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Original Research Article

Effects of devolution on healthcare system performance in Machakos County Level 5 Hospital, Kenya

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ABSTRACT

Background: Globally, there has been a trend of devolving services from the National governments to local governments in order to enhance efficiency, effectiveness, equity, responsiveness, and community participation at the grass root levels. This study evaluated the effects of devolution on healthcare system performance in Machakos Level 5 Hospital in Machakos County. Specifically, it evaluated the effects of devolution on healthcare systems performance on healthcare infrastructure, workforce adequacy and workforce satisfaction.
Methods: Descriptive cross-sectional study design was used, with mixed methods of data collection (quantitative and qualitative).
Results: The analyzed results revealed that healthcare infrastructure, workforce adequacy and workforce satisfaction improved post devolution period to a great extent. From the inferential statistics analysis, there was a significant improvement in all the three objectives post devolution i.e., $p<0.05$.
Conclusions: Devolution of healthcare system improved the performance of Machakos County Level 5 Hospital. Recommendations were made to roll out the UHC program countrywide, equip all departments, employ more staff, enforce the referral system, similar study be conducted in other county referral hospitals, and similar study be conducted with a focus on other healthcare building blocks.

Keywords: Devolution, Healthcare system, Healthcare infrastructure, Healthcare workforce, Machakos County, Universal Health Coverage

INTRODUCTION

Devolution refers to the delegation of powers, resources and responsibilities to subnational, regional or local governments which have been established by law.[1] This has been reported to boost growth, resource distribution as well as governance in the regions.[2]

Globally, there has been a trend of devolving services in order to enhance efficiency, equity, effectiveness, administration, responsiveness, and community participation in the regions and among the people. Brazil, China, Mexico, India, Philippines, France, Thai-land, Ghana, Ethiopia and Uganda are some of the world-wide countries which embraced devolution before Kenya, either in form of devolution, decentralization, privatization or delegation.[3]

The global trend of healthcare workers expressing job dissatisfaction through industrial actions such as strikes, mass resignations and low staff morale is an indication that all is not well, even after devolving the services. For

instance, in 2017, the doctors and nurses strike in Kenya, France and Germany doctors strike in 2012, and in India, a nationwide strike in November 2015.[4] Like many other countries, the current healthcare system in Kenya is facing a number of constraints in its effort to provide quality healthcare to its citizens. These include: poor healthcare infrastructure, insufficient skilled personnel, dissatisfied healthcare workforce, financial constraints, inability to access healthcare facilities and healthcare services, difficulties in identifying and reaching the most vulnerable groups, corruption, poor management and oversight, high levels of wastage, management of accrued debts from the previous regimes and inadequate tax collection systems. These and many others stand out as obstacles to delivery of quality services in many public facilities.[2]

Statement of the problem

The government aims at providing a high quality of life to all its citizens by the year 2030 as envisioned in vision 2030, attain the highest possible standards of health for its people as stated in the healthcare policy 2014-2030, achieve Universal Health Coverage as illustrated in the Big Four Agenda and Sustainable Development Goals under SDG 3 specifically 3.8.

Kenya devolved healthcare services like other countries such as Philippines, Mexico, Brazil, and Uganda. In all these countries, the motives behind devolution were political and minimal considerations were made on the effects of devolution on healthcare system performance.[5] The characteristic presence of inadequate and unmaintained healthcare infrastructure, critical healthcare workforce shortage especially in sub-Saharan Africa and global healthcare workers unrest since the advent of this system points out that the sector is struggling.[6] Machakos is one of the four pilot counties under UHC Scheme which is part of the Big Four Agenda. Out of the 47 counties, Machakos County was prone to road traffic accidents.[7,8] In spite of the governments renewed effort to improve the quality and coverage of healthcare, little assessment has been done by scholars or the government with regards to the effects of devolution on healthcare system performance on infrastructure and healthcare workforce in Machakos County.

Significance of the study

The fact that devolution of healthcare functions has worked for other countries does not mean it would work for all countries. This study was relevant to the National government to assist in policy making, with reference to the healthcare system devolution goals and Universal Health Coverage in the Big Four Agenda, Machakos County Government in measuring and assessing its support for the county referral hospital towards service delivery with reference to healthcare infrastructure and staff adequacy and satisfaction, the management and staff of the hospital got to know of the areas of improvement on infrastructure, the staff adequacy and the factors affecting their job satisfaction, Implementation of the recommendations that were made in this study helped the patients who utilize this facility to receive high quality services and finally this research added value to the body of research in terms of literature on the effects of devolution on healthcare system performance with reference to healthcare infrastructure, healthcare workforce adequacy, and health workers' satisfaction.

METHODS

Study design

A descriptive cross-sectional design was applied with mixed method of data collection (quantitative and qualitative methods). This enabled collection of data at that particular point in time and allowed triangulation of the collected data.

Study location

The research was carried out in Machakos County Level 5 Hospital, which is a public health facility located in south eastern region of Kenya, and is approximately 63 kms from Nairobi, the capital city of Kenya.

Target population

All staff from the selected job cadres were targeted in the study as shown in Table 1 below. These were directly involved in healthcare service delivery and were believed to possess the information required in this study.

Table 1: Selected job cadres.

S. no.	Job cadres	Number of staff
1.	Senior administration staff	3
2.	Doctors	25
3.	Clinical officers	46
4.	Nurses	218
5.	Pharmacist	11
6.	Laboratory technologists	28
7.	Radiographers and sonographers	10
8.	Physiotherapist	11
9.	Accountants	10
10.	Procurement officers	5
	Total	**367**

Source: Machakos Level Five Hospital, Human Resource Department.

Sample size determination

[10]Formula was applied to determine the sample size for quantitative data, where he argues that in most surveys, a

coefficient of variation in the range of 21%≤C≤30% and a Standard error of 2%≤e≤5% are acceptable.[10] Therefore, in order to ensure low sample variability and minimize the error, the study used the lower limits of both coefficient variation and Standard error, hence a sample size of 85 respondents.

Sampling techniques

Census and purposive sampling procedures were adopted in this study. Of the 47 Counties in Kenya, Machakos County was purposively selected because it is one among the four Counties which were selected to pilot Universal Health Coverage.

Census sampling technique was employed to select staff who had worked with the hospital for at least one year before devolution of healthcare services (i.e., from 2012 until the time of data collection). Census was done because the study population was too few to be sampled. Data collection continued for period of one month with all the different working shifts factored in, in order to capture all eligible participants. Hence, sample of 85 respondents was arrived at for quantitative study and 12 key informants comprising of senior administration staff and all the heads of departments/ sections, formed the target sample size for qualitative data, as they were believed to have first-hand knowledge about the effects of devolution on healthcare system performance.

Validity of research instrument

The research tools were pretested in Matuu Sub-County Hospital using nine questionnaires and one KII, being 10% of the sample size to ascertain clarity of the questions and find possible solutions to any problems depicted. The validity was enhanced by seeking the opinion of the supervisors who are experts in the field of study.

Reliability of research instrument

The internal consistency of the pilot data responses was measured using the Cronbach's Alpha. The overall calculated Cronbach's Alpha was 0.901, which was above the accepted reliability threshold of 0.70.

Study period

The study was done during September 2017 to December 2022.

RESULTS

Objective one:

To establish the effects of devolution on healthcare system performance on healthcare infrastructure in Machakos Level 5 Hospital.

Figure 1 shows average aggregated rating on healthcare infrastructure. Average rating of poor/ very poor had a decline from 36.58% to 1.64%, good /very good increased from 16.85% to 84.82% and respondents who were neutral there was a drop from 47.93% to 13.52% before and after devolution respectively meaning there was improved healthcare infrastructure.

Table 2 shows association analysis for healthcare infrastructure with status of public healthcare hospitals before and after devolution. Before implementation of devolution only one attribute was statistically significant while after implementation of devolution, 12 attributes were statistically significant.

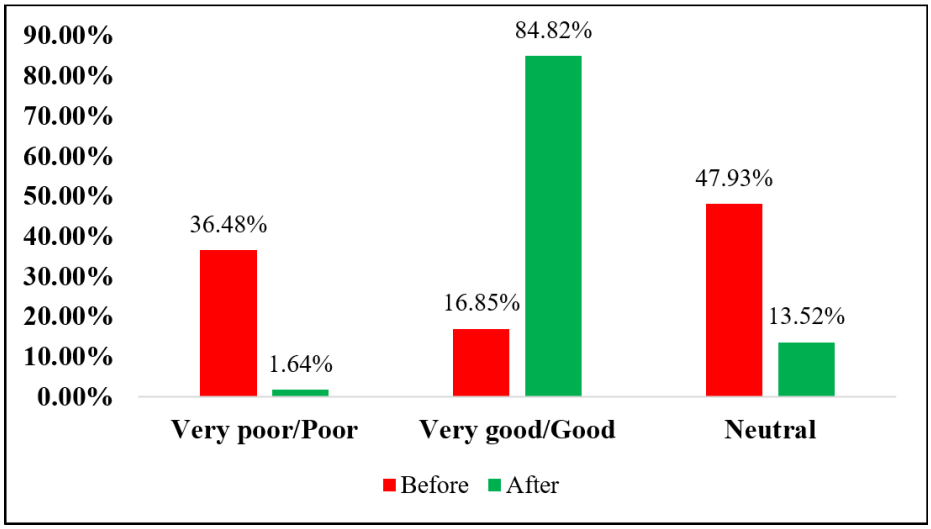

Figure 1: Average aggregated rating on healthcare infrastructure.

Table 2: Healthcare infrastructure association with status of public healthcare hospitals before and after devolution.

Attribute	Statistics (Fisher's exact test)	
	Before devolution	After devolution
The state of medical equipment-diagnostic and treatment	χ^2=2.383, p=0.716	χ^2=8.293, p=0.022*
Procurement of new and state of the art equipment	χ^2=3.934, p=0.203	χ^2 = 10.093, p=0.011*
Maintenance and repair of medical equipment	χ^2=1.763, p=0.625	χ^2 =2.052, p=0.687
Renovation of buildings (floors, roofs, corridors, windows)	χ^2=5.212, p=0.218	χ^2 =6.902, p=0.037*
Environmental management (grass lawns, waiting areas)	χ^2=8.770, p=0.047*	χ^2 =6.457, p=0.029*
Waste management (sharps, clinical waste, general waste,)	χ^2=0.629, p=1.000	χ^2 =10.405, p=0.005**
Supply of clean water in the entire hospital and a backup system in place.	χ^2=3.512, p=0.285	χ^2 =7.081, p=0.045*
Availability of clean and adequate linen for patients	χ^2 =3.651, p=0.237	χ^2 =10.381, p=0.024*
Beds capacity for in-patients	χ^2=5.109, p=0.238	χ^2 =7.301, p=0.030*
Availability of clean toilets for both patients and staff	χ^2=6.336, p=0.115	χ^2 =10.819, p=0.022*
Purchase of ambulances and utility vans	χ^2=1.083, p=0.885	χ^2 =6.742, p=0.034*
Availability of transport vehicles when a need arises (Ambulances and utility vans)	χ^2=1.063, p=0.880	χ^2 =7.757, p=0.029*
Maintenance of ambulances and other transport vehicles	χ^2=1.804, p=0.608	χ^2 =9.282, p=0.016*
Availability of communication devices (mobile phones, land lines, radio calls)	χ^2=6.288, p=0.242	χ^2 =4.876, p=0.151
Availability of functional information systems	χ^2=0.892, p=1.000	χ^2 =3.251, p=0.418

Note: * p<0.05, ** p<0.01.

Table 3: Healthcare infrastructure effects before and after devolution.

After and before devolution	Mean change	t	df	Sig. (2-tailed)
The state of medical equipment-diagnostic& treatment	1.419	11.516	73	0.000**
Procurement of new and state of the art equipment	1.419	11.516	73	0.000**
Maintenance and repair of medical equipment	1.392	12.824	73	0.000**
Renovation of buildings (floors, roofs, corridors, windows)	1.473	11.781	73	0.000**
Environmental management (grass lawns, waiting areas)	1.405	11.149	73	0.000**
Waste management (sharps, clinical waste, general waste,)	1.270	13.126	73	0.000**
Supply of clean water in the entire hospital and a backup system in place	1.216	11.303	73	0.000**
Availability of clean and adequate linen for patients	1.378	9.775	73	0.000**
Beds capacity for in-patients	1.703	11.962	73	0.000**
Availability of clean toilets for both patients and staff	1.635	12.321	73	0.000**
Purchase of ambulances and utility vans	1.162	10.510	73	0.000**
Availability of transport vehicles when a need arises (Ambulances and utility vans)	1.149	10.606	73	0.000**
Maintenance of ambulances and other transport vehicle	1.041	10.141	73	0.000**
Availability of communication devices (mobile phones, land lines, radio calls)	0.784	7.062	73	0.000**
Availability of functional information systems	0.824	7.650	73	0.000**

Note: ** p<0.01.

Table 3 shows the effect of healthcare infrastructure before and after devolution all the 15 attributes examined being highly significant at p<0.05. Notably, all the attributes of concern thus physical infrastructure, medical equipment, communication, ICT and transport were all significant (p=0.000).

Key findings from KIIs strengthened quantitative findings on healthcare infrastructure.

On medical equipment, physical infrastructure, transport and information and communication technology, key informants had this to say;

"*We have invested a lot in medical equipment…for instance, before we had two (2) theatres, now we have four fully equipped theatres, we have a fully equipped renal unit for dialysis, and a cancer Centre which we didn't have before."* KII 1,

"Four (4) new units have come up after devolution i.e., ICU, Renal, CT Scan, and Cancer Treatment Centre; all fully equipped. Some through the Medical Equipment Scheme (MES) and others through the county government. Maternity and labour wards have also been improved…." KII 3,

"It's performing well (devolution), given that we now have some of the most sought machines like CT Scan, and MRI etc. which were not there before devolution." KII 2,

"We have good physical infrastructure. Some of it slightly older but would say satisfaction levels we are at 70% satisfied." KII 1, *"We have more buildings (hospital expansion) coming up, example the cancer treatment centre. Renovations have been done. There was refurbishing of the maternity wing, we did a couple of paving on the grounds. Also the roofing..... So it has great improvement."* KII 7,

''we expect to receive some equipment in this department because what we have is a bit old, we have done the requests." KII8

"I understand that currently the ambulances are more, about six (6). Iinitially I used to see about two (2) of them. At times patients call from home when there is an emergency and they are picked and brought to the hospital because the ambulances are more now." KII 10.

Through the observation checklist, it was noted that Equipment was available, well maintained, new buildings had come up, ambulances available, and information systems available in some sections. Physiotherapy department required more equipment.

Objective two

To evaluate the effects of devolution on healthcare systems performance on healthcare workforce adequacy in Machakos Level 5 Hospital.

Figure 2 shows average aggregated rating on healthcare adequacy (quality and quantity). Average rating of poor/ very poor had a decline from 17.57% to 16.22%, good/very good increased from 36.35% to 50.94% and those who were neutral reduced from 46.49% to 34.32% before and after devolution meaning there was improved healthcare workforce adequacy.

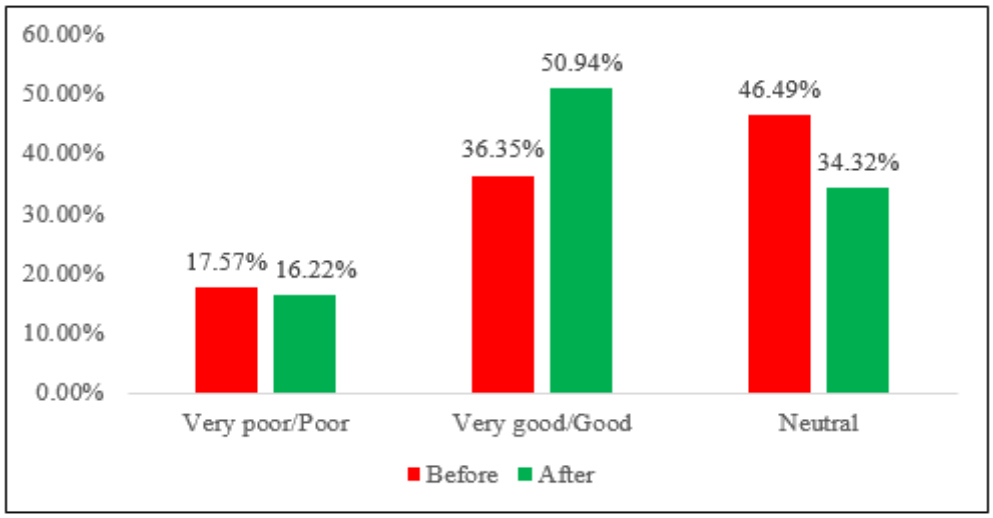

Figure 2: Average aggregated rating of healthcare adequacy (quality and quantity).

Table 4 shows association analysis for healthcare workforce adequacy (quality and quantity) with status of public healthcare hospitals before and after devolution.

Before implementation of devolution none of the attributes of concern was significant while after implementation of devolution quantity (p=0.006), attraction and retention (p=0.012) and quality (p=0.000) were statistically significant among other attributes.

Table 5 shows healthcare workforce adequacy (quality and quantity) effects before and after devolution. There were: specific measures to address shortage of healthcare staff (p=0.007), staff recruitments and merit-based promotions (p=0.037), attraction and retention of healthcare workforce and staff recruitments (p=0.026), capacity building and development of health worker (p=0.19) and providing a working environment free of intimidation and interferences (p=0.015) statistically significant.

Table 4: Healthcare workforce adequacy (quality and quantity) association with status of public healthcare hospitals before and after devolution.

Attributes	Statistics (Fisher's exact test)	
	Before devolution	After devolution
Specific measures to address shortage of healthcare staff	χ^2=6.001, p=0.173	χ^2=15.195, p=0.000**
Appropriate and equitable distribution of health workers	χ^2=6.923, p=0.060	χ^2=5.335, p=0.183
Staff recruitments (quantity)	χ^2=7.764, p=0.081	χ^2=12.428, p=0.006**
Attraction and retention of healthcare workforce	χ^2=6.085, p=0.129	χ^2=9.672, p=0.012*
Defining structures of grading and appropriate remuneration of health care workers.	χ^2=3.670, p=0.411	χ^2=14.310, p=0.002**
Health workers performance appraisals.	χ^2=3.695, p=0.451	χ^2=14.836, p=0.002**
Training, capacity building and development of health worker (quality)	χ^2=3.624, p=0.399	χ^2=16.203, p=0.000**
Management of pay roll and timely payment of salaries	χ^2=3.475, p=0.250	χ^2=9.096, p=0.028*
Providing a working environment free of intimidation and interferences	χ^2=6.962, p=0.490	χ^2=11.651, p=0.006**
Dissemination of health policy and guidelines	χ^2=5.183, p=0.117	χ^2=11.868, p=0.006**

Note: * p<0.05, ** p<0.01.

Table 5: Effects before and after devolution for healthcare adequacy (quality and quantity).

After and before devolution	Mean change	t	df	Sig. (2-tailed)
Specific measures to address shortage of healthcare staff	0.351	2.771	73	0.007**
Appropriate and equitable distribution of health workers	0.068	0.490	73	0.626
Staff recruitments and merit-based promotions (quantity)	0.311	2.122	73	0.037*
Attraction and retention of healthcare workforce	0.135	1.134	73	0.026*
Defining structures of grading and appropriate remuneration of health care workers	0.095	0.600	73	0.550
Health workers performance appraisals	0.270	1.824	73	0.072
Training, capacity building and development of health worker (in service training)-quality	0.216	1.322	73	0.019*
Management of pay roll and timely payment of salaries	0.230	1.339	73	0.185
Providing a working environment free of intimidation and interferences	-0.081	-0.505	73	0.015*
Dissemination of health policy and guidelines	-0.027	-0.207	73	0.836

Note: * p<0.05, ** p<0.01.

The findings were supported by the KIIs as shown in the excerpts:

The responses centred on the staff welfare, promotions, incentives and motivations such as team building. Some of the excerpts are:

"We have been employing new staff, although we have not yet attained the WHO staff patient ratio" KII 1,*"We offer support for in-service training; staff can go and specialize, we also sponsor them for other short courses where we can"* KII 3

"With UHC, the patient numbers have increased and so there is need to employ more staff" KII4

"Our staff have been trained on the use of the equipment and machines that we have acquired or leased" KII 2,

"training…it wasn't as easy to access or as well coordinated as now. Now it is much easier" KII 8

"We promote them when they are supposed to be promoted. We get them amenity when they need …" KII 1

"Yes, you won't have an institution where you don't want to retain your staff, we do team work, Trainings and In-house team building" KII 5

"you are supported in terms of being given conducive working environment." KII 6

It was observed that staff were on duty, no uncovered sections, but long queues observed in pharmacy and MCH sections.

Objective three:

To evaluate the effects of devolution on healthcare system performance on health workforce satisfaction in Machakos Level 5 Hospital. Figure 3 shows average aggregated rating on healthcare workforce satisfaction. Average rating of poor/ very poor had declined from 19.68% to 13.92%, good /very good increased from 31.84% to 50.93% and neutral decreased from 50.27% to 35.13% before and after devolution meaning there was improved healthcare satisfaction.

Table 6 shows healthcare workforce satisfaction status before and after devolution. Before implementation of devolution only two of the attributes of concern were statistically significant while after implementation of devolution eight attributes were statistically significant for example, salaries and incentives (p=0.009), working environment (p=0.045) and communication channels (p=0.001).

Table 7 shows healthcare workforce satisfaction effects before and after devolution. Four attributes were found to be significant (p<0.05), these are: working environment p=0.010, communication channels p=0.020, recognition by management p=0.027 and patient appreciation p=0.041.

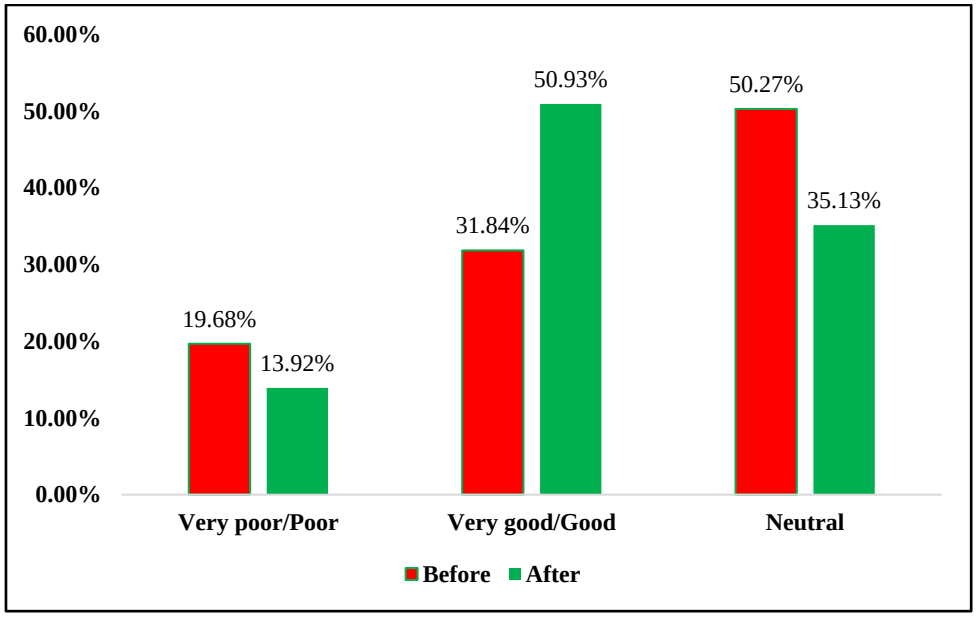

Figure 3: Average aggregated rating of healthcare workforce satisfaction.

Table 6: Healthcare workforce satisfaction association with status of public healthcare hospitals before and after devolution.

Attributes	Statistics (Fisher's Exact Test)	
	Before devolution	After devolution
Salary and incentives	χ^2 = 3.304, p = 0.306	χ^2 = 10.286, p = 0.009**
Benefits package	χ^2 = 5.331, p = 0.246	χ^2 = 9.559, p = 0.032*
Working environment	χ^2 = 5.71, p = 0.185	χ^2 = 8.012, p = 0.045*
Communication channels	χ^2 = 8.262, p =0.053	χ^2 = 16.412, p = 0.001**
Career development opportunities	χ^2 = 10.544, p= 0.017*	χ^2 = 12.484, p = 0.003**
Relationship with supervisors	χ^2 = 3.011, p = 0.664	χ^2 = 10.201, p = 0.263
Recognition by management	χ^2 = 7.671, p = 0.096	χ^2 = 9.106, p = 0.025*
Patient appreciation	χ^2 = 8.783, p = 0.014*	χ^2 = 6.058, p = 0.019*
Staff working relationships	χ^2 = 3.713, p = 0.253	χ^2 = 9.656, p = 0.013*
Work life balance	χ^2 = 5.067, p = 0.278	χ^2 = 7.775, p = 0.073

Note: * p<0.05, ** p<0.01.

Table 7: Effects before and after devolution for healthcare workforce satisfaction.

After and before devolution	Mean change	t	df	Sig. (2-tailed)
Salary and incentives	0.162	1.168	73	0.246
Benefits package	0.054	0.419	73	0.676
Working environment	0.419	2.640	73	0.010**
Communication channels	0.378	2.372	73	0.020*
Career development opportunities	0.216	1.239	73	0.219
Relationship with supervisors	0.149	0.984	73	0.329
Recognition by management	0.324	2.250	73	0.027*
Patient appreciation	0.257	2.082	73	0.041*
Staff working relationships	0.189	1.646	73	0.104
Work life balance	0.108	0.823	73	0.413

Note: * p<0.05, ** p<0.01.

Findings obtained from the KIIs as shown in the excerpts:

Communication channels and recognition were well spoken of and indicated a significant difference as stated below;

"Of course, we do recognize them; like last December we were called to a party organized by the Governor" KII 4,

"Communication lines are open both vertical and across departments. Even the minister calls directly to the hospital" KII 9,

"On the working environment, out of 10, I can give 7." KII 8.

"… absolutely yes. Before devolution, it wasn't as effective and as easy and also the chain of command was way longer but right now it's quite short." KII 1,

"…. it's open yes because we normally get if there is any information which need to be relayed, we normally get." KII7.

"There is good recognition and the working environment is good across different departments across different departments" KII 9.

No strike/go slow, was observed, staff were enthusiastic and well groomed.

DISCUSSION

Respondents indicated that there was improvement in health infrastructure after devolution. Poor or very poor rating, there was a decline from 36.58% before devolution to 1.64% after devolution and good or very good, there was an increase from 16.85% before devolution to 84.82% after devolution. Key aspects examined before devolution were statistically insignificant whereas after devolution majority were significant. Regarding healthcare workforce adequacy, before devolution poor/very poor ratings were between 8.1% and 27% for the 10 aspects examined while after devolution, poor/very poor ratings were between 10.8% and 23%, citing a slight improvement. Before devolution, good/very good ratings were between 20.3% and 64.9%. After devolution good /very good ratings were between 33.8% and 70.3%, which is an improvement. Four key attributes examined before devolution were statistically insignificant whereas after devolution all were significant.

Healthcare satisfaction before and after devolution, in regard to very poor/poor rating before devolution the ratings were between 5.4% and 39.2% for the 10 aspects examined and after devolution the ratings were between 5.4% and 27%, Whereas good/very good before and after devolution, ratings for before devolution were between 23% and 40.5%. Ratings after devolution were between 21.6% and 60.8%. Statistically none of the four attributes was significant before though after devolution two were significant that is, communication channels and working environment.

The findings in Machakos Level 5 Hospital were in agreement with, where it stated that the country experienced an expansion and improvement in healthcare infrastructure across counties.[9]

Study limitations

The study was limited to Machakos County Level 5 Hospital and therefore, the results and recommendations could not be applied across other County referral hospitals or other health facilities due to lack of representativeness. Selection of respondents who worked in the Hospital pre and post devolution predisposed the study to selection and information bias.

CONCLUSION

The study established that healthcare infrastructure improved with devolution and UHC rollout. For instance, new medical equipment was purchased and were in good working condition in most of the selected departments through the support of both Medical Equipment Scheme (MES) and the County government. New units came up in the hospital such as Cancer Treatment Centre, ICU,

Renal unit, MRI, CT scan and there was general improvement of physical infrastructure. Four (4) more ambulances were purchased giving a total of six (6), all in good working condition and there was improvement in communication and ICT. Devolution of healthcare system has addressed the need for healthcare infrastructure in Machakos level five hospital.

There was an improvement in healthcare workforce in terms of quantity and quality across the examined departments. Most of the employees now possess the requisite skills for quality service delivery. In other words, devolution of healthcare services was the right course of action in addressing healthcare workforce shortage in Machakos Level 5 Hospital. UHC caused some constraints in the staff adequacy. It came about with increase in patient numbers as quality of healthcare was good and service was free, which now appears to have outstripped the increase in capacity of the increased workers.

Staff satisfaction improved slightly post devolution. This was in terms of working environment, communication channels, and recognition by management and patient appreciation. Aspects such as salaries and incentives, benefits package, career development opportunities, relationship with supervisors, staff working relationships and work life balance were not statistically significant post devolution in terms improvement.

Recommendations

Healthcare infrastructure improved with devolution and UHC program in Machakos County Level 5 Hospital hence the government should roll out the UHC program countrywide.

There is need to equip the physiotherapy department in order to address the cases conclusively, considering that Machakos Level 5 Hospital was selected to be among the counties to pilot the rollout of universal health coverage (UHC) program due to the pronounced road traffic accidents.

There is a need to employ more staff to avoid outstripping of the existing capacity of the healthcare workforce due to the influx of patients following UHC rollout, and ensure that service delivery is prompt and uninterrupted.

Enforcement of the referral system should be a key consideration to help decongest the County referral hospital.

There is a need to put more measures in place for staff motivation with reference to salaries and incentives, benefits package, career development opportunities, relationship with supervisors, staff working relationships and work life balance.

There is need for similar studies to be conducted in other level five hospitals in other counties.

Lastly, similar study be conducted with a focus on the other healthcare systems building blocks other than infrastructure and healthcare workforce.

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REFERENCES

1. Bosire C, Phalghai Y, CotrellGhai J. Understanding Devolution. Colourprint Limited; 2015.
2. Okech TC. Devolution of Public Health care Services in Kenya and its Implication on Universal Health Coverage. IOSR Journal of Pharmacy (IOSRPHR), 2017;07(05):09–23.
3. Okech CT. Devolution and universal Health Coverage in Kenya: situational analysis of health financing, infrastructure and personnel, International Journal of Economics, Commerce and Management. 2016;4(5):1094-110.
4. Mohanran A. The recent Doctors' Strikes in India: A Point of View. Medico Legal J. 2011;79(4):129-34.
5. Cuenca JS. Health Devolution in the Philippines: Lessons and Insights. Econstor. 2018;36.
6. Waithaka W. Health Devolution in Kenya. Nairobi: Kenya Medical Dentistry and Practitioners Board; 2013.
7. KHSSP. Kenya Health Sector Strategic Plan; 2013-2017.
8. Repulic of Kenya. Transforming Health: Accelerating Attainment of Universal Health Coverage. Kenya: Red cross society of Kenya; 2016.
9. Phares M, Eldah O, Boaz M, Nelima NN, Juliana M, Esther O. An assessment of Healthcare in Kenya under the devolved system by KIPPRA Special Paper No. 19. Kenya: KIPPRA Publications; 2018.
10. Nassiuma DK. Survey Sampling: Theory and Practice. Nairobi, Kenya: Nairobi University press; 2000.

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