While these debates continue, there are other conceptual issues that have been overlooked in terms of how FRP is understood within the framework of UHC. This relates mainly to the population upon which FRP is assessed.

Using the traditional ways of assessing FRP, it is the case that (i) households or families that did not use any health service and (ii) those that use ‘minimal’ cost health services thus paying little or nothing for such services are considered financially protected. Regarding the latter, if some households had utilised high cost services, they may be re-categorised as lacking FRP.

There is no doubt that the traditional measures of FRP have implicit benefits. Indeed they capture the extent to which current health service users are impoverished or face financial catastrophe due to direct out-of-pocket payments. However, we argue and seek to debate that if there is substantial interest in UHC (and universal FRP), these measures need to account for everyone beyond only the current health service users that pay significant amounts out-of-pocket in such instance to either impoverish them or lead to financial catastrophe.

Thus this paper aims to debate and bring to the fore some conceptual issues with the FRP dimension of UHC that have been overlooked especially within the framework for monitoring UHC. It also seeks to explore how FRP should be assessed within the context of universal FRP. We argue that universal FRP should be able to answer the key question of whether everyone within a given geographic location, if the need arises, will not face financial hardships from using such health services. We believe that UHC is for all and as such everyone should count in the assessment of progress towards UHC.

Paper 2: Access to and use of needed care: assessing progress to UHC and understanding how and why

Presenting author: Di McIntyre, Health Economics Unit, University of Cape Town

A key element of UHC is that of access to needed health services for all. As it is challenging to measure access directly and comprehensively, the actual *use* of services is seen as the only feasible proxy measurement at the national level. Some argue that the most appropriate indicator is coverage of specific health services, such as measles immunisation coverage. Unfortunately, this reduces assessment of UHC coverage to measurement of a narrow range of services, which are selected on the basis of the availability of data.

Others argue that total health service utilisation rates should be measured. They can be compared to a minimum threshold, such as 5 outpatient visits per person per year and 100 discharges per 1,000 population. Alternatively, each country could estimate ‘ideal’ average utilisation rates in their context, based on the country’s demographic and epidemiological profile and current use of different services in well-functioning facilities and/or service protocols. This would allow the actual use of services to be compared to expected use to meet the needs of the population.

However, aggregate level utilisation rates obscure inequities in use and particularly do not highlight the plight of those who are not able to use the health services they need. Although utilisation rates that are below the minimum threshold are likely to reflect not only infrequent use of services, but also the existence of unmet need, it does not quantify the extent of unmet need. Also, it simply points to a problem and provides no insights into why utilisation is inadequate or inequitable and so does not provide guidance on how to address

these challenges. Equity analyses which compare utilisation rates across different groups and across small geographic areas can help to identify communities with the lowest utilisation rates, where unmet need is likely to be the greatest. However, a detailed assessment of access barriers within different communities is required to assist in identifying effective ways to address these barriers. Such assessments should consider all access dimensions and draw on not only quantitative but also qualitative data, for example to understand the nature and cause of barriers related to the acceptability dimension of access. This paper highlights the need to not only use indicators that are relevant for global comparisons, but also to compile a range of data at sub-national levels that can provide insights into why there is or isn't progress towards UHC within that country.

Paper 3: Where are different countries on the road to UHC and what contributes to differences in UHC status

Presenting author: Jane Doherty, School of Public Health, University of the Witwatersrand

Assessments of a country's health system status relative to UHC goals have recently been undertaken in several African countries including Ghana, South Africa, Tanzania, Uganda, Zambia, Kenya and Nigeria as part of Global Network on Health Equity (GNHE) activities. Each assessment includes key indicators of financial risk protection (such as catastrophic and impoverishing health expenditure) and of use of health services relative to need (such as comparing distributions across socio-economic quintiles and concentration indices), allowing for cross-country comparisons in relation to these core UHC goals.

A wide range of other indicators were included in these assessments, such as expenditure and financing indicators drawn from National Health Accounts datasets and financing incidence estimates (Kakwani indices). They also included a critical assessment of the structure of the health financing system, considering issues related to revenue collection, pooling and purchasing functions.

This paper will provide a brief overview of the key findings of these country assessments, and lessons from these cross-country comparisons in relation to pursuing UHC in the African context. It will also explore the following issues that arose from undertaking these assessments:

- Assessing a country's health system relative to the goal of UHC is not a straightforward exercise, in that it does not simply involve looking at one or two indicators and being able to draw a conclusion. This highlights the critical importance of supplementing SDG UHC-related indicators with detailed country-level analyses.
- *Critical analysis* skills are needed to undertake an assessment that identifies health system and contextual factors contributing to or inhibiting progress to UHC. For example, each indicator needs to be interpreted by considering a range of other indicators; this requires an understanding of what combination of indicators will provide the needed insights. Comparison of indicators from one's own country with other countries also assists in providing key insights, but again, this requires skills in identifying appropriate comparator countries.
- While developing capacity in critical analysis skills is not a simple task, it is important that UHC health system assessments are undertaken by local analysts, given their deep understanding of the specific country context and health system.
- It is important to critically analyse both the public and private health systems; there is often a lack of detailed knowledge about the size, nature and operations of the private health sector.

Organized session 6: How well is your UHC System learning? A collaborative multi-country assessment

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Description of session organization:

This session will be in French. Like the project itself, the session will be highly participatory. Two CoP facilitators who are familiar with the research, Allison Kelley (Financial Access to Health Services CoP) and Bruno Meessen (Performance-based financing CoP) will moderate the session.

During 50 minutes, a panel composed of 3 CoP expert members involved in the collaborative project will present:

- Why use the lens of learning organisations on UHC systems in Africa? (Bruno Meessen, ITM-Antwerp & Facilitator of the PBF Community of Practice)
- Methodology for applying the concepts of learning organisations to UHC systems and cross-country analysis from 6 countries (Houcine El Akhnif, Ministry of Health, Morocco & UCL, Louvain, Belgium)
- Country perspectives from Benin and Burkina Faso: How applying learning systems concepts to UHC contributes to policy dialogue and the UHC process at the national level. (Patrick Makoutodé, Institut Régional de Santé Publique /UAC, Bénin and Joel Kiendrébogo, Centre Muraz de recherche, Burkina Faso)

The panel presentation will be followed by a discussion period facilitated by Allison Kelley (Health economist & Facilitator of the FAHS Community of Practice).

The learning objectives from the presentations and discussion will be:

- (1) How should one understand systemic learning?
- (2) What lessons can we draw from the implementation of the survey tool and what is its potential for application elsewhere or to other issues?
- (3) What are some strategies for building and embedding learning processes into health systems in LMICs?
- (4) What is and what should be the respective roles for different stakeholders, including international partners?

This participatory session (in French) explores results and impact from an innovative experience applying the concepts of learning organisations to “UHC systems” in a number of countries in Francophone Africa. While Universal Health Coverage figures in the sustainable development goals, progress in most African countries has not been significant enough to bridge the growing gap between international aspirations versus what is actually being achieved at the country level. Many implementation challenges remain: linkages between the political and the technical at the national level remain poorly understood.

Two HHA Communities of Practice (Financial Access to Health Services and Performance-based financing) launched a collaborative project in 2014¹, to document and address priority implementation problems voted by CoP members. This project’s approach is fully participatory, with CoP experts from target countries involved in all phases – design,

¹ financed by French Muskoka Funds through Unicef WCARO and the NGO Cordaid

implementation, analysis, and policy dialogue.

Phase 1 documented health-financing fragmentation across 12 African countries, finding that all had a startlingly large number of health financing mechanisms². Centralised, transparent data on them was frequently missing or unavailable in-country, making it difficult for government to provide effective leadership for UHC.

Bringing order and making operational progress toward UHC would require two things: that UHC stakeholders in each country join in a much more inclusive process; and that governments develop significant operational capacity to collect and analyse information, and to use it to reorganise the tangled web of schemes. This ability to learn will be a necessary condition to achieve UHC.

This is also the main tenet of “learning organisations” a concept from the business world that sees the capacity to learn as key to organisational performance today. Phase 2 applies this concept to the UHC “system” in several Francophone African countries. Using a participatory approach involving 35 national UHC experts from 11 countries, we built a questionnaire based on David Garvin’s framework. All stakeholders involved in the UHC system are targeted, with samples of about 40 interviewees in per country. Data was collected in six countries (Bénin, Burkina Faso, Cameroon, DRC, Morocco, Togo). Comparative analysis shows the tool’s potential for identifying areas of relative strength and weakness in country’s ‘UHC learning system’ through benchmarking, and creating a dynamic of organizational learning in-country to better progress towards UHC.

² preliminary results presented at AfHEA’s 2014 conference

Parallel Session 3

Parallel session 3: Human Resources for Health: innovative approaches

PS 03/1

Revenue and healthcare workers performance in urban environments in Cameroon

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Optimum involvement of health workers in health facilities is essential for adequate health systems. Beyond the traditional asymmetry of information between employer and healthcare worker, the peculiarity of the health worker activity is the fact that it provides expert services of which quality is not immediately observable by the patient. This feature gives the possibility to the healthcare worker to adjust his behaviour and care delivery strategies based on incentives. The establishment of incentives to influence worker behavior becomes an option to induce desired care practices. However, because of the Hippocratic values and altruism associated with health professions, there are chances that the financial incentives associated with labour income are without effects on their choice of performance.

The objective of this study was to highlight the influence of income from employment on the modulation of health workers stress at work. To achieve this objective, the study adopted a simultaneous equations model for potential endogeneity across the choice of effort and labor income. The data were collected as part of the project on "The working conditions of health workers in urban Cameroon" in 2013. The sample covers 830 health professionals (physicians, nurses and health technicians) working in urban facilities, public and private, located at the periphery of the Cameroon health system.

From these analyzes, it was found that labour income has a positive and significant effect on the likelihood of the health professional to achieve a high level of effort. However, this result was not assessed because the sample was restricted only to physicians. Finally, this study explains that outside doctors, financial incentives for health professionals dominate the intrinsic motivations and ethical values associated with the health sector. Health workers will invest in training if they value higher future incomes they derive from their employment.

This work was funded by the African Population and Health Research Center (APHRC), based in Nairobi, Kenya, in partnership with the Research Centre for International Development (IDRC) as part of the African Doctoral Dissertation Research Fellowships (ADDRF).

PS 03/2**Compensation and workplace absenteeism of health workers in urban environments in Cameroon**

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Workplace absenteeism of health workers exacerbates the deficit of human resources in health services and is involved in the degradation of health system performance and population health.

The objective of this study is to analyze the effects of labour compensation in the absence of behaviour of Cameroon health professionals. This is firstly to question the effect of salary on the number of episodes of absences on one hand and the occurrence of unauthorized absences on other hand. To achieve this goal, this study used a descriptive statistical analysis and econometric analysis. This is based on one hand on the count data, including a negative binomial regression model and on a Probit binomial model on other hand.

The data used in this analysis are collected from a field survey on a sample of 830 health professionals (doctors, nurses and health technicians) working in urban health facilities located at the peripheral level of the health system. Health related absenteeism is an easily understandable concept of not attending work when ill and certifying absenteeism episodes is core business for general practice. Whatever method used, results and estimation of the study have insignificant negative impact both on the likelihood of absenteeism episode or missing work without permission on health workers salaries. Beyond the role of medical ethics on the impact of management incentives associated with higher earnings, there is an income and substitution impact among health professionals as a result of changes in wages received.

The policies of high wages would therefore be ineffective to limit absenteeism of health workers in urban Cameroon. Other strategies should be implemented to better this phenomenon, like the improvement of governance and more specifically emphasis of controls on health facilities.

Keywords: compensation, absence from work, health professionals, urban Cameroon

PS 03/3**Re-thinking human resource for health and the need for integration of unskilled birth attendants for increased pmtct uptake: preliminary evidence from Nigeria**

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Background: The global community has embarked on the Prevention of Mother-To Child Transmission (PMTCT) of HIV to eliminate new pediatric infections using ante-natal care (ANC) as the first entry point of care. In the absence of any intervention, the possibility of HIV transmission often runs from 15 - 45% and can be reduced to below 5% with effective PMTCT intervention. However, despite concerted efforts by national governments and increase in international donor funding, not much attention is given to analyze the human resource for health requirements to scale up ART and PMTCT services. Meanwhile WHO's Alma Ata Declaration of 1978 states that "primary health care shall rely, at local and referral levels, on health workers, including physicians, nurses, midwives, auxiliaries and community workers as applicable, as well as traditional practitioners as needed, suitably trained socially and technically to work as a health team and to respond to the expressed health needs of the community". Over the years, this has been neglected and the results have been continued shortage of manpower to deliver effective health services to the people where it matters most.

Objectives: The objective of this paper is to demonstrate that the integration of traditional birth attendants into health care service delivery is effective using available HRH data as well as service utilization data from health facilities over a 12 months period.

Method: The paper adopts simple statistical method to analyze disaggregated data of frontline health care workers as well as traditional birth attendants' distribution across the entire 31 Local Government Areas of Akwa Ibom State of Nigeria and juxtaposed this with ANC, delivery and PMTCT uptake data from the same area within 12 months period. The result forms the basis for recommendations made.

Results: Key findings from the analysis show that of the 37,409 new ANC visits in 2014, only 11,199 (29.9%) were delivered in health facilities while the other 28,210 (60.1%) were delivered with TBAs and other unskilled birth attendants while only 292 (0.7%) referrals were made. Second, with a nurse to population ratio of 1:2,067 from 2015 projected population of 5,272,029 and growth rate of 3.5% compared with TBA to population ratio of 1:1,883, there is a great shortage of manpower to deliver basic health services including PMTCT. Thirdly, the high attrition rate of medical workers coupled with low employment of health workers and urban-biased distribution of available medical manpower severely constraints efforts to increase access to health services including ART and PMTCT.

Conclusion and Recommendations: Engaging (regulating, monitoring and re-orientating) TBAs is achievable and effective in improving MNCH services and increasing PMTCT uptake as a short term measure. In the long term, Governments may consider other measures to continuously train and re-train, properly remunerate and distribute health workers appropriately to rural areas.

PS 03/4**Effective National Health Policy Advocacy Communication for Development of Human Resources Capacity for Health and Well-Being in Africa**

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Aim and Objectives: Effective national health policy advocacy communication for can significantly promote the development of efficient human resources capacity for healthy lives and well-being for all age brackets in Africa. The objectives are to: (1) state the human resources capacity building for health and well-being issues and needs in Africa, (2) discuss the prospects and challenges of developing effective and efficient national human resources capacity for healthy lives and well-being for all ages, (3) explain effective research and policy communication strategy for public awareness of minimum healthcare package issues, and (4) describe the role of ICT for interdisciplinary university and inter-university research policy.

Methods: In this review, published evidence on the Ugandan institutions and governance of food and nutrition systems policy implementation was obtained. In addition, more information was accessed using internet search engines and libraries. Accordingly, all the documents that were obtained during the review process were used to further broaden the search for primary data sources. Initially, more information was sought from the databases of national, regional, and international agencies. The data were summarized to inform this paper.

Findings: The main issues and options in the human resources capacity building for inclusive health are: huge funding gaps, wrong national priorities, poor public private partnerships, low top level political commitments, limited research and research funding, gaps between policy and research, acute corruption, production and distribution of personnel; costs of production of personnel; ethics, poor remuneration, low morale, disincentives, dismal productivity; gender inequality, gross inefficiency, poor community health workers' outreach motivation; poor recruitment, and bureaucratic career development practice, poor facilities and work places, local negative or unhealthy cultural or traditional practices, and training opportunities.

Conclusion(s): The media are agencies of mediation in that in reporting events they propose certain frameworks for their interpretations. They are part of social reality which shapes our perception. An effective public communication campaign fosters national, regional, and international collaboration among the partners like: researchers, private sector, civil society, policy makers, the media, and communities. Effective policy legislations are critical for full implementation of human resources development in Africa. Effective national health policy advocacy communication for can significantly promote the development of efficient human resources capacity for inclusive healthy lives and well-being for all ages.

Key words: Africa, communication, health, resources, media, policy, research

PS 03/5**Exploring practitioners perspectives on inequitable distribution of doctors in Ghana**

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Introduction:

Efficient and equitable distribution of healthcare workers is a major challenge in most developing countries as this affect public health programs. In Ghana, over two-thirds of medical doctors are based in urban centres, with the highest concentration in the two commercial cities of Accra and Kumasi. Although various reasons ranging from better living standards, higher income, social recognition and greater job satisfaction had been the main attraction for doctors, structural and institutional factors also contributed towards institutionalising this phenomenon over the years. This study explores the multi-faceted factors constraining equitable distribution of doctors and what strategies can be adopted to sustainably address this challenge.

Methodology:

Using multiple sources of data, a triangulation of documentary reviews, personal reflections and survey provided multiple perspectives in understanding the persisting mal-distribution of doctors in Ghana. Through a quantitative approach, 500 doctors of various cadres and specialisations were surveyed to solicit an understanding of their perspectives, the reflections of senior level decision makers in the health sector and documentary reviews also provided information on institutional trends on the issue. Data was analyzed appropriately and triangulated to derive those perspectives.

Finding and Discussion:

Findings from the survey revealed how both push and pull factors led doctors to cities and urban areas. These factors range from financial incentives and better income to career development and training opportunities, social recognition, job satisfaction, family commitments, standard of living and multiple opportunities for practice. However, there were variations recorded based on experience and the various ranges of cadres. For younger doctors, the lack of prospects and limited opportunities for career development is a major deterrent as compared with specialist doctors who were more drawn to the financial incentives, opportunities for locum and peer recognition. Older and more experienced practitioners listed family commitments and well equipped facilities as the most influential among other factors. Similarly female doctors prioritized family commitments regarding postings to other cities. The study also showed trends of institutional and structural failures to address the problem and redistribute critical skills overall.

The study concludes by proposing policies and strategic reviews to systematically address the constraints in a holistic manner by creating enabling condition and opportunity for all cadres and institutionalizing these supports and practices. Lessons from other LMIC on sustainable and attainable government policies for career progression, rural infrastructural development, controlled intramural practices; social and financial support to facilitate distribution of doctors is also recommended.

Parallel session 3: Economics of Immunization

PS 03/6

The costs of pneumococcal meningitis and pneumonia in the Hauts-Bassins region of Burkina Faso

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Background- *Streptococcus Pneumoniae* (Sp) is a leading cause of meningitis and pneumonia morbidity and mortality worldwide, with low-income countries such as Burkina Faso bearing the highest burden. Estimating the costs of pneumococcal disease is necessary to understand the economic impact of the recently introduced 13-valent pneumococcal conjugate vaccine (PCV13).

Objectives- To determine the costs of pneumococcal disease, specifically meningitis and pneumonia, for households and the public health system in Dafra, Do, and Hounde districts in the Hauts-Bassins region.

Methods- The study used a micro-costing approach from a societal perspective. Data was collected for the year 2015. Four pre-defined questionnaires were used for households, health centers, laboratories, and the Ministry of Health (MoH). We sampled households of all identified Sp meningitis cases (n=28) and a representative sample of all-cause pneumonia cases (n = 64); the 3 district hospitals; primary health care facilities (n=26) representing 37% of all facilities in the districts; the laboratories at district level (n= 3) and one reference laboratory (Centre Muraz); and MoH offices in the districts (n=3), the region (n =1) and national (n=1). Both hospitalization and outpatient costs were included. Costs included direct medical costs (costs of consultation, hospitalization, analysis and medicines), direct non-medical costs (costs of transportation, telephone) and indirect costs (lost income for patient or main caregiver as a result of the disease episode).

Findings- Households spent on average US\$124 per pneumonia case and US\$162 per Sp meningitis case in 2015. The latter is above the average monthly income of caregivers in the sample (US\$135). On average, urban costs (\$184 for Sp meningitis and \$178 for pneumonia case) were higher than rural (\$149 for Sp meningitis and \$81 for pneumonia case). Sp meningitis patients stayed longer than pneumonia patients at hospitals (7 vs. 4 days) but pneumonia patients had more consultations (4 vs. 3 consultations). Direct medical costs (consultation, hospitalization and medicines) and indirect costs (revenue loss for patient and main caregiver due to the disease episode) each constituted nearly half of the total cost to households while direct non-medical costs (transportation, food, telephone calls) contributed around 10%.

Conclusions- Sp meningitis and pneumonia have substantial economic costs to households, in addition to those to the health system. These data underscore the potential benefits of vaccination strategies in the affected region.

PS 03/7**Cost-Utility Analysis of HPV vaccination for cervical cancer prevention in Morocco**

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Background:

At the 65th World Health Assembly in 2012, several resolutions were adopted in regards to non-communicable diseases (NCDs), in which members of states agreed to reduce premature mortality by 25% by 2025 including mortality associated with cancer diseases.

Cervical cancer (CC) is considered to be the third most common diagnosed type of cancer in females worldwide. More than 80% of deaths happen in developing countries, which is estimated to be around 270,000 deaths annually and predicted to reach 90% by 2020.

In Morocco, CC is the second most common cancer type among women after breast cancer. The incidence rate among Moroccan women aged 50 to 55 is the highest in the Eastern Mediterranean region (EMR) of around 60 per 100,000 women. Since CC cases are predicted to double by 2030 in the EMR, this may mean that the economic burden induced by CC on Morocco's health resources and system will be a major challenge in the future.

Human Papillomavirus (HPV) vaccination has shown to be cost-effective in high-income countries. This encouraged policymakers to introduce HPV vaccines into their national immunization programs to protect women from cervical cancer. These decisions have been supported and justified by economic evaluation studies. To the best of our knowledge, there have been no economic evaluation studies conducted in the context of Morocco, to observe the health and economic benefits of funding HPV vaccination.

Objective:

To evaluate the cost-effectiveness of quadrivalent vaccine (Gardasil) and our objective is to perform a cost-utility analysis (i.e. cost per QALY gain) of vaccination strategy against no vaccination strategy from the perspective of the healthcare system in Morocco.

Methods:

A lifetime Markov model was constructed to simulate the natural history of high-risk HPV types-16 and 18. The model followed the experience of a 10,000 hypothetical cohort girls at the age of 12 and received full vaccination course before sexual debut. The model compared the costs and outcomes of girls fully vaccinated with those who were unvaccinated.

Results:

The results showed that vaccinating 10,000 girls with Gardasil was more effective and cheaper than a no vaccination strategy when followed over a lifetime. Vaccination would result in a total of lifetime cost-saving of \$91USD million dollars compared with no vaccination strategy and 28839 additional QALYs would be gained. Also, 2.88 QALYs would be gained per person suggesting that the vaccine strategy would dominate the no vaccination strategy. The results were found to be robust to both deterministic and probabilistic sensitivity analysis.

Conclusion:

HPV vaccination represents a good value for money compared with "no vaccination" strategy in the context of Morocco.

PS 03/8**Estimates of the potential public health impact and cost-effectiveness of adopting pneumococcal vaccination in the routine immunization programme in African GAVI countries: a modelling study**

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Background

Diseases caused by *Streptococcus pneumoniae* (*Sp*), including pneumonia, meningitis and sepsis, are the leading cause of vaccine-preventable mortality in children under 5 years of age in Africa. GAVI provides funding to support introduction of pneumococcal conjugate vaccines (PCVs) in eligible developing countries. Information on the potential public health impact and cost-effectiveness can support decision-making process for the adoption of PCVs. We estimated the potential public health impact and cost-effectiveness of introducing pneumococcal non-typeable *Haemophilus influenzae* protein D conjugate vaccine (PHiD-CV) versus no vaccination in 36 African GAVI countries.

Methods

A decision-tree model is designed to include for each country the number of episodes and deaths related to pneumonia, meningitis caused by *Sp* and non-pneumonia non-meningitis (NPNM) grouping invasive diseases (such as bacteraemia or osteomyelitis) caused by *Sp* in children under 5 years of age. Estimates of disease incidences and mortality in children for years 2010/2011 and costs of care for year 2005 are taken from published studies specific to African countries. PHiD-CV vaccine efficacy is based on the COMPAS phase III trial. Access to outpatient care for pneumonia is based on monitoring data and hospitalization is assumed for severe episodes of pneumonia. All meningitis episodes and severe NPNM episodes are assumed to lead to hospitalization. Same coverage as that for Diphtheria-Tetanus-Pertussis dose 3 vaccine is assumed. Costs and DALYs are discounted at a rate of 3%.

Results

Compared with no vaccination, the introduction of PHiD-CV in each of these countries would potentially have a substantial impact. Considering the cumulative impact over 36 African countries, PHiD-CV is estimated to avert annually 2.1 million and 66.7 thousands pneumonia episodes and deaths, 24.9 and 18.2 thousands meningitis episodes and deaths and 125.6 and 5.7 thousands NPNM episodes and deaths. Overall, 976 thousands outpatient visits and 808 thousands hospitalization could potentially be averted saving more than \$39 million. The cost-effectiveness ratio estimate for the introduction of PHiD-CV is \$98 per disability-adjusted life-year across the 36 countries.

Limitations

This study is based on a static model and does not account for the dynamic transmission mechanisms or circulation of pathogens. Vaccine efficacy is transposed to different settings from where the study was originally conducted with a different schedule. Limitations from the data sources used would also apply to these estimates.

Conclusion

Compared with the hypothetical scenario without vaccination, the introduction of PHiD-CV would potentially result in substantial public health benefits and is likely to be highly cost-effective based on WHO threshold.

PS 03/9

Cost of implementation of malaria vaccination programmes in five sub-Saharan African countries (Burkina Faso, Kenya, Ghana, Mozambique and Tanzania)

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Objectives This study aimed to estimate, the resources needed and associated costs to introduce the RTS,S/AS01 malaria vaccine candidate in the expanded program on immunization (EPI) in five selected sub-Sahara African countries (Burkina Faso, Ghana, Kenya, Mozambique and Tanzania).

Methods Semi-structured interviews were conducted from February to December 2015 among 57 EPI focal persons at different health system levels: central, intermediate (region/district) and local (health facility). The study included areas with different malaria endemicity from both rural and urban environments. Analysis of the information collected and additional published information (eg unit costs), provided estimates for the marginal costs (expressed in 2014 US\$), i.e. the costs incurred for the expansion of existing resources. Average, minimum and maximum costs were estimated to reflect the total cost per fully immunized child, differentiating fixed (independent from the number of doses) from variable costs. Another distinction was made between economic and financial costs, the latter implying investment by the national health system.

Results At a vaccine price of US\$5 per dose (base case scenario), the economic costs per fully immunized child (4 doses all administered at the health facility) ranged from an average of US\$25.42 (minimum:US\$23.10-maximum:US\$30.21) in Burkina Faso to US\$36.79 (minimum:US\$33.23-maximum:US\$38.34) in Kenya. At a vaccine price of US\$2 per dose, average costs were respectively US\$12.00 (minimum:US\$10.80-maximum:US\$15.10) and US\$23.27 (minimum:US\$20.68-maximum:US\$23.77) for these two countries,. At a vaccine price of US\$10/dose, Kenya had the highest average costs (US\$59.32 [minimum:US\$54.14-maximum:US\$62.61]).

When the fourth dose is administered in an outreach setting rather than at the health facility, and at a price of US\$5 per dose, average costs increased by US\$1 maximum.

In the base case scenario, the main costs components were vaccine purchase cost and wastage (75%). The average variable costs were similar across explored countries, and ranged from US\$23.12 (minimum:US\$20.86-maximum:US\$27.85) for Burkina Faso to US\$24.27 (minimum:US\$21.01-maximum:US\$29.53) for Ghana. Variability across countries was explained by the fixed-costs component rather than the variable costs. Most costs were financial.

Conclusions These estimates are overall similar to previous estimates based on secondary data. In the current context of several vaccines being introduced in the EPI, economies of scales are expected however in a context of additional stress on the health systems. These considerations should be taken into account for the potential introduction of the RTS,S/AS01 malaria vaccine candidate as well as of any other vaccines.

PS 03/10

Eliciting willingness to pay for childhood immunization services using two contingent valuation question formats in Nigeria

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Introduction

Willingness to pay (WTP) provides information on the value of benefit that people attach to a commodity or service, thereby showing whether it is worthwhile for government to invest on the commodity/service. The contingent valuation methods (CVM) constitute a valuable tool for WTP. Immunization services in the public sector are offered free and do not reflect the real market situation, thus CVM will be very useful in valuing it. No study has estimated the value of benefit that people place on immunization services in Enugu state. This information is important for evidence based resource allocation decision, therefore this study intends to fill the gap by estimating the willingness to pay value for under 5 immunization services in Enugu state and compare the validity of two contingent valuation question formats.

Methods

A pre-tested Interviewer administered questionnaire was used to collect data from the respondents on their willingness to pay for childhood immunization. Their demographic and socio-economic characteristics were tabulated and compared across question formats. The average WTP estimates were computed and compared across the two groups. The validity of the elicited WTP for under five immunization was ascertained and compared using ordinary least square (OLS) regression and log OLS to ascertain which format performs better. Test of association was carried out between respondents' demographic variables and willingness to pay for immunization for under five children.

Findings

The results from the study shows that 88% of the respondent in both groups stated positive willingness to pay for under 5 immunization, with the higher proportion of 93.8% coming from SH. The decision on WTP was statistically different across the two groups ($p < 0.05$). The major reason that some people gave for not being willing to pay anything for under 5 immunization was lack of money. The mean WTP was higher in BG (N486.4) than in SH (N381.3). The distribution of the level of WTP across the two question format groups were shown to be statistically different. The median WTP value was higher in BG (N500) than SH (300). The maximum WTP value was also found to be higher in BG (N5000) than in SH (2000).

Conclusion

Both CVQF were valid in eliciting WTP. However, it was very difficult to differentiate which format performed better, although the bidding game was found to elicit higher WTP value and SH had higher number of hypothesis obeying statistically significant variables than structure haggling.

Key words: Willingness To Pay, Contingent Valuation, Structured Haggling, Bidding Game, Immunization

Parallel session 3: Payment mechanisms and quality of care

PS 03/11

Comparative Analysis of Quality of Care at the different levels of health care in Nigeria.

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This study assessed the quality of health care available in health facilities in Nigeria. We defined quality as an aggregate of what health workers know, what they do and what they have to work with. The objective of the study is to bridge this gap by using data collected from a nationally representative survey to determine the level of quality of care in Nigeria's health facilities and identify factors that significantly contribute to the quality of health care.

Methods

The study utilized data from the Service Delivery Indicators (SDI) Survey, undertaken by the World Bank in Nigeria. The study involved surveys in randomly selected health facilities in 12 states across the country's six geopolitical zones. The surveys were conducted between July, 2013 and January 2014.

Three broad categories of indicators of quality health service were addressed in the SDI survey. These are provider's knowledge, provider's effort and input (what provider's work with). Provider's knowledge was measured using clinical vignettes to assess providers' skills in managing seven health conditions. Measures of provider's knowledge include diagnostic accuracy and adherence to clinical guidelines. Each of the components of quality was measured on a scale of 0-100 and the average was taken to determine the level of quality of health care.

Data analysis

SPSS version 16 was used for data analysis. Data was analyzed using descriptive methods such as frequencies and cross tabulation to measure the level of association between variables. Mean scores were calculated for indicators of quality of care/service. We used linear regression to assess whether the determinants of quality of care/service vary by composite quality of care index as the primary outcome. Regression coefficient was estimated together with the 95% confidence interval, p-values and coefficient of determination (). Finally we used Pearson's linear correlation coefficients.

Results:

The mean scores for the composite score of all the three dimensions of quality of care shows that composite index of quality of care score is significantly higher in both health clinic/centres and hospital. Remoteness is not a limitation to accessing quality of care. In both privately and publicly owned facilities, providers' effort and what providers have to work with contribute significantly to general service quality. However, quality of care in privately owned facilities is significantly higher than in public facilities in terms of what health workers have to work with and provider effort. There is less absenteeism in privately owned facilities compared to publicly owned.

PS 03/12**Quality of care and effective coverage of child health services in rural Burkina Faso.**

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Background

Quality of care is a cornerstone of universal health coverage and an essential factor to reduce mortality and morbidity.

Objectives

We aim on the one hand to evaluate the technical quality of child health services at the first level facilities in Burkina Faso and on the other hand we determine the effective coverage of child health services particularly vaccination.

Methods

A cross sectional study was conducted in six regions of Burkina Faso. The study utilized two main sources of data: Facility survey (direct observation of consultations, facilities assessment, provider's interviews) and household survey (health status, health seeking behavior, socio-economic status)

To assess the quality of care we used signal functions of three dimensions of child care (routine care, management of severe childhood diseases and non-medical aspects of care) the availability of relevant drugs, vaccines, equipment and the staffing. Each of this dimension was categorized in high, intermediate and low quality level. Linking the household survey to health facility assessment we determined the proportion of children who sought care in facilities with high quality level.

We calculate the effective coverage of preventive child care defined as the proportion of children who have completed the specific vaccination schedule appropriate to their age.

Results

In total, 494 primary healthcare facilities were included in the study. We observed 1,297 initial out-patients visits of children U5YO and interviewed 1,298 providers in the primary health care facilities.

More than half of health facilities (51%) had high quality level regarding non-medical care aspects while more than 70% of primary care health facilities had a low quality level in management of severe childhood diseases. We found globally that 50% of health facilities had a low quality level.

While 69.7% of sick children sought care in a health facility, only 18.8% of them went in facilities high quality.

There was a large difference between effective coverage and crude coverage of vaccination. Moreover the effective coverage for BCG and DPT3 immunization was lower among the poor households than the richer (p=0.01).

Conclusion

Our assessment found that the quality level in the health facilities was low, and the quality gap remained large. In addition there was a low effective coverage of vaccination especially among the poorest in the study regions. Effective coverage could be a relevant metric to improve the performance of child health services.

PS 03/13**The impact of Performance Based Financing on the quality of antenatal care in Cameroon**

Chantelle Boudreaux, Harvard University T.H. Chan School of Public Health ; Jacob Robyn

Background:

The use of Performance Based Financing (PBF) has emerged as an increasingly important financing strategy for public-sector health services. Defined as “FFS [fee-for-service]-conditional-on-quality-of-care,” the use of PBF has grown dramatically in the past decade. PBFs are complex and hypothesized to operate via a number of distinct pathways, including (1) the provision of management support; (2) the provision of additional financial resourcing; and (3) the establishment of contracts prioritizing specific activities. To date, the evidence base on the impact of PBF is mixed and little is known about the comparative impacts of these pathways on structural dimensions of care, including the quality of care provided and user satisfaction. We seek to address this gap. Using data collected at 118 primary health care facilities in Cameroon, we present evidence on the impact of a recent PBF on the quality of antenatal care (ANC) following three years of implementation.

Data:

We use data collected at 110 primary care facilities in Southern Cameroon. Health facilities were randomly selected one of four groups (1) traditional PBF contracts, including intensified management and conditional financial support contingent upon performance; (2) intensified management and unconditional financial support; (3) intensified management with no additional financial support; and (4) status quo (control). Survey teams visited facilities prior to the launch of PBF activities (2012), and again following three years of implementation (2015). Data collection activities included facility audits, interviews with health workers, observations of clinical antenatal sessions, and exit interviews with patients.

Methods:

We employ ordinary least squares (OLS) regression to estimate the causal impact of our interventions on three dependent variables: (1) clinical quality; (2) health worker communication; and (3) patient communication. We use clinical observation data to construct session-specific scores for clinical quality and health worker communication and use patient exit interviews to measure patient satisfaction.

Results:

While we document a general increase of antenatal quality over time we find no evidence that our interventions positively on any of our outcomes of interested. Primary health facilities which were randomly allocated to the control group saw the greatest increase in antenatal care quality while the group allocated to the full PBF saw the smallest increase in quality. Similar results were found for the communication and patient satisfaction.

Conclusions:

PBF is a complex intervention, and operates on multiple elements of the health system. Our evidence suggests potential for unintended consequences as facilities seek to increase quantity at the expense of quality.

PS 03/14

Effect of Capitation on Utilization and Quality of Healthcare in the Ghanaian National Health Insurance

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Provider payment mechanism has influence on visits, referrals and quality of healthcare, which capitation healthcare payment is not an exception. As Fee for Service (FFS) payment system is characterized by inducement, Diagnostic Related Grouping (DRG) is attributed to a higher cost episode irrespective of the nature of care. The negative effects of these payments mechanisms have popularized capitation as a payment system. Capitation was introduced in Ghana in 2010. It was however faced with resistance from pressure groups (e.g., Ashanti Development Union (ADU)) and healthcare providers. As providers claim it would reduce their profit margin the ADU expected that capitation would decrease utilization to inefficient levels as stipulated by several studies. Using Poisson regression, ordered logistic regression and ordered binary regression, this research was primarily conducted to find out the effect of capitation utilization, visits, referrals, quality of healthcare and the willingness of patients to retain the primary care provider within a period of three months. A sample size of 500 NHIS Urinary Tract Infectious patients was selected with 250 each from Komfo Anokye Teaching Hospital (capitated group) and Korle-Bu Teaching Hospital (FFS/DRG group) was employed for the study.

Some of the principal findings of the research showed that patients under capitation had less number of visits compared to patients under DRG (controlled group). It was discovered that patients under capitation had less quality of healthcare compared to patients under DRG (controlled group at Korle-Bu). Contrary to expectation, the research discovered that patients under capitation are more likely to change their primary care provider, compared to those under the DRG payment system. Capitation impacted positively referrals compared to patients under DRG.

The research concludes that without proper monitoring capitation can lead to deterioration of care both in quality and quantity. The high percentage of referrals in the capitated region could either imply cream skinning or an effective gate keeping system provided by capitation. Policy recommendations are provided to improve quality under capitation are provided.

PS 03/15**Integrated Production Planning and Control Model for evaluating quality performance in medical laboratory of university clinics in Lubumbashi, DRC.**

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Introduction

The laboratory of the academic clinics of Lubumbashi in an innovative framework to test for efficiency, to operate with autonomy, adopts a strategy to control production and costs analysis and EFQM (European Foundation for Quality Management) model to improve its performance and the quality of its services offered to the community (Calvo Mora et al . 2005; EFQM, 2005; Coulmont, 2008, Bayo-Moriones et al, 2011; Cabrerizo et al, 2012). The aim of this study is to evaluate the level of job satisfaction of healthcare providers after implementation of the model with a special focus on pricing of services, changing patients' demands and laboratory performance.

Methods

A quasi-experimental study conducted from 2005 to 2010 based on a business approach was performed. The study obtained the approval of the medical ethics committee of the University of Lubumbashi. About 71,705 patients were monitored during the study. Indirect costs were calculated using a systematic and rational allocation methodology before their inclusion in the cost of production and billing to patients. The financial analysis, numerical analysis and simple linear regression were carried out using SPSS 21.0 and Excel 2007. The Student t-test was used to evaluate the significance of the estimated coefficients.

Results

About 358,526 recorded performances were insensitive to the price increase induced by costs related to higher expenses ($p = 0.000$). The increase in customer demand for 30,420 tests in 2005 to 59,460 tests in 2010, resulted at an exponential increase in financial products value of US \$ 32,462 in 2005 to US \$ 175,320 in 2010. The expense management using a systematic and rational allocation methodology represented an inverted pyramid structure of overhead cost per analysis. These expenses increased gradually from 14% to 45% in the overall cost during the study and were used for building maintenance management, waste management and patient's database management system, depreciation of equipment and amortization of ancillary costs. These indirect costs remained insensitive to the level of activity (t-test = 2.645 and $p = 0.057$).

Conclusion

This study shows the close link between the costs of care, patient satisfaction and service performance, essential to hospitals wishing to improve their performance. Applications have doubled despite the price increase, indicating that health care line up as essential health commodities.

Success points are production costs to management by quality, patient satisfaction and stakeholders.

Keywords: production services, patient satisfaction, performance management, medical laboratory, Lubumbashi, R.D.C.

PS 03/16

Can Pay-For-Performance (P4P) Improve The Quality Of Maternal And Child Health Services In Nigeria? The Potentials And Preliminary Results

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Nigeria was unable to meet the 2015 targets of MDGs 4 and 5 (2/3 reduction in child deaths and 3/4 reduction in maternal deaths) since its adoption in 2000. Various health policies have been adopted in Nigeria to improve quality and utilization of maternal and child health services to provide access to cost-effective interventions to prevent or treat a majority of the causes of these deaths. However, improvements have been very slow. With these MDGs now incorporated to the newly adopted sustainable development goals (SDGs), it is necessary to reflect on why some of these reforms have been unsuccessful, and pilot strategies to overcome the challenges identified in order to accelerate the process of meeting the MDG/SDG targets.

Performance based financing (PBF) as a health financing policy option is increasingly being experimented with in African countries (including Nigeria) as a way to improve quality and utilization of health services, despite mixed results and sparse evidence base in developing countries. This paper discusses the introduction of a PBF pilot to improve quality and utilization of maternal and child health services in 3 out of 36 states in Nigeria, its potential to address the challenges in the Nigerian health system (e.g. lack of transparency and poor governance), and its early results.

The promising early results of the P4P scheme in Nigeria and evidence of effectiveness of similar PBF schemes in other low and middle income countries (such as Rwanda and Tanzania), suggest that PBF might be a revolutionary health reform in Nigeria to improve the quality and utilization of maternal and child health services and accelerate the progress of meeting the newly adopted SDG targets.

Parallel Session 4: Organized sessions

Organized session 7: What kind of training and research on health economics in the UHC context?

Radouane Belouali, Chris Atim

What experience and training priorities and economics research and health financing in the context of the Universal health coverage (UHC) in Africa?

Introduction

In a context of global targets of Universal Health Coverage (UHC), the Sustainable Development and the Great Convergence, the strengthening of human resources for health is essential for countries that engage in it to have adequate skills to achieve goals. For several years, AfHEA and RESSMA have invested in capacity building by organizing training sessions for the benefit of professionals, researchers and health system monitors. AfHEA and RESSMA training sessions have an important part in health economics, as a critical component of the topics of training needs. This is also why they have developed partnerships with academic institutions in economics and politics of Health. To promote understanding and the use of economic tools applied to health by doctors, managers, institutional managers, managers of health insurance organizations, nursing managers, administrators, etc., at strategic level suggested training needs in the preliminary investigations.

Furthermore, recognizing significant gaps and weaknesses in the area of research, both networks are organizing international events to facilitate the dissemination of knowledge, experience and research findings in the African and at international levels.

Despite these efforts, a need to support countries that are committed to Universal Health Coverage (UHC) is still needed. It is in this context that the terms of institutional support are envisaged.

All these aspects call for greater awareness of policy makers, training and research institutions, advocacy with partners of bilateral and multilateral cooperation and finally the availability of networking of organizations and skills. Both networks (AfHEA and RESSMA) and the two training institutes (CESAG and NPHS) engage in this direction through this session.

Objectives:

This session, based on the presentation of the experiences of the two networks and their partners in basic training and continuing education in economics and health financing in Africa.

- To initiate a debate on target audiences, training needs and training institutions
- To make recommendations to expand the training offer including the networking of training institutions
- To analyze the potential to develop new training approaches tailored to each target audience (long duration training courses, Foundation short Courses, E-Learning Courses, etc.)
- To initiate a multi partnership actors (networks, ministries, training institutions, bilateral / multilateral cooperation etc.
- To institutionalize such training and certify them.

Session content

Title	Presenters	Moderator
Training experience from CESAG Health Economics	Dr. El Hadji GUEYE Head Department CESAG - Health	Pr Najib Guedira and Mr Miloud Kaddar
Training experience from RESSMA Health Economics	Asma Fellousse et Larbi Lamri (RESSMA)	
Training experience from AfHEA Health Economics	Pascal Ndiaye, Felix Obi, Grace Njeri (AfHEA)	
Training experience from NPHS Rabat Health Economics	NPHS Representative from Rabat	
Debate and synthesis: What research and training priorities, what institutions, what means and what partnership??	Dr Radouane Belouali, Director NPHS, Dr Chris Atim, Executive Director, AfHEA, Dr Bouchared Fouad (MoH, Morocco)	To be confirmed

Learning challenges on UHC: view from AfHEA survey and evaluation tools

Pascal Ndiaye, Felix Obi, Grace Njeri, John Ataguba, Chris Atim

Background

Learning challenges is gaining significant interest in capacity building for health activities, especially for new health interventions or policy implementation. The objective is to share AfHEA's experience in assessing learning challenges for high-level officials on universal health coverage (UHC). Within a 3-year project on UHC, AfHEA organized 7 international workshops including a webinar for Francophone and Anglophone countries on UHC related issues. Also, AfHEA implemented a large online survey for feedbacks on stakeholders' capacity building needs and priorities for trainings. AfHEA applied three of the four levels of the standard evaluation¹ framework: i) the 'reaction', ii) the learning evaluation performed during workshops and iii) the behavioral or transfer evaluation to assess skills, knowledge and likely impact. This paper presents some of the findings from these activities.

Method

We analyzed 1694 self-administered questionnaires using both open- and close-ended questions. The tools were sent directly to participants during training and through social media routes. A Likert scale was used to assess participants' opinions and level of knowledge of UHC before, during and after the training. Participants' discourses, official institutional communications and internal reports were also analyzed using QSR NVivo™ so as to capitalize their opinion on the course content, training design and organizational processes. Also, some potential impact of the skills acquired was assessed.

Key findings

The results of the first survey (knowledge need assessment) provided AfHEA with valuable input to design an elaborate multidisciplinary approach with contents that match the needs and priorities of various stakeholders at different levels. Participants reported a knowledge need on all dimensions of the health systems building blocks, especially in relation to health financing issues. Thus, transversal issues such as quality of care, communication, institutional design, training programs, cross-sharing activities were addressed during the reaction evaluation especially in relation to UHC.

¹ Kirkpatrick, D. L. (2009). *Implementing the Four Levels: A Practical Guide for Effective Evaluation of Training Programs: Easyread Large Edition*. ReadHowYouWant. com.

Overall, there is a general acceptance of the course and the adequacy of the course content. However, many expressed that the complexity of UHC will require more than short courses to provide the knowledge and skills to implement UHC. General knowledge increment was recorded however, more follow-up support at both individual and institutional levels have been expressed by participants.

Challenges included course management, follow-up and networking. Factor influencing the success of the design included a rigorous identification and selection process of key resource persons, strong coordination mechanism and communication to elaborate the contents. Also building institutional strategic partnerships were challenging and produced low results: partnering with academic institution, creating fruitful collaboration between regional and international bodies for supporting capacity building activities and maintaining alumni networking.

A lesson learned is a need to enlarge the course content with some academic accreditation. There was also an expressed interest in including cross functions and cross borders experience sharing.

Conclusion

As many West African countries are undertaking a thorough health system reform for UHC, the findings of this initiative show that there is skills shortage, a need to update skills and a limited capacity within countries for effective implementation of UHC. Thus, a systematic and comprehensive training for monitoring and sharing experiences coupled with an effective assessment of learning challenges will be needed in the region. This can help to, among other things, better tailor training contents to stakeholders' needs and strongly contribute to accelerating a successful implementation of UHC.

Organized session 8: Medical and economic impact of cardiovascular diseases in Tunisia

Overview and chair: Dr Nadia Ben Mansour, National Public Health Institute, Faculty of Medicine, University Tunis El Manar - nadiabmy@gmail.com

NCDs challenges in Tunisia: lessons from the MedCHAMPS Project

Aim and objectives

Non-communicable diseases (NCDs), particularly cardiovascular diseases (CVD) and diabetes are increasing dramatically across the Middle East and North Africa (MENA) and Tunisia has not been an exception. In fact, Economic development in the country has intensified the trend towards urbanization, and brought improved health care, education, drinking water and sanitation. But these same developments have been accompanied by changes in economic activity, family structure, lifestyle and nutrition which have fostered the growing epidemic of NCDs.

The MEDCHAMPS project aimed to be able to make recommendations about the policy initiatives, within and outside the health sector, likely to be the most cost-effective in reducing the burden of CVD and diabetes mortality and morbidity in 4 Mediterranean countries (Tunisia, Syria, Palestine and Turkey).

Main findings for Tunisia will be presented along this session.

Methods used

A mixed methods approach was used to identify potential policy initiatives, including epidemiological modelling, document analysis and key informant interviews, costing studies and cost effectiveness evaluation.

Key findings

Mortality data showed that attributable cardio-vascular (CVD) mortality had dramatically increased over a period of fourteen years from 11% (3rd rank) to 30%(1st rank) in 2013, samely for cancers (3% to 16.5%). Epidemiological model explained recent trends in CVD mortality by increases in major modifiable risk factors, notably hypertension and hypercholesterolemia, obesity and diabetes.

Qualitative study showed that seriousness of the epidemiological transition was well recognised throughout stakeholders, but also highlights major gaps in the implementation of a comprehensive approach to NCDs, which is an urgent task facing Tunisian health care system. Yet the surge in NCDs like diabetes and hypertension requires government commitment of resources and strategy not yet seen. It seems likely that the growing role of the private sector will fill the gap in public provision, but at the cost of further marginalizing those who struggle to pay, thereby accentuating inequalities.

Conversely, unlike treatments for individual patients population intervention such improvements in risk factors in the general population could save many more lives and costs. A modelling study showed that Tackling obesity and smoking could prevent 266 691 new diabetic cases, and save 153.500.682 USD/year, this amount represents 6% of total spending on health in 2013.

In this same perspective, three policies to reduce dietary salt intake were evaluated: health promotion campaign, labelling of food packaging and mandatory reformulation of salt content in processed food. These were evaluated separately and in combination. Most policies were cost saving compared with the baseline. The combination of all three policies (reducing salt consumption by 30%) resulted in estimated cost savings of 309.723.878 USD and 6455 LYG in Tunisia.

Presentation 1: Transforming Chronic Disease Management in Tunisia: Engaging Citizens in the development of health policies through societal dialogue

Pr Habiba Ben Romdhane, Laboratoire d'épidémiologie et de Prévention des maladies cardiovasculaires, Faculté de Médecine, Université Tunis El Manar

Introduction

Primary health care as the cornerstone of treatment and prevention of noncommunicable diseases are now the heaviest disease burden in low-and middle-income countries (Kruk, Nigenda, and Knaul 2015). The community involvement can influence the practice of service providers and health policy in general (Björkman and Svensson 2009, Humphreys and Weinstein, 2012). Similarly, people can change their health behaviors when they are better informed and mostly involved in decision making. In this paper, we present a Tunisian experience through which we engaged citizens in discussions on the strategy against NCDs.

Methodology

The situation analysis was conducted in three stages: (i) an analysis of documents on strategies / programmes / services organizations; (ii) in-depth interviews with patients and their families seeking care for their medical condition, (iii) interviews with key people (national, regional managers, programme coordinators, experts, (iv) community forums.

Key lessons

The case study has enabled us to improve the literature review on the contribution of citizen participation in the debate on health systems. It generated relevant information that confirmed the awareness of stakeholders of the magnitude of the disease burden of non-communicable diseases in Tunisia and to have different categories of perceived diversity from citizen / professional about the progress made in Tunisia but also on what remains to be done. The challenges posed by non-communicable diseases in health system were discussed and identified in strategic areas.

The economic and social context, poverty and insecurity, injustice and abandonment, lack of equity, lack of perspective are the highlights of the current Tunisia. Not seeking medical care is a reality: the obstacles are social and others are related to the health system itself and its failures. The perceived disconnection of the system to address health needs of underprivileged population, for lack of material and human resources, strategy of organization adapted to the needs of people. The paucity of public structures exacerbates social inequalities. Citizens have stressed the need to have a vision of health policy that addresses social determinants of NCDs that would strengthen the role of citizens and which would be based on accountability.

Presentation 2: Forecasting Tunisian type 2 diabetes prevalence: Potential benefits of primary prevention

Dr Nadia Ben Mansour, Institut National de la Santé, Faculté de Médecine de Tunis, Université Tunis El Manar Tunisie

Introduction

The alarming spread of diabetes and its complications in Tunisia imposes a heavy medical and economic burden on individuals, households and health systems. We developed a model to predict future trends in T2D prevalence in Tunisia, explicitly taking into account trends in major risk factors (obesity and smoking). This model could improve assessment of policy options for prevention and health service planning.

Methods

The IMPACT T2D model uses a Markov approach to integrate population, obesity and smoking trends to estimate future T2D prevalence and the number of case notifications in the case of the application of primary prevention strategies. The costs of the interventions surveyed were extracted from economic benefits of T2D cases prevented.

Results

The average direct cost related to diabetes identified in the study (500 patients recruited in 2013) was 1264.11 Tunisian Dinars by diabetic patient per year, or \$ 632.77. This corresponds to an average of 2.5 times on health in Tunisia. The IMPACT T2D model forecast for a dramatic rise in prevalence by 2027 when one in four people will be diabetic (observed prevalence increased from 26.6% to 28.6% in men and to 24.7% in women). If national strategies to prevent obesity and smoking are effectively enforced, 266,691 new cases of diabetes will be prevented and 337 097 424 Tunisian Dinar/ year saved, equivalent to 6% of total health expenditure in 2013.

Presentation 3: salt reduction strategies and cardiovascular disease in Tunisia: Results of a cost effectiveness analysis

Pr Chokri Arfa, Institut National du Travail et des Etudes Sociales de Tunis. Université de Carthage, Tunisie

Introduction

Population-prevention strategies to reduce cardiovascular disease (CVD) risk factors play an important role in reducing overall mortality. This raises fundamental questions as to the choice between different strategies, including the medical and economic evaluation. Study Objective: This study presents a cost-effectiveness analysis of the various salt reduction policies in the general population.

Material and method

Three strategies to reduce salt intake were evaluated: a health promotion campaign, a labeling food packaging and a mandatory reformulation of the salt content of industrialized foods. These were evaluated separately and in combination. Estimates of the effectiveness of salt reduction on blood pressure were based on a literature review. The reduction in mortality was estimated using the IMPACT T2D model specific to Tunisia. The effectiveness of these interventions was quantified as life years gained (LYG) over 10 years. The cost of each strategy was estimated based on the opinions of experts in both public and private sectors. Service costs of health care associated with cardiovascular disease were estimated from the current nomenclature. The total cost of the implementation of each policy has been compared to the current baseline (no policy). All costs were calculated using PPP exchange rate in 2010.

Result

The three strategies were cost effective compared to the baseline scenario (no policy). The combination of these three policies (salt intake reduction of 30%) would result in LYG 6455 and average savings were estimated at \$ 235 million.

Parallel Session 4

Parallel session 4: Health systems in Transition

PS 04/1

The challenge of Universal Health Coverage in Algeria

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The Algerian health system has entered a new phase marked by a radical change in the epidemiological profile of the population, the economic and financial situation of the country, the supply of care in public and private sectors and in the practices and needs of the society. While for decades, much of the population benefited from social protection against disease by a quasi-free health care in the public sector, there is currently a relative decline in the number of insured, rapid growth in private care provision and direct payment by households and deepening social inequalities in health.

It is in this context that the challenge of universal health coverage arises in Algeria, both in terms of package of health services offered, sources and modalities of health financing and social coverage of population. The model followed so far has exhausted its capacity and is in crisis and a new dynamic is needed. The goal of achieving universal health coverage recommend profound reforms to identify and implement a new health policy and regulation based on objective and consensual priorities selected on the basis of rigorous evidence, an extension of collective coverage of health care costs, accountability in the management and sustainable and fair funding arrangements. These are the many challenges to take up. This work aims to explain the terms and issues and to draw some ideas for reflection and action.

PS 04/2**Improving health and economic growth in Algeria: An econometric analysis by autoregressive distributed lag (ARDL) modelling approach to cointegration analysis. (1974-2013)**

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The recent development of economic theory, such as the growth theory and the endogenous growth theory, assumes that health is a component of human capital, a long-term growth. Thus, the aim of the present study is to examine the contribution of health, using life expectancy at birth as a proxy for health capital, economic growth in Algeria over the period from 1974 to 2013 as an augmented production function.

For our empirical investigation, the autoregressive distributed lag (ARDL) modelling approach to cointegration analysis was used to estimate long and short terms relationships. The results of our econometric estimate shows that life expectancy has long and short significant positive effects on real GDP per capita growth.

In addition, evidence from the analysis shows that education, as measured by the completion of primary school reveals long significant positive effects and also indicates a nonsignificant positive effect on short-term. Furthermore, our analysis also shows that gross fixed capital formation and export hydrocarbon revenues have a significant impact on real GDP per capita.

PS 04/3**New epidemiological situation and challenges for the Tunisian health system**

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Introduction:

After considerable progress made in the fight against infectious, perinatal and maternal diseases, Tunisia is now facing a new challenge, that of morbidity of chronic and degenerative types.

Methods:

We conducted a comprehensive search of all published studies on demographic and epidemiological indicators as well as a critical analysis of data sources to retain only those with satisfactory quality. The work comes from good reviews which is a state-of-the-art synthesis of current evidence in selected publications.

Results:

Life expectancy at birth has evolved from 50 to 73.9 years between 1966 and 2012. For the same period the crude death rate and infant mortality rate (IMR) have collapsed from 15 ‰ and 140 ‰ in 1966 to 6.1 ‰ and 16 ‰ in 2012 respectively. The National Health and Morbidity Survey (causes of death, notifiable diseases and cancers) register has already shown that obesity, Type 2 diabetes, high blood pressure, pulmonary disease, cancer and mental illness progressed at the expense of communicable diseases.

Conclusion:

The aging population and the transition from an infectious type of morbidity, chronic and degenerative disease, the high cost of care imposes a necessary adaptation of the health system towards a better optimization of health expenditures.

PS 04/4**Demand Assessment: Health Seeking Behaviour of Middle Class Women in Accra and Tema, Ghana**

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Introduction:

Evidence from sub-Saharan Africa (SSA) suggests that most health programs and interventions in the region focus primarily on people in the lower economic ladder

Poverty in the SSA is however gradually reducing and the middle class is said to be growing as evidenced in a recent study conducted by Standard Bank amongst 11 of SSA's top economies.

Ghana was one of the 11 countries included in the standard bank study and results from the country suggests that urbanization in the country appears to be increasing. It is anticipated that by 2020, the urban population will be 60% compared with the current 45%.

Associated with the increased urbanization is a major threat to women's health as evidenced in a recent study conducted in Accra, Ghana. There appears to be the rising levels of obesity and hypertension in addition to challenges with sexual and reproductive health amongst women. In light of this, PharmAccess and The Embassy of Kingdom of the Netherlands (EKN) in Accra (Ghana) examined ways to provide input for development of a model for a network of women clinics with the view to developing a business strategy that meets their demands using demand assessment. The demand assessment is also expected to provide information on health consumption profile, lifestyle and daily activities of the participants.

Methods:

This was a qualitative study using Focus Group discussions (FGDs) and Individual In-depth Interviews (IDIs). Five FGDs and 30 IDIs were conducted amongst middle class women Accra and Tema Metropolitan areas. For the FGDs, purposive sampling was employed amongst five main groupings. Each grouping comprised of at least 10 people. Respondents for the IDIs were recruited through networking and snowballing. Interviews were recorded and transcribed verbatim. Responses with common themes and subthemes were aggregated and quotes reflecting these were produced for report writing.

Results:

The emerging themes and subthemes from the study ranged from 'lifestyle of respondents' to their perception on 'standard care' and if they were prepared to pay for quality care'. Respondents also spoke about the role of the National Health Insurance Scheme (NHIS). One of the respondents had this to say:

"NHIS but has expired. Am not motivated to renew because when you go to the hospital the process is long and the doctor barely has time. I would prefer my cash and carry" (IDI with a woman).

Conclusion:

Most middle class women have the same lifestyle and daily activities. They are interested in a model of network clinics which caters for their health needs.

Parallel session 4: Health policy

PS 04/5

Challenges and constraints of operationalization collaboration and decision making based on scientific evidence in health in Africa

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Justification

The West African initiative for capacity building through research on health systems was established in 2013 by IDRC in collaboration with the Organization of West African Health Organization (WAHO). Four research teams in Burkina Faso, Senegal, Nigeria and Sierra Leone were funded for 3 years.

This is an innovative initiative in many respects. This initiative 1- dedicates its financing teams based in West Africa; 2- promotes the integration of professional practitioners in research teams; 3- relies on steering committees involved in the monitoring of projects to better take into account the concerns of local stakeholders; 4- involves people who will be making decisions on the basis of the evaluation findings as priority when starting projects. 5- builds on WAHO leadership to ensure advocacy at the highest health authorities of the countries. The ultimate goal is to build capacity, break down barriers between research communities and those of decision makers and promote the establishment of a true culture of decision-making based on scientific evidence.

Objectives

Answer the following questions: how was the vision operationalized in Senegal? What are the perceptions of the comparative challenges and constraints experienced? What are the key results and lessons learned?

Methods

The research is based on the theory of change. The model of knowledge transfer used is that of NICE (2007) and the evaluation adopted Utilization-Focused Evaluation of Patton (1997). Qualitative data will be collected from research teams (academics, professionals involved, students), members of steering committees, policy makers and program managers through individual interviews or FOCUS groups. Secondary data were also collected.

Results

The results of our research show the difficulty in creating an enabling partnership for capacity building and the establishment of a permanent dialogue between the parties and the absence of a culture of partnership research vice versa as outdoors among academics and the members of steering committees. There are different perceptions of the role of differentials of each player.

Discussion:

Enhancing Knowledge on issues, constraints and results of the implementation of mechanisms to foster collaboration between the research community and practitioners and challenges to the decision-making mechanism based on establishment scientific evidence in environments where the crop is still not entrenched.

PS 04/6**Policy and implementation gap: a multi-country perspective**

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Widespread evidence on implementation indicates that health policies once adopted are not implemented as envisioned and do not always achieve the intended outcomes. The challenges associated with policy implementation gaps have been widely attributed to several factors ranging from problematic policies to lack of governance and resource. Yet countries in low and middle income in particular continue to experience these problems in their bid to translating policy into outcomes. This study seeks to understand the complexity associated with health policy implementation and why implementation gaps are increasingly widening in low-and-middle income countries despite countless evidence.

Methodology:

An interpretive synthesis of national health policies across four African countries was undertaken to provide insight into the processes and factors influencing implementation outcomes. This thematic synthesis of previous implementation studies explored different components of the health system yet revealed similar challenges associated with implementation gaps. Unpacking and comparing these experiences for Ghana, Botswana, Malawi and South Africa provided a multi-country perspective and insight to the complexities of transferring policy into outcome. This study builds upon the increasing interest and appreciation for synthesizing previous works in understanding health systems challenges affecting LMICs.

Findings and Conclusion:

Common factors contributing towards implementation gaps and policy failures across the four countries include: strategies adopted by governments for the implementation; limited and adhoc actor engagement and policy networking; the impact of power dynamics and politics; lack of trust among actors; community and institutional acceptance of the policies; lapses in knowledge, information and weak communication between policymakers and implementers; service delivery issues such as lack of resources, funding and support, quality of care; supervision, monitoring and evaluation; and leadership and governance. The study concludes that implementing health policies is rather a complex phenomenon that triggers unintended consequences and intangible factors often ignored by policymakers, yet have critical impact on policy processes and outcomes

PS 04/7

Post Doctorate Research Fellowship as a Health Policy and Systems Research (HPSR) Capacity Development Intervention: A Case of the Collaboration for Health Systems Analysis and Innovation (CHESAI) Project

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Building capacity in Health Policy and Systems Research (HPSR), especially in low- and middle-income countries remains one of the critical challenges for the field to support critical skills in Africa. Various approaches have been suggested and enacted by variable scholars and institutions on which form(s) of capacity building can help address challenges regarding HPSR development. The Collaboration for Health Systems Analysis and Innovation (CHESAI) project – a collaboration between the Universities of the Cape Town and the Western Cape`s Schools of Public Health have employed a non-research based Post-Doctoral Research Fellowship (PDRF) as a way of building African capacity in the field of HPSR. This paper aims to explore the innovations introduced through the CHESAI PDRF approach to build capacity among emerging HPSR researchers and practitioners in Africa. This also contributes to the debate on how to provide capacity to support health systems strengthening in Africa.

Drawing on critical reflections and interviews from the four CHESAI postdocs, their experiences were unpacked through critical narrative reviews to provide insights and evidence on how PDRF is a useful approach to capacity development for emerging researchers and practitioners in HPSR in Africa. The case study process was very iterative in nature and also involved a systematic step-by-step process starting from data collection to analysis. The synthesized narratives revealed that the CHESAI PDRF created multifaceted capacities among the post-docs for practice, research and policy engagements in the field of HPSR. The PDRF approach which was not solely research-based provided multiple spaces for engagements and capacity developments required in the field of HPSR. The findings also showed that institutions providing PDRF such as this must provide environments endowed with adequate resources, good leaderships and spaces for innovation. The PDRF must be grounded in a community of HPSR practice, provide opportunities for the post-docs to gain in-depth understanding and knowledge of the broader theoretical and methodological underpinnings of the field. Furthermore, the findings revealed how the CHESAI PDRF provided post docs with a wide range of experiences including teaching and research, policy networking, skills for academic writing, engaging practitioners, co-production and community dialogue. The study concludes that PDRF is a useful approach to capacity building in HPSR but it must be embedded in a community of practice for fellows to benefit. More academic institutions in African should adopt innovative and flexible support for emerging leaders, researchers and practitioners to strengthen our health systems.

PS 04/8**Results from the utilization analysis of the National health accounts in the implementation of policies, strategies and health reforms in Ivory Coast**

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In Côte d'Ivoire, three National health accounts exercises have been initiated (2007-2008, 2009-2010, 2013) to analyze financial flows in the health system and provide evidence to improve its performance.

This study on the results from the utilization analysis of the National health accounts was carried out to analyze their use in the implementation of policies, strategies and health reform in Côte d'Ivoire.

The literature review consists of an overview and interviews with some actors of the system and analysis of the data collected. They indicate that the government has strived to make care accessible to them, however, households still finance the bulk of the expenditures on healthcare through significant direct payments (51.08%). Moreover, government funding levels are still low (5.50%) with regard to Abuja target of spending 15% of government income on health. In total eighteen recommendations were made of which 33% are implemented and 39% are being implemented. The results of the National health accounts are somewhat used and provide decision makers with arguments of developing health system strengthening strategies. However, the development of policies, plans and strategies or reforms and their implementation, involving all actors is a long process that requires commitment to be successful. To enhance their use for developing appropriate strategies, the study recommends, to consolidate achievements, to set up a stock monitoring committee, to carry out specific studies to support decision making and to continue with the process of institutionalization of accounts.

Parallel session 4: Access to maternal health services

PS 02/9

The Application of Principal-Agent Perspective in the Analysis of the Formulation and Implementation of Free Maternity Services Policy in Kenya.

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Background- The objective under MDG 5 was to reduce maternal mortality rates (MMR) by three-quarters by 2015. In 2013, the Kenyan Government abolished user fees targeting maternal health services, subsequently introducing Free Maternity Services (FMS). The aim was to reduce the financial barriers to accessing maternal health care and reduce Kenya's MMR, which stands at 488 deaths per 100,000 live births.

Objectives- The broad objective of the project was to assess the policy process of Free Maternity Services in Kenya.

Methodology- Literature review.

Main Results- Three databases were used for the search strategy. A total of 34 articles were reviewed and 13 articles from organizational databases. Various health financing methods exist for maternal health care. Since independence, the primary mode of financing has been tax subsidies, exemptions from user fees, for maternal services. More recently government introduced OBA for poor WRA, and NHIF covers another 20% of WRA. FMS is a tax funded policy that in essence abolished users fees for maternity services at all public hospitals. Six principal-agent relationships were identified at the various hierarchical level of service delivery that are interdependent on the performance of FMS. The principal mode of reimbursement was per case payment for delivery. The reimbursement rates vary for the various KEPH levels, with curative services getting over 75% of the budgetary allocation. Of the incentives identified FMS can be viewed as a high-powered political incentive to politicians-presidency. The provider payment methods present low incentive for the HCP to improve QOC, and incentive to cream skim. Finally, the financing mechanisms under maternal health care reflect the broader fragmentation of the health care financing system in Kenya that is inequitable.

Reviewers Conclusion FMS is a policy that aims to address the inequities in access to maternal health care services and reduction of MMR. But there is need to exert caution and ensure the necessary institutional arrangements are strengthened and provide continuous monitoring of adherence to policy. Devolution is one of those situational factors that will determine the success or failure of FMS programme. There is need to define the roles and responsibilities of health care financing for the two levels of government. More importantly is how to address the multiple principal-agent relationships by designing the appropriate incentive structure.

PS 02/10

Access and Utilization of Maternal Health Care and Their Effects on Maternal Health in Kisumu County: A Multinomial Nested Logit Estimation

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Safe motherhood is prerequisite for reducing maternal related death emerging from pregnancy complications. Maternal health care during pregnancy is define in three phases: ante-natal, delivery and post-natal. In all these phases maternal mortality needs to be in check. This can be enabled through provision of access and promoting utilization of maternal health care to all expectant mothers. Maternal health is characterized by number of women who had safe expectancy period, delivered without complications naturally and surgically assisted and had no complications during the six weeks of post-natal period. The control group will be characterized by number of women who did experience complication in the three phases; expectancy; delivery and post delivery period Though, there are new initiatives such as Presidential decree of June 2013 on provision free maternal health care services in all public health utilities, there are still a number of expectant mothers who do not access and utilize these services.

Furthermore, the literature relating to access and utilization of maternal health care have not determined simultaneously the emerging supply (access) and demand (utilization) side factors. The main objective of this study is to determine access and utilization of maternal health care and their effects on maternal health using discrete choice modelling approach. Specifically, this study will determine extent of access and utilization of maternal health care in Kenya; measure effectiveness of access to maternal health care on maternal health; and determine whether utilization is of maternal health care is effective on maternal health. Cross-sectional survey data will be collected from health centres and mother who are at the expectancy stage, delivery phase and postnatal stage.

This study is anchored on health production model. The targeted population is 1000 mothers for cross-sectional data and a census of health service providers for maternal care within Kisumu County will provide a longitudinal data for five years for the three stages of maternal care. A multinomial nested logit estimation will carried out for the cross-sectional data and the longitudinal data will be estimated using linear dynamic panel estimation method. Access and utilization of maternal health is expected to improve maternal health care in all the stages of motherhood process. This study will benefit the health policy makers at the Ministry of Health and County Health Board to improve access and utilization of maternal health care. In so doing, maternal health complications arising from child birth and maternal mortality are likely to be reduced.

Keywords: Access, Utilization, Maternal Health, Multinomial Nested Logit, Linear Dynamic Panel.

PS 02/11

Non-use of insecticide treated nets (ITNS) among pregnant women in Central Africa

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Malaria during pregnancy is a major public health problem during pregnancy. It threatens indeed nearly 50 million pregnant women each year; at least 60% in Africa. The Plasmodium falciparum infection during pregnancy causes more than 500 000 child deaths each year in Africa (UNICEF, 2012). This problem is acute in the tropics and subtropics. Central Africa is no exception. Located in epidemiological area conducive to the outbreak of malaria endemicity, it consists of Country Group III according to WHO (the presence of strains resistant to chloroquine). In this sub region, malaria is the first cause of consultation (35-60% morbidity), with mortality rates of up to 70% (OCEAC, 2012).

In the literature on malaria in Central Africa, there are lots of writings on the epidemiology of malaria. However, there are few studies on the determinants of preventive therapeutic practices in pregnant women. However, the potential value of the contribution of social science to strategies against malaria is recognized: they can help in understanding the care seeking behavior and define the conditions of acceptability of care protocols (WHO, 1998). This study is in close line with MDG 6 "Combat HIV / AIDS, Malaria and other major diseases" that has not been achieved in these countries and have been extended under the SDGs.

The general objective of this study is to identify factors responsible for non-use of treated net by pregnant women in Central Africa and their evolution over time to provide public authorities with information that would enable them to make effective extension policies and programs of the use of the treated net. It will assess the level and the differential variations of the non-use of insecticide treated nets (ITNs) by pregnant women in Central Africa, to identify the profile of pregnant women who do not use the screen to identify and prioritize the factors that explain the non-use of mosquito nets by pregnant women in Cameroon.

This study uses data from the Demographic and Health Surveys (DHS) in four Central African countries. This is the Cameroon (EDS 1991 - 2011), Gabon (DHS 2004-2012), Rwanda (1992-2010), Chad (DHS 1996-2004). Descriptive statistical analysis methods will be used in order to raise the profile of women in the sub-region not using the insecticide treated nets (ITNs) during pregnancy. Logistic regression allow us to identify the determinants of the non-use of insecticide treated nets (ITNs) by pregnant women.

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PS 02/12

Utilisation of mother and child health services in Chad: rural sedentary and mobile pastoralist populations

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Background: Utilization of maternal and child health services is associated with improved maternal, neonatal and infant health outcomes. Considering Chad's high level of maternal and infant mortality, understanding the factors affecting utilization is crucial. Globally, through the prioritisation in the Millennium Development Goals, the international community has made important strides towards reducing maternal and child mortality. However, inequalities and large disparities in access to health care still persist within countries. According to the Sustainable Development Goals (SDGs) the reduction of inequalities is targeted with universal policies considering more the needs of disadvantaged and marginalized populations.

In Chad, over 75% of the total population lives in rural areas and 3.7% among them are mobile pastoralists. Remote rural zones are characterized by insufficiently equipped health centers and shortages of qualified health workers. Despite having to deal with a high burden of disease, mobile pastoralists in the Sahel hardly have access to health services because the provision of services adapted to their way of life is challenging. This study examines patterns and determinants of maternal and infant health services utilization among sedentary and mobile populations in two rural health districts in Chad (Yao and Danamadji).

Methods: A random household survey in both districts included 1284 respondents. The questionnaire covered among others the utilisation of maternal and infant health services and socio-demographic characteristics. We used multivariate generalised linear models with a random effect at household level to estimate utilisation rates and the factors that best predict the outcomes.

Results: 13% of the sedentary and 8% of the pastoralist mothers had skilled attendants at delivery. Only 2% of pastoralist against 49% of sedentary children were vaccinated with BCG. We observe that the utilisation of family planning techniques is particularly low among mobile pastoralists (4%) and in the Central Chadian district of Yao (1%). Utilisation of different health services was consistently significantly associated with a higher socio-economic status of the household and with being in Danamadji than Yao.

Conclusions: Utilisation of mother and child health services was low in rural Chad. Whereas utilisation rates of health services were systematically lower for mobile pastoralists, the dominant drivers for low health service utilisation seem to be economic and geographical factors. To foster more equal access in the light of the SDGs, next to improving the quality of services, adapted information for illiterate women and appropriate health financing schemes for poor households must be foreseen.

Parallel Session 5: Organized sessions

Organized session 9: Achieving the SDGs: How much will it cost, and how can we get there?

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Session background

While the world has signed up to the Sustainable development Goals (SDGs) to guide policies and programming for the next 15 years, there are as of yet few estimates of the investments required to make progress towards these targets, at national and global level. In order to achieve the Sustainable Development Goals, the two main health-financing challenges are how to raise more resources to support the interventions that need to be implemented, and how to prioritize and get the best value for money for current AND future resources. This requires analysis of the efficiency of the current benefit package (allocative efficiency) and of the delivery of that benefit package (technical efficiency) in order to avoid the 20-40% waste seen in many health systems. WHO has developed technical approaches and tools which can be applied in countries to help estimate resource requirements and set priorities in order to assist in the process of SDG attainment. This session will present WHO-led work to model the required investments in low and middle income countries in 2016-2030 for attaining the health SDGs, a tool kit for quantifying allocative efficiency using cost-effectiveness analysis, a country application of the tools in Malawi and the findings of a WHO meeting on the process of establishing HTA process in countries in order to support UHC.

Presentation 1: Achieving the health-related Sustainable Development Goals: what will it cost?

Karin Stenberg, Technical Officer, World Health Organization

While the world has signed up to the Sustainable development Goals (SDGs) to guide policies and programming for the next 15 years, there are as of yet few estimates of the investments required to make progress towards these targets, at national and global level. This session will present WHO-led work to model the overall required investments in low and middle income countries in 2016-2030 for attaining the health SDGs. It will present tools and methods that foster integrated planning and projection models – notably the OneHealth Tool, which to date has been used in over 40 countries to inform investment plans. The modelled resource needs consider health system-specific constraints, such as existing health worker shortages, and compare costs with projections around available financing.

Presentation 2: Making the case for priority setting to ensure efficiency in health system spending on the path to Universal Health Coverage

Melanie Bertram, Technical Officer, World Health Organization

In order to achieve the Sustainable Development Goals, two main health-financing challenges are how to raise more resources to support delivery of health interventions within an overall move towards Universal Health Coverage, and how to prioritize and get the best value for money for current AND future resources. Estimates indicate that achieving the health-related SDGs would require significant additional financing, thus careful priority setting is needed for both new and existing resources. This requires analysis of the efficiency

of the current benefit package (allocative efficiency) and of the delivery of that benefit package (technical efficiency) in order to avoid the 20-40% waste seen in many health systems.

One quantitative method which can help to assess allocative efficiency of resource use is generalised cost-effectiveness analysis. The WHO-CHOICE programme, based at WHO since 1998, promotes a form of cost-effectiveness analysis that serves the needs of *priority setting* in the health system. WHO-CHOICE asks the question *What is the best that can be done in the long term and in the absence of constraints?* WHO-CHOICE has undertaken a major update of global-level analyses and country contextualisation tools in order to facilitate global and country level dialogue on priority interventions to achieve the SDGs.

Preliminary results for the Eastern Sub-Saharan African region indicate the health benefit packages need to maintain focus on the MDG conditions to address the unfinished agendas of HIV, TB, Malaria and Maternal and child health. At the same time, highly cost-effective preventive interventions for the non-communicable diseases must be rapidly implemented in order to prevent the growing rise in NCDs as a leading cause of disease burden.

Presentation 3: Application of WHO-CHOICE and OneHealth Tool for benefit package design and National Strategic Planning in (Malawi)

Gerald Manthalu, Dep. Director, Head of Budget, Ministry of Health, Malawi

The Ministry of Health of Malawi and its development partners and stakeholders developed a new Health Sector Strategic Plan (HSSP) 2016-2021. As part of the Health Sector Reform Agenda, the Ministry of Health is exploring setting up a National Health Insurance Scheme. These two processes entail the need to review and redefine the Essential Health Package (EHP) as a basis for the next HSSP. The MOH Malawi engaged in a review process for the EHP which incorporated the use of economic evaluation as a consideration in benefit package design.

Malawi has been a long-term user of the UN-OneHealth Tool for estimating the resource requirements of implementation of their HSSP, with the 2016-2021 plan representing the 3rd application of the tool. A country contextualisation of WHO-CHOICE has contributed to discussions on EHP design. With the development of a generalized cost-effectiveness analysis interface in the Spectrum platform, the tools and processes for strategic planning and costing (OneHealth Tool) and priority setting (WHO-CHOICE) have been more closely aligned.

This presentation will describe the process and results of using WHO-CHOICE to establish priorities for the benefit package, and the OneHealth Tool to estimate resource needs and progress towards the SDGs of the 2016-2021 HSSP.

Presentation 4: The process of developing a Health Technology Assessment system: Report on the WHO Stakeholder Meeting

Tessa Tan Torres Edejer, Coordinator, World Health Organization

At the 67th World Health Assembly in 2014, resolution WHA67.23 called on WHO to develop global guidance on methods and processes for health technology assessment (HTA) in support of universal health coverage, and to provide technical support to countries to implement HTA processes in decision making. HTA is not a static concept or single approach, but is a decision making framework that must evolve in the context of a country or regional systems.

In 2015, the World Health Organization held a stakeholder meeting to establish the needs of member states in responding to this WHA resolution. The stakeholder consultation identified that *Supporting the development of appropriate principles to use HTA in health systems and decision-making* and *defining the components required for health systems to use HTA*

effectively and appropriately to support universal health coverage were two priorities for WHO to address.

To respond to these identified priorities, in September 2016 WHO, supported by the International Decision Support Initiative, will hold a consultation on process issues in developing an HTA system, focussing on the following key questions:

1. What are the steps of a generic mechanism/procedure to determine the inclusion of a health intervention/package of health interventions in a country for reimbursement and what are the guiding principles for the generic procedure?
2. What are the criteria and indicators being used by countries for determining priorities for reimbursement?
3. What are the processes for a country planning to set up or improve its HTA mechanisms/procedure that will take into consideration the country context encourage ownership and establish legitimacy among key stakeholders?
4. What are the minimum requirements for legal frameworks, technical and procedural capacity and financial resources that are needed to set up HTA mechanisms/procedures?

This presentation will report on the WHO consultation, communicating the findings of commissioned reports and the stakeholder meeting.

Organized session 10: Economics of new vaccines introduction in Africa

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Session background

Multiple additional new vaccines have been introduced in the last decade or are being considered for introduction in many of the Gavi-eligible countries. This session will focus on the economic and financial implications of these new vaccines that are being implemented either in routine programs or in campaign settings in Sub Saharan Africa.

Through presentation of field studies results, the cost implication of introducing or conducting a campaign with new vaccines will be analyzed and the illness-related costs that these vaccines can prevent (patient and health system perspectives) will also be further documented.

A presentation will look at the cost of illness of cholera disease and costs of cholera vaccination campaign in Malawi in Lake Chilwa area (JB Le Gargasson et Al). The second presentation will focus on the costs of pneumococcal meningitis and pneumonia in the Hauts-Bassins region of Burkina Faso (M. Lopez et al.).

A cost analysis of HPV vaccination in Kitui County, Kenya will be presented, drawing lessons from costing HPV vaccine introduction as a demonstration to inform plans for national scale up (A. Petu et al).

A fourth presentation will look at the costs of introducing pneumococcal, rotavirus and a second dose in Zambia (by U. Griffith) and discuss whether these expansions are sustainable.

The evidence generated by this type of studies is critical for both national and global level policy makers when assessing the value for money of new vaccines introduction but also when looking at the affordability and financial sustainability implications that are becoming increasingly pressing issues for these countries

Presentation 1: Cost of illness evaluation for cholera disease and cost of cholera vaccination campaign on Lake Chilwa and surrounding harbor population

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Background

The cost of cholera illness studies run alongside the reactive OCV campaign conducted in Lake Chilwa and its surrounding harbour populations provides an important reference for evaluating the cost-effectiveness of OCV campaign. The rural population around Lake Chilwa-southern Malawi, compared to other inland populations, has particularly limited access to improved water supply and sanitation during their stay on the lake. This increases their vulnerability, cost of illness and risk of death from cholera. This study aims to generate further evidence of the cost of cholera disease for these vulnerable populations.

Objectives

1. To measure the cost of cholera treatment for health service providers
2. To measure the cost of cholera for patients and their households
3. To measure the additional investment (public and private) in response to a cholera outbreak.
4. To measure the cost of implementing a cholera vaccination campaign, including delivery costs

The presentation will focus on the costs of cholera illness for households.

Methods

Cost-of-illness were assessed through interviews in households and health centers in Machinga, Phalombe and Zomba. Standardized questionnaires were used to gather data. A sample of 100 patient households and 5 facilities were surveyed. Data collected for the households' cost include sociodemographic, health, and health related expenditures, and income losses incurred in treating cholera. For the health facility, data collected include drugs, medical consumables, and health staff time costs for treating cholera. Additionally, all incurred in implementing the campaign will be collated to estimating the total cost of the campaign.

Preliminary findings

- The estimated cost associated with the treatment of one cholera episode is similar to that was found in Tanzania. Productivity losses i.e. loss of earnings due to illness for the patient and household members constitute the main cost driver.
- Data for the estimation of the health facility cost of treating a case of cholera are available for analysis.
- The process of collating the data for the assessment of the costs of the last cholera outbreak around Lake Chilwa is undertaken.
- The estimation of the overall cost of the campaign is also undertaken.

Conclusions

These results are expected to provide further evidence on the cost of cholera and cost effectiveness of cholera vaccination for decision makers at national and global level.

Presentation 2: Cost Analysis of HPV vaccination in Kitui County, Kenya

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Background

Annually Kenya experiences 4,802 new cases of cervical cancer, which is about a tenth of 45,707 new cases in the Eastern African. Crude incidence rate of cervical cancer is 22.5 per thousand with age-standardized incidence rate of 40.1 per thousand. Cumulative risk of 4.4 compares closely with contiguous rates from Eastern African regions. This pilot study was implemented in Kitui County to inform Kenyan Ministry of Health planners about the financial resources to be secured for HPV vaccine introduction

Objectives

To draw lessons from costing HPV vaccine introduction as a demonstration to inform plans for national scale up.

Methods

The demonstration project in Kitui County adopted a strategy to provide 3 doses of the HPV vaccines for every eligible girl between the age of 9 and 13 years old in schools. The estimated population of the female age group in Kitui was 20,934. School enrollment and attendance for the age bracket of 9 to 13 years was estimated to about 96%. Using program and cost data from a wide range of primary and secondary sources, the WHO Cervical Cancer Prevention and Control (C4P) tool was deployed to estimate the incremental costs of vaccination from a provider perspective. The costing exercise piggy-backed on an ongoing HPV vaccination in the Kitui County and obtained direct and indirect unit-cost data relevant to the delivery of

vaccines. Secondary data was obtained from direct interviews of key officials of the Ministry of Health, Ministry of Education, and County level health officials.

Findings

Analysis showed 17,219 eligible girls attending 1,326 primary schools in Kitui County were fully immunized out of the 20,934 girls that were eligible for HPV vaccination in 2014. The costs per fully immunized girl with the vaccine costs was US\$20.67 (KSh 1,785.86) and US\$43.77 (KSh 3,781.80) for the financial and economic costs respectively, while the costs without vaccine cost were US\$18.69 (KSh 1,615.04) and US\$26.323 (KSh 2,274.01) for the financial and economic costs respectively. The financial and economic costs per dose administered were US\$6.68 (KSh 577.25) and US\$14.15 (KSh 1,222.40) respectively, including vaccine costs, while the respective financial and economic costs per dose administered excluding vaccine cost were US\$6.04 (KSh 522.03) and US\$8.51 (KSh 735.04). Service delivery, and micro-planning were cost drivers at 34% and 19%.

Conclusions

Kenya faces significant incremental costs for a nationwide introduction of HPV vaccines to cover the population of eligible girls. Kenya may need to review its preferred schools-based strategy to explore other combination of strategy which may be less costly.

Presentation 3: The costs of pneumococcal meningitis and pneumonia in the Hauts-Bassins region of Burkina Faso

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Background

Streptococcus Pneumoniae (Sp) is a leading cause of meningitis and pneumonia morbidity and mortality worldwide, with low-income countries such as Burkina Faso bearing the highest burden. Estimating the costs of pneumococcal disease is necessary to understand the economic impact of the recently introduced 13-valent pneumococcal conjugate vaccine (PCV13).

Objectives

To determine the costs of pneumococcal disease, specifically meningitis and pneumonia, for households and the public health system in Dafra, Do, and Hounde districts in the Hauts-Bassins region.

Methods

The study used a micro-costing approach from a societal perspective. Data was collected for the year 2015. Four pre-defined questionnaires were used for households, health centers, laboratories, and the Ministry of Health (MoH). We sampled households of all identified Sp meningitis cases (n=28) and a representative sample of all-cause pneumonia cases (n = 64); the 3 district hospitals; primary health care facilities (n=26) representing 37% of all facilities in the districts; the laboratories at district level (n= 3) and one reference laboratory (Centre Muraz); and MoH offices in the districts (n=3), the region (n =1) and national (n=1). Both hospitalization and outpatient costs were included. Costs included direct medical costs (costs of consultation, hospitalization, analysis and medicines), direct non-medical costs (transportation, telephone) and indirect costs (lost income for patient or main caregiver as a result of the disease episode).

Findings

Households spent on average US\$124 per pneumonia case and US\$162 per Sp meningitis case in 2015. The latter is above the average monthly income of caregivers in the sample (US\$135). On average, urban costs (\$184 for Sp meningitis and \$178 for pneumonia case) were higher than rural (\$149 for Sp meningitis and \$178 for pneumonia case). Sp meningitis patients stayed longer than pneumonia patients at hospitals (7 vs. 4 days) but pneumonia patients had more consultations (4 vs. 3 consultations). Direct medical costs (consultation, hospitalization and medicines) and indirect costs (revenue loss for patient and main caregiver due to the disease episode) each constituted nearly half of the total cost to households while direct non-medical costs (transportation, food, telephone calls) contributed around 10%.

Conclusions- Sp meningitis and pneumonia have substantial economic costs to households, in addition to those to the health system. These data underscore the potential benefits of vaccination strategies in the affected region.

Presentation 4: Costs of routine immunization and the introduction of new and underutilized vaccines in Ghana

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Background:

Limited knowledge exists on the full cost of routine immunization in Africa. Ghana was the first African country to simultaneously introduce rotavirus, pneumococcal and measles second-dose vaccines. Given their high price, it would be beneficial to Ghanaian health authorities to know the true cost of their introduction.

Material and Methods:

The economic costs of routine immunization for 2011 and the incremental costs of new vaccines were assessed as part of a multi-country study on costing and financing of routine immunization known as the Expanded Program on Immunization Costing (EPIC). Immunization delivery costs were evaluated at the local facility, district, regional, and central levels. Stratified random sampling was used for district and facility selection. We calculated the allocation of nationwide costs to the four health-system levels.

Results:

The total aggregated national costs for routine immunization – including vaccine costs – equaled US\$ 53.5 million during 2011 (including central, regional, and district costs); this equated to US\$ 60.3 per fully immunized child (FIC) when counting vaccine costs, or US\$ 48.1 without. National immunization program delivery costs were allocated as follows: local facility level, 85% of total national cost; district, 11%; central, 2% and regional, 2%. Salaried labor represented 61% of total costs, and vaccines represented 17%. For new vaccine introduction, programmatic start-up costs amounted to US\$ 3.9 million, primarily due to salaried labor (66%). The mean facility-level cost per vaccine dose administered in a routine immunization program was US\$ 5.1 (with a range of US\$ 2.4–7.8 depending on facility characteristics) and US\$ 3.7 for delivery costs.

Conclusion:

We identified a high cost per fully immunized child, mostly due to non vaccine costs at the facility level, which indicates that immunization program financing – whether national or donor-driven – must take a broad viewpoint. This substantial variation in overall costs emphasizes the additional effort associated with reaching children in various settings.

Parallel Session 5

Parallel session 5: Human Resources for Health: country experiences

PS 05/1

Medical demography in Algeria: education, activities and territorial distribution

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The objective of this paper is to draw up an inventory of medical demography in Algeria and analyze inequalities in the distribution of medical specialists in the territory between 1999 and 2010. These data were transformed; others were built in all medical and surgical specialties (33 in total).

Three statistical techniques were used: Gini index, hierarchical clustering (AHC) and the method of classification by dynamic clustering (k-means).

The results show that the increase in private-sector health provision required a large number of medical and surgical specialties. The number of specialists has doubled between 1999 and 2010, with an average annual growth rate of 10% over the period. In some specialties, the private sector offer is higher than the tender offer, which calls into question the principle of continuity of public service. Regional disparities have widened over time. About 39 out of 48 wilayas (provinces) concentrated 40% of all doctors. These are the formerly well-endowed wilayas that continue to attract doctors. The sacrosanct principle of freedom of installation maintains or even increases inequality initially observed. These inequalities can be explained by the fact that doctors are not willing to settle in rural and / or isolated and are mainly concentrated in urban areas.

Incentives can be taken to reduce these inequalities that undermine the principle of equity in access to care. The observed disparities directly affect access to care for populations located in the territories deficit of doctors. This makes difficult the achievement of two Millennium Development Goals (MDG4 and MDG5).

Keywords: doctor, inequality, Gini index, OMD, Algeria

PS 05/2**Mobilization 2.0. of District Management Teams (DMTs) Experience as response to health challenges in Benin and Guinea**

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In sub-Saharan Africa, health systems remain weak despite the inclusion in the agenda of most organizations as a priority for action in health systems strengthening. Indeed, health systems strengthening interventions often implemented at the central level have more collaboration with the Global Health Initiatives.

To overcome these shortcomings, the health services benefits of the Communities of Practice (CoPs) have developed a project called Mobilization 2.0 at District Management Teams (DMTs), funded by UNICEF to meet the needs of people in general and prone epidemic diseases in particular.

The Project is implemented in Benin and Guinea (Conakry) and started in January 2016. It consists of 4 parts:

Component 1 involves the collection of data by the DMTs on their capabilities and implemented activities to respond to potentially epidemic diseases, followed by completing this information on an electronic form. Then the data are analyzed and the results are set on the electronic platform.

Component 2 is the sharing of experiences and knowledge between peers (DMTs) on the results. It will contribute to assist districts struggling to improve.

Component 3 is the use of social media. A Facebook page is used to inform the public about the health challenges through quality information and management of rumors.

Component 4 is action research to assist the other components through guidance to manage uncertainty and adapt strategies and interventions to achieve optimal mobilization of DMTs.

The Project is in its infancy and by September 2016 we will have more in-depth lessons of the Initiative. To date, the Facebook page (SAGA Health) has over 1,700 members and is run daily. The approach is complementary to the efforts of the central level to bring greater accountability of DMTs, a peer control, participation in team and greater accountability through viewing results online.

PS 05/3**Specialist training as an incentive to retain doctors in Malawi: a discrete choice experiment**

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Background:

Emigration has contributed to a shortage of doctors in many sub-Saharan African countries. Specialty (residency) training is highly valued by doctors and a potential tool for retention, yet not all training may be valued equally. We carried out a discrete choice experiment to ascertain the preferences of Malawian doctors for different types of specialty training.

Methods:

A literature review and semi-structured interviews were carried out to identify attributes and levels, which included: salary, location before training, time before training, location of training and specialty. An efficient design was used to construct 16 generic choice tasks with an opt-out option. All Malawian doctors within five years of graduation and not yet in specialty training were targeted, with 140 participants out of 153 eligible. A latent class model was used to analyse choice data and calculate a novel measure of willingness to stay. Policy simulations were run to assess strategies for maximising retention and increasing uptake of priority specialties.

Results:

Doctors preferred timely training outside of Malawi in core specialties (general medicine, general surgery, paediatrics, obstetrics & gynaecology). A doctor would work for an additional 1.3 to 8.5 years if guaranteed training in their 1st choice core specialty, but just two to five months for an extra 10% in basic salary. Training undertaken in Malawi would require a 36% to 79% increase in basic salary and training in ophthalmology, representing a bundle of unpopular but priority specialties, would require a 200% to 350% increase. The best model fit was found with four latent classes. These represented groups of doctors with distinct preferences, including the rich rejecters (high current salary, frequently refused jobs); the money motivated (greatest preference for salary increases); the stubborn specialists (strong specialty preferences with little flexibility); and the pliant patriots (flexible specialty preferences, no preference for training outside Malawi). Policy simulations showed that time spent working in rural areas of Malawi could be increased in most groups in exchange for training in core specialties, but providing incentives to improve the uptake of priority specialties is only effective for pliant patriots.

Conclusions:

Despite evidence that specialty training is highly sought after, Malawian junior doctors do not value all training equally. Policymakers can exploit differences in preferences to support workforce planning and improve retention.

PS 05/4

Clinical Capacity of Primary Health Care Providers in Ghana: From Mapping Capacity to Closing the Gaps

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Ghana is currently pursuing several policy directions to strengthen PHC at the community level. Against this backdrop, the NHIA introduced capitation payment for PHC in one region in 2012 to encourage more efficient and effective service delivery focused on prevention. Capitation is based on a fixed payment to a preferred provider (PPP) for each enrolled person to provide all PHC services defined in the capitation package for a fixed period of time. There were challenges with the capitation pilot, including highly variable capacity of PPPs to deliver the package. As the NHIA continues with capitation scale up, it is critical that all stakeholders have information about the capacity to deliver the capitation services, where gaps exist, and options for closing capacity gaps. The purpose of this study is to complete a provider mapping exercise and baseline assessment of clinical capacity that is now informing policies on PPPs and strategies for closing capacity gaps.

Methods

Capacity was assessed against a set of criteria developed through consensus by a multi-stakeholder group related to staffing, equipment, and hours of operation. District health officers completed a questionnaire for all providers in each district to record current capacity. The GIS coordinates of each health facility were recorded to create maps according to health facility characteristics and capacity. The sample includes a census of 899 CHPS compounds, which deliver community-based PHC, health centers, clinics, and hospitals at all levels, both public and private in three regions.

Key Findings

Only 12% of all providers currently meet the criteria to deliver the full capitation package. Using these criteria, 65% of sub-districts in the three regions would have no PPP. When the capacity criteria were relaxed to allow nurses and midwives to substitute for physicians and medical assistants, still only 40% of providers met the criteria. If the reduced criteria were applied, 14% of sub-districts in the three regions would have no PPP.

Conclusions

The capacity gaps found in this study are consistent with the overall human resources for health situation in Ghana, where there are fewer than two health workers per 1,000 population and 40% of those are categorized as non-clinical. The mapping results suggest a multi-pronged approach to close the capacity gaps for an essential package of prevention and primary care services to be accessible in Ghana, including: (1) re-distributing human resources; (2) investing in and upgrading PHC; and (3) bringing providers together into networks, including public-private networks in some places.

PS 05/5**Applying Workload Indicators for Staffing Needs (WISN) Method to Determine the Staffing Level of Nurse Professionals in Black Lion Specialized Referral Hospital**

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Introduction

Critical human resources shortages, particularly in low-resource settings, require that we not only develop long-term strategies for increased production and retention of health workers but more importantly that we strengthen the productivity and performance of the workforce we have so as to get the best possible results and the highest impact with existing resources. The workload indicators for staffing needs (WISN) which later revised by WHO measures the number of health workers per cadre based on the workload of a particular health facility and provides basic indicators to assess staffing levels by determining the gap/excess between current and required number of staff as well as measures the workload pressure on the existing health workers.

Objective

The purpose of this operational research is to determine the staffing requirement of nurse in various departments/service areas of the Black Lion specialised referral hospital using a facility based data routinely generated through the Health management Information System (HMIS).

Methodology

To determine how many nurse professionals are required to cope with all the workload components of nurses in the hospital the annual service output statistics data for each health service activity was collected for the year 2014-2015. Then we estimated the annual available working time. Finally we divided annual workload for each workload component (from annual service statistics) by its respective standard to get the number of health workers that is required for the activity as well as determine the workload.

Findings

The annual service output data of black lion hospitals showed that outpatient services have been provided for 270,000 patients. The total number of patients admitted to the inpatient wards for the same period is 18,178 with 4.8 average days of hospital stay. The total number of patients admitted to emergency medical service unit of the black lion hospital is 24,363. The staffing level of nurses for inpatient wards and Emergency service unit is 110 and 40 respectively. The result showed that the annual workload of a nurse working in inpatient ward and emergency service unit is 793 and 603 respectively. The workload analysis showed that the daily workload of a nurse working in the inpatient ward is four (4) patients. Similarly the daily workload of a nurse working in the emergency service unit of the hospital is three (3).

Conclusion: the result of the WISN analysis showed that black lion specialized hospital is understaffed with regards nurse staff, nurses working in the studied service area experienced high work pressure in their daily work. The hospital management shall revise the staffing level of the nurse professionals by taking in to account the gap between the current and required staffing levels

Parallel session 5: Universal Health Coverage monitoring and evaluation

PS 05/6

Comparative study of mutual health performance in Senegal: what are the lessons for extension of universal health coverage?

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Justification

In Senegal, only 20% of the population has health insurance. This is primarily for formal sector workers and their dependents. Payment at the point of care delivery remains a major obstacle to the use of health services in the informal sector and rural areas, which represent nearly 80% of the population. Therefore, one of the priorities of extending health coverage is based on the development of mutual health organizations (MS) with focus on this clientele. The objective of the Ministry of Health and Social Action (MSAS) is to increase the coverage rate of these organizations by 13.6% in 2012 to 65.5% in 2017. The policy is supported by USAID, which has been financing some demonstration projects to extend health insurance coverage through MHO in the context of Decentralization and Health Insurance (Decentralisation de l'Assurance Maladie) (DECAM) since 2012. The pilot phase covers some counties.

Objectives

The objective of this study is to compare the performance of MS-supported project DECAM and other MS who do not benefit from the intervention in terms of penetration rate among target populations and enrollment of the destitute, collection of contributions, governance, health care ratio of spending on operating expenses, contribution to the financing of supply and access of target populations to health care.

Methods Quantitative data will be drawn from a national survey databases conducted in 2015, of the routine collection as carried by Abt Associates and DECAM officials and other secondary sources. A representative sample of both categories of MS will be realized. The qualitative data from interviews and focus groups with leaders and members of MS, enlisted destitute beneficiaries of subsidies for the payment of contributions and the heads of health facilities and are drawn from the national survey.

The analysis of quantitative data will be done using SPSS software and the data with qualitative data-QDA Miner.

Results

The study of MHO in comparative perspective will enable us understand the performance of both categories of MS and to evaluate the DECAM capacity to contribute significantly to achieving the objectives of the Senegalese extension strategy for health coverage.

Discussion

The results of the study will provide policy makers with evidence for decision making for effective and efficient operationalization for health insurance coverage extension through mutual health funds.

PS 05/7**Monitoring and Evaluating Progress towards Universal Health Coverage in Zambia**

Benjamin Nganda, Buleti Nsemukila, Shebo Nalishebo, Hussien Chanda, Laurent Musango, and Solomon Kagulura.

Monitoring progress towards universal health coverage (UHC) – ensuring that everyone who needs health services is able to get them, without undue financial hardship – is critical to achieving the sustainable development goals (SDG) health outcomes goal and that of ending extreme poverty by 2030. Monitoring UHC in countries serves to ensure that progress towards UHC reflects a country's unique epidemiological and demographic profile, health system and level of economic development and the population's demands and expectations. Given the widespread interest in accelerating progress towards UHC in countries, there is value in standardizing measures to that they are also comparable across countries and over time. It was in this context that the World Health Organization (WHO) and the World Bank (WB) partnered in 2014 and proposed a framework aimed to encourage countries to adopt a common approach to monitoring UHC and measuring progress with internationally standardized indicators. The Framework provides indicators and targets for three dimensions relevant for UHC – coverage of essential health services (preventive and treatment), coverage of financial protection (catastrophic health spending and impoverishment due to out of pocket spending), and equity in coverage. The ultimate goal of UHC with respect to service coverage is that everyone can obtain the essential health services they need, that is, 100% coverage. It is practical to set targets based on empirical baseline data and past trends in the whole population and among the poorest, taking into account issues in measuring need and effective coverage. The latter is not easily measurable, making it exceedingly difficult to realize this goal.

The WHO Regional Office for Africa (WHO-AFRO) desiring to build country specific 2015 baselines for monitoring progress towards UHC commissioned a number of country studies to be undertaken using the framework in Botswana, Lesotho, Namibia, Swaziland, Zambia, and Zimbabwe. This paper presents the results of applying the framework for Zambia.

The percentage of the demand for contraception that is satisfied was estimated at 63.8% in 2013/14. Urban women had highest at 73% compared to women in rural areas at 57.3%. Women with more than secondary education had highest at 79.1% while those with no education had lowest at 53.1%. Correspondingly, women in highest wealth quintile had highest level at 78.4% compared to women in the lowest wealth quintile at 49.1%. Women with at least four antenatal visits were estimated at 55.5% in 2013/14 with little difference between urban and rural areas. The proportion of women with at least four antenatal visits declined from 71.6% in 2001/2 to 60.3% in 2007. Measles vaccination in children was estimated at 84.9% in 2013/14 with children in urban areas having highest levels at 89.3% compared to rural areas at 82.8%. Children from mothers with more than secondary education had highest levels of measles vaccinations at 91.5% compared to 75.6% for children from mothers with no education. This was equally true for children from highest wealth quintile at 92.7% compared to those children from lowest wealth quintiles at 80.9%. Measles vaccination remained unchanged being 84.9% in 2001/2, 84.4% in 2007 and 84.9% in 2013/14.

Only 63.1% of the population was using an improved drinking water source with highest levels in urban areas at 89.2% compared to rural areas at 46.9%. The population with access to improved sanitation was at 27.3% with urban population access at 39.2% compared to rural areas at 19.7%. The situation improved slightly since 2007 from 23.9% with urban and rural access levels at 43.7% and 12.9%, respectively.

Non-use of tobacco was estimated at 98.4% for women aged 15-49 compared to men of the same age category at 80.7%. While there was little difference in non-use of tobacco for women in urban and rural areas estimated at 98.6% and 98.3%, respectively, non-use of

tobacco was highest for urban men at 83.1% compared to their rural counterparts at 78.6%. Moreover, more educated and relatively wealthy women and men were less likely to use tobacco when compared to their counterparts with no education and of lowest wealth status.

For coverage of treatment health services, 64.2% of women were delivered by a skilled provider. This was highest for mothers aged less than 20 at 70.1% compared to older women aged 35-49 at 54%. Women from urban areas were more likely to be delivered by skilled providers at 88.5% compared to women in rural areas at 51.6%. In addition, women with more than secondary education were more likely to be delivered by skilled providers at 95.6% and so were women from highest wealth quintile at 94.3% compared to women with no education and from lowest wealth quintile at 46.2% and 45.2%, respectively. There has been improvement in the proportion of women attended to by skilled birth providers from 43.4% in 2001/2 to 46.5% in 2007 and 64.2% in 2013/14.

In terms of coverage and equity of financial protection, the vast majority of Zambians (97%) did not have any health insurance. For those with health insurance, 2% have employer-based insurance and less than 1% has other types of health insurance. Using the threshold of 40% of non-food household expenditure, 4.8% of Zambians incurred catastrophic spending in 2006 increasing to 8.1% in 2010. In terms of equity, household health expenditures of more than 40% threshold of non-food expenditure stood at 2.8% for rural households compared to 3.2% for their urban counterparts in 2010. On impoverishment indicators using poverty head count, 2.2% of Zambians were impoverished in 2006 as a result of Out-of-Pocket (OOP) health expenditures increasing to 3.7% in 2010. Using the concept of poverty gap to determine households for which OOP spending pushed them below the poverty line, the impoverishment gap for 2006 was 3.8% increasing to 9.2% in 2010. In terms of equity, impoverishment head count for the poor was 0.3% in rural areas and 6.8% for urban areas in 2006 increasing to 1.6% and 7.2% in 2010, respectively. In 2010, the impoverishment head count was highest for female headed households at 4.5% compared to male headed households at 3.4%.

The study concludes that despite the Zambian Government's efforts to ensure universal health coverage, there still exists inequalities with respect to coverage of essential health services provision that are biased towards the urban areas. Also, the absence of mechanisms to enhance financial protection among service users to increase access to needed services has slowed Zambia's progress towards UHC. However, the study concludes that Zambia has the necessary infrastructure and systems to monitor and evaluate progress towards UHC. But in order to conform to the proposed WHO/World Bank framework, there is need to harmonise and align these systems to compliment the already existing efforts in health system strengthening.

PS 05/8**Assessment of Readiness for Monitoring and Evaluation and Baseline Analysis of Universal Health Coverage in Uganda***Grace Kabaniha, World Health Organization, kabanihag@who.int**Dr. Sarah Byakika, Ministry of Health Uganda, sarahbyakika@hotmail.com; Plot 6/P.O. Box 7272 Lourdel Rd, Kampala, Uganda**Mr. Brendan Kwesiga, Management Sciences for Health (MSH); 6 Kafu Road, P.O Box 71419, Uganda, Kampala kabesindira2@gmail.com**Dr. Alemu Wondimagegnehu; World Health Organization- Country Office Uganda. P.O.Box 24578, Lower Kololo, Uganda***Background**

Uganda has expressed commitment to Universal Health Coverage (UHC). Consistent with the need to harness the benefits of UHC enshrined within the aspirations of the sustainable development goals, there is need ensure that progress towards UHC is adequately monitored. In this study, we assessed the readiness of the country systems for Monitoring and Evaluation (M&E) for UHC in Uganda's health system.

Methods

We used a qualitative approach using both secondary and primary data sources. Primary data was collected through key informant interviews. Secondary data was collected through review of literature including key policy documents, published and unpublished literature relevant to monitoring and evaluation for UHC. The M&E framework developed by World Bank and World Health Organization was used to assess the readiness of the M&E Systems as well as to conduct a baseline assessment of UHC in Uganda.

Findings

Uganda has in the past implemented reforms in line with the principles of UHC. More reforms are planned although most are at policy dialogue level and have not yet been implemented. The Proposed monitoring and evaluation (M&E) framework does not comprehensively address all key indicator domains as per the International Health Partnerships (IHP+) framework for M&E. Indicators specific to monitoring UHC such as financial risk measures were also missing in the health sector M&E plan. Although the M&E plan specifies the roles and responsibilities of the stakeholders, there are challenges including a lack of an institutional lead for M&E within the health sector and inadequate human resources (both numbers and skills/capacity). Progress towards UHC as per the baseline indicators shows that Uganda is making steady progress albeit below global bench marks for various indicators (both the aggregate achievement and also the equity dimensions).

Recommendations and Conclusion

Uganda will need to invest into ensuring that the adequate health system inputs are in place to achieve and monitor progress towards UHC. It is imperative that the M&E indicators recommended in the WHO/World Bank M&E framework for UHC are included into Uganda's M&E Plan to enable monitoring progress towards UHC. Lastly, there is need to strengthen institutional and human resource capacity to ensure adequate monitoring of UHC in Uganda to ensure regular monitoring of progress towards UHC.

PS 05/9

Universal health coverage in Burkina Faso: database to track progress

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1. Introduction

The UN General Assembly in September 2015, adopted the Declaration on 2030 Agenda for Sustainable Development. This Universal health coverage (UHC) programme is one of the 13 targets of the Sustainable Development Goals (SDGs) on health which is to "allow everyone to live healthy and promote the welfare of all at any age." The United Nations Declaration on the Sustainable Development Goals (SDGs) adds that to "Ensure healthy lives and promote the well-being for all at all ages" ... "To promote physical and mental health and well-being and to extend life expectancy for all, we must achieve universal health coverage and access to quality health care. No one must be left behind. In the same vein, referring to the report by the World Health Organization (WHO) entitled « *Health in 2015, from Millennium Development Goals to Sustainable Development Goals* », the Director General of WHO said in her end of year message that "Universal health coverage is the target that underpins and key to the achievement of all other health-related goals and targets." The Universal health coverage (UHC) has become the focus of the Sustainable Development Agenda in the health sector.

In order to assist countries and the international community to monitor the changes that will be made in this area, the World Health Organization (WHO) and the World Bank (WB) proposed a framework for monitoring progress at country and global levels (2). This framework has set as objectives to inform and guide discussions on (UHC) and the evaluation of the comprehensive and equitable availability of essential health services, on the one hand, and the financial risk hedging related to health, on the other hand.

Like all other countries, Burkina Faso, a country in West Africa which has 17 million inhabitants and an area of 250,000 km² is committed to achieving the SDGs. The agenda, dubbed as Sustainable Development Goals (SDGs) took over officially in January 2016, so it becomes important for the country to establish the **Universal health coverage (UHC) baselines** for better monitoring of progress.

2. Materials and methods

The main variables used are: health services coverage (treatment and prevention), direct spending as a share of the current health expenditure, the rates of household catastrophic expenditure, the depletion rate and the index of the Universal health coverage (UHC). The indicators related to health services coverage and health care coverage were chosen taking into account the guidance document entitled "Universal health coverage: Monitoring progress towards UHC at country and global levels" of WHO and WB groups (1). To determine the numerical value of certain indicators, additional calculations were made using an Excel spreadsheet based on a combination of raw data available in official reports. The figures were also constructed in this spreadsheet. The UHC index was calculated according to the methodology developed by A. Wagstaff with a representation on Cobb-Douglas curve.

1. Study Results*1.1. Health services Coverage*

For access to care, the 12 indicators proposed by WHO were used (1). These indicators shown in the following table:

For preventive care:

- 1 Unmet need for family planning
- 2 Coverage of prenatal consultation (CPN4)
- 3 Coverage of child immunization against measles
- 4 Access rate to drinking
- 5 Access rate to adequate sanitation
- 6 The proportion of non-smokers

Care for treatment

1 Birth rate

2 Proportion of PLHIV on ART

3 TB detection rate

4 TB cure rate

5 Proportion of hypertensive patients under anti-hypertension treatment

6 Proportion of diabetics under anti-diabetic medication

An overall average was calculated for each group of indicators. The total weighted average for preventive care by assigning a weight of 50% for both indicators of access to water and sanitation and a weight of 50% for the other 4 indicators. In care treatment, the average is not weighted because all indicators are in the same sector of activity namely the health system.

For care and prevention services indicators, the overall average is 58.3% with a disparity between urban (79.0%) and rural areas (52.7%). In terms of processing services, the overall average is lower, with 50% also representing a significant gap between urban (59.7%) and rural areas (35.3%) 5. The figure shows that six indicators indicate a level below the overall average. It supported effective Family Planning (FP) needs (16.2%), coverage of prenatal consultation (CPN4 33.7%), proper sanitation (49.5%), treatment against hypertension (30.3%), against HIV (42.0%) and the detection of TB cases (31%).

1.1. Direct healthcare expenditures

The World Health Organization (WHO) estimates that when direct healthcare payments are below 15 and 20% of total healthcare expenditures, the impact of these direct healthcare payments on the financial disaster is negligible (7.8). In Burkina Faso, the direct healthcare payments by households are the first source of health financing. It represented 36.8% of total current healthcare expenditures in 2013. This high share of direct healthcare payments by households is unfavorable for protection against financial risk.

1.2. Catastrophic health expenditure and impoverishment rate

1.1 The direct healthcare payments can plunge households into financial disaster or even lead some of them into impoverishment. Catastrophic health expenditure (CHE) occurs when a household spends more than 25% of its non-food expenditure on health care (1). Households facing financial catastrophe can then switch to impoverishment after care if they are below the poverty line. Other households on the other hand who are already under the poverty line and who have incurred health expenditure have become more impoverished (5.6).

Based on these concepts, 1.43% of households have incurred catastrophic expenditures in 2009 (Table 2). The impoverishment rate was 1.72% in the same year (9) is almost 45 000 households. Depending on the place of residence, household and quintile of economic well-being, the rate of loss related to the direct healthcare payments varies considerably as the following table shows. It reached 7.67% in the poor (quintile 2) compared to only 0.04% among the richest (quintile 5).

1.3. Index of universal health coverage

Referring to the methodology developed by A. Wagstaff of calculating the UHC index in Burkina Faso was conducted taking into account the levels of financial protection (FP) and health services coverage (10,11). The formula used is as follows: UHC Index = financial protection (FP) index_{0,5} x health service coverage index_{0,5}.

The financial protection index provides the level of protection of the population against financial risk due to health expenditure. It is obtained from the impoverishment rate (1.72%) and Percentage of those who have incurred catastrophic health expenditure (1.43%) taking into account the minimum and maximum levels. We get: PF Index = 9.5%. The coverage index in health services resulting from the combination of the levels of coverage of prevention and treatment services. The twelve indicators proposed by WHO were used to calculate Healthcare Satisfaction Index (HSI). We get: Healthcare Satisfaction Index (HSI) = 20.2%. The UHC index is equal to 13.9. Referring to Cobb and Douglas, Figure 25 shows the position of the UHC index level of Burkina Faso taking into account the different levels of UHC index.

PS 05/10**Monitoring progress towards the Universal Health Coverage in Côte d'Ivoire: basic situational analysis**

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Universal health coverage (UHC) means that all people receive the health services they need without suffering financial hardship when paying for them. The full spectrum of essential, quality health services should be covered including health promotion, prevention and treatment, rehabilitation and palliative care. UHC requires coverage with key interventions that address the most important causes of disease and mortality. This definition contains three interlinked objectives:

- Equitable access to essential health services - all people should receive the health services they need without suffering financial hardship when paying for them.
- Quality - A main objective of UHC is for the quality of health services to be good enough to improve the health of those receiving services.
- Financial Protection - the cost of care should not expose users to financial hardship.

Tracking these objectives towards achieving UHC requires a basic situational analysis.

This study was conducted in Côte d'Ivoire, through four specific objectives: 1) identify health risk protection mechanisms and identify populations covered; 2) identify and analyze the level of coverage of essential services; 3) identify and analyze the level of financial risk protection; and 4) clarify the current level of monitoring indicators of progress towards UHC.

It appears from this study that although care has been improved to provide quantitative care, there remains inequality in all the three dimensions of UHC coverage at the expense of rural areas, the poorest populations, the North and the West.

A regular assessment of progress monitoring UHC indicators will develop effective strategies to enhance the quality of care provision and financial protection of the population, in order to increase the accessibility of health services and their effective use by the population.

Parallel session 5: Results-based financing

PS 05/11

The quest for a national results-based financing model: innovation, learning and building from multiple pilots in Uganda.

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Background and Rationale: Results-Based Financing (RBF) that links payments to providers or consumers to quantitative or qualitative indicators has been promoted as an innovative mechanism to improve the performance and resilience of health systems towards universal health coverage. However, there is limited documentation of how and why the design and institutional arrangements of RBF projects implemented within the same health system change overtime. In Uganda, several RBF models have been implemented between 2003 and 2015. This paper examines how RBF models in Uganda have evolved over this period.

Methodology: This was a qualitative research and the data on RBF designs was collected through document/literature review and key informant interviews. Comparison of RBF models was done by drawing on concepts from complex adaptive systems theory and variations in the general design of RBF pilots are a result of progressive learning and efforts to circumvent health systems constraints.

Key findings: This study covered seven RBF schemes implemented in Ugandan health sector since 2003. The designs and institutional arrangements for these schemes evolved in several aspects: 1) Actors in the pilots – NGOs played prominent roles in most pilots and the private providers were more involved than public providers 2) Benefit packages - demand side schemes offered majorly maternal and child health services while supply side schemes provided wider (but limited) service packages. Packages of services were designed to address MDGs donor concerns and less from service needs in the communities. 3) Health system integration - RBF implementation concentrated in the private sector with little involvement of public facilities. Recent adjustments to the schemes were to involve public providers. Progressive learning across schemes and time has been a major driver of evolution of models as modifications of design features were efforts to adopt what works well and address challenges over time. Evidence shows that lessons have been drawn for the use resources/bonuses, information systems and integration of RBF into governments systems.

Discussion and conclusion: Overall, the study findings show that cross-learning has taken place across RBF schemes implemented in Uganda between 2003 and 2015. RBF is complex intervention. The various models overtime in Uganda indicate progressive learning and re-designing a model appropriate for the Ugandan context. From this study, we advise that Uganda and similar countries should undertake a system fitting of RBF by custom designing its schemes and desist from importing “best-practices” from other contexts.

Key words

Results-Based Financing, Progressive learning, national model, healthy systems, Uganda

PS 05/12

Restoring Health Services in Post Conflict Situation in Northern Nigeria using PBF

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The Boko Haram insurgency negatively affected the health system in the North East of Nigeria with wanton destruction of properties and lives with about 2.1 million internally displaced people (IDPs). Similarly most of the social services were disrupted and health institutions vandalized. In Adamawa State, Mubi town was invaded in November 2014 similar pattern of destruction of health facilities was unleashed on the health system in the two districts in the town. After the insurgency was successful ended, the state officials took advantage of the World Bank supported performance based financing project to quickly revamp the health system. The following actions were taken (i) initial investment was doubled for all affected health centers and the district hospital; (ii) health workers were supported to return to their duty posts and district officers given more responsibility; (iii) decision making were local , (iv) there was high community participation and (v) there was sustained investment from performance bonus that was ploughed into building the infrastructure. Human ingenuity played a key role.

District hospital and health centers were fully functional in less than six (6) months; health systems strengthened particular availability of essential drugs and consumables, health information system, human resources and good governance; and service utilization increased greatly – institutional delivery increased from 183 in first quarter of 2015 to 1301 in the last quarter of the year; out patient consultations for under 5 children similarly increased from 845 to 11,507; first ANC visit before 4 months of pregnancy from 6 to 613 and fully immunized child from 63 to 664.

lessons learned: The Science of delivery matters and taking advantage of the fiscal decentralization and managerial autonomy led to restoration of much services to the people of Mubi South LGA (District) very quickly. Waiting to central planning and response will definitely not respond with such vitesse.

PS 05/13**The burden of malnutrition in Burundi in the era after the 2015: will performance-based funding (PBF) be part of the solutions?**

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Background:

The second Sustainable Development Goal (SDG) has the ambitious objective to eliminate malnutrition in all its forms by 2030. While progress has been made in recent decades, they were insufficient to meet the target of MDG 1 of halving underweight prevalence between 1990 and 2015. Malnutrition poses a serious threat and is responsible for nearly half (45%) of all deaths in children under five. The Burundi faces a high infant mortality rate and the critical issue of malnutrition (49% of children under five suffering from chronic malnutrition and 6% of acute malnutrition in 2014) and has decided to introduce from January 2015, activities related to the fight against malnutrition focusing on the Performance-Based Financing strategy. The aim of the present study is to evaluate the performance of health centres in the treatment of malnutrition in Burundi; to prepare for this integration.

Methods:

We evaluated 90 health centres randomly selected among the 193 in the country that had the two support services for severe and moderate acute malnutrition. From individual malnourished sheets, patient-provider observations, exit interviews, vignettes and surveys of health centers managers; four main aspects were evaluated: (1) quality of malnutrition management; (2) quality of curative consultations, (3) knowledge of health care providers, (4) organizational aspects of providing care.

Results:

It appears a weak performance in the detection and management of malnutrition by health centers. Analysis of the results suggests that the causes are related to: (1) a low level of initial training, (2) lack of training in this area after the initial training, (3) a lack of supervision, (4) poor health care facility infrastructure, equipment, medical supplies, nutritional inputs and the number of providers available at the health center.

Conclusion:

Malnutrition remains a major challenge to SDG. Available evidence shows that the Performance-based financing (PBF) causes deep systemic transformations. Thus, in view of its positive results on other indicators in many countries, we hope that the PBF, by the tracks of incentives, supervision, auditing and various systemic effects will help Burundi address the challenge of malnutrition.

PS 05/14**Reduction of controversy around the Democratic Republic of Congo health policy: the case of the Performance Based Financing**

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Since 2004, the Congolese Ministry of Health (MOH) favored the rapid spread of Results-Based Financing (RBF) for health within projects supported by various partners. But the institutionalization of the approach was the subject of much debate and its use as a tool of national sector financing policy does not meet the approval of all the stakeholders. A whole series of factors, often "extra-scientific" were the cause of tensions around the Results-Based Financing (RBF) for health.

Although the controversy around the Results-Based Financing (RBF) for health was strong with the first pilot, we see that a synthesis is happening in the country. Indeed, many actors have naturally converged on a common understanding, and the country is preparing to launch an ambitious project uniting many actors.

Our descriptive and analytical case study collection with qualitative data thus aimed to improve the knowledge of the factors that positively affect the implementation of public health policy through Results-Based Financing (RBF) for health in the DRC.

These data were collected on the one hand with a literature review, and secondly by interviews with key informants, identified according to their degree of involvement in the debates centered on Results-Based Financing (RBF) for health, in using semi-structured interview guides.

It shows that the geographical and population coverage of the Results-Based Financing (RBF) for health is now more important since the introductory approach to the country. These fields can therefore explain how certain key guidelines for scaling up this national synthesis on Results-Based Financing (RBF) for health include activities related to explanatory theories (linked to stakeholders analysis and mapping) by closing the information gap centered on Results-Based Financing (RBF) for health through training. Actions based on field values (related to different core values that induce different societal choices) through the development of strong national leadership strategy anchored by the MOH. Finally actions on the field of interpersonal relations and power relations (linked to behavior and attitudes of the actors) through the transformational leadership of the MOH in the management and interpersonal tensions discussions.

The relevance of Results-Based Financing (RBF) for health as a lever to improve performance of health system is challenged. But an understanding of the factors identified can help continue this momentum for change and design an agenda for action.

PS 05/15**Community Performance Based Financing for Health in Cameroon***James D. Long, University of Washington & Harvard University, jdlong@u.washington.edu**Paul Jacob Robyn, The World Bank, probyn@worldbank.org**Maria Steenland, Harvard University, mws475@mail.harvard.edu*

This paper describes an innovative research protocol for a randomized field experiment to test two community-based interventions, *performance contracting of community health workers* (CHWs) and *community monitoring* of health facility performance and resource utilization, to be deployed within a “standard” facility-based Performance-Based Financing (PBF) program in northern Cameroon. Prior PBF programs have focused primarily on performance contracting at the health facility level, with limited investments in strengthening community-level service delivery models. We argue that the incorporation of community-level interventions could improve health system performance and service delivery outcomes in two important ways.

First, we hypothesize that using CHWs to identify patients living in more remote areas and refer them to the health facility will increase services used by patients who would otherwise lack the time, resources, or motivation to seek care.

Second, we hypothesize that feedback provided by community members within community monitoring about local health services to CHWs and facility-level staff will generate better performance at the facility level. One mechanism by which this occurs is the inclusion of community feedback into the facility’s budget development and execution.

Our study sample is in three regions of northern Cameroon and includes three treatment arms (T1, T2, T3), two of which are randomized at the health facility catchment area level. The first treatment involves the implementation of a “standard” performance-based financing (PBF) approach at the facility level, absent of the community interventions. This standardized PBF package occurs across all of the experimental sample so that PBF presents the baseline and experimental counter-factual compared to T2 and T3. The second treatment (T2) includes PBF at health facilities and “community performance-based financing” or cPBF. cPBF uses all of the same protocols from PBF, but integrates the hiring, contracting, training, deployment, payment, and monitoring of CHW into the business plan and operations of the health facilities. Treatment group three (T3) includes the same interventions as T2 with the addition of the community monitoring and feedback meetings. We include evidence from a pre-pilot of the cPBF and community monitoring interventions conducted in the North-West region of Cameroon from July 2015-June 2016.

Our results will provide important evidence to action on whether and how community level interventions regarding CHWs and community monitoring contribute to the performance of health facilities above and beyond levels achieved by PBF.

Parallel Session 6: Organized sessions

Organized session 11: Is my health system financing supporting UHC and primary health care? An analysis of country results that helps understand how to make use of health expenditure data

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Background

WHO, with the OECD and EUROSTAT, released in 2011 the second version of a System of Health Accounts (SHA2011), which is the global standard for tracking health resources. SHA 2011 aims to better inform key policy questions, including reporting on health systems financing mechanisms.

After the SHA 2011 release, WHO developed guidance and tools for production and analysis to accompany health accounts teams and facilitate their work. These tools were key to the institutionalization of health accounts in countries, that is, an annual production of up-to-date (year T-1) health expenditure data.

SHA 2011 implementation in Africa

Countries in the African region have overwhelmingly adopted SHA 2011, and actively started working on institutionalizing it. More than 25 African countries have already produced at least one SHA 2011 health account.

In view of this successful implementation and adoption of SHA 2011, using WHO recommended tools, WHO is proposing a panel session to review what the available data is showing on health system financing mechanisms that support or do not support UHC and primary health care.

Overall objective

To educate of the use of health accounts in policy and planning in countries, and in holding countries accountable.

Objective of the session

The objective of the session is for WHO and country representatives to present and analyse results in relation to :

1. review of country data, explain what it means in terms of health financing mechanisms, and analyse whether it finances UHC or not;
2. review a proposed definition for financing of primary health care, present existing results, compare country results, and link PHC expenditure to health outcomes.

Organized session 12: Institutional arrangements for priority setting: What are the key factors countries must consider when institutionalizing HTA?

Ms. Laura Morris, NICE International laura.morris@nice.org.uk

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Dr. Mardiati Nadjib; Faculty of Public Health, University of Indonesia.

Dr. Justice Nonvignon; School of Public Health, University of Ghana. Representative of Directorate of Pharmaceutical Services, Ministry of Health, Ghana (to be confirmed)

Context:

Health technology assessment (HTA) provides deliberative mechanisms to generate and consider evidence on the likely effects of policy options in terms of health outcomes, costs of health, and distribution of costs and benefits across different social groups. The feasibility of a ‘grand convergence’ in global health outcomes is highly dependent on the extent not only to which funds can be raised for health, but how well finite resources can be allocated to maximise health gains across a population. This has led to increasing numbers of low and middle-income countries formally adopting HTA or pledging to do so, and a 2014 resolution by the World Health Assembly on Health Intervention and Technology Assessment in Support of Universal Health Coverage, urging member states to consider establishing HTA systems.

However, the considerations of establishing a system for HTA – including accountable institutions and processes – extend far beyond technical capacity to conduct robust analyses. There is no one-size-fits all entry point for HTA or ideal placement of a new focal body for priority-setting. Rather, new bodies must be aware of factors such as appropriate degrees of independence and delegation, whether their recommendations will be treated as mandatory or advisory, or what links they will have with academic networks.

Session description:

The session will be a panel composed of academic and policy partners in selected countries where the international Decision Support Initiative (iDSI) is active. Panelists from Ghana and Indonesia, in addition to academic roles as health economists, are members of their country’s respective Working Group for HTA and HTA Committee. They will present case studies drawing on direct experience of their countries’ early phases of institutionalising priority-setting. (A further panellist may be added from Ghana’s Ministry of Health, providing details of the decision problems for the Government of Ghana in systematically assessing the health benefits package, and the attributes they value in a potential mandated focal point for HTA. This will be dependent on availability and can be confirmed before abstract selection decisions are made.)

The structuring question for the panellists and subsequent discussion is "What difference do institutional arrangements make to priority-setting?". This will draw on work in different regions of the world, including development of national ‘roadmaps’ for the institutionalisation of HTA, and present an overview of paths this institutionalisation can follow. Panellists should reflect on how significant these institutional factors have been to them when advising on or making policy decisions.

Presentation 1: What can a strong institution for priority-setting look like? Key considerations and approaches from the International Decision Support Initiative.

Ms. Laura Morris; NICE International (National Institute for Health and Care Excellence)

Irrespective of how a country's healthcare system is organised or financed, sustainable and fair locally driven decisions are needed on which interventions to cover and under what circumstances. NICE International was developed in 2008 to respond to the growing demand from countries to learn about NICE, and how its experiences might be relevant to their own decision making processes and institution building initiatives. NICE International is leading the International Decision Support Initiative (iDSI), a global network of institutions including HITAP in Thailand, PRICELESS SA in South Africa and academic centres and think-tanks.

Research and practical work by core partners in iDSI has looked at organizational placement of focal bodies for priority setting, which are usually spread out to multiple categories of stakeholders; and drawn on experiences in the HTAsiaLink network to synthesise conducive factors for HTA development. This synthesis by HITAP introduces criteria to categorise countries' systems for priority-setting as *early* or *moderate*, and makes general recommendations on the core components – manpower, money, materials and management - which must be taken into account in order to establish a functioning HTA system. However, practical work by NICE International, HITAP, and other iDSI partners, including supporting the development of national 'roadmaps' for HTA, applies these insights in a flexible manner. Locally relevant technical support emphasizes the need for nascent priority-setting bodies to be aware of the benefits and risks of different institutional arrangements, rather than making prescriptive recommendations.

Presentation 2: Developments in institutionalising priority-setting in South Africa

Mr. Thomas Wilkinson; PRICELESS-SA (Wits School of Public Health), University of the Witwatersrand

In December 2015 the National Department of Health (NDoH) released a White Paper on proposals for implementation of National Health Insurance (NHI) that would move towards universal, high-quality, and equitable health coverage for all South Africans. The government intends to reach a single National Health Insurance scheme by 2025 with the goal of UHC. A key component of the plans for NHI will be the implementation of HTA methods and processes within the South African system, particularly for health benefit package design and determining eligibility to particular technologies. However, the specific nature and functionality of HTA institutionalisation in SA is still being developed.

There is thus both tremendous need for and potential impact from more explicit, comprehensive priority-setting mechanisms, with equity and sustainability as core objectives, in ensuring healthcare resources are targeted at the most deprived population groups. South Africa has access to more resources than many countries in SSA in terms of capacity for priority-setting, including well-regarded academic centres. However, formal consideration of HTA and other analytic evidence plays a limited role at the NHI level. Priority-setting is mostly indirect and decentralised among various agencies and organisations with remits around essential medicines, pricing, and essential equipment. There is also considerable priority-setting activity among other agencies in the public, private, academic and NGO sectors, with some initiatives such as PRICELESS SA having the support of the NDoH.

There is substantial scope and demand for a comprehensive approach that is tailored to the needs of the South African health system. PRICELESS SA, based at the School of Public Health at the University of Witwatersrand in collaboration with local partners and the iDSI network is actively involved in initiatives to support NHI implementation and HTA institutionalisation.

Presentation 3: Developments in institutionalising priority-setting in Indonesia

Dr. Mardiati Nadjib; University of Indonesia

The Government of Indonesia has committed to introducing UHC through a single National Health Insurance Program for its 250m citizens by 2019. To realize this commitment, the Ministry of Health (MoH) recognised the necessity for formal priority-setting mechanisms and created an inter-institutional HTA Committee in Indonesia by a decree. This displays both political will and for large scale impact of priority-setting, particularly as Indonesia faces graduation from Gavi support.

The HTA Committee does not yet have a clear organizational structure, but the Secretariat is provided by a Ministry of Health department. Work towards institutionalising HTA in Indonesia has included acknowledging that evidence-based priority-setting in health goes beyond the analytical components of HTA. Priority-setting requires clear and inclusive processes and governance arrangements to ensure it meets the expectations of all stakeholders including patients, health professionals, providers, manufacturers and ultimately the government and the public.

The newly established HTA committee must balance its independence and its degree of delegation. It must also support convergence of stakeholders, including the health insurer BPJS, the MOH, patient organisations and the general public, health professionals and manufacturers. A high-level roadmap from the HTA committee has identified strategic areas for its future work, and partners in the international Decision Support Initiative (iDSI) are supporting implementation of this roadmap.

Presentation 4: Developments in institutionalising priority-setting in Ghana

Dr. Justice Nonvignon; University of Ghana

Ghana is at a crossroads: on its way to achieving Universal Health Coverage (UHC) it is faced with significant challenges linked to coverage and access, financial sustainability and service quality. The National Health Insurance Scheme (NHIS) for basic healthcare covers 36% of the population, but a generous benefits package has meant that expenditure is high, particularly on pharmaceuticals, and there are genuine concerns about NHIS' affordability and sustainability.

Pressures on budgets and increasing expectations by service users make it all the more important that scarce resources are used effectively. There is willingness from the Ministry of Health (MOH) and the National Health Insurance Agency (NHIA) to identify priority areas for including costs and benefits analyses of alternative options and to share claims data for informing such analyses. The Directorate of Pharmaceuticals of the Ministry of Health has convened a Working Group with representatives from across the health sector, academic experts, and professional bodies, to make recommendations on the early steps the Government of Ghana must take to use HTA effectively.

Parallel Session 6

Parallel session 6: Health MDGS and SDGs: macro economic analyses

PS 06/1

Contributions of Human Capital to Economic Growth in Sub-Saharan Africa: A Panel Analysis

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This paper reexamines the relationship between human capital and economic growth in sub-Saharan Africa (SSA) using balanced panel data covering 35 countries from 1980-2008.

The empirical results show that two measures of human capital (education and health) have positive effects on economic growth; contribution of health to economic growth is relatively larger than the impact of education.

This finding emphasizes the importance of both measures of human capital and aligns with the argument in the literature that neither education nor health measures of human capital is a perfect substitute for each other.

PS 06/2**Income, Healthcare Expenditure, and Health Outcome: Establishing the Interrelationships**

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The combination of low incomes and low healthcare expenditure have been obstacles to improving health status, and an overall impact on the socio economic development of many developing nations. The rich contribution of rising income through healthcare expenditure on health status must be complemented by a similar effort to better understand the mechanisms through which improved health outcome contribute to economic growth and development.

The main aim of this paper is to review and attempt to synthesis the relevant literature on first, the economic growth (GDP)/income - healthcare expenditure - health outcome nexus and, second, the reverse causality linking improved initial health status to economic growth and healthcare expenditure. A successful national healthcare policy must be context specific and take into consideration the initial health status of each country.

PS 06/3**Utility of a new, simple, wealth assessment tool for National Health Insurance**

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Many health programs in Africa aim to serve the poor, often defined as the poorest 40% of the total population or as those living below \$1.25/day. The first Sustainable Development Goal is to “end poverty in all its forms everywhere,” although services targeting the poor are mentioned throughout the SDGs. Furthermore, the World Bank and a growing number of donors and Low- and Middle-Income Country governments have also emphasized the need to both identify, and target, the poor as a core value of Universal Health Coverage.

However, most programs – primary care, vaccines, family planning, or national health financing - never learn how well they have done at reaching the poor they seek to serve, let alone being able to assess how they’re doing at the time of service provision. A new tool allows the rapid and easy assessment of patient or beneficiary wealth, and offers an opportunity to better assess, improve, and direct health programs of all kinds focused on the poor. The tool applies a simplified, country-specific version of the DHS wealth index questions, reducing the number of questions from 30-60 in the original index to 8-18 questions in the new index. The new index has high percent agreement with the original survey results ($\kappa > 0.75$). The new questions are easier to answer than the original questions, with fewer response options. Data collection has been further simplified through the creation of a phone/tablet-based survey that aggregates and analyzes results.

This presentation focuses on our application of the tool to a population of health seekers in Ghana. Through this, we assess the viability of using this tool in the context of health financing through Ghana’s National Insurance Scheme. Applicability for real-time performance monitoring and service delivery corrections will be explored, along with potential utility, challenges, and role for this simplified wealth assessment tool in Ghana and in other African countries.

PS 06/4

Macroeconomic determinants of health crises in Sub-Saharan Africa

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Background

Hazards such as droughts, earthquakes, floods, storms and epidemics, are natural phenomena. These phenomena also called natural shocks difficult to predict and often cause health crises. Health crises have devastating consequences. According to UNAIDS, epidemics such as HIV / AIDS killed more than 34 million people in thirty years, including 25 million in sub-Saharan Africa. Recently, the epidemic of Ebola hemorrhagic fever recorded a little over 10 000 deaths in only three countries in West Africa. If these health crises are not manageable, then this will have significant and lasting effects on health of individuals, and can inhibit the effectiveness of financial resources for achieving the SDGs in the health sector.

Faced with these problems, the question that arises is how to avoid health crises?

Objective

The objective of this study is to identify the macroeconomic determinants that favor the occurrence of a health crisis.

Interest and stakes of the study

The study is particularly important as it will determine the policy levers governments must use to reduce the vulnerability of nations to health crises. It will also contribute to the stabilization of the budget allocated to public health and to achieving SDGs in the field of health sector.

Theoretical Framework

The reasoning in this study is in a line with thinking that links health crisis (as measured by the decline in life expectancy at birth) and macroeconomic management. We test the hypothesis that sub-Saharan Africa, poor macroeconomic management encourages the development of health crisis. The study shows that health crises spread generally in some areas, while in others they are contained. For some authors, this could be explained by inadequate health structures in some countries. Other authors argue that in the case of diseases such as HIV / AIDS, macroeconomic shocks are factors that accelerate the transmission of disease through intra-national migration. Other authors also point out that external indebtedness may be an aggravating factor for health crises. Indeed, the debt payment diverts foreign currency for imports for the growth and maintenance of health system. In addition, the state budget for the financing of health and other positions, is used to repay debt. Also, indebted countries often use bilateral and multilateral aid because of health crises.

Methodology

Analysis in this study is being conducted through a probit model for 1995 to 2012 in 25 countries in sub-Saharan Africa.

Key findings and economic policy recommendations

The main results in this study show that, in the case of most countries in sub-Saharan Africa, the most vulnerable to health crises, are those whose funding of public health is dependent on the outside; those dependent on bilateral aid; those vulnerable to macroeconomic shocks and those whose health system is highly privatized. This study essentially recommends that there should be an endogenous financing mechanism of public health and that bilateral aid is facing public health problems in sub-Saharan Africa.

PS 06/5**Official development assistance and health financing in developing countries**

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Over the past 15 years, exceptional resources were mobilized to save lives and alleviate suffering. New funding sources provided unprecedented financial support to global health. Health organizations that work globally have implemented innovative strategies that have targeted major diseases, helped pay for medicines and medical staff, addressed the issue of stigma, and deployed effective community services and contested policies and restrictive laws. This resulted in visible and measurable progress in improving the health of populations. However, these gains are fragile. They must be consolidated and accelerated by continuing to adopt proven approaches and by offering flexible alternatives; otherwise progress may be lost.

Reducing child mortality has been one of the most universally accepted Millennium Development Goals (MDGs), and international aid was one of the means proposed for achieving this objective. But even if successful health assistance activities were highlighted at the micro level, we do not know aid effectiveness for health more generally. Indeed, despite an abundance of macroeconomic work on foreign aid effectiveness on economic growth of recipient countries, few have focused on health effectiveness. So in this context of ending MDGs and adoption of Sustainable Development Goals (SDGs), the objective of this paper is to fill this gap and to test the aid effectiveness allocated to health, at the macroeconomic level. Many microeconomic studies have already suggested that the health assistance activities were effective, but rarely macroeconomic analyzes have established link between aid allocated to health and health of populations.

Using data from 15 countries in West Africa over the period 2000-2011, we analyze the effect of health aid on infant and child survival. The dual causality between aid and health is addressed through various batteries of instruments inspired by literature on effectiveness of global aid on growth.

Overall, our results clearly suggest that aid allocated to health is effective in improving child survival in West Africa and especially in countries with high mortality rates.

Parallel session 6: Economics of malaria

PS 06/6

Missed opportunities for Public Health impact with a sequential implementation in comparison with simultaneous implementation of preventive interventions against malaria: a modeling study for Ghana

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Objectives

Several interventions are recommended by the World Health Organization (WHO) for the prevention against malaria, such as long-lasting insecticidal nets (LLINs), indoor residual spraying (IRS) and seasonal malaria chemoprevention (SMC). Recently, a malaria vaccine candidate (RTS, S / AS01) has been reviewed by WHO. However, highly cost-effective, budgetary constraints and marginal differences estimates of cost-effectiveness ratios are pushing policymakers to consider a sequential implementation approach. The objective of this study is to evaluate the hypothetical impact of a sequential implementation (SEQ) interventions on malaria-related mortality compared to simultaneous implementation (SIM).

Methods

Both strategies, SEQ and SIM have been simulated by mathematical model. For the SIM, the coverage of all interventions simultaneously increased by 10% annually, reaching an equilibrium rate of 90%. For SEQ, the coverage of a single intervention is increased by 10% annually until reaching a rate of 90% following order: MILD, CPS (if appropriate), RTS, S / AS01 then PID. The initial coverage of LLINs is 60% and is zero for other interventions. A Markov cohort model (deterministic version of a previously published model) was used to simulate the impact of malaria on newborns Ghanaian. The degree of exposure to malaria is simulated by a model in vector level based on the coverage of LLINs and IRS. The effects of the CPS (appropriate in 2 provinces in north of Ghana) and RTS, S / AS01 were implemented as a reduced risk of infection following inoculation of parasites. In both strategies, the number of deaths was assessed in 31 successive cohorts of newborns, each monitored for 15 years.

Results

In total, 35.5 million children were monitored. With the SIM strategy, the maximum coverage for all interventions is achieved after 9 years while for SEQ, 30 years are needed. The SIM will prevent 1.51 million deaths from malaria against 1.02 million for SEQ.

Conclusions

In Ghana, simultaneous implementation of preventive interventions against malaria could potentially increase the number of deaths averted by 50% compared to a sequential implementation. A more gradual fiscal commitment with sequential implementation may significantly delay achieving the public health benefits, linked to enlargement of the population covered with the available tools increases the potential risk of development of resistance to insecticides and antimalarial drugs.

PS 06/7

Impact on public health and cost-effectiveness of the first malaria vaccine RTS, S / AS01 candidate in sub-Saharan modeling study

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Objectives

Final results from the Phase 3 trial of the first malaria vaccine candidate of RTS, S / AS01 were published. This study aims to estimate the impact on public health and the cost-effectiveness of the introduction of RTS, S / AS01 for the vaccination of children and infants and existing measures in 43 countries in sub-Saharan Africa (SSA).

Methods

A Markov process for individual stochastic simulation is calibrated with data from control groups and vaccine clinical trial, published data distribution by age and mortality. The simulated 2017 birth cohort is either vaccinated at the age of 6, 10, 14 weeks and 21 months (infants) or 6, 7.5, 9 months and 27 months (children). The impact of sequelae and mortality is seen on the duration of life expectancy. The country-specific settings are demographics, parasite prevalence, access to care and coverage of the third dose of diphtheria-tetanus-pertussis (DTP3 coverage), with an assumption of 80% of DTP3 coverage for the 4th dose of RTS, S / AS01. Immunization coverage of children is assumed to be 25% lower for infants. The costs of outpatient visits and hospitalizations were taken from a published study conducted in three African countries. The price assumption per dose of RTS, S / AS01 is \$ 5 (Minimum-Maximum [Low-High]: \$ 2 to \$ 10) and administration costs are from an unpublished study (submitted to AfHEA in 2016) conducted in five African countries. Costs are expected at 3% and DALYS are not expected.

Results

In the cohort of 36.5 million infants in 2017, vaccinating 19 million children with RTS, S / AS01 would lead to a reduction in the number of malaria cases and deaths estimated at 13.3 million (confidence interval (CI) to 95% from 11.6 to 15.2) and 68,000 (95% CI: 38000-100000) over a period of 15 years. The ratio of incremental cost-effectiveness (ICER) in \$ / DALY averted is estimated at 122 (Min-Max: 67 to 218). When infants are vaccinated, reduction in the number of malaria cases and deaths is estimated at 11.3 million (confidence interval of 95%: 8.9 to 13.5) and 58,000 (confidence interval of 95%: 14-97) with an ICER estimated at \$ 196 / DALY averted (Min-Max: 107 to 352).

Conclusions

The introduction of RTS, S / AS01 in addition to existing measures would produce a substantial impact on public health. The two immunization schedules are likely to be highly cost-effective according to the criteria of the World Health Organization.

PS 06/8**Quantifying the economic benefits of privately funded malaria control interventions in southern Mozambique**

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Context:

The elimination of malaria could be accelerated by enlisting multiple non-governmental actors, including large private firms operating in endemic regions. Participation, however, relies on a clear and accurate quantification of the cost and impact of malaria control activities on economic output. This project uses the case of the sugar mill of southern Mozambique to assess the impact of privately-managed indoor residual spraying on workers' economic output (in terms of both absenteeism and productivity).

Hypothesis:

Indoor residual spraying reduces worker absenteeism, and the savings in increased productivity are greater than the costs of intervention implementation.

Methods:

We employ a "difference in differences" approach to assess the causal impact of indoor residual spraying on worker absenteeism. To avoid omitted variable bias, we complement our analysis with both in-person interviews of managers and employees. To estimate causal impact, we regress time since spraying on absenteeism, adjusting for seasonality, worker occupation and sociodemographic characteristics and holidays.

Results:

Undetermined. This research project is currently in progress. Regardless of whether our hypothesis is accepted or rejected, we will present the results and their implications for the private financing of malaria control in general.

PS 06/9**Poverty and therapeutic remedies for malaria in Cameroon**

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This article addresses the relationship between poverty and malaria therapeutic routes in Cameroon. Motivated by the low attendance at health facilities for malaria treatment despite the state's policy of free treatment for the most vulnerable groups. This research aims to assess the constraint of limited financial resources in modern therapeutic remedies for malaria. It focuses on children under 5 years. The data used are original and are collected from the impact evaluation surveys of the Cameroon Performance-Based Financing (PBF), conducted in 2012 and 2015 in six regions in Cameroon, with diverse climate and social inequalities. We mainly make use of binary and multinomial logistic regressions.

The results shows that both in the South and North, the chances of using a modern health facility for malaria treatment in children under 5 increases with the quality of life (QOL) of parents. Moreover, our results also indicate that the impact of living standards on the use of antimalarial treatment in health facilities becomes significant (in the southern regions) with the improvement of healthcare provision in some health structures provided by the PBF programme.

This research thus highlights the problem of implementation of some health policies and the quality of biomedical care provision. It is in turn a source of knowledge necessary for the development of future strategies against malaria.

PS 06/10**Impact of a malaria elimination campaign on school and work absenteeism in Southern Mozambique**

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Context:

Malaria elimination brings benefits to societies that go far beyond the impact on population's health. Further benefits of moving from high malaria burden to low burden include productivity gains such as increased human capital and increased productivity of production factors. In the context of the malaria elimination program that is being implementing in the district of Magude, this study aims to provide primordial information on the economic gains associated with malaria elimination, by estimating the burden of malaria among workers and its impact on productivity (working absenteeism), as well as scholar attendance as proxies for economic growth.

Methods:

In order to capture the economic benefits of MALTEM interventions beyond the health impact, observational studies are being conducting in a sample of children between 6 and 12 years old and working adults from the main company in the area to gather information on scholar and working absenteeism 3 months before and 3 months after the malaria elimination activities (Mass Drug Administration) are conducted in Magude district. Such indicators will be monitored both in the intervention area (Magude district) and the control area (Manhiça). Difference-in-difference analysis will be performed as regression analysis, which will allow to control for potential confounding factors, such as the demographic, socio-economic, morbidity and mobility status of the population.

Results and implications:

The results are still undetermined as the project is currently in progress. However, the results from this study will be crucial to inform policymakers as well as the international community on the magnitude of the economic gains as well as the efficacy of investing resources in moving from a state of controlled malaria to malaria elimination.

Parallel session 6: Health Inequalities

PS 06/11

Smoking-related Health Inequality in South Africa

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Much has been written about the detrimental effects of smoking and its devastating impact on the health and wellbeing among smokers, but the health consequences across different smoking addiction levels are unknown.

This paper provides new evidence on the degree of smoking-related inequality in health outcomes, such as lung diseases in South Africa. Using longitudinal data, we combine the time dimension, which has been shown to be very important in the analysis of inequality. We also show how long-run inequality differs from the short-run inequality. Finally, we decompose this health related smoking mobility index as well as the long-run concentration index (CI) itself into its contributors.

We expect that health is smoking addictively distributed and its inequality is likely to be underestimated if individual over time dynamics are ignored.

PS 06/12

Determinants of health inequality: Evidence from Nonparametric Panel Data Models, 1970-2010

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The analysis of health inequalities is a critical topic as a distinct dimension of the performance of health systems (WHO). This study reviews the linearity assumption underlying the majority research on the determinants of health inequality and conducts a nonparametric investigation the effects of income and education inequalities, and development on health inequality over the period 1980-2010, using a panel dataset covering 131 countries distinguished by their level of development and geographical area. One of the main advantages of this model is that no functional distribution is imposed for estimating the relationship between factors and health allowing for the presence of non-linearity.

The income Gini index is obtained from the Standardized World Income Inequality Database (SWIID version 4.0). The SWIID incorporates comparable Gini indices of net income inequality of a greater coverage across countries and over time.

The educational inequality is estimated by using the Gini index of education as a measure of the distribution of years of schooling. We take into consideration, for the first time, the changes over time in the duration of educational stages, in each country and for each age group (W. Benaabdelaalii et al., 2012).

Health inequality is calculated using different measures of inequality such as the Gini coefficient, the Generalized Entropy Index { GE (-1) , GE (0) , GE (1) , GE (2) } and the Atkinson Index { A (0.5) , A (1) , A (2) } as a measure of the distribution of length of life. Our calculations are based on recent estimates of life tables provided by the United Nations Department of Economic and Social Affairs UNDESA (2013). This distribution is presented over age intervals (0-1, 1-5, 5-10, ... , 85+), with the mortality rates and average age at death specified for each interval. Compared with UNDP data on inequalities in health (health inequality data???, our dataset has present the advantage of being, for the first time, longitudinal - which allows long-term analysis of the dynamic of health inequality – and cover several health inequality measures. Our approach is to consider inequality in the entire distribution of the expected length of life obtained from abridged life tables (World Population Prospects, 2012) without exclusion of any part of the distribution. Excluding newborns or children under 5 would mean capturing only partial inequality in the distribution.

PS 06/13**Risks of morbidity in children under five years related to accessibility to water in the municipality of Bingerville**

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Background:

According to the United Nations, in 2015, 91% of the world population uses an improved source of drinking water. However, disparities in access to water persist particularly in sub-Saharan Africa in the urban slums and remote rural areas where the lack of water causes disease or death of hundreds of thousands of children each year. Ivory Coast is no exception to this fact. Indeed, in 2013, the town of Bingerville, in the district of Abidjan recorded 314 cases of children under five suffering from diarrheal disease or another disease transmitted by water or by a lack of clean water. At the moment, the global community now gives explicit directive to "ensure access to water and sanitation for all (SDG 6) makes sense to explore the link between accessibility to Water and Health, especially among children under five. This study seeks to determine the factors that contribute to contracting water-related diseases in children under 5 years in the town of Bingerville.

Methodology:

The study is based on a logistic regression from a sample of children under five years; closing the primary data including water use and the mothers' characteristics using the households.

Results:

This study shows that occurrence of diarrhea or malaria in children under five years in the town of Bingerville is caused by factors related to the quantity and quality of water in the household, as well as aspects related to the education level of the mother. Indeed, water supply interruption in the household and water supply from unimproved sources were significant and positive coefficients reflecting a positive effect on the incidence of diarrhea and malaria in children under five years. To these main factors directly related to access to drinking water, there is low level of education and illiteracy. We recommend a permanent water supply for households and improving the coverage of drinking water. These actions should be accompanied by education programmes for girl child and adult literacy for mothers to make real progress towards achieving Goals 3, 4, 5 and 6 which includes a set of 17 Sustainable Development Goals (SDGs) to end poverty, fight inequality and injustice, and tackle climate change by 2030 in Côte d'Ivoire.

PS 06/14

Health inequality of opportunity among children aged under 5 years in Togo

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The literature on Public Health reveals that children nutritional status and health influence their health and well-being in adulthood. Thus, all effective policies aimed at enhancing a population's health status must take into account children's health. This implies the inclusion of all elements that may influence infant health.

By focusing on inequalities of opportunity in health, we analyze the evolution of their contribution to the health of children (measured by their standardized size) in Togo based on data from the Demographic and Health Surveys (DHS) Programme of 1998 and 2013. The objective of this work is to measure and compare the importance of the contribution of inequality of opportunity in health (from differences in life circumstances considered) to total inequality in children health (0-5 years). Children not being consulted on their views by decision makers, total inequality can be decomposed into inequality of opportunity (observed variables) and unobservable factors (within group inequality) having an impact on overall inequality such as random variations in children health status or genetic variations from a reference population (healthy people). The methodology approach is based on comprehensive entropy measures like Theil's T and Theil's L to measure total inequality after treating the impact of natural variations in the distribution of child size. This inequality is decomposed into intra-household inequality of opportunity and inequality of opportunity for income from a non-parametric approach after building groups with opportunity deductions of circumstance variables.

The results showed that inequality in total health experienced a decrease between 1998 and 2013 from 0.65 to 0.26 in 15 years respectively. The contribution of the inequality of opportunities (inter-group inequality of opportunity) has known against an increase over the period 1998-2013. It went from 0.14 to 0.18 respectively in 1998 and 2013. The relatively low levels of inequality of opportunities are interpreted as an estimate of the lower bound of the set of variables of circumstances that can influence the child health. Considering the results, the increase in the level of inequality of health opportunities would come over the rise of group contribution "unfavorable opportunities."

PS 06/15**An economic diagnostic tool to improve access to care for persons with disabilities in Burkina Faso**

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About 15% of the world's population live with some form of disability and 80% of persons with disabilities live in developing countries. Across the world, people with disabilities have specific health needs (rehabilitation, equipment, technical aids) that some give up because of the cost. The objective of this study is to deliver robust and reliable economic and financial data to enable Burkina Faso achieve Universal Health Coverage and Sustainable Development Goals. These data are intended to implement inclusive concrete action and advocacy to improve the living conditions of persons with disabilities in Africa, and more broadly in low and middle-income countries.

Three fact finding missions to Burkina Faso between 2013 and 2015 were used to conduct this study. An economic diagnostic tool of functional rehabilitation system was developed in partnership with experts in the field, Handicap International, and experts in health economics, CERD¹ and CNRS². The economic diagnostic tool analyzes the functional rehabilitation system through 25 qualitative and quantitative indicators in four broad areas – provision of rehabilitation care, cost of rehabilitation care charged to the user, social security and the scalability of the system.

The implementation of the economic diagnostic tool of functional rehabilitation system showed inadequate human resources (89.5% of needs in equipment not covered), inequalities of geographical access (80% of the population live more than 100 km from a rehabilitation center), inequalities in financial access, an incompleteness of supply of services, lack of financial investment by the state and a low availability of data in the field of disability and rehabilitation.

The results obtained from the diagnosis indicated the need to improve the technical level of health services, enhance physical accessibility and affordability of disabled people, develop health insurance and ensure better monitoring of HR rehabilitation in terms of training, recruitment, deployment and retention. The management of care, especially in rehabilitation, requires further research, but we should also point out that this critical issue to establish a fair healthcare system, sustainable and inclusive is the subject of genuine interest.

Keywords: Disability, Accessibility, Rehabilitation, Health System, Universal Health Coverage, Sustainable Development Goals

Parallel Session 7: Organized sessions

Organized session 13: Using the workload indicators of staffing needs method in setting the national staffing norms for primary health care settings in the Sultanate of Oman

Dr. Nazar Elfaki, Ministry of Health, Oman

Introduction:

The Ministry of Health (MOH) in the Sultanate of Oman recognized the importance of ensuring that all health facilities at all levels of health care have the right number and skill-mix of health professionals to deliver quality of health care to the population served. As a result, the Directorate General of Planning and Studies and the Directorate General of Primary Health Care (PHC) worked jointly and used the workload indicators of staffing needs (WISN) method developed by the World Health Organization with some modifications to develop the national staffing norms for primary health care settings to assist health planners and managers to appropriately recruit and distribute the health workers across geographical locations and PHC facilities.

Methods:

The primary health care services provided were listed and characterized into three packages of services based on the location and catchment population served. The three services are Core services (basic), Supplementary services, and Complementary services. The main workload components of doctors, nurses, dentists, pharmacists, assistant pharmacists and laboratory technicians were listed, determined and the activity standards were defined and hence the national norms were set. The same method of calculation was applied to the health centers in Muscat governorate (the capital) which has 32% of the total population and encompassed the large number of health facilities compared to the remaining 10 governorates.

Findings:

A comparison of the national staffing norms for doctors and nurses with the existing staffing levels in Muscat governorate was made. It showed shortage in the overall number of nurses and slight surplus of doctors, however with some variations between the health centers. The WISN ratio showed that doctors were less workload stressed (1.02) compared to nurses (0.66), however with variations between health centers.

Limitation:

The estimates used to calculate the required staffing were linked mainly with the package and pattern of health services provided to current population (which might not be applicable to the future population). Thus the estimates need to be frequently adjusted based on the new developments.

Organized session 14: HTA Implementing Challenges in Maghreb countries (Algeria, Morocco and Tunisia)

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Introduction: The National Instance for Accreditation in Healthcare (INASanté) was created by decree in 2012, as one of the main steps of the Tunisian health system's reform. INASanté is a public, non-for profit, scientific authority that has two principal missions: Health technology assessment (HTA) and accreditation. The first step of implementation of HTA has consisted in a stakeholder analysis with the support of WHO in order to develop HTA contextualized strategy in Tunisia.

Methods: A stakeholder analysis has been conducted with the support of WHO HTA expert in two steps. During the first step, INASanté team has identified 36 stakeholders in 9 different fields according to INAHTA classification for stakeholders, 23 meetings were organized in April 2015 to introduce INASanté and its HTA mission. Each party expressed his point of view concerning HTA implementation in Tunisia. The second step, in May 2015, consisted in a consensus meeting involving all stakeholders including policy makers. Five workshops were conducted: 1-HTA and universal health coverage, 2-HTA processes and stakeholders' collaboration modalities, 3- Problems and solutions in implementing HTA in Tunisia, 4-INASanté organization, 5-HTA and drugs. Each workshop group was based on some questions related to each topic.

Results: Different Stakeholders have expressed their commitment to the HTA implementation and have highlighted the importance of scientific and financial independence of INASanté. HTA will be part of the Tunisian healthcare reform and will concern drugs, medical devices, equipment, medical and surgical procedures and healthcare programs. INASanté HTA reviews will be public. Moreover, HTA will have an essential role in the reimbursement process in Tunisia. Drugs pricing may also be based on HTA reports. Currently many issues should be discussed such as drugs classification and health products reimbursement rates.

Conclusion: HTA has key implications for universal health coverage in Tunisia. It offers views on the relevance, effectiveness and efficiency of the use of health technologies. INASanté reviews should guide policy makers. Furthermore, international collaboration is required to be in accordance with international standards.

Health systems in Maghreb countries have developed at different speeds, and with differing degrees of complexity, reflecting the diverse political and socio-economic conditions in each country. Since the financial constraint is becoming very acute in all countries, decisions are required on what interventions should be offered, the way the health system is organized, and how the interventions should be selected, provided and financed in order to achieve an optimal health gain with available resources, while, at the same time, respecting country's priority needs and people's rights. Decision-makers thus need information about the available choices and options and their potential costs, consequences and impact. "Health Technology Assessment" is an approach to assist decision makers to compare options and make decision based on clear criteria and strong data and evidence.

The health systems in the Maghreb countries are dealing with the demo-epidemiological transition as well as with priority setting, efficiency and equity issues. Most of cases, decision are not made on lessons learned and strong data analysis and sound evidence. There is a clear need to reform the health systems but also to adopt innovative and sound methods and tools to make decision to overcome the multiple medical, technical, organisational and financial challenges faced at all levels. With its broad concept of technology, the principles and scope of HTA can be applied to assess the potential consequences not only of pharmaceutical products and medical interventions but also of organizational interventions,

and even of health care reform, since this can be considered as an intervention in the health system. To fulfill this task properly, evidence from different disciplines and approaches is required. HTA could respond to this need as it's a multidisciplinary activity which systematically evaluates the effects of a technology on health, on the availability and distribution of resources and on other aspects of health system performance such as efficiency, equity, sustainability and responsiveness.

The objective of this session is to have an overview of the understanding and of the degree of HTA implementation in Algeria, Morocco, and Tunisia. The session will address the following questions: 1) How HTA is considered and understood in each country 2) How and who is in charge of its implementation 3) What are the main topics and interventions evaluated 4) What are the methods and tools used? 5) Who is commissioning and funding the HTA activities 6) To what extent the HTA results are used and influencing the public decisions? 7) What are the challenges and current issues? 7) What are the developments and possible future for the HTA activities and groups?

The Maghreb countries are at different stages of technical and institutional implementation of the HTA approach. The experience of each country will be presented and lessons learnt shared. A possible network between researchers, practitioners and decision makers could be envisioned to promote exchange, peer-review and capacity building among the 3 countries and beyond.

Presentation 1: HTA Implementation in Tunisia: First Steps

Introduction: The National Instance for Accreditation in Healthcare (INASanté) was created by decree in 2012, as one of the main steps of the Tunisian health system's reform. INASanté is a public, non-for profit, scientific authority that has two principal missions: Health technology assessment (HTA) and accreditation. The first step of implementation of HTA has consisted in a stakeholder analysis with the support of WHO in order to develop HTA contextualized strategy in Tunisia.

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Results: Different Stakeholders have expressed their commitment to the HTA implementation and have highlighted the importance of scientific and financial independence of INASanté. HTA will be part of the Tunisian healthcare reform and will concern drugs, medical devices, equipment, medical and surgical procedures and healthcare programs. INASanté HTA reviews will be public. Moreover, HTA will have an essential role in the reimbursement process in Tunisia. Drugs pricing may also be based on HTA reports. Currently many issues should be discussed such as drugs classification and health products reimbursement rates.

Conclusion: HTA has key implications for universal health coverage in Tunisia. It offers views on the relevance, effectiveness and efficiency of the use of health technologies. INASanté reviews should guide policy makers. Furthermore, international collaboration is required to be in accordance with international standards.

Presentation 2: Challenges in Implementing HTA In The Reimbursement Decisions In Algeria / A Comparative Analysis

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To provide a comprehensive description of the current Drug Reimbursement Systems in Algeria and to compare it to two archetypes drug reimbursement systems in France and UK and to a system in a middle income country: Turkey where the HTA has been recently implemented. We collected and reviewed relevant information to describe the health care and drug reimbursement systems in these countries; we reviewed the legal framework and procedure documents. For Algeria, in addition to the data and information collected, we conducted informal interviews supplemented by a survey among key stakeholders. Compared to the UK, no similarities were found. This is probably due to the cultural differences and the lack of expertise in the use of cost-effectiveness approaches. Compared to the France, we didn't find similarities, except the final decision which is taken at the Ministry level. This is due to the administrative nature and the lack of transparency of the assessment in Algeria especially where the Methods as well as the Results of the assessment are not explicitly expressed. Compared to Turkey, we found some similarities in terms of process, but not in terms of Methods as this country is now more familiar with the HTA approach.

Our study shows that the implementation of HTA differs according to cultural and financial factors and to expertise capacity in data collection, analysis and use in the decision making process. The use of HTA in the drug evaluation and reimbursement system in Algeria is underestimated and underdeveloped. That's why before adopting HTA approaches in the pharmaceutical sector, the Algerian authorities should consider these factors and improve the data quality and decision process transparency. This is becoming vital as cost of drugs is increasing and the fiscal space will be more constrained in the near future.

Presentation 3: Process of Health Technology Assessment in Morocco

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In Morocco, the overall health expenditure in 2010 is around 47.7 billion dirhams. The share of total healthcare spending represent 6.2% of GDP. Per capita health expenditure is 1,497 dirhams and out of pocket payment represents 53.6% of total health expenditure.

In terms of medical coverage, two schemes exist in Morocco: 1) the Mandatory Health Insurance scheme (AMO) for the current and former employees of the public and private sectors as well as for and their beneficiaries 2) the medical assistance scheme (RAMED) for the population not covered by AMO and population with very limited resources.

The process of evaluation of health products is done through the Transparency Commission, which was created in 2012. This instance provides a justified opinion to the Department of Health on the actual benefit (SMR) and/or Improved Actual Benefit (ASMR) of an already authorized drug in order to include or remove it from the list of reimbursable drugs under AMO scheme. More than 250 drugs have been evaluated by the Transparency Commission so far.

The economic and financial evaluation Committee of health products was created in 2015 with the task of analyzing the economic and financial impact of drugs with a positive SMR provided by the Transparency Commission, for inclusion on or removal from the list of reimbursable medicines. This economic and financial evaluation Committee of health products is also evaluating the proposal of medical devices for individual use to be admitted or removed from the list of medical devices eligible for reimbursement under the AMO. Finally this committee has to make proposal on the rate of reimbursement of registered medical devices.

Parallel Session 7

Parallel session 7: Health financing in the context of MDGs and SDGs

PS 07/1

Health Expenditures in Nigeria: MDG Trends and Lessons for the SDGs

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Background

Developing countries bear 93% of the world disease burden but account for 18% of world income and 11% of global health spending, hence, still far from achieving universal health coverage. Nigeria is among the African countries that failed to meet its MDG health targets due to health financing crisis. The structure of health financing in Nigeria shows that public health expenditure is still below private health expenditure. Public health expenditure as a proportion of total health expenditure was still around 30%; households' health expenditure was around 67%, donor agencies and development partners financing are around 4% and 16% while health insurance constitutes about 2.4% of total health expenditures respectively. In 2001, African countries pledged to set a target of allocating at least 15% of their government expenditure to improve their health systems - in what became known as the Abuja commitment. Using available data on sources of health financing, this study examines the trends and growth rate of health financing means in Nigeria and the extent to which Nigeria is meeting Abuja commitments. This was intended to take a stock of current progress on spending targets in Nigeria, as the world stands on the verge of the end of the MDG pledges and at the beginning of Sustainable Development Goals (SDGs).

Methods

The study utilized growth rate and percentages to determine the contributions of each source of health financing in total health financing from 2002-2014. Growth rate was employed to determine the growth of each spending means for the thirteen year period.

Results

The results show that the growth rate of out-of-pocket spending is the highest throughout the period. The proportion of government health spending though fluctuates over the years recorded the second highest contributions with a dwindling growth rate while health insurance fund shows an increasing growth trajectory.

Conclusions

The major conclusion was that since out-of-pocket and insurance health spending as domestic source of financing shows a positive growth trajectory over the years, government should concentrate more on increasing individuals spending capacity and charge both the formal and informal sectors employees an affordable insurance premium to provide a sustainable financing means for SDGs health goals. This can be complemented by government health budget of 15% of yearly fiscal appropriation when feasible to do so. The

accepted norm in the international health community that UHC-related spending needs to be predominately public may not be currently feasible in Nigeria.

PS 07/2

Fiscal Space Analysis in the Health Sector: Evidence from Ethiopia

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Background:

In the past two decades, Ethiopia has invested huge amount of resource in the health sector resulting in significant gains in improving the health status of Ethiopians through under tremendous reform. One of the issues high on the agenda is health financing for universal coverage. Accordingly, the government has taken a number of measures to enhance health care financing which aims at increasing resource flows to health sector, improving the efficiency of resource utilization, and ensuring sustainability of financing to improve the overall coverage and quality of health service.

Objective:

The objective of this paper is to examine and analyze the concept and various ways of increasing fiscal space for health to achieve universal health coverage in the context of Ethiopia.

Methods:

The macroeconomic analyses are conducted from Ethiopian economic and social statistics data, government policy documents and other sources.

Results: In the past two decades, Health expenditure and resource have increased substantially in both absolute and per capita terms, but it still is not adequate to buy better health for all Ethiopians. So, from the result reveals that there is room to increase fiscal space for health using the options such as efficiency savings, increase government revenues and better prioritize budget expenditures, and implement innovative funding system.

The key findings and the Main Conclusion:

Although Ethiopia health sector is highly depending on external flows of aid, There are the two top options to minimize the gap and increase the fiscal space for health by using domestic financing alone of which efficiency gains and innovating financing mechanisms will be needed to sustain the rate of improvement of health status and will achieve universal health coverage in Ethiopia.

Keywords: Expenditure, Ethiopia, Fiscal space, Health care financing, universal health coverage, efficiency gains, innovating financing

PS 07/3**Analysis of the effectiveness and impact of health policies in tax-financed expenditure: the case of Senegal**

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For the implementation of Sustainable Development Goals (SDGs), the financing of sustainable development - including health policy - is a major challenge for most developing countries (DCs). It is also clear, in the international community that a strong consensus on the importance of domestic resource mobilization (DRM), specifically revenue from fiscal resources and in a context of declining trend of public support to development (ratios relative to GDP).

Paradoxically, through fair exemptions and taxes on supplies of medicines, purchases of materials and medical benefits, developing countries continue to forgo tax revenue to facilitate people's access to health care.

Like most developing countries, Senegal is facing a critical need for financing its development. Having conducted studies on tax expenditures from 2008 to 2013, the rationalization of that expenditure was seen as an interesting opportunity to, first, increase the overall tax return and, secondly, better fight against poverty.

The objective of this article is to highlight on the one hand, the inefficiency of health financing policies through fiscal space for health, due to the waste of resources induced by the lack of targeting beneficiaries of indirect subsidy (tax expenditures) and, on the other hand, shortcomings in terms of incidence of benefits.

The methodology of Data envelopment analysis (DEA) is used to calculate an efficiency score that will tell us whether a state has room for improvement; - By setting target values, we determined how much tax expenditures must be reduced and outputs for increased spending is efficient; - Identifying the type of returns to scale, we also determined whether the state should increase or, conversely, reduce its size to minimize its average production cost of healthcare; - Identifying reference peers, we have shown that organizations have the best practice to analyze.

Simulations are then made on the basis of a few scenarios for rationalizing tax expenditures. Thus, there was a marked improvement in the efficiency and the impact of funding health policies, either by adopting a better targeting the beneficiaries of the exemption or by a full mobilization of duties and taxes combined to a better management of public spending.

PS 07/4**Financing Health in Africa**

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As countries in Africa move towards universal health coverage, and in the context of the Sustainable Development Goals, increased attention is being paid to how these countries can increase financial resources for health. This paper examines the extent to which current and future levels of domestic and external sources of finance can meet health needs in Africa. We review levels of funding for health in fifty countries in Africa using data from the World Health Organisation's National Health Accounts databases. Countries are categorised according to levels of government health expenditure and an attempt is made using quantitative indicators to attribute the problem to three main areas: the strength of national economy, domestic fiscal effort and relative prioritisation of health in the budget. We estimate the funding gap for health and show how it might be addressed through modifying these three key health financing factors. Our results show that the majority of countries are far from meeting health financing goals, including the Abuja target on budgetary allocation to health and minimum levels of per capita health expenditure as set by the High Level Task Force on Innovative International Financing for Health Systems (HLTF). A substantial funding gap remains even after modelling increased funding as a percentage of GDP and considering economic growth, suggesting there is a continued role for external assistance for the poorest countries.

Main findings -

1. Analysing sources and levels of funding for health is a first step towards understanding how countries in Africa can mobilise adequate resources for health.
2. The majority of countries are still far from meeting key health financing goals and targets. Reasons are a combination of the strength of national economy, weak domestic fiscal effort and low prioritisation of health in the budget.
3. Experience from those who have increased domestic resources shows how this can be achieved.
4. Even if these three variables are increased the majority of countries in Africa are unlikely to be able to achieve minimum spending per capita required to fund the basic package of health services and improve health outcomes.
5. While increasing domestic public financing should be the aim for countries in Africa, this analysis suggests a continued role for external finance for development.

Key words: health financing, universal health coverage, fiscal space for health, domestic resource mobilisation, National Health Accounts, Africa

PS 07/5**Economic dynamics and public spending on health in Burkina Faso**

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This study examines the link between public health expenditure and economic growth in Burkina on the period 1980 to 2013. The study being based on data of a small sample of 34 observations, the model autoregressif distributed lag (ARDL) has been applied for the test of cointégration. Toda and Yamamoto (1995) causality test, has been used to determine the sense of causality between public health expenditure and economic growth. ARDL cointégration test of Pesaran and al. (2001) show that the public health expenditure and the economic growth are moving together in the long-run. In addition, the income elasticity of the demand for health is more than unity.

Therefore, our findings support Wagner's hypothesis, which implies that health is a luxury goods in Burkina Faso. From policy view point, Toda and Yamamoto causality test, reveals unilateral causality running from economic growth to public health expenditure in Burkina Faso.

Keywords: Cointégration, causality, public health expenditure, economic growth, Burkina Faso.

PS 07/6**The cost of providing free health care to all Kenyans: Assessing the feasibility of the contributory and non-contributory financing mechanisms, 2013 – 2030**

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Background:

The need to provide quality and equitable health services and protect populations from impoverishing health care costs for the long-term has pushed universal health coverage to the top of global health policy agenda. In many developing countries where the majority of the population works in the informal sector, there are critical debates over the best financing strategy to progress towards universal coverage. In Kenya, government health policy has prioritized contributory financing strategy (social health insurance) as the main financing mechanism for universal health coverage. However, there are currently no studies that have assessed the feasibility of the contributory approach to financing UHC or an alternative financing mechanism involving non-contributory approaches to UHC in Kenya. The aim of this study was to critically assess the feasibility of both contributory and non-contributory mechanisms to financing UHC in Kenya in the context of large informal sector populations.

Methods:

SimIns Basic® model, Version 2.1, 2008 (WHO/GTZ), was used to assess the financial feasibility of UHC in Kenya and provide estimates of financial resource needs for UHC over a 17-year period (2013 – 2030). Data sources for SimIns included review of national and international literature on inflation, demography, macro-economy, health insurance, health services unit costs and utilisation rates. The data were triangulated across geographic regions for accuracy and integrity of the simulation. SimIns models for 10 years only so data from the final year of the model was used to project for another 7 years. The 17-year period was necessary because the Government of Kenya aims to achieve UHC by 2030.

Results and conclusions:

The results show that the social health insurance is sustainable within the first five years of implementation after which it becomes less sustainable. Modelling for a non-contributory scenario, on the other hand, showed greater sustainability both in the short- and long-term. The financial resource requirements for universal access to health care through general government revenue are compared with a contributory health insurance scheme approach. Although both funding options would require considerable government subsidies, given the magnitude of the informal sector in Kenya and their limited financial means, a tax-funded system would be less costly and more sustainable in the long-term than an insurance scheme approach. However, more innovative financing for health care as well as giving the health sector higher priority in government expenditure will be required to make the non-contributory financing mechanism more sustainable.

Key words: universal health coverage, informal sector, contributory, non-contributory

Parallel session 7: Access to HIV/AIDS services and integration

PS 07/7

Cost-effectiveness analysis of two strategies (options B and B +) to prevent Mother-To-Child Transmission of HIV/AIDS (PMTCT) in Senegal case of Pikine Health District.

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Since 2000, the struggle for the elimination of new transmission of Human Immunodeficiency Virus was in full swing including the achievement of the Millennium Development Goals, the prevention of vertical transmission of HIV/AIDS (MTCT) is fundamental and the various treatment options are used by countries to this goal.

In Senegal, the Prevention of Mother -to -Child Transmission of HIV/AIDS Program is marked by the passage of Option B to B+.

This study aims to determine the most cost-effective option for PMTCT at a health district to support the operational units of the health policy.

The Pikine Health District is the study area. HIV-positive pregnant women were monitored in 2012 for option B (treatment with antiretroviral therapy [ART] of the mother during pregnancy and lactation) and in 2013 for Option B + (ARV triple therapy initiated during pregnancy and for life) and both options constituted the study population. The main costs taken into account are linked to counseling and testing, measurement of the CD4 count, the provision of antiretroviral drugs, community activities, family planning, childbirth, early diagnosis and management of the program.

The results showed that Option B + with 15.461.561 FCFA is more expensive than Option B (12.816.732 FCFA). In terms of cost per infection averted, it is 2.136.122 FCFA for Option B against 2.208732 FCFA for Option B +. Option B is more cost-effective compared to B +. The cost per woman tested is practically the same as that recorded in several African countries, around 3.200 FCFA.

In the implementation of PMTCT, Option B + is certainly expensive but worth perpetuating in order to avoid new routes of HIV transmission in children.

Keywords: HIV-PMTCT, Option B - Option B +, cost effectiveness, district, Pikine –Senegal

PS 07/8**Political economy of decentralizing HIV/AIDS treatment services to primary healthcare facilities in three Nigerian states**

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Fundamental to understanding decentralization is learning what motivates central governments to give up power and resources to local governments, and the practical significance of this on their positions regarding decentralization. This study examined key political and institutional influences on role-players' capacity to support decentralization of HIV/AIDS treatment services to primary healthcare facilities and implications for sustainability.

In-depth interviews were conducted with 55 purposively selected key informants, drawn from three Nigerian states that were at different stages of decentralizing HIV/AIDS treatment services to primary care facilities. Key informants represented different categories of role-player involved in HIV/AIDS control program. Thematic framework analysis of data was done.

Support for decentralization of HIV/AIDS treatment services to primary healthcare facilities was substantial among different categories of actors. Political factors such as local and global agenda for health, political tenure and party affiliations; and institutional factors such as consolidation of decision-making power and improvements in career trajectories influenced role-player support for decentralization of HIV/AIDS treatment services.

It is feasible and acceptable to decentralize HIV/AIDS treatment services to primary healthcare facilities, to help improve coverage. However, role-players' support largely depends on how well the reform aligns with political structures and current institutional practices.

Keywords: Political, Institutional, Influence, Role-players, Support, Decentralization

PS 07/9**Market of drugs for childhood malaria in Southern Mozambique**

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Malaria is one of the leading death causes in Sub-Saharan Africa. Artemisinin-combination therapies (ACTs) are used as first-line drugs for treatment but their market is far from competitive. Important supply issues include limited availability and low quality, while on the demand side market failures include the lack of information and low access to the treatment.

In order to estimate the demand for ACTs among children with malaria in rural Mozambique, a survey was carried out among caregivers in 2012. Data collected through the survey were merged with demographic surveillance data and with the hospital passive case detection systems in place in the area. A Negative Binomial (NB) regression was used to identify the determinants of the demand for ACTs.

Respondents stated higher willingness-to-pay (WTP) than expected, but revealed lower ability-to-pay (ATP), which was defined as the demand. Our findings showed that households' ATP was 0.94 USD on average for the treatment of an uncomplicated malaria episode. This implied an average gap of 0.46 USD between international ACTs prices and local demand, rising to 1.04 USD when considering the average local private price. Results showed ATP was negatively associated with the number of malaria episodes the child had previously suffered during the same malaria season, wealth and geographical area. WTP, age and household head occupation were also positively correlated with ATP. Finally, this work also revealed an unequal distribution of welfare between suppliers and consumers in the local market.

Parallel session 7: Households: support and perceptions

PS 07/10

Exploratory analysis of user satisfaction factors of health facilities in Senegal

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Objective

This study explores the key dimensions of user satisfaction of Senegal's health facilities.

Methods

An initial exploratory factor analysis (EFA) was performed for all health facilities and all users. Then a screening was done according to health facilities (hospitals, health posts and center, private institutions) to find out if the factor solutions were different according to samples under consideration.

The data were obtained from the national survey conducted in 2015. The satisfaction component involves a random and representative sample of public and private health institutions in 69 districts and 44 departments of Senegal. About 2122 users of health services in 1177 inpatients and 945 outpatients were interviewed.

The main dimensions of satisfaction indicated in the questionnaire are: contact with health personnel, the perception of the quality of relationships with other patients, the quality of infrastructure, accessibility of the facility, waiting time, informal payments, the reason for the visit, the respect for privacy, listening and information and permissions.

The main steps used to AFE: compliance verification if the conditions are met (Bartlett's test of sphericity and the Kaiser-Meyer-Olkin Sampling of Adequacy), determination of the number of factors to extract from initial AFE (specific values of the factors, the screen test, cumulative variance for all factors), fixing the number of factors to extract and produce a new factor analysis. SPSS 23 was used for data processing.

Results

The factorial three-factor solution was chosen and is slightly different depending on the screening level of health facilities. The first factor includes items related to the perception of users by reporting the behavior of doctors to their ways (listening, responsiveness, confidentiality, availability, quality of care). The second represents the items related to the premises and their maintenance and the third reception of the entire health staff (information sharing, listening, attention, testified interest). The management of these aspects seems important to improve the quality of care and user satisfaction. Further research is underway to find the reasons for the lack of payments including informal to the point of health services and waiting times in factorial solutions.

PS 07/11

Implementation analysis of the National Family Security Grants Programme (PNBSF) in Senegal

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Social protection of vulnerable people is once again a priority for African governments and international donors. In Senegal, the PNBSF (response type conditional cash transfer - TMC) for the poor and vulnerable households (poor women, the elderly, victims of disability, poor households with children aged 0-12) was initiated since 2013.

Its objectives are to reduce extreme poverty, improving maternal and child health, education, empower vulnerable people etc.

It is funded by the State and the World Bank and is managed by the Social Protection and National Solidarity Delegation (Délégation Générale à la Protection Sociale et la Solidarité Nationale or DGPSN).

At its launch, it was to cover 50,000 households selected according to national targeting criteria. It aims to recruit at least 250 000 households in 2017. Recipients receive quarterly lump sum payments of approximately \$ 50 and in return undertake to use health and education services offered and which themselves or their families are entitled to participate in nutrition programs, to register births and deaths of their children in the civil status registers, to adhere to mutual health insurance etc. Despite the importance and scale of the program, it has been the subject of little research and independent evaluations.

Objective

The objective of this exploratory research is to conduct an analysis of the implementation and a summary of the PNBSF normative assessment.

It is a mixed method research. Qualitative data were obtained from individual interviews and focus groups with beneficiaries, officials of programs and actors involved (ministries, TFP, private sector, civil society and community organizations, key informants). The quantitative data were obtained from the programme database (surveys and routine collection), the national statistical agency and demographics or donors. These were supplemented by literature review.

Results

Our main intermediate outcomes:

- Mapping and analysis of TMC similar ongoing national programs in Africa;
- Presentation of the logical framework and comprehensive analysis of the programme;
- Introducing monitoring dashboard of its major indicators with focus on health;
- Comparisons of results with initial goals and certain standards;
- Recommendations were made to improve its effectiveness and efficiency.

Conclusion

The complexity of the programme requires more targeting on objectives, trade-offs in the choice of interventions to improve the coherence, resource utilization, efficiency and effectiveness of the program.

PS 07/12

Determinants of users' satisfaction of health services in the Luiza Health Zone in the Democratic Republic of Congo

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Background and objective

The Integrated Health Project (IHP) funded by USAID implemented a Performance-based financing (PBF) project in the Democratic Republic of Congo to support the National Health Development Programme (PNDS) between 2011 and 2015. To improve the quality of services in Luiza Health Zone (HZ) supported by (IHP) under the Performance-based financing (PBF), a study was conducted to determine the profile of service users and to study the contributing factors of customers' satisfaction by the project for appropriate responses.

Material and methods

Between November 26 and December 5, 2015, a representative sample of a cross-sectional survey of health service users was organized in the Luiza Health Zone (HZ). About 292 service users between July and September 2015 were asked to complete the survey to determine the profile of the users and get answers to 12 questions about their satisfaction with the services received. The cost factor often regarded by the public as a crucial health care factor to user satisfaction is our working hypothesis. The predictive power of these factors on user satisfaction was determined by multiple logistic regression.

Results

The survey from the field has shown that the median age of the users surveyed was 22 years, and interquartile ranges were 6-28 years. Among these users, 35.6% were male and 65.4% female.

The odds ratio (95%) of user satisfaction based on qualitative predictors showed that user satisfaction was most influenced by good reception ($p = 0.001119$), the availability of drugs ($p = 0.002207$), the availability of caregivers ($p = 0.000907$) and awareness of community health ($p = 0.000127$). The cost of health care has not influenced user satisfaction ($p = 0.574409$).

Conclusion.

It appears from this study that user satisfaction is related to the quality of reception, the availability of essential and generic drugs, the availability of caregivers, and raising awareness in the community by Community health workers. However, the cost of care has had a negative influence on the satisfaction for the period covered by our study. This will help providers focus their attention on these factors to improve the quality of services offered to the population.

PS 07/13

Exploring Health shocks and coping strategies among rural households in Burkina Faso: a road for defining universal health coverage

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Illness is a major risk to people's livelihoods in resource poor settings. Moreover, health shocks can cause significant adverse economic effects for households. This paper analyses the degree to which households in rural Burkina Faso are exposed to health shocks and the coping mechanism which these households are currently using in comparison with the coping mechanism for frequent health problems.

The analysis is based on a unique household survey conducted in 30 villages of the rural community of Ziniaré in Burkina Faso. In each village every second household was selected. In total 1,500 households were interviewed by a face-to-face interviews in 2013. A questionnaire exploring health care utilization, coping strategies and health shocks and frequent health problems was developed.

The analysis shows that every fifth household suffered from at least one major negative health event caused by accident, severe illness or death of a household member. Every second household has one member with a disability/chronic illness. Also at the individual level, 22.3% of the household members were sick in the past 28 days.

Further analysis however shows that households were not uniformly affected by health shocks. Poorest households were more likely to suffer from health shocks than the richest one. Moreover households with more elderly members were at higher risk of health shocks and frequent health problems due to chronic illness.

Also the coping behaviour in case of health shocks is quite distinct to the responses employed in case households have been experiencing frequent health problems. In the absence of formal insurance mechanism, households experiencing health shocks were predominantly relying on transfers from other family members and friends. While for frequent health problems, households (58%) tended to rely more on their savings to face the costs. The average loss in revenue or assets in consequence of such an event was estimated at 159 euro - an amount equivalent to the 2009 nominal poverty line of Burkina Faso. The average monthly cost for chronic illness was estimated at 16 euro that represented the third of the minimal monthly national salary of Burkina Faso.

In conclusion households encountered health shocks and developed coping strategies to deal with. When designing health insurance mechanisms, implementers should take different characteristics of households and their ability to cope with health shocks into account.

Key words: Health shocks, Coping, Burkina Faso

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Conflict disclosure: None

PS 07/14

Determinants of self-medication in Cameroon

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In its narrow sense, self-medication is defined as the practice whereby individuals treat their ailments and conditions with medicines which are available without prescription. Self-medication involves the use of medicinal products by the consumer to treat self-recognized disorders or symptoms, or the intermittent or continued use of a medication prescribed by a physician for chronic or recurring diseases or symptoms. In practice, it also includes use of the medication of family members, especially where the treatment of children or the elderly is involved. Nearly 51% of the Cameroonian population practices it.

The objective of this study is to determine the explanatory factors of self-medication in Cameroon. In particular, to analyze the determinants of self-medication and the choice of location for obtaining drugs for self-medication.

The data used are from the 2011 Cameroon Demographic and Health Survey and Multiple Indicators Cluster Surveys (DHS-MICS) by the National Institute of Statistics. These have undergone various analyzes as statistics econometrics.

Regarding the analysis of the determinants of self-medication in Cameroon, a binary logit model is used. This section has highlighted the relationship between the socioeconomic characteristics of individuals, the household and those who self-medicate. Analysis of choice of delivery location to obtain self-medication drugs (pharmaceuticals, street vendor, pharmacopoeia, drugs already available at home), the econometric estimation used a multinomial logit model.

The results of the first analysis mainly show that the price, the number of patients in the household, the severity of the disease increases the probability of resorting to self-medication. In the second analysis, the price and the wealth index have both positive and negative impact depending on where to obtain the drugs. At the end of our study, it appears that the reasons to self-medication are many and varied. Policies to control this phenomenon also deserve to be multidimensional.

Keywords: Self-medication, binary logit model, multinomial logit model, Cameroon.

Parallel Session 8: Organized sessions

Organized session 15: ‘Strategic purchasing’ in different health financing models – four case studies from 3 Sub-Saharan African countries

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SESSION BACKGROUND:

Strategic purchasing aims to improve health systems performance by linking purchasing decisions to healthcare service delivery through the definition of service entitlements and purchasers’ relationships with providers. The organized session draws on the results from a multi-country study that critically examined healthcare purchasing functions in ten low- and middle-income countries. Specifically, the session focuses on how different healthcare financing models, i.e. the public integrated, public contract, and private contract models, affect the occurrence of ‘strategic purchasing’ in Sub-Saharan Africa.

The session starts with a brief presentation on the concept of strategic purchasing and the definition of the health financing models that operate in the multi-country study, which differ in the nature of purchasers and in how purchasers and providers interact. This is followed by the presentation of results from four case studies. The first presentation looks at the Nigerian tax-funded health system (a public integrated health system) and presents findings on issues inherent to the ‘integrated’ structure of purchaser and providers within a single organization.

Next, a presentation on the Tanzanian public integrated system describes the mechanism through which Local Government Authorities (LGAs), who are public purchasers at the decentralized level, procure primary healthcare services for the population and how a decentralized public purchaser adds values in terms of the service obtained. The LGAs receive funding from multiple sources including tax revenue, external funding bodies and the Community-Based Health Fund (CHF).

The third presentation discusses the Formal Sector Social Health Insurance programme (FSSHIP) that operates under the National Health Insurance Scheme (NHIS) in Nigeria (a public contract model). Under FSSHIP, NHIS, a public purchaser, hires private, for-profit Health Maintenance Organizations (HMOs) to manage the contract that purchases healthcare services from private healthcare providers. The presentation explores how the ‘two-tiered’ purchasers work together to influence strategic purchasing under the FSSHIP.

The last presentation looks at three private, voluntary healthcare financing mechanisms that operate in Kenya: Community-based Health Insurance (CBHI), Private (for-profit) Health Insurance (PHI) and Micro Health Insurance (MHI) and highlights the differences and similarities in the three mechanisms in terms of the structure of the purchaser and provider organizations and the nature of purchasers. After the panel presentations, the chair will invite the audience to ask questions about the presentations and facilitate a participatory discussion with the audience on what needs to be considered in order to realize strategic purchasing in the different health financing models that operate in Africa.

Presentation 1: Can a public purchaser send signals to public providers to improve health systems performance? A case study from the Nigerian public integrated health system

Ibe Ogochukwu, Health Policy Research Group, College of Medicine, University of Nigeria

Introduction In the tax-funded health system in Nigeria, the Ministry of Health (MoH) purchases health services for all citizens who wish to access publicly-provided health services. The services provided are based on a defined benefit package that covers preventive, promotive and curative care at both primary and secondary levels. The MoH owns and manages the public providers who deliver services. In strategic purchasing, the purchaser is expected to use levers to steer the providers towards providing quality health services in an efficient manner. This study looks at the levers being used by the MoH as a purchaser in the Nigerian tax-funded health system and how the levers function in practice.

Methods A qualitative case study was conducted in Enugu state in 2014. In-depth interviews (IDIs) were used to elicit information from respondents drawn from the MoH and providers at the primary and secondary levels. A total of 9 IDIs with purchasers and 11 with providers were held. Analysis entailed characterization of the relationships between the purchasers and providers by comparing key ideal purchasing actions with actual practice.

Findings The study found that monitoring provider performance as a leverage tool is well developed in policy but there is variation in actual implementation – monitoring is often undertaken in an ad hoc manner and inconsistent, partly due to financial and human resources capacity constraints in MoH. Budget and salaries, as a provider payment mechanism, are not linked to performance and no additional incentives, rewards and sanctions are made based on the performance of health providers. As a result, the payment mechanism does not send specific signals for efficient, quality health service delivery. Auditing and accountability mechanisms are weak in that no rigorous auditing of health facilities takes place, and mechanisms to make purchasing decisions transparent to health providers are lacking.

Conclusions Purchasing health services within the tax based health system in Nigeria is passive and the MoH does not effectively utilize existing tools to motivate health providers to perform better. Various ways of promoting strategic purchasing, including improved monitoring and accountability mechanisms, that will positively influence the behaviour and performance of healthcare providers to produce better health outcomes should be considered.

Presentation 2: Can a decentralized public purchaser facilitate the purchase of primary health care services? A case from the Tanzanian public integrated health system

Jane Macha, Ifakara Health Institute

Background In Tanzania, purchasing public sector primary health services for the population, including district hospital services, has been decentralized and is undertaken by Local Government Authorities (LGAs). LGAs receive funding from the central government, development partners and complementary schemes such as the Community Health Fund (CHF). This study critically examines how the decentralized purchasing system facilitates the purchase of primary health care services and the occurrence of strategic purchasing in the public integrated health system.

Methods This study applied a case study approach with rural and urban councils selected for in-depth investigation. In-depth interviews, focus group discussions and document reviews were the main sources of data. A thematic approach was used to analyse the qualitative data.

Findings The LGAs are both purchasers and managers of health services under the decentralized system. LGAs own all public primary health facilities and are responsible for ensuring that human resources and needed supplies and equipment are available for health service provision at all public facilities. While the LGA controls all finances that flow to public providers, including those from complementary schemes such as CHF, the overall purchasing function at the LGA is limited, including for the purchase of clinical services from private facilities, as purchasing must follow a pre-determined budget ceiling provided by the Ministry of Finance and Economic Affairs (MOFEA). The Government uses a population-based formula to guide the allocation of public resources to districts but the formula does not consider other factors and the budget can be unrelated to local needs. Also, the existing resource allocation formula does not drive the allocation of budget resources from LGAs to providers and it is unclear whether equity in the distribution of financial resources to health providers is prioritized. The LGAs have experienced delayed disbursement of funds from the central government (MOFEA), affecting the flow of supplies to providers and ultimately affecting the quality of health services.

Conclusion Being both the fund holder and the manager of health care providers has limited the extent to which LGAs are undertaking strategic purchasing. Potential for improving purchasing at decentralised level needs to be considered.

Presentation 3: How do NHIS and HMOs work together as purchasers in the FSSHIP? A case study from Nigeria

Enyi Etiaba, Health Policy Research Group, College of Medicine, University of Nigeria

Introduction In Nigeria, the Formal Sector Social Health Insurance Programme (FSSHIP) was established in 2005 under the National Health Insurance Scheme (NHIS) and aims to provide health insurance coverage to both private and public formal sector employees. The NHIS purchases primary, secondary and tertiary healthcare services for the FSSHIP member from both public and private healthcare providers and hires Health Maintenance Organizations (HMOs) to manage contracts with and disburse funds to private healthcare providers. FSSHIP allows a purchaser-provider split, which theoretically facilitates the contractual relationship between purchasers and providers and the realization of 'strategic purchasing'. The study examines how NHIS and HMOs work together to influence strategic purchasing under the FSSHIP.

Methods The study employed a qualitative case study design. The data collection took place in Enugu State, Nigeria, in 2014. Information was gathered through document review, in-depth interviews and focus group discussions with purposively selected respondents.

Findings The NHIS acts as a higher level of purchaser in that it develops a framework for the operation of HMOs and oversees the work undertaken by HMOs. NHIS is responsible for accreditation and registration of HMOs and is required to provide quarterly operation monitoring visits to HMOs. In practice, partly due to financial and human resource capacity constraints and some political reasons, NHIS rarely oversees the work of HMOs. NHIS is also responsible for accreditation and annual re-accreditation of healthcare providers however, due to the same capacity and political constraints, re-accreditation of healthcare providers is not always undertaken, which may impact on the healthcare service quality that members receive. HMOs send monthly and annual financial and service provision reports to NHIS. NHIS receive funds from the Federal Government and subsequently transfers quarterly payments to HMOs. HMOs then make capitation payment to providers and reimburse fee-for-service claims. However, reimbursement of healthcare providers by HMOs is often delayed, partly due to a lengthy claim verification process but also due to the fact that some HMOs mobilize the funds from NHIS for their own investment purposes before sending payment to providers. The delay in payment from HMOs, together with providers'

dissatisfaction with payment rates, has discouraged healthcare providers from treating FSSHIP members.

Conclusion Current arrangements between the NHIS and HMOs do not foster strategic purchasing. Reform of the NHIS should consider how best to structure purchasing organizations and establish institutional arrangements that allow strategic purchasing to influence provider behaviour and improve the healthcare service quality.

Presentation 4: Does the type of purchaser matter? Examination of three private purchasing mechanisms in Kenya

Kenneth Munge, KEMRI-Wellcome Trust Research Programme

Background About 20% of Kenyans are covered by health insurance: the majority by the National Hospital Insurance Fund (NHIF); and the rest by Private Health Insurance (PHI), micro insurance (MHI), community-based health insurance (CBHI), and other employer-based schemes. PHI and MHI work on a for-profit basis. PHI cover private formal sector employees, whereas MHI offer health insurance products to the low-income population. CBHI mainly operate in rural areas and are often linked to sponsor, non-government organizations (NGO). Although health insurance currently only covers a small proportion of the population, the Kenyan Government considers that different types of insurance mechanisms may allow the expansion of financial protection for health care in progress towards universal health coverage (UHC). The study examines health care purchasing in the private, voluntary health insurance mechanisms (PHI, MHI and CBHI) operating in Kenya.

Methods A case study approach was employed to purposively study selected PHI, MHI, and CBHI networks. Data was collected through document review, FGD with citizens and key informant interviews with purchasers, the government and regulatory authorities, health providers, and NGO.

Findings While contracts are used as the basis for the provider-purchaser relationship, there is widespread use of ‘relational’ contracting in that strict compliance with contract terms, including imposition of penalties and sanctions, rarely occurs. Of the three private mechanisms, MHI demonstrates the greatest use of bargaining power with purchasers using their membership numbers as leverage to negotiate better contract terms. All three mechanisms utilize fee-for-service as a provider payment mechanism, and do not use other levers such as essential drug lists, standard treatment guidelines or monitoring to improve healthcare service quality and efficiency. The design of benefit entitlements varies for the three mechanisms: PHI focus on consumer choice and ability to pay and offer a wide variety of high cost, individual-risk-based insurance products; MHI prioritize simplicity and affordability of benefit options and offer a smaller variety of moderate cost, family-based insurance products; and CBHI work with a limited number of service providers and the rural, low-income population so offer a limited range of low-cost family-based benefit packages. No clear guidelines or regulatory framework exist in relation to the operation of private purchasers.

Conclusion The three mechanisms display policy design and implementation gaps that result in a deviation from ideal strategic purchasing. The study highlights the need for Government stewardship that embraces private purchasers in the pursuit of the public health goals in Kenya.

Parallel Session 8

Parallel session 8: Community-based health services: financial and political dimensions

PS 08/1

“They often take us for granted”: perceptions of Community Health Officers attitudes and discretionary power affecting implementation of Ghana’s community-based primary health care programme.

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Background: Ghana is scaling up a community-based primary care programme built on community participation, volunteerism and use of Community Health Officers (CHOs) (Nurses reoriented and placed in the community to among others provide clinical sessions, home care, clinical outreaches and promotive and preventive care). In principle, CHOs are socially accountable to the community and district health leadership. In practice however, they enjoy relative autonomy in terms of choices and hold considerable discretionary power often exercised to the benefit or detriment of programme implementation. Drawing upon Likpsky’s street-level bureaucracy theory, we aim to explore and analyse how and why implementation of the programme is affected by factors embedded in the actions of these CHOs.

Methods: A qualitative study conducted in four communities in northern Ghana. In each community, we conducted in-depth interviews with CHOs (n = 10) and focus group discussions with a purposefully sampled community key informants: traditional authorities, district assembly members, community health volunteers and clients. Interviews were tape-recorded, transcribed verbatim and exported to Nvivo 10 for analysis. Two researchers independently coded the text deductively but allowing new codes emerging to be nested into existing ones. The final set of codes were aligned, organised into a hierarchical structure and reported.

Results: Findings show that regular access to health services was impeded by CHOs absenteeism, lateness at work and use of discretionary authority to determine when and how care should be administered. Furthermore, community members shared their experience about problems with CHOs relations, courtesy, cultural respect and personal commitment to the programme’s implementation. Such attitudes played out in undermining broad-based community participation in the programme. Some participants complained about frequent prescription errors which they attributed to lack of opportunity to question CHOs diagnostics and treatment. CHOs relational shortfalls partly resulted from weak administrative systems that compromised effective monitoring and supervision. Also, the nature of work and working conditions of CHOs produced incentives for such attitudinal problems.

Conclusion: Findings extend the utility of bottom-up theories to the implementation of community-based health programmes. The results suggest the need for CHOs to model the way and act as agents of social change at the interface with the community to influence participation in the programme.

PS 08/2**The role of community (health) volunteers in promoting improved, responsive and equitable primary health care in LMICs, and strategies to support them: a systematic review**

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Purpose

Community health worker (CHW) programmes have expanded significantly in some under-resourced health systems (e.g. Nepal, Indonesia, Brazil, Ethiopia, Uganda) providing basic primary care. In some, these have been supported by community health volunteers (CHV), drawn from local communities and with only basic training. However, their roles are not well understood and the PROSPERO database contains no systematic reviews of their activities.

Focus/content

We critically appraise and synthesize evidence on the scope for CHVs to support accessible, responsive and equitable primary health care in low and middle income countries. CHVs are multi-purpose workers based in their communities, active across sectors (health, education etc). They are not formally compensated, have limited training, and must mobilise local financial and social resources. While not part of government health structures, they might improve access to healthcare. We ask:

1. What are the (a) different roles played by CHVs, (b) reasons for roles assigned and (c) implications for PHC in LMICs?
2. What are the barriers and facilitators to achieving their potential?

The review covers the years from 1978 (Alma-Ata declaration envisaging a role for CHVs) to 2016, including qualitative and quantitative studies of CHVs. Electronic databases searched include: Medline, EMBASE, The Cochrane and JBI Library of Systematic Reviews, government and international agencies websites, Global Health, Cochrane library, WHOLIS, Worldcat, HMIC, etc. as well as grey literature databases such as SCOPUS, websites of international organisations and reference tracing. Relevant abstracts were screened independently by two reviewers, with quality appraisal, extraction and analysis conducted by a team of four reviewers. A scoping review has identified >100 studies.

The JBI-SUMARI 5.0 was used for conducting the review, using JBI Narrative, Opinion and Text Assessment and Review Instrument (NOTARI) tools suited to the largely qualitative reports including project evaluation reports, policy documents, and expert opinion.

Emerging findings show that CHVs can make a valuable contribution and high levels of retention are possible but not inevitable. However, both require attention to motivation, achieved through skills acquisition and realisation that they are making a difference.

Significance for the sub-theme area/field-building dimension

Community volunteers (distinct from CHWs) offer an untapped potential to accelerate PHC improvement and community engagement in local health issues. This is the first synthesis of evidence on these cadres.

Target audience

The review will provide researchers, policy-makers and implementers with knowledge of the potential contributions of the volunteers in LMICs seeking to build resilient and participatory PHC care.

PS 08/3**Are people willing to pay for community based health insurance scheme (CBHIS) through faith-based organizations in southeast Nigeria? Implications for universal health coverage**

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Introduction

Countries of the world are making moves to ensure that quality and affordable health care is provided to people irrespective of their socio-economic status. The current wave is Universal Health Coverage (UHC). This is expected to give required health cover to all through financial risk protection. In the Southeast Nigeria, a couple of Community-Based Health Insurance Schemes (CBHIS) are being initiated. However, payment mechanisms and trust have remained major issues that pose challenge to the scheme implementation across the country. This study therefore examines willingness to pay for CBHIS through religious leaders in communities.

Methods

Three communities – Umuabi in Udi Local Government Area (LGA); Ikem in Isi Uzo LGA and Eha Alumona in Nsukka LGA – were selected from the West, East and North Senatorial Zones that make up Enugu State political system in South-east Nigeria. Interviewer-administered questionnaire was used to elicit information from the respondents. Household heads were purposively selected and approached for interview and their representatives interviewed in their absence. The interview bothered on their willingness to pay (WTP) for CBHIS. Three hundred respondents were interviewed in each of the communities, with twenty additional questionnaires in each community to account for no response. to replace outliers. Contingent Valuation Method was used to elicit information on WTP for CBHIS and responses entered into SPSS version 18. Stat transfer was used to transfer the data from SPSS to Stata 10 for analysis. Respondents were further grouped into socio-economic status for equity analysis.

Findings

Most respondents 99%, 98% and 93% are willing to enroll for CBHIS in Ikem, Eha-Alumona and Umuabi communities respectively. Respondents in all the three communities said they are willing to participate in the scheme if their religious leaders will be part of the management – 65%, 63% and 69% in Umuabi, Ikem and Eha-Alumona respectively. The mean stated WTP for CBHIS in Umuabi, Ikem and Eha-Alumona were N262 (\$1.75), N196 (\$1.31) and N158 (\$1.05) respectively.

Conclusion

This study identified the need for CBHIS across communities using faith-based structure. The respondents indicated that they will be willing to enroll in the scheme if their priests would be part of the scheme management.

PS 08/4**The Impact of Community Engagement and Financial Incentive on Healthcare Utilization and Health Insurance Enrolment in Ghana**

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Background:

This paper evaluates the impact of community engagement and financial incentive intervention on healthcare utilization and health insurance enrolment in Ghana. The interventions were implemented to encourage individual and community involvement in the processes of healthcare delivery and health insurance provision with the aim of improving perceptions on service quality and subsequently improving healthcare utilization and health insurance enrolment.

Method:

We used data from a randomized controlled trial study conducted in 64 communities in the catchment area of 64 health centers/clinics in 16 districts in 2 regions in Ghana. The interventions were implemented in 32 communities after a baseline survey in 2012 and a follow-up survey was conducted in 2014. The remaining 32 communities served as controls. Difference-in-difference regression estimation was done on a panel data of 5,451 individuals in the baseline and follow-up surveys to measure the impact of the interventions on healthcare utilization health, insurance enrolment and perception of healthcare and NHIS service quality.

Results:

We found that in the short term (12 months), community engagement as a whole resulted in insignificant decrease in healthcare utilization and significant increase (8.2%) in health insurance enrolment but the intensive engagement alone resulted in insignificant increases in both healthcare utilization and health insurance enrolment whilst the light engagement alone resulted in insignificant decrease in healthcare utilization and significant increase (8.6%) in health insurance enrolment. The combination of community engagement and financial incentive resulted in insignificant decrease in healthcare utilization and significantly higher increase (9.1%) in health insurance enrolment in the intervention communities than the control communities.

Conclusion:

The paper provides an important starting point in understanding the effect of community engagement and financial incentive on healthcare utilization and health insurance enrolment and highlights their potential as strategies to significantly improve service utilization and health insurance enrolment in the long term particularly in low and middle income countries. Further studies are however required to broaden the understanding of the mechanisms through which the interventions impact on healthcare utilization and health insurance enrolment.

Parallel session 8: Priority setting and economic evaluation

PS 08/5

Setting priorities in health: who requires which capacities, and why? A framework for low and middle-income countries.

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Context: Setting robust priorities in health is demanding and fraught with challenges. One can be caught out by getting them right, when influential interests are threatened; and one can be caught out by getting them wrong, when the country's resources are wasted by not having the biggest impact possible on the people's health.

This paper focuses on types of capacity that are needed to support decision-makers when setting health priorities, where these can be found, and how best they can be created. These categories each have distinctive characteristics, require different approaches to building capacity to support universal health coverage, and will involve different segments of the population. There are many types of "capacity" with which one must deal – not only capacity to "do" research.

The recommendations in this paper draw on experiences and literature from South Africa, and a range of low and middle-income country (LMIC) countries and institutions participating in the International Decision Support Initiative. The authors aim to set out a framework for understanding key elements of capacity-building, how existing development activities fit into this framework, and finally to identify priorities for research and practice.

Recommendations: Researchers in healthcare often regard capacity development for LMICs in terms of acquisition by individuals of research skills – for example, health economics and public health postgraduate programmes offered by major centres in HICs - and to measure success in terms of the training provided and publications produced. However, international experience suggests equal importance of skills in local research communities to engage with policy and professional end-users, discern their decision-related needs for evidence, and to articulate those needs as research projects and programmes that can be implemented locally.

We have identified a number of required capacities by "target group" (for example in-country policy-makers, health service managers, the wider public, and so on) and developed research recommendations focused on these target groups. Given the focus on targeting different stakeholders, we recommend that a tool for mapping relevant stakeholder groups be developed and used across priority-setting networks. The end goal is to build capacity of the broader policy environment.

Of particular relevance in resource-constrained contexts where capacities on both demand- and supply-sides may be sparse, it is strategic to focus capacity-building efforts on existing agencies or groups of individuals who have some formal linkage between the research and decision-making circles (for example, technical units within ministries of health).

PS 08/6**Research priority setting for health systems development to advance Universal health coverage in Uganda: The stakeholder perspectives and involvement.**

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Introduction:

There is international consensus for countries to make deliberate efforts towards universal health coverage (UHC) which is defined as securing access to all appropriate promotive, preventive, curative and rehabilitative services at an affordable cost. The World Health Report 2013 urges all countries to be both consumers and producers of research to enhance health systems development towards UHC. However, there is limited documentation of research priority setting in developing countries. This paper shares experiences from Uganda on setting the national research agenda for UHC. The objective of this study was to enhance the knowledge and understanding of health system stakeholders on UHC research agenda and to conduct research setting exercises to elicit stakeholders' views.

Methods:

Two national consultation workshops were convened in May and August 2015 to develop a research agenda for UHC in Uganda. The meeting participants included senior and middle level policy makers and key stakeholders in health and other relevant sectors. The meetings followed a participatory multistep multivoting methodology. Stakeholders' views were analyzed thematically according to health systems building blocks.

Results:

Of the total 80 policy makers invited 57 (71.3%) attended the meetings. It was the consensus of the participants that research should focus on issues of health workforce, governance, financing, service delivery and community health. Respondents recommended research on social determinants health (SDH) and harnessing tools and mechanisms for multisectoral collaboration. They highlighted a need for more research to improve health systems resilience to external shocks such as climate change and disease epidemics.

Discussion and conclusions

Research priority setting processes are critical for efforts to strengthen health systems and enhance systems resilience towards UHC. This study adopted a multilevel, multidimensional and multidisciplinary stakeholder involvement to capture the diversity of perspectives. From a practical consideration, many more questions can be asked than answered. Thus, setting priorities for investigation is critical and inevitable. Attention should be paid to the principal challenges for developing countries such as identifying key research questions and strengthening research systems. Research for UHC will need competent human resources, who are well facilitated to work in well-equipped institutions. Ultimately, to ensure that research delivers results that lead to health improvements, mechanisms to translate evidence into action must be developed.

Key words: Research, priority setting, Health system strengthening, health system resilience, multivoting, Universal health coverage.

PS 08/7**Is Ghana ready to use evidence from economic evaluation for priority setting in health care? A systematic evaluation of economic evaluation studies in Ghana.**

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Background

The imbalance between the demand and supply of health care necessitates the prioritisation of health interventions and subsequent rationing of health resources by policy/decision makers. Economic evaluation is one evidence-based tool that ensures this is done in a legitimate way that is seen as fair and appropriate. As Ghana continues to seek a more efficient way of making decisions in health there is the need to assess the quantity and quality of evidence for economic evaluation for use in the country.

Method

A comprehensive search was done in Embase, Ovid Medline, Old Ovid Medline, Ovid in process and other non-indexed citation and Pubmed to identify all published economic evaluations pertaining to Ghana from 1946 to October 2015. Article publication alert was also activated to capture any economic evaluation studies published from date of search to date of analysis and write-up. Studies reviewed were full articles conducted in Ghana only and Ghana and other countries that met the inclusion criteria of the study. The quality of the studies reviewed were assessed using Consolidated Health Economic Evaluation Reporting Standards (CHEERS) and Quality of Health Economics Study (QHES) checklists.

Results

A total of 16 articles were reviewed out 1646 that were screened. 94% of these were published from year 2000 to 2015 with 65% of these published after 2010. Only 4 of the studies had local persons as corresponding authors. None of the studies was published in a local journal. Nine studies addressed communicable diseases and the remaining non-communicable diseases. Technologies evaluated were drugs (6), treatment interventions (5), diagnostics (4) and others (1). All the studies undertook a cost effectiveness analysis.

The mean quality score of all studies was 84% (QHES score) and 80% (CHEERS). The nationality of the corresponding author highly correlated to the quality of the study and was statistically significant. In spite of their quality some limitations seen were failure to characterise heterogeneity (100%) and perform sub-group analysis (100%). Also 81% of the studies failed to describe how their preference outcomes were measured and valued whilst only 25% presented the structure of the model used for the evaluation.

Conclusion

The number of economic evaluation studies conducted in the country is very small but of good quality. There is the need to develop local capacity to undertake such studies if Ghana is to consider and successfully use such evidence for priority setting and decision making in health.

Parallel session 8: Innovative health financing

PS 08/8

Innovative financing options for Mozambique

Like most countries across the globe, Mozambique has embarked on the journey towards achieving universal health coverage (UHC), i.e. ensuring that the entire population has access to a good-quality package of services without suffering financial hardship as a result. This goal requires substantial political commitment as well as financial resources.

The health sector in Mozambique is one of the priority sectors of government policy. Nevertheless, attainment of health sector objectives will be challenging, given the numerous financial and institutional capacity constraints faced by the sector. These constraints are evidenced by the difficulties in accomplishing health-related Millennium Development Goals.

The Health Sector Strategic Plan (Plano Estrategico do Sector da Saude – PESS) 2014–2019 estimates total financial needs of the sector at about \$7.8 billion; the financial gap stands at about \$2.8 billion. Currently, about two-thirds of the health sector budget is funded by internal sources (taxes, levies and domestic credit) and one-third from external sources (divided into a budgeted common fund and specific off-budget projects). The dominant schemes of health care financing include the government, households, compulsory health insurance schemes (employer-provided insurance) and off-budget donor support/philanthropic initiatives.

This report starts by outlining the health financing situation in Mozambique (Section 1) and identifies the financing gap to achieve UHC (Section 2). Whilst there are many approaches to filling this gap (additional borrowing, efficiency savings in spending, additional donor aid and additional domestic allocation through increased government allocation to health and the introduction of innovative financing mechanisms), this report only focuses on innovative financing mechanisms.

Four mechanisms were selected for further analysis. The selection process as well as the methodology used for the analysis are described in section 3. This section also outlines a review of the literature for each mechanism at international and national levels, presents the outcomes of semi-structured interviews undertaken with key stakeholders and an assessment of the potential for revenue raising for each mechanism.

Section 4 offers some concluding remarks and recommendations. It concludes that in Mozambique the dominant schemes of health care financing include the government, out of pocket/family members; employer-provided insurance; informal groups' savings schemes; and off-budget donor support and philanthropic initiatives. For most of the formally employed labourers, employer-provided health insurance is an important source of financing and resources pooling. For the poor and those working in the informal sector, resorting to out-of-pocket spending and borrowing is widespread.

After reviewing and analysing the feasibility of a number of innovative financing mechanisms inside and outside the health sector, the study concluded that a new car tax, a new tourism levy, a new alcohol consumption levy and a hypothecation of a fraction of the revenues from taxation of the extractive sectors (coal and gas) stood out as the main feasible mechanisms.

- **Tourism levy:** based on the analysis of the possible sector effects (demand and supply), possible quantitative effects (size of revenues), convenience and efficiency considerations in the collection of revenues, the study concluded that an ad valorem levy (and not a unit tariff or levy) would be the most feasible option to implement. The study found that an ad valorem levy below 5% is unlikely to reduce demand for accommodation. Therefore, it is estimated that a new tourism levy in the range of 1% on top of the daily accommodation cost would raise a minimum of \$3 million per year, assuming that tourism revenues do not fall below the \$300 million threshold.

Political economy considerations point to a possible competition for revenues among some stakeholders that will require some arbitration by the government as to who gets what and how much.

- **Tax on alcohol:** The combination of the current tax regime applicable to alcoholic beverages, the market structure (monopoly for beer and oligopoly for wine and spirits) and the existence of some features of informality of the business environment (tax evasion, smuggling and production of traditional beverages) implies that the burden of any new tax or levy on the alcoholic beverages sectors will mostly be borne by the formal players. With this feature in mind, the study concluded that a feasible approach would be to implement a unitary levy based on the volume of alcohol for each type of alcoholic beverage. In this context, the study recommends that levies in the range of MZN 1 to 5 on top of the retail price would be a non-distortionary rate. An alcohol levy would yield a total minimum revenue close to \$4.3 million per year.
- **Hypothecation of a share of extractive industry revenues:** Despite the huge tax benefits granted to the extractives sector, room to optimise collection and allocation of tax revenues remains high given that tax revenues accruing from the sector have been going up since 2010. Based on this, the study recommends a minimum statutory rate of 10%, which would yield a minimum of \$20 million per annum that could be allocated to the health sector. Political economy considerations indicate that given that no new tax is being introduced, that the sector has large and long tax benefits and that the output from the sector is for the most part aimed at foreign markets, the allocation rate of 10% is likely not to be distortionary.
- **Levy on cars:** Even though statistics on the stock and flows of motor vehicles in Mozambique are hard to get, anecdotal evidence suggests that both elements are on the rise. This trend indicates possible room for an increased car levy or new forms of taxes or levies on cars. Taxes paid vary per category (light, heavy, motorcycles and tractors) and class of vehicles (type of fuel and engine capacity). The study's alternative analysis listed possible taxes such as congestion taxes (to be paid in large cities or municipalities) and carbon emission taxes (to be paid on cars of a certain age), but structural conditions, such as the lack of an efficient public transport system in and outside the major cities and limited and expensive automobile purchase options, render these options ineffective. Therefore, the study suggests that under the current structural conditions in Mozambique, a feasible approach is to raise the existing car taxes by 10% and earmark 10% of those proceeds. Under this option, close to \$202,000 per annum could be allocated to the health sector. Political economy considerations, however, point to a potential conflict between the municipalities (which will collect the taxes and are faced with financial challenges of their own, and have the mandate and autonomy to charge and collect tax resources in their jurisdictions) and the Ministry of Health (MoH), which stands to benefit from proceeds from car taxes as cars have negative effects on health.

From the technical perspective, the non-hypothecation principle of public finance in Mozambique could be a challenge to be overcome through political lobbying or decisions.

PS 08/9

Why did funding based on outcomes in Chad stop after the pilot phase?

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Introduction

Chad, with the funding from the World Bank (WB) implemented a *Results Based Financing* (RBF) pilot project between October 2011 and May 2013. The results were satisfactory overall, leading the government to pursue the strategy after the pilot project, possibly with a gradual scaling. This commitment is evidenced by the inclusion in the state budget. However, this budget was never executed and the scaling did not take place. Our research aimed to understand the reasons for this "unexpected" decision. Beyond the RBF and Chad, it would improve the knowledge of the factors that may affect (positively or negatively) the implementation of public health policies in Africa and / or in similar contexts.

Material and methods

The *case study design* was descriptive and analytical, using a qualitative data. Data collection adopted a literature review and 32 key informants. Theoretical frameworks for health policy analysis were used: the triangle of Walt and Gilson and the Kingdon model of Agenda Setting. The analysis has clarified the policy, health and social context of the project implementation, institutional arrangements in place and the role played by the health system actors.

Results

The relevance of the RBF as a strategy that could help solve the structural and economic problems of the Chadian health system does not appear to be challenged by the players. Yet, despite the existence of many political expediency windows, the RBF could not go from the government's agenda ('Governmental agenda') to the decision-making agenda ('agenda decision') at the end of the pilot phase. The reasons for this situation is the fact that the technical aspects of the implementation of the project are likely to have taken over the political aspects. In fact, a "political entrepreneur" to actually carry it with a lack of national ownership was missed.

Conclusion

Our study concludes that there is the need to conduct thorough analysis in contextual political economy before the introduction of complex reformist interventions as the RBF into the health system.

PS 08/10**Using Results based financing to improve health care delivery: Lessons learned from Senegal**

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In 2012, the Government of Senegal (GoS) piloted Results-Based Financing (RBF) in 108 health facilities in two regions, seeking to motivate health workers, increase utilization of quality services, and ultimately contribute to achieving better health outcomes. Facilities were rewarded for achieving a set of maternal, newborn, child health and disease prevention targets that reflect country priorities. Quality of care was considered when determining incentive payments.

This study is a process evaluation of the RBF pilot for the period 2012-2013. The objectives are to assess facility performance against RBF targets, document how facilities have responded to RBF incentives, and elucidate success factors and implementation challenges in order to inform scale-up efforts. Using a mixed methods approach, the evaluation combines quantitative program monitoring data analysis with 56 semi-structured interviews with facilities and key stakeholders.

The results show gradual improvement in overall service quality and important progress in selected health indicators, mostly notably child health. Maternal and reproductive health indicators did not advance at the same rate. Facilities have responded to the RBF incentive scheme by improving their working conditions, including hygiene, infrastructure, and equipment, increasingly involving community health workers in the delivery of services, improving financial management of the facility, and better monitoring drugs and supplies. While the pilot was generally well-received, the study noted important implementation and structural challenges that threaten its credibility. These include substantial delays in data verification and payments, insufficient training on RBF forms and procedures, inadequate communication between RBF actors, and absence of measures to support facilities in coping with increased volume of services.

RBF programs are expanding all over the world, yet evidence is thin about how they modify behaviors and why they work (or fail to work). This evaluation study generates important lessons that should primarily inform the scale-up of the program in Senegal, but also contribute to better design and implementation of RBF programs elsewhere.

PS 08/11**Performance-Based Financing (PBF) in the public health policies reform in Africa: the case of Cameroon**

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As a fashion trend, the development of so-called market instruments has increased in public policy with the motto "for more effective and efficient reform." Indeed, the market instruments such as results-based management, management by objectives or performance-based funding is now needed in developing countries in general, and Cameroon specifically as key levers for public health policy reform in this case. In the 1990s and 2000s, public health actors in Southern Cameroon faced, in certain respects just as their counterparts in Northern Cameroon, pressure and constraints imposed by increasingly innovative skills in the New Public Management (NPM) that support efficiency and accountability for public administrations. They must constantly update, train, learn a new managerial language and turn into suppliers or providers of health services to deal with increasing applicants or consumers. Above all, they must meet standards for efficacy, efficiency and effectiveness if they want to have more resources and better pay. The rise of new public management consisting of the adoption of private sector management practices in the public sector translates explicitly the market logic that is necessary today to the public sector, as it is said, to modernize, make it more effective, efficient and improve its performance.

Indeed, under the impulse of international development institutions such as the World Bank. Recent years have seen widespread experimentation of Performance-based funding (PBF) as a new tool for health reform policy in sub-Saharan Africa. Thus, taking the example of Cameroon, this study will highlight the impacts of Performance-based funding (PBF) as reflected in testimonies and experiences of health actors responsible for its implementation. To improve performance of health services, funding is subject to achievement of a series of indicators called "performance". Through a primary qualitative approach complemented by quantitative data to highlight and analyze the impact of this new avatar of the new public management.

PS 08/12**The implication of introducing two mutually conflicting Results Based Payment schemes in public hospitals in Macedonia**

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Background

The pace of Results Based Financing reforms as introduced in Macedonia was directly linked to the political changes in the country. Our research was conducted to describe in details all steps in evolution of two mutually conflicting Results Based Financing schemes (DRG and P4P) in Macedonia during the period between 2006-2014.

Study Question

To describe the nature and processes behind implementation of Diagnostic Related Groups and Pay for Performance as results based financing schemes in Macedonian public hospitals.

Methods

We have conducted a series of interviews with officials and key informants at the Ministry of health, Health Insurance Fund, State-owned University Clinics, Medical associations and with the management of the hospitals. Data were collected and reviewed from all available published and unpublished sources.

Results

Scaling up of DRG at the national level was enabled over a complex set of interactions between four components of a policy cycle: policy process, context, reform actors and content. International experience, combined with strong political support were essential prerequisites for generating national knowledge and ownership of the reform.

There was no clear and agreed model of the P4P scheme. This has resulted in conflicts between the members of the working groups. There was little or no international experienced and according to the interviewees the ownership of the scheme was limited only to few individuals within the Ministry of health.

Conclusions

The findings from our research show that use of international knowledge combined with strong local leadership and ownership of the new reforms may result in successful implementation of the idea into scaled up national policy for the developing countries.

Health Policy Implications

The example of implementing P4P reforms suggest that fragmentation in the content of the reform, and lack of local ownership in transfer of the knowledge results in resistance and reluctance in implementation of the reform.

Parallel session 8: Health policy and reform

PS 08/13

Drug regulation in the Maghreb: What tools and what effects?

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Introduction

In recent decades, the Maghreb countries have undertaken all pharmaceutical reforms including encouraging local production and promoting the prescription of generic medication. In access to care, these reforms have aimed to ensure equitable access to pharmaceuticals while taking into account the resources of the country and the needs of the local population.

The goal:

This study will adopt an overview of the legal and regulatory frameworks of the pricing system and the terms of the management of new pharmaceutical products in the Maghreb countries. The aim is to identify formal tools in place to make health decisions and then see the effects in terms of registration and product financing.

Methods:

This is a comparative study of legislation and regulations and refer to the literature on procedures for price fixings and management of pharmaceutical products in the Maghreb countries: Morocco, Algeria and Tunisia.

Then, from the database of the French National Health Authority (HAS), we identified a sample of medicines over the period from January 2012 to December 2014 on the French market as a benchmark to compare the availability of these products in all three Maghreb countries.

Results:

In the three Maghreb countries there was the introduction of similar instruments such as refundable reference price system in reimbursement decisions or the international reference price system in the pricing of medicines.

Of the 182 drugs covered in France, it was noted that 45.6% (83/182) in Tunisia were subsidised followed by 37.36% (68/182) for Algeria and 30.21% (55 / 182) for Morocco. Furthermore, in terms of decision management, more than 75% of the decisions are common; 50% of similar decisions denied requests for reimbursement of medical expenses; almost 25% of decisions are positive. Finally, the decisions also affect reimbursement of medical expenses and multiple therapeutic areas such as cardiology, metabolic disorders or cancer. There is convergence for further analyses of the meaning and implications.

PS 08/14

Uptake of evidence in policy development: the case of user fees for health care in public health facilities in Uganda

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Background:

Several countries in Sub Saharan Africa have abolished user fees for health care but the extent to which such a policy decision is guided by evidence needs further exploration. We explored the barriers and facilitating factors to uptake of evidence in the process of user fee abolition in Uganda and how the context and stakeholders involved shaped the uptake of evidence. This study builds on previous work in Uganda that led to the development of a middle range theory (MRT) outlining the main facilitating factors for knowledge translation (KT). Application of the MRT to the case of abolition of user fees contributes to its refining.

Methods:

Employing a theory-driven inquiry and case study approach given the need for in-depth investigation, we reviewed documents and conducted interviews with 32 purposefully selected key informants. We assessed whether evidence was available, had or had not been considered in policy development and the reasons why and; assessed how the actors and the context shaped the uptake of evidence.

Results:

Symbolic, conceptual and instrumental uses of evidence were manifest. Different actors were influenced by different types of evidence. While technocrats in the ministry of health (MoH) relied on formal research, politicians relied on community complaints. The capacity of the MoH to lead the KT process was weak and the partnerships for KT were informal. The political window and alignment of the evidence with overall government discourse enhanced uptake of evidence. Stakeholders were divided, seemed to be polarized for various reasons and had varying levels of support and influence impacting the uptake of evidence.

Conclusion:

Evidence will be taken up in policy development in instances where the MoH leads the KT process, there are partnerships for KT in place, and the overall government policy and the political situation can be expected to play a role. Different actors will be influenced by different types of evidence and their level of support and influence will impact the uptake of evidence. In addition, the extent to which a policy issue is contested and, whether stakeholders share similar opinions and preferences will impact the uptake of evidence.

Keywords: User fees, Health care, Public facilities, Policy development, Knowledge translation, Uganda

PS 08/15

From schemes to systems: alternative explanations for the increasing interest in results based financing deliberations in Uganda between 2013 and 2015.

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Background:

In Uganda, since 2003 several results based financing (RBF) initiatives have been implemented as standalone projects with little integration into the national health system. However, increased momentum for RBF has been noted between 2014 and 2015 as exhibited by three national dialogues and efforts to develop a national RBF model spearheaded by the Ministry of Health. This paper analyses the momentum of policy deliberations around RBF from small isolated elites to national level agenda.

Methodology:

This was a qualitative research tracking RBF deliberations through participation observations at consultative meetings, document/literature review and key informant interviews for the period 2014 to 2015. Policy development frameworks (Advocacy coalition framework and multiple streams model) were used to generate plausible explanations for the observed elevation of RBF on the policy agenda in Uganda.

Key findings:

Several standalone initiatives RBF initiatives have been implemented in Uganda's health sector since 2003. The increased deliberation to institutionalise RBF within the national system between 2014 and 2015 can be explained by five alternative explanations. 1) External funding – Many aid partners (DFID, BTC and World Bank) are switching to RBF mechanisms. Heightened perception of corruption was an underlying concern for this. 2) Knowledge accumulation argument – There are increased lessons especially from facility and district-level actors. These have actively engaged national level officials to visit the RBF pilots. 3) Emergence of new RBF champions in Uganda – WHO, Cordaid, NUHEALTH, BTC are increasingly involved in RBF advocacy complementing the World Bank efforts since 2003. 4) Health systems argument – this stream has provided mixed perspectives. Some see RBF schemes as strengthening the health system (especially performance management systems). Others view RBF as weakening the public sector by marginalizing public sector institutions. 5) Value for money argument – Some are concerned about the high costs of technical assistance and outsourcing RBF support services to for-profit NGOs.

Discussion and conclusion:

The different views illustrate the strengths and the vulnerability of the RBF policy agenda in Uganda. RBF models that demonstrate reduction of waste of resources and increased integration of government institutions are vital to the policy development. Although donor-aid preconditions are tilting the policy agenda in favor of RBF approaches, the private-centric and pro-profit RBF models are likely to slow down the policy development process. Overall, the policy advocates should clearly articulate the roles of legitimate public institutions if RBF is to find a good fit within the Ugandan health system.

Key words

Results-Based Financing, Policy development, scale-up, healthy systems, Uganda

PS 08/16

Does the Voice of Civil Society Coalitions Influence Health Sector Reforms in Nigeria? A Case Study of Health Sector Reform Coalition of Nigeria

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Background:

The 1999 Constitution developed by the last military government in 1999 did not make provisions that guarantee Nigerians the right to health and implementation of health sector reforms in the post-military era have been constrained by lack of enabling laws/legal frameworks. This paper examines the critical advocacy roles played by civil society over a 10-year period which led to the passage and signing of Nigeria's first comprehensive health law—the 2014 Nigeria National Health Act.

Methods:

The study adopted a qualitative approach and data was collected through key informant interviews. Respondents were selected based on their membership and active participation in the core advocacy activities of the coalition. Supplementary data was collected through content analysis and review of relevant documents, including minutes of meetings among others.

Results:

The Advocacy Coalition Framework (ACF) was used to explore the role of indigenous Nigerian CSO coalitions in influencing policy change. The study showed that the coalition was formed primarily to influence and shape the processes that led to the passage by the Legislature and eventual signing of the 2014 National Health Bill into an Act by the President respectively. The coalition adopted different advocacy strategies which include; informal meetings with policy makers, legislative advocacy and participation in public hearings, mass protests, capacity building and mobilization of influential health journalists and editors, media briefings, advocacy kits, public enlightenment and sensitization, stakeholder engagements and consensus building, mobilization of influential traditional and religious leaders, among others. Coalescing around a single mission and detailed work plan with specific deliverables helped to keep the coalition focused and undistracted by opponents of the bill. Despite its loose structure, some members of the coalition constituted the core group and pillar of the coalition and committed significant time and resources towards actualizing the set goals and objectives. Although attribution of results was a sensitive issue among members, conflicts of interests and attribution problems were resolved through dialogue. Members are publicly acknowledged for the specific roles and contribution towards realizing the primary goal of the coalition and this has helped to strengthen the special bond and trust among members.

Discussion/Conclusion:

The passage and signing of the National Health Act in 2014 was the result of consistent advocacy over a 10-year period by CSOs active within the Nigerian health sector. When evidence-based advocacy efforts are focused around a specific issue, collaborations can help CSOs to leverage resources to influence policy change.

PS 08/17**Strengthening the co-production and sharing of knowledge to achieve the SDG: the experience of "Collectivity" first collaborative platform for experts in Global Health.**

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Collectivity is the first online platform that allows experts in Global Health co-produce knowledge and participate in collaborative projects. Its release scheduled for March 2016, will be presented at the conference (1) the platform and the opportunities it offers to African experts; (2) the concept: a new action model in Global Health; (3) the early lessons for countries and experts, after 6 months of practice.

Collectivity is the result of 5 years of management of three international communities of practice (CoPs), dedicated to strengthening health systems as part of the Harmonization for Health in Africa (HHA) initiative.

We learned from this experience that in the area of Global Health, (1) collaborative work dynamics and sharing peer to peer knowledge can be developed; (2) in the intellectual breeding ground thousands of experts from the South is still too little used and undervalued; (3) the mobilization and involvement of this crowd of experts will maximize the impact of actions with a view to achieving the SDGs.

Our goal is to offer a solution that trains enough experts to motivate and devote time in the realization of collaborative projects. Collectivity specifically is to reward the experts involved, and improve visibility at the international level of the brightest and most involved minds.

Funded by the Norwegian Agency for Development Cooperation (NORAD), Collectivity is a partnership between a research institution, the Institute of Tropical Medicine in Antwerp and Blue Square, a startup specializing in the development of technological solutions for developing countries governments, (based in Brussels and Bujumbura).

If the platform is new, the concept of collaborative project was tested in 2015: Now more than 10 collaborative projects involving a total of nearly a hundred experts have successfully been completed.

Specifically, a major project on a highly innovative research theme – Learning health system performance measurement- supported by the French Muskoka Funds and the CoP, was made possible by 6 teams of local researchers in African countries. It is too early to comment on the potential success of Collectivity: 2016 is a key year. If the platform achieved its initial goals, more ambition will be extended... why not extend the concept beyond the field of Health and other SDGs thematic?

PS 08/18

What resources to mobilize to help achieve the SDGs: analysis of results and funding for malaria control in Côte d'Ivoire

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Goal

To contribute to an assessment of resources to mobilize to help achieve the financing of the SDGs for malaria control.

Methodology

This is a descriptive study. Progress in the MDGs in the fight against malaria and the resources mobilized to achieve these results were examined from 2011 to 2014. Funding opportunities known over the period of SDGs were listed and a correlation between the resources mobilized and the objectives established. A projection of state funding in 2030 was made as well as the expected results.

Results

The fight against malaria has reduced mortality among children under 5 years all malaria cases from 125 ‰ in MICS 2006 to 108 ‰ in EDS III 2012. The LLIN utilization rates among children of this age group has increased from 3% in 2006 to 37% in 2012 with a ratio use / possession of 68% in the population.

The proportion of households with at least one (01) ITN increased from 10% in MICS 2006 to 67% in EDS III 2012 and 95% in EDS III 2014 (LLIN Campaign Report, 2014). The incidence of malaria in children under 5 years fell by 109 points between 2011 and 2014 from 389 ‰ to 280 ‰.

The resources mobilized to achieve these results between 2011 and 2014 amounted to 127,294,694,622. In this period 87.8% of the resources were mobilized from the Global Fund. The share of the state and other partners represents 13.2%. It would also allow funding partner more visibility by 2030.

The share of the state will increase to 36,504,208 CFA francs 637.78, taking into account the willingness to pay, which foresees an annual increase of 25%, based on the amount for 2017 (2,006,840,093 CFA francs).

Conclusion

The move to scale effective interventions since 2010 has had an impact on the results of the fight against malaria. These actions need the average mobilization 31,823,673,655.50 per year.

If the state and partners maintain efforts, the incidence will decline and fall below [0] among children by 2022 at a rate of 27.25 point per year.

Parallel Session 9: Organized sessions

Organized session 16: Taking Results-Based Financing from Scheme to System

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Session background:

RBF programs linking payments to quantity or quality indicators have recently been implemented in many LMICs often by major global health actors including the World Bank. However, RBF has largely been implemented as a standalone programme with research focused on impact evaluation. Insufficient attention has been given to examining program interactions with underlying health system factors and national and global actors. These interactions are central to explaining the scale-up, integration and sustainability of RBF programs within national health systems. Based on an 11 country research program developed by the AHPSR that uses analytical case studies to explain the scale up and integration of RBF projects into national health systems, the session will:

- Discuss methodological innovations developed by the research program in terms of explaining dimensions of scale up and stages of scale up of RBF programs
- Apply data from country cases to methodological innovations to identify and analyse system level enablers and barriers in specific countries and across the study sites.
- Put forward a range of policy relevant questions including a) the wider health system and policy reforms that facilitate RBF scale up and integration, b) institutional and individual level motivations to scale up and how these influence policy design and implementation, and c) expected and unexpected positive and negative consequences of RBF on and beyond the health system
- Discuss study implications for global health agencies, funders and national governments in designing and implementing RBF approaches.

The session will consist of a brief introduction, four presentations and a discussion. The introduction will provide an overview of the research program, its rationale and how it addresses current knowledge gaps. The first presentation will focus on methodological innovations made by the research program. This will be followed by a presentation from Burundi that will examine factors explaining the scale up and sustainability of the national RBF program overcoming initial scepticism. By contrast, the third presentation from Chad will analyse why the RBF program failed to take off in that country. The final presentation will use data from across the 11 country sites to provide cross-national learnings on enablers and barriers to the scale up of RBF programs in LMICs.

This will be followed by a discussion on relevance of the research for global health funders, international agencies and policy-makers. After an initial round of discussion among the panellists, the session will be opened for audience participation.

Presentation 1: Taking Results Based Financing from Scheme to System: Methodological Innovations

B Meessen, Z Shroff, P Ir, M Bigdeli

Background- RBF approaches have been scaled-up and successfully integrated into the national health system in some countries. However, in others they have remained as pilot projects. Research on RBF has tended to focus on impact evaluation to examine program effectiveness. Relatively little attention has been paid to understanding processes and factors that have enabled or hindered program scale-up and integration into national health systems.

Filling this gap, the AHPSR supported the development of a multi-country research program to examine RBF scale up and health system integration. This paper discusses lessons learnt from a methodological perspective and how this work has advanced the understanding of scale up dimensions and processes relevant to RBF and health policies in LMICs more generally.

Methods and Results- Based on an examination of the scale up literature and on RBF programs we developed two methodological innovations: a) a multi-dimensional framework to capture the relevant dimensions on which to assess RBF scale up and integration, b) a model examining the stages of scale up in the movement of RBF programs from standalone projects to being fully integrated into the health system.

The multi-dimensional framework analyzes RBF scale-up along five dimensions, namely- population coverage, service coverage, health system integration (further analyzed in terms of areas of integration and the depth of this integration). Additionally, the model looks at the diffusion of RBF from health to other development sectors, or cross-sectoral diffusion. The story of RBF is intrinsically linked to the diffusion of ideas and knowledge across countries and continents. Hence the growth and development of RBF knowledge is the final dimension along which we examine scale up. We provide definitions and indicators for each of these dimensions.

Our stages of scale up model examines the movement of RBF from project introduction to being fully integrated into the health system in four stages- generation of the idea, its adoption, institutionalization and perpetuation/diffusion. We believe that there are specific enablers and barriers that are most relevant to each stage, knowledge of which can inform the successful design and implementation of programs.

Conclusion- In addition to making a unique methodological contribution to the scale up literature, this paper provides a framework to analyze the empirical data both from the individual country cases as well as carry out cross-country analysis across the 11 project sites.

Presentation 2: Performance Based financing from pilot to health system: the case of Burundi

E Bigirimana, L Ntakarutimana, O Basenya, J Manirambona, B Meessen

Background- Performance-based financing (PBF) in Burundi has been implemented as a supply-side, results-based financing mechanism to improve health care at the pilot phase and the scale up process involved geographical expansion, the involvement of new donors and integration of new packages of services. Within a space of 4 years Burundi achieved nationwide PBF implementation and an appreciable country ownership. This study shows the factors which enabled or hindered that scale up process as well as the power relations which influenced some of the major decisions taken. It also looks forward at the future of PBF in Burundi in the face of new challenges.

Methods -A literature review combining a desk review of unpublished documents and review of published articles was conducted. Purposive sampling was carried out to identify key informants among the actors who took part in the PBF program in Burundi. In-depth interviews of 17 key informants representing a range of stakeholders were carried out. Data was coded and triangulated until saturation was reached to reach of salient themes.

Results- The initiation of PBF in Burundi was the result of the technical advocacy undertaken at a time when the Ministry of Health was willing to engage in contract based approaches. The initial reluctance to take this approach was progressively overcome by the increasing interest showed by service providers to this approach and the observable results at the facility level which enabled the Ministry with the support of donors found to extend the approach nationwide.

However the speed with which this approach was implemented nationwide has been associated with a degree of laxity in rigorously adhering to fundamental principles. Late payments made to facilities threaten the sustainability of the approach. Finally, new reforms initiated in an ad-hoc and impromptu manner are leading to a great deal of uncertainty in the system.

Conclusions- The scaling up of PBF from initial introduction to nationwide implementation was rapid. Observable results supported by vigorous advocacy from promoting NGOs and the enthusiastic support of donors made this possible. However, there has lately been stagnation in the programs evolution and further development due to delays of PBF payments to health facilities and competing priorities promoted by the government.

Presentation 3: Why Performance Based Financing in Chad failed to emerge on the national policy agenda?

J Kiendrébéogo, L Yonli, A Berthé, M Béchir, B Meessen

Background- Supported by the World Bank (WB), Chad, implemented a performance based financing (PBF) scheme as a pilot, from October 2011 to May 2013, with an aim to improve maternal and child health. But despite promising results and the government's stated commitment to ensure its continuation after departure of WB, the program was discontinued. Our study aims to explain why this was the case, an interesting question especially given that at first glance conditions were favorable for project continuation. Beyond this particular case, the findings could help to highlight potential enablers and barriers to successful implementation of relevant health policies in Africa and other LMIC contexts

Methods- Data for this case study were collected through literature review, focus group discussions (n=12) and key informant interviews (n=20). We applied health policy analysis theories and frameworks, especially the Walt and Gilson triangle and Kingdon's agenda setting model. Their application highlighted the political, health and social contexts of project implementation processes, as well as the institutional arrangements in place and the roles played by key actors in the health system.

Results- The relevance of PBF as a strategy that could address some of the structural problems of the Chadian health system, and improve maternal and child health, was not disputed by actors. However, after the pilot stage, the project failed to move from the "governmental agenda" (intention to continue) to the "decision agenda" (action to continue), despite the appearance of many windows of opportunity and enabling factors. Hindrances appeared in project institutional arrangements and implementation processes, but the main reason was that political considerations became paramount, evident from the lack of real ownership of the strategy by national authorities and an absence of policy entrepreneurs to sustain it.

Conclusion- Few studies have applied Kingdon's agenda setting model to investigate why a policy failed to emerge on the policy agenda. To our knowledge, this is the first time that the model has been applied to explain PBF non-emergence. Moreover, our study demonstrates the importance of conducting in-depth and contextual political economy analysis before the implementation of complex and reform strategies. Indeed, this could help to anticipate difficulties and thus facilitate their actual implementation in an effective and efficient way, learning that is relevant for Chad and beyond.

Presentation 4: Taking RBF from scheme to system: comparing enablers and barriers across countries

Z Shroff, M Anthony, B Meessen, M Bigdeli

Background: This paper provides an overview of lessons learnt from the 11 country research program as a whole on the factors that have enabled and hindered the transition of RBF programs from standalone projects to being fully integrated into national health systems. Analysis at the level of a specific project or country is essential for a detailed understanding of scale-up processes steeped in context. However comparing across multiple sites and cases allows us to identify more systematically the factors and actors associated with particular outcomes.

Methods- The four stage scale up model developed in the first paper, and the Walt and Gilson policy triangle served as overarching frameworks. While the former was used to classify each RBF projects' stage of scale up and group the projects accordingly, the latter was used to categorize factors and actors influencing policy processes among projects at the same stage. This was achieved through in-depth thematic analysis of individual project documents based on codes reflecting the theoretical framework.

Findings- The particular contextual, content factors, processes and actors and their relative importance vary greatly at each stage of the scale up process. At an early stage of establishing a pilot, an enabling global context that framed PBF as a value for money intervention and having in place a knowledge broker and an implementing agency ready to invest resources was important in many countries. On the other hand, aligning national contextual factors with the transparency agenda, having policy entrepreneurs willing to take this forward, identifying institutional allies within governments, and the framing of the program as a health systems change as opposed to vertical programme was important in moving the pilot to the level of a national scheme. Institutional flexibility and leadership within and beyond the Ministry of Health are crucial to further integration. Having in place legal frameworks to enable RBF programs and stable funding are also important.

Conclusion- The contribution of each of the factors and actors and the processes by which they contribute varies across the different stages. It is thus important for both decision-makers and researchers working in this area to prospectively identify challenges. This knowledge will be invaluable in designing and implementing RBF programs that are most suited for a given implementation context.

Parallel Session 9

Parallel session 9: Social determinants, costs and financing of mental health

PS 09/1

Social determinants of depression in South African women: understanding the role of empowerment and environmental context

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Background

Depression is one of the leading contributors to the global burden of disease and the leading cause of disability worldwide. While there is a growing body of literature on depression worldwide, there is not much evidence from African countries and specifically evidence on depression in women of reproductive age. In this study, we examine how empowerment indicators and community factors of social capital and economic disadvantage affect depression in South African women in the age-group 15-49 years.

Methods

A multi-level analysis was applied to 5,725 women in the South African National Income Dynamics Study (SA-NIDS) of 2008 linked to the South African Index of Multiple Deprivation (SAMID)-2007.

Results

The multilevel analysis shows that greater neighbourhood social capital was associated with lower depression score -0.06 (p-value

PS 09/2

Cost of Major Mental Illnesses to the Public Health Service Provider

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Background:

Enhancing the well-being of individuals and communities and enabling them to achieve their self-determined goals is the main purpose of mental health service.

Objectives:

To estimate the economic cost of major mental illnesses and cost determinants to the public health service provider.

Methods:

Hospital-based cross-sectional study was conducted to estimate cost of major mental illnesses using prevalence-based, bottom-up costing approach. Average cost was calculated by identifying and adding various components of treatment costs from service provision units.

Results:

Unit cost of 1,204.2 Birr was incurred to the public health service provider to give mental health services at Amanuel Public Hospital. Marginal cost of providing health care for each additional patient at the hospital was 118 Birr. Additionally, the hospital incurred a unit cost of 229.3 Birr to provide emergency services while the unit costs to inpatient and outpatient health services were 23,016.1, and 611.4 Birr respectively. Distribution of the hospital cost significantly differs for the residence area of patients ($\chi^2=20.5$, P

PS 09/3**Inequalities in health and health risk factors in the Southern African Development Community (SADC) region: evidence from World Health Surveys**

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Background:

To date, although a few studies have documented socioeconomic inequalities in health in some of the Southern African Development Community (SADC) member countries, a comprehensive assessment of inequalities in health and distribution of risk factors among socioeconomic groups in the region has not been made. This study specifically investigates socioeconomic-related inequality in health and inequalities in risk factors of ill-health across SADC member countries. It also assesses the relationship that exists between inequalities in ill-health and inequalities in the associated risk factors.

Methodology:

Multi-country data are taken from the 2003 World Health Organization's World Health Survey (WHS). Specifically, data from six SADC member states were analysed—Malawi, Mauritius, Zambia, Zimbabwe, South Africa and Swaziland. Health was self-reported on a scale from 1 (very good) to 5 (very bad). Four risk factors of ill-health were considered: smoking, heavy drinking, low fruit and vegetable consumption and physical inactivity. Three variables related to household environment were also used: unimproved source of drinking water, unimproved sanitary facilities and biomass cooking fuel. A proxy of socioeconomic status was created using household expenditures. Standardised and normalised concentration indices and curves were used to assess and compare the distribution of socioeconomic inequalities in SAH and risk factors across socioeconomic groups in each SADC country.

Results:

Overall, socioeconomic inequality as measured by SAH is apparent among the six SADC member states. With the exception of Mauritius (concentration index (CI) = 0.0013), the CIs were negative, indicating that poor health is reported more by the poor compared to the rich. In all countries, smoking, low fruit and vegetable consumption were significantly concentrated among the poor. Similarly, the use of unimproved water, unimproved sanitation and biomass energy were significantly concentrated among the poor. However, heavy drinking and physical inactivity displayed mixed patterns of inequalities.

Conclusion:

Considerable levels of socioeconomic inequalities in SAH, risky health behaviours and environmental hazards were found among the SADC member countries. The findings suggest the need for concerted national and regional efforts to address the significant socioeconomic inequalities in health and improve the well-being of the disadvantaged groups. This can be done through targeted policy interventions across sectors (i.e. an intersectoral approach). Moreover, further research is needed to identify the underlying factors that influence such inequalities in the region.

PS 09/4

Health Expenditures and Sustainable Development Goals: Implications for Mental Health Financing in Nigeria

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Background

The fifth goal of sustainable development goals (SDGs) aimed to achieve health and wellbeing at all ages. One of the targets of this goal is to ensure universal coverage of quality healthcare for mental health disorder. Household remains the major source of health financing in Nigeria with households' health expenditures ranging between 60% and 74% while public health expenditures remain largely around 15% and 27%. There is no statistics available for the proportion of mental health expenses in total health expenditures in Nigeria. Usually, the index of measuring government mental health expenditures in Nigeria is the proportion of health expenditures going into mental health hospitals. At present only about 3.3% of the health budget of the federal government goes to mental health, with over 90% of this going to mental hospitals and no government policy exists that suggest an increase in the proportion of government health budget going into mental health care in Nigeria. Current data shows that mental health care is majorly financed by out-of-pocket expenditures. This study examines the trends and growth of expenditures allocation to mental health care from 2002-2015 in Nigeria and the rate at which public health expenditures to mental health needs to grow to meet SDGs. This is to take a stock of current situation on mental health spending in Nigeria as the world began the pursuit of Sustainable Development Goals (SDGs).

Methods

The study employed growth rate and proportions to determine the level and rate of expenditures allocations to mental health by each source of health financing means from 2002-2015. Deficit in allocation were estimated for all the years to gauge the required growth rate of health expenditures allocation to mental health for subsequent years.

Results

Funds required for financing mental health services to reach desired coverage are substantial compared to the current allocation of resources in Nigeria. Expenditures allocation to mental health from sources of health financing is below 5% for all the years considered. A growth rate of about 12% is required for public expenditures on mental health to set Nigeria on trajectory of universal coverage for mental health disorder.

Conclusions

Emphasis on out-of-pocket financing for mental health may further impoverish households with mental health disorder. There is urgent need to set budget allocation on mental health aside from general health budget allocation. Social health insurance also needs to explicitly incorporate mental health disorder into its benefit packages.

Parallel session 9: Social determinants, costs and financing of mental health

PS 09/5

Child Health Outcomes in sub-Saharan Africa: The Interrelated Effects of Neighbourhoods and Families on Child Health.

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Background

During the 15-year lifespan of the Millennium Development Goals (MDSs), health outcomes have dramatically improved overall, but progress has been highly uneven in the developing countries. The rates of infant and child mortality in a sizeable number of countries in sub-Saharan Africa remain a prominent global concern. While existing studies have identified socio-economic factors, environmental conditions and access to health care as key determinants of child health and survival, the role that family structure plays in protecting children's health in sub-Saharan Africa has received little attention. This research is stimulated by the recognition that negative child health outcomes may be as a result of disruption in existing family structures such as increasing parental deaths and high number of single parenting. We hypothesize that the impact of family structure on child health outcomes is in part explained by the different types of communities within which families reside and that community characteristics moderate the impact of family structure on child health outcomes.

Methods

Using weighted data from recent demographic and Health Surveys in Burundi (5,954), Cameroon (11,023), Congo DRC (14,182), Malawi (18,041), Mali (8,480), Niger (9,209), Nigeria (27,451), Rwanda (8,501), Zambia (5,410) and Zimbabwe (6,725), we examine the relationship between family structure and child health practices. Child health outcomes were measured in three areas: child's immunisation status (yes or no), mortality (dead or alive), and nutritional status (stunted or not). Although there are numerous community level characteristic that might be examined, the analysis is restricted to four variables that previous research suggests are important for understanding child health outcomes. The data are structured so that respondents are nested within communities; hence, a multilevel statistical model is used to estimate the impact of community characteristics, family structure and the other explanatory variables on child health outcomes.

Results

Results also showed that 28% of the children in the selected countries were not fully immunized and child stunting was higher in male headed households. Compared with children whose parents were married, children born to never-married single mothers were significantly more likely to die before age 5 in 4 of the selected countries (odds ratios range from 2.34 in Nigeria, 1.46 Burkina Faso, 1.23 Cameroon and 1.56 Malawi). In addition, two community level variables have significant effects on child health outcomes but their inclusion does little to alter the effects of family structure.

PS 09/6

Health Expenditures and Child Mortality: Evidence from Kenya⁸

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Aim: The aim of this study was to analyze the effect of health expenditures on child health.

Specific Objectives: To analyze the: (i) impact of household and government health expenditures on child health outcomes; (ii) joint impacts of household and government health expenditure on child health; and (iii) impacts of demographic and human capital variables on child health.

Methodology: This study estimated own and joint effects of public and private health expenditures on child deaths in Kenya using household data. Structural-form linear probability models of neonatal, infant, and child mortality are estimated. The Control Function Approach was used to control for endogeneity using predicted residuals and at the same time, to control for heterogeneity by interacting the residuals with the endogenous variable, household health expenditure. To correct for heterogeneity, we interacted the predicted residuals with private health expenditure.

Findings: This study found that whereas independent government or household expenditure is expected to produce positive health outcomes, this can only happen if all other things (unobservables in the residuals) are held constant. This study found that holding these unobservables constant in terms of health is not practical. Thus, where we expected the government or household expenditure alone to contribute positively to health outcome, the unobservables cancels the effect out.

Secondly, this study takes government and household health expenditure as complementary goods i.e. both parties have to spend. To an extent, there is a minimum that the household and the government has to spend on health for a child to achieve an optimal health status. For instance, when a government offers free immunization, the household has to spend a minimum in terms of transport to where the free service is being offered.

The study also found that the effects of public and private health expenditures on child deaths depend critically on age at which child mortality is measured. For instance, public and private health expenditures have no effect on deaths of neonates, but significantly influence the mortality of infants and children below the age of five. However, only the health effects of the interaction between the two expenditures are statistically significant, suggesting that public and private health expenditures complement each other in reducing infant and under-five mortality. After accounting for the effect of the interaction between public and private health expenditures, the individual health impacts of the expenditures are statistically insignificant.

Conclusions: In their control of childhood diseases, health policy makers need to take cognizance of the fact that, whereas, the government should invest adequately in the provision of preventive health services, at the same time, households should similarly provide for treatment of non-immunizable diseases. More generally, the empirical findings of the study point to the need to design and implement policies that promote synergy between public and health expenditures in the control of diseases.

8 This paper is derived from my PhD Thesis under the same title.

PS 09/7

Aid Effectiveness and Assessment of Official Development Assistance for Health to Nigeria: 2000-2015

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Background

Development Assistance for Health (DAH) in Nigeria has been on the increase since the advent of civilian democracy in 1999 after decades of military rule. Although Nigeria is not a donor-dependent country, donor agencies in the last decade have made significant investments in efforts to reform Nigerian health sector for improved service delivery and health outcomes. This paper attempts to track the trend of DAH over time, understand the aid instruments, the coordinating and accountability mechanisms among others. The information would help in improving aid alignment as Nigeria transits into the SDG era as a low-medium income country.

Methods

To understand the pattern of DAH in Nigeria, relevant data was extracted from the database of Organization for Economic Cooperation and Development (OECD)'s Development Assistance Committee (DAC). We also reviewed published literature and reports by Institute for Health Metrics and Evaluation (IHME) and International Health Partnership (IHP+), Nigeria's Ministry of Budget and National Planning as well as the National Health Accounts. We also reviewed donor aid related policies and reports to further understand the coordination and accountability mechanisms for DAH in Nigeria.

Results

The results show that although donor funding constitute a small percentage of total health expenditure in Nigeria, DAH increased significantly over the past decade, running into millions of dollars. Funding and technical assistance from donor agencies were targeted at population health interventions especially disease programmes like HIV/AIDS, Tuberculosis and Malaria. Although we did not explore the political economy of DAH, it was observed that certain regions in Nigeria benefitted more from donor assistance. The geographic consideration may have been influenced by disease burden and socio-economic indices. Traditional bilateral donors like United States and Britain are major players in addition to multilateral donors, with Canada, Japan, France, South Korea, China, Norway active in the health sector as well. In recent times, international Foundations like Bill and Melinda Gates have become major players with the increasing roles of local philanthropies and foundations. Overall, donor coordination role by the government is weak, thus affecting aid alignment.

Conclusion

There is need to strengthen institutional mechanisms for coordinating DAH in Nigeria, as the country grapples with the realities of contracting fiscal space and reduced funding for the health sector. Pool funding mechanisms and strong accountability mechanisms might help to improve donor alignment and channeling of resources towards achieving UHC and health-related SDGs in Nigeria.

PS 09/8

The Health MDGs in Ghana: Lessons and Implications for the Implementation of the Sustainable Development Goals

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The MDGs consisted of eight broad goals and twenty-nine targets, which when successfully implemented, were envisaged to improve the living conditions of the world's poorest populations. For a period of fifteen years, the Millennium Development Goals (MDGs) have been at the centre of global development initiatives and efforts. In spite of the momentum and investments made at achieving the targets set under the MDGs, there still exist significant challenges at the global and national levels especially within the health sector in Africa.

In Ghana, the success of some of the MDGs are uneven across the goals and within the country. This paper critically reviews the implementation of the health MDGs in Ghana: specifically MDG 4 (to reduce child mortality), MDG 5 (to improve maternal health) and MDG 6 (to combat HIV/AIDS, malaria, and other diseases). The study focuses on drawing key lessons from the national implementation strategies and institutional reforms adopted by Ghana towards achieving the health MDG targets. The study identifies the unique constraints and challenges that face both men and women in Ghana with regards to the health MDGs.

In brief, the results indicate that 73% of the 37 indicators in the MDGs monitored by Ghana were either achieved or significant progress were made. Ghana performed well in halving the proportion below the national poverty line by 2015. The country also performed better in achieving universal primary education and promoting gender equality as far as ratio of girls-to-boys in primary, secondary and tertiary education is concerned. Ghana also scored high marks in reducing HIV/AIDS prevalence rate. Ghana, however, missed out on some critical indicators such as child and maternal mortality, sanitation and housing, environmental sustainability and combating malaria. Why were these critical health MDGs missed? What were the key constraints? Ghana did not achieve goals four and five of the MDGs due to the slow progress it made in improving child and maternal health. The study indicates that key investments need to be made in the health sector, in the areas of access to good quality care enabling a narrowing of gaps in access and financing. It is expected that the lessons will enhance evidence-based policy making towards achieving the SDGs in Ghana.

Parallel session 9: Health systems in fragile and conflict-affected countries

PS 09/9

Building Resilient Systems through Performance-Based-Financing in Fragile & Conflict-Affected States: Case of Insurgency Affected Districts in Adamawa State, Nigeria

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Background Since 2009, Northeastern Nigeria has been experiencing insurgency attacks by the Boko Haram terrorist group. By 2015 the resulting humanitarian crisis led to the displacement of over a million people, and disrupted health care delivery in 7 districts.

In Adamawa State, the PBF health reform responded through the State Primary Health Care Development Agency (SPHCDA), which sub-contracted facilities and provided services to the Internally Displaced Persons (IDP) Camp Clinics. PBF in synergy with donor intervention came together to offer a platform for improved State stewardship and coordination from multiple partners in harmonizing relief efforts during the insurgency crises.

This paper assesses the effectiveness of the PBF approach in providing health care services to the IDP camps and host communities parallel to foreign assistance on state stewardship within the health sector.

Methods A mixed method research was used; a range of multiple sources was used to collect principal information for both qualitative and quantitative data from 2009 to 2015. Key informant interviews and documentary review were used for qualitative data while primary data from the National Health Management Information System (NHMIS) and the Nigerian PBF portal was collected for quantitative review. Simple descriptive statistical method was used to analyze the data.

Results From our findings, the PBF model had a positive effect on key health indicators in both the sub-contracted IDP camp clinics and the principal contracted health facilities from host communities in PBF districts. Exclusively in IDP Camp Clinics, about 13,899 cases were clinically managed in children, 5495 children immunized against measles and 2927 pregnant women screened for HIV where 17 positive cases were positive.

Institutional autonomy and performance-based incentives to health workers assigned to these clinics were highly motivating and the quality of health care services provided greatly improved. A special equity bonus was accorded and used to rehabilitate damaged health facilities in affected districts in order to provide better health conditions to the displaced population as they returned to their original communities.

Discussion/Conclusion Fragile and conflict-affected States have some of the worst health indicators in the world; however, the Adamawa example demonstrates the potential for PBF to deliver services even in an unstable setting thereby substantially improving health outcomes of high impact indices such as maternal and child health services.

Certainly this will inspire donors who seek better health results as the way forward, in supporting or re-establishing health systems in fragile and conflict-affected States.

PS 09/10**Budget process bottlenecks for immunization financing in the Democratic Republic of the Congo (DRC)**

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Background:

In Democratic Republic of the Congo (DRC), the availability of domestic resources for the immunization program is limited and relies mostly on external donor support. DRC has introduced a series of reforms to move the country toward performance-based management and program budgets.

Methods:

The objectives of the study were to: (i) describe the budget process norm, (ii) analyze the budget process in practice and associated bottlenecks at each of its phases, and (iii) collect suggestions made by the actors involved to improve the situation. Quantitative and qualitative data were collected through: a review of published and gray literature, and individual interviews.

Results:

Bottlenecks in the budget process and disbursement of funds for immunization are one of the causes of limited domestic resources for the program. Critical bottlenecks include: excessive use of off-budget procedures; limited human resources and capacity; lack of motivation; interference from ministries with the standard budget process; dependency toward the development partner's disbursements schedule; and lack of budget implementation tracking. Results show that the health sector's mobilization rate was 59% in 2011. For the credit line specific to immunization program activities, the mobilization rate for the national Expanded Program for Immunization (EPI) was 26% in 2011 and 43% for vaccines (2010). The main bottleneck for the EPI budget line (2011) and vaccine budget line (2011) occurs at the authorization phase.

Discussion:

Budget process bottlenecks identified in the analysis lead to a low mobilization rate for the immunization program. The bottlenecks identified show that a poor flow of funds causes an insufficient percentage of already allocated resources to reach various health system levels.

PS 09/11

Access to Clean Water and Sanitation in the Ebola Virus Disease (EVD) affected countries: Current gaps and future opportunities in the post-2015 development agenda

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Introduction

The EVD is not particularly new in Africa but the last outbreak of EVD started in Guinea in December 2013 and the WHO was formally notified of the epidemic by March 2014. This outbreak unarguably recorded the most number of morbidity, mortality and geographic spread within a short time space. Available epidemiologic data indicate that the outbreak stem from the introduction of a single virus into a human being through an unknown reservoir.

Objectives

The objectives of this paper is to: 1) Highlight the trend of spread of the EBV and its relationship to access to clean water and sanitation; 2) outline the importance of water and sanitation in combating infectious diseases especially the Ebola virus disease; 3) examine progress made towards accessing water and sanitation facilities in the countries affected by Ebola; 4) conduct a comparative analysis of access to water and sanitation among the countries affected by EVD using the WATSAN index; 5) examine factors that may have influenced access to water and sanitation among these countries; 6) provide recommendations to improve water and sanitation among these countries in the post-2015 development agenda.

Method

Pubmed, Medline, Google scholar, Science direct, WHO library database with search terms that included but not restricted to access to water and sanitation, rural, urban setting, water policies, health systems, Ebola virus disease, morbidity, mortality, post-2015 agenda. Further publications were identified from references cited in relevant articles and reports. Only papers published in English language were reviewed. No date restrictions were placed on searches.

Findings

This paper highlights the trend in the spread of the last EVD outbreak in affected countries, drivers of the epidemic, trends in access to clean water and sanitation in the past 10 years in focus countries using the WATSAN index. It summarizes the gaps in access to clean water and sanitation in the focus countries, provides insights into opportunities for access to clean water and sanitation in the post 2015 development agenda and beyond.

Conclusion

It suggests future opportunities and strategies that could be valuable in harnessing these opportunities in the post 2015 development agenda in the context of access to clean water and sanitation; and monitoring progress towards the provision of clean water and sanitation in the post 2015 agenda.

PS 09/12

Health financing and improving health in Africa: the role of the efficiency of public spending on health

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Health financing remains one of the main challenges for African countries to improve the health status of their population. In this regard, the literature remains quite controversial on the contribution of Public spending on health (PSH) to improve child health in developing countries, particularly in Africa. The population in sub Saharan Africa (SSA) suffers poor health as manifested in high mortality rates and low life expectancy. Economic growth has consistently been shown to be a major determinant of health outcomes. However, even with good economic growth rates, it is not possible to achieve desired improvements in health outcomes. Public spending on health (PSH) has long been viewed as a potential complement to economic growth in improving health.

However, the relationship between PSH and health outcomes is inconclusive and this inconclusiveness may, in part, be explained by governance-related factors which mediate the impact of the former on the latter according to a third group work. The study investigates whether or not the quality of governance (QoG) has a modifying effect on the impact of public health spending on health outcomes, measured by under-five mortality (U5M) and life expectancy at birth (LE), in a sample of 62 in Sub Saharan Africa covering the period 1995-2013. While some studies find that Public spending on health (PSH) have no significant effect on infant mortality, other authors have shown that Public spending on health (PSH) affect negatively and significantly infant mortality.

However, efficient management of Public spending on health (PSH) would be an important asset to the extent that it would mobilize additional funds that could be used to promote the quality of care but also the access of populations, particularly children to health care. Therefore, the efficiency of public resources allocated to the health sector would improve child health in African countries. The introduction of new instrumentation technique using instruments based on a small sample correction of the test for cointegration in the vector autoregressive model. In addition, we consider that efficiency of public spending on health has significant impact in improving child health.

We calculate the efficiency scores from the Data envelopment analysis (DEA) assuming constant returns to scale to the model with variable returns to scale. Two outputs (the immunization coverage against DPT and measles and an input public expenditure on health as a percentage of total health expenditures pooled) are considered. After a robust analysis, we find that health financing based on public resources has no significant effect on infant and child mortality. However, the efficiency of public expenditure on health contributes significantly on improving child health. Indeed, for every 1% increase in efficiency scores, infant and child mortality rates fell by 1.1‰ and 0.97‰ respectively. This suggests that despite the fact that the lack of public resources is a major obstacle to better children health, a priority should be given to strengthening the efficiency in the management of these resources.

PS 09/13

Reaching UHC in Sierra Leone - the way forward

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The Free HealthCare Initiative (FHCI) programme was launched in April 2010 by the President of Sierra Leone in response to high maternal and child mortality rates, which were among the worst in the world. The programme aimed to make health services free at the point of delivery for the target populations of expectant and lactating mothers and children under five years of age. It aimed to reach up to 230,000 pregnant women, 230,000 lactating women and 1 million children under five every year, saving lives and improving health outcomes (Government of Sierra Leone. Free Health Care Services for Pregnant and Lactating Women and Young Children in Sierra Leone. Sierra Leone Conference, November 2009). The programme was complemented by seven 'supply-side' interventions intended to strengthen health services in order to meet the additional demand created.

Five years after its launch, the question of whether to extend the FHCI to the whole population is taking centre stage. Is it feasible to reach UHC in a country as poor as Sierra Leone? This article will present a fiscal space analysis for UHC undertaken in Sierra Leone, which will highlight which additional sources of finances, as well as which technical efficiency gains could be explored to ensure that UHC becomes a reality in the country.

Parallel session 9: Community based health services

PS 09/14

Community health volunteers as mediators of accessible, responsive and resilient community health systems: lessons from the Health Development Army in Ethiopia

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Background

Faced with chronic health worker shortage, many LMICs have invested in community health workers to extend and enhance health care in rural areas. In Ethiopia, the PHC health strategy is implemented by two distinct cadres: the Health Extension Workers provide basic health care in rural areas supported by the Health Development Army (HDA), a large multi-purpose cadre comprising locally-recruited and trained community volunteers. Predominantly women, the HDA act as intermediaries between the community and formal health system, mobilising communities and responding to their concerns. HDAs are perceived as champions critical to government's vision of building resilient and responsive PHC, with communities being 'producers of health'.

Methods

The study explores the role of the HDA in Ethiopia, and identifies the conditions, under which they can maximise their potential to improve access to care and attain health sector goals. Data are obtained from: 18 focus group discussions with HDA volunteers, leaders and community members in 3 Oromia districts with differential system performance; 39 key informant interviews with stakeholders at district, zonal, regional and federal level; analysis of policy and regulatory documents comparing planned policy with reality on the ground.

Results

Preliminary findings suggest that the HDA approach has successfully engaged the community, identifying local bottlenecks that hinder uptake of services, and scaling up best practices. The HDA shows potential in improving access to essential health services provided at the village and household levels, contributing to the improvement of the health status, building on local technologies and coping strategies. The initiative has contributed to a sharp reduction of home delivery from 74% (EDHS, 2014) to zero at places. It has also fostered community engagement and responsibility for improving health and preventing disease. Challenges include training and linking the HDA leaders into networks, low level of skills and experience of those managing the HDA implementation process, as well as the failure of districts and kebele level management staff to perform regular supportive supervision.

Conclusions

The study suggests that community volunteers can support participatory and responsive models of grassroots PHC to improve access to and resilience of essential services. Given the nature of health systems as social contracts, HDA volunteers are well placed to promote trust and bridge the gap between communities and service delivery. However, efforts should be targeted to train, support, and motivate HDA, with realistic expectations of their role, and integrate them within a unified PHC institutional framework.

PS 09/15

Can community saving groups usher in community health insurance in rural areas? A case study of three districts in Eastern Uganda.

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Background

A savings group is a group you can form with your neighbours and friends to solve financial problems by saving small sums of money together. While formation of Savings Groups (SGs) has been identified as one of the ways to help households and individuals save at community level, saving groups do provide access to financial services in especially rural areas with limited options when it comes to saving for health care and investment of money. It has been observed that joining savings groups can change the financial lives especially of women and their families by expanding their financial choices and opening up new social and economic opportunities.

Methods

The study used community development officers and village health team members to mobilise community members into joining or forming saving groups. While in these groups members were trained to save for wealth creation and health. The health account was separate from the general savings of the group and was only used on health related matters of respective families.

Results

It was noted in the intervention arms that the number of saving groups more than doubled from 431 to 915 between September 2013 and December 2016 due to successful mobilization and sensitisation. It was also noted that some parishes which hardly had any saving group at the beginning of the study by the end of 2016 had at least a saving group in every local council 1 with membership of not less than 15 people. Out of 915 saving groups, 22% had at least a member saving for MNH in the group while the rest still saved as individuals or families.

Discussion

The effort to start a health account in every saving group has shown very positive response given that it has only lasted for one year. With continued sensitisation and supervision of saving groups by community development officers, there is strong hope that this can serve as a form of health insurance in rural areas where there is no formal type of health insurance.

Conclusions

These findings are testimony that rural communities can adapt saving groups as a form of health insurance that does not require them to undergo all sort of bureaucracies of paper work and travel to and from towns. It can be managed locally with little supervision. With more training of group leaders in management and leadership skills, the groups can manage the savings very well.

PS 09/16

The limits of community capacity to manage implementation scale up of Ghana's community-based health planning service programme

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Background: Over a decade ago, Ghana implemented a national primary health care policy reform known as the community-based health planning service (CHPS) initiative that mirrored the Alma-Ata principles of primary health care. Building community capacity to effectively participate and manage the programme is important for scaling up implementation. Yet little is known about whether poor and peripheral communities have the capacity to effectively participate and manage CHPS to maximise implementation gains. Guided by Simmons (2011) community capacity framework, we assessed the limits of community capacity to provide social, economic, leadership and voluntary services in managing CHPS scale up.

Methods: We conducted a qualitative study in four communities in northern Ghana. In each community, data was collected from in-depth interviews with CHWs and Focus Group Discussions (FGDs) with a purposefully sampled community level stakeholders of CHPS: traditional authorities, district assembly members, community health volunteers, community health management committee members and clients. Data was tape-recorded, transcribed verbatim and thematically analysed using Nvivo 10.

Results: We found that, local leadership was fairly effective in the capacity to motivate others, mobilise resources and lead the way in managing implementation. Such leaders also shaped broad-based participation and contributions to implementation. On the contrary, disputes between some community leadership undermined the ethos of communal involvement in managing the programme. The communities also demonstrated strong social capacity to participate and manage the programme. This social will power was grounded in the formation of social organisations, whose command over social resources greatly leveraged minds for participation and management. The individual and collective obligatory prosocial values necessary to manage scaling up was shown to be declining. A cross-section of community members expected material compensation in order to voluntarily contribute to managing CHPS implementation. Finally, the communities were economically weak to invest material resources for scaling up implementation. As a result, they preferred health authorities playing a lead role in providing financial resources to facilitate implementation.

Conclusion: Finding draws policy makers attention to the need for more subtle approaches of building community capacity for better participation and management of CHPS. In particular, stronger collaboration between the community and policy bureaucracy is necessary to minimise limitations to implementation management by the community.

PS 09/17

Investigating willingness to pay for attributes of micro health insurance in rural Malawi

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Background: There is a limited understanding of community willingness to pay (WTP) for micro health insurance (MHI) in sub-Saharan Africa. Using a discrete choice experiment (DCE), we estimated community WTP for the essential features (attributes) of a prospective MHI scheme, aimed at filling coverage gaps within the Malawian health system.

Methods: A qualitative study informed led to the identification of six attributes (and attribute-levels): unit of enrollment, management structure, health service benefit package, co-payment levels, transportation coverage, and monthly premium per person. Using this attributes, we constructed a D-efficient DCE design of eighteen choice-sets, each comprising two MHI choice alternatives and an opt-out, using Ngene software. With the aid of pictorial images, trained interviewers administered the DCE, to household heads and their spouse(s) in 504 sampled households, located in two rural districts. WTP in Malawian Kwacha (MWK) (US\$1≈417MWK) for each MHI feature was estimated from a conditional logit and a nested logit models computed in STATA12, using the DELTA method.

Results: All MHI attribute-levels except management by an NGO significantly influenced respondents' WTP ($P < 0.05$). Respondents were willing to pay the highest premiums for a MHI scheme that will cover all transport costs (813.95 MWK), followed by a comprehensive health service package (672.11 MWK), medium health service package (431.40 MWK), emergency transport (410.35 MWK), that defines the core nuclear family as the unit of enrollment (258.72), charges no copayment (223.57 MWK), that defines the entire extended family as the unit of enrollment (189.71 MWK), and that charges only 25% copayment (183.02 MWK). Respondents were, however, not willing to pay for MHI if the scheme defines the individual as the unit of enrollment, is managed by a community committee, covers a basic health service package of only medications, charges up to 50% copayment, and does not cover any transport cost.

Conclusion: The relatively high WTP for MHI benefits (transport and health services) reflect existing gaps in the Malawian health system, hence the importance of understanding community preferences in the design of appropriate context-specific universal health coverage reforms.

PS 09/18

Effectiveness of Community Radio in Promoting Health Policy Information Diffusion for Timely Achievement of SDG 3 in Africa by 2030

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Aim and Objectives: Community radio (CR) is quite effective in national health policy implementation reforms to achieve sustainable development goal three (SDG 3) targets and indicators for universal public healthcare access in Uganda and regionally. The objectives are to: discuss the role of community radio in promoting national health policy objectives and strategies; discuss gender equality and women empowerment for sustainable public healthcare practices; and explain the effectiveness of CR in achieving national and regional policy reforms with a focus on sustainable minimum national healthcare outputs in Africa by 2030.

Methods: This review employed community radio (CR) policy and best practice for agriculture and food systems information diffusion to achieve sustainable development goal two (SDG 2). More data were sought from the national, regional, and international agencies. In the searches, we looked for documents on effectiveness of the objectives of effective CR communication campaigns in affecting the national health public policy reforms for better health system for all. First, retrieved documents were scrutinized for relevance and, in some cases, were used to enhance the search by using specific references to search for primary sources of data. Finally, the retrieved information was summarized to inform this presentation

Findings: Community radio stations (CRS) are crucial for rapid information diffusion of health policy innovation. Community radio is the best nexus of community media for healthcare policy communication. CRS are still too few to create the desired change or impacts, there is lack of institutional capacity for functional national health systems and policies, low investment status, poorly equipped, manned by unmotivated personnel, and suffer from excessive political interferences from the ruling state agents. African states face acute shortage of CR to create, raise, and sustain public awareness health systems reforms.

Conclusion(s): Prudent health policy reforms are vital for efficient health system coverage thrive on strategic planning, governance, leadership, budgeting or funding, and management principles. Effective health systems policy information communication strategy plays a major function in raising, developing, and sustaining the national awareness and education for positive health and behaviour change. Public awareness campaign should be participatory, sustainable, theory driven, gender mainstreamed, monitored, and evaluated for SDG 3 progress in Africa. Above all, Africa needs to create or consolidate her standpoint on enhancing the north-south research, policy, funding, capacity building, ethical practice, networking, and technology transfer collaborations.

Key words: Africa, health. SDG 3, north-south partnerships, policy research, radio

Posters presentations



Poster session 1

PT 01/1

Inter-spouse communication and contraceptive behavior in Cameroon: a couple-based analysis

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Background Despite a decrease in the number of women dying due to complications during pregnancy and childbirth by nearly 50% from an estimated 523 000 in 1990 to 289 000 in 2013, the World Health Organization (WHO) estimates that nearly 800 women died every day from maternal causes in 2013, with almost all of these deaths (99%) occurring in developing countries (WHO, 2014). Family planning (FP), a key component of reproductive healthcare, can help to reduce maternal mortality by preventing unintended pregnancies and abortion-related deaths. However, in developing world FP remains out of reach for many couples and contraceptive prevalence is still at low rate. According to Population Reference Bureau (PRB), contraceptive prevalence rate (CPR) among married women in least developed countries was about 34 % in 2013 while this proportion was around 72 % and 26 % in more developed countries and Sub Saharan countries respectively (PRB, 2013).

In Cameroon, the number of deaths due to maternal complications increased from 669 in 2004 to 782 per 100000 living births in 2011. The CPR among women living in couple has increased between 1991 and 2004 from 16% to 26%, but there is a contrast in 2011, with a decrease to 23% (DHS-MICS, 2011). In addition, 24 % of women in union had an unmet need for family planning in 2011 while this proportion was 22% 1991.

Research questions Inter-spouse communication on FP has been found in the literature to have a great influence in the decision making process of couples for adopting FP measures, especially in male dominated cultures, where, it is thought unnecessary for men to discuss family planning as child bearing and contraception are presumed to be female matters (Islam et al, 2010; Becker, 1996). In Cameroon, 53% of women in union (married or cohabiting) have never discussed about FP with their partner (DHS-MICS, 2011). This study tried to answer at two specific questions: what is the effect of spouse communication about FP on contraceptive use of couples in Cameroon? and what is the effect of spouse communication about FP on couples future intention to use contraceptives in Cameroon?

Data and methods

This study used the couple dataset derived from the 2011 Cameroon Demographic and Health Survey combined with the Multiple Indicator Clusters Survey (DHS-MICS, 2011) executed by the National Institute of Statistics of Cameroon. The DHS-MICS data is a national representative two-stage sampling survey covering all the ten administrative regions in addition to the two main towns Yaoundé and Douala considered like regions. The survey collected data on demography, access to social services, socio-economic status, family dynamics, and knowledge and practice of family planning. The couple dataset was generated by linking the spouses from the male dataset constituted of a sample of 3000 currently men in union (married or cohabiting) aged between 15-59 years and those from females which has a sample of 9805 ever married or cohabiting women aged 15-49 years. We matched within a household the man who is identified as the household head with the woman who is identified as the spouse of the head; this resulted in a maximum of one couple per household. Thus, our sample consists of 2973 couples.

The statistical analyses have been performed by the software SPSS v17 and Stata 12. Chi square tests and binary logistic models were used to examine associations between spousal discussion about family planning and dependent variables (contraceptive use and future intention of use contraceptives). We created four multivariate models: The first included only our main independent variable, the second added couple interaction variables, the third added individual-level characteristics and the fourth added community-level characteristics.

Results The percentage of couples currently used contraceptives is 19,34% and around 56% of couples never discussed on family planning. At bivariate level, results showed a strong association between inter-spousal communication on FP and using of contraceptives within couples; only 10.7% of couples which never discussed FP used contraceptives whereas this proportion is 33.7% within couples which discussed FP sometimes/often. Multivariate analyses suggest a strong positive influence of husband-wife communication about family planning on contraceptive use and future intention to use contraceptives. Spouses are less likely to use contraceptives when they never discussed on family planning than they discussed about it once or twice time (OR= 2,38; 99%), or sometimes/often (OR= 3,18; 99%). Furthermore, among couples currently not practicing contraception, couples which discussed once or twice about FP were more likely to intend to use contraceptive compared with those which never discussed about FP (OR= 2,17; 99%) and couples which discussed sometimes or often about FP were more likely to intend to use contraceptive than those couples in which discussion does not exist (OR= 2,23; 99%). This study also showed that other factors like women's autonomy, couple's desire for another child, number of living children (as reported by woman), religion and household wealth index influence positively current contraceptive use of couples, while couple's desire for another child, number of living children (as reported by woman), religion, couple differential education level and household wealth index influence positively couple future intention to use contraceptives.

Knowledge contribution Family Planning issues remain topical in developing countries which total fertility rates are still high. It has been found that FP can help to avoid maternal and child morbidity and mortality and then contribute to well-being of population and economic development. The knowledge of main determining factors explaining contraceptive behavior of couples is crucial for public policies of Low and Middle Income Countries like Cameroon where maternal health is globally alarming. In addition, understand factors influencing decision-making process of couples on FP is a significant contribution to FP programs which until now do not attend expected results in a country like Cameroon. Many studies in Cameroon have been conducted to find out the dynamic of family planning adoption, but these studies mostly focused on the determinants of women's contraceptive use. Studies highlighting husband's influence in decision making regarding family size and family planning adoption are few and not recent. In addition, until now no study in Cameroon has focused on the interaction between spouse communication on FP and contraceptive behavior of couples using a couple dataset. So this study contribute to the literature of FP in Cameroon. Results of this study could help policy makers to reshape FP programs by putting the emphasis on male involvement in communication with their spouse about FP. This issue seems necessary for the improvement of women health at household level as well as at national level.

PT 01/2

Citizen participation in policy implementation: an exploration of social accountability in free maternal and child healthcare programme in Nigeria.

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Background

Evidence of social accountability initiatives in implementation of health financing policies in low-income countries is limited despite being important in making health systems people-centered. The study explores how social accountability initiatives have enabled or constrained implementation of free maternal and child healthcare programme in Nigeria.

Methods

A qualitative, realist evaluation using grounded theory approach was adopted. Multiple data collection methods were used including in-depth interview of policymakers (n = 16), providers (n = 16), and health facility committee members (n = 12); focus group discussions (n = 4); and document review (n=14). Data were analysed using constant comparison analysis.

Results

Health facility committees emerged as dominant social accountability initiative. Performance of free maternal and child healthcare programme is influenced by mode of functioning of health facility committees (village square, community connector, government botherer, backup government or general overseer) which depended on resources, attitude and culture of actors. Health facility committees' alliance exists but are ineffective. Complaint box and service charter were relatively inexistent because of poor adoption of new ideas by providers and predominant culture of verbal complaint by users.

Conclusions

Addressing social accountability mechanisms is imperative in making user-fee abolition policy people-centered in Nigeria and other low-resource settings.

PT 01/3**Maternal Fertility Decisions on Child Survival and Health Outcomes in Ghana.***Eric Arthur, Kwame Nkrumah University of Science and Technology, earthur3@gmail.com.**Alfred Kechia Mukong, Postdoctoral Research Fellow, School of Economics, University of Cape Town, Rondebosch 7701. kchmuk001@myuct.ac.za*

A significant number of studies have examined the effects of maternal fertility decisions on child survival and health outcomes. Because fertility-related behavioural factors are closely related, disentangling the separate effects of each of these decision-making variables has been challenging. Using data from the Ghana Demographic and Health Survey for the years 2008 and 2014, we examine the role of maternal autonomy on fertility decisions and the extent to which maternal fertility decisions can affect child survival and nutrition. We further decompose these health outcomes to tease out the contribution of the fertility-related behavioural factors. We find that maternal autonomy in decision making within the household results in better fertility outcomes. We also find that better fertility outcomes increases the probability of child survival and reduces child malnourishment in Ghana. The implication is that policies to enhance maternal autonomy within the household are likely to improve their participation in fertility decision-making and has a multiplier effect through improvement in child health outcomes in Ghana.

PT 01/4**Inequity in Maternal Health Care Utilisation***Rifkatu Nghargbu¹, Olanrewaju Olaniyan², Akanni O.Lawanson³**Department of Economics, University of Ibadan, Ibadan, Nigeria.,**rifnghargbu@gmail.com ¹ lanreolaniyan@yahoo.co.uk ², aolawanson@yahoo.com ³**Rifkatu Nghargbu¹, Department of Economics, Usmanu Danfodiyo University Sokoto, Sokoto, Nigeria, Email: rifnghargbu@gmail.com ¹*

The high maternal and child mortality rates of 500 per 100,000 and 128 per 1,000 live births are major research and health policy concerns often caused by inequity in utilisation of basic maternal and child health care in Nigeria. Although existing literature provided estimates of determinants of maternal and child health care utilisation, inequity in maternal health care utilisation has not been given adequate attention. This study therefore examined horizontal inequity in maternal health care utilisation in Nigeria. Standardised concentration index for need and non-need variables and concentration curves were used to construct profile of horizontal inequity for maternal health care utilisation. Maternal healthcare was measured by antenatal attendance and skilled delivery. Data was derived from four sets of Nigeria Demographic and Health Survey (NDHS) which include 1999, 2003, 2008 and 2013, respectively. Concentration curve for antenatal and skilled delivery revealed a positive horizontal inequity index of 0.26 to 0.37 and 0.32 to 0.48 from 1999 to 2013; indicating pro-rich inequity in utilisation with standardised concentration index of need variable subtotal of 0.001 to 0.002 and -0.03 to -0.02 and non-need variable subtotal of 0.26 to 0.37 and 0.189 to 0.30. Wealth and education were the major drivers of inequity in maternal health care utilisation in Nigeria as such empowerment programmes and improvement in education will enhance maternal health care utilisation and reduce mortality.

Keywords: Antenatal care, Skilled delivery, Horizontal inequity, Utilisation, Maternal health care, Nigeria

PT 01/5**Nutrition and public health: contribution of research on iodine deficiency in the population of eastern region of Morocco***Ikram Azzakhnini¹, El Hassan Talbi¹ et Abdesselam Abdelouas²**¹azzakhniniikram@yahoo.fr, Faculté des Sciences/Université Mohammed Premier, Oujda, Maroc**²Abdesselam.Abdelouas@subatech.in2p3.fr, SUBATECH/ Ecole des Mines de Nantes, France.*

The role of nutrition in promoting human health has been known since antiquity. In recent decades, improving the nutritional status of the population has been a major challenge for public health policies worldwide. In this context, several programmes and strategies have been implemented. The Iodine Global Network (IGN), recommended by WHO and UNICEF since 1994, is among the programmes that have been very successful. This programme was developed within the framework of the World Summit Plan of Action for Children held in 1990, and has set a goal to eliminate Iodine Deficiency (IDD) Disorders. Among the most serious manifestations of IDD, include cretinism, goiter and brain damage in children. In Morocco, according to a survey run by the Ministry of Health in 1993, 63% of children aged 6 to 12 had an Iodine deficiency disorder of which 22% had a goiter.

A study on metrology of iodine in the eastern region of Morocco and the availability of this micronutrient for consumption, helped to highlight the presence of Iodine deficiency in populations residing in these areas. The study was carried out following the detection of excess cases of goiter in some areas, based on statistical data provided by the Al-Farabi regional hospital.

The daily intake of iodine was estimated based on the food balance of women living in one of the targeted areas. Thus, the diet has been studied using a survey involving a sample of 25 women from the town of El Ayoun. Considering their diet and iodine levels among the most consumed products, iodine intake provided by the diet was calculated. The result shows that the daily intake of iodine provided by the diet remains below the amount recommended by the WHO (150µg / day for an adult). The low iodine intake is explained by the fact that the iodine concentrations in grains and water, which are essential components of food people eat, are very low while the consumption of iodine rich foods like milk and other dairy products is very limited. Moreover, it must be emphasized that iodized salt, which should be used to fight against iodine deficiency, does not contain enough iodine. Meanwhile, analysis of urinary iodine (UI) of a hundred girls of school age was carried out to check if the lack of iodine really calculated results in iodine deficiency in populations. After taking samples in Morocco, the iodine contents analyses were performed at Subatech Laboratory UMR6457/ Radiochemistry laboratory of the Ecole des Mines de Nantes. The result indicates iodine deficiency in 65% of cases studied. This result explains the excess of cases of goiter in the study areas. This underscores the need for updated data on iodine deficiency in the region.

Key words: goiter, iodine, iodine deficiency, urinary iodine, Eastern Region of Morocco

PT 01/6

Demographic Determinants and Patterns of Contraceptive Utilization among Women in North-Eastern Nigeria.

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The study examined patterns of contraceptive utilization among rural women in North Eastern Nigeria. Using multivariate method of analysis, the study used the 2013 NDHS data set. With a total of 6,630 respondents, the result of analysis revealed that demographic factors such as age, age at first marriage, religion and socio economic status of respondents have great influence on contraceptive usage in this region of the country. The study concluded that efforts should be geared towards mass education of the girl child in this region as the level of awareness on contraceptive usage and other fertility behaviour among women is at low ebb. It is therefore recommended that for the least developed and most populated region of the country to halt persistent increase in population, more attention must be given to the use of contraception and sustainable routine community awareness programs should be initiated to improve the conditions of over 40 million Nigerians.

PT 01/7**Fertility rate and child health in Ghana**

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An important factor that affects population health is the fertility rate. The fertility rate in Ghana is high despite the fall over the years. According to the 2008 Ghana Demographic and Health Survey (DHS) report, the total fertility rate has declined dramatically over the past 20 years, from 6.4 children per woman in 1988 to 4.4 children per woman in 1998 and stabilized until 2003 when it declined further to 4.0 in 2008. However, the 2014 DHS reports the rate of fertility to be at 4.2 births per woman showing an increase from that of 2008. This rate is high and above the replacement rate of 2.0 children per woman which raises concerns on the living standards of people, the school participation rate, and the participation of women in the labor force. Of particular interest is the impact of fertility on the health of the child. Fertility is believed can affect the health of the child through malnutrition and school attendance. All these have implication on the future health outcomes of the child. It is therefore important to understand the underlying factors that influence fertility and the effect of fertility on child health to inform appropriate policies to curb the population growth rate in Ghana. This study thus examines the factors that influence fertility rate in Ghana, and the effect of fertility on the health of the child using the child's nutritional status. The study employed the negative binomial, the Ordinary Least squares and the ordered logistic regression models in the analysis using data from the 2014 Ghana Demographic and Health Survey. The preliminary findings indicate that fertility rate in Ghana is highly associated with wealth, education, decision making in the household and some interesting regional and religious variations. Also, the study finds that the nutritional status of the child is highly associated with wealth, health insurance possession, and the gender of the child. The study finds no significant effect of fertility rate on the health of the child for the sample used. Based on the findings, recommendations are made on how to achieve a reduction in the fertility rate to ensure a stable population growth rate in the country and improved child health.

PT 01/8**Maternal characteristics and nutritional status of children under five years: Evidence for the benefits of nursery education in Burkina Faso**

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This study analyzes the impact of maternal education on nutritional status of children under five years of age in Burkina Faso based on data from the 2010 Demographic and Health Survey and Multiple Indicators Cluster Surveys (DHS-MICS IV). More specifically, the study analyzes the association of maternal education and height-for-age child taking into account endogeneity of maternal education; this study uses interaction variables to determine the presence of direct and indirect effect of maternal education. The ordinary least-squares regressions (OLS) and the fixed effects regressions analyses were used to determine associations between maternal education and child nutritional status.

First, OLS results show that maternal education is strongly linked to mother's health knowledge of their children and also to their participation in decision-making within the household. Then the fixed effects regressions analyses showed that maternal education has no direct impact child growth. The results also showed access to information through television, participation in decision making in the household expenses and access to drinking water determine effect of mother's education on height-for-age child. The interaction also showed that access to television and participation in decision making in the household expenses are additional factors to maternal education while access to drinking water is substitutable. Access to clean water improves household hygiene conditions and helps prevent diarrhea in children. The educated mother who watches TV has good information and awareness programmes to complement its knowledge acquired through education. When the educated mother is involved in decision making for household expenses, it can influence spending on consumer goods, contributing to the wellbeing of household members. Finally, the mother's education and the household wealth index improve the nutritional status of children.

Given these results, actions must be taken: improving access for girls and women to the media and the community's access to drinking water. This requires inclusion of health literacy in the curriculum and in the female literacy sessions particularly in rural areas. Keywords: maternal education, nutritional status, height-for-age, fixed effects, Burkina Faso

Classification JEL: I12, C51, O15

Poster session 2

PT 02/1

Societal cost of the Mother-to-Child transmission of HIV/AIDS in Ethiopia: Urban high HIV prevalence versus rural low HIV prevalence settings.

Elias Asfaw, Josue Mbonigaba, Sylvia Kayes, Benjamin John

Background: Societal costing plays a critical role to inform health care policy and program decisions, and facilitate the effort towards new HIV infection elimination and universal health coverage. However, in low income countries, like Ethiopia, there was no satisfactory costing data from health care system, patient and societal perspectives. This study assesses the societal cost of mother-to-child transmission of HIV/AIDS across the HIV prevalence heterogeneous (high, low) and urban-rural contexts.

Methods: Health care system cost, patient direct medical and direct non-medical expenses were considered for the societal perspective. Health service provider ingredient costing was collected from twelve health facilities in Ethiopia. Six health facilities with the highest HIV prevalence among pregnant women (8.1% to 17.3%) were chosen in urban setting, and six health facilities with the lowest prevalence rate (0.0% to 0.1%) were surveyed from the rural setting. Simultaneously, patient cost data were collected from 85 HIV positive pregnant women attending the surveyed health facilities, 17 Mother Support Groups (MSGs) and 12 health care professionals. The unit cost per pregnant women-infant per year was reported in 2014 base year, adjusted at 3% discount rate and adjusted inflation.

Findings: The societal cost per pregnant women-infant per year (PPY) ranged from 5832.80 ETB (296.53 USD) to 24,054.56 ETB (1222.88 USD) in rural low HIV prevalence and urban high HIV prevalence settings, respectively. Health care system cost comprised of 74% - 90% of the unit cost. Direct medical and non-medical cost contributed for 7 - 17% of the cost (per PPY). Nationally, in rural low HIV prevalence catchment and with the current 57% service coverage, the societal total cost was 3.35 million USD. In urban high HIV prevalence setting, the society incurred 7.3 million USD at the base year. At the universal coverage aiming to reach all those who need the treatment, the society would incur 12.82 million USD and 5.88 million USD in urban high HIV prevalence and rural low HIV prevalence settings, respectively.

Conclusion: The societal unit cost varied across HIV heterogeneity and urban-rural contexts. The society in urban high HIV prevalence would incur a high cost as compared to low HIV prevalence rural population. In the current momentum to eliminate new HIV infection, it is vital to analysis the wider societal perspective costing so as to inform health care priority decisions, as well as to conduct a robust cost effectiveness analysis.

PT 02/2

Assessing the cost of prevention of mother-to-child transmission of HIV/AIDS service in Ethiopia: urban-rural health facilities setting.

Elias Asfaw, Josue Mobnigaba, Sylvia Kayes, Benjamin John.

Background: While local context costing evidence is relevant for health care planning, budgeting and cost-effectiveness analysis, it continues to be scarce in Ethiopia. This study assesses the cost of providing prevention of mother-to-child transmission of HIV/AIDS service across heterogeneous prevalence (high, low) and socio-economic (urban, rural) contexts.

Methods: A total of twelve health facilities from six regions (Amhara, South Nations and Nationality Peoples (SNNP), Harrar, Dire Dawa, Oromia and Addis Ababa) were purposively selected from the latest 2012 ANC sentinel HIV prevalence report (EPHI, 2014). Six health facilities of the highest HIV prevalence (8.1% to 17.3%) were chosen in urban setting and six health facilities with lowest prevalence rate (0.0% to 0.1%) were selected from the rural setting. We applied a micro-costing approach to identify, measure and value resource used for the provision of comprehensive PMTCT service. The analysis was conducted across different PMTCT service packages and resource ingredients. We also estimated the national cost in urban-rural contexts for PMTCT. We applied a 3% discount rate, and inflation-adjusted to the base year (2014).

Results: The unit cost per pregnant women-infant pair per year (PPY) ranged from 6,280.39 ETB (319.28 USD) to 21,620.19 ETB (1,099.12 USD) in urban highly HIV prevalent health facilities. In rural low HIV prevalent health facilities, the cost ranged from 4,322.62 ETB (219.75 USD) to 7,538.46 ETB (383.24 USD). PMTCT service provision in the urban health facilities costs more than twice the cost in rural health facilities PPY. Consumables (including antiretroviral drugs) and infrastructure are the major cost drivers in both the urban and rural health facilities. Among PMTCT service components, anti-retroviral treatment option B+ follow-up and counseling service accounted for the highest proportion of costs, which ranged from 58% to 72%. Nationally, at the current coverage level, national cost of the PMTCT service was 6.21 million USD and 2.67 million USD in urban and rural settings, respectively.

Conclusion: The analysis suggests that resource used for PMTCT service packages varied across health facilities and HIV prevalence settings. Providing PMTCT service in the high HIV prevalent urban health facility settings cost more than the rural. Context specific costing is vital to provide locally relevant evidence for health service management and priority setting.

PT 02/3**Assessing health system factors influencing healthcare providers' implementation of new guidelines (option B+) on Mother to Child Transmission of HIV in Ghana. Implication for policy.***Laar AS and Dalinjong PA**1 Kybele/Program for Appropriate Technology in Health (PATH), Greater Accra Region.**2 Navrongo Health Research Centre, Navrongo, Upper East Region, Ghana*

Background: Option B+” is a World Health Organization-recommended approach to prevent mother-to-child HIV transmission whereby all HIV-positive pregnant and lactating women initiate lifelong antiretroviral therapy (ART). Prevention of Mother To Child Transmission (PMTCT) guidelines in Ghana requires all pregnant HIV-infected women be provided with a cascade of interventions including routine antenatal HIV counseling and testing, provision of appropriate antiretroviral/treatment (ARV/ART) regimen for mothers and newborns, and support for safer infant feeding options and practices. The potential of PMTCT guidelines for eliminating Mother-to-Child Transmission (MTCT) of HIV and improving newborn survival and health is widely acknowledged in Ghana. However, factors influencing health providers' implementation of the new guidelines (Option B+) have not yet been fully explored. This study assessed health system factors affecting the provision of PMTCT services and the implications on quality service delivery.

Methods & Materials: Qualitative research design was employed. Data was obtained through in-depth-interviews with 7 Key informants and 2 Focus Group Discussions with health care providers providing PMTCT services in an urban hospital in Ghana. Data was analyzed using a thematic framework approach.

Results: A good knowledge and understanding of MTCT and PMTCT counseling guidelines by health providers were widespread. However, individual and health-systems factors such as lack of vehicles for monitoring and follow-ups on patients, inadequate supply of ARV drugs, lack of refresher training for health providers, inadequate medical officers, inadequate work-space, lack of privacy, lack of nursing staff and counselors, poor staff relationship with clients and lack of training on compassionate care for health providers were identified as some of the impeding factors affecting PMTCT service provision.

Conclusion: Option B+ holds great promise for improving the lives and health of HIV-infected women and their children. Programs seeking to increase access to PMTCT services and continued use of ART need to address individual and contextual factors to make the elimination of MTCT of HIV more effective.

Key Words: prevention of mother-to –child transmission of HIV, Option B+, Health Providers, Health System, Ghana.

PT 02/4**Selenium Levels in Foods in a High HIV type 1 prevalent community, a case of Pala in Bondo District Kenya.**

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Introduction

An investigation of dietary patterns and selenium levels in diets of respondents was carried out in Pala Sub-location.

Methods

In this study a total of 386 respondents selected randomly were interviewed in the four villages in the sub-location and 17 foods commonly eaten sampled. The data was coded and analyzed by SPSS program while food selenium levels were analyzed by AAS.

Results

The foods eaten by 75.2% of the respondents were *Oreochromis niloticus*, *Lates niloticus* and Ugali from *Sorghum bicolor spp* , 64.1% eat vegetables and that both children and adults eat same types of food. It was further shown that traditional foods which have become extinct are mainly traditional vegetables (46%). The study established that selenium levels in foods eaten in Pala sub-location varies, traditional vegetables have higher levels of selenium, *Laurnea cornuta* (148.5mg/kg) *Cleome gynandra* (121.5mg/kg), *Vigna unguiculata* (21.97 mg/kg), while fish- *Rastrineobola argentea* (51mg/kg), *Oreochromis niloticus* (mdl), *Lates niloticus*(mdl) *Sorghum bicolor spp (red)* 19.97 mg/kg, and *Sorghum bicolor spp(white)*(mdl).The study showed that there is inverse relationship between foods eaten and selenium levels with foods eaten by 75.2% of respondents (*Oreochromis niloticus/Lates niloticus*) having no detectable selenium .

Recommendation

To increase selenium levels in the diet, more production and consumption of traditional vegetables should be encouraged, this should be accompanied by nutrition education targeting women and possibly using mass media on short term, while long term intervention should include fortifying the foods commonly purchased and eaten in the community like sugar, table salt, and maize meal and accompanied by increased selenium in animal feeds and in fertilizer.

Key words: Selenium, HIV, diets.

PT 02/5**Cost assessment: case of liver cancer, Senegal 2012.**

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Context: Hepatitis B Virus affects 2 billion people worldwide. Despite the vaccine protection, it will remain chronic hepatitis B and thus cirrhosis and cancers and its costs. The aim of our study was to assess the human and economic cost of primary liver cancer due to Hepatitis B Virus in Senegal.

Methods: We performed a retrospective descriptive study covered over a period of 05 years on 89 patients. We used hospital's view point. A cost analysis was conducted in Hopital principal de Dakar using homogeneous section method. A population model based on Markov's model was simulated on a cohort of 1,000 infected patients in order to assess the human impact.

Results: The annual medical cost of a liver cancer was estimated at 613,565 FCFA and expected medical cost of expected cancers come near to 5,223,888,459 FCFA or the year 2012. This represented about 5% from the budget granted the health. In human terms, the expected number of liver cancer cases was 8514 with 8.1 years of life lost.

Conclusion: This study showed that the policy strategy "doing nothing" represented a higher economic and human cost.

Keywords: Evaluation- cost, cancer, liver, Senegal.

PT 02/6

The sensitivity of EQ-5D index in predicting the health related quality of life of Type 2 diabetic patients attending two tertiary healthcare facilities in south eastern Nigeria.

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Background: The EQ-5D instrument is about the most prominent and commonly used generic measure for assessing the health related quality of life (HRQL) in health outcomes studies globally. Although the instrument has been employed in assessing the HRQL of diabetic patients in many studies, it is not known to have been used in Nigeria.

Objective: This study was carried out to assess the sensitivity of the EQ-5D instrument in predicting the HRQL of a sample of patients with type 2 diabetes mellitus (T2DM) in two tertiary healthcare facilities in Nigeria.

Methods: A cross-sectional study was conducted using the EQ-5D-3L instrument to assess the self-reported HRQL of patients diagnosed with T2DM attending two tertiary healthcare facilities in south eastern Nigeria, who consented to and completed the questionnaires while waiting to see a doctor. A priori hypotheses were examined using multiple regression analysis to model the relationship between the dependent variables (EQ VAS and EQ-5D Index) and hypothesized independent variables.

Results: A total of 226 patients with T2DM participated in the study. The average age of participants was 57 years (± 10 years) and 61.1 % were male. The EQ VAS score and EQ-5D index averaged 66.19 (± 15.42) and 0.78 (± 0.21) respectively. Number of diabetic complications, comorbidities, patient's age and being educated predicted EQ VAS score by -6.76, -6.15, -0.22, and 4.51 respectively. Similarly, the number of diabetic complications, co-morbidities, patient's age and being educated predicted the EQ-5D index by -0.12, -0.07, -0.003, and 0.06 respectively.

Conclusion: Findings indicate the ability of the EQ-5D index to adequately capture the burden of Type 2 diabetes and related complications among the sampled patients.

PT 02/7

Care services challenges for People living with HIV/AIDS with the withdrawal of funding for HIV/AIDS Programme from state and other donors to HIV/AIDS related activities to Côte d'Ivoire: from free care to cost recovery.

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Purpose: Care for People living with HIV/AIDS (PLWHA) to ARVs therapy in Côte d'Ivoire (CI) is 90% financed from international partners mainly PEPFAR (80%) and the Global Fund. The share of the state consists essentially of health facilities and medical staff. Care for PLWHA has been given free since 2008 by providing support to ART and laboratory tests. Scaled-up efforts has reduced the prevalence of 10% at the beginning of the pandemic to 2.9% according to UNAIDS in 2015. Given these results, PEPFAR formally made its intentions known to the Government of Côte d'Ivoire (CI) in 2015 to withdraw its funding to other donors can take over. So what will be the challenges of caring for People living with HIV/AIDS (PLWHA) in Côte d'Ivoire (CI)?

Methods. This was a cross-sectional descriptive study carried out among PLWHA to support patient recruitment attending the Department of Dermatology and Venerology at the Teaching Hospital of Treichville. It concerned all patients who came for consultation from 1 to 14 February 2016.

Results: About 111 patients were enrolled of which 73 women (66%) and 38 men (34%). The average age was 44 years. About 66% had partners of whom 41.5% live in couple; about 30% live in a compound house. About 83% had an income. About 70% had incomes ≤ 100 000 CFA Francs of which 58.5% had incomes ≤ 50 000 CFA Francs. As for spending 52% patients spent > 50 000 CFA Francs of which 30.5% were spending > 100 000 CFA Francs. About 49% of patients make expenditure associated with HIV/AIDS and 51% by a byyyy third-party reimbursement of which 26% on behalf of their spouses. ARV treatment and two rounds of integrated behavioral and biological assessments (IBBA) are the responsibility of the partners.

By withdrawing funding for HIV/AIDS services, even if the state finances the purchase of ARVs, Biological Assessment costs 40 000 CFA Francs will most likely be borne by patients. Given these results, we can notice that 70% of clients with incomes ≤ 100 000 CFA Francs cannot afford the Biological Assessment for 52% of clients spent > 50 000 CFA Francs.

Conclusion and recommendation: Cost recovery of caring for People living with HIV/AIDS (PLWHA) is a reality in case of withdrawal of state funding. Despite the low purchasing power of patients, care for People living with HIV/AIDS is always of quality; for this purpose the state should subsidize it at 95 to 100%.

Keywords: free of guard, PLWH.

PT 02/8

Social health protection for PLWHA in Senegal (CMV+).

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Universal health coverage (UHC) policy aims to ensure that all Senegalese people have easy access to health care. CMV + is a complementary strategy designed and implemented by the Ministry of Health and Social Welfare and its partners (Abt and FHI360) / USAID to improve the medical and social status and empowerment of vulnerable groups, particularly people living with HIV / AIDS (PLWHA). The mechanism is equally applicable to other groups such as the disabled. The basic strategy is to facilitate adherence of PLHIV to Mutual Health Insurance Schemes, and the grant of co-payments for beneficiaries partially supported or not by the *Mutual Health* services. This grant is made possible by a social security fund (SSF) supplied by multiple sources. The fund also allows easier access to finance for the implementation of income generating activities for PLWHA which allows beneficiaries to fulfill their contributions with *Mutual Health* services and support for other basic needs for the whole family. Coordination and monitoring of the implementation of the CMV + strategy are provided at national and regional levels respectively by a national steering committee and a regional management committee in each site coverage. The strategy is implemented in Kaolack for over 3 years and produced good results on the socio economic status of PLWHA. After evaluation of the pilot phase, the ministry recommended its extension to other regions. It worked for a year in Ziguinchor and Kolda. The process started in Sédhiou and will continue in other areas. To date, it has enabled 702 PLWHA adherence to *Mutual Health* services and 1347 spouses and relatives as *beneficiaries* of the insured. Through the CMV +, over 1882 medical procedures have been subsidized by the Health Insurance for a total cost of 7,743,021 CFA Francs, an average subsidy of 4142 CFA Francs. It decreased from 6149 CFA Francs to 3127 CFA Francs in 2011. No breach of confidentiality were raised by the beneficiaries.

CMV + is built perfectly with UHC policy. It provides efficient and rational use of resources in taking medical, social and economic burden of PLWHA in particular and therefore vulnerable groups in general.

PT 02/9

The Economic Burden of Water Related infections in the Bamenda Health District. The Case of Diarrhoea.

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Diarrhoea remains one of the major public health concerns of our times with bad drinking water and frequent poor disposal of human waste matter. Caused by a variety of conditions, it spans from diarrhoea which are of viral bacterial to sometimes metal intoxication. It is ranked in Cameroon as one of the 10 majors causes of illness. To assess the burden and lost income due to diarrhoea, this study aimed at quantifying how much households in the Bamenda Health District (BHD), NWR of Cameroon were losing because of the incidence of diarrhoea related infections. A cluster sampling technique was used to select 8 Public Integrated Health Centres in 8 Health Areas, with an estimated population of about 189,730 people. Data for all reported diarrhoea cases for 2011 and 2012 was collected from the Health Centres. The Cost of Illness (CoI) methodology was used to quantify the direct and indirect cost of diarrhoea infections. It was estimated that about USD22, 361 and USD37, 198 was lost by households in general in 2011 and 2012 respectively. The economic burden over the two years was estimated at USD53, 602.3. If this amount were projected over 10 years it will imply that about USD260, 000 will be lost to the treatment of diarrhoea infections. Measures should be put in place to curb these economic losses by improving on water and sanitation.

Poster session 3

PT 03/1

Assessing preferences of Community Based Health Insurance (CBHI) among informal workers in Gwagwalada communities, Abuja, Nigeria.

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Introduction and Background: The National Health Insurance scheme currently covers only 5% of Nigerian population. To worsen the situation, members of the informal sector that constitute 70% of citizens are excluded from this scheme. Community based Health insurance is a funding option for the members of the informal setting. There is however paucity of data on the relationship between CBHI preferences and enrolment. Understanding this will help policy makers in designing the scheme in such manner to increase enrolment pool. The objective of the study was to investigate preferences for CBHI services and the relationship of preferred health services package on enrolment into CBHI scheme among informal workers in Gwagwalada communities, Federal Capital Territory, Nigeria.

Methodology: Self-designed interviewer administered questionnaires were used. 400 informal workers were selected through a multistage sampling technique from 10 communities in Gwagwalada Local Government, Abuja, Nigeria. Questions were asked about preferences for CBHI purchased by government or private provider or both, preferred periodicity of payment of premium, amount willing to pay, requirements for membership, preferred managers of the scheme and preferred disease coverage. Statistical Package for Social Sciences version 17 was used to analyze data while descriptive and inferential statistics were also used.

Results: Majority (83.3%) of participants preferred inclusion of commonly occurring illnesses, majority (50.5%) preferred annual subscription, most (62.8%) preferred both private and public hospitals as providers, non-profit organizations were preferred by majority (61.5%) of the participants while 95% said they could form group membership with anyone irrespective of religion, profession or race while most participants were willing to pay monthly equivalent of USD\$5-\$10. There was significant association between preferred health services packages and enrolment into CBHI ($p=0.000$).

Conclusion: For a successful CBHI scheme, community input in determining what constitute regional needs for inclusion in benefit packages is key. Nonprofit organizations are key managers needed for capacity transfer to local community actors. Further study is needed to determine the nature and eligibility of these nonprofits and best approach for them to implement CBHI scheme. The equity of a streamlined benefit packages also need further evaluation in similar communities.

PT 03/2

Socio-economic related inequities in health care system in South Africa: Implications for achieving Sustainable Development Goals.

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South African's health care system, like most other developing and emerging economies, is still characterised by inequity in access to health care services. While most middle- to high-income population groups utilise private health services for better and quality health care services, members of the poorest population at most seek treatment at public health facility or do not even seek treatment at all because they cannot afford it. In order to redress some of the damaging impacts of the apartheid regime and address some income-related differences in the utilisation of health care services, the South African government launched a series of post-apartheid health system reforms and restructuring which include Primary Health Care reforms and re-engineering. This paper therefore broadly examines the post-apartheid trends overtime in the demand for formal health care services across various socio-demographic factors including age, gender, race, province of residence and metropolitan status in South Africa. Focus was on the association of socio-economic status related characteristics and the utilisation of public healthcare versus private healthcare services. The study uses population-weighted General Household Surveys (GHS) covering the years 2002-2014 to model an individual's decision to either utilise public or private health services when ill and the distribution of public and private health facilities' utilisation across socio-economic groups. Trends are presented using both descriptive and inferential statistics. Among the observed results, the trends show a steady growth in the utilisation of public and private health facilities, with public health facility recording a higher utilisation rate. Both public and private health facility utilisation peaked in 2009/2010. Individuals within age groups 0-6 years, above 46 years, African/Blacks, females, unmarried/singles, less educated and urban dwellers would prefer to seek treatment when ill in public health facilities. The probability of utilising public health facilities increased among the poorest population. On the overall, the South African population appears more segregated in using public health facilities across socio-economic groups. This could be linked, in part, with some of the some outstanding differences in quality and service delivery that are yet to be fully addressed. In order to achieve the universal health care coverage, the government need to understand and integrate the demand-side acceptability issues into policy decision making.

PT 03/3**The Poor and their Health and Well-being in Nigerian Cities***Geoffrey I. Nwaka, Abia State University, Uturu, Nigeria, Email: geoffreynwaka@yahoo.com.*

Ideally, well managed cities should promote good health and well-being; but poverty and slum conditions pose a serious public health challenge in Nigeria's rapidly expanding urban population. UN-Habitat estimates that sub-Saharan African cities have over 166 million slum dwellers most of who work in the informal sector where they simply do not earn enough to afford decent shelter and services. What does sustainability mean for such cities and townspeople? Some elite neighborhoods enjoy relatively high quality housing and residential environment, but the bulk of the urban poor live in appalling and health-threatening conditions. The supply of water for personal and domestic hygiene is grossly inadequate, as is the coverage of sanitation facilities. The state of waste management and drainage is rudimentary; nutritional standards are low, and food contamination is common, especially in the extensive street foods industry. Indoor pollution from open fires and stoves in poorly ventilated homes is known to be responsible for a wide variety of respiratory ailments among women and children who are exposed constantly to toxic fumes in cooking areas. The poor are also more vulnerable to increasing crime and violence in the cities, as well as to the adverse health effects of climate change. They have little or no social protection, and rely largely on their own means and on traditional kin-based arrangements and other informal social security networks. Many of the Millennium Development Goals – in health, environmental sustainability, poverty reduction and enhanced international development assistance - were not be met despite improvements in some areas.

Unfortunately, the current pattern of government spending on the health sector tends to favor the better-off in society who are the main users of available curative health services. Many government officials and planners still see the urban poor and the slums in which they live as evidence of the failure of official policy, and therefore something to be removed through misguided policies of forced eviction and other forms of repression. As we now adopt the post-2015 development agenda for Africa, the main policy challenge is how best to reach the poor, and decrease the inequalities in access to health care; how to promote the growth of more inclusive and humane cities by reviewing discriminatory laws and codes which inhibit the access of the poor to affordable land, healthcare and housing security; how to forestall the growth and spread of slums, and ensure that the existing ones are upgraded; how poverty which leads to slum conditions can be alleviated and reversed; how to integrate health concerns into planning and development policies in cities, and keep the health impact of these policies constantly in view. Current research suggest that the path to urban peace, health and sustainability in Africa lies in building more inclusive and socially equitable cities “where everyone, regardless of their economic means, gender, age, ethnic origin or religion are enabled and empowered to participate productively in the social, economic and political opportunities that cities offer”. The concluding section stress the need for appropriate and well targeted urban health and other social interventions by state and local authorities, the international development community, the private and civil society organizations and the urban poor themselves in a collaborative effort to build safer, healthier and more equitable cities.

Keywords: urban poor, environmental health, inequality, social protection, Nigeria

PT 03/4**Use of health services at place of residence in 2015 in Ivory Coast.**

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Introduction

In low-and middle-income countries, there is low use of health services related to access charges, sociocultural factors and geographical accessibility. Access to health inequalities are worrying in rural areas where health coverage is lower; financial risk pooling mechanisms to cope with disease are almost nonexistent. In this context, our study planned to describe the use of health services at the place of residence.

Material and method

The data were collected from the *Households Living Standards Surveys 2015*. These data were collected from January 23 to March 25, 2015 using a stratified sample from 12,900 households and 47,635 individuals. Data collection was done using smart phone. The use of health services was measured from consulting a modern health personnel or a traditional health practitioner in the last four weeks preceding the survey. Data analysis was performed according to place of residence. The significance of the statistical tests was set at $p < 0.05$.

Results

The analysis showed that 55% (7,030), 35% (4,523), 10% (1,346) of households and 55% (26,227), 34% (16,164), 11% (5,244) of individuals live in rural and urban areas and in the economic capital Abidjan. At least one health worker was consulted in 9%, 10%, and 11% in rural and urban areas and in Abidjan respectively. Individual interviews conducted in rural and urban areas and in Abidjan were 68%, 70%, 68% respectively; two interviews conducted were: 21%, 20%, 18%; and more than two interviews conducted were: 11%, 10%, and 14% respectively. The traditional health practitioners consulted in rural and urban areas and in Abidjan were 2%, 1%, 1% respectively. The reasons for not using modern *health care system* were *high cost* (345, 41.42%), attachment to tradition (95, 11.40%) and for the fact that there was no perceived need to do so (91, 10.92%).

Conclusion

Rural populations have less recourse to modern health care system. This raises the issue of equity, the need to improve access to universal coverage and to accelerate the integration of traditional medicine in the modern health system.

Keywords: Use of health, place of residence, Ivory Coast.

PT 03/5

Economic Cost of Malaria: A threat to Households Income in Nigerian.

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Malaria remains one of the major killers of humans worldwide, threatening the lives of more than one-third of the world's population. Some people refers it to; a disease of poverty because it contributes towards national poverty through its impact on foreign direct investment, tourism, labour productivity and trade. At the micro level, it may cause poverty through spending on health care, income losses and premature deaths. Unfortunately, malaria is a disease that affects both low income household and its high income counterpart but low income households is still at greater risk because significant part of the available monthly income is dedicated to various preventive and treatment measures.

The objective of this study is to estimate direct and indirect cost of malaria treatment in households in a section of South-South Region (Akwa Ibom State) of Nigeria. A cross sectional study of Six Hundred and Forty (640) heads of households or any adult representative of households in three local government areas of Akwa Ibom State, Nigeria from May 1-31, 2015 were ascertain through interviewer administered questionnaire adapted from Nigerian Malaria Indicator Survey Report. Clustering technique was uses to select 640 household with the help of Primary Health Care (PHC) house numbering system.

Using exchange rate of 197 Naira/USD, result shows that direct cost of malaria treatment was 8,894.44 USD while indirect cost of malaria treatment was 11,012.81 USD. Total cost of treatment made up of 44.7% direct cost and 55.3% indirect cost, with average direct cost of malaria treatment per household estimated at 20.6 USD and the average indirect cost of treatment per household estimated at 25.1 USD. Average total cost for each episode (888) of malaria was estimated at 22.4 USD. While at household level, the average total cost was estimated at 45.5 USD. From the average total cost, low income households would spend 36% of monthly household income on treating malaria and the impact could be said to be catastrophic, compared to high income households where only 1.2% of monthly household income is spent on malaria treatment.

It could be concluded that the cost of malaria treatment is well beyond the means of households and given the reality of repeated bouts of malaria and its contribution to the impoverishment of households, there is a need for urgent actions.

Keywords: Malaria, Low Income Household, Direct Cost, Indirect Cost.

PT 03/6

Reflexive approach to the use of street drugs in the transportation services in Adjamé and Abobo districts of Abidjan - Côte d'Ivoire.

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The *Pharmacy Act* (Section 60-27) of 2 September 1960, establishing a National Pharmacists Association; and Act (Section 62-249) of 31 July 1962 instituting a *Code of Ethics* for *Pharmacists* reflect the *intention* of the Ivorian state to organize the pharmaceutical sector mainly the production, testing, supply, storage, distribution, dispensation, use and monitoring of health products to ensure *better access* to quality of care to the population (MOH, 2009). Despite this great ambition of the state, the consumption of street drugs has become a *therapeutic practice* of the Ivorian population leading to a public health problem. If nothing is done, the country risks " manufacturing *more coffins than cradles* " in the near or distant future. Indeed, over 75% of the Ivorian population resort to *unimaginable* therapeutic practices *known* as self-medication (MOH-2006). The use of street drugs in the treatment of disease is rooted in Abidjan's population in general, and specifically in the community of drivers, loaders (gnanbro), *buses* and *mini-buses* (Gbaka) apprentices. *It was not uncommon to hear these terms* "we, here, cure ourselves with drugs sold by street vendors at our lorry parks". In the same vein, *we have heard reports* of some actors and NGOs such as "when I board the bus in the morning I pay 14 (fourteen)¹ to be djué-djué² at work." *Surveys investigated* the *likelihood* that diseases and deaths could have been *prevented*. The aim of this study is to assess this unusual addiction to this street drug in the *transportation services* in *Abidjan* and to deepen the debate on the widespread use of these illegal medicines. This research adopted a qualitative approach of semi-structured interviews and observations.

The result shows that, the consumption of street drugs "chape-chape⁹" by individuals is attributed to the patronage of doctors, nurses etc. on the illicit market.

⁹ Quartoze (Fourteen) is the name of a street drug.

PT 03/7

Feasibility of implementing a complementary Health Insurance Scheme: Senegal's Policy.

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Introduction: Development of health sector in Senegal in general and the insurance system specifically illness is a priority of the Government. Health policy implementation fixed at 80%, the percentage of budget participation in consultation fees and hospital care for employees and their families. Challenges related to population growth, changes in the cost of living conditions to ensure family responsibilities (education, health) as well as rising healthcare costs, will constitute obstacles to the access to health care for police officers. Faced with this situation, many mutual health insurance organizations were set up to support healthcare not covered by the current policy. It is in this context that the Police mutual healthcare organization has undertaken a feasibility study for the establishment of a supplementary to the mutual health insurance scheme.

Objective: To determine the feasibility conditions for the establishment of a *complementary* mutual health insurance scheme among the police in Senegal.

Specific objectives:

- To establish that there is a real and urgent need for protection against financial risk related to disease.
- To identify social, financial, institutional and economic conditions conducive to a complementary mutual health insurance scheme among the police in Senegal.

Method: As part of our study we will take a cross-sectional survey using a questionnaire to interview the police population to enable us quantify and analyze information on socio-economic health situation of the target. Leaders of the medical services and the police mutual insurance managers will be interviewed to identify challenges related to the management encountered by the police.

Result: The study enabled us to verify that the implementation modalities complementary to the Police mutual health insurance scheme in relation to the defined criteria are met. The drugs, co-payments and other non-supported health benefits could be covered. The results could benefit decision-makers and the state in their effort to improve the welfare of their people.

Conclusion: This study shows the steps for the establishment of a *complementary* mutual health insurance scheme among the police in Senegal. The results allow us to make recommendations to strengthen the social protection among the policy in general and specifically to target the police. These standard operating guidelines *will* work for organizations wishing to set up a *complementary* health insurance scheme.

PT 03/8

Community experiences of saving for health using local financial social networks. A case study of districts in Eastern Uganda.

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Background

Uganda did not achieve Millennium Development Goals (MDGs) 4, 5 and 6 despite the various interventions put in place to improve maternal child health (MCH) care as a priority area in the Uganda National Minimum Health Care Package. Evidence from Uganda, shows that sometimes families are not able to access health care because of the high cost of seeking health care. Results from the national health accounts showed that 49% of health expenditure was met by households. Households incur costs for transportation, food, purchase of medicine and other supplies that may not be available at the health facility. With 24% of households earning less than a dollar a day, a high proportion is unable to meet their health care needs as a result of low savings.

Methods

The study used a participatory action research approach of data collection whereby community members and district leaders with support from project staff (Manifest project staff) participated in the identification of the MNH problems in the communities and solutions were sought, agreed on using locally available resources and networks.

Results

It was noted in the intervention arms that the number of saving groups more than doubled from 431 to 915 between September 2013 and December 2016 due to successful mobilization and sensitisation. It was also noted that some parishes which hardly had any saving group at the beginning of the study by the end of 2016 had at least a saving group in every local council 1 with membership of not less than 15 people. Out of 915 saving groups, 22% had members saving for MNH while the rest were either waiting to start saving during the following financial year or they were still waiting to be trained in leadership and management of saving groups.

Discussion

When different stakeholders come together and use participatory action research methods, problems are identified and effective solutions sought and implemented within local social networks. This has been seen through the successful mobilisation of communities into joining or starting saving groups and saving for wealth creation plus health.

Conclusions

Findings have shown that it is very possible for communities to be mobilised using participatory action research methods using local resources and existing social networks to join saving groups and save for health. It has also been observed that households that save for health are more likely to survive the catastrophic expenditures due to health related problems.

Poster session 4

PT 04/1

Winning of Domestic Funding for Human Resources for Health in Uganda by CSOs.

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Introduction: The abstract focuses on the efforts of CSOs in Uganda in the FY 2012/13 to engage government to increase domestic resources towards recruitment, motivation and retention of health workers in the country to reduce maternal and child mortality of 485/100,000 live births.

Methodology: the case study used both qualitative and quantitative methods to gather the data in Uganda which included; a review of relevant literature, interviews with key informants, and focus group discussions.

Lessons learnt: Health financing campaign can succeed when you apply the following; use of confrontational approach to win policy advocacy campaign, use of collaboration strategy, work in consortiums, evidence based advocacy and use of rigorous communication tactics.

Impacts of the campaign: The campaign yielded fruits and government allocated 49.5 billion Uganda shillings towards recruitment of over 7000 health workers and domestic resources for human resources dramatically increased from 45% to 80% as a result of intensified advocacy.

Relationship between parliament, CSOs, and the Ministry of Health. The CSOs reported that perhaps the “biggest achievement” of the campaign was the improved relationship between the parliament and the CSOs. There is now an understanding, spelled out in a memorandum, between the NGO forum and parliament. Parliament now calls on CSOs every year to explain their priorities and key issues in the health sector. For example, in 2013 the CSOs focused on the issue of non-wage primary health care funding.¹⁶¹ The CSOs also reported that the HRH Campaign had led to increased access to the Ministry of Health and an improved working relationship. For example, one CSO was invited to take part in the Ministry of Health Budget TWG.

Increased attention to health finance and maternal health issues. The CSOs reported that newspapers now understand the importance of health issues and report on them daily. According to one CSO, the media engagement during the HRH Campaign helped to create a cadre of journalists which began to report on health issues regularly.

Threats and reshuffling of cabinet members and committees. After the campaign was over, CSOs reported that MPs who had been allies in the campaign were threatened. The cabinet was later reshuffled, and those MPs who had been on the side of civil society supporting the HRH Campaign lost key positions.

PT 04/2

Performance based financing, health service delivery and revenue generation: evidence from primary health care facilities in Ghana.

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Performance based financing has been implemented in many health systems all over the world with the primary objectives frequently of improving the quality and coverage of health care delivery, partly through mobilizing additional revenues for facilities and through the results-based incentive scheme itself. In developing countries this is considered to be an important tool in achieving health targets. In Ghana, PBF has been implemented in recent years to, among other things, improve primary health care delivery. While this is lauded by some analysts as a relevant policy, others have argued that it may not lead to any real improvement in facility outputs. However, there is not clear empirical evidence on the impact of PBF scheme in Ghana. In this study we intend to estimate the effect of the Ghana PBF scheme on service delivery and revenue generation across primary health facilities. Two main research questions will therefore be answered: (i) does PBF improve client service delivery? (ii) Does PBF discourage revenue generation from other sources? Secondary data from the Access, Bottlenecks, costs and Equity (ABCE) facility survey will be used for analysis. This is a panel data collected on facilities in Ghana between 2007 and 2012. About 73 primary health facilities (health centers) were included in the survey. Treatment effects will be estimated using the difference-in-difference estimator. Facilities operating PBF scheme will be the treated while those without PBF scheme, the control group. It is expected that PBF facilities will have improved client service delivery, relative to control facilities. We also expect to find evidence of “moral hazard” behavior where treated facilities tend to relent in efforts to generate additional revenue.

Key words: Performance based financing, primary health care, health financing, Ghana

PT 04/3

Earmark revenues for the National Health Insurance scheme (NHIS) in Ghana: implications for overall health system financing and NHIS sustainability.

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Sustainable health financing has been one of the major limitations to achieving universal health coverage. Several efforts have been made to improve health financing across African countries with the primary objective of making health care easily accessible. Earmarked revenues for health are additional funds to the health sector that are designed to be used only for specific programs or activities, and are usually adopted to improve resources for a specific priority health program.

In Ghana, It is reported that over half of resources to the health sector are earmarked. The debate about whether these financing strategies are actually additive to funding of overall health system or whether Ministries of Finance then try to offset the 'loss' of those earmarked funds from their control and flexible allocation (fungibility) is still ongoing with no real empirical evidence. In this study we focus on earmark revenues to the Ghana National Health Insurance Scheme. We sought to find out if these earmarked funds have led to an overall increase in resources available to the health system or if the earmarks have inadvertently contributed to a decrease in the non-earmarked funds going to the health sector.

Analysis was focused on the two main forms of earmarked revenues to the NHIA, namely, NHIF (2.5% of VAT) and 2.5% of SSNIT contributions. Quantitative data on revenue and expenditure trends of the NHIA and health sector as a whole were sourced from the Ministry of Health, the Ghana Revenue Authority and the National Health Insurance Authority (NHIA). The data covered a period of 12 years between 2003 and 2014. We performed trend analysis including line graphs to show evidence of fungibility. Projections were also made on revenues and expenditure of the NHIA to determine the sufficiency of earmarked funds to assure NHIA sustainability.

Our preliminary findings suggest that earmarked revenues form significant portions of total revenues to the NHIA and the health sector as a whole. Over 90% of NHIA revenues and 26% of health sector budget are from the earmarks as at 2013. There was also evidence of fungibility in government allocations to the health sector. A downward trend was observed in government allocations to health services and investment while an upward trend was observed in personnel emoluments.

PT 04/4

Calculation of costs for a Service Provision (SP): a product distribution model on performance based financing (IPM) model in Senegal.

Bakeu Gonhoko Jean-Macaire, Yao Konan Christian

Introduction: Contractualisation, in the context of the Performance Based Financing (PBF), helps raise the performance in health structures. The IPM model "Info Push Model," is a model that aims to improve the availability of performance-based financing commodities at service delivery points (SDPs) in Senegal. It is implemented as part of the collaboration between IntraHealth and the Ministry of Health and Social Action. The intervention consists of private operators contracted at each region by IntraHealth, supplier of (PBF) products from the Regional Supply Pharmacy (PRA) to *service delivery points* (SDP).

Method: The cost method of intervention in the Service Delivery (SD), is estimated through a bottom-up approach to assess the level of the resources used through business model; and to identify the type of resources used and to measure these resources utilization and also calculate the costs of specific services. These methods include a combination of direct measurement approaches, in which the production process is specified; entries for each process are listed, their prices are identified and their costs estimated. For this study, direct measurement methods to be used are: (a) examination of documents, classification of accounts and cost estimates by cost category, and (b) a study of time and movements.

Results: The intervention will measure the effectiveness and the impact of intervention on the health of populations covered by the Health Station. It will also calculate training costs and startup costs, investment costs (capital costs, recurrent costs and costs according to the functions of supply chain (supply, management, storage, and transport). The total cost will be estimated by multiplying quantities by prices in all entries.

Conclusion: IPM is a model that promotes the performance of health systems. It will improve the efficiency and effectiveness of the supply chain of FP products and thus participate in the reduction of maternal mortality in the Health Post. The study showed that many actors and funding sources involved in the implementation of IPM in PS (IH, state health committee, other partners).

Keywords: (≤ 5) Cost Calculation, FBP, IPM, Contractualisation, performance, private.

PT 04/5

Budget management by objective realities and perspectives case of the Tunisian Ministry of Health.

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Better governance, empowerment of stakeholders, transparency of government accounts and a strong anchor in the budget process within a democratic framework, are the challenges to take up by the government to ensure continuous improvement of the public sector efficiency and effectiveness, policy coherence.

To this end, Tunisia has undertaken a decisive reform for the management of public finances by adopting a budgetary approach geared towards performance, referred to as "Budgeting and management by objectives" (*MBO*).

The new *budget development* approach allows resources allocation to the budget law, according to the programmes introduced in the organic budget law in its review in May 2004. To move the (*MBO*) forward, the government has a roadmap and a blueprint. The blueprint aims to provide all administration officials involved in the budget management with a framework for reforms *implementation* and *coordination* of various initiatives. The main components of the reform include:

- A. Strengthening of budgeting procedures including the preparation of a *Medium Term Expenditure Framework (MTEF)*.
- B. The gradual implementation of budget management programmes and monitoring of performance.
- C. The introduction of results-based management.

The director of the reform scheme provides for the establishment of five thematic reflection groups for the definition and the implementation of the various projects to engage namely:

1. To adapt the legislative and regulatory framework to the (*MBO*),
2. To adapt the budget nomenclature,
3. To modernize public accounting,
4. To monitor systems reform and public finance models,
5. To adapt computer and information systems.

The Tunisian government has adopted a phased approach, with pilot schemes, in setting the Ministry of Water and Fisheries Resources (MARHP), the Ministry of Health (MOH), the Ministry of Higher Education and Scientific Research (MESRS), the Ministry of Education and the Ministry of Vocational Training and Employment (MFPE), were selected as pilot sites.

Our presentation will focus on the experience of the Ministry of Health in this area, the progress, challenges and opportunities in the five-year plan for the next four years from 2016 to 2020.

PT 04/6

Financing the Tunisian health system: Efforts to reach the 3rd point of SDGs.

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The third goal of SDGs is to enable all to live in good health and promote wellbeing for everyone at any age. Recognizing the importance of the challenge for health authorities, policy makers and all-of-society seeking to *improve the performance of health systems* in Tunisia. The objective of this study was to analyze the methods of funding the Tunisian Social Security and to what extent this system could achieve the objective through a consolidation of financial resources. In 2013 the total health expenditures in Tunisia amounted to 57.6627 billion Tunisian dinars (\$ 26,831.35) or 7.1% of GDP. About 37.5% of these expenditures reaching households, the Health Insurance Fund operates only in 34.9%; the State contributes to 26.3% of the expenditures. The private sector accounts for the majority of health expenditures (45% of CNAM expenditures, 91% of household expenditures). The public sector is largely underfunded especially the first and second sectors. Vulnerable people may not access quality care; they are likely to face catastrophic expenditures.

At the end of the presentation I will explore the different proposals to achieve a Tunisian health care financing system developed by Perrin.

PT 04/7

The role of Civil Society in Health Budget Analysis, Tracking and Advocacy in Nigeria: Challenges and Prospects.

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Background

Significant efforts and investments have been to reform Nigeria's health sector by succeeding governments and development partners, but health indices remain one of the poorest in Sub-Saharan Africa and Nigeria was unable to meet the MDGs targets. Health experts attribute the poor health outcomes to poor budgetary allocation, inefficiency, lack of accountability and transparency in the sector which contribute significantly to the low returns on value for money for services delivered. This paper reviews the health budget process in Nigeria and role of civil society in health budget tracking, analysis and advocacy, and to what extent their involvement and participation has contributed in improving transparency and accountability of the budget process, and the implications for funding the achievement of the health-related Sustainable Development Goals (SDGs).

Methodology

Data collection involved desk review of published and grey literature including relevant documents and reports from the websites of the Federal Ministry of Health and its agencies, the Ministry of Budget and National Planning, the Budget Office of the Federation, The National Assembly, Donor Agencies and mainstream CSOs involved in Budget Advocacy. These were analyzed to extract relevant information on the health sector budget with particular attention given to health-related MDGs/SDGs allocation and expenditures between 2011 and 2015.

Key Findings

Overall findings show that CSOs have become increasingly engaged in health budget tracking and analysis, using scorecards to track health budget, among other strategies. Despite the advocacy efforts, Nigeria has been off-track in meeting the 15% budget allocation to the health sector as agreed by the 2001 Abuja Declaration. The annual health budget has averaged about 5% in the last few years, with high ratio of recurrent over and above capital expenditure. Funding to tackle child and maternal mortality has generally been poor in relation to disease-specific interventions like HIV/AIDs. Despite the availability of enabling laws, the health budgeting process lacked transparency and openness, and with low citizen participation and it is difficult for ordinary citizens to access health budget information.

Conclusion/Recommendations

The active participation of citizens in the budget process is positive development. Healthcare financing experts have the opportunity to strengthen and support the voice and accountability work of CSOs through the generation of research evidence by conducting rigorous health budget tracking and analyses.

PT 04/8

Expanding Health Insurance Scheme in Nigeria; Awareness as a Potential Demand-Side Tool.

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Aims and objectives/Introduction

Stakeholders in developing countries are faced with the challenges of implementation and expanding the health insurance scheme among the informal sector. With the aid of an innovative model, a cross-sectional descriptive survey was carried out to assess the level of awareness and perception of health insurance scheme among women in the informal sector.

Methods

A multi-stage sampling technique was used to select study participants. An interviewer-administered, semi-structured questionnaire was used to collect data. The data was analysed using SPSS version 16. Chi-square test was used to test associations between selected variables of interest. Logistic regression model was used to determine predictors of awareness of the NHIS. Only variables associated with a p value promises of acceptance of health insurance among the informal sector. Strategic awareness creation especially among women in this sector is important. Innovative concepts to enable potential beneficiaries better comprehend the concept may enhance acceptance. Stakeholders need to address the areas of concern as expressed in this study.

PT 04/9

What resources to mobilize to help achieve the SDGs: analysis of results and funding for malaria control in Côte d'Ivoire.

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Goal

To contribute to an assessment of resources to mobilize to help achieve the financing of the SDGs for malaria control.

Methodology

This is a descriptive study. Progress in the MDGs in the fight against malaria and the resources mobilized to achieve these results were examined from 2011 to 2014. Funding opportunities known over the period of SDGs were listed and a correlation between the resources mobilized and the objectives established. A projection of state funding in 2030 was made as well as the expected results.

Results

The fight against malaria has reduced mortality among children under 5 years *all* malaria cases from 125 ‰ in MICS 2006 to 108 ‰ in EDS III 2012. The LLIN utilization rates among children of this age group has increased from 3% in 2006 to 37% in 2012 with a ratio use / possession of 68% in the population.

The proportion of households with at least one (01) ITN increased from 10% in MICS 2006 to 67% in EDS III 2012 and 95% in EDS III 2014 (LLIN Campaign Report, 2014). The incidence of malaria in children under 5 years fell by 109 points between 2011 and 2014 from 389 ‰ to 280 ‰.

The resources mobilized to achieve these results between 2011 and 2014 amounted to 127,294,694,622. In this period 87.8% of the resources were mobilized from the Global Fund. The share of the state and other partners represents 13.2%.

It would also allow funding partner more *visibility* by 2030. The share of the state will increase to 36,504,208 CFA francs 637.78, taking into account the willingness to pay, which foresees an annual increase of 25%, based on the amount for 2017 (2,006,840,093 CFA francs).

Conclusion

The move to scale effective interventions since 2010 has had an impact on the results of the fight against malaria. These actions need the average mobilization 31,823,673 655.50 per year.

If the state and partners maintain efforts, the incidence will decline and fall below [0] among children by 2022 at a rate of 27.25 point per year.

PT 04/10

Evaluating the economic costs of uncomplicated malaria treatment at a university healthcare facility in Nigeria: Implications for efficiency in malaria treatment.

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Background: As a standard practice in malaria case management, current and accurate information on facility cost of treatment is essential for appropriate decision making in resource or funding allocations for malaria treatment and control. The study estimated the costs of providing treatment for uncomplicated malaria through a university healthcare facility, southeast Nigeria.

Methods: Based on a comprehensive cost of illness approach, hospital associated costs of uncomplicated malaria episodes were estimated from a provider perspective, applying a standard costing procedure for outpatient services. Capital and recurrent expenditures were estimated using ingredient approach combined with step-down methodology. Costs attributable to malaria treatment were calculated based on the proportion of malaria cases to the total outpatient visits. Non-hospital costs were not collected. Total and average financial and economic costs were estimated for both uncomplicated malaria without co-morbidity, and with co-morbidity. All costs were calculated in local currency, converted to the US Dollars at the 2013 exchange rate.

Results: The hospital spent a total annual economic cost of N28, 723,723.15 (US\$182,953.65), for the treatment of uncomplicated malaria, at US\$31.49 per case. This represents about 25% of the hospital total expenditure within the study year. Personnel accounted for 82% of total expenditure as the dominant cost driver, followed by antimalarial drugs (6.6%). Over 45% of outpatients visits were treated for uncomplicated malaria in the facility, leading to increased utilization of hospital resources. Changes in personnel costs, drug prices and malaria prevalence significantly impacted on the study results, indicating the need for improved use of facility resources.

Conclusion: Malaria treatment at the center represents a considerable use of hospital resources, arising mainly from personnel costs and high proportion of malaria cases. There is significant scope for improved efficiency in the use of hospital resources, to prevent wastages and reduce costs to the provider and consumer.

PT 04/11

The results of the 2013 and 2014 National Health Accounts Programme and its impact on health financing in the DRC.

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Purpose: Provide essential reliable information on financial flows to enable decision makers to *make* evidence-based decisions on *health* policies in the DRC.

General Objective: Rebuild financial flows of public commitment to health expenditure.

Specific objectives:

- Identify sources, schemes and financing agents. Providers of healthcare and functions;
- Make recommendations to policymakers to improve the management of the health system.

Methodology: Collection of data from the Government, donors, and other relevant institutions involved in the financing and delivery of health care in the country. Then the *literature review* findings *supplemented the* information obtained. Data analysis is performed according to “[WHO System of Health Accounts 2011](#)” and covers the fiscal years from 2013 to 2014.

Key Results: Current annual *health expenditure per capita* has varied between 2013 and 2014 from \$19 to \$21. Direct household payments are the main source of funding health system schemes in the DRC, representing 41% in 2013 and 43% in 2014. The Government has only funded 14% of *current health expenditure* (from 2013 to 2014). The rest of the world remained broadly constant over the period, about 40% as well as the business contribution remained at 5% in 2013 and 2014. It appears that the total health expenditures represented 7.6% of the GDP of which 7.43% of *current health expenditure* as percent of *GDP* in 2014. Despite the effort of the Government and donors, the Congolese population continues to bear a heavy burden of health spending. Malaria, the top killer disease in Africa was funded at 47% of *current health expenditure* from households in 2014.

PT 04/12

Review of Public Financial Management in Primary Health Care in Nigeria: A Kaduna State case study.

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Background

Kaduna State is one of 36 states in Nigeria, the most populous country in Africa with widely documented poor maternal and child health outcomes. Limited funding of public health services and lack of accountability of resource flows characterize the health care system in Kaduna. Consequently resulting in poor service delivery and low utilization of services at the Primary Health Care (PHC) level. The new administration has shown a willingness to increase the fiscal space for health to advance health service delivery. However, increase in public health spending particularly PHC do not necessarily translate to improved service delivery due to poor financial management. This highlighted the need for an in-depth understanding of the shortcomings in the management of public funds for PHC to implement tailored interventions in Kaduna State.

Aim

The aim of this study was to review the financial management of public PHC funds in Kaduna State by systematically analyzing its strengths and weaknesses, and to propose options for addressing observed shortcomings to policy makers.

Methods

Our review was informed by insights from interviews with key State officials and modules from the Organizational Assessment for Improving and Strengthening (OASIS) health financing tool.

Findings

We identified 5 key drivers of poor financial management in Kaduna State:

1. High dependence on unpredictable federal allocations and low internally generated revenue (IGR) which constrains the fiscal space for health
2. Weak coordination between the multiple sources of funding for PHC (state government, donors, HMOs), resulting in a duplication of efforts and inefficiencies
3. Inaccurate fiscal forecast in the budget preparation and planning process, manifesting as a lack of cash backing for approved budgets
4. Significant delays in issuance of warrants for capital projects, consequently resulting in poor budget performance
5. Lack of operating expenses and limited accountability mechanisms in place to track resources (both in cash and kind) at the health facility level

Recommendations

Recommendations were made to address these weaknesses and to ensure resources are used and managed in an efficient and effective manner. These include strengthening support and capacity to improve IGR collection, creation of a basket fund to pool resources for health, increasing capacity of state officials in budget planning and preparation, and institutionalizing a prospective tracking of resources for health.

Poster session 5

PT 05/1

Developing Effective Health Policy Communication Campaign Strategy for Public Access to the Minimum Healthcare Package Economics in Africa.

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Aim and Objectives: Effective national health policy communication campaigns strategy can empower more communities, families, institutions, and individuals to gain access to the minimum healthcare package economics in Africa. The objectives are to: (1) discuss the key planned outputs of the minimum health care package for Ugandan national policy economics; (2) state the role of the role of the major stakeholders in the Ugandan national health policy development process; (3) describe the prospects of achieving SDG 3 in Africa; and (4) assess the role of communication strategy in enhancing the health policy economic environment.

Methods: This review is based on government policy documents, research findings, health communication theories, and internet searches conducted on effective policy communication strategy. In this review, published evidence on the Ugandan institutions and governance of health policy implementation was obtained. In addition, more information was accessed using internet search engines and libraries. We looked for relevant documents on effectiveness of the responsibility of the press to society with respect to communication strategy in influencing the audiences' knowledge, attitudes, perceptions, and behaviour towards enhanced institutional governance. Finally, the retrieved data were summarized to inform this paper.

Findings: There is lack of emphasis on the role of effective communication strategy; poor service delivery system and quality; public awareness and knowledge of the national health policy issues; low budget support and political commitment; stakeholders, conflicting health messages, poor infrastructure, low staffing and staff incentives. Constant shifts or changes in health economics and policy analysis outputs; data weaknesses or gaps present data accessibility challenges, the gaps between researchers and policymakers have continued to undermine the demand for or the use of healthcare economic policy analyses in the region.

Conclusion(s): Policy advocacy communication is vital for achieving the desired awareness, attitudes, and behaviour change among all the community health stakeholders. Effective policy communication is participatory, theory driven, ethical; well coordinated, and gender balanced. A sustainable North-South research, technical, capacity building, funding, and policy collaboration are the imperatives for improved access to quality the minimum health care package for Ugandan national policy economics for public healthcare services in Africa.

Key words: Africa, communication, health, policy, SDGs, well-being.

PT 05/2

The Role of the Media in Strengthening the North-South Cooperation for Effective Implementation of the National Health Policies in Africa.

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Aim and Objectives: Ugandan institutions and governance of food and nutrition systems policy implementation outputs and impacts are still too weak and uncoordinated. The media have an essential role in raising public awareness of the need to strengthen the institutional governance of health systems for effectiveness of health policy in Uganda. The objectives are to: present the social responsibility functions of the media in monitoring the institutions and health governance systems; identify the roles of stakeholders in the implementation of the food systems policy; explain the institutional policy gaps and weaknesses of public health policy focus; and discuss the role of university community outreach policy communication.

Methods: In this review, published evidence on the role of international support in capacity building for health policy implementation was obtained. All the documents that were obtained during the review process were used to further broaden the search for primary data sources. More data were sought from national, regional, and international agencies. To begin with, accessed documents were scrutinized for relevance and some were used as key references to aid further searches for primary sources of data. Findings were contextualized according to specific policy issues. Then, the retrieved information was summarized to inform this paper.

Findings: Effective deployments of the media channels provide the maximum and immediate public awareness of the roles and functions of the specific institutions and governance of food systems policy. The media have a social responsibility to play effective role in monitoring the performance of public institutions, holding the authority to account to the citizens and tax payers, exposing abuses of public office, and creating, raising, developing, and sustaining the public awareness of good governance of the institutions and systems. Intra-governmental institutions have been established and the governance systems for food systems in the country. Policy information diffusion is hindered by: poor or lack of infrastructure, ethics, communication coordination, funding gaps and cancerous corruption, community outreaches, poverty, policy coordination, climate change, environmental degradation, politics, and skills.

Conclusion(s): The media have a big responsibility to monitor and expose the performance of the institutions and food governance systems; create or raise awareness of the major roles of stakeholders in the implementation of the national food and nutrition systems policy; weak institutional framework and dialogues for the critical role of the north-south alliances in capacity building, budget support, collaborative research, networking, and policy innovations.

Key words: Africa, north-south collaboration, research, corruption, media, policy.

PT 05/3

Morocco on the way to UHC - necessary reforms.

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Morocco has made significant advances in health, in particular by eliminating some infectious diseases, increasing the life expectancy of the population by ten years in the last thirty years and reducing maternal and infant mortality by half.

Moreover, through AMO and RAMED, Morocco has introduced social welfare systems for some target groups: active employees and pensioners in the formal sector (34% of the population of Morocco), those on low incomes (27% of the population of Morocco), specific population groups (0.7% of the population of Morocco). Other systems for the self-employed and for students are also being prepared (30.8% and 1.5% of the population respectively).

Thus the population covered increased from approximately 16% to almost 53% of the total population from 2006 to 2013, which represents a significant progression.

However the country still has some way to go to reach UHC: a large proportion of the population is still not covered, the insurance systems and RAMED remain incomplete, and the health system as a whole is underfunded. Indeed direct payments by households remains a major funding source, and the government is not likely to achieve its aim of reducing direct payment to 20%-25% of total health expenditure by 2020. Furthermore, UHC of a basic healthcare package is underfinanced by approximately 16 billion dirhams in 2013, rising to 27 billion dirhams in 2030).

Progressing towards a more complete coverage would require three priority health financing reforms: better use of existing resources, better pooling of risks and resources, and increased allocation to health.

This article will develop what could be undertaken under each of these reform streams, and propose a concrete way forward for UHC in Morocco.

PT 05/4**Understanding capacity factors driving provider performance in free healthcare programme in Nigeria: a case-based health systems analysis.**

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Background

Well-resourced district providers are needed to deliver people-centered free health services. Evidence about providers' influences on user-fee abolition policy implementation, using organizational theories, are limited. This study aims at describing capacity factors that enabled or constrained providers' implementation of free maternal and child healthcare programme in Nigeria.

Methods

A qualitative, case study design using constructivist grounded theory was adopted. Case data included in-depth interview of policymakers (n = 6), providers (n = 16), and health facility committee members (n = 12); focus group discussions (n = 4); and document review (n=14) in two contrasted health district: less- and more-functional districts. Based on dimensions of Grindle and Hilderbrand capacity framework, data were analysed using constant comparison analysis.

Results

Providers' action environment was characterized by weak decentralization, poor answerability, low providers' participation in decision-making, clients' lack of trust in providers and poor strategic vision. Poorly enforced reimbursement policy, street level bureaucracy and poor compensation were common institutional context of providers. Poor recording and reporting skills and lack of support from district officials constrained task network. Organisational constraints include weak supervision, poor funding, decapitalised drug revolving fund, and inadequate infrastructure. Human resources constraints were insufficient trained workforce and weak staff disciplinary mechanism. Providers from less-functional district were more constrained than providers from more-performing district across all dimensions of capacity.

Conclusions

This study highlights, from Nigeria's experience, need to address insufficient district providers' capacity in order to enhance implementation of user-fee abolition policy.

PT 05/5

Health Sector Operational Planning & Budget Allocation Processes in Ghana & Ivory Coast.

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Background

The way African countries, plan and budget their health sector, is of great relevance in influencing the sector's performance to deliver quality and timely needed health services to its population. While these processes can positively influence the capacity of the health system to be performant, this field is one that is however rarely documented, especially in countries of Sub-Saharan Africa. This study aimed to answer the research question: *“how is the health sector of West African countries operationally planned and budgeted?”*

Methods

A flexible design, qualitative cross-sectional research strategy was adopted in Ghana and Ivory Coast. Literature and national document review was conducted, guiding the development of context specific data collection questionnaires for health system stakeholders and the Ministry of Finance. Country research teams were composed of an “insider” and an “outsider” researcher. Purposeful sampling was used to identify key stakeholders and the questionnaires were administered among 14 stakeholders in Ghana, and 23 stakeholders in Ivory Coast. The interviews were recorded and transcribed verbatim and thematic analysis was performed.

Results

The preliminary results in both countries suggest that while the annual budget allocation processes through the Ministry of Finance, have clear guidelines and timelines to be adhered to, the operational planning processes on the other hand, lack these. In Ghana, the operational planning process adopts a bottom-top approach whereby MoH-affiliated agencies prepare annual plans which are later collated at national level. However the feedback loop and distribution of resources from the top to the bottom for the implementation of the plan, is seemingly inexistent, leading to many stakeholders' questioning the overall essence of these processes. In Ivory Coast, the logic of cooperation between development partners, and regional health managers and the MoH, seem to be a constraining factor, hampering alignment between the processes of health sector planning and budgeting.

Discussion

These preliminary findings of non-alignment and tensions between health sector planning and budgeting processes in Ivory Coast and Ghana are not unique. Similar findings have been found in a few case studies by, World Bank, 1998; Houerou & Taliércio, 2002; Tsofa et al., 2015 etc. The findings of our study will be examined and compared with these findings that exists in the literature base.

Conclusion

The development of clear national operational planning guidelines harmonized with the MoF budget allocation guidelines and processes and the capturing of development partners' funds into a global national basket, through the MoF, could be possible ways to palliate these challenges.

PT 05/6**Reflection on the new Burkina Faso health policy: Challenges of Bamako Initiative.**

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When the first authorities took over management of the states in Africa after independence, they were inspired by the great welfare state models prevailing in industrialized countries. They therefore made free health care, a basic principle in the functioning of health systems. But planning the drug supply management system has not been made. The funds *allocated* to the *health sector* have not improved. The same provision was to be used both in the construction of clinics, equipment, health services and also the renewal of drug stocks. The health system in African countries, while supported by external aid, began to collapse. To counteract the rapid degradation of these health systems, African countries, in a climate of "great sociopolitical and economic depression," have signed the Bamako Initiative in 1987.

The Bamako Initiative is a corrective strategy of the Declaration of Alma Ata. By questioning the free care that prevailed since independence, it aims to create the conditions for access of the population to quality health care with equity, availability and accessibility of medicines at lower costs throughout the 'national territory. But today in Burkina Faso, the results of this health policy in force since 1987, fails to convince. If the Bamako Initiative has helped establish democracy in the management of health services, health and social situation in the country remains dire. So today, the Burkinabe authorities launched another health policy based on free care, marking a return to the start before the *Bamako Initiative*.

The aim of this study is to examine the new Burkina health policy launched early 2016.

Objectives: To analyze the relevance and limitations of this policy to see if it can achieve the objectives of sustainable development.

Methodology: This study will start with an evaluation of the Bamako Initiative through the existing literature; it will present brief interviews in Burkina Faso on the new health policy.

The expected results:

- Improved access to care
- To collect various opinions consisting of improvements designed to *reduce* future *risk* and to make suggestions.

In conclusion, the study will assess this policy in terms of global sustainability goals.

PT 05/7**When health awareness hinders the MDGs in Ivory Coast.**

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There are two groups of actors involved in any health system, but health procedures do not follow the same logic. The *contradictory relationship* may affect the achievement of the MDGs. Certainly, essential *diagnostic testing* have consistently identified numerous barriers to the *achievement of the MDGs* and / or the promotion of public health, for they rarely challenged opportunities or practices that exert a strong influence on adverse health outcomes in this population. These health behaviors together with increasing awareness of the population must not be exempt since they support health maintenance strategies. The paper attempts to challenge this health awareness focusing on *adverse health practices*, specifically among *vulnerable populations*.

Methodologically the study is based on a comprehensive qualitative approach focused on interviews, observations and systematic literature. The study identified the existence of a causal or exogeneity between the occurrence of disease, preventable deaths and health awareness of the population. Indeed, in the perception of the population, almost *all diseases and misfortunes* were believed to have causes. For example, among the Bete tribe in Ivory Coast, "childhood diarrhea is associated with the fact that the baby's mother and father shared the same bed at an early stage." While opinion "forbids" marital relations during breastfeeding, diarrhea caused casualties. In addition, the use of enema pump persists among respondents while the effectiveness attributed to it is increasingly undermined by gastroenterology, obstetrics and gynecology. The frequency in *broadcast and print media* dramas of all kinds relating thereto is a perfect illustration. In fact, beneficial effects for the *actors' involvement* are limited by a collective ignorance of the negative impact that such practices may have on a *functioning health*. And "as its *raison d'être* is to achieve the *MDGs* remains relevant, it is equally important that the qualitative transformation of risk behaviors involves building a cultural bridge between the popular knowledge and the medical knowledge; promoting health awareness is perceived to this regard as a challenge."

PT 05/8

Formulation of the Human Resources for Health Policy in Nigeria: Exploring Roles of Actors and use of Evidence.

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Background: Actors' views on evidence and their role in policy development appear critical to the use of evidence.

Objective: This study aims to examine how actors' perception roles and levels of power, influenced Human Resources for Health policy development in Nigeria (HRH).

Method: The research was conducted using a case study approach. Systematic reviews of relevant policy documents and reports, In-depth interviews of twelve respondents comprising government policymakers, academia, civil society organizations, Health-workers and development partners were done. Interviews were analysed using NVivo 10 software for qualitative analysis.

Findings: Most respondents perceived evidence to be factual and concrete to support a given decision. The government policymakers wielded a high level of power and spearheaded the policy process. Development partners were major decision makers because they had financial and technical power. Civil society groups had the power of advocacy and generated evidence. The academia with medium power level generated evidence.

Conclusion: The actors' with the highest level of power greatly influenced the use and type of evidence used in formulating the HRH policy. Stakeholders with coercive, financial or group power influenced the type of evidence finally used in formulating the HRH policy.

PT 05/9

Public-private partnerships (PPPs) to incentivise research and development (R&D) for neglected tropical diseases (NTDs).

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Neglected tropical diseases (NTDs) predominantly affect the poorest populations of the developing world. Pharmaceutical companies are reluctant to invest in research and development (R&D) of the NTDs not only because of the low purchasing power of the potential consumers but also because of the low protection of intellectual property rights in the affected countries. The economic context has led to the proliferation of public-private partnerships (PPPs) in the last two decades. Nevertheless, despite their growing role in public health, the way in which these development models operate as well as their impact remains vague. Accordingly, we conducted a systematic review of PPPs for each of the 17 NTDs of the World health organization (WHO) list over three large databases – Scopus, PubMed and IDEAS/Repec. The search resulted in 181 non-duplicate papers from which 71 met the inclusion criteria. The findings leave much to be desired: in spite of the increasing scale and significance of PPPs, there is very little in-depth empirical investigation. Only one economic evaluation analysis could be found and revealed that the PPP model is not the most-cost effective approach to develop products for NTDs.