PROFESSIONAL HEALTH PROVIDERS' GOVERNANCE ACCOUNTABILITY MECHANISMS AS A DETERMINANT OF DELIVERY OF QUALITY HEALTH SERVICES IN KENYATTA NATIONAL HOSPITAL, KENYA

Lumbi Wa M'Nabea
Department of Health Systems Management, Kenya Methodist University

Wanja Tenambergen
Department of Health Systems Management, Kenya Methodist University

Kezia Njoroge
Department of Health Systems Management, Kenya Methodist University

International Academic Journal of Health, Medicine and Nursing (IAJHMN) | ISSN 2523-5508

Received: 2nd September 2020

Published: 10th September 2020

Full Length Research

Available Online at: http://www.iajournals.org/articles/iajhmn_v2_i1_117_128.pdf

Citation: M'Nabea, L., Tenambergen, W. & Njoroge, K. (2020). Professional health providers' governance accountability mechanisms as a determinant of delivery of quality health services in Kenyatta National Hospital, Kenya. *International Academic Journal of Health, Medicine and Nursing, 2*(1), 117-128

ABSTRACT

Introduction: Governance in essence is exercise of authority. It entails decision making and implementation, competent control, provision of standards and accountability. **Objectives:** The study set out to determine influence of professional health providers' governance accountability mechanisms in delivery of quality health services in Kenyatta National Hospital, Kenya. Specific objectives were to establish influence of continuous professional education for health providers and peer review on delivery of quality health services in the hospital. **Methods:** This was a cross-sectional descriptive study, that used mixed methods design. Stratified and purposive sampling was used to get sample of 369 respondents and four key informants respectively. **Results:** Logistic regression results indicated that professional health providers not registered with professional bodies were 0.216 times less likely to deliver quality health services on time as compared to those who are registered. There being consequences for breach of self-regulation was 2.086 times more likely to enhance delivery of quality health services as compared to having no consequences. Significant relationship exists between continuous professional education for professional health providers and delivery of quality health services on time ($p<0.05$). Continuous training made application of clinical guidelines 2.157 times more likely in delivery of quality services on time. Not having the right people in the right job was 0.307 times less likely to deliver quality health services on time as compared to having the right people in the right jobs in the hospital. **Conclusion:** The study concluded that professional health providers' governance accountability mechanisms is a determinant of delivery of quality health services in KNH. **Recommendations:** The study recommends that the hospital should ensure: i) professional health providers are registered and licensed to practice by their professional bodies, ii) continuous professional education opportunities for professional health providers are available and monitored for actual improvements in professional and clinical governance accountability, and iii) hospital management invests in technologies and infrastructure that improve patients waiting time.

Key Words: *governance, accountability mechanisms, determinant, delivery of quality health services, Kenyatta National Hospital*

INTRODUCTION

Governance is one of the indispensable components of health systems. It implies ensuring competent control, decision making and implementation, affiliation building, provision of appropriate regulations, standards and accountability (World Health Organization [WHO], 2010). Answerability or being held to account is a segment of governance that ensures abuse is eradicated, conformity with procedures and standards (Brinkerhoff, 2004). According to Chan et al (2008), effective accountability structures and systems are means to actualize and make viable the assigned activities of governance, as it is an intrinsic aspect of governance. Health systems have several key objectives and the most fundamental is to enhance the health of the populace (Watkins, et al., 2018).

Globally, there has been a growing pressure placed on physicians, hospitals and other healthcare stakeholders to enhance the quality of care, patient safety and improve expenditures concerning health service delivery, which has resulted in renewed focus on governance accountability for delivery of quality care (Bleich, Ozaltin, & Murray, 2009). Governance accountability mechanisms thus have been highly prioritized to aid efforts aimed at mobilizing resources for healthcare besides growing demand for ascertaining results associated with those inputs (WHO, 2010). Governance accountability mechanisms can be useful in curbing unnecessary requests of medical tests and procedures aimed at financial benefit for health providers at the expense of service users, under-the-table payments for care, staff absenteeism, and deviation of government resources for personal gain (Fisher, 2018). Additionally, delivery of substandard health services also occurs frequently among healthcare providers.

Moreover, at the government, hospital, and health care provider status, corruption plays a major role in health care operations in Africa (Mostert, et al., 2015). Simultaneously, in Africa, serious resource constraints coupled with proliferation of health system players have given rise to management problems and confusion of responsibilities, duties and roles (Van Belle & Mayhew, 2016). Consequently, governance accountability is needed in the African setting to shape the capacity of health systems to produce viable, equitable, demonstrable, stable quality health care and to survive crisis (Greer, Wismar, & Figueras, 2016).

Kenyatta National Hospital (KNH), with a bed capacity of approximately 2000, is the largest teaching and national referral hospital in Kenya. The main role of the Hospital is to accept and offer treatment to patients on referral from County hospitals at Level 5 and below. However, only about 4% of patients are referred to the hospital from lower tier hospitals as most of the patients are walk-in users (Ngure, 2016).

To enhance service delivery and improve quality of care, KNH has a number of initiatives to address its strategic objectives which include customer service delivery charter that is aimed at reducing waiting time of patients. Another initiative is patient centered care guidelines whose implementation is supported by quality health care department across the hospital. Finally, patient safety indicators are supposed to be reported to the Board quarterly including infection prevention and control analysis on hospital acquired infections as well as medical errors which are reported and reviewed in the clinical areas.

However, despite the above initiatives among others, KNH has experienced numerous patient complaints of unsatisfactory delivery of quality health services. Mwanga (2013) examined factors affecting patient satisfaction at KNH and found out that 89.9% of respondents said that the clinic was crowded. In the same study, respondents rated technical quality at 64.8% while 41.6% said the doctors rarely give them advice about their medical conditions. At the same time, 30.3% of the respondents said they neither participated nor gave their views in reaching resolutions about their treatment and care. Furthermore but recently, KNH admitted a grievous mistake in a case where brain surgery was performed on the wrong patient (Njeru, 2018).

Therefore, this study aimed at establishing the influence of professional health providers' governance accountability mechanisms on delivery of quality health services in KNH.

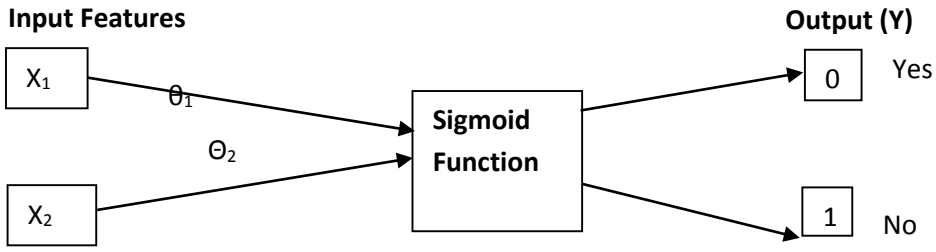
RESEARCH METHODS

This was a cross-sectional descriptive study that used mixed methods. The study site was Kenyatta National Hospital (KNH) in Nairobi, Kenya. Both quantitative and qualitative data was collected using a structured questionnaire and key informant interview guide respectively. The target population comprised all 4,715 staff in KNH distributed among various professional cadres of clinical, non-clinical and management. The Yamane (1967), formula was applied to determine sample size. Stratified sampling was used with each department treated as a stratum and represented in the sample as a percentage proportion of its size in the population. Random sampling by ballot was finally used to get specific individual respondents from each department. Purposive sampling was used to select four key informants who were Heads of Departments (HODs) from Clinical Services, Quality Health Care, Corporate Services, and Nursing Services. Questionnaires were hand delivered to respondents and tele-audio interviews conducted with the 4 HODs. Out of 369 questionnaires distributed, 360 were fully completed and hence included in this analysis. Cronbach's Alpha coefficient was used to test reliability of the research instrument with a measure of > 0.07 being regarded as reliable. Descriptive and inferential statistical analysis was performed by use of SPSS version 21. Logistic regression was used because the dependent variable categorical and binary in nature. The two possible outcomes were coded thus; Yes = 0 and No=1. The output generated coefficients, standard errors, significance levels and odds ratio of the formula that predict logit transformation of the probability of presence of the characteristic of interest. Logistic regression is expressed as:

$$\text{logit}(p) = b_o + b_1X_1 + b_2X_2 + b_3X_3 + \ldots\ldots + bnXn$$

Where: p = probability of presence of the characteristic of interest; b_0 = representation of the reference group; b_1 = the regression coefficients associated with the reference group; $X_{1\ldots n}$ = explanatory variables

Logistic Regression Model:



RESEARCH RESULTS

The results generated the frequencies, percentages, coefficients, standard errors, odds ratio and significance levels at 95% confidence interval and $p<0.05$. The socio-demographic characteristics of respondents are presented in Table 1.

Table 1: Demographic Characteristics of the Respondents

	Variable	Frequency	Percent
Professional Cadre	Management staff	42	11.7
	Non-Clinical staff	104	28.9
	Clinical staff	214	59.4
Gender	Male	201	55.8
	Female	159	44.2
Age	< 25 years	9	2.5
	25-34 years	161	44.7
	35-44 years	139	38.6
	45-54 years	45	12.5
	> 55 years	6	1.7
Education Level	Certificate	55	15.3
	Diploma	140	38.9
	Degree	142	39.4
	Masters	23	6.4
Years of Experience	< 3 years	55	15.3
	3-9 years	189	52.5
	10-15 years	89	24.7
	16-19 years	7	1.9
	20-24 years	17	4.7
	>25 years	3	0.8

More than half of the respondents were male 201 (55.8%) while 159 (44.2%) were female. Most of the respondents 161 (44.7%) were aged between 25-34 years, 139 (38.6%) were aged between 35-44 years and together, these two age groups made up 300 (83.3%) of the study respondents. These results imply that majority of the employees at KNH are young people.

The majority of respondents 142 (39.4%) were undergraduate degrees followed closely by diploma holders who were 140 (38.9%). Respondents with the specialist degrees at masters level were 23 (6.4%). The results are an indication of highly trained pool of health workers at the hospital. This observation is inconsistent with distribution of health workers in most of health facilities in the country where majority of health workers are certificate and diploma holders. This phenomenon could be attributable to the fact that KNH is a level 6 teaching and referral hospital hence attracting and retaining highly trained health workforce. Work experience of the respondents is an indicator of employees' ability to perform their duties effectively and efficiently having been used to laid down procedures, guidelines, policies and protocols. More than half of the respondents 189 (52.5%) had worked for the hospital for between 3-9 years at KNH.

Responses on Delivery of Quality Health Services in KNH

Table 2: Responses on Delivery of Quality Health Services in KNH (N=360)

	Variable	Frequency	Percent
What do you understand by people-Centred	Respect for patient preferences and needs	79	21.9
	Listening and answering to patients' questions and concerns	189	52.5
	Core developing care management plan with patient involvement	82	22.8
	None of the above	10	2.8
There are mechanisms in the hospital to break language barrier between patient and service provider?	Yes	294	81.7
	No	66	18.3
Safety measures are adhered to in delivery of health services at KNH	Yes	320	88.9
	No	40	11.1
Emergencies are always acted upon as quickly as possible	True	286	79.4
	False	74	20.6
All interventions are always designed to minimize medical errors	True	269	74.7
	False	91	25.3
There are clear guidelines to prevent hospital acquired infections	True	266	73.9
	False	94	26.1
Thorough review of medications in use by the patient is carried out to prevent interactions with new medication	True	170	47.2
	False	190	52.8
Services at KNH are delivered on time	Yes	293	81.4
	No	67	18.6
Delays in providing services are kept to a minimum	True	291	80.8
	False	69	19.2
An efficient flow system for scheduling patients is in place	True	291	80.8
	False	69	19.2
Patients are not notified of projected waiting time	True	205	56.9
	False	155	43.1
Situations requiring urgent interventions are not acted upon as quickly as possible	True	88	24.4
	False	272	75.6

Half, 189 (52.5%) said people-centredness was listening and answering to patients' questions and concerns, 82 (22.8%) said it was core in developing care management plan with patient involvement. Majority of the respondents 294 (81.7%), and 320 (88.9%) said that the hospital has mechanisms to break language barrier between patient and service provider, and safety

measures are adhered to in delivery of health services respectively. On timeliness of delivery of health services, majority of the respondents 293 (81.4%) said that services are delivered on time and that there is efficient flow system for scheduling patients 291 (80.9%). However, over half of the respondents 205 (56.9%) agreed that patients are not notified of projected waiting time.

Governance Accountability Mechanisms of Professional Health Providers

Table 3: Responses on Governance Accountability Mechanisms of Professional Health Providers (N=360)

	Variable	Frequency	Percent
Are you a registered member of a professional body?	Yes	299	83.1
	No	61	16.9
Self-regulated by Certification	Yes	331	91.9
	No	29	8.1
Self-regulated by accreditation of training schools or colleges	Yes	307	85.3
	No	53	14.7
Self-regulated by issuance of practice license	Yes	277	76.9
	No	83	23.1
Are there consequences of a member of your profession who breaches self-regulation	Yes	176	48.9
	No	184	51.1
Do you get opportunities for Continuous Professional Education (CPE)?	Yes	274	76.1
	No	86	23.9
CPE Trainings improved my clinical knowledge base	Yes	92	25.6
	No	268	74.4
CPE Trainings improved my clinical skills	Yes	174	48.3
	No	186	51.7
CPE Trainings enabled me to use clinical guidelines accurately	Yes	125	34.7
	No	235	65.3
CPE Trainings enabled me interact better with patients	Yes	80	22.2
	No	280	77.8
CPE Trainings did not make a difference	Yes	17	4.7
	No	343	95.3

Majority of the professional health providers 299 (83.1%) are registered members of their respective professional bodies. They are self-regulated by certification and practise licenses. However, half of the respondents 184 (51.1%) indicate that there are no consequences for breach of self-regulation rules. Asked what types of consequences are faced only 51 (14.17%) respondents stated that *"Defaulters are de-registered plus other disciplinary measures."* It is further observed majority of respondents 274 (76.1%) said get opportunities for CPE and 343 (95.3%) said CPE trainings did not make a difference.

Bivariate Logistic Regression Analysis

The results indicate that a statistically and significant relationship exist between Professional Health Providers' Governance Accountability Mechanisms and delivery of quality health services in KNH (Table 4). Health providers who are not registered with a professional body are 0.216 times less likely to deliver quality health services on time as compared to the providers who are registered with a professional body. The results were significant at 95% confidence interval ($p<0.05$).

Table 4: Relationship between Professional Health Provider Governance Accountability Mechanisms and Delivery of Quality Health Services

Variables: Governance Accountability Mechanism of Professional Health Provider	B	S.E.	P - value	Odds Ratio
Registered member of professional body				
Registered (reference)	-	-	-	1.000
Not Registered	-1.534	0.288	0.001	0.216
Consequences for breaching self-Regulation rules				
No Consequences (reference)	-	-	-	1.000
There are Consequences	0.735	0.290	0.011	2.086
CPE Opportunities				
There are CPE Opportunities (reference)	-	-	-	1.000
No CPE opportunities	-1.215	0.293	0.001	0.297
Clinical Guidelines				
CPE training did not make me apply clinical guidelines accurately (reference)	-	-	-	1.000
CPE training made me apply clinical guidelines accurately	0.769	0.266	0.004	2.157
Right people in the right jobs				
There are right people in right jobs (reference)	-	-	-	1.000
No right people in right jobs	-1.180	0.382	0.002	0.307

The results further indicated that breach of self-regulation rules is significantly associated with the delivery of quality health services in KNH ($p<0.05$). Professional health providers who breached self-regulation rules are 2.086 times more likely to face consequences for their actions. Lack of CPE opportunities is 0.297 times less likely to enhance delivery of quality health services on time in KNH. CPE training made professional health provider apply clinical guidelines 2.157 times more likely to deliver quality health services on time as compared to those providers who did not undertake the training in KNH. This indicates a statistically significant relationship between CPE training and timely delivery of quality health services in KNH ($p<0.05$).

DISCUSSION

Responses on Delivery of Quality Health Services in KNH

The aim of this study was to assess the influence of professional health providers' governance accountability mechanisms on delivery of quality health services in KNH. Majority of the respondents (81.7%) said that the hospital has mechanisms to break language barrier between patient and service provider, and (88.9%) agreed patient safety measures are adhered to in delivery of health services. These results are similar to results found by Price et al., (2015) who concluded that patient-centredness is a critical element of healthcare policy. These results are further supported by Chan et al., (2018) who said that those charged with the responsibility for healthcare delivery need accountability mechanisms to ensure that ethical standards and the interests of the service users are well taken care of.

Asked the reasons for delayed services most of the key informants said it was due to inadequate workforce and old infrastructure. For instance, key informant A said *"You know KNH is an old hospital with aging infrastructure and lacks modern equipment besides inadequate staff."* These results agree with a study where waiting time of between 60 and 120 minutes was required by 74% of health care service consumers to get hospital registration and be attended to by a service provider for outpatient services in Nigeria (Oche & Adamu, 2013).

Whereas, delivery of quality health services is expected to be people-centred, safe and timely amongst other parameters the respondents in this study indicated that some of the parameters of delivery of quality health services were missing in KNH. For instance, only 21.9% agreed that people-centredness was about respect for patient preferences and needs yet patient preferences and needs are central to people-centred care. It was also observed that only 22.8% agreed that people-centredness was about engaging patients in their care management plan. Thus, this demonstrates lack of people-centred care and by extension compromised delivery of quality health services in KNH. These results agree with Asefa & Bekele (2015) who observed patients face poor engagements with providers of health care and are not included in health care decision-making or do not get information about the details of their care.

Governance Accountability Mechanisms of Professional Health Providers

Results indicate that 83.1%) of the professional health providers are registered members of their respective professional bodies. They are self-regulated by certification and practise licenses. However, half of the respondents 184 (51.1%) indicate that there are no consequences for breach of self-regulation rules. Asked what types of consequences are faced only 51 (14.17%) respondents stated that "*They faced de-registration plus other disciplinary measures."* This in effect renders peer review mechanisms on self-regulation inconsequential and of no effect hence a likelihood of exposing patients to unethical practises by professional health providers.

Peer review is an important governance accountability mechanism for ensuring professional conduct and ethics in the delivery of quality health services. Professional bodies ensure adherence to laid down codes of conduct and are responsible for monitoring and evaluation of its members for self-regulation. Therefore, registration and licensing of members are key

indicators of professionalism and the likelihood of adherence to laid down codes of conducts and ethics and by extension delivery of quality health services. Majority of the respondents as indicated in the results said they were members of their respective professional bodies and self-regulated by certification and licensure. By this measure therefore, health providers in KNH deliver quality health services. Van Belle & Mayhew (2016) stated that approaches that promote provider responsibility comprising professional accountability reinforced ethical codes, professional standards and peer reviews in addition to other corrective actions.

It is further observed that although the majority of respondents 274 (76.1%) get opportunities for CPE such opportunities do not make a difference in terms of value addition to the professional provider because the majority 343 (95.3%) said CPE trainings did not make a difference. Continuous Professional Education keep health providers updated in terms of knowledge and skills hence improved clinical governance accountability. It is therefore, expected that CPE assist health professional provider to deliver quality health services. As results indicate, majority of respondents agreed that opportunities for CPEs were available. However, the trainings did not make a difference to the majority of professional health providers in terms of improvement in their clinical knowledge base and clinical skills.

Bivariate logistic regression was used to establish the relationship between the independent variables and the dependent variable that was categorical and binary in nature. Results indicated that there was a statistically significant relationship between the independent variables and delivery of quality health services in KNH ($p<0.05$). The results indicate that a statistically and significant relationship exist between Professional Health Providers' governance accountability mechanisms and delivery of quality health services in KNH. Health providers who are not registered with a professional body are 0.216 times less likely to deliver quality health services on time as compared to those members who are registered with a professional body. The results were significant at 95% confidence interval ($p<0.05$). These findings agree with those of Mwanga (2013) who examined factors affecting patient satisfaction at KNH and established that 89.9% of respondents said the clinic was crowded.

The results further indicated that breach of self-regulation rules is significantly associated with delivery of quality health services in KNH ($p<0.05$). Professional health providers who breached self-regulation rules are 2.086 times more likely to face consequences for their actions. These findings are in line with those of Levinson (2014) who established that the main origin of injuries include diagnostic flaws and treatment on basic health care, wrong-site surgery in hospital care, adverse events in long-term care, constraint injury and hospital-acquired infections. The results indicate that there is a significant relationship between availability of continuous professional education opportunities and delivery of quality health services at Kenyatta National Hospital ($p<0.05$). Lack of CPE opportunities is 0.297 times less likely to enhance delivery of quality health services on time in KNH. These findings are consistent with Bryceland & Stam (2005) who established that constrains always arise for health professions, and these can take the form of guidelines, protocols, forms of prescriptive advice or standards to limit variation in therapeutic diagnostics and practice resulting in well-developed standards of care.

CPE training made professional health provider apply clinical guidelines 2.157 times more likely to deliver quality health services on time as compared to those providers who did not undertake the training in KNH. There is a statistically significant relationship between CPE trainings and the timely delivery of quality health services in KNH ($p<0.05$). These results agree with those of Elshaug, et al., (2017) who established that clinical practice guidelines are assertions that are methodically developed to guide in the practitioner-patient decisions about convenient health care for definitive clinical situations.

CONCLUSION

There is a statistically significant relationship between professional health providers' governance accountability mechanisms and delivery of quality health services in KNH. Professional health providers who are registered with professional bodies were self-regulated and more likely to deliver quality health services on time than those who are not registered. There is a significant relationship between continuous professional education for professional health providers and delivery of quality health services in KNH. Therefore, the findings suggest existence of significant influence of professional health providers' governance accountability mechanisms on delivery of quality health services in KNH.

RECOMMENDATIONS

The study recommends that the hospital should ensures that: i) professional health providers are registered and licensed to practice by their respective professional bodies, ii) CPE opportunities for professional health providers are available and monitored for actual improvements in professional and clinical governance accountability, and iii) hospital management invests in technologies and infrastructure that improve patients waiting time.

REFERENCES

Asefa, A., & Bekele, D., (2015).*Status of respectful and non-abusive care during facility-based childbirth in a hospital and health centres in Addis Ababa*, Ethiopia. Reproductive Health, 12(33),1-9.

Bleich, S. N., Özaltin, E., & Murray, C., (2009). How does satisfaction with the health-care system relate to patient experience?*Bulletin of the World Health Organization, 87(4)*, 271-278.

Brinkerhoff, D., (2004). Accountability and health systems: Toward conceptual clarity and policy relevance. *Health Policy and Planning, 19(6\), 371–379.*

Bryceland, C., & Stam, H., (2005). Empirical validation and professional codes of ethics: Description or prescription?*Journal of Constructivist Psychology, 18(2), 131-155.*

Chan, B., Veillard, J., Cowling, K., Klazinga, N., Brown, A., & Leatherman, S., (2018). Stewardship of quality of care in health systems: Core functions, common pitfalls, and potential solutions.*Public Administration and Development39 (1)*, 34-46.

Elshaug, A., Rosenthal, M., Lavis, J., Brownlee, S., Schmidt, H., Nagpal, S., . . . Saini, V., (2017). Levers for addressing medical underuse and overuse: Achieving high-value health care.*The Lancet, 390*(10090), 191-202.

Fisher, A., (2018). Corruption in Medicine. *Journal of American Physicians and Surgeons, 23(4), 102-104.*

Greer, S., Wismar, M., & Figueras, J., (2016). Introduction: Strengthening governance amidst changing governance. In S., Greer, M., Wismar, & J., Figueras, *Strengthening health system governance: Better policies, stronger performance* (pp. 3-26). Berkshire, England: Open University Press.

Levinson, D. R., (2014). *Adverse events in skilled nursing facilities: National incidence among Medicare beneficiaries.* USA, Washington DC: Department of Health and Human Services.

Mostert, S., Njuguna, F., Olbara, G., Sindano, S., Sitaresmi, M. N., Supriyadi, E., & Kaspers, G. (2015). Corruption in health-care systems and its effect on cancer care in Africa. *Lancet Oncol, 16(8), 394–404.*

Mwanga, D.M., (2013). *Factors affecting patients satisfaction at Kenyatta National Hospital, Kenya: A case of cancer outpatient clinic.* A research project report in partial fulfillment of the requirement for the award of degree of master of arts in project planning and management of the University of Nairobi.

Ngure, K.P., (2016). *Factors influencing retention of health workers in the public health sector in Kenya: A case study of Kenyatta National Hospital.*(Unpublished Doctoral Thesis), Jomo Kenyatta University of Agriculture and Technology,Kenya.

Njeru, B., (2018, March 2). KNH on the spot after brain surgery is peformed on the wrong patient.*The Standard.*

Oche, M.O., & Adamu, H., (2013). Determinants of patient waiting time in the general outpatient department of a tertiary health institution in north western Nigeria. *Annals of Medical and Health Sciences Research 3(4),588-92*

Price, R. A., Elliott, M., Cleary, P., Zaslavsky, A., & Hays, R., (2015). Should health care providers be accountable for patients' care experience.*Journal of General Internal Medicine, 30*(2), 253–256.

Van Belle, S., & Mayhew, S., (2016). What can we learn on public accountability from non-health disciplines: A meta-narrative review. *British Medical Journal, 6(7), 1-12.*

Watkins, D., Jamison, D., Mills, A., Atun, R., Danforth, K., Glassman, A., & Alwan, A., (2018). Universal health coverage and essential packages of care. In D. Jamison, H. Gelband, S. Horton, P. Jha, R. Laxminarayan, C. Mock, & R. Nugent, *Disease control priorities: Improving health and reducing poverty (pp. 43-65).* Washington, DC: International Bank for Reconstruction and Development / The World Bank.

World Health Organization. (2010). *Monitoring the building blocks of health systems: A handbook of indicators and their measurement strategies.* Geneva: World Health Organization.