

## Siaya County: towards Universal Health Coverage

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### Abstract

Attaining Universal Health Coverage has been an important agenda in the County Government of Siaya since 2017. The County Government had committed to deliver Universal Health Coverage by 2022. This was occasioned by the ever-increasing disease burden especially that of Non-Communicable Diseases. The resultant effect is an increased demand of health care services which brings to the fore, the significance of physical infrastructure and medical equipment in addressing the increased demand. The objective of this study was to assess the infrastructural preparedness and the state of human resources for health in Siaya County in readiness to deliver Universal Health Coverage by 2022. This was a desk review of various Ministry of Health, County government and County Assembly of Siaya reports and policy documents. The results show an overconcentration of the health department projects on buildings meant to be health facilities which ended up unutilized due to inadequate human resource and equipment. These projects were found to be mostly proposed by politicians who do not have or take technical guidance from the department of health services. The study also found an immense inadequacy of human resource in the department of health services. A major challenge to the existing staff was constant and ill-advised reshuffles which do not consider investment in building their capacities in various specialties. The result is disgruntled workforce without motivation to serve the citizenry of Siaya County.

**Key words-** Universal Health Coverage, human resources for health, County department of health services, infrastructural preparedness

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### I. Background/Significance

There has been a sharp increase of disease burden in Siaya County over the last decade. The prevalence of diabetes, hypertension and mental disorder have increased by 560%, 438% and 247% respectively from 2013-2021. Anemia, Pneumonia, Malaria, Meningitis and Septicemia are the leading causes of death in the County at 27%, 16%, 11%, 7% and 6% correspondingly (Siaya County Department of Health (CDH), 2022). Health care staffing in Siaya County stands at 1:2000 for nurses to population and 1: 25 000 for doctors to population. This is lower than World Health Organizations' (WHO) recommended ratios of 4.45: 1000 people for doctors, nurses and midwives as a "Sustainable Development Goal (SDG) index threshold" to attain Universal Health Coverage (UHC). Kenya committed to achieve UHC by the year 2022 (Kenya Health Policy, (KHP) 2015). Under the devolved system in Kenya, the 47 County Governments are responsible for health service delivery while the Ministry of Health (MoH) provides policy direction.

Universal access to health services is an important prerequisite to achieving UHC. Services must be physically accessible, financially affordable and acceptable to patients if UHC is to be realized. (Evans, Hsu, and Boerma, 2013). This places infrastructure at the center of UHC. This study adopts the definition of infrastructure by the MoH to be the physical infrastructure, equipment, transport and technology required for effective service delivery both at the National and County Governments (Pepela, David, Bartilu and Okoro, 2019). This paper will concentrate on physical infrastructure and medical equipment. Out of the 92 new dispensaries built since 2013 by the County Government of Siaya, 23 of them are not operational. Similarly, the County Government has built 3 X-ray blocks, none of which is working and of the two X-ray machines bought only one is operational (CDH, 2022).

On the other hand, Human Resources for Health, (HRH) is critical for quality service delivery and attainment of UHC (Odokonyero, Mwesigye, Adong and Mbowa, 2017). Siaya County suffers acute staffing shortages. For instance, the Siaya CDH has a deficit of 490 nursing staff reflecting a 53% shortage (CDH, 2022). Such shortages translate to poor service delivery, low staff morale, increased risk of medical errors, iatrogenic complications, hospital morbidity, prolonged hospital stay and compromised patient safety (Sharma and Sharma, 2010). Increasing nurse to patient ratio from 1:4 to 1:6 raises patient mortality rate to 7% and increasing it further to 1:8 increases patient mortality to 14% (Sharma, and Rani, 2020). Health workers' unions in the County have complained severally over placement of staff in areas of specialization different from their

primary training. For instance, Public Health Officers (PHO) are placed in Community Health docket (KNUN, 2021).

It is paramount to address the aforementioned gaps in the health system to reduce mortality in health facilities, improve service delivery and most importantly form a formidable foundation for implementing UHC. The County Government of Siaya recently launched a scale up program for UHC. The initial program allocated Ksh.10 Million missed its targets due to infrastructural challenges and overconcentration on National Hospital Insurance Fund subscriptions (CDH, 2022). This study conducted an analysis of County and National Government reports and policies, WHO and Kenya Medical Research Institute reports to assess the preparedness of the County Government of Siaya in rolling out UHC. The findings of the study will be important to National and County Governments as UHC takes shape in the Country.

### **1.1 Problem statement**

There is inadequate HRH and infrastructural preparedness by health facilities in Siaya County to deliver UHC. Adequate supply of HRH is integral to the success of UHC (Rispel, Blaauw, Ditlopo, and White, 2018). The inadequate supply of HRH hampers health services delivery, weakens the health system which eventually dwindles health outcomes (Miseda, Were, Murianki, Mutuku, and Mutwiwa, 2017). The management of the existing workforce is also major factor in the delivery of health care. Proper placement of health workers in their areas of specialization improves their productivity, efficiency and morale. (Kimathi, 2017). Health workers Unions in Siaya have previously petitioned the County Government on the irregular placement of their members in specializations that they were not trained on or have no experience in (KNUN, 2021). In addition, lack of national guidelines on cross County sharing of expertise in health services have meant that highly specialized cadres are only accessible in other regions in Kenya and absent in some. In this case, the rural areas suffer disproportionately (Miseda et al, 2017).

In health infrastructure, majority of physical buildings in health facilities in Siaya are dilapidated and have inadequate space (County Assembly of Siaya, 2018). This is because they are not prioritized by either National or County Governments, but left for influence by politicians (Pepela et al, 2019). Likewise, poor maintenance of medical equipment and acute shortage of medical engineering technicians is hampering service delivery (CDH, 2022).

The HRH management challenges and inadequate medical equipment are bound to hamper the achievement of UHC in Siaya despite the recent scale up of the program. It is therefore important to conduct this study and provide requisite recommendations to ensure that the demand created while publicizing UHC is commensurate to service delivery capacity of health facilities in Siaya County.

### **1.2 Objectives**

- i. To assess infrastructural preparedness of the department of health services in delivering UHC to the people of Siaya by 2022.
- ii. To assess the state of HRH in delivering UHC to the people of Siaya by 2022.

## **II. Methodology**

A desk review was conducted on HRH and health system infrastructure policies guiding the attainment of UHC. Secondary information was collected from MoH documents, reports from the CDH, Siaya County Assembly Health Committee reports, World Bank and WHO reports on UHC. Policy documents were defined as principles and strategies for a plan of action designed to achieve a particular set of goals including through guidelines, plans and standards (Perehudoff, Kibira, Wuyts, Pericas, Omwoha, van den Ham, Mantel-Teeuwisse, and Michielsen, 2022).

### **2.1 Data collection and analysis**

An online search (conducted in February and March 2022) identified relevant laws, policies, and reports on UHC through the MoH and County Government of Siaya websites. Legal databases including <https://www.who.int/data/gho/data/themes/topics/health-workforce> and <https://www.worldbank.org/en/topic/universalhealthcoverage#1> were utilized. The Google Scholar search engine was searched using the syntax "(uhc AND hrh) OR (uhc AND infrastructure). Physical copies of public documents from the County Government of Siaya were collected. The Documents were selected for inclusion in three stages; first legal, strategic and policy documents addressing UHC. Secondly, document currently in force and thirdly, document is legal strategic or policy related. Documents were excluded if they did not meet the inclusion criteria or if full text was unavailable. This paper is a distillation of various pieces of information and data derived from collating and analyzing experiences and commitments made in the documents.

### III. Results and Discussion

#### 3.1 Infrastructural preparedness

Since the inception of devolution, the CDH has undertaken several infrastructural projects whose status is as shown in table 1 below. The CDH has inadequate medical equipment, renovated and new facilities are most affected. The available equipment are prone to breakdown due to lack of capacity to conduct routine preventive maintenance. Some equipment are also rendered obsolete and no replacement is done.

**Table1- infrastructural investments by the CDH from 2013-2022**

Infrastructure	Total number	operational	Not operational
New dispensaries	92	59	23
Maternity units	28	25	3
Laboratories	6	3	3
X-ray Blocks	3	0	3
X-ray machines	2	1	1
Staff houses	49	43	6
theatre	1	1	0

Source: CDH, 2022

The department has mostly undertaken construction projects. This could be attributed to the fact that these projects are decided by the Members of County Assembly as ward projects after being taken through public participation. This supports the argument by Pepela et al, 2019 that neither County nor National government has prioritized health infrastructural projects. They have been left on the influence of politicians. None of the X-ray blocks built since the inception of devolution is operational, only one of the two X-ray machines acquired since 2013 is functional in a pre- existing block. This is attributable to non- suitable buildings which cannot house the machines (County Assembly of Siaya (CAS), 2018). Only one theatre has been constructed. The non- functional laboratories, staff houses and maternity units point out to stagnated projects since the department is not undertaking any development project in the F/Y 2022/2023. From 2013-2022, 70% of recurrent budget goes to personal emoluments, leaving 30% for health commodities and development, this manifests in acute shortage of equipment (CDH, 2022).

#### 3.1 Human Resources for Health (HRH)

There is acute shortage of health care workers in Siaya County. None of the 38 cadres have adequate number of staff to serve in the existing facilities.

**Table 2; staffing status of selected HRH cadres in Siaya County**

	Staff cadre	Total number required	Total no. available	Gap
1	Nursing staff	1064	574	490
2	Medical engineering technicians	17	2	15
3	Medical engineering technologists	17	2	15
3	Laboratory technicians	44	7	37
5	R.C.O.S	460	74	386

Source: CDH, 2022

The gap of 490 nursing staff represents a need of 46%. This means the nurse to patient ratio is high and increases exposure to increased risk of medical errors, high mortality rates and iatrogenic complications (Sharma et al, 2010). The medical engineering staffing gap of 15 represents means 88% of required workforce is unavailable. This confirms that the County is unable to maintain its medical equipment which in turn compromises the quality of the health systems in Siaya County to function optimally (Schneider, Schneider and Dallabona, 2010). Thus the poor state of medical equipment in the County (CDH, 2022). Furthermore, the County having 74 Clinical Officers represents 16% availability. This deficit negatively impacts on health service delivery since this cadre is very critical in Primary Health Care (PHC) (Dovlo, 2004). which is the backbone of an effective healthcare system (Stigler, Macinko, Pettigrew, Kumar, and Van Weel, 2016). On staff alignment, the researcher found that in some cases PHOs were transferred to work as Community Health Assistants which goes against the scheme of service and lowers staff morale (KNUN, 2021)

### IV. Conclusion

These findings show that if the health systems in Siaya County are not strengthened in terms of HRH and infrastructure, the County is likely to miss out on UHC attainment targets. County Governments' capacity to manage and place health care cadres in correct duty stations should be improved for increased efficiency. Likewise, the MoH should create guidelines for sharing expertise amongst Counties. Health matters know no boundaries and CDH cannot be effective while operating in silos yet facing with largely similar challenges.

### Knowledge contribution

The recommendations of this study are important in highlighting main issues regarding UHC roll out in Kenya and provides an insight towards resolving the major bottlenecks beforehand.

### Recommendations

Health system infrastructure should be the initial focus of governments so that when demand is created by rolling out the UHC program, commensurate supply exists in health facilities. consequently, UHC programs should concentrate on the preventive aspects of health to manage the disease burden and spearhead multi-sectoral coordination to fight infectious and zoonotic diseases.

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