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The Impact of Centralization in Healthcare Systems on the Governance of the Responses: A Study on the COVID-19 Outbreak

Cottino, Roberta Maria Clara

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Universiteit Leiden

The Impact of Centralization in Healthcare Systems on the Governance of the Responses: A Study on the COVID-19 Outbreak

Bachelor Project: The Welfare State in International Perspective

Student: Roberta Cottino (s2776391)

Thesis Supervisor: Dr. Ir. A.A.H.E. van Reuler

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To my dear mother Antonella, who peacefully departed while I was writing this thesis but will forever inspire me on my journey, and to my father Emanuele, my pillar of support

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I. List of abbreviations

ACs	Autonomous communities
ARS	Regional health agencies
CD	Crisis-dependent
CLEISS	Centre des Liaisons Européennes et Internationales de Sécurité Sociales
COBR	Cabinet Office briefing rooms
CoR	Committee of the Regions
COVID-19	Coronavirus disease 2019
DHSC	Department of health and Social care
EOHSP	European Observatory on Health Systems and Policies
GS	In line with the general healthcare system
NHS	National healthcare service
OECD	Organisation for Economic Co-operation and Development
SARS-COV-2	Severe acute respiratory syndrome coronavirus 2
UK	United Kingdom
WHO	World Health Organisation

1. Introduction

The outbreak of COVID-19 in China at the end of 2019 marked the beginning of an international crisis (Vampa, 2021, p. 601). COVID-19 is a new type of coronavirus, which causes a highly contagious respiratory syndrome known as SARS-COV-2 that transmits through the respiratory tract (CCDC, 2020). Despite the measures implemented to control the virus, the disease still affects everyone regardless of gender, income, or culture (Schleicher, 2020, p. 4). Thus, the risk of infection does not stop in front of countries' borders. In addition to its impact on individuals, the pandemic has raised unprecedented social, economic, and health challenges (OECD, 2020b, p. 2).

As countries exhibit variations in governmental structures, decision-making procedures, and containment measures, their responses to the pandemic have differed (Pearce, et al., 2020). Given the primary focus on the COVID-19 pandemic, this thesis specifically investigates countries with different levels of centralization in their healthcare systems and examines their respective reactions to the crisis. The outbreak led to some fundamental transformations in healthcare governance. Seeking to understand these changes, this paper will analyze four cases with diverse levels of centralization in the healthcare system, aiming to understand how they governed the responses to the outbreak.

The thesis will start by reviewing the existing literature on healthcare systems centralization over the governance of the responses both before and after the outbreak, identifying a theoretical gap to fill (*Ch. 2*). After the conceptualization of the main terms will be provided, the relevant theories will be addressed, and three hypotheses will be introduced (*Ch. 3*). The research design will follow, including an explanation of the methodology, case selection and data selection (*Ch. 4*). Then, the description of the different case studies will be provided (*Ch. 5*), followed by an analysis and discussion of the findings (*Ch. 6*). The conclusion will encompass implications, contributions, and limitations of the research (*Ch. 7*).

2. Literature review

2.1 Governance of the responses to the COVID-19 outbreak

Healthcare systems rest on certain fundamental pillars that enable them to function, such as the responsibility of financing, service delivery, communication, and governance (Wendt, et al., 2009, p.

71). These are tasks typically shared among the state, non-governmental actors, and markets. Existing literature on healthcare system governance explored its role in providing a strategic policy framework, ensuring accountability, and overseeing service delivery (WHO, 2010).

Due to COVID-19, literature on health systems has started to pay particular attention to healthcare governance concerning the virus. On March 11th of 2020, the outbreak got recognized as a public health emergency of international concern (WHO, 2020). Subsequently, several European governments implemented population-based measures to control healthcare and mitigate fatalities (WHO, 2020). Therefore, it is essential to analyze the governance dynamics of the responses to the outbreak. This encompasses a variety of aspects, including the rapidity of responses, the evaluation of implemented policies, the presence of decisive leadership, the allocation of responsibility for implementing the measures, and the deliberation on the distribution of freedom in adapting these measures (Al Saidi, et al., 2020, p. 296). However, given time and space constraints, this thesis will focus on the most pivotal aspects relevant to the topic's scope.

Firstly, *the allocation of decisive authority* is crucial due to the undeniable role of leaders during the pandemic. While leaders are influential in standard times for their countries, it is essential to understand their specific role during a crisis. Decisive leadership is needed to comprehend the threat and promptly implement necessary measures. Additionally, leaders collaborate with scientists, policy advisors, and authorities from other countries to monitor the spread of the virus and ensure an effective response (pp. 296-297). Secondly, *the entities responsible for implementing the measures* is of interest. Despite similarities in the centralization of healthcare systems, governments may adopt different approaches to implement responses or delegate them to sub-national authorities directly (Greer, et al., 2020, p. 99). This highlights the significance of understanding how implementation responsibilities are distributed between the entities. Lastly, the *level of freedom granted to these authorities in adapting measures* may vary. As the crisis leads to uncertainty across governments, regardless of their centralization, national and sub-national authorities may have different degrees of autonomy¹ in implementing and enforcing measures (Bosa, et al., 2022). This aspect is crucial as it highlights the flexibility provided to sub-national authorities in managing the responses.

2.1.1 *The allocation of decisive authority*

¹ Autonomy and freedom are used interchangeably

Literature in this field often advocates decentralization as desirable to achieve health systems objectives (Bossert, 1998, p. 1953). Bossert (1998) provides an approach to incentivize central governments to influence sub-national authorities in decision-making to reach the goal of health reform. Later, Saltman et al. (2007) highlight the prominence of the adoption of decentralized strategies by several European countries. However, with the emergence of COVID-19, governments faced complex challenges which led to changes in decision-making (Primc & Slabe-Erker, 2020, p. 5). According to Camoni (2022), the Head of Government is usually the central authority during a health emergency in decentralized countries. Similarly, Lowande and Rogowski (2021) explored the effect of international crises on the political system of different countries. They found that the pandemic may lead to strengthening the executive government. Additionally, Bolleyer and Salat (2021) found that COVID-19 weakened the Parliament's power in decision-making.

2.1.2 Responsibility for implementing the measures

Since the 21st century, decentralized reforms expanded worldwide, granting greater power to sub-national authorities (De Vries, M. S. 2000, p. 193). Robinson (2007) highlighted the importance of transferring powers to the local level in health service delivery. In contrast, Abimbola et al. (2019) found that decentralization has both positive and negative implications on healthcare systems and provided a framework to minimize issues in implementing health services. However, the COVID-19 pandemic may have led to some changes in the allocation of responsibility for implementing the measures. According to Vese (2023), countries that responded ideally to the threat implemented measures through *power sharing* involving governments, regions, and local authorities in the implementation process. Similarly, Fischer et al. (2022, p. 50) found that regardless of the level of centralization of the healthcare system, most countries, provinces, states, and municipalities share responsibility for implementing healthcare measures.

2.1.3. The level of freedom granted to the authorities

In the pre-pandemic era, Ladner et al. (2016) investigated the increasing decentralization focusing on the rising relevance of local authorities. Similarly, Isufaj (2013) highlighted that decentralized governments, compared to centralized governments, enhance the autonomy of local authorities. The proximity of sub-national authorities to the citizens granted them increased competencies and freedom in implementing policies based on the population's needs. However, during the COVID-19 pandemic, Troisi and Alfano (2022) found that total national authority during an emergency might be

the most efficient approach. Likewise, Bosa et al. (2022) identified issues arising from constant changes in the level of autonomy of national and regional governments during a crisis, concluding that the freedom of decentralized countries could pose obstacles to quick and integrated responses.

2.2 *The level of centralization of healthcare systems*

Without a comprehensive and valuable classification of healthcare systems, two significant issues can arise: underidentification and overidentification (Shortell, et al., 2000, p. 11). The former occurs when each healthcare system's key factors are perceived as unique, disregarding commonalities. While the latter arises when all the elements are treated uniformly, excluding potential differences. Therefore, classification is crucial as it identifies valuable criteria to distinguish between different systems. Existent literature offers various classification models depending on the research objective. Among these, the most prevalent models focus on healthcare funding, including the Beveridge, Bismarck, and mixed models (European Committee of the Regions [CoR], 2012, pp. 100-101). The first model pertains to a *National Health System* financed through public taxation and providing universal care. The second refers to the *Social Health Insurance System*, with healthcare funding from mandatory social security contributions. Lastly, the mixed model represents a *Private Health Insurance System* that combines private financing and payment.

2.3 *Literature gap*

Literature that examines the relationship between centralization and the governance of healthcare systems has always existed in academia (Sreeramareddy & Sathyanarayana, 2019). However, with the pandemic's onset, academic literature shifted its focus toward healthcare and centralization, specifically in the context of COVID-19. Despite the existing literature on both before and after the outbreak, there is a lack of comparative literature between the two periods. Therefore, it is essential to address this literature gap by comparing countries with different levels of centralization to provide a deeper understanding of the changes in the governance of healthcare measures due to the outbreak. Hence, this thesis aims to investigate and answer the following research question: *What is the influence of the level of centralization of healthcare systems in unitary countries on the governance of the responses to the COVID-19 outbreak?*

3. Theoretical framework

3.1 Conceptualization

3.1.1 The level of centralization of healthcare systems

It is essential to address the following concepts to ensure a clear understanding of the independent variable. *Public health* encompasses a wide range of activities and interventions aimed at improving and protecting the health of the population (Cabaj, et al., 2019). The *healthcare system* is part of the broader field of public health, constituting a framework comprised of institutions, resources, and individuals with the objective of enhancing overall well-being (WHO, 2010, p. vi). Personnel, resources, guidance, and funding are critical components for the system's effective functioning.

The healthcare system comprises four domains that contribute to the overall objective of public health. Preventive care involves proactive measures to prevent or reduce disease and injury occurrence (OECD, 2017, p. 4). Curative care encompasses medical treatments and interventions to address illnesses or injuries, reduce their severity, and protect individuals from diseases that affect their daily lives (OECD, 2022, p. 1). Palliative care provides treatments to alleviate the pain of individuals affected by life-threatening illnesses (p. 91). Rehabilitation aims at helping individuals to regain functional capabilities after illnesses and injuries (Timm et al., 2021). It is important to note that this thesis will focus on the entire healthcare system, including all the various elements throughout the research.

The COVID-19 pandemic has highlighted the importance of *centralization* as a crucial criterion for classifying healthcare systems (Vampa, 2021, p. 601). In this study, *centralization* and *decentralization* represent opposite ends of a spectrum, and each healthcare system positions itself between the two based on its level of centralization. On one side, *centralized* healthcare systems are characterized by the decision-making, management, and planning of healthcare services into a central entity (Sreeramareddy & Sathyanarayana, 2019). On the other side, *decentralized* healthcare systems grant authority for planning, decision-making, and organization to the sub-national level (Bankauskaite & Saltman, 2007, p. 10). The term *sub-national level* encompasses regional governments (e.g. states, provinces, and territories) as well as local governments (e.g. municipalities and cities) (OECD, 2019, p. 6). The different levels of centralization along the spectrum form the basis for the *typology of health management systems* (CoR, 2012), the classification adopted for this thesis (see Figure 1).

Compared to other classifications, the *typology of health management systems* is advantageous because it emphasizes the role of both central and sub-national authorities within the healthcare system (p. 106). Countries are categorized into five types of health management systems based on their approach to regional and national administration of funding and healthcare facilities (p. 110). On the one hand, the funding level is determined by sub-national authorities' presence, absence, and the extent of public health funding responsibility (p. 107). Decentralized countries may have a higher level of public funding since it is generated at the local level, granting them greater spending autonomy. On the other hand, sub-national authorities may also have ownership of healthcare facilities and direct involvement in the implementation of management functions (p. 109).

Figure 1

A Typology of Health Management Systems (CoR, 2012, p. 112)

Type	Functions	Funding level	Healthcare facilities		Countries
			Ownership	Management	
1	Decentralized	Above EU average	YES	YES	Italy, Spain
2	Partially decentralized	Above EU average	YES	YES	Denmark, Sweden, Poland
		Below EU average			Belgium, Germany
3	Operatively decentralized	Below EU average (Low or nil)	YES	YES	Romania, Slovenia
			NO	NO/ YES	Netherlands, United Kingdom

4	Centralized but structured at the territorial level	Low or nil	NO	YES	France
5	Centralized	NO	NO	NO	Cyprus

First, the *decentralized* typology encompasses *regional health management systems*. Countries in this category exhibit high regional funding levels, with local and regional authorities playing significant roles in healthcare facilities administration. Secondly, the *partially decentralized systems* encompass countries with varying funding levels (p. 111). These countries resemble the *decentralized* typology as healthcare facilities are managed at local and regional levels. Thirdly, the *operatively decentralized healthcare systems* have relatively limited healthcare funding compared to other countries. Nevertheless, local and regional authorities in countries fitting into this typology assume responsibility for implementation. Another category involves *centralized structure at the territorial level*, where healthcare systems are mostly centralized. Here the central government holds the primary authority, with local bodies acting as representatives of the main power and implementing policies at the territorial level. Lastly, fully *centralized* countries lack healthcare funding, and their facilities are exclusively provided at the national level. Thus, these categories refer to different levels of centralization in healthcare systems.

3.1.1 Governance of the responses

While the term *governance* is often considered imprecise, it is primarily conceptualized as a *self-organizing, interorganizational network* that complements both market mechanisms and hierarchical structures in managing resources, as well as regulation and coordination (Rhodes, 1996, p. 652). In the context of the COVID-19 pandemic, the *governance of the responses* refers to the process of managing measures adopted by all levels of government and public authorities to protect individuals and rebuild growth (Lazarou, 2020). Examples of such measures include testing, vaccination campaigns, travel restrictions, and lock-down. To provide an in-depth understanding on the governance of the healthcare measures before and after the outbreak, the various components identified in the literature review must be investigated. Therefore, three sub-research-questions will be addressed to delve deeper into the topic.

Starting with *what is the influence of the level of centralization of healthcare systems in unitary countries on the allocation of decisive authority during the COVID-19 pandemic?* The allocation of decisive authority typically refers to the delegation of final decision-making by the government to individuals, entities, or governmental bodies within a country (Adolph, et al., 2012, p. 1595). In the context of the pandemic, the entities with the allocation of authority become the de facto decision-maker for health resources, health policies, and the health delivery organization (Fischer, et al., 2022, pp. 1-2). Secondly, *what is the influence of the level of centralization of healthcare systems in unitary*

countries on the entities responsible for implementing the measures to address the COVID-19 pandemic? Depending on the level of centralization, services may be implemented by the central department and/or a network of sub-national authorities, health authorities, voluntary groups, and private businesses (Rhodes, 1996). During the pandemic, authorities (e.g. national and regional governments) were entrusted with the responsibility of ensuring the implementation of containment measures at the territorial level (OECD, 2020b, pp. 2-5). Finally, *what is the influence of the level of centralization of healthcare systems in unitary countries on the level of freedom granted to the authorities during the pandemic?* Authorities have been given certain autonomy in making territorial and administrative decisions (Cigu & Oprea, 2012, p. 8). During the pandemic, the level of autonomy in administering responses aimed at mitigating the crisis differed based on the level of centralization of healthcare systems (Patton, et al., 2022, p. 165).

3.2 Crisis management

Due to COVID-19's relevance as a health crisis, it is important to understand how different authorities dealt with it. *Crisis management theory* is crucial as it enables understanding of extraordinary governance challenges and facilitates responses to address the crisis (Boin, et al., 2017, p. 4). Specifically, during a crisis, a social system encounters an urgent and unexpected threat that jeopardizes both its fundamental structure and the well-being of the population. *Strategic crisis leadership* is a fundamental component of crisis management, as it enables a well-organized response to the challenges posed by an international crisis and enhances the functioning of public leadership and governance (p. 13). Leaders' decision-making is required to provide effective strategic crisis leadership, and choices over actors' responsibility and autonomy in implementing the responses must be made (p. 15).

3.3 Theories on sub-national authorities

In this context, the *principal-agent theory* is significant as it entails that *principals* (central government) delegate authority to *agents* (sub-national authorities) for enacting health policies and implementing measures (Bossert & Beauvais, 2002; Fischer et al., 2022). When facing a threat, national governments tend to have an overseer role, setting standards and regulating the health agenda (pp. 50-51). In contrast, local authorities are responsible for implementing health measures with the support of hospitals, primary care, and health agencies. Additionally, when referring to (de-)centralization levels and sub-national authorities when facing a threat, the *principle of subsidiarity*

emerges with a complementary role (Bunikowski & Musialkiewicz, 2022, p. 77). This principle suggests that local authorities are the most capable of addressing tasks because they have the best knowledge of the needs of their communities (p. 75). While subsidiarity may seem to overlap with decentralization, it is crucial to highlight that the former is a guiding principle that determines how decisions should be made, while the latter is a governance process of transferring power to the sub-national level. In a pandemic era, this principle suggests that local authorities in decentralized countries implement measures based on population needs. In contrast, sub-national authorities in centralized countries had a marginal role as they were mostly involved in consultation activities.

3.4 Theoretical expectations

Following logically from the literature review and theoretical framework, the study will investigate the following theoretical expectations in an attempt to answer the aforementioned sub-research questions. Firstly, *H1: During the COVID-19 pandemic, in highly centralized healthcare systems, authority was concentrated within the executive government, while in highly decentralized healthcare systems, authority shifted from the local to the executive government.* The hypothesis posits that during COVID-19, decision-making power was centralized in decentralized countries. Secondly, *H2: During the COVID-19 pandemic, regardless of the level of centralization, while the executive government had the power to oversee the measures, sub-national authorities were responsible for implementation.* It is expected that countries had similar approaches to facing the threat of the pandemic. Lastly, following the previous hypothesis. *H3: During the COVID-19 pandemic, in highly centralized healthcare systems, authorities had limited freedom in implementing measures, while in highly decentralized healthcare systems, authorities had greater freedom in implementing measures based on the circumstances.* Local authorities are expected to have high autonomy in decentralized countries and low in centralized ones while dealing with the threat.

4. Research design

4.1 Methodology

The case selection of this thesis will be based on a diverse case study design due to the existent variation within the independent variable (Gerring, 2008). Despite some similarities in public health management during the pandemic among Western-European countries, they differed in the level of

centralization of their healthcare systems. By including case-studies that cover a diverse range of values associated with the two variables under investigation, this research design enhances the representativeness of the analysis (p. 9). Thus, countries with different approaches to central and sub-national management of funding and healthcare facilities have been selected to represent the variation in the level of centralization of the healthcare system.

A case-study comparison will be conducted to capture the *full range of variation* of countries' healthcare systems' centralization and the governance of the responses to the outbreak. This approach allows for investigating a contemporary phenomenon while providing an in-depth understanding of the various case studies within the same real-world context, relying on different types of data (Yin, 2018). Furthermore, the selected cases are revelatory as they *reveal* the relationship between the level of centralization and the governance of the responses, which may not be feasible through other research methods (Halperin & Heath, 2020). Thus, the case-study comparison has been chosen over other approaches because it can reveal whether, during the COVID-19 pandemic, the allocation of decisive authority, the entities accountable for implementing the measures, and their level of freedom exhibited similarities or differences among countries with varying levels of centralization. Moreover, this thesis adopts a small-N sample, allowing for an in-depth investigation of specific case studies, leading to a detailed understanding of underlying reasons and theories (p. 168).

4.2 Case selection

This research systematically selects Italy, France, Spain, and England as case studies with different healthcare systems. A set of diverse cases should include both high and low values in the independent variable (Gerring, 2008, p. 10). Therefore, case studies that exhibit both high and low levels of centralization in their healthcare systems have been selected, as outlined by the *typology of health management systems* (CoR, 2012) (*Figure 1*). In an effort to choose cases at the opposite extremes of the classification, particular attention has been given to countries categorized as *decentralized (type 1)* and *centralized but structured at the territorial level (type 4)*. The selection of countries is based on two criteria: (1) the need to select unitary countries and (2) the linguistic capacities of the research. As federal countries differ from unitary countries in terms of decentralization and governance structure, only unitary countries have been included in this research (Kuhn & Morlino, 2021, p. 109). Furthermore, to ensure equitable use of primary sources, countries whose official language is not within the linguistic abilities of the research have been excluded. Consequently, it should be noted

that chosen cases do not encompass the entire range of variation along the spectrum of centralization levels.

On one side of the spectrum, Italy and Spain have been selected as case studies for *type 1-decentralized* (Figure 1). Both countries are unitary, with high levels of public funding and ownership and management of healthcare facilities at the sub-national level (CoR, 2013, pp. 110-112). Countries categorized as *partially decentralized (type 2)* and *operatively decentralized (type 3)* have been excluded as they do not meet the aforementioned criteria. For example, Germany could not be included in this thesis because of its federal system. Similarly, several unitary Eastern European countries were not selected due to linguistic issues. The United Kingdom [UK], on the other hand, presents a unique case as it is a unitary *operatively decentralized* state comprised of four constituent countries. However, England has been selected as the case study for this thesis. Aside from having the largest population among the UK's constituencies, England is particularly relevant as London, its capital, is also the location of the UK's central government. Additionally, Public Health England played a crucial role during the pandemic by cooperating with the UK Government to provide advice and implement national responses (British medical association [BMA], 2022, p. 12). In comparison to the other constituencies of the UK, England has been selected for its importance in the overall governance of the pandemic responses. Since each constituency of the UK has its own National health service [NHS] administered at the territorial level for healthcare service delivery, England has been classified in the *type-4 category* (CoR, 2013, p. 93, 111). Similarly, France has been selected in the same category because it has a central government responsible for the healthcare system, but the delivery occurs at the territorial level. Countries categorized in *Type 5-centralized* have been excluded as they do not meet the criteria. Therefore, Italy, France, Spain, and England have been selected to provide the highest variation considering the research needs.

4.3 Data selection

To ensure a comprehensive case description, this thesis adopts an inclusive approach to data selection by incorporating multiple source types. Data triangulation will be employed to enhance research validity and reliability (Yin, 2009). This research will make use of primary sources, including government reports, websites, legislative acts, and newspaper articles. Secondary sources, such as academic articles, books, and organizational reports, will also be utilized.

On the one hand, primary sources provide detailed and original data, thus enhancing the reliability of the information presented. Government reports, and websites provide official and accurate information, while newspaper articles offer insights into specific events occurring within each country. However, caution should be exercised when using newspapers due to the potential presence of misleading information. Therefore, only national newspapers will be utilized in an attempt to reduce misinformation. On the other hand, secondary sources will help to contextualize and analyze primary sources. Academic articles, books, and organizational reports help to summarize information, identify relevant aspects of the research, and understand different perspectives. Therefore, this data selection aims to provide a well-round analysis that supports the credibility of the findings. Furthermore, given the focus of this thesis on the year 2020, only data from this period will be employed to analyze governance in response to the outbreak.

5. Case studies

5.1 Italy

5.1.1 *The onset of the COVID-19 healthcare emergency*

Italy was the first European country to be heavily affected by the COVID-19 virus (OECD/European Observatory on Health Systems and Policies [EOHSP], 2021b, p. 16). The lack of revision and implementation of the existing influenza pandemic plan resulted in the disorganization and unpreparedness of the NHS during the pandemic (Bosa, et al., 2022, p. 1). Although the Italian Constitution does not provide explicit procedures to be applied in case of a health crisis, it includes certain legislations and administrative procedures to be applied in the case of war or imminent danger to public security (Grisolia, 2020, p. 596). Due to international pressure from the WHO and the threat of the crisis, the Council of Ministers declared a six-month *state of emergency* on January 31st (Gazzetta Ufficiale, 2020). Subsequently, the Italian government introduced extraordinary healthcare and administrative changes to respond to the crisis.

5.1.2 *Allocation of decisive authority*

In the pre-pandemic era, the Ministry of Health was primarily responsible for setting healthcare regulations, monitoring the healthcare system, and providing healthcare policies (Ministero della Salute, 2017). Moreover, with Italy having a decentralized NHS, the Ministry of Health worked in coordination with the local health authorities in decision-making to ensure a standardized level of care nationwide. However, during the pandemic era, the leadership and administrative authority in

decision-making became centralized (OECD/EOHSP, 2021b, p. 9). This is highlighted by the Italian Constitution, which entrusts the executive government with managing the crisis in case of emergency and leaves a marginal role to the Parliament (Grisolia, 2020, pp. 596-597). Therefore, the Prime Minister led the response to the pandemic, with support from the Department of Civil Protection and the Extraordinary Commissioner, to adopt effective measures to reduce the spread of the virus (OECD/EOHSP, 2021b, p. 9). After discussing and selecting COVID-19 measures within the Council of Ministers, the Prime Minister had the power to enact binding decisions through Prime Ministerial decrees (Gazzetta Ufficiale, 2020).

5.1.3 Responsibility for implementing the measures

Under the agreement signed by the Government and the Regions, the Ministry of Health, held central authority in formulating health policies and regulations (Ministero della Salute, 2015). Meanwhile, regional authorities were entrusted with the implementation of innovation policies within their territories to ensure uniform and equitable healthcare nationwide. However, while the executive government possessed decisive and supervisory powers during the pandemic, the sub-national authorities were responsible for enforcing and delivering healthcare services (OECD/EOHSP, 2021b, p. 9). Thus, leading to variations in implementation systems across the 20 Italian regions (Capano, 2020, p. 328). Initially, the Prime Minister enacted a decree outlining new measures, and then the President of the Region, in collaboration with regional and local authorities, ensured their implementation (Bocci, 2020).

5.1.4 Level of freedom granted to the authorities

Given the decentralized nature of the Italian NHS, regions had significant freedom in the provision of public health services within their territories before the pandemic. This allowed sub-national authorities to shape organizational models of healthcare services, and develop and implement regulatory arrangements (Saitta, 2018, p. 813). During the pandemic, Italian sub-national authorities had considerable freedom in adapting and implementing COVID-19 measures (Capano, 2020, p. 354). Particularly after the first lockdown, when 13 regions and local authorities requested greater autonomy in adopting measures tailored to their local population (Bosa, 2021). As a result, the Conference of Regions and Autonomous Provinces empowered sub-national authorities to address issues autonomously based on their circumstances (Fondazione Anci, 2020, p. 34).

5.2 France

5.2.1 The onset of the COVID-19 healthcare emergency

At the onset of the COVID-19 outbreak, France emerged as one of Western Europe's most heavily impacted countries (OECD, 2021, p. 22). The limited availability of healthcare resources and increasing doubts about the adequacy of the French pandemic plan exposed the country's lack of preparedness to address the COVID-19 pandemic (Capano et al., 2020). Consequently, on March 22nd, a nationwide *health emergency state* was declared (Du Boys, et al., 2022, p. 257). This declaration was issued through a decree by the Council of Ministers following the established law 55-385 of April 3rd, 1955. It can be invoked in response to an imminent threat to public order or in the event of a public disaster. The decree introduced extraordinary containment measures to confront the crisis (OECD/EOHSP, 2021a, p. 17).

5.2.2 Allocation of decisive authority

Before the onset of the COVID-19 pandemic, the Ministry of Health, and the Regional Health Agencies [ARS] were pivotal stakeholders in healthcare decision-making (Centre des Liaisons Européennes et Internationales de Sécurité Sociales [CLEISS], 2021). The former was primarily responsible for budget allocation, managing healthcare facilities, and monitoring safety standards and national health programs. The latter focused on coordinating prevention, support, and care within their respective regions. However, during the COVID-19 pandemic, there was a centralization of power in the executive branch and a reduction of the role of the Parliament (Du Boys, et al., 2022, p. 260). As per art. 2 law n ° 2020-290 enacted on March 23rd, 2020, the Prime Minister was granted extraordinary powers, such as regulating the movement of citizens and enforcing quarantine measures to mitigate the virus's impact. The President was crucial in decision-making, convening and chairing the Defense Council, a governmental body composed of selected ministers to deliberate on public health crisis measures (Hassenteufel, 2020, p. 174). Subsequently, the President addressed the nation through broadcast speeches to communicate the decision made. Thus, the Prime Minister and the President had exclusively leadership roles (Du Boys, et al., 2022, p. 260).

5.2.3 Responsibility for implementing the measures

Before the widespread of the virus, the Ministry of Health, played a significant role in ensuring the provision of an accessible and efficient healthcare system across the country (Ministre de la Sante,

2021). The Ministry worked in coordination with the ARS to oversee the implementation of public health policies and guidelines. However, with the outbreak of COVID-19, decision-making and supervisory powers were in the executive government, while at the territorial level, regional and local authorities took on responsibility for managing the crisis (OECD/EOHSP, 2021a, p. 9). At the territorial level, the responses to the crisis were implemented by the prefects, who represent the central government at the regional and local levels, and the ARS, which are responsible for monitoring public health crises (Du Boys, 2021, et al., p. 282). Therefore, prefects and ARS were crucial for implementing measures as they allowed for coordination between the central State and the territory in times of crisis (p. 283).

5.2.4 Level of freedom granted to the authorities

In the pre-pandemic era, the ARS worked in coordination with the central government, to manage healthcare policies, regulate resource allocation, and organize the healthcare system (CLEISS, 2021). During the pandemic, tensions arose between the central government and the sub-national authorities due to a lack of differentiated pandemic measures, especially in heavily affected regions, resulting in criticism of the State (Du Boys, et al., 2021, p. 261). Local authorities, playing a crucial role in ensuring compliance with the measures, advocated for territorialization based on specific circumstances, resulting in a shift in the balance of power in their favor (p. 284). As a result, during the second wave, measures were tailored to each territory based on population positivity rates, but the executive government retained central decision-making on territorial differentiation and the adoption of the measures (Du Boys, et al., 2021, p. 266; Hassenteufel, 2020, p. 175). Thus, sub-national authorities had some autonomy to adapt central government measures to their circumstances while maintaining cooperation with the executive government (Hassenteufel, 2020, p. 175).

5.3 Spain

5.3.1 The onset of the COVID-19 healthcare emergency

Spain experienced severe issues due to the widespread transmission of the COVID-19 virus across Europe (OECD/EOHSP, 2021c, p. 4). Despite having an updated influenza pandemic plan from 2006, it proved insufficient to combat the spread of the coronavirus, exposing weaknesses in the healthcare system and a scarcity of resources throughout the territory (The Lancet, 2020). As a result, under Royal Decree 463/2020 the Council of Ministers declared a *state of alarm* on March 14th,

encompassing the entire national territory, to curb the spread of COVID-19 (Boletín oficial del estado, 2020). Therefore, Spain was one of the first European countries to react to the outbreak and introduce a new response plan aimed at containing the pandemic (OECD/EOHSP, 2021c, p. 17). Additionally, the government established a *Recovery and resilience plan* entailing a series of public health reforms aimed at preparing for future health crises (OECD/EOHSP, 2021c, p. 17).

5.3.2 Allocation of decisive authority

Before the COVID-19 outbreak, the Ministry of Health was responsible for healthcare governance in Spain (Ministerio de sanidad y política social, 2010). It played a crucial role in decision-making in the national healthcare system and establishing regulations and policies. Additionally, as Spain has a decentralized NHS, the Ministry of Health collaborated with the Autonomous Communities [ACs] to ensure healthcare management across the country. However, the declaration of a *state of alarm* due to the COVID-19 pandemic led to a centralization of power from sub-national authorities to the executive government (OECD/EOHSP, 2021c, p. 8). According to the Spanish legislation, in such situations, the Council of Ministers, under the supervision of the Prime Minister, wields extraordinary powers and competencies over sub-national forces (Navarro & Velasco, 2022, p. 198). Ministers were responsible for issuing orders, resolutions, and sharing their perspectives within their areas of expertise while convening the Council of Ministers (Boletín oficial del Estado, 2020).

5.3.3 Responsibility for implementing the measures

In normal times, the Ministry of Health within the central government, holds exclusive powers in external health and establishes coordination with the ACs to ensure the adoption of healthcare policies and regulations (Constitución Española, 1978). During the outbreak of COVID-19 the Ministry of Health, in consultation with the rest of the executive government, remained responsible for managing the crisis (Erkoreka & Hernando-Pérez, 2022, p. 2; Mínguez Llorente, 2020, p. 388). Despite the centralization of the decision-making, the 17 ACs never lost their authority to adopt measures, implement health services, and allocate resources within their respective territory (Mínguez Llorente, 2020, p. 388; OECD/EOHSP, 2021c, p. 7). Especially after the first wave, a co-governance process was initiated to transit back to a normal governance model (Navarro & Velasco, 2022, p. 207). As part of this process, regional governments were responsible for proposing de-escalation measures within their territories (p. 202). Additionally, a new national-level Secretary of State for Health was established to enhance cooperation between the national government, ensuring the

effective function of the healthcare system nationwide, and the territorial administrations, responsible for implementing measures within their territory (OECD/EOHSP, 2021c, p. 7).

5.3.4 *Level of freedom granted to the authorities*

Since 2002, the ACs have assumed various healthcare governance responsibilities within their territory (De Marinis, et al., 2018, p. 226). The ACs were granted autonomy in health planning, healthcare system administration, and public health monitoring. During the pandemic, the primary responsibility for healthcare rested with the ACs (Mínguez Llorente, 2020, p. 386). Following the first wave, a new COVID-19 plan was introduced, re-establishing a co-governance model that tasked the ACs with implementing measures tailored to their specific territorial circumstances. The decentralization of the Spanish NHS provided significant political autonomy to the 17 ACs, enabling them to design, control, and adapt policy responses (Erkoreka & Hernando-Pérez, 2022, pp. 7-8). Per Article 4 of Royal Decree 463/2020, the ACs had the authority to implement all necessary measures to protect citizens through both ordinary and extraordinary services (Lasagabaster Herrarte, 2020, p. 144). Therefore, while the ACs had to agree on general guidelines with the executive government, they had the autonomy to independently decide on responses to the outbreak (Navarro & Velasco, 2022, p. 198).

5.4 *England*

5.4.1 *The onset of the COVID-19 healthcare emergency*

In 2019, the UK ranked second in the Global Health security index for its pandemic preparedness (Walters & Middleton, 2022, para. 2). Equipped with an updated plan for an influenza pandemic, the UK healthcare system appeared well-prepared to tackle a health emergency (Joyce & Whiteman 2020, p. 406). However, the pandemic response encountered delays and challenges, making the country among the hardest impacted globally (p. 408). One contributing factor was the underestimation of the virus's severity, with the scientific advisory body categorizing it as a *high* threat only on March 12th (p. 411). Consequently, the pandemic exposed vulnerabilities in the NHS, including resource shortages, inadequate infrastructures, and insufficient preparedness (BMA, 2022). To manage the spread of the coronavirus and safeguard public health in England, the government relied on the existing *Public Health (control of Disease) Act 1984* and introduced the *Coronavirus*

Act 2020, combining crisis-specific measures to contain the virus with broader general healthcare system considerations.

5.4.2 Allocation of decisive authority

Before the virus spread, the Department of Health and Social Care [DHSC], headed by the Secretary of State for Health, was accountable for the governance of the NHS, social care, and standardizing national health. Additionally, other organizations worked in conjunction with the central authority to provide services and resources across the territory (Grosios, et al., 2010, p. 530). These entities had sub-committees with specific roles in public health (p. 533). During the pandemic, decision-making in healthcare underwent constant changes throughout the year while maintaining a centralized approach (Haddon & Hitto, 2020, para. 1). Typically, the Cabinet Office briefing rooms [COBR] provides central coordination during prolonged emergencies (Joyce & Whiteman 2020, pp. 46-47). On March 25th, emergency powers were granted to ministers, which resulted in the removal of parliament's approval (Coronavirus Act, 2020). Initially, decision-making rested within the COBR and Cabinet, chaired by the Prime Minister. However, after the first lockdown, it was centralized around the Prime Minister to ensure a streamlined and responsive approach (Haddon & Hitto, 2020, para. 15).

5.4.3 Responsibility for implementing the measures

Before the global health crisis, the DHSC held primary responsibility for the NHS, including formulating and delivering health policies and guidelines, in close collaboration with other entities and organizations to ensure coordination throughout England (Grosios, et al., 2010, p. 530). However, during the pandemic, the adoption of measures was a shared responsibility among the Government, local authorities, and the Health and Safety Executive (UK Health Security Agency, 2021). Ministers were responsible for establishing the legal framework for national-level guidelines and implementing the local responses (Cabinet Office, 2020, p. 4). On the other hand, public agencies and local authorities were tasked with ensuring compliance with these measures within their respective areas (Brown, 2021, pp. 7-9). During the initial wave, police officers and local authorities promoted and ensured compliance with restrictions. Subsequently, the police could issue fixed penalty notices to individuals who violated the rules while local authorities continued to enforce central obligations (Cabinet Office, 2020, p. 9). Additionally, despite lacking formal enforcement power, coronavirus marshals volunteered to promote compliance with the measures (Brown, 2021, p. 8).

5.4.4 *Level of freedom granted to the authorities*

England has traditionally adopted a highly centralized approach to its NHS, with local authorities working with the central authority (Grosios, et al., 2010). However, since the adoption of the 2012 *Health and Social Care Act*, local authorities have been granted more power in population healthcare. Nonetheless, the Secretary of State for Health holds the main authority (Heath, 2014). Throughout the pandemic, the centralized government had primary responsibility for implementing the measures, leaving limited flexibility for local authorities (Cabinet Office, 2022). While regional partnership teams acted as intermediaries between national and local authorities, providing enforcement tailored to specific circumstances, local authorities could issue directions to restrict access to public gatherings (Health Protection Coronavirus, Restriction England Regulations, 2020). However, before issuing a direction, local authorities were obligated to provide evidence of an imminent public health threat and notify relevant governmental bodies. Furthermore, the Secretary of State retained the power to revoke these directions if the requirements were deemed unmet. Thus, local authorities had little autonomy in the implementation of the measures.

6. Analysis and discussion

The table presented below summarizes the identified findings of the previous section regarding the governance of responses to the COVID-19 outbreak (*Ch. 5*).

Figure 2

Overview of Countries' Governance of Responses to the COVID-19 Outbreak

Cases	Governance of the responses to COVID-19 outbreak			
	Allocation of decisive authority	Responsibility over the measures		Level of freedom for implementing the measures
		Overseeing	implementation	
Italy				
Decentralized	Prime Minister CD²	Executive government CD	Sub-national authorities GS³	High GS
France				
Centralized but structured at the	Prime Minister and President	Executive government CD	Sub-national authorities in coordination with the executive	Medium GS

² The response was crisis-dependent

³ The response was in line with the general healthcare system

territorial level	CD		government CD, GS⁴	
Spain				
Decentralized	Council of Ministers chaired by the Prime Minister CD	Ministry of Health within the Executive government GS	Autonomous Communities GS	High GS
England				
Centralized but structure at the territorial level	Prime Minister CD	Executive government CD	Executive government, local authorities, Health and Safety Executive, other governmental bodies CD	Low GS

⁴ the implementation of the measures was both crisis-dependent (prefects) and in line with the general healthcare system (ARS)

6.1 The allocation of decisive authority

Taking the four cases together, a pattern confirming the first hypothesis was discovered. The theoretical expectation stipulated that *during the COVID-19 pandemic, in highly centralized healthcare systems, authority was concentrated within the executive government, while in highly decentralized healthcare systems, authority shifted from the local to the executive government.* This hypothesis is supported by the fact that throughout coronavirus pandemic, decision-making in France and England remained solely in the hands of the executive government. Furthermore, Italy and Spain witnessed a power transfer from the sub-national authorities to the executive government due to the health emergency. Additionally, in all countries, the role of parliament became marginal as swift measures needed to be implemented.

6.2 Responsibility for implementing the measures

The second theoretical expectation was partially confirmed. The hypothesis posited that *during the COVID-19 pandemic, regardless of the level of centralization, while the executive government had the power to oversee the measures, sub-national authorities were responsible for implementation.* Italy and Spain aligned with the hypothesis, as the central authority monitored and supervised the adoption of measures, while local and regional authorities were in charge of implementing them. Similarly, in France, the executive government possessed decision-making and supervisory powers, while local authorities were responsible for implementing the measures but always referred to the central authority. However, in England, the oversight and implementation of measures primarily fell under the jurisdiction of the executive government. Local authorities, public agencies, police officers, coronavirus marshals, and other governmental bodies were responsible for enforcing compliance and providing guidelines. Consequently, the lack of a consistent pattern in England prevented the confirmation of the hypothesis, highlighting the necessity for further research.

6.3 Level of freedom for implementing the measures

The third theoretical expectation was found to be convincing. The hypothesis suggested that *during the COVID-19 pandemic, in highly centralized healthcare systems, authorities had limited freedom in implementing measures, while in highly decentralized healthcare systems, authorities had greater freedom in implementing measures based on the circumstances.* During the pandemic, in both Italy and Spain, regional and local authorities had the flexibility to provide and adjust measures

according to the needs of their respective population. In contrast, in France, sub-national authorities had a moderate level of autonomy in implementing measures, with cooperation with the central government being required. Similarly, in England, local authorities had limited freedom to adapt measures to reduce the spread of the virus based on their specific needs.

6.4 Additional findings

The exploratory design of this research led to the emergence of additional findings. It was observed that most of the responses to the COVID-19 outbreak were primarily driven by the crisis rather than following a pre-established healthcare system. This becomes apparent when examining how the governance of healthcare systems in these countries changed from before to after the outbreak. A significant finding is that in the highly centralized countries under investigation, the allocation of decisive authority during the pandemic was primarily in the hands of the Head of Government rather than other authorities within the central government. Another notable finding pertains to the entities responsible for implementing the measures in England. While the DHSC played a major role before the outbreak, during the pandemic, the responsibility for implementing and enforcing the measures became shared with other organizations.

7. Conclusion

This research project aimed to enhance the understanding of the influence of healthcare systems centralization on pandemic governance by answering to *what is the influence of the level of centralization of healthcare systems in unitary countries on the governance of the responses to the COVID-19 outbreak?* This study specifically focuses on the role of governments in Italy, France, Spain, and England to identify relative patterns.

This analysis focused on three levels of governance of the responses: the allocation of decisive authority, responsibility, and freedom in implementing the measures. Firstly, as expected, all the countries under investigation during the pandemic concentrated decision-making power in the executive government. Secondly, the expectation that during the pandemic, the executive government oversaw the measures while sub-national authorities implemented them was found unconvincing for England, leading to a partial confirmation of the hypothesis. Lastly, the expectation that decentralized countries granted higher freedom to authorities responsible for implementing measures during the

pandemic, while centralized countries granted limited freedom, held true. Therefore, this research project contributes to the literature by comprehensively analyzing changes in governance responses due to the COVID-19 pandemic.

Several limitations of this research should be highlighted. The small number of selected cases limits the representation of the full spectrum of centralization levels in healthcare systems. While this research analyzes countries at the extremes of the spectrum, including countries in the median range would yield more generalizable results. Another limitation pertains to the restricted access to governments' websites, which limits data availability on countries' governance. Furthermore, governmental documents are frequently updated, resulting in former versions being archived and inaccessible to the public.

This research carries significant implications regarding the crisis-dependent nature of countries' governance responses. It provides new findings into changes in governance from before to after the COVID-19 pandemic. Further research should be conducted to explore the relationship between healthcare centralization and COVID-19 governance. Building on the limitations, more European countries should be included in the range of centralization of the NHS, encompassing both unitary and federal countries, as well as Western and Eastern European nations. Additionally, more applied research should be conducted, considering various aspects of governance responses, such as response speed and policy evaluation. Given the evolving nature of the COVID-19 virus, further research should cover the entire duration of the pandemic to gain a deeper understanding of the changes within each country. Thus, applied research would provide valuable insights for policymakers, governments, and organizations to better prepare for future crises.

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III. Appendix A - Framework for the Governance of the Responses to the COVID-19 Outbreak

Allocation of decisive authority	Executive government	President Prime minister Council of Ministers
	Regional authority	
	Local authority	
Responsible for implementing the measures	Executive government	President Prime Minister Council of Ministers
	Regional authority	
	Local authority	
Level of freedom granted to these authorities	High level of freedom	Sub-national authorities are empowered to adapt and change the implementation of measures based on regional needs and circumstances.
	Medium level of freedom	Sub-national authorities have the freedom to adapt the implementation of measures based on their needs while ensuring cooperation with the central government.
	Low level of freedom	Limited flexibility is granted to sub-national authorities to adapt measures based on local needs and circumstances.

It is important to note that the reaction of countries to the pandemic may vary due to differences in the level of centralization of their healthcare systems. Consequently, the reaction to the pandemic cannot have its own column in the previously table, as it is a factor present in all variables. There are two types of reactions to the pandemic: crisis dependent (CD), and in line with the general healthcare system (GS). The inclusion of these codes in *Figure 2* aims to visually represent whether countries' reaction, in terms of (1) the allocation of decisive authority, (2) responsibility for implementing the measures, and (3) level of freedom in implementing the measures, were crisis-dependent or aligned with the general healthcare system.