

Health and Clinical Governance: A Systematic Literature Review

Georgios L. Thanasas¹, Konstantina Tatsi¹, Andreas G. Koutoupis² & Leonidas G. Davidopoulos², Ioannis C. Ploumpis³

¹ Department of Management Science and Technology, University of Patras, Greece

² Department of Accounting and Finance, University of Thessaly, Greece

³ Department of Business Administration, Faculty of Economics and Political Sciences, National and Kapodistrian University, Athens, Greece

Correspondence: Leonidas G. Davidopoulos, Department of Accounting and Finance, University of Thessaly, Greece

Received: November 19, 2023 Accepted: December 20, 2023 Online Published: December 31, 2023

doi:10.5539/res.v15n4p44

URL: <https://doi.org/10.5539/res.v15n4p44>

Abstract

This systematic literature review covers the extant literature on health and clinical governance. Using a sample of 103 studies published in 2014-2022, we categorize those papers based on the methods employed, the theoretical framework, the thematology and others. We underline the interdisciplinary of the clinical governance, that mostly examined in developed countries through qualitative methodologies (case studies, surveys and others). Particularly, we give prominence to the need for conducting more research that employs a worldwide sample, quantitative methods that prove empirical evidence on the balance that needs to be achieved on, most of the time, conflicting matters that revolve around clinical and health governance.

Keywords: Corporate Governance, health governance, clinical governance, governance in hospitals, CSR, Risk

Classification codes: H00, I1, P00, M14, M4

1. Introduction

The motivation behind this systematic literature review is the lack of research that systematically reviews the existing literature on health ecosystem. Particularly, identifies and categorizes the concepts of health governance. According to Lipunga et al. (2019), governance in health could be distinguished in health system governance and organizational or clinical governance. We can define health system the system that contains the entire population of health system actors, therefore health system governance includes every measure taken by formal authorities (Health Ministries and others) to promote and protect the health of the population (Lipunga et al. 2019). Organizational governance or governance of organizations in health is the corporate governance adjusted to the unit(for instance hospitals) of health(Lipunga et al. 2019).

Post pandemic outlook of healthcare and especially in the current environment of high inflation and slow economic growth, will be translated to lower spending in relative services. Therefore, tough decision making is expected. Also, as presented in the current systematic literature review, digitalization of healthcare is unavoidable, however the relative data will be under extreme scrutiny and public policy initiatives will regulate the use of them in developed countries and regions such as United States of America and European Union. This is to be expected as health and clinical governance is heavily regulated.

At the same time, according to World Health Organization and the conclusions of our systematic literature, human societies are far from making a significant process into achieving universal health coverage that is one of the Sustainable Development Goals by 2030. Therefore, by contributing a systematic literature review on health and clinical governance we recognize and discuss current trends methodologies and theories revolve around health and clinical governance.

This allows us to take into consideration institutional and political environments that interact within the different themes of clinical and health governance. Consequently, our study offers relevant insights that could be transferable to settings worldwide that present a variety of macro-economic and political conditions.

We employ the population of research published in journals that are ranked in ABS guide. Using Google Scholar as well as other databases (Nguyen et al., 2020), we search for papers based on the following keywords: “corporate governance healthcare”, “clinical governance”. We choose to search for literature published during the period of 2014-2022, so that we can be relevant and novel enough. Our search provides us with a total number of 103 studies. Our systematic literature review undertakes the effort to identify patterns in health governance research, underline key concerns, and propose new

paths of research. To achieve this goal our systematic literature review examines the general characteristics of the literature, that is its descriptive statistics like the number of countries each paper analyzes, its academic discipline as categorized by ABS and others. The descriptive statistics of each and every paper in our systematic literature review is presented in Table I. Further, this systematic literature review categorizes research based on the issues each paper deals with and it is presented in Table II. Finally, our systematic literature review provides proposals for future research based on the conclusions derived from Tables I and II as well as the proposals of each paper.

We find that significantly more studies are conducted deploying one country as subject of examination. Also, researchers examine clinical and health governance under the scope of a wide range of disciplines such as accounting, economics, corporate social responsibility and ethics, social sciences, public policy and others.

We also find that qualitative analysis is the method of choice for the majority of researchers in the field such as case studies and essays to examine the different themes of clinical governance. Further we categorize a wide range of topics relative to clinical governance such as the regulation and policy that revolves around health and clinical governance, the privatization and corporatization in healthcare, the board characteristics of healthcare organizations and how those interact with different aspects of health organizations, the corporate social responsibility in the concept of healthcare, the risk management, the models and tools employed to assess the performance of healthcare organizations, the cost accounting and financial performance, the changes in health governance systems, the cyber security and digital transformation, the governance of human resources and innovation. Also, theoretical frameworks employed present a high level of diversity in terms of academic discipline origins. For instance, research employs new management theory that usually explains public policy studies as well as agency theory that is widely established in accounting and finance literature. However, relatively few research puts its findings into theoretical perspectives.

Our study provides some useful directions to policy makers, researchers and other stakeholders concerned with the current state and main issues in healthcare governance. Strong cooperation among stakeholders is a prerequisite for the improvement of healthcare quality (Van De Bovenkamp et al. 2014; Pacey et al. 2017; Tenbensen et al. 2021), which means that deep knowledge of the governance of healthcare and clear policy initiatives (Lipunga et al. 2019; Nicaise et al. 2014; Bali and Ramesh 2017) as well as accountability and quality systems in place (Côté-Boileau et al. 2021; Bali and Ramesh 2017; Tenbensen et al. 2021) are essential. Studying best practices from around the world could be the starting point for the acquisition of this expertise on clinical governance, however mere “copy-paste” of foreign policies on health governance without taking into consideration institutional and other factors as well as fiscal capacities will be inefficient on the long term (Bali and Ramesh 2017). Ultimately, balance in the majority of contradictory healthcare concerns is the answer most of the times. and van de Bovenkamp 2015), but mere “copy-paste” of foreign policies on health governance without taking into consideration institutional and other factors as well as fiscal capacities will be inefficient on the long term (Bali and Ramesh 2017).

The remainder of the paper unfolds as Section 2 portrays the methodology of our systematic literature review, Section 3 presents the results of the systematic literature review and Section 4 provides the conclusion.

2. Methodology: Systematic Literature Review

We employ the population of research published in journals that are ranked in ABS guide. Using Google Scholar as well as other databases (Nguyen et al., 2020), we search for papers based on the following keywords: “corporate governance healthcare”, “clinical governance”. We choose to search for literature published during the period of 2014-2022, so that we can be relevant and novel enough. Our search provides us with a total of 103 studies.

3. Results

3.1 Descriptive Statistics (5 Criteria)

The descriptive statistics of each and every paper in our systematic literature review is presented in Table I.

Table 1. Descriptive statistics (5 criteria)

A. Countries per study			C. Journal ranks	
A.1	Single	67 (65%)	C.1. 1	36 (35%)
Country studies				
A.2	Multi Country studies	13 (13%)	C.2. 2	34 (33%)
A.3	N/A	23 (22 %)	C.3. 3	16 (16%)
Total number of studies			C.4. 4	17 (16%)

B. Academic field		D. Continent& Region	
B.1.Accounting	3	D.1.Europe	42
B.2.Economics	4	D.2.Asia	8
B.3. Ethics-CSR-Man	14	D.3.Worldwide	8
B.4. ENT-SBM	2	D.4.America	8
B.5. Soc-Sci	10	D.5.Africa	3
B.6. Sector	3	D.6.Oceania	7
B.7. Or&Mansci	2	D.7.Middle East	1
B.8. Ib&Area	2		
B.9. Ops&Tech	4		
B.10. Pub Sec	51		
B.11.INNOV	2		
B.12. INFO MAN	3		
B.13 MKT	1		
B.14.HRM&EMP	1		
E. State of Development (MSCI classification)		E.3. FRONTLINE	
E.1. DEVELOPED	No .	E.2. EMERGIN G	No .
United States of America	9	Mexico	1
Canada	6	South Africa	2
Netherlands	8	Chile	1
France	2	India	4
UK	23	Poland	2
Germany	3	Turkey	2
Australia	10	Greece	3
Spain	3	Brazil	2
Italy	11	China	4
South Korea	3	Russia	1
Japan	2	Czech Republic	3
Ireland	5	Estonia	1
Finland	4	Hungary	2
Belgium	4		
Portugal	2		
Denmark	3		
Norway	3		
New Zealand	8		
Sweden	3		
Austria	2		
Switzerland	2		
Israel	2		
		E.4. STANDALO	No.
		Palestine	1

3.1.1 Countries Per Study

Single-country sample studies are the majority (65% of our sample). Multi-country studies represent 13% of the sample. Studies that do not disclose the country they refer to represent the 22% of our sample and are depicted in A.3.

3.1.2 Academic Field

The Academic Journal Guide (2021) ranks the journals within our research sample has been published. We observe that most research is published in journals concerned with public sector-related affairs. Also, many studies focus on sociology

and ethics-corporate social responsibility issues. This could be explained by the fact that healthcare is mainly a public policy concern.

3.1.3 Journal Ranks

The Academic Journal Guide (2021) ranks the journals within our research sample has been published. The lower ranking is 1 and 4 is the highest ranking of a journal in this guide. Most of the papers are published in journals that are ranked as 1 (35%).

3.1.4 Continent & Region

The geography of our reviewed studies has been categorized through Morgan Stanley Capital International (MSCI) equity index classification(Koutoupis et al. 2021; Neratzidis et al. 2020). Most of the studies analyze countries from Europe (42 papers).

3.1.5 State of Development (MSCI Classification)

The level of development for each study's sample is specified through Morgan Stanley Capital International (MSCI) equity index (Koutoupis et al. 2021; Nerantzidis et al., 2020). From the above it seems that more authors should conduct research in emerging economies.

3.2 Methods, Theory and Themes(3 Criteria)

We attempt to spot patterns of the research that revolve around clinical governance. This is achieved through three criteria, which we report in Table II.

Table II. Methods, Theory and Themes (3 criteria)

E. Methods	
E.1. Regression/ Parametric Analysis	10
E.2.Smart PLS-SEM	1
E.3. Case Study	16
E.4. Survey	6
E.5. Descriptive Statistics/Non parametric analysis	2
E.6. Essay	17
E.7. Multi criteria analysis	1
E.8. Literature Review	8
E.9. Cluster analysis	2
E.10.Case study and interview	26
E.11.Case study and survey	3
E.12. Factor analysis	1
E.13. Survey and principal component analysis	1
E.14. Survey and regression	5
E.15. Literature review and survey	2

F. Theory

- F1. New public management theory
Turner and Wright (2022)
Moffatt et al. (2014)
Byrkjeflot and Jespersen (2014)
Tenbensen et al.(2021)
Burgess et al. (2015)
- F.2 Resource dependence theory
Joshua and Washington (2019)
Mannion et al. (2015)
- F.3 Institutional theory
Joshua and Washington (2019),Burton-Jones et al. (2020), Côté-Boileau et al. (2021), Lipunga et al. (2019)
- F.4. Structuration theory
Joshua and Washington (2019)
- F.5. Shareholder theory
Kuzey et al. (2021)
- F.6. Stakeholder theory
Kuzey et al. (2021)
Russo (2016)
Abhayawansa and Azim (2014)
Mannion et al. (2015)
- F.7. Common good theory
Russo (2016)
- F.8. Resource-based view
Cobben et al. (2022)
- F.9. Behavioral theory
Cobben et al. (2022)
- F.10. Complexity theory
Favaretti et al. (2015)
- F.11. Legitimacy theory
Agarwal et al. (2018)
Abhayawansa and Azim (2014)
- F.12. Agency theory
Bali and Ramesh (2017)
Abhayawansa and Azim (2014)
Mannion et al. (2015)
-

F.13. Relational resource based view	Dobrzykowski et al. (2015)
F.14. Upper echelons theory	Prenestini et al. (2015) de Harlez and Malagueno (2016)
F.15. Rhetorical genre theory	O'Meara et al. (2017) O'Meara et al. (2018)
F.16. Stewardship theory	Mannion et al. (2015)
F.17. Critical mass theory	Veronesi et al. (2015)
F.18. Self determination theory	Spehar et al. (2015)
F.19. Expert leadership theory	Tasi et al. (2019)
G. Themes	
G1. Regulation and policy	Stoopendaal and van de Bovenkamp (2015) McDermott et al. (2015) Price et al. (2020) Fournier and Jobin (2018) Van De Bovenkamp et al. (2014) Waring et al. (2016) Bali and Ramesh (2017) Gauld and Horsburgh (2020) Gauld and Horsburgh (2015) Côté-Boileau et al. (2021) Akmal and Gauld (2021) Timmons et al. (2014) Nicaise et al. (2014) Tenbensen et al. (2021) Pacey et al. (2017) Lipunga et al. (2019) Banerjee et al. (2017) Greve et al. (2022) Lucas et al. (2022) Nutti and Seghieri (2014)
G2. Health privatization and corporatization	Turner and Wright (2022) Hunter and Murray (2019) Pirozek et al. (2015) Rahman (2020) Liu et al. (2021) Jones and Hameiri (2021) Fotaki (2014)

G.3. Board Diversity/Board characteristics	Tsui et al. (2022) Ellwood and Garcia-Lacalle (2015) Veronesi et al. (2015) Mannion et al. (2015) Ellwood and Garcia-Lacalle (2016) Preneestini et al. (2015) Kalaitzi et al. (2017) Leung et al. (2020) Bakalikwira et al. (2017) Freeman et al. (2016)
G.4 CSR/Sustainability	Russo (2016) Rattan et al.(2022) Johansen et al. (2018) Minguela-Recover et al. (2022) Levy (2021) Agarwal et al. (2018) Sendawula et al. (2018) Kuzey et al. (2021) Mousa and Othman (2020) Pinzone et al. (2015)
G.5. Risk Management	Cobben et al. (2022) Phipps (2021) Chaudhri et al. (2021) Phipps (2020) Martin et al. (2015) Wilson (2022) Sharma et al. (2021) Koutoupis et al. (2022) Joshua and Washington (2019)
G.6 Healthcare governance quality/Assessment model	Favaretti et al. (2015) Bhat et al. (2019) Paoloni et al. (2022) Nuti et al. (2017) Mosadeghrad (2015) Hallam and Contreras (2018) McCarthy et al. (2016) Ryyänen and Harisalo (2018) Locock et al. (2014) Boaz et al. (2016) Exworthy et al. (2017) Renedo and Marston (2015) Martin et al. (2021)
G.7 Cost accounting/Financial	Wanke et al. (2022) da Silva Etges et al. (2019). Moro Visconti (2014)

performance	Romiti et al. (2022)
G.8. Changes in health governance systems	Wendt (2014) Trein (2017) Allan et al. (2014) Barbazza et al. (2015)
G.9. Cyber security/Digital transformation	Garcia-Perez et al. (2022) Burton-Jones et al. (2020) Abraham et al. (2019) Khanra et al. (2020)
G.10. Human resources innovation	Van den Broek et al. (2018) Moffatt et al. (2014) Byrkjeflot and Jespersen (2014) de Harlez and Malagueno (2016) Spehar et al. (2015) Spurgeon, et al. (2015) Burgess et al. (2015) O'Meara et al. (2018) O'Meara et al. (2017) Tasi et al. (2019) Aitken and Von Treuer (2014) Brown (2020) Abor, (2019) Maier (2015) Aubry et al. (2014)
G.11. Governance of innovation	Secundo et al. (2018) Dobrzykowski et al. (2015) Proksch et al. (2019) McKelvey et al. (2018) Baird et al. (2014) Abhayawansa and Azim (2014) Cucciniello and Nasi (2014) Scillitoe et al. (2018)

3.2.1 Methods

Most of our sampled research follows qualitative methods (case studies and essays). Regression analysis is employed by ten studies of our sample. Also, ten studies of our sample are literature review studies. Specifically, previous literature review focuses on the corporatization of healthcare organizations (Turner and Wright 2022), CSR in healthcare (Russo 2016) and the barriers women face in healthcare, academia, and business (Kalaitzi et al. 2017). Therefore, our systematic literature review is the first one that tries to present a wide scope of clinical governance.

3.2.2 Theory

We allocate the studies based on the theoretical framework employed to explain empirical and theoretical observations and analyses. Particularly, we categorize the empirical and theoretical studies on clinical governance based on the theories employed by authors to explain empirical and theoretical observations. We observe that the literature refers to clinical governance employ theory that refers to: (F.1) New public management theory, (F.2.) Resource dependence theory, (F.3.) Institutional theory, (F.4) Structuration theory, (F.5) Shareholder theory, (F.6) Stakeholder theory, (F.7) Common good theory, (F.8) Resource Based View, (F.9) Behavioral theory, (F.10) Complexity theory, (F.11) Legitimacy theory,(F.12) Agency theory, (F.13) Relational resource based view, (F.14) Upper echelons theory, (F.15) Rhetorical genre theory, (F.16) Stewardship theory,(F.17) Critical mass theory,(F.18) Self-determination theory,(F.19). Expert leadership theory.

3.2.2.1 New Public Management Theory

Scholars from United Kingdom and Australia invent this term to describe the effort on behalf of public sector to assimilate private sector practices as an antidote to its inefficiency (Turner and Wright 2022). Tenbensen et al. (2021), recognize new public management as one of the three ideal types of public management, that is traditional public administration, new public management and new public governance. New Public Management recognizes the market as a core mechanism of social coordination, while New Public Governance recognizes collaborative networks for the cause. As a source of legitimacy, New Public Management sees the state as a steerer and purchaser, while New Public Governance gains its legitimacy from the public value it creates through the collaboration of state with non-state actors and its capacity to address complex problems (Tenbensen et al. 2021).

In New Public Governance, policy formulation and implementation is co designed with those who implement those policies. In New Public Management, state designs and implementers, implement the policy (Tenbensen et al. 2021).

Another key difference between New Public Management and New Public Governance is the perception on usage of performance indicators. New Public Management uses performance indicators to monitor performance while in New Public Governance performance indicators are used as a learning and joint problem-solving tool (Tenbensen et al. 2021).

In the New Public Management terrain the target setting and monetary performance incentives are the policy strategies to improve health system. In New Public Governance there is the drive for quality improvement processes, data sharing and informal benchmarking (Tenbensen et al. 2021). Nowadays, there is the tendency to form a hybrid type of management that combines New Public Management and New Public Governance (Byrkjeflot and Jespersen 2014; Tenbensen et al. 2021; Burgess et al. 2015) that will solve the productivity problem of national health services (Moffatt et al. 2014).

3.2.2.2 Resource Dependence Theory

Theories presented in this subsection are widely known in the corporate governance field. For instance, resource dependence theory is among the most common theories that research utilizes to explain board behavior that also applies to board of directors that serve in healthcare (Mannion et al. 2015). Particularly, resource dependency perceives organizations as a structure of tangible and intangible assets that operates in dynamic ways. In this view, board of directors' function is to provide to the organization the influence and resources (Mannion et al. 2015). Specifically, to the healthcare framework the management of public Intensive Care Unit is explained through resource dependence theory (Joshua and Washington 2019).

3.2.2.3 Institutional and Structuration Theory

Institutional theory claims that people and organizations function in ways that secure social legitimacy. Socially legitimate behaviors overtime become institutionalized and fundamentals of governance and govern the health system (Lipunga et al. 2019).

The apprehension and improvement of digital transformation in healthcare is facilitated through the theoretical framework of institutional theory for all stakeholders (Burton-Jones et al. 2020).

However, structures that compose institutions are not strictly exogenous. The interface at which an actor meets a structure is termed "structuration" hence there is structuration theory.

3.2.2.4 Shareholder Theory

Shareholder theory refers to the shareholder view and portrays the maximization of shareholder wealth as the ultimate purpose. In this sense, by becoming more socially concerned a firm drifts apart from its ultimate purpose according to the classical view (Kuzey et al. 2021).

3.2.2.5 Stakeholder Theory

Contrary to the shareholder view, stakeholder theory suggests that taking into consideration and prioritizing the needs of stakeholders too, it enhances the good testimony of a company. This improved image of the stakeholder oriented firm, positively affects its performance too (Kuzev et al. 2021).

3.2.2.6 Common Good Theory

In the concept of healthcare, common good theory suggests that cooperation among the healthcare sector's participants is important to achieve the common goal that is to adequately satisfy health needs (Russo 2016).

3.2.2.7 Resource-Based View Theory

Our literature review finds one study that builds upon the resource-based view theory in family firms. Specifically, due to long term outlook and generational wealth that they try to create and sustain they are more likely to continuously try to capture value through open innovation (Cobben et al. 2022).

3.2.2.8 Behavioral Theory

Family firms usually do not tolerate high levels of risk and tend to be more closed up because of fear of losing control and the concentrated ownership. This tendency is explained by behavioral theory (Cobben et al. 2022).

3.2.2.8 Complexity Theory

Changes in systems are provoked by interactions and feedback loops, a process that is constant. Complexity theory does not consider those systems as the subsequent sum of its different parts. Complexity theory views those systems as totally different entity that has little to do with the interactions mentioned above. Once it is formed the system it cannot be reduced to the original parts. In this sense, Favaretti et al. (2015) approach their quality assessment of integrated clinical governance.

3.2.2.9 Legitimacy Theory

Legitimacy states that the existence of an organization is possible and totally dependent on society's perception about whether its operation alignment with societal and institutional expectations (Abhayawansa and Azim2014).

3.2.2.10 Agency Theory

Agency theory is a widely employed theoretical framework. Agency theory assumes that, unless scrutinized, staff will try to serve their own interests rather than wider organizational objectives that are inclined to stakeholders' interests (opportunism) (Mannion et al. 2015). Board in this setting functions as a monitor meant to ensure compliance by developing systems that check, monitor and control staff that accounts for its operation (Mannion et al. 2015). In a wider spectrum of healthcare governance, the agency model describes the interaction between users (patients), providers (doctors) and third-party payers (Bali and Ramesh2017). The oversight on behalf of governments is limited to a medical council or guidelines on the use of pharmaceuticals and technology (Bali and Ramesh 2017).

3.2.2.11 Relational Resource Based View (RRBV) Theory

The traditional resource-based view theory assumes that an organization controls the resources that he needs to create value. However, the relational resource-based view theory suggests that resources are not fully controlled by the organization and how this affects a firm's ability to develop competitive advantages and firm performance. In our literature review, in the concept of clinical governance, Relational Resource Based View (RRBV) suggests that patients along with doctors create value together (Dobrzykowski et al. 2015).

3.2.2.12 Upper Echelons Theory

The upper echelon theory suggests that values and beliefs held by top management are to be of utmost importance as management culture might strongly influence the focus of the strategy and the behaviors of the staff (Prenestini et al. 2015). In the concept of clinical governance, there are differences between top level management with clinical background and top-level management with administrative background, as clinician managers take better decisions in matters that are more relative to their clinical background as they employ procedures and informal sources information which falls into the upper echelons theory (de Harlez and Malagueno2016).

3.2.2.13 Rhetorical Genre Theory

Genre commonly perceived as a categorization term for movies and books according to the story being told by them. Through genre, the viewer or the reader can identify beforehand the story that is about to read or watch. In the concept of health governance and specifically paramedics, rhetorical genre theory could explain the frictions between the traditional model where doctors provide medical direction to paramedics and the new model of paramedics' self-regulation (O'Meara et al. 2017; O'Meara et al. 2018).

3.2.2.14 Stewardship Theory

Executives in this theoretical framework are not opportunists and serve as effective stewards of an organization's resources. Further, board focuses on cultivating an environment of values and enabling people under them, rather than monitoring and forcing performance (Mannion et al. 2015).

3.2.2.15 Critical Mass Theory

Critical mass theory, suggests that hospital board of directors are better able to exert their authority and serve their cause when each member category is equally represented (Veronesi et al. 2015).

3.2.2.16 Self Determination Theory

According to self-determination theory, people are inclined to activities that give them satisfaction. On the contrary, people will refrain from activities that do not give them satisfaction (Spehar et al. 2015).

3.2.2.17 Expert Leadership Theory

In the healthcare context, expert leadership theory suggests that besides managerial experience (knowledge, capabilities and industry experience), a clinical background is highly desirable (Tasi et al. 2019).

3.2.3 Themes

We discern a wide range of themes that is presented below.

3.2.3.1 Regulation and Policy

Papers in this section examine the health or clinical governance under the scope of state policy and regulation. Governance and regulation are intertwined in a way that define each other (Stoopendaal and van de Bovenkamp 2015). Therefore, we attempt to present the interaction between policy and regulation with clinical governance.

Clinical governance policies are essential so that there is an improvement in health care quality (Gauld and Horsburgh 2020). Consequently, most of the studies in this section focus on how regulation and clinical governance interaction aims to support quality and safety of patients (Waring et al. 2016; Stoopendaal and van de Bovenkamp 2015; Waring et al. 2016; Tenbensen et al. 2021).

A way to develop a “good governance”, it is to study what it means good governance for various environments (Stoopendaal and van de Bovenkamp 2015). For instance, United Kingdom in 2012 enacts a regulation regarding medical revalidation under whom doctors should prove their clinical capacity and adequacy, while at the same time demonstrate managerial service to their respective organizations. This regulation seems to lead to better clinical governance and professional and organizational accountability (Price et al. 2020). In the same vein of accountability and value-based performance management, Canada’s initiative of 2015 enacts control rooms that represent a comprehensive value-based tool that integrates the various dimensions of health system performance that is patient experience, care team well-being, population health and cost reduction (Côté-Boileau et al. 2021). These control rooms lead to improved capacities within healthcare organizations. In 2010, Australia passes a health workforce regulation requires the National Boards to establish detailed standards for the registration of health practitioners in accordance with the legislative framework (Pacey et al. 2017). Further, regarding complaints the examination process portrays co-regulatory characteristics as the examination takes place at a national level (Pacey et al. 2017).

Also, a fundamental analysis of key definitions of clinical and health governance is of the essence so that we could be able to measure and regulate it (Lipunga et al. 2019). This fundamental knowledge seems to be absent.

Ultimately, regarding the effect of regulatory initiatives on clinical governance it seems that transition policies from New Public Management to New Public Governance cannot be achieved without the agreement of all actors participating in health system (Van De Bovenkamp et al. 2014). Particularly, in 2016 New Zealand implements a transition plan to New Public Governance by asking public and private health organizations to develop improvement indicators of health system and plans that will transform the delivery of health services. The transition to New Public Management attempted at a local and a national level. At a local level there are two main principles that is the improvement of quality on processes that revolve around data collection and sharing, diagnosis of service gaps between local providers as well as the integration of health services. At a national level, there are health policies that refer to development of performance measures on behalf of government and funding rewards based on target achievements (Tenbensen et al. 2021). Initially, this transition attempted in a smooth way where New Public Governance complements the existent New Public Management, but it failed. After this failure, there was an unofficial motivation to organizations that they should replace performance improvement over quality improvement. This way was a far more efficient way to transform to New Public Governance (Tenbensen et al. 2021). However, this conclusion that a gradual implementation of New Public Governance on behalf of public policy cannot be achieved contradicts Van De Bovenkamp et al. (2014) that mention that institutional changes should take place progressively.

Also, purely drafted policies may lead to uncertainties regarding their capacity to serve their goals. In Belgium, the reform regarding mental health care delivery it is unclear how the new policy could achieve its goals (Nicaise et al. 2014). Moreover, most of the time the existence of a regulatory framework is not sufficient as there must be exogenous pressures to force to improvements regarding the quality of governance (Van De Bovenkamp et al. 2014). Further, those pressures need to be focused to be efficient. For instance, it is not enough to set quality indicators just for the shake of accountability and if those indicators actually work and lead to improvements in quality then this is due to greater commitment on behalf of health personnel (Van De Bovenkamp et al. 2014).

Focusing on the issues that may prevent the quality improvement of health governance we feel the urge to put the connections between different actors into perspective. Particularly, according to the literature, healthcare systems are built upon agency relationships among users of health services (patients), providers (doctors) and third-party payers. The government’s role is restricted to that of financing healthcare and providing services (meaning it takes on the

responsibilities of the third-party payer and provider respectively). Despite the fundamental role of the government, the ability to monitor patients, doctors and other players is limited to a medical council or guidelines regarding the appropriate use of pharmaceuticals and technology (Bali and Ramesh2017).

Consequently, health governance quality improvement policies and policies of inclusion and universal health coverage should be built upon cooperation between stakeholders (Van De Bovenkamp et al. 2014; Pacey et al. 2017; Tenbensen et al. 2021), accountability and quality systems in place (Côté-Boileau et al. 2021; Bali and Ramesh2017; Tenbensen et al. 2021), deep knowledge of health governance and clear policy initiatives (Lipunga et al. 2019; Nicaise et al. 2014; Bali and Ramesh 2017). Moreover, it is important to keep an eye on what others may do better than you that could give you a better perspective on “good governance” (Stoopendaal and van de Bovenkamp 2015), but mere “copy-paste” of foreign policies on health governance without taking into consideration institutional and other factors as well as fiscal capacities will be inefficient on the long term (Bali and Ramesh2017).

3.2.3.2 Health Privatization and Corporatization

Literature in this section examines how privatization interacts with health governance. First, corporatization is to be distinguished from privatization as the former involves publicly owned corporations, the latter involves privately owned ones. However, both reflect the situation where state distances itself from the control of the entity. This transition of state-owned enterprises into semi-autonomous, legally independent entities, has become popular worldwide since the 1980s (Turner and Wright2022).

Many factors led to the autonomy of state-owned enterprises. First, there is the transition from traditional public management to New Public Management, that suggests that corporatization falls into the premise of public service improvement that turns away from the state and toward the market as a model for transforming service delivery (Turner and Wright 2022). Second, in the context of healthcare, there is a huge funding gap of 2,5 trillion dollars that public finance is not sufficient to cover so that the target of universal of healthcare coverage to be achieved. Therefore, the need for private capital is of the essence (Hunter and Murray2019). Specifically, the years to 2006, half billion dollars have been committed to development financial institutions for private health providers in form of loans or investments. This amount has been more than doubled in the period 2007 to 2015 (Hunter and Murray 2019). Another factor besides financial incapacity of state is the lack of infrastructure and personnel in healthcare (Hunter and Murray 2019; Rahman 2020). Third, besides financial constraints of public sector regarding healthcare, there seems that a general inefficiency of public governance be translated into health governance inefficiency like low quality of services (Rahman2020).

How this transition from public to private takes place? Commercialization in healthcare takes place through public-private partnerships and policies that emphasize the creation of health market which ultimately lead to the creation of health system that patients pay to access hospital care (Hunter and Murray 2019; Rahman2020).

Inevitably, an ideological conflict bursts between the capitalism and socialism supremacists, on how beneficial is the marketization of health.

First, corporatization leads to changes regarding corporate governance philosophy in organizational level (Turner and Wright2022). Transitioning to a more market like model, corporate governance focuses on the direction and control of the new organization (Turner and Wright 2022). Regarding medical work it becomes monitored by managers and commodified and doctors are not familiar with their dominance being threatened (Turner and Wright 2022; Hunter and Murray 2019). For instance, healthcare professionals in corporately owned hospitals, are incentivized to over-test, over-diagnosis and unnecessary treatments to increase revenue (Hunter and Murray 2019). Also, public accountability seems to be more weakened as funding process becomes less open to public scrutiny (Turner and Wright 2022).

Second, at a government level the transition from communism (government) to capitalism (governance), which commences at the late 1970s leads to the pathologies of regulatory governance (Jones and Hameiri 2021). Specifically, according to Jones and Hameiri (2021), despite being advertised as the epitome of efficiency, the shift from communism (government) to capitalism (governance) followed by significant pathologies, which the COVID-19 pandemic brought to the surface. The fragmentation of power and responsibilities leads to increased bureaucracy (Jones and Hameiri 2021). Moreover, even though there is an abundance of organizations and metrics locally and globally that govern health, their efficiency is questioned considering that ranking systems and assessments are based on rather on the bureaucratic documentation of health governance capacities and not the actual performance and output (Jones and Hameiri 2021).

Implications of commercialization of healthcare to society are health risks where unnecessary medical actions may lead to infections, cardiovascular problems, and others (Hunter and Murray 2019). Moreover, this situation may adversely impair the trust of patients to the ability of healthcare system to meet their needs (Fotaki2014).Particularly, monetary incentives alter doctors' behavior something that affects patients' trust as they realize the tradeoffs that occur (Fotaki 2014).Therefore, despite the theoretical approach that the free choice of patient increases legitimacy observations from

Europe, UK and other, reveal that transition to free market may lead to decreased trust in health systems (Fotaki 2014). Also, there seems to become normalized the segmentation of healthcare systems as population groups and geographic areas that are unprofitable could be neglected from the free market (Hunter and Murray 2019).

Evidence from emerging economies may support that it is crucial for hospitals to have an effective administration and governance, as a hospital's legal form may have no influence on its financial performance (Pirozek et al. 2015)

Nevertheless, the solution lies somewhere between the two opposites. When government follows an expansion policy and finances health for poor households should simultaneously enact constraint policies in the domain of health services delivery. In this way, policy makers are better able to balance between expansive policies and excess health expenditure (Liu et al. 2021).

Summarizing, health privatization is unavoidable since there are fiscal and other limits of public sector. However, policy makers need to take into consideration the complexity of the problems they try to solve trying to achieve quality health governance and universal healthcare coverage which is the Sustainable Development Goal 3.

3.2.3.3 Board Diversity/Board Characteristics

There is a significant interest on how board diversity provides added value to the firm and society (Koutoupis et al. 2022).

In the context of health, board diversity has been studied through research and development and marketing (Tsui et al. 2022), financial performance (Ellwood and Garcia-Lacalle 2015), patient experience (Veronesi et al. 2015; Mannion et al. 2015), fees (Ellwood and Garcia-Lacalle 2016) and woman presence in healthcare (Kalaitzi et al. 2017; Leung et al. 2020). Also, literature examines board characteristics in conjunction with clinical governance (Prentini et al. 2015) and hospital accountability (Bakalikwira et al. 2017; Freeman et al. 2016).

To begin with, boards that have CEO and board president of the same gender are more effective than simply having more women on board (Tsui et al. 2022). In the same vein, Ellwood and Garcia-Lacalle (2015) examine National Health Service Foundation Trusts and find that there is not significant difference in financial returns or service quality either having high or low presence among executive and non-executive directorships. However, female Chairs or female Chief Executives could contribute to lower negative social outcomes, such as lower clinical negligence costs, without harming financial management.

Regarding patient experience, it seems that members of the board with clinical background, could significantly improve the patient experience. Particularly, in line with critical mass theory, the findings of Veronesi et al. (2015) also suggest that after a certain threshold clinicians' representation on boards could exert its positive effects.

The bigger the size of the audit committee, the greater the probability of diversity in those audit committees and therefore the greater the demands for the external assurer that ultimately leads to higher audit fees (Ellwood and Garcia-Lacalle 2016)

When it comes to woman's presence in healthcare industry in general it seems that they have quite a few obstacles to face as women leaders in healthcare remain absent from top management, even though they are traditionally occupied in numbers in healthcare industry (Kalaitzi et al. 2017; Ellwood and Garcia-Lacalle 2015). Factors that hold back women could be the multiple roles of women as housewives, doctors and managers that could lead to work overload. Also, stereotypes that have to do with gender could constrain women from asserting top management seats. (Kalaitzi et al. 2017). However, if those barriers remain, then the opportunity cost to the society increases as women turn out to be valuable assets during COVID19, with the women in power exerting strong positive effects on public health expenditure, that in turn it is translated to a significant impact on the number of diagnosed and critical cases (Leung et al. 2020).

Board culture is also important when it comes to clinical governance. Specifically, it seems that organizations with a culture focused on the external environment present a more positive attitude on clinical governance (Prentini et al. 2015). Therefore, considering the leadership that encourages rational and developmental cultures is crucial when appointing top managers (Prentini et al. 2015).

Hospital accountability seems to be positively correlated with managerial competencies, while board governance is not significantly correlated with accountability of government hospitals (Bakalikwira et al. 2017). Regarding accountability that refers to patients' safety, organizational process is of paramount importance for board of directors to impute responsibilities to executives (Freeman et al. 2016).

From the above we conclude the following. First, most studies regarding the board characteristics employ a sample from English National Health Services. This is probably the subsequent of superior reporting of each and every actor in the health system of England. Second, regarding board diversity of public health organizations it is evident that women and clinicians as directors add value to the cause these organizations serve (Leung et al. 2020; Veronesi et al. 2015; Tsui et al. 2022).

In particular, as women traditionally are occupied in healthcare (Kalaitzi et al. 2017; Ellwood and Garcia-Lacalle 2015), the proportion of female directors in executive directorships is higher than the proportion of female directors serve in nonexecutive directorships (Ellwood and Garcia-Lacalle 2015).

Nevertheless, we should keep in mind that the greater the size of the board, the higher transaction costs, informational asymmetry and communication struggles that probably outweigh the increased monitor capacity (Mannion et al. 2015). Third, it is evident that the board of healthcare organizations needs further clinical training (Mannion et al. 2015), as stakeholders scrutinize issues related with service performance and not just financial related issues (Ellwood and Garcia-Lacalle 2016). This accountability on quality of health services needs to be facilitated through organizational processes (Freeman et al. 2016). Ultimately, even though reporting of non-financial matters has improved, organizations still fail to report critical details that will enable researchers to further the knowledge of board characteristics and organizational performance. For instance, regarding health and safety of patients what is the proportion of board members that go through relative training? What is the percentage of time that of board meetings that is dedicated to discussion related to health and safety of patients? (Mannion et al. 2015)

3.2.3.4 CSR/Sustainability

Corporate social responsibility (CSR) has been widely studied, but in the concept of health sector this theme is underdeveloped. By its nature health sector could be viewed socially responsible (Russo 2016). Moreover, sustainable healthcare refers to an umbrella term for activities that vary from adapting the service delivery model to reducing waste (Johansen et al. 2018)

Russo (2016) suggests CSR in health as the social responsibility of health organizations to do their job. This means that it must be organized well (clinical and organizational appropriateness). Also, this translates to be responsible for their social impact which refers to acting as community member and not merely taking into consideration stakeholders. Consequently, clinical governance is an essential substance of good corporate governance where doctors' autonomy is prerequisite to do their job and therefore the whole organization being socially responsible. From a quantitative perspective, the UN SDGs agenda for universal access and well-being could be employed to assess sustainability-related performance (Rattan et al. 2022). Specifically, an index of three pillars (economic, social and environmental) could be used with performance reporting and budgeting, waiting time and urban and rural disparities refer to the economic pillar, while equal access and environmental considerations with regards to production and natural medicines refer to the social and environmental pillar respectively (Rattan et al. 2022).

Further, one of the pillars of sustainability refers to the employees' satisfaction in a firm as they are one of the main stakeholders. Healthcare is no different and employee engagement seems to positively affect employee performance, meaning that a well-trained employee adds value to the healthcare organization (Sendawula et al. 2018). This seems to hold for quite difficult and extraordinary events such as the COVID19, where workers can still be happy. This sense of euphoria is observed to be higher in comparison with other crises (Minguela-Recover et al. 2022). Further, during COVID19 the impact on CSR is unknown, however many companies have been reported as accusations of not taking seriously the health risks to workers and customers brought to the surface (Levy 2021). Moreover, green hiring activities seem to positively affect economic, environmental and sustainability performance (Mousa and Othman 2020).

Literature on healthcare identifies four main dimensions that portray the opposite of sustainability that is unsustainability. The first one refers to affordability and accessibility to health care as demand rises (ageing populations, increase in chronic disease and possibilities of medical technologies). The second one refers to the dehumanization of healthcare and focus on financial performance. The rest ones are the environmental impact of healthcare design and institutions on the environment and climate change impact on health (Johansen et al. 2018). In this sense, Belgium in 2012 commences effort to transition to sustainable healthcare. The results from training top managers and directors sustainability principles based on ISO 26000 could be summarized as inspiration, awareness and internal engagement, knowledge and perspective and shared conversation (Johansen et al. 2018).

In emerging economies also known as Bottom of the Pyramid, social enterprises, that is a type of hybrid organization that combine aspects of charity and business, have significantly contributed to the exploitation of the business opportunities that lay behind institutional voids. By doing good, they could cover this institutional void and create new markets (Agarwal et al. 2018). In the concept of healthcare for instance social enterprises enhance employability through education provided in cooperation with formal institutions relative to their operations such as basic paramedic skills training. Moreover, informational and educational campaigns about healthcare have created new customers (Agarwal et al. 2018). In other words, healthcare organizations in emerging markets that are social conscious (health awareness campaigns, low-cost services through government cooperation, support, and education of local populations) besides from gaining legitimacy they are able to create new markets and increase their revenue.

Even though CSR activities seem to provide added value to the firm, empirical observations that employ CSR scores and

financial performance accounts do not provide any support of this argument (Kuzey et al. 2021). Moreover, it seems that CSR committees do not add value as when an interaction term is employed in the model between CSR committees and CSR performance, it is statistically insignificant (Kuzey et al. 2021). This could be justified by barriers regarding the adoption of environmental strategies like the passivity on environmental matters and the difficulties in quantifying the impact of environmental practices (Pinzone et al. 2015).

From the above we conclude the following. First, there is a growing pressure from stakeholders that healthcare organizations deliver high quality services with positive effects on the society and the environment (Pinzone et al. 2015; Mousa and Othman 2020) and as long as healthcare systems are facing tenacious challenges, such as ageing population and increases in chronic diseases and healthcare costs, facilitating transition to a more sustainable healthcare is of paramount importance (Johansen et al. 2018). Second, literature suggests that sustainability practices even though seem to some extent exhibit beneficiary effects for society and the environment, they are not fully implemented for various reasons such as ignorance (Johansen et al. 2018), difficulties in quantifying those actions and their impact (Pinzone et al. 2015), lack of commitment (Pinzone et al. 2015; Mousa and Othman 2020) and focus on providing medical services (Mousa and Othman 2020) rather than taking environmental actions (Mousa and Othman 2020). However, social impact can create new markets that by doing good deeds could bring additional revenue and resources to healthcare organizations (Agarwal et al. 2018). Increasing employability by providing medical training and increasing health awareness through campaigns contribute to the situation where healthcare organizations gain legitimacy and resources in terms of employees and increased revenues (Agarwal et al. 2018). Specifically, engaging health workers are happy workers that can add value to the organization (Sendawula et al. 2018; Minguela-Recover et al. 2022).

Consequently, training initiatives that revolve around all the aspects of sustainability (economic, social and environmental) will provide knowledge that will motivate health organizations to realize the value relevance of these concepts (Johansen et al. 2018; Mousa and Othman 2020). Moreover, on the job training should always be top priority (Sendawula et al. 2018).

3.2.3.5 Risk Management

Research in risk management, refers to different kind of risks and their management by health organizations. There is the governance of family firms in health care (Cobben et al. 2022), the reputational risk in social media (Chaudhri et al. 2021), climate risk and pandemics (Phipps 2020; Sharma et al. 2021), risk management frameworks and common risks in healthcare (Martin et al. 2015; Wilson 2022; Koutoupis et al. 2022; Joshua and Washington (2019).

To begin with, family firms in healthcare employ different forms of governance mechanisms (formal and informal) to mitigate relational and performance risks, while the perception on risks over time leads to trade off between formal and informal mechanisms of governance (Cobben et al. 2022).

Risk nowadays is highly concentrated on social media. Particularly, as social media scrutiny is strong, doctors could expose themselves and their organization to reputational risk. Particularly, the control over social media usage decreases as it challenges the employee alignment with the goals of the organization. This manifests through the complaints of the employees on social media. It is also very difficult in a huge organization with many employees each and every one of them to be in line with the organizational goals. Also, even though an organization decides to enact social media policies then too many of them will cause people to stop expressing themselves (Chaudhri et al. 2021). With regards the accessibility dimension, the convenience that characterizes social media could lead to an employee to cross boundaries and reveal personal information. Also, the immediate responsiveness of social media could create a culture that distracts from organizational goals and force employees to work faster (Chaudhri et al. 2021). All this in a time that patients' complains have increased as patients become more informed and a negative publicity could blemish medical profession (Chaudhri et al. 2021).

We have previously represented how CSR/Sustainability initiatives could interact within healthcare organizations. But what are the risks outside the strict microenvironment of the health organization and society in general? Phipps (2020) suggests that temperature increase that climate change effectuates pose direct threat to public health. Also, climate change combined with political instability-risk (such as wars and others) leads to immigration which puts strain on the health system of the countries that accept those immigrants. Further, climate change may lead to new illnesses such as COVID19 that creates higher health risk to vulnerable groups of the population (elders, children and other). A way to prepare for such disastrous phenomena is to study and learn from past experiences (Sharmaetal2021).

A quite simple risk management strategy that could be applied in the microenvironment of health organizations is the use of patients' complaints (soft data) simultaneously with other hard data metrics such as infection and complication ratios (Martin et al. 2015). This could lead to improved health outcomes and safety for patients. Further, there are signs preceding disasters that usually are ignored or miscalculated but usually it is the tendency in a health organization to prevail a culture of secrecy, denial and segmentation of knowledge and responsibilities for their encounter (Martin et al.

2015; Wilson 2022). This environment makes staff and patients more likely to feel that are powerless to provide warnings (Wilson 2022). Consequently, future disasters could be avoided when hospitals are more eager to hear stakeholders (patients, personnel and others), like patients' complains (Martin et al. 2015). Also, poor financial control and deficits are among the most prominent markers of a healthcare organization in demise (Wilson 2022).

From the above we conclude the following. First, human engagement is imperative for efficient risk management (Wilson 2022; Martin et al. 2015), however personnel and healthcare organizations should keep in mind that stakeholders' engagement poses its own risk after a certain threshold (Chaudhri et al. 2021). In addition, learning from the past and having plans and risk management frameworks in place is crucial for effective risk recognition and mitigation (Wilson 2022; Sharma et al. 2021). Particularly, employing public archives that are available regarding the most recurring risks in the governance of healthcare organizations as well as financial performance metrics (Wilson 2022) is a relatively easy way to learn from competitors and the past. Ultimately, health organizations in mind the big picture of universal challenges that is climate change that affects clinical governance long term (Phipps2020; Sharma et al. 2021).

3.2.3.6 Healthcare Governance Quality/Assessment Models

Literature in this subsection employs models that could be applied in healthcare organizations that measure and promote efficiency.

Favaretti et al. (2015), employ the (EFQM) Excellence Model to assess the integration and quality of performance and governance of an Italian healthcare trust. Regarding the model itself, it is based on eight fundamental excellence concepts and nine dimensions. A number of thirty-two sub criteria is contained in each criterion. The results suggest a significant improvement of the organization on customer satisfaction and key service delivery and outcomes.

A relatively recent emerging research field tries to explore Lean in healthcare. Lean focuses on analyzing workflow to reduce cycle time and eliminate waste, striving to maximize value to the customer while wasting the minimum amount of assets. Six Sigma targets perfection through the cost elimination and achievement of higher levels of customer satisfaction. Lean is a well-known manufacturing approach (Hallam and Contreras2018; Bhat et al. 2019). Specifically, in the healthcare concept Lean tries to cure issues of efficiency and patient satisfaction (Hallam and Contreras 2018). It seems that, patients' waiting time is incremental (Hallam and Contreras 2018; Bhat et al. 2019), as patients consider long waiting hours to be detrimental for their health, which can be significantly reduced by dealing with the cycle time of the system (Bhat et al. 2019). Moreover, effective clinical governance such as effective leadership and communication, data availability and involvement of cross-functional team are critical so that Lean Sigma Six to be successful (Bhat et al. 2019). The above seems to be verified by the literature review of Hallam and Contreras (2018), on Lean management in health care, as it seems that Lean can improve healthcare operational effectiveness through common methods employed in healthcare (statistical and others). Nevertheless, empirical studies show a narrow real-life practice with a relatively low success. In most cases, Lean has been applied through a limited employment of the relative tools that mainly focus on patient waiting times and it is still inconclusive whether it is efficient long term (Hallam and Contreras 2018). Overall, Lean practices in health increase efficiency through reduction of waiting hours and hospitalization (Hallam and Contreras 2018).

A more hard data approach is that of Nuti et al. (2017) which is applied in Italian local health authorities. Particularly, they follow a framework of 200 performance indicators in two stages. The first stage is that where from 200 indicators are selected only those who are accurate and available. Then for each indicator the region benchmark, the trend and the variance are defined. Consequently, the indicators that present greater variance from the benchmark are those in which management needs to make priority for further improvement.

Mosadeghrad (2015) employs a total quality management survey model to assess the Iranian healthcare organizations on different factors of total quality management such as leadership, strategic quality planning, education and training, resource management and others. The results suggest a medium level of successful total quality management of health care organizations, while employee, information and costume management present the most positive effect on total quality management success.

Further, McCarthy et al. (2016) suggest a model that takes into consideration the improvement of performance, the regulatory restrictions and patient's experience, as healthcare sector operates in a highly regulated environment. Those regulatory restrictions for example that revolve around patients' personal information could pose another obstacle for health care process (McCarthy et al. 2016; Ryyänen and Harisalo2018) and patients most often than usual complain about those difficulties (Ryyänen and Harisalo 2018). Through their complaints that revolve around care, patients hoped that their complaints would be taken seriously, to further have a positive impact on the organization's operations (Ryyänen and Harisalo 2018). In the same vein, more and more studies suggest that working groups in which patients and doctors have a constructive dialogue could result to an improvement of quality care (Locock et al. 2014; Boaz et al. 2016).

However, despite the inconclusiveness about the contribution of those integrated care models they remain a popular policy goal (Exworthy et al. 2017).

From the above we conclude the following. First, there is the need and challenge for healthcare organizations to use models that assess the integration and quality of performance and governance (Favaretti et al. 2015; Mosadeghrad 2015). Second it is crystal clear that patients and other stakeholders should actively engage to the improvement of perceived quality of healthcare governance (McCarthy et al. 2016; Rynänen and Harisalo 2018; Locock et al. 2014; Boaz et al. 2016). Patients' engagement ranging from a simple complain (Rynänen and Harisalo 2018) to a more co-design process (Locock et al. 2014; Boaz et al. 2016) could act as a catalyst for broader change in the attitudes of staff by providing a motivation for wider organizational and attitudinal changes (Boaz et al. 2016; Rynänen and Harisalo 2018). Nonetheless, despite that citizens' participation in healthcare is a central policy goal for governments and public authorities it is inconclusive and still under examination what really engagement entails which in turn is correlated to ideas that present high variance about the roles citizens could or should play in shaping healthcare (Renedo and Marston 2015). Third, testing governance models that target to efficiency from other industries such as lean management, more rigorous could provide additional tools (Hallam and Contreras 2018; Bhat et al. 2019) to recognize and deal with the main inefficiencies in healthcare such as overproduction (double entry of the same information), waiting time, patient and materials transportation, work overload that leads to stress, excess or missing inventory, unnecessary processes that make staff looking for paperwork and others, and medical errors and unnecessary tests (Hallam and Contreras 2018).

3.2.3.7 Cost Accounting/Financial Performance

Literature in this subsection provides insights on accounting costs in health organizations, the determinants of financial performance in healthcare organizations and the effect of mergers on the governance of healthcare organizations.

da Silva Etges et al. (2019) provide a costing framework that could contribute in health resource evaluation. Also, from the perspective of cost efficiency in healthcare, Moro Visconti (2014), analyzes the factors that should be taken into consideration choosing between a public-private partnership and traditional procurement.

3.2.3.8 Changes in Healthcare Systems

A health system as we previously mentioned, refers to the whole health system, not just the public system (Lipunga et al. 2019).

Wendt (2014) recognizes and describes four types of health systems, clustering 32 Organization for Economic Cooperation and Development (OECD) healthcare systems. Type 1, which includes Central and Eastern Europe countries healthcare systems and are characterized by strict access regulation and control of doctors' income chances through capitation payment. Type 2, healthcare systems combine strict access regulation and control of doctors' income chances with high levels of healthcare provision in the in- and out-patient sectors. In this category Finland, Iceland and Sweden are integrated, as well as Spain and Portugal who also increased their levels of in-patient healthcare. Type 3 is characterized by very low total health expenses and very high out-of-pocket payment, while general practitioners are paid a salary. Finally, type 4 is represented by the highest public finance of health and the lowest direct payments by patients.

Health care sector aims to cure sick people. Conversely, the public health sector aims to protect the general public from illnesses (Trein 2017). The healthcare and the public health sector are intertwined and therefore a coevolution between the two is observed (Trein 2017). In countries where public sector controls regulation and financing of healthcare governance, the two sectors should coevolve toward coordination, integration, and equality whilst in countries where private sector controls the governance of regulation and financing of healthcare, both sectors should be formally separated but informally they keep their equal status quo (Trein 2017).

Further, when it comes to transitioning health coverage from hospitals to primary care, policy makers should look for interprofessional cooperation among health professionals that constitute a team (Allan et al. 2014). Factors that affect the efficiency of those transition policies are organizational commitment, leadership, clarity of goals and coordination of the various specialties of professionals among the team (Allan et al. 2014). In the same vein, human factor is imperative for a successful transition to integrated governance (Barbazza et al. 2015).

Summarizing the above we conclude the following. First, it seems that little research has been conducted on comparing, analyzing and organizing health systems worldwide (Wendt 2014; Trein 2017). This could be attributed to the difficulties such endeavor entails such as for example the quantification of regulation and policy initiatives when analyzing multiple countries (Wendt 2014). An overview of health systems worldwide indicates that countries of Central and East Europe transition their health systems to follow the capitalistic models of Western countries, abandoning the socialistic models (Wendt 2014). Scandinavian countries and United Kingdom test their internal market, while countries of West Europe appear strong competition along with reinforced state intervention (Wendt 2014). Ultimately, United States of America present partially improvement on health coverage (Wendt 2014). Whatever the case may be, competent health workforce

is vital in the changing health landscape (Barbazza et al. 2015).

3.2.3.9 Cyber Security/Digital Transformation

Literature in this subsection revolves around cyber security and digital transformation in health.

Healthcare sector undergoes an essential and expensive digital transformation development (Garcia-Perez et al. 2022; Burton-Jones et al. 2020).

An effective and systematic approach of the cyber security that goes hand in hand with the adoption of the latest technologies and their applications in the healthcare systems is of the essence (Garcia-Perez et al. 2022; Abraham et al. 2019). However, we have yet to realize the way to form the strategic vision of a robust and long term digital transition of the healthcare sector (Garcia-Perez et al. 2022; Abraham et al. 2019; Burton-Jones et al. 2020). This could be attributed to the limited research (Burton-Jones et al. 2020) and practical knowledge among others (Abraham et al. 2019).

Garcia-Perez et al. (2022) suggests that healthcare sector presents systematic characteristics that pose a matter of life and death the development of cyber security knowledge and uncertainty management. In spite of the above, it is observed a superficial approach on cyber security that could be the result of various factors such as the evolution of health technology that come with the relative vulnerabilities, the plethora of security guidance frameworks and standards, the vastness of legal framework, the absence of a capable information technology (IT) function and total unawareness of top management executives of cybersecurity risk tolerance level as well as cybersecurity threats and defense mechanisms (Abraham et al. 2019). Ultimately, the institutional environment seems to exert a significant effect on the understanding of the evaluation of the whole digital transition in the healthcare sector (Burton-Jones et al. 2020).

From the above we conclude the following. First, as digital transformation of the healthcare sector is inevitable (Garcia-Perez et al. 2022; Abraham et al. 2019), cybersecurity is a global necessity that will concern market and science long term (Abraham et al. 2019). Particularly, superficial approaches on digital transformation in the health sector and consequently on cyber security could potentially pose life threatening situations as for instance any medical equipment with internet access could be a potential target for hackers (Abraham et al. 2019). Despite the severance of this reality, health organizations' management and policymakers seem to be unprepared (Garcia-Perez et al. 2022; Abraham et al. 2019). From the regulation standpoint oversight bodies could commence audits of healthcare organizations' digital capacities regarding their absorption, adaptation and transformation (Garcia-Perez et al. 2022). Healthcare organizations could integrate cyber security into the management strategy (Garcia-Perez et al. 2022; Abraham et al. 2019) through the comprehension of cybersecurity risks, valuing cybersecurity risks and mitigation measures and communication of cybersecurity initiatives and solutions (Abraham et al. 2019)

3.2.3.10 Human Resources Innovation

In this subsection we present literature that analyzes human resources and proposes innovative solutions on how health organizations could combine talents in the executive line of the organization.

As health organizations such as hospitals, face major challenges (ageing population, competition to attract human capital, government financial constraints), there seems to be the need to raise competition as well as cooperation with each other at the same time (coopetition) (Van den Broek et al. 2018). Specifically, this concept is relevant for the human resources as a joint Talent Management Pool could be developed between hospitals (Van den Broek et al. 2018).

Statistical analysis on employee-related issues is indicative of the innovation that is concentrated on human resources (Van den Broek et al. 2018).

A main concern on healthcare human resources is the perception of clinical professionals about their profession. Professionalism on behalf of doctors has been thoroughly studied (Moffatt et al. 2014; Byrkjeflot and Jespersen 2014). Traditionally, professions were commonly perceived as self-governing, with social control of the professional achieved through traditional informal rules and pressure around the professional. This perspective supports the creative and discretionary mindset of the professional.

However, recently the accuracy of the notion of social control became increasingly questioned, with professions often being seen as self-serving and unreasonably monitored (Moffatt et al. 2014). Specifically, professionals themselves seem to care mostly about their interests and how to monopolize their profession. In this sense national health systems like the one of United Kingdom that follow the model that try to control professionals failed to engage professionals, therefore a new professionalism is promoted in which productivity is recognized as an individualized professional duty (Moffatt et al. 2014). Moreover, this conflict between traditional self-governance and the emerging concept of management, gives birth to three hybrid management models (Byrkjeflot and Jespersen 2014). The first model proposes a manager that is also a clinician that has not entirely stopped practice medicine, the second model proposes managers with professional history in healthcare and the third model proposes a manager who is less autonomous manager that simply complies to regulators

(Byrkjeflot and Jespersen 2014). It seems that the logic of hybrid management protects the self-governance of the profession while at the same time embraces reforms towards more efficiency, accountability, and quality of services (Byrkjeflot and Jespersen 2014).

The superiority of managers with clinical background seems to be supportive by the literature (de Harlez and Malagueno 2016; Spehar et al. 2015; Spurgeon et al. 2015; Burgess et al. 2015; O'Meara et al. 2018; O'Meara et al. 2017; Tasi et al. 2019). de Harlez and Malagueno (2016) suggest that it is the top-level managers' personal background that enables a delicate balance between the usage of performance measurement systems and strategic priorities (supervising productivity and costs of the hospital, research and training of personnel, patients' care, partnerships between hospitals, accountability) in hospitals. In the same vein, it seems that effective medical leadership underpins the effective organizational performance (Spurgeon et al. 2015; Tasi et al. 2019).

Besides physicians, paramedic personnel in crucial clinical roles could also contribute to better quality and safety outcomes (O'Meara et al. 2017). Paramedic services are categorized to the French-German model which is mainly manned by medical personnel and the Anglo-American model, that uses paramedic personnel for ambulances' crew (O'Meara et al. 2018). There is no evidence that Anglo-American model performs better than the French-German model (O'Meara et al. 2017; O'Meara et al. 2018).

From the above we conclude the following. Hybrid management models that employ clinicians in top management positions provide superior performance (O'Meara et al. 2017; O'Meara et al. 2018; Spurgeon et al. 2015; Tasi et al. 2019; de Harlez and Malagueno 2016).

3.2.3.11 Governance of Innovation

So far we observe that stakeholders become more and more involved in the healthcare, thus having a say on the formulation of their own well-being (Secundo et al. 2018; Dobrzykowski et al. 2015; Proksch et al. 2019).

Specifically, the wide range of stakeholders cooperate to facilitate scientific knowledge or to develop novel services, solutions, and prototypes (Secundo et al. 2018).

In healthcare ecosystems, innovation refers to the upgrades and not the formation of a singular product or service (Secundo et al. 2018). Actors of healthcare ecosystem view innovation as an effective way to improve hospital performance expressed through patient satisfaction (Dobrzykowski et al. 2015; Proksch et al. 2019).

Governance of health innovation is defined as all those mechanisms that facilitate coordination and regulation of those interactions that lead to the production of new knowledge (McKelvey et al. 2018).

Healthcare ecosystem components (large firms, SMEs, universities, doctors, nurses, patients and others), exploration and exploitation stages (research and development) and the knowledge exchange among the ecosystem players during the phase of research and development (valuable knowledge contributions) are the critical factors that shape knowledge transfer in the concept of open innovation in healthcare (Secundo et al. 2018).

Every human development is motivated by different factors (Secundo et al. 2018). For instance, industry looks forward to increasing its profits by developing and distributing new products in the market. University hospitals on the other hand wish to improve their research activities therefore their output is to develop prototypes and technologies. Government by targeting to more cost-efficient policies they deliver low-cost products and services (Secundo et al. 2018). However, innovation itself does not always lead to improved performance as there is the involvement of many stakeholders that circle hospitals. If those stakeholders do not cooperate properly the results will lead to the opposite direction (Dobrzykowski et al. 2015). Specifically, it seems that hospitals that orient to innovation are better positioned to satisfy patient through key operational practices however the size of a hospital (number of beds) and the status of a teaching hospital does not contribute to the transformation of innovation to patient satisfaction (Dobrzykowski et al. 2015).

Nevertheless, governance of health innovation from a public policy perspective is complicated that could be attributed to the plethora of governance mechanisms managed by different stakeholders and focusing on different aspects of the process (McKelvey et al. 2018).

Ultimately, socio-tech ventures are entrepreneurial firms that their purpose is to create social value (Scillitoe et al. 2018). Scillitoe et al. (2018), analyze the technological innovation factors that affect the strategic orientation of socio-tech ventures by using case studies from health industry. These factors are the founders of socio-tech ventures (tenure, pro-innovation stance), innovation (complexity, trialability), organization (legal structure) and external environment (social network).

From the above we conclude the following. First, end-users, patients, policy makers, industries and academic institutions need to cooperate to advance scientific knowledge or to develop new services, solutions, and prototypes (Secundo et al. 2018; Dobrzykowski et al. 2015; Proksch et al. 2019). Second, more research needs to be done considering healthcare

ecosystem (Secundo et al. 2018; Proksch et al. 2019). Further, innovation in healthcare could conditionally (Dobrzykowski et al. 2015) lead to improved performance (Proksch et al. 2019; Dobrzykowski et al. 2015). Innovation in healthcare usually refers to improvements of product or services (Secundo et al. 2018) and it includes new pharmaceutical products that reduce the complication and mortality risks, mobile apps that help to manage patient cardiovascular diseases, processes that target the reduction of unnecessary hospitalization and medical devices that lead to more accurate diagnoses (Proksch et al. 2019). From the perspective of private organizations in health care ecosystem, balancing between their social, market and technology strategic orientation could be challenging (Scillitoe et al. 2018). Ultimately, the importance of innovation in healthcare has increased within the last decades as challenges, like rising costs and an aging demographic, have to be solved (Proksch et al. 2019), although the adoption and standardization of innovation in healthcare are likely to be delayed (Baird et al. 2014).

3.3.1 Potential for Future Research

We provide proposals for future endeavors. First, papers that employ a worldwide sample of countries are essential. Second, regarding the state of development, most studies should analyze emerging economies. Particularly, our observation suggests that countries like Greece, South Africa and others need more research attention. However, it seems that clinical governance is mostly studied in United States of America, United Kingdom and other developed countries.

Moreover, we observe that many studies examine the interaction between clinical governance and regulation-public policy. Furthermore, more research could be conducted on the interaction between clinical governance and board diversity (executives at the ceiling of the health ecosystem), as well as the interaction between different aspects of clinical governance and human resources (personnel and professions in the health ecosystem). Further, more research needs to be conducted in cyber security.

Table II also portrays the narrow range of methods employed that is case studies, essays and interviews.

Literature proposes that future research should employ more quantitative and mixed methods approaches, on investigating clinical governance. Further lending methodologies from other industries such as Lean management could be another fruitful avenue of research (Fournier and Jobin 2018; Hallam and Contreras 2018; Bhat et al. 2019). Another interesting proposal is to examine whether medical revalidation and administrative tenure of doctors improve outcomes for patients (Price et al. 2020) (See Table III).

Table III. Potential for future research

Study	Future Research	ABS Rank
Tsui et al. (2022)	Impact of the length and optimal CEO tenure on performance.	3
Kuzey et al. (2021)	CSR performance effect on firm performance.	2
Banerjee et al. (2017)	Women careers that determine the most health outcomes	1
Moro Visconti (2014)	Interdisciplinary research	2
McDermott et al. (2015)	Regulatory hybridity is sustainable long term	4
Price et al. (2020)	Effects of medical revalidation and administrative responsibilities of doctors on patient outcomes. Organizational and cultural factors that affect of medical revalidation and administrative responsibilities of doctors.	2

Wanke et al. (2022)	Research on whether is feasible to improve our health today without harming the health of future generations.	2
Bhat et al. (2019), Hallam and Contreras (2018)	More research on Lean management in healthcare	2
Fournier and Jobin (2018)	More research on Lean management in healthcare	2
Hallam and Contreras (2018)	More research on Lean management in healthcare	1
da Silva Etges et al. (2019)	Detailed frameworks that promote advances in technology innovation.	2
Garcia-Perez et al. (2022)	Research on digital resilience and digital transformation.	3
Scillitoe et al. (2018)	Develop a theoretical framework that explains the necessary balance between the contradictory aspects of socio tech ventures.	2
Rattan et al. (2022)	Expand the present model by including more dimensions depending upon the nature and structure of healthcare in the jurisdiction of interest or to meet the policy requirements of specific locations.	2
Trein (2017)	How of institutional coevolution affects policy capacity	4
Levy (2021)	Governance that ensures resiliency of societies and economies in the advent of extraordinary events	4
Agarwal et al. (2018)	Mixed method approach that incorporates both qualitative and quantitative methods. Multiple country emerging economies	3

	research and countries suffered from political conflict, war and poverty.	
Secundo et al. (2018)	Multi countries case study analysis.	3
Hunter and Murray (2019)	Research on the financialization that lights the narrative of private finance solutions to public problems	3
Prenestini et al. (2015)	Examine the direction of the relationship of clinical governance and senior management dominant culture.	2
Mannion et al. (2015)	Board characteristics effects on important health system processes, outputs and outcomes	2
Veronesi et al. (2015)	Explore the board-level decision-making and the role of clinicians. Specific impact of different clinical backgrounds (nursing, allied health professionals).	4
Ryynänen and Harisalo (2018)	How patient complaints handling affects organizational strategy.	1
McKelvey et al. (2018)	How policy affects risk-taking behavior and decision-making.	2
Sharma et al. (2021)	More data	3
Lipunga et al.(2019)	Broader sample. Implication of citizen activism in a developing countries' framework.	1

4. Conclusion

Since 2020 pandemic crisis a huge toll on healthcare has been observed. Currently, as macroeconomic environment presents the characteristics of high inflation and slow economic growth it is expected that public expenses that revolve around health to be reduced. Also, as digitalization of healthcare continues at a rapid pace developed countries initiate regulations on the use of the health data that will be the product of this evolution. At the same time, according to World Health Organization and the conclusions of our systematic literature, human societies are far from making a significant process into achieving universal health coverage that is one of the Sustainable Development Goals by 2030.

Our study, conducts a systematic literature review on health and clinical governance to recognize and discuss current trends methodologies and theories revolve around health and clinical governance. Consequently, we contribute to the literature of clinical and health governance by collectively analyzing what has been done and what needs to be done either in terms of public policy or in terms of scientific research.

We present the literature on clinical and health governance published in ABS journals for the period of 2014 to 2022. This leads to a broad, quality sample of research that explores different aspects of health and clinical governance.

Regarding the descriptive statistics of our sampled literature (Table I), our findings suggest that there is interest in single-country studies within a wide range of academic disciplines such as accounting, economics, ethics-csr, social sciences public policy and others.

Regarding the methods, theory and themes (Table II), we conclude that most studies employ qualitative methods such as case studies and essays to examine the different themes of clinical governance. Moreover, we distinguish a wide range of topics that refer to the regulation and policy that revolves around health and clinical governance such as the privatization and corporatization in healthcare, the board characteristics of healthcare organizations and how those interact with different aspects of health organizations, the corporate social responsibility in the concept of healthcare, the risk management, the models and tools employed to assess the performance of healthcare organizations, the cost accounting and financial performance, the changes in health governance systems, the cyber security and digital transformation, the governance of human resources and innovation. Also, theoretical frameworks employed present a high level of diversity in terms of academic discipline origins. Specifically, research employs new management theory that usually explains public policy studies as well as agency theory that is widely established in accounting and finance literature. However, relatively few research puts its findings into theoretical perspectives.

Regarding the potential for future research (Table III), we propose that future research employs a sample of emerging economies. Moreover, we propose the approach of methods that mix qualitative and quantitative tools such as surveys, case studies, regression analysis and others. Future research could also explore models that promote and measure efficiency from other industries such as Lean management (Fournier and Jobin 2018; Hallam and Contreras 2018; Bhat et al. 2019).

To whom it may concern (policymakers, practitioners, researchers, patients and other stakeholders), health governance quality improvement policies and policies of inclusion and universal health coverage should be built upon cooperation between stakeholders (Van De Bovenkamp et al. 2014; Pacey et al. 2017; Tenbensen et al. 2021), accountability and quality systems in place (Côté-Boileau et al. 2021; Bali and Ramesh 2017; Tenbensen et al. 2021), deep knowledge of health governance and clear policy initiatives (Lipunga et al. 2019; Nicaise et al. 2014; Bali and Ramesh 2017). Moreover, it is important to keep an eye on what others may do better than you that could give you a better perspective on “good governance” (Stoopendaal and van de Bovenkamp 2015), but mere “copy-paste” of foreign policies on health governance without taking into consideration institutional and other factors as well as fiscal capacities will be inefficient on the long term (Bali and Ramesh 2017).

Balance seems to be an essential strategy in matters such as health privatization and corporatization (when government follows an expansion policy and finances health for poor households should simultaneously enact constraint policies in the domain of health services delivery), board characteristics (the greater the size of the board, the higher transaction costs, informational asymmetry and communication and decision-making problems that probably outweigh the increased monitor capacity), sustainability (focus on providing medical services as well as taking environmental actions) and governance of innovation (private organizations in health care ecosystem are challenged to meet their social, market and technology strategic orientation). Further, future itself challenges healthcare ecosystem and demands transition and adaptation as ageing population and increases in chronic diseases and healthcare costs posit a more sustainable healthcare a top priority (Johansen et al. 2018). Technology and innovation could facilitate healthcare ecosystem to stand up to those challenges, if taken seriously. Nevertheless, digital transformation is a global phenomenon and ignoring cybersecurity risks could potentially pose life threatening situations as for instance any medical equipment with internet access could be a potential target for hackers (Abraham et al. 2019).

Our study has a number of limitations. First, regarding the time period and the criteria employed to select and organize our sample research. Other studies that do not fall into those criteria could potentially also provide insights in our thematology. Second, regarding our categorization on the themes presented, many studies could be suitable to fall into more than one themes. Moreover, future studies could conduct systematic literature reviews in more concentrated manner. For instance, they could conduct systematic literature review on cyber security and clinical governance that is a very promising field of research. Ultimately, the methodology we followed to conduct this systematic literature review took every measure to mitigate selection bias, even though the intervention of each and every researcher could lead to such bias (Massaro *et al.*, 2016).

References

- Abhayawansa, S., & Azim, M. (2014). Corporate reporting of intellectual capital: evidence from the Bangladeshi pharmaceutical sector. *Asian Review of Accounting*. <https://doi.org/10.1108/ARA-10-2013-0067>
- Abor, P. A. (2019). Exploring clinical communication in a teaching hospital in Ghana. *International Journal of Health Governance*, 24(2), 155-168. <https://doi.org/10.1108/IJHG-10-2018-0058>
- Abraham, C., Chatterjee, D., & Sims, R. R. (2019). Muddling through cybersecurity: Insights from the US healthcare industry. *Business horizons*, 62(4), 539-548. <https://doi.org/10.1016/j.bushor.2019.03.010>
- Agarwal, N., Chakrabarti, R., Brem, A., & Bocken, N. (2018). Market driving at Bottom of the Pyramid (BoP): An analysis of social enterprises from the healthcare sector. *Journal of Business Research*, 86, 234-244. <https://doi.org/10.1016/j.jbusres.2017.07.001>
- Aitken, K., & Von Treuer, K. (2014). Organisational and leadership competencies for successful service integration. *Leadership in Health Services*. <https://doi.org/10.1108/LHS-08-2012-0028>
- Akmal, A., & Gauld, R. (2021). What components are important for effective healthcare alliance governance? findings from a modified Delphi study in New Zealand. *Health Policy*, 125(2), 239-245. <https://doi.org/10.1016/j.healthpol.2020.12.012>
- Allan, H. T., Brearley, S., Byng, R., Christian, S., Clayton, J., Mackintosh, M., ... & Ross, F. (2014). People and teams matter in organizational change: professionals' and managers' experiences of changing governance and incentives in primary care. *Health services research*, 49(1), 93-112. <https://doi.org/10.1111/1475-6773.12084>
- Aubry, M., Richer, M. C., & Lavoie-Tremblay, M. (2014). Governance performance in complex environment: The case of a major transformation in a university hospital. *International Journal of Project Management*, 32(8), 1333-1345. <https://doi.org/10.1016/j.ijproman.2013.07.008>
- Baird, A., Furukawa, M. F., Rahman, B., & Schneller, E. S. (2014). Corporate governance and the adoption of health information technology within integrated delivery systems. *Health care management review*, 39(3), 234-244. <https://doi.org/10.1097/HMR.0b013e318294e5e6>
- Bakalikwira, L., Bananuka, J., KaawaaseKigongo, T., Musimenta, D., & Mukyala, V. (2017). Accountability in the public health care systems: A developing economy perspective. *Cogent Business & Management*, 4(1), 1334995. <https://doi.org/10.1080/23311975.2017.1334995>
- Bali, A. S., & Ramesh, M. (2017). Designing effective healthcare: Matching policy tools to problems in China. *Public Administration and Development*, 37(1), 40-50. <https://doi.org/10.1002/pad.1781>
- Banerjee, T., Bobrowski, P., & Friedman, B. (2017). Effective governance, female educational attainment, leadership and healthcare outcomes. *Theoretical Economics Letters*, 7(05), 1223. <https://doi.org/10.4236/tel.2017.75082>
- Barbazza, E., Langins, M., Kluge, H., & Tello, J. (2015). Health workforce governance: processes, tools and actors towards a competent workforce for integrated health services delivery. *Health Policy*, 119(12), 1645-1654. <https://doi.org/10.1016/j.healthpol.2015.09.009>
- Bhat, S., Antony, J., Gijo, E. V., & Cudney, E. A. (2019). *Lean Six Sigma for the healthcare sector: a multiple case study analysis from the Indian context*. *International Journal of Quality & Reliability Management*. <https://doi.org/10.1108/IJQRM-07-2018-0193>
- Boaz, A., Robert, G., Locock, L., Sturme, G., Gager, M., Vougioukalou, S., ... & Fielden, J. (2016). What patients do and their impact on implementation: an ethnographic study of participatory quality improvement projects in English acute hospitals. *Journal of Health Organization and Management*. <https://doi.org/10.1108/JHOM-02-2015-0027>
- Brown, A. (2020). *Communication and leadership in healthcare quality governance: Findings from comparative case studies of eight public hospitals in Australia*. *Journal of Health Organization and Management*. <https://doi.org/10.1108/JHOM-07-2019-0194>
- Burgess, N., Strauss, K., Currie, G., & Wood, G. (2015). Organizational ambidexterity and the hybrid middle manager: The case of patient safety in UK hospitals. *Human Resource Management*, 54(S1), s87-s109. <https://doi.org/10.1002/hrm.21725>
- Burton-Jones, A., Akhlaghpour, S., Ayre, S., Barde, P., Staib, A., & Sullivan, C. (2020). Changing the conversation on evaluating digital transformation in healthcare: Insights from an institutional analysis. *Information and Organization*, 30(1), 100255. <https://doi.org/10.1016/j.infoandorg.2019.100255>

- Byrkjeflot, H., & Jespersen, P. K. (2014). *Three conceptualizations of hybrid management in hospitals*. *International Journal of Public Sector Management*. <https://doi.org/10.1108/IJPSM-12-2012-0162>
- Chaudhri, V., Oomen, T., Pridmore, J., & Joon, A. (2021). "CARE" in social media: perceptions of reputation in the healthcare sector. *Journal of Communication Management*, 25(2), 125-141. <https://doi.org/10.1108/JCOM-06-2020-0059>
- Cobben, D., Neessen, P., Rus, D., & Roijackers, N. (2022). How family firms use governance mechanisms to mitigate the risks of ecosystems: a case study from healthcare. *Small Business Economics*, 1-20. <https://doi.org/10.1007/s11187-022-00667-w>
- Côté-Boileau, É., Breton, M., & Denis, J. L. (2021). Control rooms in publicly-funded health systems: Reviving value in healthcare governance. *Health Policy*, 125(6), 768-776. <https://doi.org/10.1016/j.healthpol.2021.04.007>
- Cucciniello, M., & Nasi, G. (2014). Evaluation of the impacts of innovation in the health care sector: A comparative analysis. *Public Management Review*, 16(1), 90-116. <https://doi.org/10.1080/14719037.2013.798026>
- da Silva Etges, A. P. B., Cruz, L. N., Notti, R. K., Neyeloff, J. L., Schlatter, R. P., Astigarraga, C. C., ... & Polanczyk, C. A. (2019). An 8-step framework for implementing time-driven activity-based costing in healthcare studies. *The European Journal of Health Economics*, 20(8), 1133-1145. <https://doi.org/10.1007/s10198-019-01085-8>
- de Harlez, Y., & Malagueno, R. (2016). Examining the joint effects of strategic priorities, use of management control systems, and personal background on hospital performance. *Management accounting research*, 30, 2-17. <https://doi.org/10.1016/j.mar.2015.07.001>
- Dobrzykowski, D. D., Callaway, S. K., & Vonderembse, M. A. (2015). Examining pathways from innovation orientation to patient satisfaction: A relational view of healthcare delivery. *Decision Sciences*, 46(5), 863-899. <https://doi.org/10.1111/dec.12161>
- Ellwood, S., & Garcia-Lacalle, J. (2015). The influence of presence and position of women on the boards of directors: The case of NHS foundation trusts. *Journal of Business Ethics*, 130(1), 69-84. <https://doi.org/10.1007/s10551-014-2206-8>
- Ellwood, S., & Garcia-Lacalle, J. (2016). Examining audit committees in the corporate governance of public bodies. *Public Management Review*, 18(8), 1138-1162. <https://doi.org/10.1080/14719037.2015.1088566>
- Exworthy, M., Powell, M., & Glasby, J. (2017). The governance of integrated health and social care in England since 2010: great expectations not met once again?. *Health Policy*, 121(11), 1124-1130. <https://doi.org/10.1016/j.healthpol.2017.07.009>
- Favaretti, C., De Pieri, P., Torri, E., Guarrera, G., Fontana, F., Debiasi, F., & Flor, L. (2015). An EFQM excellence model for integrated healthcare governance. *International journal of health care quality assurance*. <https://doi.org/10.1108/IJHCQA-02-2014-0022>
- Fotaki, M. (2014). Can consumer choice replace trust in the National Health Service in England? Towards developing an affective psychosocial conception of trust in health care. *Sociology of health & illness*, 36(8), 1276-1294. <https://doi.org/10.1111/1467-9566.12170>
- Fournier, P. L., & Jobin, M. H. (2018). Understanding before implementing: the context of Lean in public healthcare organizations. *Public Money & Management*, 38(1), 37-44. <https://doi.org/10.1080/09540962.2018.1389505>
- Freeman, T., Millar, R., Mannion, R., & Davies, H. (2016). Enacting corporate governance of healthcare safety and quality: a dramaturgy of hospital boards in England. *Sociology of Health & Illness*, 38(2), 233-251. <https://doi.org/10.1111/1467-9566.12309>
- Gauld, R., & Horsburgh, S. (2015). Clinical governance: a key, but under-researched, health system foundation. *Journal of Health Organization and Management*. <https://doi.org/10.1108/JHOM-03-2015-0056>
- Gauld, R., & Horsburgh, S. (2020). Has the clinical governance development agenda stalled? Perceptions of New Zealand medical professionals in 2012 and 2017. *Health Policy*, 124(2), 183-188. <https://doi.org/10.1016/j.healthpol.2019.12.013>
- Greve, C., Christensen, L. T., Tværnø, C., Nielsen, S. N., & Denta, S. M. (2022). Public-private partnerships in the healthcare sector: Limited policy guidelines, but active project development in Denmark. *Journal of Economic Policy Reform*, 25(2), 121-135. <https://doi.org/10.1080/17487870.2020.1855174>
- Hallam, C. R., & Contreras, C. (2018). *Lean healthcare: scale, scope and sustainability*. *International journal of health care quality assurance*. <https://doi.org/10.1108/IJHCQA-02-2017-0023>

- Hunter, B. M., & Murray, S. F. (2019). Deconstructing the financialization of healthcare. *Development and Change*, 50(5), 1263-1287. <https://doi.org/10.1111/dech.12517>
- Johansen, F., Loorbach, D., & Stoopendaal, A. (2018). *Exploring a transition in Dutch healthcare*. Journal of health organization and management. <https://doi.org/10.1108/JHOM-07-2018-0185>
- Jones, L., & Hameiri, S. (2021). COVID-19 and the failure of the neoliberal regulatory state. *Review of international political economy*, 1-25. <https://doi.org/10.1080/09692290.2021.1892798>
- Joshua, O. I., & Washington, L. D. S. (2019). Understanding internal control environment in view of curbing fraud in public healthcare unit. *African Journal of Business Management*, 13(18), 602-612. <https://doi.org/10.5897/AJBM2019.8891>
- Kalaitzi, S., Czabanowska, K., Fowler-Davis, S., & Brand, H. (2017). Women leadership barriers in healthcare, academia and business. *Equality, Diversity and Inclusion: An International Journal*. <https://doi.org/10.1108/EDI-03-2017-0058>
- Khanra, S., Dhir, A., Islam, A. N., & Mäntymäki, M. (2020). Big data analytics in healthcare: a systematic literature review. *Enterprise Information Systems*, 14(7), 878-912. <https://doi.org/10.1080/17517575.2020.1812005>
- Koutoupis, A. G., Koufopoulou, P. N., Antonoglou, D. I., & Vozikis, A. P. (2022). Risk identification, assessment and management in the Greek public hospitals: The contribution of the board of directors and internal audit. *Accounting and Management Information Systems*, 21(1), 92-112. <https://doi.org/10.24818/jamis.2022.01005>
- Koutoupis, A., Kyriakogkonas, P., Pazarskis, M., & Davidopoulos, L. (2021). Corporate governance and COVID-19: a literature review. *Corporate Governance: The International Journal of Business in Society*, 21(6), 969-982. <https://doi.org/10.1108/CG-10-2020-0447>
- Koutoupis, A., Skourti, T., Davidopoulos, L. G., & Kampouris, C. G. (2022). Board diversity: current state and future avenues. *Theoretical Economics Letters*, 12(3), 788-813. <https://doi.org/10.4236/tel.2022.123044>
- Kuzey, C., Uyar, A., Nizaeva, M., & Karaman, A. S. (2021). CSR performance and firm performance in the tourism, healthcare, and financial sectors: Do metrics and CSR committees matter?. *Journal of Cleaner Production*, 319, 128802. <https://doi.org/10.1016/j.jclepro.2021.128802>
- Leung, T. Y., Sharma, P., Adithiyankul, P., & Hosie, P. (2020). Gender equity and public health outcomes: The COVID-19 experience. *Journal of Business Research*, 116, 193-198. <https://doi.org/10.1016/j.jbusres.2020.05.031>
- Levy, D. L. (2021). COVID-19 and global governance. *Journal of Management Studies*, 58(2), 562. <https://doi.org/10.1111/joms.12654>
- Lipunga, A. M., Tchereni, B. M., & Bakuwa, R. C. (2019). Emerging structural models for governance of public hospitals. *International Journal of Health Governance*, 24(2), 98-116. <https://doi.org/10.1108/IJHG-03-2019-0018>
- Liu, K., Zhang, Q., & He, A. J. (2021). The impacts of multiple healthcare reforms on catastrophic health spending for poor households in China. *Social Science & Medicine*, 285, 114271. <https://doi.org/10.1016/j.socscimed.2021.114271>
- Locock, L., Robert, G., Boaz, A., Vougioukalou, S., Shuldham, C., Fielden, J., ... & Pearcey, J. (2014). Using a national archive of patient experience narratives to promote local patient-centered quality improvement: an ethnographic process evaluation of 'accelerated' experience-based co-design. *Journal of Health Services Research & Policy*, 19(4), 200-207. <https://doi.org/10.1177/1355819614531565>
- Lucas, J., Leggat, S. G., & Taylor, N. F. (2022). Association between use of clinical governance systems at the frontline and patient safety: a pre-post study. *International Journal of Health Governance*, 27(3), 282-295. <https://doi.org/10.1108/IJHG-02-2022-0023>
- MacVane Phipps, F. (2020). The climate change emergency: impacts on health governance. *International Journal of Health Governance*, 25(4), 387-392. <https://doi.org/10.1108/IJHG-10-2020-0118>
- Maier, C. B. (2015). The role of governance in implementing task-shifting from physicians to nurses in advanced roles in Europe, US, Canada, New Zealand and Australia. *Health Policy*, 119(12), 1627-1635. <https://doi.org/10.1016/j.healthpol.2015.09.002>
- Mannion, R., Davies, H., Freeman, T., Millar, R., Jacobs, R., & Kasteridis, P. (2015). Overseeing oversight: governance of quality and safety by hospital boards in the English NHS. *Journal of Health Services Research & Policy*, 20(1_suppl), 9-16. <https://doi.org/10.1177/1355819614558471>
- Martin, G. P., McKee, L., & Dixon-Woods, M. (2015). Beyond metrics? Utilizing 'soft intelligence' for healthcare

- quality and safety. *Social Science & Medicine*, 142, 19-26. <https://doi.org/10.1016/j.socscimed.2015.07.027>
- Martin, J., Flynn, M. A., Khurshid, Z., Fitzsimons, J. J., Moore, G., & Crowley, P. (2021). Board level “Picture-Understanding-Action”: a new way of looking at quality. *International Journal of Health Governance*, 27(1), 105-117. <https://doi.org/10.1108/IJHG-05-2021-0047>
- McCarthy, S., O’Raghallaigh, P., Woodworth, S., Lim, Y. L., Kenny, L. C., & Adam, F. (2016). An integrated patient journey mapping tool for embedding quality in healthcare service reform. *Journal of Decision Systems*, 25(sup1), 354-368. <https://doi.org/10.1080/12460125.2016.1187394>
- McDermott, A. M., Hamel, L. M., Steel, D., Flood, P. C., & Mkee, L. (2015). Hybrid healthcare governance for improvement? Combining top-down and bottom-up approaches to public sector regulation. *Public Administration*, 93(2), 324-344. <https://doi.org/10.1111/padm.12118>
- McKelvey, M., Saemundsson, R. J., & Zaring, O. (2018). A recent crisis in regenerative medicine: Analyzing governance in order to identify public policy issues. *Science and Public Policy*, 45(5), 608-620. <https://doi.org/10.1093/scipol/scx085>
- Minguela-Recover, M. Á., López-Fernández, C., López-Sánchez, J. A., & Picardo-García, J. M. (2022). The Spanish home care workers between job vulnerability and happiness in times of crisis. *Corporate Governance: The International Journal of Business in Society*, 22(3), 618-630. <https://doi.org/10.1108/CG-11-2021-0433>
- Moffatt, F., Martin, P., & Timmons, S. (2014). Constructing notions of healthcare productivity: the call for a new professionalism?. *Sociology of Health & Illness*, 36(5), 686-702. <https://doi.org/10.1111/1467-9566.12093>
- Moro Visconti, R. (2014). Multidimensional principal-agent value for money in healthcare project financing. *Public money & management*, 34(4), 259-264. <https://doi.org/10.1080/09540962.2014.920198>
- Mosadeghrad, A. M. (2015). Developing and validating a total quality management model for healthcare organisations. *The TQM Journal*, 27(5), 544-564. <https://doi.org/10.1108/TQM-04-2013-0051>
- Mousa, S. K., & Othman, M. (2020). The impact of green human resource management practices on sustainable performance in healthcare organisations: A conceptual framework. *Journal of cleaner production*, 243, 118595. <https://doi.org/10.1016/j.jclepro.2019.118595>
- Nerantzidis, M., Pazarskis, M., Drogalas, G., & Galanis, S. (2022). Internal auditing in the public sector: a systematic literature review and future research agenda. *Journal of Public Budgeting, Accounting & Financial Management*, 34(2), 189-209. <https://doi.org/10.1108/JPBAFM-02-2020-0015>
- Nguyen, T. H. H., Ntim, C. G., & Malagila, J. K. (2020). Women on corporate boards and corporate financial and non-financial performance: A systematic literature review and future research agenda. *International review of financial analysis*, 71, 101554. <https://doi.org/10.1016/j.irfa.2020.101554>
- Nicaise, P., Dubois, V., & Lorant, V. (2014). Mental health care delivery system reform in Belgium: the challenge of achieving deinstitutionalisation whilst addressing fragmentation of care at the same time. *Health Policy*, 115(2-3), 120-127. <https://doi.org/10.1016/j.healthpol.2014.02.007>
- Nuti, S., & Seghieri, C. (2014). Is variation management included in regional healthcare governance systems? Some proposals from Italy. *Health policy*, 114(1), 71-78. <https://doi.org/10.1016/j.healthpol.2013.08.003>
- Nuti, S., Vainieri, M., & Vola, F. (2017). Priorities and targets: supporting target-setting in healthcare. *Public Money & Management*, 37(4), 277-284. <https://doi.org/10.1080/09540962.2017.1295728>
- O’Meara, P., Wingrove, G., & McKeage, M. (2018). Self-regulation and medical direction: Conflicted approaches to monitoring and improving the quality of clinical care in paramedic services. *International Journal of Health Governance*, 23(3), 233-242. <https://doi.org/10.1108/IJHG-02-2018-0006>
- O’Meara, P., Wingrove, G., & Nolan, M. (2017). Clinical leadership in paramedic services: a narrative synthesis. *International Journal of Health Governance*, 22(4), 251-268. <https://doi.org/10.1108/IJHG-03-2017-0014>
- Pacey, F., Smith-Merry, J., Gillespie, J., & Short, S. D. (2017). National health workforce regulation: Contextualising the Australian scheme. *International Journal of Health Governance*, 22(1), 5-14. <https://doi.org/10.1108/IJHG-01-2016-0005>
- Paoloni, M., Mattei, G., Paoloni, N., & Modaffari, G. (2022). CAOS in Italian hospitals during COVID: an analysis of healthcare intangible resources. *Journal of Intellectual Capital*, 23(7), 18-37. <https://doi.org/10.1108/JIC-12-2020-0365>

- Phipps, F. E. M. (2021). Strengthening healthcare quality through identification of risk, improving quality standards and an outlier considering the integration between environmental status and human health. *International Journal of Health Governance*, 26(3), 323-329. <https://doi.org/10.1108/IJHG-09-2021-139>
- Pinzone, M., Lettieri, E., & Masella, C. (2015). Proactive environmental strategies in healthcare organisations: Drivers and barriers in Italy. *Journal of business ethics*, 131(1), 183-197. <https://doi.org/10.1007/s10551-014-2275-8>
- Pirozek, P., Komarkova, L., Leseticky, O., & Hajdikova, T. (2015). Corporate governance in Czech hospitals after the transformation. *Health Policy*, 119(8), 1086-1095. <https://doi.org/10.1016/j.healthpol.2015.05.002>
- Prenestini, A., Calciolari, S., Lega, F., & Grilli, R. (2015). The relationship between senior management team culture and clinical governance. *Health care management review*, 40(4), 313-323.
- Price, T., Tredinnick-Rowe, J., Walshe, K., Tazzyman, A., Ferguson, J., Boyd, A., ... & Bryce, M. (2020). Reviving clinical governance? A qualitative study of the impact of professional regulatory reform on clinical governance in healthcare organisations in England. *Health Policy*, 124(4), 446-453.
- Proksch, D., Busch-Casler, J., Haberstroh, M. M., & Pinkwart, A. (2019). National health innovation systems: Cluster-ing the OECD countries by innovative output in healthcare using a multi indicator approach. *Research Policy*, 48(1), 169-179.
- Rahman, R. (2020). Shrinking the state: The rise of private sector healthcare in Bangladesh. *Journal of International Development*, 32(5), 717-726.
- Rattan, T. K., Joshi, M., Vesty, G., & Sharma, S. (2022). Sustainability indicators in public healthcare: A factor analysis approach. *Journal of Cleaner Production*, 370, 133253.
- Renedo, A., & Marston, C. (2015). Spaces for citizen involvement in healthcare: an ethnographic study. *Sociology*, 49(3), 488-504.
- Romiti, A., Del Vecchio, M., Milani, C., & Sartor, G. (2022). Italian healthcare organizations facing new dimensions: changes in governance structure. *Journal of Management and Governance*, 1-29.
- Russo, F. (2016). What is the CSR's Focus in Healthcare?. *Journal of Business Ethics*, 134(2), 323-334.
- Ryyänen, S. P., & Harisalo, R. (2018). A strategic and good governance perspective on handling patient complaints. *International Journal of Health Care Quality Assurance*, 31(8), 923-934.
- Scillitoe, J. L., Poonamallee, L., & Joy, S. (2018). Balancing market versus social strategic orientations in socio-tech ventures as part of the technology innovation adoption process—examples from the global healthcare sector. *Journal of Social Entrepreneurship*, 9(3), 257-287
- Secundo, G., Toma, A., Schiuma, G., & Passiante, G. (2019). Knowledge transfer in open innovation: A classification framework for healthcare ecosystems. *Business Process Management Journal*, 25(1), 144-163.
- Sendawula, K., Nakyejwe Kimuli, S., Bananuka, J., & Najjemba Muganga, G. (2018). Training, employee engagement and employee performance: Evidence from Uganda's health sector. *Cogent Business & Management*, 5(1), 1470891.
- Sharma, A., Borah, S. B., & Moses, A. C. (2021). Responses to COVID-19: The role of governance, healthcare infra-structure, and learning from past pandemics. *Journal of business research*, 122, 597-607
- Spehar, I., Frich, J. C., & Kjekshus, L. E. (2015). Professional identity and role transitions in clinical managers. *Journal of health organization and management*, 29(3), 353-366.
- Spurgeon, P., Long, P., Clark, J., & Daly, F. (2015). Do we need medical leadership or medical engagement?. *Leadership in Health Services*, 28(3), 173-184.
- Stoopendaal, A., & van de Bovenkamp, H. (2015). The mutual shaping of governance and regulation of quality and safety in Dutch healthcare. *Health Services Management Research*, 28(1-2), 9-15.
- Tasi, M. C., Keswani, A., & Bozic, K. J. (2019). Does physician leadership affect hospital quality, operational efficiency, and financial performance?. *Health Care Management Review*, 44(3), 256-262.
- Tenbenschel, T., Silwal, P., & Walton, L. (2021). Overwriting new public management with new public governance in New Zealand's approach to health system improvement. *Journal of health organization and management*, 35(8), 1046-1061.
- Timmons, S., Coffey, F., & Vezyridis, P. (2014). Implementing lean methods in the emergency department: the role of professions and professional status. *Journal of health organization and management*, 28(2), 214-228.

- Trein, P. (2017). Coevolution of policy sectors: A comparative analysis of healthcare and public health. *Public Administration*, 95(3), 744-758.
- Tsui, A. S., Lee, B., & Yau, O. H. (2022). The impact of executive board gender diversity, R&D investment, marketing expenses on company performance in the healthcare industry. *Journal of Transnational Management*, 27(1), 3-36.
- Turner, S., & Wright, J. S. (2022). The corporatization of healthcare organizations internationally: A scoping review of processes, impacts, and mediators. *Public Administration*, 100(2), 308-323.
- Van De Bovenkamp, H. M., De Mul, M., Quartz, J. G., JWM WEGGELAAR-JANSEN, A. M., & Bal, R. (2014). In-stitutional layering in governing healthcare quality. *Public Administration*, 92(1), 208-223.
- Van den Broek, J., Boselie, P., & Paauwe, J. (2018). Cooperative innovation through a talent management pool: A qualitative study on coopetition in healthcare. *European Management Journal*, 36(1), 135-144.
- Veronesi, G., Kirkpatrick, I., & Altanlar, A. (2015). Clinical leadership and the changing governance of public hospitals: implications for patient experience. *Public Administration*, 93(4), 1031-1048.
- Wanke, P., Azad, M. A. K., Tan, Y., & Pimenta, R. (2022). Financial performance drivers in BRICS healthcare companies: Locally estimated scatterplot smoothing partial utility functions. *Journal of Multi-Criteria Decision Analysis*, 29(1-2), 173-185.
- Waring, J., Allen, D., Braithwaite, J., & Sandall, J. (2016). Healthcare quality and safety: a review of policy, practice and research. *Sociology of health & illness*, 38(2), 198-215.
- Wendt, C. (2014). Changing healthcare system types. *Social policy & administration*, 48(7), 864-882.
- Wilson, S. (2022). Developing an analytical framework to identify early warnings of serious problems with the quality and safety of care. *International Journal of Health Governance*, 27(2), 208-216.

Copyrights

Copyright for this article is retained by the author(s), with first publication rights granted to the journal.

This is an open-access article distributed under the terms and conditions of the Creative Commons Attribution license (<http://creativecommons.org/licenses/by/4.0/>).