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Role of Social Health Insurance towards Universal Health Coverage for East African Community: An Analytical Review

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Abstract:

Background*: Social Health Insurance (SHI), a health financing model for Universal Health Coverage (UHC), is an organizational mechanism for raising and pooling funds to finance health services, along with tax-financing, private health insurance, community health insurance and others.*

Objective*: To analyze successful experiences, lessons learnt and best practices among selected middle income countries in the efforts of the East African Community member states to attain UHC through SHI.*

Methods: *A 11-year (2009-2019) electronic peer-reviewed articles that met eligibility criteria were collated. PubMed, Medline and Google Scholar search engine. Only papers published in English from the 9 countries (Thailand, Philippines, Colombia, Ghana, Kenya, Tanzania, Uganda, Rwanda and Burundi) were reviewed. A Scoping review methodology was used to improve data validity.*

Results*: A total of 9649 papers were extracted from the databases. 17 studies met all inclusion criteria; Colombia (1) Thailand (2), Philippines (2) Kenya (4) and Ghana (8).11 studies were case control studies, 2 mixed methods, 2 qualitative and 2 systematic reviews. UHC index and indicators were higher in UHC successful countries compared to the EAC countries. Most papers in Ghana discussed a significant progress towards UHC through political stewardship, quality of care, significant expansion of population coverage and financial risk protection with their National Health Insurance though equity, sustainability and enrolment were some of the challenges. Successes of Thailand and Philippines were as a result of political commitment and goodwill, subsidies, increasing funding, adoption of general tax-financed for UHC, access to PHC, quality through accreditation system and earmarked revenue source. In Kenya, progress was made by introduction of civil servants' schemes, subsidies and expansion of benefit packages while struggling with purchasing reforms, equity, efficiency and sustainability.*

***Conclusion**: SHI can drive UHC but the pace and success depend on multiple factors; political goodwill and buy-in to fund health care and expand coverage through subsidies, improving quality of care, investing in health infrastructures, focusing on PHC. Emphasis should be on; equity, sustainability, quality of care, enrollment of informal sector, efficiency and subsidies.*

***Key words**: UHC, SHI, public health insurance, affordable, accessible, equitable, health insurance.*

Abbreviations

ARV: Antirétroviral

CAM: "Carte d'Assurance Maladie"

CASP: Critical Appraisal Skills Program

CBHI: Community Based Health Insurance

CBHIS: Community Health Insurance Scheme

CHE: Catastrophic Health Expenditure

CHF: Community Health Fund

CR: Contributory regime

CSMBS: Civil Servants Medical Benefits Scheme

DTP: Diphtheria, Tetanus and Pertussis

EAC: East African community

GSSSH: General Social Security System in Health

HCS: Health Card Scheme

HIV&AIDS: Human Immunodeficiency Virus & Acquired Immune Deficiency Syndrome

HRH: Human Resource for Health

HSRI: Health System Research Institute

HSSP: Health Sector Strategic Plan

IHP: Integrated Health Program

IHR: International Health regulations

IT: Information Technology

ITN: Insecticide Treated Bed Nets

KEMSA: Kenya Medical Suppliers Authority

LIS: Low Income Scheme

M&E: Monitoring and Evaluation

MFPG: Mean Fasting Plasma Glucose

MMI: Military Medical Insurance

MoH: Ministry of Health

MTR: Mid Term Review

MWS: Medical Welfare Scheme

NCD: Non-Communicable Diseases

NGO: Non-Governmental Organization

NHFS: National Health Financing Strategy

NHI: National Health Insurance

NHIA: National Health Insurance Authority

NHIF1: National health Insurance Fund

NHIF2: National Hospital Insurance Fund

NHIL: National Health Insurance Levy

NHIP: National Health Insurance Program

NHIS: National Health Insurance Scheme

NHSO: National health Security Office

NSHIF: National Social Health Insurance Fund

NSHIS: National Social Health Insurance Scheme

NSSF-SHIB: National Social Security Fund-Social health Insurance Benefit

OOP: Out of Pocket Payment

PBF: Performance Based Financing

PHC: Primary Health care

PhilHealth: Philippine Health Insurance

RAMA: "La Rwandaise d'Assurance Maladie"

SDG: Sustainable Development Goals

SHI: Social Health Insurance

SR: Subsidized Regime

SSS: Social Security Scheme

TRTP: The Thai Rak Thai Party

UCS: Universal Coverage Scheme

UHC: Universal Health Coverage

UHCI: Universal Health Coverage Insurance

VAT: Value Added Taxes

WCF: Workmen's Compensation Fund

WHA: World health Assembly

WHO: World Health Organization

Background

In the year 2005, the World Health Assembly (WHA) of the World Health Organization (WHO) passed resolution number 58.33, defining "universal health coverage (UHC)", as access to key promotive, preventive, curative and rehabilitative health interventions for all at an affordable cost, thereby achieving equity in access to effective healthcare1. According to the WHO, UHC seeks to promote equity in access to quality health care services and financial-risk protection [2]. The three broad dimensions of UHC include covering population, service expansion and cost reduction [3]. The reasons for investing in UHC are moral and equity: it is not acceptable that some members of the society face death, disability, ill health or impoverishment for reasons that could be addressed at limited costs. Achieving UHC is a

beneficial investment and nations that achieved it eliminated preventable maternal and child deaths and reduced that attributable to illness and strengthen their long term economic growth [4].

The principle of financial-risk protection ensured that the cost of health care did not put citizens at risk of financial catastrophe [5]. Social health insurance (SHI) is one of the successful and popular worldwide health financing model today and more than 27 successful countries adopted the principles of UHC via this model [6]. The SHI agencies usually selected and contracted qualified private health care providers to guarantee the attainment of quality and efficient health services provision, establish rational payment systems, prevent providers from using their market power to "fleece" patients and coordinate PHC and tertiary health services [7].With lessons learnt from the middle-income countries which registered successes in their SHI programmes, it is crucial that the East African Countries (EAC) states embrace SHI to incorporate methods which would enhance efficiency and introduce innovative financing methods at the PHC levels to accelerate achievement of their UHC. Most of the EAC countries are far away from achieving UHC for quality health services [8].

For a long time, there had been need for innovative measures and reviews of the regional (EAC) health financing mechanisms to accelerate and widen the population coverage of health care services and to protect the population from impoverishment and catastrophic health expenditures linked to the out of pocket payments [9]. By definition, social health insurance (SHI) is an organizational mechanism for raising and pooling funds to finance health services, alongside tax-financing, private health insurance and community-based health insurance (CBHI) among others [10]. The SHI concept was first mooted in Germany in the year 1883 and the resulting legislation in the same year built upon existing local funds and occupation-based funds for miners, guilds and companies, making health insurance compulsory for workers in some industries with hourly wages up to a legally fixed income ceiling [11]. After the Second World War, the German parliament made nation-wide health insurance compulsory and it was recognized as the first country in the world to introduce a national social security system [12]. One of the main challenges of SHI is enrollment of the poor and informal sector occasioned by their inability to pay premiums, yet these citizens are the most in need of healthcare [13].

Identifying them as poor for subsidies is yet another hurdle in low-income countries. This is because there are no clear guidelines of identification of the level of poverty and political interference in the process due to corruption in some developing countries. Sometimes the number of the enrolled as poor may exceed the number of people who pay premiums, making funds limited to allocate subsidies to the poorest of the poor [14]. Inefficient management of the scheme, a long process of reimbursement claims, poor quality of care and delays or rejections of some claims from providers and non-reimbursement make the matter worse for most of the SHI schemes according to Sodzi-Tettey et al, 2012. Dieleman et al (2019) recognized that internationally, issues raised on policy designs for low- and middle-income countries where the design of policies were similar to developed countries yet their funding contexts,

infrastructures and human resources for health differ significantly. Lastly, most SHI in developing countries have been initiated following a political agenda, implying that the role of the government is crucial for the success of the scheme. Political good will and strong health governance policies should be in place for the successful implementation of the SHI agenda [15].

Covering the poor by implementing exemption policies is not negotiable if SHI is to be successful. Revenue collection should be increased, resources should be efficiently used, the quality of health care should be improved and sustainable and strengthening of PHC can also improve the people's health and performance. Some selected innovative models of indirect tax collection channels on luxury goods can be targeted as these goods are purchased by the wealthy citizens such as tax on flight tickets, mobile phone taxes, alcohol and tobacco product taxes, wildlife tourism tax, (companies reaching a certain level of profit per year, such as income of US$ 1,000,000 to pay 1 to 2 % of profits for social health insurance [16]. Some developing countries advanced towards UHC through SHI and these were selected by the authors as examples based on their successes, their limited but effective resources utilization and their different geographical locations, namely Philippines, Thailand, Colombia and Ghana [17]. These middle-income countries have been on the right track towards UHC through SHI. These countries may act as mentors for the EAC member states because their socio-economic factors are more likely to be similar. Following these approaches, East Africa member states can adopt a model that suits it best and identify a mentor country, backed by political goodwill, good planning and implementation to advance its UHC through benchmarking with successful middle income countries [18]. The EAC is a regional union of 6 neighboring countries comprising Burundi, Rwanda, Uganda, Tanzania, Kenya and South Sudan, around the Great Lakes region that recently included South Sudan, which was not included in this study because this study commenced before South Soudan had officially joined the community [19]. The community have a population of approximately 177,000,000 peoples in 2019 and the EAC member states fall in the category of low-income countries and health indicators, among them life expectancy have been low [20]. Financial and physical inaccessibility to health care services and poor quality of health services characterized the EAC health systems [21].

Shortage of essential drugs and non-pharmaceutical supplies due to inadequate pharmaceutical industries and poor procurement processes of medical products had been some of the main issues afflicting the EAC health systems [22]. Poor health infrastructures and governance (stewardship) as well as lack of political goodwill in some of the regional countries contributed to poor performance of health systems in the EAC [23]. Out of pocket payment (OOP) dominated the payment methods at the points of health services delivery, making health services expensively inaccessible due to financial constraints which led to catastrophic health expenditure, impoverishment to families and inequity [24]. The Kigali conference (of 2012) on social health protection (SHP) for the EAC member states resolved and the ministers of health agreed to develop a forum to regularly discuss best practices and to establish a regional committee to oversee social health protection strategy and collaboration [25]. Some member

states of the EAC (Kenya and Uganda) embraced SHI on their way to UHC, even though the law related to this had not been enacted [26]. With successful stories of some middle-income countries (Philippines, Colombia, Thailand and Ghana), the member states of the EAC needed to benchmark with these countries on their way towards achieving their UHC [27].

The purpose of this paper was to analyze the experiences, lessons learnt and best practices of successful middle-income countries in their efforts towards universal coverage to pave the way forward for the EAC states, with a focus on SHI. The Objective of this study is to analyze the progress towards UHC of four middle-income countries (Columbia, Philippines, Ghana and Thailand) through health financing (social health insurance) and draw lessons for the East African Community member states.

Methods

Search strategy

The following databases were searched electronically; PubMed, Medline, World Health Organization Website and Google scholar search engine for all peer-reviewed studies adhering to a scoping review methodology. An additional hand search was performed to minimize the number of papers left out. All the articles describing social health insurance and linking the results to universal health coverage in the following countries were included (Thailand, Colombia, Ghana, Philippines, Burundi, Kenya, Uganda, Rwanda and Tanzania). South Sudan was excluded from this study because this country was not a member of EAC yet when this study was conceptualized. All the searches were performed in December 2019 and all studies published in the last 11years from 2009 to 2019 where searched. The retrieved literature was peer reviewed articles published in English excluding grey literature and conference proceedings.

This study employed the Boolean operators and thesaurus in which combining two words using “AND” presented articles in which both words appeared. The word “OR” was used to widen the scope of coverage of both words while the word “NOT” was used to extract articles with the first but not the second words. Literature was searched using key words that addressed the research question, problem statement and objective and the study title in a manner that enhanced valid data collection and subsequent reliable findings. The general master search string include “social health insurance” OR “SHI” OR “public health insurance” OR “national social health insurance funds” OR “NSHIF” OR “health insurance” AND “universal health coverage” OR “UHC” OR “universal health coverage insurance” OR “Universal coverage” AND “Thailand” OR “Philippines” OR “Columbia” OR “Ghana”. Mendeley was used for in text citations and referencing.

Eligibility criteria

In the inclusion criteria, peer reviewed papers on Universal Health Coverage and Social Health Insurance were included and non-peer reviewed papers and conference proceedings were excluded. The review was done on articles written in English language only and those in other languages were excluded. The articles focusing both on universal health coverage and social health insurance were reviewed and included but those not focusing on both universal health coverage and social health insurance were excluded from this review. Empirical research papers, quantitative, qualitative and reviews, published in English between the years 2009 and 2019 were included. Only articles researched on Ghana, Thailand, Philippines, Columbia, Kenya, Tanzania, Uganda, Rwanda and Burundi were included and the studies that excluded the aforementioned countries were excluded from this study.

Data extraction and synthesis

The authors extracted results from studies separately and they used data extraction form for data collection. The data collected included citation, country of publication, study design, successes, weaknesses and key findings. Literature search process, data collection and synthesis were checked and validated by all the authors. Synthesis of the data was done using a narrative method after data entry on an excel sheet to remove duplicates. Materials were initially downloaded and stored in the watch folder before transfer into Mendeley for referencing and citations. The extracted data was synthesized into findings using descriptive methods. Successes, weaknesses and key findings were synthesized and discussed in order to draw conclusions and recommendations for the East African Countries on their way towards UHC.

Results

The study identification and selection process of the articles used the scoping review methodology. A total number of 9649 articles were identified from electronic databases (PubMed, Medline, World Health Organization Website and Google scholar search engine) of which 1230 records were duplicates. The remaining 8419 papers were screened and 8351 abstracts were excluded. Less than one hundred (68) full texts were assessed and 13 articles did not match with the design of this study. Another 38 studies did not discuss either SHI or UHC or both SHI and UHC. Only 17 studies were included in our research because they discussed both SHI and UHC in the selected countries.

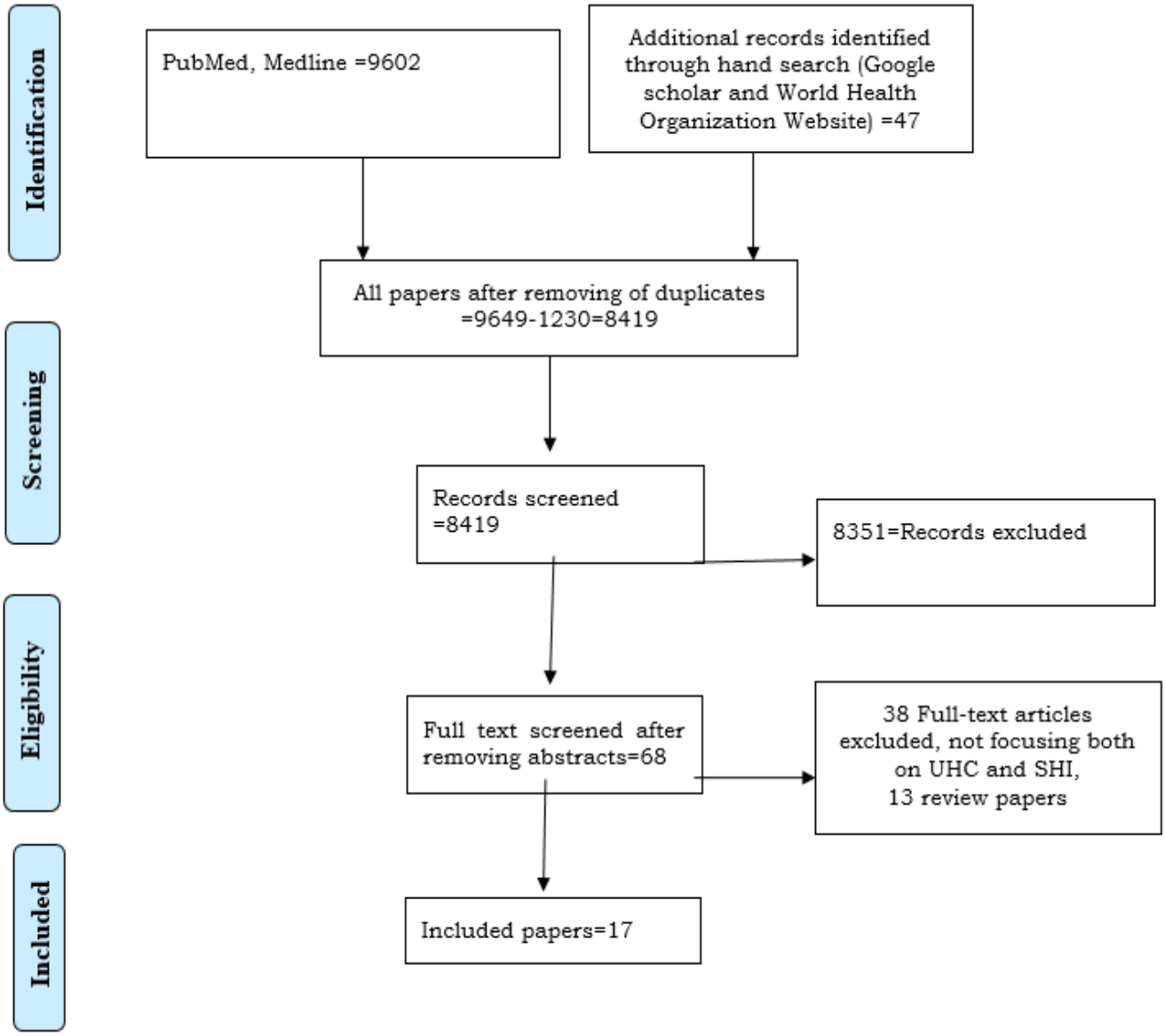

Fig.1. Study selection process

Characteristics of included studies

The results of included papers (17) are as follow; Thailand(2), Philippines(2), Columbia(1), Ghana(8), Kenya(4), Uganda(0), Tanzania(0), Rwanda(0) and Burundi(0). The following are the methodologies used for the retained papers; 11 studies were case control studies, 2 mixed methods, and 2 qualitative and 2 cross-sectional. The majority of these studies reported on UHC compared to SHI. Included papers were published between 2009 and 2019 (11years).

UHC tracer indicators for East African Community and successful middle income countries (N=9)

This is a comparison of the indicators from the 9 countries (5 EAC and 4 successful countries); Burundi (Bdi), Rwanda (Rda), Kenya (Kya), Uganda (Ugda), Tanzania (Tznia), Colombia (Cbia), Ghana (Ghna), Thailand (Thd) and Philippines (Phlpnes) (Table 1).

Tracer indicator	Bdi	Rda	Kya	Ugda	Tznia	Cbia	Ghna	Thd	Phlpnes
UHC coverage index	43	53	57	44	39	76	45	75	58
Family planning (%) (2007-2017)	39.30	65.90	77.60	49.90	52.90	92	46.20	89.2 (2015)	64.2
ANC visits 4-5 (%) (2010-2015)	33.40	43.90	57.60	47.60	42.60	89.9	87.30	90.8	77.8
DTP3 (%) immunization(2016)	94	98	89	78	97	92	93	95.2	88
Pneumonia care seeking(%)(2010-2014)	54.70	50.20	59.90	78.70	30.80	64	41.30	No data	No data
HIV treatment (%)(2016)	61.00	80.00	64.00	67.00	62.00	52 (2016)	34.00	69	73
Tuberculosis effective treatment (%)(2016)	56	84	39	39	36	60	32	83	53
Insecticide-treated bed nets for malaria (%)(2013-2016)	54	67.70	56.10	74.30	54.40	No data	46.60	100	No data
Sanitation (%)(2015)	50	62	30	19	24	19.6	14	97	76.5
Non-raised blood pressure (%)(2015)	29.2	26.7	26.7	27.3	27.3	19.2	23.7	No data	No data
Mean FPG (mmol/L)(2014)	4.20	4.40	6.00	4.60	60.10	21.8	6.50	22.45 (2015)	No data
Cervical Cancer screening coverage (%)	N/A	10-50	10-50	<10	N/A	18.7	<10	No data	No data
Tobacco non-use (%)	18.75	40.2	98.25	76.4	85	90.9	45.85	27	89.65

	(2008 - 2013)	(2015)	(2015)	(2015)	(2015)		(2015)		
Hospital beds per 10000 (2005-2015)	8	16	14	5	7	15 (2014)	9	21 (2010)	10 (2011)
Median availability of selected generic Medicines (%)	52.5	63.15	No data	74	43.9	No data	No data	No data	No data
Physicians/1000(2005 -2016)	0.03	0.06	0.20	0.09	0.02	19.4	0.10	0.4	1.3
International Health regulations(%)(2016)	62 (2016)	46 (2015)	69 (2013)	73 (2013)	67 (2015)	No data	74 (2016)	97	No data

Table1: UHC tracer indicators

Source: WHO, 2019. Burundi (Bdi), Rwanda (Rda), Kenya (Kya), Uganda (Ugda), Tanzania (Tznia), Columbia (Cbia), Ghana (Ghna), Thailand (Thd), Philippines (Phlpnes)

The UHC index for essential health services (packages) represents mainly reproductive, maternal, newborn and child health, infectious diseases, non-communicable diseases, service capacity and access. It is rated on a scale of 0 to 100; 100% being the best performing country. Comparing UHC index, Colombia, Thailand and Philippines were ranked highest in the pool of advanced countries. Ghana's performance was still low despite good track record towards attaining UHC. These nations can be benchmarked by the EAC member states, even though their country contexts are different. In the pool of East African countries, Rwanda is ahead with CBHI model, which is unique success worldwide due to its political commitment and active community participation. Kenya is on its way towards UHC through SHI by upgrading NHIF which has been working as a national insurance since 1967 after its first legislation to establish a government-operated health insurance scheme. Uganda and Tanzania are still behind but are struggling to set their SHI to advance UHC while Burundi still far behind due to civil war and political conflicts over two decades which hindered their progression towards UHC. The following UHC index figure shows how these countries rank themselves using the index (Table1).

Indicator comparison between successful and East African Community countries (N=9)

For all of the indicators on one hand, Thailand and Colombia achieved the highest (74% and 76% respectively) success in UHC coverage followed by the Philippines, but Ghana performed poorly (45%), below Kenya (56%), Rwanda (53%), but it compared closely to Uganda and Burundi. Tanzania ranked

lowest at 39% of its UHC coverage. An innovation of Rwanda, the CBHI, competed favorably against the conventional UHC model (Figure 1).

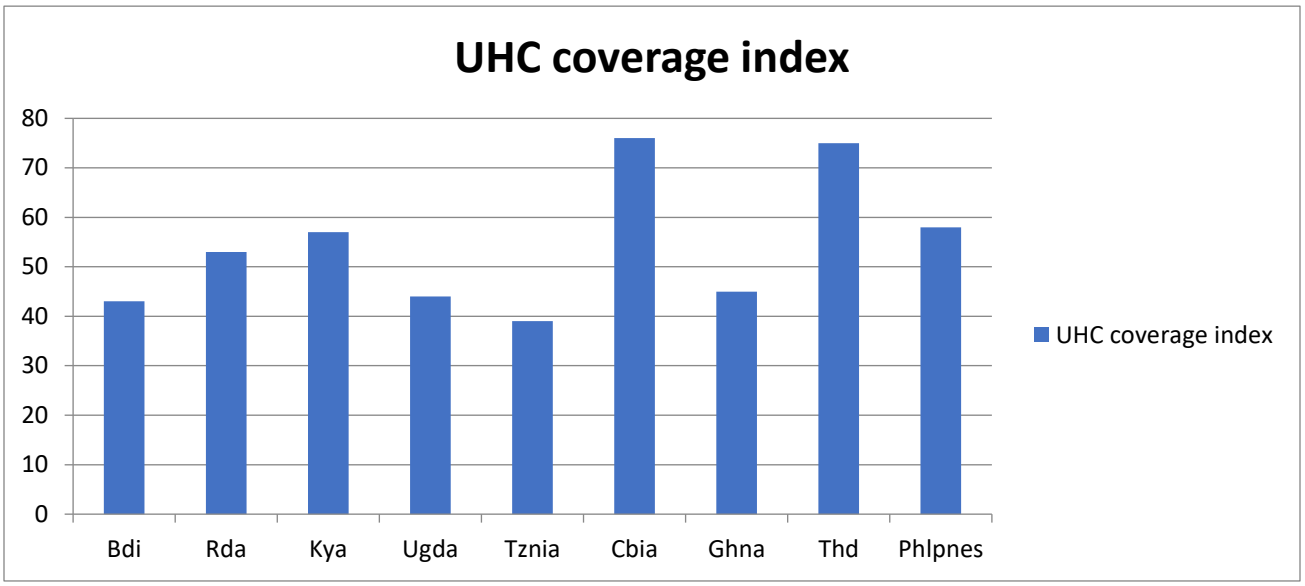

Figure 1: UHC coverage index (N=9)

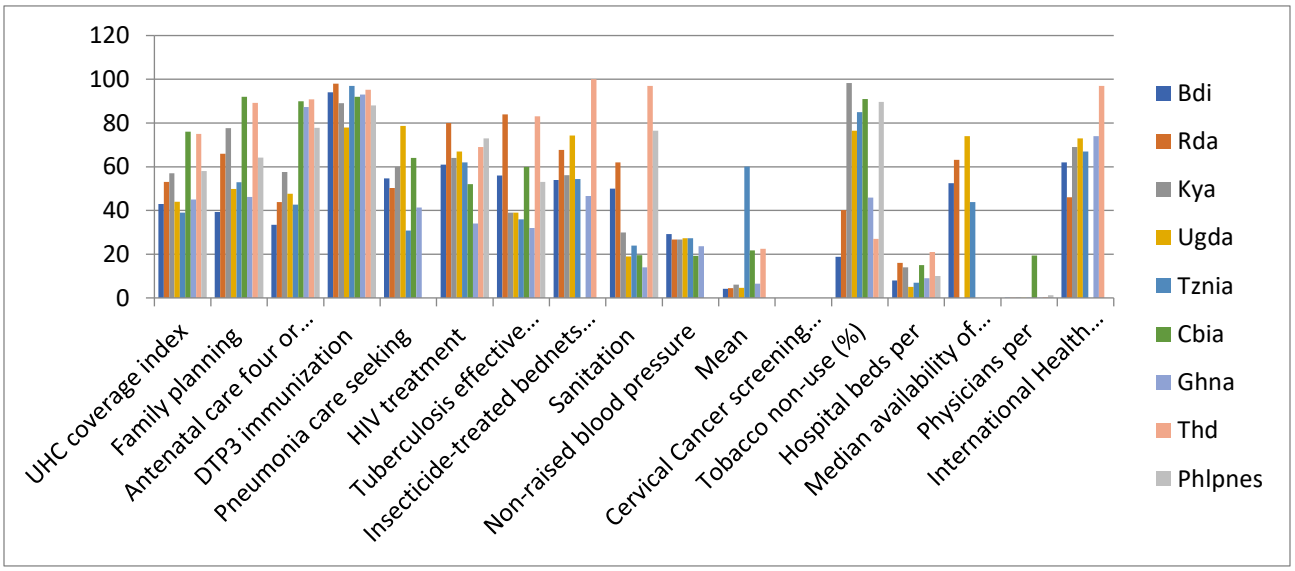

Figure2: Indicator comparison between successful and EAC countries (N=9)

Table 3: Characteristics of included studies

Author & year of publication	Country	Objective	Study design	Success of SHI	Challenges/Weaknesses of SHI	Key findings
1.Witter S and Garshong B.(2009)28	Ghana	To provide a preliminary assessment of national Health Insurance Scheme (NHIS) to 2008	Cross-sectional	A significant expansion of population coverage due to implemented exemptions Enrolment increased from 7% in 2005 to 45% in 2008 Broad benefits package with no co-payment and limited gatekeeping	Sustainability issues Regressive funding Equity concerns Small portion of indigents registered Strengthening the purchasing role of NHIS	
2.Dake FAA.(2018) [29]	Ghana	To examine equity in coverage under Ghana's National Health Insurance Scheme (NHIS).	Cross-sectional	NHIS law in 2005 Coverage was highest among the highly educated, professionals, those from households in the richest wealth quintile and urban residents	Inequity against the poor	60% of Ghanaians aged between 15–59 years were not covered under the NHIS with slightly more females (38.9%) than males (29.7%) covered

3.Akazili J, McIntyre D, Kanmiki EW, Gyapong J, Oduro A, Sankoh O, Ataguba JE (2017)[30]	Ghana	To assess the catastrophic effect of out of pocket payment (OOP) healthcare payments in Ghana	Cross-sectional	Significant financial catastrophe has significantly improved	OOP payment has a Catastrophic effect on Ghanaians while the poorest households were at a higher risk of financial catastrophe	"2005/2006, 11.0% of households in Ghana spent over 5% of their total household expenditure on healthcare OOP. It decreased to 10.9% after adjustment. 2.6% of households are observed to have spent in excess of 20% of their income on healthcare OOP".
4.Salari P, Akweongo P, Aikins M, Tediosi F. (2019)[31]	Ghana	To investigate the socio-economic determinants of NHIS enrolment using three recent national household surveys	Cross-sectional	Professionals, family workers, retail sale sector and unemployed were more likely to be enrolled in the NHIS than individuals employed in the agricultural sector	The lack of knowledge about the NHIS might be the reason of low enrolment	35.5% of the population in 2014 had a valid insurance card Wealth and education were associated with a higher probability of being enrolled in the NHIS Marital status occupational field were significantly associated with higher NHIS enrolment rate
5.Fusheini A.(2016)[32]	Ghana	To contribute to the literature on economic	Cross-sectional		Politicization and political interference	Synergy between implementation and politics Political leadership has the responsibility to build trust and confidence in the system by

		and political implementation challenges based on empirical evidence from the perspectives of the different category of actors and institutions involved in the process				providing the necessary resources
6. Boateng R, Yawson AE.(2019)[33]	Ghana	To analyze the progress towards the attainment of UHC in Ghana after the establishment of the NHIS	Cross-sectional	Quality healthcare services provided by NHIS can promote universal healthcare access and financial risk protection as major catalysts towards the attainment of UHC in Ghana		Perceived quality of healthcare services delivered by NHIS played a big role on the attainment of UHC Access to effective preventive and curative healthcare, reduction in moral hazard and increased utilization of healthcare services
7.Zhang C, Rahman MS, Rahman MM, Yawson AE, (2019)[34]	Ghana	This paper investigates the progress of UHC indicators in Ghana	Cross-sectional	Childhood immunization coverage with all vaccinations already reaching the 80% coverage target in 2015 Commitment to finance	Inequalities still exist for both UHC components throughout the nation	There have been improvements in increasing access to various health services with upward trends in coverage accompanied by decreasing trends in the proportion

		from 1995 to 2015 and makes future predictions up to 2030 to assess the probability of achieving UHC		immunization paying 100% for childhood vaccines		of households suffering CHE
8.Agyepong IA, Abankwah DN, Abroso A, Chun C, Dodoo JN, Lee S, Mensah SA, Musah M, Twum A, Oh J, Park J, Yang D, Yoon K, Otoo N, Asenso-Boadi F. (2016)[35]	Ghana	This study explored in-depth enablers and barriers to enrolment in the NHIS to provide lessons and insights for Ghana and other low and middle income countries (LMIC) into attaining the goal of universality in Universal	Cross-sectional study mixed methods	Higher utilization and better financial risk protection Extensive geographical coverage of health service infrastructure especially at district level, adequate finance and functioning primary healthcare, comprehensive benefit package with zero copayment at point of services.	Ghana's NHIS suggest that when enrolment and renewal in health insurance, is predominantly voluntary, attaining universal coverage is challenging Individual registration was a weakness. Population coverage in the NHIS in the study districts was not growing	

		Health Coverage				
9.Limwattananon S, Tangcharoensathien V, Tisayaticom K, Boonyapaisarncharoen T, Prakongsai P (2012)[36]	Thailand	To assess the magnitude and trend of government health budget benefiting the poor as compared to the rich UCS members	Cross-sectional study	Continued political support Evidence informed decision Capable purchaser organization		Government subsidy, net of direct household payment, for combined outpatient (OP) and inpatient (IP) to health facilities provided to UCS members, had increased from 30 billion Baht (US$ 1 billion) in 2003 to 40-46 billion Baht in 2004-2009"
10.Tangcharoensathien V, Pitayarangsarit S, Patcharanarumol W, Prakongsai P, Sumalee H, Tosanguan J, Mills A. (2013)[37]	Thailand	To assess policy processes related to making decisions on the features given above	Cross-sectional and qualitative	Commitment to their manifesto and fiscal capacity pushed the Thai Rak Thai (led coalition government)to adopt a general tax-financed universal scheme	Collection of premiums was not technically feasible	Political commitment to finance tax-financed UHC NHSO exerted monopolistic purchasing power to control prices, resulting in greater patient access and better systems efficiency
11.Querri A, Ohkado A, Kawatsu L, Remonte MA, Medina A, Garfin AMC2018[38]	Philippines	To quantitatively and qualitatively describe some of the	Descriptive mixed	PhilHealth has successfully increased access to primary health care services through	The number of individuals enrolled as indigent and sponsored members for PhilHealth was higher than those identified as eligible by the DSWD.	"The proportion of individuals enrolled as 'poor' exceeded the number officially assessed as being poor by 1–11 times

		challenges faced by the Philippines' health insurance programme, PhilHealth, in the era of Universal Health Coverage	methods	different benefit packages Quality of services through its accreditation system		
12.Obermann K, Jowett M, Kwon S. (2018)[39]	Philippines	Analyzing the role of the Philippine NHI scheme in moving towards UHC, identifying potential avenues for improvement as well as indicating challenges and areas for further development.	Mixed methods	The expansion of population coverage using an earmarked revenue source('SinTax') Introduction of the no-balance-billing to prevent co-payments and the Health Facilities Enhancement Program to improve quality	The share of PhilHealth in total health expenditure was low (14%) Managing quality and cost of providers remains insufficient Benefit coverage does not reflect the country's burden of disease Financial protection was low	
13.Mathauer I, Behrendt T. (2017)[40]	Colombia	To analyze institutional design features of such government subsidization arrangement in Latino	Review paper	Subsidization Institutional features design and UHC performance related significantly		Three areas that are believed to be the key importance in developing further NHI: (i) governance, (ii) financial impact, (iii) strategic purchasing

		America and assess their performance with respect to UHC progress		Have higher population coverage		Large scope of benefit package had a positive impact on financial protection and access to care"
14. Mulupi S, Kirigia D, Chuma J.(2013)[41]	Kenya	To explore community understanding and perceptions of health insurance and their preferred designed features	Cross-sectional household survey		Regulatory and policy framework for strategic purchasing in Kenya was weak and there was no clear accountability mechanism between the NHIF and the MoH	High awareness of insurance scheme but limited knowledge of how insurance functions Dissatisfactions of public health system Peoples Preferred a comprehensive benefit package on inpatient and outpatient care with no co-payment"
16.Sieverding M, Onyango C, Suchman L. (2018)[43]	Kenya and Ghana	To explore private providers' perceptions and experiences with participation in two different social health insurance schemes in Sub-Saharan Africa-NHIS in Ghana and	Qualitative	Most providers in Ghana were NHIS-accredited and perceived accreditation to be essential to their businesses, long delays in claims reimbursement NHIS accreditation process was not a major concern for providers in Ghana	In Kenya, understanding of how the NHIF function was generally low The lengthy and cumbersome accreditation process also emerged as a major barrier to providers' participation in the NHIF in Kenya	

		NHIF in Kenya				
17. Barasa E., Rogo K., Mwaura N. & Chuma J. (2018) [44]	Kenya	To identify and describe the reforms undertaken by the National Hospital Insurance Fund (NHIF) and examines their implications for Kenya's quest to achieve universal health coverage (UHC)	Review paper		With reforms done in Kenya, equity, efficiency, feasibility, and sustainability were major concerns	"The introduction of the (1) Civil Servants Scheme (CSS), (2) a stepwise quality improvement system, (3) the health insurance subsidy for the poor (HISP),(4) revision of monthly contribution rates and expansion of the benefit package, and (5) the upward revision of provider reimbursement rates"

Ghana

Ghana as one of the first African countries to walk the way towards UHC through SHI with the National Health Insurance Act in August 2003 and several studies have since, been done in the country to assess progress on the policies or implementation strategies. Akazili et al., 2017 (Ghana) reported that in "2005/2006, about 11.0% of households in the country spent over 5% of their total household expenditure on healthcare OOP(30). About 10.7% of the households spent over 10% of their non-food consumption on healthcare OOP and 2.6% of households spent in excess of 20% of their income on healthcare OOP. Despite the progress, 60% of Ghanaians aged between 15–59 years were not covered under the NHIS with slightly more females (38.9%) than males (29.7%) covered(29) according to Dake(2018). After more than ten years of NHIS act, 35.5% of the Ghanaians had a valid insurance card by 2014 and higher wealth, education, marital status and occupational field had a significant impact

on enrolment in the NHIS according to Salari et al. (2019). Fusheini(2016) reported that achieving UHC under NHIS requires political stewardship and a leader has a responsibility to build trust and confidence in the health system by ensuring resources are available. A recent study (Boateng &Yawson, 2019) in Ghana emphasized on the quality of healthcare services by NHIS which plays an important role on the attainment of UHC, access to preventive and curative healthcare, moral hazard reduction and increased utilization of health services. These results were backed up by Zhang et al (2019), which reported improvements in access and coverage to various health services with decreasing trends of CHE on households.

Successes: Since the NHIS was enacted into law in 2005, a number of significant improvements have since, been noted. Witter & Garshong(2009) reported a significant expansion of population coverage, enrolment increased from 7% in 2005 to 45% in 2008 and there were broad benefits package with no co-payment and limited gatekeeping. Financial risk protection has improved; family workers, retail sale sector and unemployed were more likely to be enrolled in the NHIS than individuals employed in the agricultural sector. According to Akazili et al (2017), i quote "Good healthcare services provided by NHIS can promote universal healthcare access and financial risk protection as major catalysts towards the attainment of UHC in Ghana". For childhood immunization, vaccinations reached 80% coverage in 2015 and there was a commitment to finance immunization at 100% for childhood vaccines. The better financial risk protection and high services utilization for the poor (UCS members) were results of extensive geographical health infrastructure coverage at district level, functioning primary care, comprehensive benefit package and nil copayment reported (Agyepong et al,2016)

Weaknesses: Despite successes made by Ghana NHIS, some weaknesses and challenges were highlighted; sustainability issues, regressive funding, equity concerns, small portion of indigents registered and strengthening the purchasing role of NHIS were the mains. The lack of knowledge about the NHIS might be the reason of low enrolment. Political interference is among main challenges. Enrolment and renewal of insurance status in a predominantly voluntary scheme are a drawback to UHC according to Agyepong et al (2016).

Thailand

Thailand introduced UHC (UCS in Thailand) in 2001 by a political decision that led to health financing reforms (financial risk protection, improve accessibility, equity and efficiency) and the UHC was attained in 2007. According to Tangcharoensathien et al (2013), political commitment to finance tax-financed UHC and collecting premiums from peoples engaged in informal sector were the most agenda to accomplish. The other implemented policy was a monopolistic purchasing power to control prices, resulting in better patient access and much better health system efficiency. "The country increased total government subsidy, net of direct household payment, for combined outpatient (OP) and inpatient (IP)

services to public hospitals and health facilities provided to UCS members, had increased from 30 billion Baht (US$ 1 billion) in 2003 to 40-46 billion Baht in 2004-2009" according to Limwattananon et al.(2012).

Successes: Commitment to their manifesto and fiscal capacity pushed the Thai Rak Thai (led coalition government) to adopt a general tax-financed universal scheme.

Weaknesses: Collecting premiums from peoples engaged in informal sector was not technically feasible (Limwattananon et al., 2012)

Philippines

The National Health Insurance Act (Republic Act No 7875) was enacted in 1995 but the policy implementation was made in 1999 by equalizing benefit packages across categories. According to Querriet al. (2018), possibilities of funding health care through tax instead of NHIS were raised and preferred by the majority of citizenry.

Successes:

Philippines one of the successful countries to implement SHI has been applauded both locally and internationally, with several studies such as that of Obermann et al. concluding that 'social health insurance in the Philippines in 2006 has been a success story so far and provides lessons for countries in similar situations. According to Querri et al. (2018) "PhilHealth has successfully increased access to primary health care services through various packages and ensured quality of services through its accreditation system". "The expansion of population coverage using an earmarked revenue source ('SinTax'), the introduction of the no-balance-billing to prevent co-payments, and the Health Facilities Enhancement Program to improve quality".

Weaknesses

Despite success of SHI, challenges cannot be overlooked. Subsidization process was the major challenge. The number of peoples enrolled as indigent for PhilHealth was higher than those identified as eligible reported Querriet al. (2018).The share of PhilHealth in total health expenditure is still14%, managing quality including cost of providers remains insufficient, the benefit coverage does not reflect the country's burden of disease, and financial protection for PhilHealth members is low.

Colombia

Colombia launched a health sector reform in 1990 and implemented the "Law 100" in 1993 by creating General Social Security System in Health (GSSSH) according to Mosquera et al (2013). Mathauer & Behrendt (2017) reported the following results; "three areas believed were of key importance in developing further NHI: (i) governance, (ii) financial impact, and (iii) strategic purchasing. Large scope of benefit package had a positive impact on financial protection and access to care".

Successes

The GSSSH in Colombia has currently high population coverage. The scheme subsidized the poor, institutional features design and UHC performance relate very significantly.

Kenya

The National Health Insurance Fund (NHIF) was introduced as a department within the Ministry of Health (MOH) through sessional Paper No. 10 of 1965 in the year 1996 by replacing a pre-independence health insurance. The NHIF department was elevated in status with the enactment of an Act of Parliament in 1998, followed by the passing of the National Social Health Insurance (NSHI) bill in 2004. NHIF has done significant progress in terms of coverage and quality improvement. Barasa et al. (2018) reported the following upgrade efforts; "introduction of the Civil Servants Scheme (CSS), introduction of a stepwise quality improvement system, health insurance subsidy for the poor (HISP), revision of monthly contribution rates and expansion of the benefit package, and upward revision of provider reimbursement rates".

Weaknesses

Though, some gaps have been mentioned by Mulupi et al. (2013); "high awareness of insurance scheme but limited knowledge of insurance functions, dissatisfactions of public health system and peoples preferred a comprehensive benefit package on inpatient and outpatient care with no co-payment". The additional gaps identified by Munge et al. (2018) were low NHIF's purchasing performance, lack of stewardship role in the ministry of health and multiple challenges due to Kenya's devolved context. There are currently a number of concerns; equity, efficiency, feasibility, and sustainability. The regulatory and policy framework for strategic purchasing in Kenya was weak and there was no clear accountability mechanism between the NHIF and the MoH. The lengthy and cumbersome accreditation process also emerged as a major barrier to providers' participation in the NHIF in Kenya reported Munge et al. (2018).

Discussion

Papers included in this study differ in terms of methodology applied and settings. Most studies used cross-sectional and quantitative, followed by qualitative, mixed methods or systematic reviews. The fact that these studies have been done in different countries, the context and interpretation differed from one country or continent to another. Due to a variety of methods used, the researchers decided to use a narrative synthesis instead of meta-analysis. The results of Kenya were included in findings because it is the only country which took SHI as a vehicle to UHC and has made a step forward towards UHC through political commitment. Though the total population of the EAC region was smaller than that of the four selected UHC-successful developing countries due to high mortality rate to date, its people had no access to UHC, hence vulnerable to avoidable high disabilities, morbidities, mortalities and poverty. Furthermore, the EAC member states have UHC coverage index (family planning, immunization, pneumonia care seeking, HIV treatment, tuberculosis effective treatment, insecticide-treated bed nets for malaria, sanitation, cervical cancer screening coverage, tobacco non-use, hospital beds per 10000, availability of generic medicines, physicians/1000 and international regulations) low compared to the successful countries.

The comparison of the two groups of states showed that the EAC region experienced poor health services delivery and outcomes compared to the selected UHC-successful developing countries probably due to a variety of factors including but not limited to lack of political commitment, population with less pre-paid methods of access to health care services, poor efficiency management, insufficient health infrastructures, low funding of health, insufficient human resource for health due to poor planning and regional or international migration of health workers among others (26).The UHC coverage indicators of Thailand and Colombia in the successful pull are higher followed by Philippines and Ghana compared to EAC group where Rwanda and Kenya are doing better than Uganda, Tanzania and Burundi. Though, Rwanda has taken a different route towards UHC, the CBHI. Rwanda is among few countries if not the first to embrace a different way towards UHC and achieve exceptional results within short time.

The country reached 86% in 2008 population coverage. The main catalytic factors were political commitment and community involvement among others which played a significant role. Ghana, a sub-Saharan African country has made significant progress toward UHC through SHI boosted by CBHI. Though the country has not reached yet UHC but is on the right track and the step made can inspire EAC to follow the same route on their way to UHC. Fusheini in 2016 in Ghana reported that achieving UHC under NHIS requires political stewardship and the political leadership has a responsibility to build trust and confidence in the health system by ensuring resources are available. Political commitment plays a big role in resources generation and funding. Boateng &Yawson in 2019 emphasized on quality of healthcare services by NHIS which plays a key role on patient trust to the health services delivery, access to preventive and curative healthcare and moral hazard reduction. The issue of quality services

has been raised by different authors in Ghana and this is very important to motivate new enrollees by trust to human resources for health therefore willingness to join the scheme. These results have been backed up by those of Zhang et al. (2019), which reported improvements in access and coverage to various health services with decreasing trends of CHE on households. Despite successes some weaknesses and challenges can't miss; sustainability issues, regressive funding, equity concerns, small portion of indigents registered and strengthening the purchasing role of NHIS were the mains. The lack of knowledge about the NHIS might be the reason of low enrolment.

Political interference was among challenges. Enrolment and renewal of insurance status in a predominantly voluntary scheme were a drawback to UHC according to Agyepong et al. (2016). Thailand, the leading country to advance UHC in the pool, in a cross sectional study, Limwattananon et al. (2012) reported that a continued political support, evidence informed decision and capable purchaser organization played a big role in the UHC achievements. Evidence informed decision is also another factor which affected the progression of UHC. As no one method fits all, evidence based decisions have been shown to be effective in terms of decision-making.

The government subsidy and net of direct household payment increased by 3/4 (30 billion Baht) from 2003 to (40-46 billion baht) 2004-2009 according to the same author, this probably because of political will to fund and push for the success of the agenda. Tangacharoensathien et al. (2013) in the same country recognized the political commitment as one the drivers towards UHC, others include controlling of prices led to greater patient access and better systems efficiency. The fiscal capacity pushed the Thai Rak Thai (coalition government) to adopt a general tax-financed universal scheme as well. This alternative solution was probably due to the willingness to deliver services to the population as they gain trust from the population. Despite success, collecting premiums from peoples engaged in informal sector was not technically feasible in Thailand. A study done in Philippines by Querri et al. (2018) in a descriptive mixed method study discussed PhilHealth to have successfully increased access to primary health care services through various packages and ensured quality of services through its accreditation system though individual enrollment which the proportion of individuals enrolled as 'poor' exceeded the number officially assessed as being poor by 1–11 times in almost all of the groups evaluated.

These results are similar to those of Witter et al. (2009) in Ghana. Obermann & Jowett (2018) in a mixed method in Philippines explained how the expansion of population coverage using an earmarked revenue source ('SinTax'), the introduction of the no-balance-billing to prevent co-payments and the Health Facilities Enhancement Program improved quality of care. Nevertheless, the total health expenditure to PhilHealth was still 14%, the benefit package was not reflecting the country burden of disease and the financial protection for PhilHealth was still low. In the end, there was a discussion on an alternative solution of funding health care through tax instead of NHIS.

These results are backed up by those of Tangacharoensathienet al. (2013) in Thailand where the same discussion of willing to introduce tax-based funding system was supported by the majority. Mathauer& Behrendt (2017) in Colombia in a systematic review gave three key areas in developing NHI; (i) governance, (ii) financial impact, and (iii) strategic purchasing though also emphasized on the large scope of benefit package which had a positive impact on financial protection and access to health care. Furthermore according to the same authors, subsidization and institutional features related well with UHC performance and led to higher population coverage. On the contrary, in Kenya with a case control study household survey, Mulupi et al. (2013) identified a weak regulatory and policy framework for strategic purchasing with no clear accountability mechanism between NHIF and ministry of health. Munge et al. (2018) in a qualitative study in Kenya emphasized that processes for contracting, monitoring, and paying providers do not promote equity, quality, and efficiency. These might be some of the reasons which hinder the progress towards UHC through SHI in Kenya. Barasa et al. (2018) in Kenya in a systematic review, also supported these results by identifying the following factors as threats to UHC through SHI; reforms raise equity, efficiency, and feasibility and sustainability concerns. Though Kenya has made recently significant progress towards UHC with good political will and commitment.

The Government of Kenya by mid of 2018 has selected 4 regional governments (Counties) to pilot UHC for 6 months free of charge in the Country (Kisumu, Machakos, Nyeri and Isiolo). Driven by the SHI, successes in UHC were registered through proportional contributions by households, government subsidies, and tax revenues, insurance premiums, building on existing health infrastructure and social insurance schemes and others, tying the UHC model to SDGs. The success of UHC will need to consider and factor in challenges that should be foreseen in the implementation process45. The key challenges to be foreseen because of their immense negative impact on the UHC will include wars46, political instability, natural catastrophes47, insecurity, socioeconomic changes48 and shortage of human resource for health (2).

The programme will require a strong base in management of health information system (MHIS) 49, valid and reliable database backed by modern technology and reliable internet connectivity50. All said, the challenges and successes will need to be scientifically backed up through epidemiologically monitoring of diseases51, population (sources of funding) dynamics to document employment and unemployment rates, retirees, the insured and uninsured and disease burden in the country52. The UHC implementation programme will require scientifically determined demand and supply of the health services seasonally, health and disease dynamics, core indicators of performance in the country, adequacy and quality of healthcare, effectiveness and sustainability of the UHC model chosen and continuous monitoring and evaluation of the public(consumers) satisfaction levels according to WHO and World Bank in 2013.

Conclusion

This study found out that UHC in the EAC member states required the highest political goodwill on the land to fast track the SHI in order to mobilize funds for the UHC. Community-based health insurance (CBHI) was successfully piloted in Rwanda and it offered an opportunity for other countries to incorporate best practices. Sustainable pooling of resources will be a key to the success of UHC in the EAC member states, given that most UHC indicators were similar to all the regional countries. Due to diverse factors influencing contributions in the EA region, voluntary health insurance may not be successful due to competing interests for the citizens.

Mandatory contributions had been successful in Kenya through the NHIF among voluntary contributors, the employed, and unemployed and dependents even though the road to UHC is still long. The case of Thailand successfully mounting UHC through a development plan will be an additional lesson for the East Africans due its purchasing methods, though exceptional. Another lesson for the EA states will be how premiums and innovative methods for raising funds could add value to other sources of funds for their UHCs. Given the successes attained by some experienced countries, the EA region could easily identify best practices and lessons learnt from the successful countries of their choices for mentorship of their UHC model to be. The EAC member states will need to appreciate that ultimately, the objective of their UHC will be financial risk protection for their citizens, backed by mandatory pre-payment for their premiums, which will include the private and public sectors for vigorous funds mobilization. Sustainability of the UHC will be hinged on the equity, quality of health care services and financial risk protection.

The four pillars which will provide the desired financial stability of any UHC model in the EAC member states will include reduction of direct payments, maximization of the mandatory pre-payments, and establishment of large risk pools and use of general government revenue to cover those who will be unable to afford premiums and subsidies for the poor. Success of the UHC programme will depend heavily on political goodwill, effective planning, resources mobilization, pre-payment maximization, public and private partnership, mixed human resource for health and informed programme implementation. Primary health care (PHC) should be prioritized in the rural areas and include non-communicable diseases to cost effectively enhance and drive UHC, unlike urban health facilities, which prioritized specialized services.

Three very important dimensions of coverage need to be defined; who, what health services, what proportions of health services will be covered and what proportion of OOP to avoid CHE. For UHC to be successful, the EAC states need not rely on household's premiums alone, but innovative financial measures need to be put in place, development of health infrastructures, public private partnership, and human resource for health while M&E need to drive the UHC for the success, accountability and sustainability of the regional health care systems. Though some of the following challenges need to be

addressed; enrollment issues, equity, high number of indigents and informal sector, aging population, benefit package and quality of care.

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