# **Original Research Article**

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# Health professional regulation and provision of quality health services; cross sectional analysis of private health care providers in Wajir County, Kenya

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# **ABSTRACT**

**Background:** Health professional regulatory bodies oversee and enforce standards in healthcare to safeguard patient safety and prevent harm. However, international consistency in these regulations remains limited. The Kenya health sector relies on various bodies to enforce standards among professionals and institutions, albeit constrained by financial and human resources that hinder effective oversight. This study aimed to assess how regulatory practices-such as licensing, training oversight, inspection of practice, and quality assurance mechanisms- affect the quality of healthcare provided by private providers.

**Methods:** The study targeted 108 healthcare providers from 36 private health facilities, primarily nurses and clinical officers. A sample of 86 participants was drawn using purposive sampling. The data were collected using a structured questionnaire.

**Results:** The licensing of health professionals, training, inspection of practice, and quality assurance mechanisms collectively influenced 47.9% of the variation in service quality. Statistical analysis revealed significant associations between licensing (p=0.003), practice inspections (p=0.01), quality assurance (p=0.001), and service quality.

Conclusions: Regulatory bodies play a crucial role in ensuring healthcare standards; however, their effectiveness hinges on tailored strategies that address local challenges and foster collaborative efforts towards sustainable quality improvement in healthcare services. Routine inspections, conducted in a supportive manner, are likely to ensure ongoing adherence to standards. Moreover, adequate resource allocation for regulatory compliance and continuous quality improvement activities, including the formation of internal quality improvement (QI) teams and the maintenance of regular QI meetings and assessments, was deemed essential.

Keywords: LMICs, Kenya, Professional regulation, Regulatory bodies

# INTRODUCTION

Health systems aim to promote health through efficient, responsive, equitable, and financially fairways. Every health system must perform some basic functions to fulfil its objectives. These functions are further identified as six

essential health-system building components. Health workforce, delivery of service, medical product technologies and vaccines, information, stewardship and financing.<sup>2</sup> The focus of this study is the leadership management and governance (stewardship) of a health system, particularly how health professional regulation

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impacts the quality of health services provided. Regulatory bodies oversee professional practices to ensure effective health service delivery.

Globally, health regulatory bodies play crucial roles in safeguarding patient safety, assessing the competence of health professionals, ensuring quality in education and training, managing professional registration, enforcing guidelines and standards, and fostering relations with health professions.<sup>3</sup> However, across Europe, there is significant inconsistency in the scope and focus of these regulatory functions, with some emphasizing healthcare quality and safety and others prioritizing professional reputation and trust.<sup>4</sup> These disparities impact professional mobility, patient safety, and overall quality of healthcare delivery.

In Africa, the African Health Profession Regulatory Collaborative (AHPRC) for Nurses and Midwives gathers leaders responsible for health regulation from 14 countries in East, Central, and Southern Africa. This collaboration seeks to strengthen the regulatory capacity medical professional organizations, ultimately improving the regulatory framework for professions throughout the African region.<sup>5</sup> Ensuring effective health regulation and enhancing regulatory performance are key priorities for National Regulatory Authorities (NRAs) and governments globally.6 With government support, NRAs oversee the promotion and protection of public health by ensuring the implementation of regulatory standards and overseeing the supply of safe, effective, and high-quality medical products that meet international standards. Most African countries have National Regulatory Authorities (NRAs) with varying structures and operations- some are health ministries, while others under semiautonomous. Since 2018, the African Medicines Agency (AMA) has proposed the aim of enhancing NRA capabilities, addressing gaps to boost public health and pharmaceutical sector growth.6

In Kenya, healthcare governance is overseen by multiple bodies at the national and county levels, encompassing structures, policies, legislation, intergovernmental forums, and regulatory bodies that enforce technical standards and compliance among health professionals and institutions. The Health Act of 2017 centralized the oversight of health professionals to enhance coordination and reduce redundancy. Regulatory bodies such as the Kenya Nutritionists and Dieticians Institute (KNDI). Radiation Protection Board (RPB), Public Health Officers and Technicians Council (PHOTC), Pharmacy and Poisons Board (PPB), Kenya Medical Laboratory Technicians and Technologists Board (KMLTB), Clinical Officers Council (COC), Medical Practitioners and Dentist Board (MPDB), and Nursing Council of Kenya (NCK) oversee licensing and ensure quality assurance.8 The government has established professional councils and medical boards for self-regulation within their professions and for medical facility registration, aiming to streamline regulation.9 Legislation specifies standards for private healthcare services to ensure practitioner quality and public safety, despite challenges in enforcement due to limited funding for regulatory entities.

Regulation poses significant challenges in low- and middle-income countries' (LMICs) health systems, impacting quality and safety. Strengthening regulatory frameworks could address these issues, but poor enforcement due to resource constraints, weak governance, and corruption hinders effectiveness; hence, more research is crucial to strengthen LMIC healthcare regulation and enhance health system resilience. 10 In Kenya, gaps in regulatory requirements for private health facilities persist, necessitating action from regulatory agencies and the Ministry of Health (MoH). For instance, inadequate legislation to address negligence and malpractice in private healthcare is a notable issue, and regulatory agencies such as the PPB often overlook engagement with pharmacies, which negatively impacts pharmacovigilance efforts. 11 Moreover, leniency in actions against malpractice further disciplinary undermines regulatory effectiveness. 10 This study focused on the role of professional regulatory bodies in promoting quality healthcare among private facilities in Wajir County, Kenya- a challenging area due to its remoteness, complicating regulatory oversight. The key areas of focus included licensing, training, inspection of practice and quality assurance mechanisms and how these practises influence provision of quality health services by private healthcare providers.

### **METHODS**

A cross-sectional analytical research design was used in this study. The study was undertaken in Wajir County, in northern Kenya. The target population was private healthcare providers. There are 36 private health facilities in Wajir County. 12 The study targeted at least three healthcare workers in each facility, for a total of 108 health providers. This study adopted the Krejcie and Morgan formula for determining the sample size from a finite population.<sup>13</sup> The sample size was therefore 86 health care workers. The sampling procedure for this study was purposive sampling. Purposive sampling was informed by the sparse location of private health facilities in Wajir County. Primary data were collected from 86 private health care workers drawn from 36 health care facilities. The research data were acquired in September-November 2023 using a structured questionnaire. The data were coded and analysed using the Statistical Package for Social Sciences (SPSS) version 24. Bivariate analysis and multivariate regression were carried out to determine the associations between the study variables.

# Inclusion criteria

Health workers drawn from private health facilities that had been in operation for more than one year at the time of data collection, as they were likely to have been inspected by a health professional regulator.

### Exclusion criteria

Health workers from private health care provider who had been in operation for more than one year and but failed to consent to take part in the study. Health workers who did not consent to take part in the study. In addition, health workers who had not worked in the selected health facility for more than one year.

### **RESULTS**

## Demographic characteristics

The mean age of the respondents was 33 years, with a minimum age of 22 years and a maximum age of 48 years (Table 1).

Most of the respondents were nurses (40, 48.2%), followed by clinical officers (34, 42.5%), with diplomas (65, 78%) and a degree (14, 17%). Thirty (36%) and 33 (40%) participants were drawn from level II and III health facilities, respectively.

# Licensing of health professionals

The licensing of health workers was assessed against the registration of health workers with a professional regulator, the regulation of professional practice, and disciplinary action taken against health workers for malpractice (Table 2).

The results indicate varying levels of agreement among respondents regarding regulation and licensing in healthcare. Most participants were registered (98%) and aware of penalties for unlicensed practice (100%). Views on licensing promoting transparency and safety were positive (95%), while the renewal of licenses showed

compliance (95%). Concerning disciplinary actions, opinions are divided into agency responsibility for investigation (with 88% agreeing) and administering actions (89% agree). Overall, while there is strong awareness and compliance with regulatory requirements, perceptions of disciplinary processes suggest room for improvement in terms of clarity and efficacy among the healthcare professionals surveyed.

Table 1: Demographic characteristics of the respondents (n=83).

Characteristic	Frequency	Percentage
Age (years)		
Mean	32.65	
Mode	30	
Minimum	22	
Maximum	48	
Profession		
Nursing	40	48.2
Clinical officer	34	42.5
Pharmaceutical technologist	3	3.6
Lab tech	4	4.8
Nutritionist	2	2.4
Level of education		
Certificate	2	2.4
Diploma	65	78.3
Degree	14	16.9
Masters	2	2.4
Facility level		
Dispensary/level I	5	6.0
Health center/level II	30	36.1
Primary referral/level IV	33	39.8
Secondary referral/level V	15	18.1

Table 2: Licensing of healthcare workers.

Statement	SD N (%)	D N (%)	NS N (%)	A N (%)	SA N (%)
I am registered with a health regulatory body	-	-	2(2)	32 (39)	49 (59)
I am aware of the penalty of practicing as an unregistered and unlicensed person	-	-	-	34 (41)	49 (59)
Licensure and registration promote public safety	2(2)	-	2(2)	39 (47)	40 (48)
I have renewed my professional license	2(2)	-	2(2)	40 (48)	39 (47)
Regulatory agencies investigate disciplinary cases	-	4 (5)	3 (4)	37 (45)	39 (47)
Regulatory agencies administering disciplinary actions against health professionals who are found culpable	-	4 (5)	5 (6)	28 (34)	46 (55)

# Regulation of health professional training

The training regulation of healthcare workers was assessed against the accreditation of training institutions, student enrolment in training institutions, and internship and licensing examinations (Table 3).

The survey results suggest a mixed perception among respondents regarding the roles and effectiveness of regulatory agencies in healthcare training and oversight. Most respondents agreed that regulatory agencies inform practitioners about industry changes (87%), approve training institutions (68%), and expect institutions to seek accreditation (98%). However, opinions vary on whether

agencies consistently inspect institutions (98%) and review curricula (93%) before accreditation. Fewer respondents believe that inspections are consistently conducted (75%) and that agencies track student performance through indexing (90%). Regarding regulatory control, there is an agreement that agencies

should set minimum entry requirements (93%) and issue unique index numbers (98%). However, fewer respondents indicated undergoing Ministry of Health internship postings (89%) or licensing examinations after training (96%).

Table 3: Regulating training of healthcare professionals.

Statement	SD N (%)	D N (%)	NS N (%)	A N (%)	SA N (%)
Regulatory agencies provide practitioners with information about industry changes	2 (2)	2 (2)	7 (8)	53 (64)	19 (23)
Training institutions are accredited by regulatory agencies	-	-	2(2)	57 (69)	24 (29)
Inspection of training institutions is a random continuous activity to promote quality training of health professionals	-	4 (5)	12 (15)	34 (41)	33 (40)
Regulatory agencies control minimum entry requirements of students into various programmes	4 (5)	-	2 (2)	35 (42)	42 (51)
I underwent internship posting by the Ministry of Health after training	2 (2)	7 (8)	-	39 (47)	35 (42)

Table 4: Inspection of practice by professional regulatory bodies.

Statement	SD N (%)	D N (%)	NS N (%)	A N (%)	SA N (%)
Medical Practitioners and Dentists Board and other regulatory bodies inspect health facilities including this facility	2 (2)	2 (2)	4 (5)	35 (42)	40 (48)
The health care regulatory agencies monitor practitioners and facilities for compliance	-	2 (2)	2 (2)	43 (52)	36 (43)
The inspections are scheduled on a routine/regular basis	2(2)	4 (5)	11 (13)	37 (45)	29 (35)
We have the resources to ensure regulatory compliance	-	4 (5)	13 (16)	33 (40)	33 (40)
Facility is often given feedback on areas to make improvement after inspection	-	4 (5)	4 (5)	33 (40)	42 (50)
The inspection officials are often very friendly and supportive	2(2)	4 (5)	6 (7)	36 (43)	35 (42)
The health inspectors often harass and instil fear to private health care providers	3 (4)	18 (22)	4 (5)	33 (40)	25 (30)
The inspections are undertaken to promote public safety	2(2)	2(2)	4 (5)	45 (54)	30 (36)
Facilities found to operate illegally are often closed	2(2)	4 (4)	2(2)	44 (53)	31 (37)
Practitioners found to operate illegally are often taken to court and charged	2 (2)	4 (4)	4 (4)	45 (54)	28 (34)

# Inspection of professional practice

This variable was assessed against whether the inspections were periodic, if feedback was given to healthcare providers after inspection and whether there was enforcement for noncompliance (Table 4). The results highlight perceptions about regulatory inspections and compliance in healthcare facilities. The respondents generally agreed that regulatory bodies conduct inspections (87%) and monitor compliance (95%). However, opinions vary on the frequency of scheduled inspections (80%) and whether facilities have adequate resources for compliance (73%). The feedback mechanisms seem inconsistent, with fewer facilities reporting regular feedback after inspections (91%). Stakeholder consultation also received mixed feedback,

with some respondents feeling consulted (91%) but others less so (82%). There is a mixed perception of inspection officials' demeanor, with some finding them supportive (87%) and others feeling harassed (56%). Despite this, there is strong agreement that inspections aim to promote public safety (90%). Responses also indicate confidence in regulatory actions against illegal operations, with closures of facilities (89%) and legal actions against practitioners (88%) being reported.

# Quality assurance mechanisms

The study also assessed the quality assurance mechanism put in place by private health care providers. The study assessed the existence of standards and guidelines and quality improvement (QI) teams (Table 5).

Table 5: Quality assurance mechanisms in health facilities.

Statement	SD N (%)	D N (%)	NS N (%)	A N (%)	SA N (%)
The facility has standard treatment guidelines (STGs) to manage various illness	-	-	4 (4)	52 (63)	27 (33)
Patients are managed in line with the STGs for various conditions	-	-	8 (10)	51 (61)	24 (29)
Medicines and health commodities are ordered in line with the STGs	-	-	9 (11)	50 (60)	24 (29)
We utilize National essential medicines list in ordering our supplies	-	-	7 (8)	44 (53)	32 (39)
The facility has an internal quality improvement team	-	4 (4)	12 (15)	41 (49)	26 (31)
The QI team has an annual implementation plan	-	6 (7)	13 (16)	42 (51)	22 (27)
The facility always has a QI plan and a budget for QI activities	-	4 (4)	12 (15)	41 (49)	26 (31)
The facility has regular QI meetings	-	2(2)	18 (22)	41 (50)	22 (27)
There exist minutes of the QI meetings held on a regular basis	-	2(2)	16 (19)	42 (51)	23 (28)
The QI team often conduct health facilities self-assessments	-	2 (2)	12 (15)	45 (54)	24 (29)
The facility has a QI champion	-	2(2)	18 (22)	43 (52)	20 (24)

Table 6: Provision of quality health services.

Statement	SD N (%)	D N (%)	NS N (%)	A N (%)	SA N (%)
Safety					
Patient safety is our priority	3 (4)	5 (6)	2 (2)	33 (39)	40 (49)
We have segregated waste disposal mechanisms	-	-	-	26 (31)	57 (69)
We have clean running water to keep the facility clean	5 (6)	2 (2)	-	31 (38)	45 (54)
Sometimes patients report adverse drug events	-	9 (11)	2(2)	37 (45)	35 (42)
The facility has medical error reporting tools	5 (6)	5 (6)	9 (11)	25 (30)	39 (47)
We sometimes experience medical errors in this facility	5 (6)	10 (12)	13 (16)	20 (24)	35 (42)
Medical errors are reported in a timely manner	-	2(2)	9 (11)	38 (46)	34 (41)
We have experienced cases of accidental falls of patients in this facility	3 (4)	11 (13)	17 (21)	26 (31)	26 (31)
We have experienced cases of hospital related infections	-	16 (19)	11 (13)	26 (31)	30 (36)
Patient Centered Care					
Patients' preferences are taken into consideration during treatment	3 (4)	3 (4)	2 (2)	49 (57)	27 (33)
Staff often inform patients on how to prevent future occurrence of their illness	3 (4)	3 (4)	2 (2)	36 (43)	45 (55)
The environment is clean and comfortable	3 (4)	3 (4)	2 (2)	46 (55)	32 (35)

The responses reflect the implementation and perception of quality improvement (QI) practices in a healthcare facility. It appears that while the majority agree that standard treatment guidelines (STGs) are in place for managing illnesses (92%) and that patients are managed accordingly (90%), there is less certainty about ordering medicines and health commodities in line with STGs (89%) and using the National Essential Medicines List Regarding QI practices, there is an (92%). acknowledgement of an internal QI team (86%) and an annual implementation plan (78%). However, fewer respondents reported having a dedicated QI budget (77%) or regular OI meetings (72%). The frequency of health facility self-assessments by the QI team also varies (83%), and fewer facilities have a designated QI champion (76%).

# Provision of quality health services

The dependent variable, provision of quality health services, was measured against safety and patient-centered care (Table 6).

The survey results reflect perceptions regarding safety protocols and patient-centered care in healthcare facilities. Patient safety is considered a priority by most respondents (88%), but there are concerns about infrastructure, such as segregated waste disposal (69%) and clean water availability (92%), for maintaining facility cleanliness and infection prevention. The adequacy of personal protective equipment for staff is acknowledged by many (97%). In terms of medical errors, while there are reporting tools available (83%),

there is variability in reporting frequency (87%) and subsequent action to reduce errors (87%). Instances of patient falls (62%) and hospital-related infections (67%) were reported. Patient preferences (90%) and dignity (98%) are considered during patient-centered care. However, communication on managing current conditions (88%), preventing future illnesses (97%), and

involving family in decision-making (98%) show varying degrees of consistency. Overall, while the facility demonstrates efforts toward patient safety and patient-centered care, there are opportunities to improve infrastructure, enhance medical error reporting processes, and ensure more consistent patient engagement and communication practices.

Table 7: Correlation coefficient.

		Quality provision	Licensing	Training regulation	Inspection of practice	Quality assurance
	Correlation coefficient	1.000				
Quality provision	Sig. (2-tailed)					
	N	83				
	Correlation coefficient	-0.010	1.000			
Licensing	Sig. (2-tailed)	0.931				
	N	83	83			
T	Correlation coefficient	0.319**	0.360**	1.000		
Training regulation	Sig. (2-tailed)	0.003	0.001			
regulation	N	83	83	83		
Turan a ation of	Correlation coefficient	0.575**	0.021	0.519**	1.000	
Inspection of	Sig. (2-tailed)	0.000	0.848	0.000		
practice	N	83	83	83	83	
	Correlation coefficient	0.582**	0.495**	0.403**	0.365**	1.000
Quality assurance	Sig. (2-tailed)	0.000	0.000	0.000	0.001	
	N	83	83	83	83	83

<sup>\*\*</sup>Correlation is significant at the 0.01 level (2-tailed).

Table 8: Multivariate analysis.

Model		Unstandardized coefficients		Standardized coefficients	t	Sig.	Collinearity statistics	
		В	Std. error	Beta			Tolerance	VIF
	(Constant)	69.963	11.215		6.239	0.000		
	Licensing	-0.528	0.172	-0.309	-3.071	0.003	0.628	1.592
1	Training regulation	0.020	0.223	0.010	0.089	0.929	0.546	1.832
	Inspection of practice	0.362	0.137	0.299	2.639	0.010	0.493	2.027
	Quality assurance	0.860	0.163	0.568	5.292	0.001	0.552	1.811

<sup>&</sup>lt;sup>a</sup> Dependent variable: provision of quality health services.

# Inferential statistics

Bivariate analysis was performed to establish whether there was a relationship between each independent variable and the dependent variable. The Spearman rank correlation coefficient was used to evaluate the independence of the categorical variables. The results were significant at p<0.05 (Table 7).

The results indicate that there is a positive and significant association between professional training regulations (p=0.003, r=0.319), inspection of practice (p=0.001, r=0.575), and quality assurance mechanisms (p=0.001, r=0.582) and the provision of quality health services. A negative and insignificant relationship was established

between licensing and the provision of services. The results are significant at p $\!<\!0.05$ .

## Multivariate analysis

The model summary illustrates that the independent variables in the study, i.e., quality assurance, training regulation, licensing and inspection of practice, contribute to 47.9% of the variation in the dependent variable (provision of quality health services). Furthermore, the results show that the study model was significant at p<0.05. In terms of combined relationship licensing (p=0.003), inspection of practice (p=0.01) and quality assurance mechanisms (p=0.001) were significantly

associated with the provision of quality health services (Table 8).

### DISCUSSION

Health regulatory agencies regulate institutions, professionals, and the market. Professional regulation includes accreditation, licensure, registration, certification, and recertification. 14 These regulations and standards are widely seen as crucial for enhancing professional practice and patient care. However, their enforcement remains inadequate in LMICs, primarily due to insufficient financial and human resources. 15 Health professional boards bear the responsibility for overseeing health worker training, licensure, and practice, yet efforts to advance health worker education and practice have not comprehensive across regulatory professional associations, and academic institutions. 16 Responsive regulation emphasizes a balanced approach of persuasion and punishment, necessitating resources, expertise, and constructive regulatory relationships to effectively ensure compliance, detect noncompliance, and refine regulatory strategies. 10 Critics argue that regulators often seem disconnected from local realities, particularly in remote areas, with frontline healthcare providers feeling that regulators prioritize fee collection over upholding professional standards and ethics. Health professional regulation could be strengthened through enhanced social accountability by simplifying procedures for reporting malpractice and negligence and responding promptly to such reports by the community. 10

The provision of quality health services was the dependent variable of the study and was assessed through providers' perceptions of safety and patient-centered care. The findings indicated disagreement regarding the reporting of medical errors for safety monitoring. Research suggests that approximately 10% of patients suffer harm during medical care, with half of these incidents preventable. Adverse events occur across different levels of care: primary care, long-term care settings and medical care. Over 90% agree that patient preferences are considered in patient-centered care, which aims to tailor care to individual and family preferences, needs, and values.

The study investigated health professional licensing as the first independent variable, emphasizing its regulatory processes and impact on service quality. Licensing involves rigorous assessments of training, conduct, and clinical performance before practitioners are registered and assigned unique numbers.<sup>8</sup> This process ensures ongoing quality control through active registry updates and mandatory credential updates. The absence of regulatory oversight undermines professionalism and compliance, impacting nursing standards and license validity.<sup>10</sup> Interestingly, the study identified a significant but negative relationship between licensing and the provision of quality health services. Stringent licensing requirements, while aiming to uphold standards, may

inadvertently limit practitioner numbers and exacerbate healthcare access disparities, especially in underserved areas. Financial barriers associated with licensing costs dissuade potential healthcare professionals, particularly those from marginalized backgrounds, from entering the field or maintaining their licenses. Navigating these complexities is crucial to strike a balance between regulatory requirements and ensuring equitable access to quality healthcare services, particularly in LMICs. The move towards online licensing and continuing professional development (CPD) platforms is seen as a positive step for efficiency and compliance. 10 However, healthcare providers in Kenva and Uganda have expressed concerns about regulatory effectiveness and proposed decentralizing regulatory oversight as a potential solution, despite acknowledged implementation challenges.<sup>15</sup>

The regulation of training by health professionals was the second independent variable. More than 80% of the respondents and their respective facilities seem to have complied with the professional regulatory requirements on training.8 However, there was no significant relationship between training and providing quality healthcare. Overall, while training health professionals is undoubtedly essential for ensuring competency and skills development, its direct impact on the delivery of quality healthcare may be influenced by various contextual, organizational, and systemic factors.<sup>22</sup> Inadequate regulation of health professional training is seen to lead to an increasing lack of knowledge, skills and ethics among some new doctors and nurses/midwives in Uganda and Kenya.<sup>10</sup> Medical and nurse training schools over-enrol students, consequently providing insufficient mentoring, supervision and practical experience. Furthermore, undertaking CPD has been reported to be superficial because, for the sole purpose of collecting CPD points to renew licenses, calling for regulators needs to ensure that CPD courses genuinely develop professionals' knowledge and skills.10 The regulation of medical education and health professionals is an important aspect of the governance of health systems. This has been an area of concern and institutional weakness in many LMICs. The underfunded public sector, poorly regulated private sector, and expanding role of commercial actors in healthcare and medical education have posed major regulatory challenges.<sup>23</sup> There are also related concerns about poor regulation and standards of health professional education and training in LMICs, particularly in private and training colleges. 15 Professional universities regulators and training schools are advised to improve communication about what professional standards mean in practice to increase compliance and the quality of professional practice.<sup>10</sup>

The inspection of professional practice was the third independent variable. This showed a significant positive relationship with the quality of healthcare provision. Regulatory oversight ensures adherence to standards and promotes safety, benefitting both patients and healthcare

providers.<sup>24</sup> Regular inspections identify areas for improvement, enhancing overall care standards and patient safety. They inform evidence-based practices and policies, driving continuous quality improvement in healthcare systems. Despite these benefits, some providers perceive inspections as intimidating and resource intensive, with concerns about their timing and focus.<sup>10,14</sup> Furthermore, private healthcare facilities undergo more frequent scrutiny than do public and faith-based institutions, emphasizing compliance with quality protocols.<sup>25</sup> Balancing regulatory rigour with practical support and local needs is essential for effective healthcare quality management and maintaining public trust.

A positive and significant association between health care providers' perceptions of quality assurance mechanisms in health facilities and their association with the provision of quality health services was established. Healthcare staff are the primary drivers of improving the quality of care, but little is known about how they perceive quality assurance programs in resource-limited settings.<sup>26</sup> Overall, while there is significant adherence to treatment guidelines and some infrastructure for QI in place, there are opportunities to enhance consistency in QI practices and resource allocation for sustained improvement efforts within the surveyed healthcare facility. Quality assurance processes ensure adherence to standards, protocols, and continuous improvement initiatives in healthcare. Standards ensuring the safety of patients can be developed and disseminated for a multitude of reasons; they can either establish minimum performance criteria or assure continuity and homogeneity among individuals and institutions and establish expectations.<sup>27</sup> Each health facility should establish a quality improvement team (QIT), and for larger health facilities, work improvement teams (WITs) should be established.<sup>28</sup> The QITs ensure that quality improvement (QI) is a permanent agenda in health management team meetings; develop health facility QI plans and budgets in line with the identified QI priorities of the health facility; reverse implementation of QI plans/activities; and evaluate QI plans/activities and conduct health facility assessments.<sup>28</sup> Systemic and collaborative regulation by an oversight body or merged regulators is proposed as a way of addressing individual and institutional failures in health systems. 10

# Limitations

This study was undertaken in a region that is sparsely populated with few health facilities that are widely distributed in the region. These geographical characteristics may inhibit access of professional regulators to the area for inspection of health facilities and professionals. These unique challenges limit generalization of the results to other Kenyan counties, unless counties in the northern region of the country with similar characteristics as Wajir County.

### CONCLUSION

Healthcare providers, especially management, should collaborate closely with professional regulators to uphold standards and ensure the delivery of quality health services. Partnering with regulators enables effective regulation of healthcare practices, including investigating disciplinary cases and administering appropriate actions against professionals at fault. Regular inspections by friendly and supportive regulatory bodies are essential to maintain compliance and improve healthcare quality. The management of health facilities must allocate resources for regulatory compliance, including budgeting for ongoing quality improvement (OI) activities. It is crucial for health facilities to establish and maintain an internal OI team, develop annual implementation plans, conduct regular QI meetings with documented records, and perform self-assessments. A dedicated QI champion should lead these efforts to ensure continuous improvement in healthcare services. These measures collectively support sustainable enhancements in healthcare quality and regulatory adherence.

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# REFERENCES

- 1. World Health Organization. The World health report: 2000. health systems: improving performance. World Health Organization; 2000.
- 2. World Health Organization. Everybody's business-strengthening health systems to improve health outcomes: WHO's framework for action. 2007. Available from: https://www.who.int/publications/i/item/everybody-s-business----strengthening-health-systems-to-improve-health-outcomes. Accessed on 2 June 2024.
- 3. Browne J, Bullock A, Poletti C, Cserző D. Recent research into healthcare professions regulation: a rapid evidence assessment. BMC Health Serv Res. 2021;21:1-12.
- 4. Risso-Gill I, Legido-Quigley H, Panteli D, McKee M. Assessing the role of regulatory bodies in managing health professional issues and errors in Europe. Int J Qual Health Care. 2014;26(4):348-57.
- 5. McCarthy CF, Riley PL. The African health profession regulatory collaborative for nurses and midwives. Hum Res Health. 2012;10:1-5.
- 6. Ndomondo-Sigonda M, Miot J, Naidoo S, Dodoo A, Kaale E. Medicines regulation in Africa: current state and opportunities. Pharm Med. 2017;31:383-97.
- 7. Mulaki A, Wachira S. Kenya Health System Assessment. 2019. Available from: http://www.healthpolicyplus.com/ns/pubs/11328-

- 11600\_KenyaHSAReport.pdf. Accessed on 2 June 2024.
- Ministry of Health. Kenya Health Workforce Report: The Status of Healthcare Professionals in Kenya, 2015. 2015. Available from: https://taskforce.org/wp-content/uploads/2019/09/ KHWF\_2017Report\_Fullreport\_042317-MRcomments.pdf. Accessed on 2 June 2024.
- Muthaka DI, Kimani DN, Mwaura S, Manda DK. A review of the regulatory framework for private health care services in Kenya. Kenya Institute for Public Policy Research and Analysis. 2004.
- 10. McGivern G, Seruwagi G, Wafula F, Kiefer T, Nakidde C, Museiga A, et al. Strengthening health professional regulation in Kenya and Uganda: research findings policy brief. Available from: https://www.chasei.org/wp-content/uploads/2021/12/11a\_Policy\_Brief\_Strengthening-Health-Professional-Regulation\_in-Kenya\_and\_Uganda.pdf. Accessed on 2 June 2024.
- Njiru JW, Mwangi EM, Oluoch M. Determinants of adverse drug reactions reporting in retail chemists in Nairobi County, Kenya. Int J Community Med Public Health. 2020;7(10):3847-54.
- 12. Ministry of Health. Kenya Master Health Facility List: Find all the health facilities in Kenya. 2021.
- 13. Krejcie RV, Morgan DW. Determining sample size for research activities. Educ Psychol Measure. 1970;30(3):607-10.
- 14. Sutherland K, Leatherman S. Regulation and quality improvement: a review of the evidence. Health Foundation: 2006.
- 15. McGivern G, Wafula F, Seruwagi G, Kiefer T, Musiega A, Nakidde C, et al. Deconcentrating regulation in low- and middle-income country health systems: a proposed ambidextrous solution to problems with professional regulation for doctors and nurses in Kenya and Uganda. Hum Res Health. 2024;22(1):13.
- 16. Gross J, Mccarthy C, Kelley M. Strengthening nursing and midwifery regulations and standards in Africa. Afr J Midwife Women's Health. 2011;5(4):185-8.
- 17. Schwendimann R, Blatter C, Dhaini S, Simon M, Ausserhofer D. The occurrence, types, consequences and preventability of in-hospital adverse events- a scoping review. BMC Health Serv Res. 2018;18(1):521.
- Busse R, Klazinga N, Panteli D, Quentin W. Improving healthcare quality in Europe: characteristics, effectiveness and implementation of different strategies. Health Policy Series: 53. World Health Organization. Regional Office for Europe; 2019.

- 19. Slawomirski L, Auraaen A, Klazinga NS. The economics of patient safety: strengthening a value-based approach to reducing patient harm at national level. OECD Health Working Papers, No. 96, OECD Publishing, Paris; 2017.
- 20. World Health Organization. Global patient safety action plan 2021-2030: towards eliminating avoidable harm in health care. World Health Organization; 2021.
- 21. O'Neill N. The eight principles of patient-centered care. Oneview Healthcare; 2022.
- 22. Aftab W, Khan M, Rego S, Chavan N, Rahman-Shepherd A, Sharma I, et al. Variations in regulations to control standards for training and licensing of physicians: a multi-country comparison. Hum Res Health. 2021;19:1-0.
- 23. Keshri VR, Sriram V, Baru R. Reforming the regulation of medical education, professionals and practice in India. BMJ Glob Health. 2020;5(8):e002765.
- Grimm N. Healthcare regulations: Who does what? Footprints- Training and Etracking Solutions Blog; 2014.
- 25. Mwangi E, Mwaura-Tenambergen W. Healthcare providers' engagement in strategic purchasing of outpatient services: a cross-sectional analysis of the National Health Scheme in Kenya. Pan-Afr J Health Environ Sci. 2024;3(1):137-58.
- 26. Henker H, Fox-Lewis S, Tep N, Vanna D, Pol S, Turner C. Healthcare workers' perceptions of an organizational quality assurance program implemented in a resource-limited setting: a qualitative study. Health Promot Perspect. 2018:8(3):179.
- 27. Kohn LT, Corrigan JM, Donaldson MS. Setting performance Standards and expectations for patient safety. To Err is Human: Building a Safer Health System. National Academies Press (US); 2000.
- 28. Ministry of Health. Republic of Kenya. Quality of Care Certification Manual for the Kenyan Health Sector. 2020. Available from: http://guidelines.health.go.ke:8000/media/Quality\_of\_Care\_Certification\_Manual\_for\_the\_Kenyan\_Health\_Sector-March2020.pdf. Accessed on 2 June 2024.

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