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Coordinating assemblages: accounting for a novel disaster

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Abstract

Purpose – This study aims to examine how hospitals and regional and local health authorities in the Italian region of Marche accounted for and reported the use of emergency funds from the EU, the Ministry of Economic and Finance and administrative bodies called actuator subjects. Unlike a sudden impact disaster, such as an earthquake, the pandemic was slow moving and novel. This meant that the guidelines for medical, legislative, financial and administrative action were not as developed as those for sudden impact emergencies with which the Italian state was, unfortunately, experienced.

Design/methodology/approach – The paper investigates the Italian public healthcare setting since the declaration of the State of Emergency until its end—that is, from January 2020 to July 2021. We conducted 31 semi-structured interviews with nine key-actors working for national, regional and local administrative bodies. A range of related official documents were analyzed.

Findings – We show a non-linear and emergent account of standardization and coordination. We show how different state and transnational actors developed their own procedures to standardize COVID-related cost classifications and reports. These attempts also involved coordinating assemblages, at the center of which are templates imposed on hospitals and regional authorities by national state entities for cost-reporting practices and aggregation. Importantly, templates' visual features enabled coordination across the different standardization initiatives that populated the emergency response effort.

Research limitations/implications – The paper provides academics and policy makers with insights into the role played by accounting tools, templates, reports and guidelines to coordinate different cost standardization initiatives.

Originality/value – Accounting guidelines that standardize costs are known to be deployed hierarchically by states and transnational organizations for coordination purposes. We highlight, however, the emergence of not only hierarchical forms of coordination but also their interrelation with decentralized forms of coordination. These two types of coordinating assemblages, each standardizes cost through the accounting templates that they use. We demonstrate the emergent nature of coordination even within hierarchical entities like the state. Reporting templates are pivotal for understanding this coordination process. However, when a centralized coordinating body is absent, it is the visual features of accounting, rather than its imposition, that enable coordination.

Keywords Accounting, Coordination, Assemblages, Healthcare, COVID-19 emergency, Italy

Paper type Research paper

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1. Introduction

Studies of natural disasters in accounting have examined sudden impact events and the subsequent humanitarian crisis that followed. These include, for example, earthquakes (Sargiacomo *et al.*, 2014; Sargiacomo and Walker, 2022), hurricanes (Baker, 2014; Perkiss and Moerman, 2020) and floods (Lai *et al.*, 2014; Sciulli, 2018; Servalli *et al.*, 2023). Emergencies are often thought of as brief, abnormal and unpredictable events (Calhoun, 2004, p. 375), and the way they are managed is informed by some of these qualities. The accounting literature has shown that emergency responses to such types of disasters are characterized by swift funding and operational responses followed by an equally swift "rudimentary extraordinary accounting and reporting apparatus" that includes guidelines and templates for different government actors on how to categorize costs and report (Sargiacomo, 2015, p. 85). However, not all disasters are as sudden and characterized by this type of administrative response.

While the literature has focused on sudden impact disasters and emergency responses, less has been written about "slow moving disasters" such "as droughts, the collapse of ecosystems, subsistence crises and epidemics" (Pfister, 2006; Böhret, 1990). Unlike sudden impact disasters, slow-moving disasters are not always obvious; they are often incremental. For example, a drought does not have an immediate impact on organizations and society as an earthquake or a flood (Walker, 2014). This sort of disaster is a "'creeping phenomenon' because it slowly impacts many sectors of the economy and can last from just a few weeks or months to multiple years."[1] Like any type of disaster, slow moving disasters are a "shock for existing social structures . . . [it] designates a transformative event that destroys, reverses, upsets the order that precedes it" (Revet, 2020). But its indeterminate feature opens these sorts of disasters and even their existence, to debate and speculation. The COVID pandemic, for instance, was at times labeled a "health crisis" rather than a disaster, evoking a different sense of urgency, transformation and preparedness (Revet, 2020). It was also unprecedented, novel, for policy makers, national emergency programs and first responders who found it "extremely difficult to prepare for a disaster that has never occurred before" (Revet, 2020). The EU for instance, till 31 March 2020, did not include "disasters due to biological hazards" as a type of disaster that could receive funding (EC n. 2012/2002; EC n. 2020/461, p. 1).

Such disasters with uncertain status and for which there are no clearly formulated accounting guidelines put government emergency response efforts, funding bodies and their accounting and reporting teams in an unusual position. As such governments, funding bodies and emergency responders are confronted with the task of tackling the emerging disaster while developing an accounting and reporting system to account for interventions and their costs.

Nascent studies on the COVID pandemic do touch on the new challenge the pandemic presented for planning, accounting and reporting at the micro-organizational level (e.g. Huber *et al.*, 2021; Sargiacomo *et al.*, 2021). These studies on COVID-19 in accounting are primarily on the initial governmental responses to the pandemic. At this early stage, we are mainly exposed to the different ways organizations, regions and localities intervened to administer COVID-related healthcare and emergency support. For example, governments changed the budgetary review process (Ahrens and Ferry, 2021) and deployed new accounting tools to provide emergency relief (Sargiacomo *et al.*, 2021). Hospitals developed their own indicators (Huber *et al.*, 2021). However, less is known about what happens after these initial interventions, which is only possible by taking a longitudinal and process-oriented view of the field.

We conduct a snapshot study of the Italian response to the COVID pandemic through a case study of Ancona Hospital in the Marche Region. While experienced with earthquakes and how to categorize costs and funds for this sort of emergency (Sargiacomo, 2015), there were no such guidelines for COVID-related costs. The country's health and accounting infrastructure faced a novel disaster, novel types of patients, rhythms (waves) and national and international funding and reporting needs. As such, based on a combination of interviews and primary and secondary archival sources gathered from January 2020 to January 2022, this paper investigates how the different authorities mandated the provision of COVID-related expenses

and funding. What these different initiatives had in common is that each authority had its own way of doing so: there were no clear administrative and centralized guidelines. This was until coordinating through cost standardization became a concern. Whereas previous studies focus on what happens when organizations try to develop their own accounting responses early in the pandemic, this is our starting point. Our interest lies in the ambition to coordinate accounting responses.

To help us think about this, we take inspiration from the work on how accounting arranges fields of actors. This work has emphasized how accounting makes a field of actors, visible, intervenable and arrangeable (Neu *et al.*, 2006; Rahaman *et al.*, 2010; Miller and Rose, 1990). While there have been governmentality-based studies, others have used the Deleuze-and-Guattari-(1987) informed notion of assemblage to study a composition of heterogenous components that puts into focus the movement and transformation of components as they enter and depart assemblages (Neu *et al.*, 2009; Martinez and Cooper, 2017). These assemblages are, on the one hand, arborescent and hierarchically arranged aggregates of components, and on the other, emergent, that is, rhizomatic with molecular flows shooting out and seeking connections with other assemblages. While state emergency and pandemic relief interventions are often arboreal (Sargiacomo, 2015; Rahaman *et al.*, 2010), there are also decentralized and rhizomatic-like compositions enabled through accounting templates (Crvelin and Löhlein, 2022; Ahn and Wickramasinghe, 2021).

We identify through the study of a slow-moving novel disaster how different cost centers and accounting systems emerge and are arranged by the central government's Ministry of Healthcare (MoH) in the name of visibility and control. This hierarchical bureaucratic intervention is consistent with the existing literature on the arrangement of fields, which emphasizes the role of standardizing and making comparable accounting and reporting practices through centrally imposed controls (Rahaman *et al.*, 2010, p. 1098; Neu *et al.*, 2006). We highlight, however, the emergence of not only hierarchical-arboreal assemblages but also their interrelation with decentralized-rhizomatic assemblages that arrange the field in their own different way. These two types of coordinating assemblages, each standardizes cost through the accounting templates that they use. As such, we examine the interconnection between these two assemblages through their reporting templates and their components, such as lists and columns. In doing so, we demonstrate the emergent nature of coordination even within hierarchical entities like the state. Reporting templates are pivotal for understanding this coordination process.

Our study contributes to the accounting literature in two ways. First, studies have shown that accounting constitutes a field of organizations by making them visible and intervenable at a distance (Neu *et al.*, 2006; Rahaman *et al.*, 2010; Miller and Rose, 1990). A central part of this constitution is the arrangement and coordination of field actors through a central ledger, budgets and cost controls. Whether in the context of international development (Neu *et al.*, 2006; Martinez and Cooper, 2017), disasters (Rahaman *et al.*, 2010; Sargiacomo, 2015) and hospitals (Llewellyn and Northcott, 2005), these studies show that accounting requirements are imposed, actors comply by standardizing and making comparable their accounting and reporting practices and their way of thinking and acting and who is allowed to participate in the field are affected. Others, in contrast, have studied the way accounting coordinates, without hierarchically being imposed (Crvelin and Löhlein, 2022). We show how the templates themselves, their visual features, more than their imposition are what enables a transversal and emergent coordination of how field participants give accounts of their actions in a way that is standardized and comparable.

Second, accounting research has focused on the humanitarian crisis that followed the aftermath of a fast-arriving and quickly terminating event (Baker, 2014; Lai *et al.*, 2014; Sargiacomo *et al.*, 2014; Sciulli, 2018; Perkiss and Moerman, 2020; Sargiacomo and Walker, 2022), while less has been written on "slow moving disasters." While there are studies on different forms of accountability in other pandemics such as HIV/AIDS (Rahaman *et al.*, 2010) and the current pandemic (e.g. Yu, 2021; Ahrens and Ferry, 2021; Andreaus *et al.*, 2021;

Huber *et al.*, 2021; Leoni *et al.*, 2021, 2022; Graham *et al.*, 2023), our study shows how reporting and healthcare reporting protocols emerge in a novel slow-moving disaster, one that spans different waves, different times and places, with distinct accounting interventions erected at local, regional, national and international level. The analysis shows the way these accounting interventions are coordinated with one another as they coalesce into the state's reporting apparatus.

The paper is organized as follows. Section 2 offers a literature review on accounting for COVID-19 (2.1) and situates this study into the assemblage and coordination literature (2.2), starting from the premise that accounting intervenes and constitutes a field of actors. We introduce the main literature, at the same time highlighting key concepts that have helped us to inform our analysis of a novel disaster. Section 3.1 explains the context of the investigation considering four phases (first COVID wave; national coordination; EU coordination and second COVID wave), while Section 3.2 illustrates methodological aspects. Section 4 provides the empirical analysis, considering the four phases. Section 5 discusses the empirical case through the theoretical insight provided by Deleuze and Guattari, while Section 6 concludes by offering inputs for future research.

2. Literature review

2.1 Accounting for COVID

The COVID-19 pandemic in 2020 stimulated research on how accounting and accountability were used by state agencies, communities and organizations to face this unprecedented healthcare crisis. Immediately after the 2020 pandemic disruption, the accounting literature, with a view of the immediate COVID disruption, examined the evolving scenario of accounting in response to the pandemic, encompassing governmental, organizational and societal perspectives. As highlighted by Leoni *et al.* (2021, 2022) distinct themes can be identified in this literature: governmental responses; organizational adaptations; efforts to address inequalities; changes and dangers in accounting and accountability practices in times of crisis; accountability, reporting and disclosure practices, as well as the use of rhetoric.

A series of studies examined how organizations have adapted their accounting and financial management practices in response to the pandemic. Within this theme, work on management control systems and calculative practices has been conducted (Passetti *et al.*, 2021; Sargiacomo *et al.*, 2021). Passetti *et al.* (2021) investigated the role of management control systems in supporting organizational decision-making during the lockdown period. This study highlighted how accounting and management control worked as facilitative mechanisms in the context of natural crises and offered insights into the centrality of management control systems in monitoring the different results achieved (Walker, 2014). Sargiacomo *et al.* (2021) examined accounting and accountability activated by organizations committed to providing food and assistance to indigent people during the pandemic. The study shows the way accounting operated in the public sector, linking the macro and the micro level of government intervention and how calculative practices were capable of accounting for the food distribution by standardisation of systems included in the new emergency measures.

Other contributions (Kober and Thambar, 2022; Moscariello and Pizzo, 2022; Parisi and Bekier, 2022; Yates and Difrancesco, 2022) have focused on how accounting and accountability practices changed and adapted through the pandemic—objectives, rules and responsibilities are added. Some even highlight the dangers arising from implementing traditional accounting and accountability practices in the context of a pandemic, thereby warning of the misuse of accounting numbers to limit human action, exacerbate gender issues and reduce moral responsibility (Ahmad *et al.*, 2022; Perray-Redslob and Younes, 2022; Safari *et al.*, 2022; Sian and Smyth, 2022). Like them, we are interested in investigating changes in accounting systems due to the pandemic and the challenges this posed for how regional and local actors accounted for COVID expenses. The central government in Italy was particularly concerned with how expenses were reported and the threat this posed for the misuse of funds, which they used to justify their cost standardization and monitoring initiatives.

Despite it being a healthcare emergency, it is worth noticing that this dimension of the pandemic has been largely neglected by the accounting literature, apart from Huber *et al.* (2021), who examined the role of accounting in the management of the pandemic in German hospitals. Focusing on five hospitals, Huber *et al.* (2021) showed the way accounting enabled fast changes to the infrastructure for care, calling for future research "on the mechanisms underlying the different relations between infrastructure stability, economizing and the impact of crisis on local organizing" (p. 1454).

Our work seeks to contribute to the scant COVID-19 accounting literature in healthcare, complementing and extending Huber *et al.* (2021) by moving beyond its focus on hospitals and looking to the "new ways of thinking about the responsibility and accountability of states (and their health sectors)" (Robson *et al.*, 2021). This is important because the pandemic affected not only the internal operations of hospitals but also the totality of the health care and the emergency response network. This ultimately became an accounting coordination and standardization problem that implicated local, national and international actors.

In this regard, this investigation intends to contribute to the accounting literature in two ways. First, this study considers the pandemic in its nature as a "slow-moving disaster" (Pfister, 2006; Böhret, 1990), whose understanding also requires investigations capable of covering all the waves of the phenomenon. This study aims to address this gap in the accounting literature by conducting a snapshot study that examines the accounting responses during both the first and second waves of the COVID-19 pandemic. The objective is to coordinate and provide an understanding of the accounting practices that emerged over time. Second, in the healthcare context, the study intends to offer a more comprehensive view of the "role played by accounting and calculative practices to craft, standardise and connect different sets of cost classifications and reports deployed in parallel by the different state and transnational institutional actors called into action to fund, plan and deploy health care activities able to fight the pandemic" (Sargiacomo, 2024, p. XV). In so doing, this work intends to offer an understanding of the way non-linear and emergent accounts of standardization and coordination operated in the multiauthority relations involved in the COVID-19 pandemic healthcare emergency.

2.2 Assembling coordination through template work

A starting point of our analysis is that accounting intervenes and constitutes a field of actors. Miller and Rose (1990) show the accounting mechanisms used to shape, normalize and make a population's conduct useful for a governing ambition. Important is that this population is inscribed into standardized templates and rendered mobile and transferable to a distant location for the population, now data points, to be aggregated and calculated and subsequently intervened (Rose, 1991; Latour, 1987). Graham (2010), for example, shows how accounting constitutes a type of elderly person and the effects this has on how they see and prepare themselves for it. Looking at a field of organizations, Neu *et al.* (2006) examine the "informing technologies" embedded in World Bank funding requirements to represent the field of education in Latin America, make it visible, intervene and change behaviors. Neu (2006) shows how accounting arranges public spaces by analyzing how the provincial government's financial and accountability mechanisms drove changes in participants' capital, fragmented social groups and introduced novel practices. Martinez and Cooper (2017) examine how bilateral and multilateral funding agencies use accounting and reporting requirements to constitute the field of international development in Guatemala and El Salvador out of components of the social movement.

Rahaman *et al.* (2010) add some important precision to how accounting constitutes a field of actors by noting how accounting is implicated in *arranging* and *coordinating* an "alliance of geographically dispersed and heterogeneous organizations" such as transnational, national, local organizations to combat the threat of HIV/AIDS in Ghana (p.1094). To arrange is to regulate participation in the network of organizations battling the HIV/AIDS pandemic.

To coordinate is to inculcate "standard practices and ensure that participants maintain comparable accounting records with common general ledger accounts and standardized ways of recording transactions" (Rahaman *et al.*, 2010, p. 1098). Coordination within and across organizations implicates the standardization of information (of inputs, processes and outputs) through systems that enable their consolidation while also allowing for variety in practice (Håkansson and Lind, 2004; Barrett *et al.*, 2005).

Others examine these field-wide coordination efforts in the healthcare sector through the introduction of budgeting and diagnosis-related groups (DRGs) to standardize costing practices. Llewellyn and Northcott (2005), for example, study how government reform used accounting forms to standardize costs in UK hospitals and make them visible and controllable by benchmarking them against averages. Kurunmäki (2004) studies government healthcare reform in Finland, its process of standardization through budgets to coordinate and the use of a "ready-made" formula. Centralized planning through new public management reforms "replaced decentralized responsibility and management" (330). Chapman *et al.* (2014) examine the launch of standardized costing practices in the national healthcare system. Finally, drawing upon Deleuzo–Guattarian framework, Ahn and Wickramasinghe (2021) elaborate on how a surveillant assemblage was rhizomatically created and operated to monitor a segment of the population holding them accountable. All the above studies show how government reform transforms a field of hospitals through the standardization of their accounting practices and the effect it has on the behavior of clinicians and clinical activities. Like Rahaman *et al.* (2010) and Sargiacomo's (2015) studies of disasters, the coordination of costs and other accounting practices is primarily hierarchical and often invokes a central ledger.

We also know, however, that not all coordination is hierarchical and that the visual features of templates are involved in the coordination of fields. Crvelin and Löhlein (2022, p. 2), for example, study a "collective action network not from the perspective of a comprehensive, centralized accounting design, but as originating from dispersed, inconsistent and short-lived accountings, largely invisible and hidden beneath the more visible list architectures." Accounting is not imposed by a funding agency or the state. There are no centralized guidelines used to report activities. Coordination is rather emergent and enabled through the features of the accounting template: the list. The form of the template matters as components from one list are inserted into another.

We are interested in coordination, that is, interventions in the name of standardization and comparability, through a central ledger or system (Rahaman *et al.*, 2010; Llewellyn and Northcott, 2005). Crvelin and Löhlein (2022), however, sensitize us to a decentralized and emergent form of coordination through template work. We use the notion of assemblage to help us think about these two modes of coordinating the field (Deleuze and Guattari, 1987; Neu *et al.*, 2009).

At its simplest, an assemblage is a composition with emergent properties made up of heterogenous components with different origins and natures that establish relations among them. The concept helps us to think about compositions and the components that populate them: what sort are they, their sources and how they and the whole they are a part of are altered. This implicates a sensitivity to assemblages' relations to other assemblages—their relations of exteriority (DeLanda, 2016, p. 2). For example, assemblages are constituted by the flows of materials and expressions that make their way from one assemblage to another. These relations of exteriority and the relation between the assemblages' component parts differ substantially between assemblages.

Deleuze and Guattari (1987) characterize two main types of assemblages. The first is arboreal. An arborescent structure is composed of components that are hierarchically subsumed and made consistent with each other by an overarching concept or principle. That is, lower-order units work according to an established hierarchy of importance. In such a structure, existing components are replicated (what Deleuze and Guattari call *decalcomania*), and their transmission/distribution proceeds according to pre-established channels. For example, state or corporate reporting structures often follow an arborescent principle. They

coordinate and impose an order, bureaucratically. This is exemplified in the above accounting studies by the way in which the state or international funding agencies constitute the field of organizations by making them visible and arranging them according to an accounting standard that rigidly segments them.

The second type of assemblages are rhizomes, which, in contrast, operate through connection and heterogeneity. Any component in the assemblage can be connected to anything other: "it must establish connections between semiotic chains, organizations of power and circumstances relative to the arts, sciences and social struggles" (Deleuze and Guattari, 1987, p. 7). It is about connections with exterior systems, exchanging components and engaging in a mutual process of constitutions. While not purely rhizomatic, Crvelin and Löhlein (2022) implicitly touch on this process by showing how accounting was used by dispersed and decentralized activist collectives to provide support to refugees. They don't examine their central coordination, but the flows that emanate from one organization (whether a collective or their template) to another. These flows are "largely invisible and hidden beneath the more visible list architectures" (Crvelin and Löhlein, 2022, p. 2).

Our study is at the intersection of these two types of assemblages and modes of accounting coordination. We do so by searching for rhizomes in arboreal structures. "A new rhizome may form in the heart of a tree, the hollow of a root, the crook of a branch . . .. Accounting and bureaucracy proceed by tracings: they can begin to burgeon nonetheless, throwing out rhizome stems, as in a Kafka novel" (Deleuze and Guattari, 1987, p. 15). This is important because we don't sufficiently know about the function of rhizomes in the most arboreal of coordinating efforts. Like Neu *et al.* (2006), Rahaman *et al.* (2010), Llewellyn and Northcott (2005) and Sargiacomo (2015), we examine how a field is arboreally coordinated through the imposition of costing protocol by the state. Like Crvelin and Löhlein, 2022, we find rhizome-line connections in the templates used to standardized accounts.

This is helpful for several reasons. One, this focus on templates helps us show at a micro-level how the mechanism for coordinating the field of emergency emerges through coordinating (Jarzabkowski *et al.*, 2012, p. 907). Unlike other studies on how fields are arranged, we are not interested in "how accounting regimes of practice impact upon health-related activities" (Rahaman *et al.*, 2010) or how accounting constitutes how users think and act (Neu *et al.*, 2006). We are rather interested in how accounting costing and reporting protocols emerge and are themselves coordinated. Our attention is on the accounting instruments of governance themselves and how they affect one another (Martinez and Cooper, 2019; Crvelin and Löhlein, 2022).

Two, we study arboreal and rhizomatic modes of coordinating and how the latter is implicated in the former's mode of standardizing COVID-related costs across the Italian peninsula. Coordination in the literature is often arboreal, about standardization, instilling a common way of recording transactions, making comparable and aggregating into a single ledger through templates, forms and formulas (Neu *et al.*, 2006; Rahaman *et al.*, 2010; Llewellyn and Northcott, 2005; Kurunmäki, 2004). This is a form of *intraconsistency*, "a phenomenon which 'makes points resonate together [. . . and] forms a vertical, hierarchized aggregate that spans the horizontal lines in a dimension of depth" (Deleuze and Guattari, 1987, p. 433). We show two types of arboreally-arranged *coordinating assemblages*—two attempts to standardize costs, each through templates. But, as we show, these attempts to standardize use templates that, on a closer look, contain rhizomes shooting components to one another, from one coordinating assemblage to another. These assemblages are, thus, deeply implicated in one another, not hierarchically, but through transversal connections. This is a process of becoming among bureaucratic reporting structures through the flows of template components. These components are the columns and lists that have coordinating functions, and templates acquire the features of that which they coordinate. Template work is hierarchically mandated and an emergent process.

The above helps us understand slow-moving novel disasters. Unlike other more recurrent disasters, in our case, there were no *a priori* emergency and administrative guidelines to be borrowed and "decal" as ready-made technologies. Moreover, in a sudden impact disaster, (a)

cost, classifications and criteria are prepared in a few weeks, and once they are ready there is no need to craft, change or adapt new templates and guidelines (Sargiacomo, 2015) and (b) templates are issued by a single institutional actor. In our case, however, there are various actors with their own requirements that, at a later stage, are aggregated and coordinated through purposely built, and continuously updated accounting templates in the name of "intraconsistency." That is, the different waves and idiosyncratic features of the pandemic provide a fertile setting to investigate how different funding, administrative and healthcare entities emerge with their own ways of classifying and accounting for their COVID-related costs and their emergent coordinating assemblages.

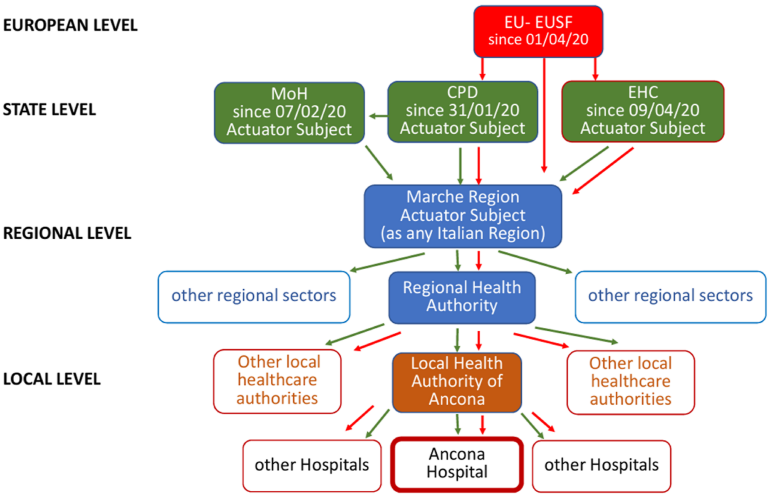
3. Study context and methodology

3.1 Context of investigation

The case study takes place in the Italian Ancona Hospital in the Marche Region. This Region was one of the regions mostly affected by the virus, which placed the Ancona Hospital as the regional hub for aiding COVID patients in the area [2]. The COVID-19 pandemic, however, involved a diverse set of emergency actors operating at different levels throughout the different waves that characterized the COVID pandemic. Considering the context of the investigation, as represented in Figure 1, we can identify four different levels of intervention that intersected the Ancona hospital: the European Union, the Italian central government/state and the Marche Region and the Ancona Local Health Authorities.

In this multi-level landscape, a series of governmental entities called *actuator subjects* were created and made responsible for handling emergency funding deriving from different sources. The national and EU financial flows, respectively, identified by green and red arrows, will be later examined to show how the different key institutional actors accounted for and reported the use of emergency funds from the EU, the Ministry of Economic and Finance and the actuator subjects.

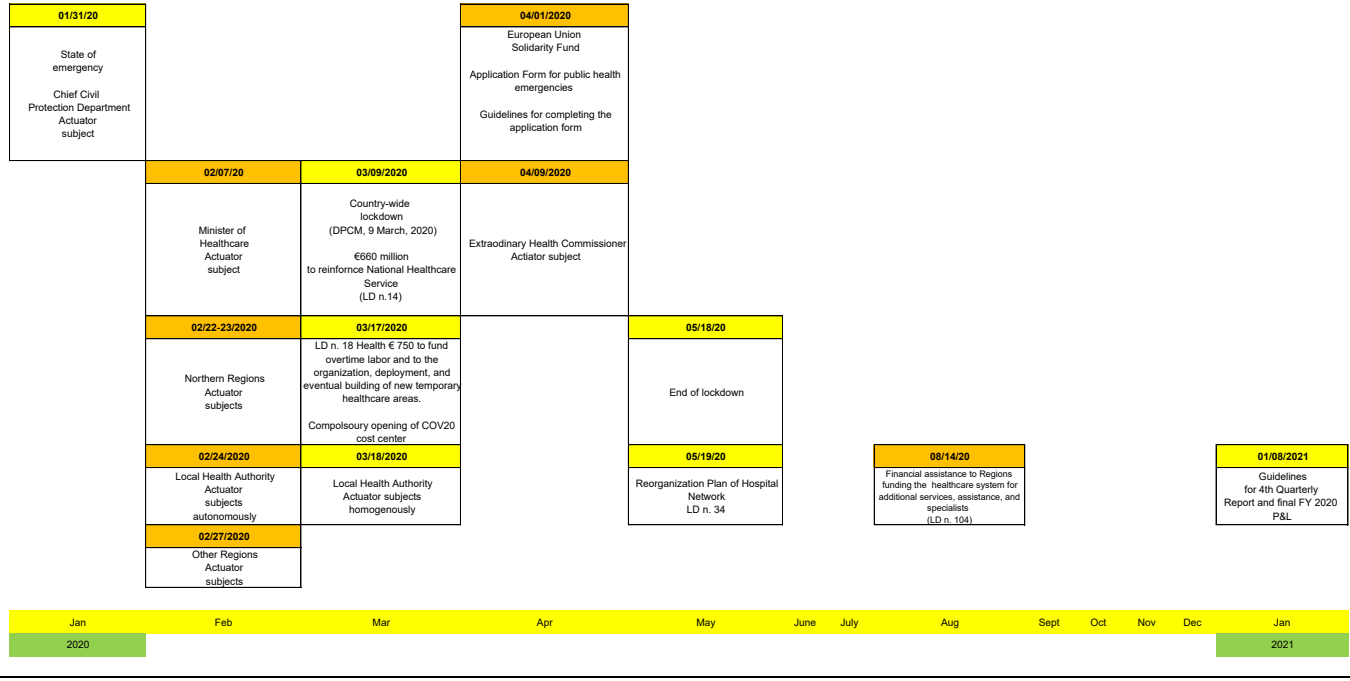
Hereafter, we offer a detailed illustration of the context of investigation with key actors and their interventions, exposed in chronological order, identifying four phases that will guide our empirical analysis: the first COVID wave, then national coordination, EU coordination and second wave. A brief timeline of the events at the centre of our investigation is offered in Table 1.



Source(s): Authors' own creation

Figure 1. Key institutional actors operating in the multi-level context as actuator subjects

Table 1. Timeline



3.1.1 First COVID wave. On January 30, 2020, the Italian Prime Minister announced that the novel Coronavirus had hit Rome [3]. That day, the World Health Organization declared that the COVID-19 virus was a public health emergency of international concern [4]. By then, the virus had already spread from the People's Republic of China to 18 other countries, totaling 7,800 confirmed cases globally [5].

The following day, on January 31, the Council of Ministers decreed a national state of emergency. Through it, it assigned emergency powers to the Chief of the Civil Protection Department (CPD). He became an *actuator subject*, an "implementing body" that has been legally given the authority and made responsible for receiving public funds and executing operations for the emergency on a specific territory. This is a unique position in Italian legislation, and the CPD was the first actuator subject responsible for managing the pandemic's emergency. The government initially tasked the CPD "to achieve a complete action of prevision and prevention . . . in order to adequately face eventual possible situations of prejudice to the citizenry . . ." (DCM, 31st January 2020, sub.2), thus allocating € 5m "for the deployment of the first interventions, in order to evaluate the actual impact of the event . . ." (DCM, 31st January 2020, sub.3).

The CPD then appointed the MoH as an actuator subject (DCCPD 414, 7 February 2020; 532, 18 February 2020). The Ministry received public monies from the CPD for the delivery of precise emergency activities and was made legally responsible for recording and allocating the use of extraordinary emergency funds through their own special accounting system (OCCPD 635, 13 February 2020).

What was a national preoccupation shifted to a regional one when concern shifted from keeping the disease from entering the country to local transmission. Accordingly, on the 22nd and 23rd of February, the presidents of the Northern Regions and Autonomous Provinces were appointed as actuator subjects as the spread of contamination and sudden deaths were initially recorded only in Northern Italy (i.e. Friuli Venezia Giulia, Veneto, Emilia Romagna, Lombardia and Piemonte) [6]. As the virus spread South, throughout the entire Italian peninsula, so did the emergence of more regional and autonomous provinces actuator subjects. Each one of these actuator subjects developed its own special accounting system and instituted a separate treasury to record the extraordinary activities and costs related to the pandemic (DCCPD, n. 628, 27 February 2020). The presidents of regional and autonomous provinces would allocate funds to their respective areas affected by the pandemic, including their Regional Healthcare Authorities.

3.1.2 National coordination. The CPD emphasized the importance of accountability and reporting as it started to disburse funds to the different regions and autonomous provinces. For example, on the 25th of February 2020, the CPD announced that regions "would be later subjected to compulsory commitments for future administrative reporting" (OCCPD n. 639, art. 2). Later, it noted that it "authorized and monitored the expenditures of each of the actuators subjects" while "supporting the diverse regional healthcare systems by purchasing materials useful to face the emergency" (CPD, 4 March 2020, p. 3).

Apart from highlighting the importance of management accounting reporting, the CPD also wanted regions and autonomous provinces to keep track of and report the number of patients. On February 27, Ordinance n. 640 by the Chief of the CPD, established electronic platforms for national epidemiological surveys provided by regional and city healthcare offices. The aim was to provide a timely view of the entirety of the Italian situation concerning patients. The rapidly escalating figures provided by this platform made possible the allocation of a further €100m to this "exceptional and unpredictable event" thereby "authorizing to use public monies enshrined in the National Emergency Fund" (DCM, 5 March 2020).

On March 9, the system reported 9,172 infected cases and 463 deaths, which was followed by the announcement of a country-wide "lockdown" (DPCM, 9 March 2020). Alongside this announcement, several Legislative Decrees were proclaimed by the Italian Prime Minister to provide emergency funding for the regions and autonomous provinces. For example, on March 9, Legislative Decrees n. 14, entitled "*Urgent dispositions to reinforce the National Healthcare*

Service in relation to the COVID-19 emergency" provided € 660m to strengthen the Italian healthcare system threatened by the coronavirus pandemic. The 17th of March, Legislative Decrees n. 18 earmarked € 750m to fund overtime labor and the organization, deployment and eventual building of new "temporary healthcare areas."

Legislative Decrees n. 14 and 18, increased the funding that would flow into the regions. For example, on March 27, 2020, the MoH transferred €1.41bn to the Italian Regions and Autonomous Provinces actuator subject as cash advance to aid with the pandemic relief (Bulletin n. 36, Interview n. 18). The Marche Region received € 36,223,661, which equals the sum of the main amounts stipulated by Legislative Decrees n. 14 and n. 18 (i.e. € 16,955,756 + 19,267,905). Local Health Authorities like the Ancona Hospital would benefit from this source of funding to treat the number of patients that started to overwhelm the healthcare sector. Legislative Decree n.18 also mandated the opening of a dedicated cost center, labeled by the code "COV20," as a unique account used to manage any costs connected to the emergency (art.18).

3.1.3 EU coordination. As the Italian healthcare system experienced an onslaught of new cases and its own administrative hurdles, the EU was having its own debates about what was within the funding scope of its Solidarity Fund (Bertoncini, 2020), whose aim was, and still is, as follows:

> the European Union Solidarity Fund (EUSF) was set up to respond to major natural disasters and express European solidarity to disaster-stricken regions within Europe. The Fund was created as a reaction to the severe floods in Central Europe in the summer of 2002. Since then, it has been used for 80 disasters covering a range of different catastrophic events including floods, forest fires, earthquakes [7].

The pandemic did not fit into the EU's conception of disasters and was therefore out of its funding scope. The new EU regulation of the European Parliament and of the Council as such, noted:

> that [Solidarity] Fund is currently limited, however, to natural disasters causing physical damage and does not include major disasters due to biological hazards. Provision should be made to allow the Union to intervene in the event of major public health emergencies (EC n. 2020/461, p. 1).

Another document noted that:

> In response to the COVID-19 outbreak and the urgent need to tackle the associated public health crisis, the scope of the European Union Solidarity Fund has been extended to cover major public health emergencies [8].

Broadening the scope updated the EU's catastrophe typology and economic thresholds for public health emergencies [9]. Such changes made it possible for EU countries, and countries negotiating to join the EU, to apply for the reimbursement of COVID-related costs. Starting on April 1, 2020, the EU Solidarity Fund displayed on its website the "Application Form for public health emergencies" for countries to apply for financial support alongside some "Guidelines for completing the application form" [10].

Eight days after the EU made its application form available, a new actuator subject appeared on the Italian emergency landscape. Dr Arcuri was appointed Extraordinary Health Commissioner (EHC) responsible for the execution and coordination of the measures needed for the containment of the COVID-19 epidemiological emergency, thus partially replacing the CPD [11]. As a new actuator, he was mandated to develop a "special accounting system" to receive and manage public monies that were once primarily managed by the CPD. From April 92,020 onwards, Arcuri will be responsible for the purchase of goods and the delivery of the following activities: (1) Healthcare assistance, drugs, intensive care equipment, reagent kits and lab tests; (2) medical equipment; and (3) Personal protective equipment. He was made responsible not only for future expenses but also for retrospectively reimbursing the CPD, regional governments and hospitals for expenditures associated with purchases that took place

before his mandate (from 31 January 2020 to 8 April 2020). The CPD remained in charge of all other remaining emergency operations.

The EHC actuator allocated nearly € 1.5bn euros to Regional Health authorities to strengthen their hospital network's capacity to combat the second wave of the coronavirus that was expected in the fall of 2020 (LD n.34, 19 May 2020, art.2, para 11).

3.1.4 Second COVID wave. Soon after the above interventions to tackle the pandemic, which at the time appeared to have achieved a level of stability, in the summer of 2020 cases started to rise and later accelerated rapidly in October, which led to a second COVID wave. Marche was one of the regions mostly affected, with a dizzying escalation in hospital admissions.

The second wave made evident the misalignment between technological equipment, bed capacity and staffing with specific professional skills. In this context, the ratio between the number of anesthesiologists and intensive care unit beds declined from 2.5 to 1.9, resulting in a consequent reduction in the assistance capacity, which became a critical issue within the system (Cicchetti and Di Brino, 2020, p. 6).

Due to these circumstances, Legislative Decree n. 104 was enacted on August 14, 2020, providing financial assistance to the regions to support the overwhelmed healthcare system. The funds were intended for additional services, assistance and specialists. Later, new guidelines were issued to prepare the fourth quarterly reports (MoH Guidelines, 8 January 2021, p. 6). These interventions will be objects of observation in the empirical analysis, considering the related accounting practices.

3.2 Methodological aspects

Aiming to illuminate the dynamics of diverse special accounting systems and their subsequent coordination, the adoption of a case study approach offers the opportunity for both the development of theory and the improvement of practices (Cooper and Morgan, 2008, p. 159). Case study research is useful for probing complex and dynamic phenomena with many variables, actual practices considered in usual or extraordinary activities and in situations where the context is central to the phenomena under investigation, which may also influence and impact the milieu (Cooper and Morgan, 2008, p. 160).

Our case study is of the Italian emergency network developed during the first and second COVID waves, from January 2020 to January 2022. The research strategy and the research questions, like the crisis, were emergent, in action (Hopwood, 1983). As the first wave started to take its toll, on the 17th of February 2020, we went to the CPD's headquarters in Rome, to interview the Chief, the Head of the Administration and Accounting Office and the Manager of Balance, Planning and Financial Affairs. These interviews were pivotal for understanding the amount of funds allocated for facing the pandemic and related actions. These later proved to be also pivotal for learning about the special accounting centers that are at the focus of our study, as well as specific templates and guidelines for financial documentation to deal with the public monies coming from the Fund of National Emergencies and from the European Union Solidarity Fund.

This opened other opportunities to identify key actors involved in funding and accounting networks at the national level, such as the General Executive of the General Accountancy of the State. This was fundamental for understating the different steps, adaptations and connections needed for achieving a national uniform accounting and reporting system, to distribute emergency funds.

As our aim was to provide a national-local and longitudinal account of coordination, we identified a Region and a local hospital to learn about the way they encountered the pandemic and the emergency funds. We chose the Marche Region and the Ancona Hospital. We then identified and initiated contact in February 2020 and conducted our first interviews between April and May 2020.

One such contact was with the Marche Region's Governor who offered the opportunity to collect information on the role played by the Region in the process of evaluating the first

socio-economic impacts of COVID-19 at a regional level and on the preliminary reports requested from the Hospital by the regional offices, such as the purchased Personal Protection Equipment report (25th February 2020 – 8th April 2020) and many others. The interviews done in the Ancona Hospital with its main officers unveiled the internal organization of the Hospital in relation to COVID-19's first and second waves, and the complexity of accounting assemblages emerging from the interaction of diverse public authorities operating at different levels (EU, State, regional and local).

Alongside these interviews, we collected laws, legislative decrees, and circulars from local, regional, national and international agencies about the Coronavirus emergency, healthcare regulations and funding and accounting guidelines. Important was the collection of accounting records, templates and reports published throughout the first and second waves of the pandemic by different institutional actors to develop our understanding of the processes of coordination at the center of our study. We got access to these archives through the different interviewees and by downloading sources directly from governmental websites.

A total of 31 interviews were conducted with 9 key actors involved in the pandemic nationally, regionally and locally. We stopped interviewing and collecting archives when we felt we had reached a point of saturation, where we were not hearing anything new and had run out of follow-up questions (Bertaux and Kohli, 1984, p. 226).

Considering the pandemic context and the impact this had on interview scheduling, we adopted different communication modes, such as Skype meetings, email, telephone calls and visits to interviewees' offices (wearing masks, with ventilated rooms and distancing). These interviews lasted from a minimum of 20 min for first contact or follow-up telephone calls to a maximum of 120 min when in the interviewee's office. To grasp the dynamic of key actor relationships and funding flows, our initial interviews were unstructured. This choice permitted us to learn about the relevant concerns emerging from the pandemic, the way it affected funding, and how different actors accounted for COVID-related costs.

Our data collection and interviews required a large set of fieldnotes. They were helpful "for capturing and preserving the insights and understandings stimulated by . . . close and long-term experiences" (Emerson *et al.*, 2011, p. 14). Our fieldnotes and their thematic analysis were an important part of the research process. The first step of this analysis was the careful reading of the fieldnotes to get us more familiar with the data collected. This was followed by weekly online meetings that allowed an ongoing discussion of the readings and the strategy to be followed and the coding process—the initial step in developing theoretical categories (Charmaz and Mitchell, 2001). Starting from the field notes and then moving onto the interviews and documents, we identified those textual segments that captured something interesting about our research question. As we worked through the coding process inductively, we used our weekly meeting to recalibrate and align the codes within the team for consistency with our emerging theoretical and empirical concerns.

The coding process was essential for our analysis of the pandemic actors involved, templates produced, deliberations by public authorities and data from the same actors at different points in time and it was the starting point for identifying first relationship meanings (Charmaz and Mitchell, 2001). In our weekly research team meeting, we discovered through thematic analysis that we were dealing with standardization and coordination. On the one hand, we found a form of coordination that was not directed by centralized guidelines but rather appeared from accounting templates. The realization that these templates were interconnected informed our theoretical interest in decentralized coordination (Crvelin and Löhlein, 2022). On the other, we found the Italian state and others attempting to standardize these rather decentralized coordination efforts. Observing the use of templates to standardized alongside a bureaucratic logic and to coordinate in a decentralized, we turned to Deleuze and Guattari's concept of assemblage, with its arboreal and rhizomatic typologies (Deleuze and Guattari, 1987), to help us understand the relationship between standardization and coordination, the relationship between templates and the relationship between decentralization and centralization.

4. Empirical analysis

4.1 First COVID wave

As illustrated in the context section, CPD was the first actuator subject appointed in Italy. In this function, on 31 January 2020, the CPD was asked to open a "special accounting system" to manage funding from the Fund of National Emergencies dedicated to tackling the coronavirus (Interview, n. 1). Indeed, Legislative Decree n. 1/2018 stipulates that to deploy specific ordinances issued for national emergencies, any "actuator subject" will receive emergency funds and must develop, in parallel to its ordinary accounting, a separate and parallel apparatus for recording, calculating and reporting any transaction related to the activities that the implementing body is delivering exclusively for an emergency. The Chief of CPD in an interview stated the "aim of a special accounting system is to avoid confusion on the use of monies assigned to a specific actuator subject and related to a specific emergency, now represented by the Coronavirus, from the resources allocated by the government for other institutional activities" (Interview 1) [12].

In addition to the CPD, other authorities were appointed as actuator subjects [13] and made legally responsible for recording and allocating the use of extraordinary emergency funds through their own special accounting system. Each one of these actuator subjects developed their own special accounting systems and instituted a separate treasury to record the extraordinary activities and costs related to the pandemic. The Marche Healthcare Authority was required to keep track of pandemic-related costs through their own cost centers using costs reported by their Local Health Authorities. Hospitals, in turn, also kept track of COVID-related costs and reported them directly to their Local Health Authority. The Ancona Hospital, located in the capital city of the Marche region, opened a cost accounting center on the 24th of February 2020, labeled "Epidemics, Special and Extraordinary Events" the day it admitted its first COVID patient. This cost center was developed to record all transactions related to healthcare assistance for COVID patients and would form the basis of any reimbursement the hospital would seek for the extraordinary costs and activities it shouldered to face the pandemic (Interviews, n. 5-6-7-8; prot. 673,367, 24 Feb 2020). An invoice for Personal Protective Equipment (PPE) was recorded on February 28 and charged to the "Epidemics, Special and Extraordinary Events" cost center.

The hospital created this separate cost center, charged it and inserted these costs into their monthly P&L statement for the Region to track the pandemic costs and also to be prepared to claim reimbursement on the extraordinary emergency funds. This level of autonomy to develop categories is emblematic of emergency situations when on-the-ground actors create the tools and administrative categories to confront and organize their response to a threat (Sargiacomo, 2015; Crvelin and Löhlein, 2022). Importantly, the example of the Ancona Hospital is not an exception, other two Southern and Northern region hospitals displayed similar practices, although using their own different cost accounting center's labels. This shows that at the local hospital level, there was an absence of accounting guidelines from the central government.

4.2 National coordination

Before the pandemic, government accounting and reporting systems consisted primarily of double-entry bookkeeping, an annual asset and liability statement and P&L quarterly reports (Sargiacomo, 2015). This was controlled by state inspectors and routinely audited on a 3-month basis by the State Accountant General. National, regional and local accounting units costing during the first month of the pandemic disrupted the previous accounting and reporting practice. The CPD and other state bodies such as the MoH were obliged to find a way to standardize the transitions for funding purposes and make comparable and insert these different reports into the national reporting scheme. They initially did so through the insertion of a code that would add some consistency to how the different accounting units that emerged in the first month of the pandemic labeled and reported their COVID costs.

As soon as CPD started to distribute funds to the regions, it clarified the compulsory commitment for administrative reporting (OCCPD n. 639, art. 2) and later for each of the actuator subjects (CPD, 4 March 2020, p. 3). This made explicit to regional actuator subjects in Marche and to the Local Health Authority in Ancona that their new emergency cost centers would have to report their activities to national bodies. However, what this reporting looked like, their content, and to whom, was not yet clear.

An early attempt to bring local and regional information systematically into the central government's purview was represented by the CPD request to adopt electronic platforms for national epidemiological surveys to track patient numbers in Italy (OCCPD n. 640, 27 February 27, 2020). The view emerging from the tracking of patient numbers stimulated the allocation of €100m from the National Emergency Fund to address the escalating pandemic crisis (DCM, 5 March 2020). Subsequent legislative decrees provided significant financial support, totaling €1.41bn transferred to regions to bolster healthcare systems and establish "temporary healthcare areas." Importantly, Legislative Decree n. 18 mandated the creation of a dedicated cost center labeled "COV20" for tracking emergency management expenses in 2020 (LD n. 18, 17 March 2020):

> Regions, and autonomous provinces of Trento and Bolzano, and the units of the respective regional healthcare systems, arrange on the bookkeeping of the 2020 year, to open a dedicated cost center, labelled by the univocal code "COV20," thus granting the distinct keeping of accounting occurrences connected to the emergency management (art.18)

By doing so, it mandated that all Regional and Local Health Authorities and their local hospital networks to open a separate cost accounting center and use the "COV20" national code to record the extraordinary costs and activities linked to the disaster, which would be monitored by the MoH. The implication is that the cost accounting centers initially developed by Regional and Local Health Authority and hospitals to keep track of COVID-related expenses would be reporting their costs using the state-mandated cost accounting center and reporting the MoH through the "COV20" national code. Soon after, the Marche Regional Health Authority, like other regions, submitted its first quarterly report by the end of April to the MoH using the COV20 column inserted into their own vertical P&L Account scheme (Interviews n. 9, 10, 15).

All Regional and Local Health Authorities and their respective hospitals were mandated to report all their COVID-related costs and funds for the first quarterly report between January 1 2020 – March 3 2020 using this template. Regional and Local Health Authorities in-house pandemic cost accounting centers were for the first time inserted into a nation-wide reporting scheme through this code in the shape of a column. This new reporting requirement enables the "distinct recording of accounting transactions connected to the emergency [. . . to] flow into the existing economic sheets" (art. 18 of LD n.18). The contents of which could be eligible for funding by the MoH.

However, how the regions and hospitals populated the COV20 cost accounting center was up to them. There were no guidelines explaining how to differentiate coronavirus-related costs from other healthcare costs. Regional and Local Health Authorities and Hospitals used their own criteria to populate the COV20 column. The issue was that the more items were included in the COV20 column, the more the MoH could potentially reimburse. For example, several hospitals used the COV20 code to record costs sustained by personnel working in the hospital during the first wave, and not just for personnel whose labor hours were devoted only to COVID wards and patients. The same can be said for purchased hospital machinery and electronic devices. Several included all devices and supplies purchased in the same period in the hospital, and not just those purchased specifically to combat the pandemic. Then there is the PPE that had been purchased and stored in hospitals' warehouses during and for the pandemic. The warehoused PPE which was initially inserted into the hospital's own "Epidemics, Special and Extraordinary Events" cost center, was later shifted into the State's own COV20 cost center. The use of this national cost center from March onwards enabled

Regional and Local Health Authorities and their hospitals to get their priorly existing PPE costs to be reimbursed through emergency funds, in a timely manner.

Notwithstanding this attempt to coordinate COVID costs, there were still concerns by the MoH and the Office of the General Accountant that Regional and Local Health Authorities and Hospitals were including other costs in their reimbursable costs since guidelines on how to populate at COV20 column were not yet developed (Interview 18). As we will show in the next section, another form of coordinating was the EU.

4.3 EU coordination

In this section, we examine how COVID costs are coordinated through template work soon after the EU actuator subject emerged. The EU actuator needs to (a) distinguish who is responsible for purchasing, delivering and covering the costs of activities and (b) collect COVID-related costs for the EU.

The guidelines to complete the application form that came with the "Application Form for public health emergencies" displayed on the EU Solidarity Fund website [14] included a "Breakdown of eligible expenditure" (see Figure 2).

The breakdown lists the main healthcare expenditures eligible for reimbursement through EUSF funds. The guidelines state that:

14	**Estimate of total public direct expenditure for response measures during the 4 months following the beginning of the emergency:**		
	Grand Total (million EUR)		
	In national currency where applicable, Exchange rate applied		
15	**Breakdown of eligible expenditure**	**EUR,**	**National currency**
	• Medical assistance, including medicines, equipment and medical devices, costs of healthcare or civil protection infrastructure, laboratory analyses		
	• Personal Protective Equipment		
	• Special assistance to the population and vulnerable groups		
	• Support to keep medical and other emergency services personnel operational		
	• Development of vaccines or medicines		
	• Strengthening preparedness planning capacity and related communication		
	• Sanitation of buildings and facilities		
	• Health checks		
	• Risk assessment and management		
	• Related additional personnel costs		
	• Other (pl. specify)		
16	**What percentage of Gross National Income (GNI) does the expenditure represent?**		
17	**Other EU funding received or requested to help cover total expenditure (e.g. through the Coronavirus Response Investment Initiative)**		
18	**Other non-EU funding received or expected to cover a part of total public response expenditure**		
	- national		
	- international		

Source(s): Authors' own creation

Figure 2. Excerpt of the form for EU member states to apply for COVID-19 European solidarity fund

> The amounts may include all real expenditure (actually made or projected) during the 4 months following the beginning of the emergency [. . .]. This expenditure should be additional and directly linked to the emergency. Double financing of the same operation with other EU instruments is not permitted. (emphasis original)

The fund and its expenditures made explicit to the CPD that there was international financing for some of the costs that were being recorded through the COV20 code.

Nationally, though, another funding source and actuator subject would be added to the landscape, with the appointment of an EHC who was mandated to develop a "special accounting system" to receive and manage funds, previously attributed to the CPD. As we noted in the context section, from 9 of April onwards, the EHC was responsible for the purchase and delivery of goods and services and for reimbursing both future and retrospective expenditures related to activities that took place since the declaration of the state of emergency.

The EHC actuator subject allocated nearly €1.5bn to Regional Health authorities to face the second wave of the pandemic that was expected in the autumn of 2020. It also added another layer of complexity to Regional and Local Health Authorities' reporting requirements. Until then funding was reported to the CPD and the MoH through the COV20 column, they were not required to report which agency funded their activities. Therein, it is worthy to note, that since 28 May 2020, Regional and Local Health Authorities had to concurrently prepare reports separating the source of funding. It mandated that they use this template – called *prospetto sintetico* to prepare their First Wave Report:

> . . . we ask that the administration fill the attached prospetto sintetico with the indication of the expenditures matured from 31 January to 31 May 2020, at the same time indicating whether they are on the national balance (CPD or EHC) or the regional funds (EHC and Chief of CPD, Prot. N. 731, 28 May 2020).

Indeed, this First Wave Report mandated by the CPD and the EHC required Regional and Local Health Authorities to report expenses associated with the pandemic from the moment it was officially announced on the 31st of January. Regional and Local Health Authorities were required to distinguish the different sources of funding which, until that point, they had never been required to do. For example, the Ancona Hospital's *prospetto sintetico* submitted to the Marche Region Health Authority shows how the Regional and Local Health Authorities segmented their expenses by funder, including a column for each one of the actuator subjects: the national (CPD and EHC) and regional (Marche region).

Apart from the three funder-segmenting columns, the *prospetto sintetico* also included an "Expense Typology" list. As we can see from the Ancona Hospital calculation of expenditures report, the expense typology is based on the EUSF's own "Breakdown of eligible expenditure." The inclusion of this typology list enabled the CPD and EHC to use the *prospetto sintetico* template to get all the Regional and Local Health Authorities to submit their COVID expenses using the EU's expense categories. The amounts would then be aggregated to give a national account of their total pandemic expenses for reimbursement by the EU.

But there are CPD and EHC reporting idiosyncrasies that didn't allow the direct copy and pasting of the EU's categories into the *prospetto sintetico* template. The *prospetto sintetico*'s "Purchase of medical equipment (machineries)" is inserted into the EU's category of "Medical assistance, including medicines, equipment and medical devices, costs of healthcare or civil protection infrastructure, laboratory analyses." This distinction is because, as discussed above, "the purchase of medical equipment (machineries)" is an expense category falling within the powers and expenditures of the EHC. It is a division that is not included in the EU's reporting structure but is important for the CPD and EHC reporting scheme, and hence in the *prospetto sintetico*. The sum of the first two expenditure codes in the *prospetto sintetico* corresponds and equals to the first code of the EUSF form.

This weaving together of the two reporting schemes was however also facilitated by their overlapping timeframe. The *prospetto sintetico* template and the EUSF recorded expenses incurred during the same period. As the EUSF guidelines note, the expense report should

include "public direct expenditure for response measures during the four months following the beginning of the emergency." The First Wave Report that contained the *prospetto sintetico* to be submitted by the Regional and Local Health Authority, coincided with these four months: 31 January - 31 May 2020. The categories and timeline enabled the CPD and EHC to use the *prospetto sintetico* to record the expenses incurred by hospitals and local and regional health authorities during the pandemic's first wave to populate the EUSF's funding report.

The *prospetto sintetico* captured changes in the funding scheme by inserting columns for funding and EU expense categories. The Chief of the CPD (national level) explained in an interview the need for these. The reasoning was about maintaining the actuator subjects as "neatly separated" and the need to apply for EU funds:

> at the start of the emergency, the funding and accounting procedures related to the different appointed actuator subjects, that is CPD, the MoH, Regions, and EHC, were neatly separated as laws highlighted which were our respective tasks. CPD had prior experience mainly on earthquakes, floods and landslides, and the pandemic was a novelty for us, not only in terms of a disaster, but also in terms of the new accounting and administrative procedures to be crafted and deployed. The occasion of talking to each other, bridging, and counterchecking our separate information and procedures derived from the need to apply for EU solidarity funds. (Interview n. 19) (emphasis added)

A few points need emphasizing. First, the pandemic "was a novelty," and officials were not administratively prepared for it. There were no guidelines and they needed to craft and deploy them throughout Italy. Second, the "neatly separated" actuator subjects are synoptically made visible through the *prospetto sintetico* template which enables "bridging and counterchecking." That is, the *prospetto sintetico* introduced into Regional and Local Health Authorities and the Ancona hospitals a column-based breakdown of expense categories by actuator subject. Three, this all "derived from the need to apply for EU solidarity funds." The fund's list of categories was part of the *prospetto sintetico*'s design and used to accumulate relevant expense categories to be reimbursed by the EU. For example, PPE was one of the three expense categories reimbursable by the EHC. Regional and Local Health Authorities had to accumulate all their hospitals' PPE expenses and insert them into the EHC's column to get them reimbursed. The total amount of all the PPE is then inserted into the EUSF's template for potential reimbursement.

Through the *prospetto*, Regional and Local Health Authorities and hospitals record their costs for the EU and for the actuator subjects to reimburse them. This is another way of standardizing COVID-19 costs throughout the country. The *prospetto* is itself a template that builds on the MoH's COV20 column. According to the Management Accounting Officer of Ancona hospital, the COV20 column enabled hospitals to start accumulating the information needed to populate the *prospetto*:

> Before the end of March 2020, we did not have any national code or general instruction to account for COVID costs. Through the enactment of LD n.18 the government forced us to start to accumulate emergency expenses into a single separated COV20 column. . . .Without that regulation, and the change in our prior behavior, it would have been impossible to fill in the records required by the CPD-EHC prospetto. (Interviews n. 16, 24)

Instead of having one COV20 column for all COVID-related costs assigned to the MoH, there are now three columns, each for a different national or regional funding authority. The COV20 column did not provide specific guidelines on what expenses should be included, but the *prospetto* incorporated the EU's list of cost categories. The *prospetto sintetico* serves as a central ledger that connects the national and EU authorities and the regional and local health authorities. It is used to standardize accounts and is inserted into the general reporting ledger of the EU, regional authorities and local health authorities. This *prospetto* enables the accounting and reporting of international, national and regional healthcare emergency funds allocated during the first wave of the COVID-19 pandemic in 2020.

In the second quarterly report for 2020, Regions, Local Health Authorities and hospitals report their COVID-related costs to both the MoH and the CPD-EHC using two different types of coordinating templates. These are the two coordinating assemblages.

4.4 Second COVID wave

In this section, we highlight how the MoH made the CPD-EHC's mode of coordinating COVID-related costs useful for its own FY 2020 report. We show how (1) the MoH inserts components of the *prospetto* into their own reporting template, thereby making this coordination template helpful for its own attempts to coordinate; (2) this was enabled by the *prospetto's* own template structure: it contained features of the entities it was connecting (EU, other actuator subjects and the MoH); and (3) the prospetto template transmits content from the EU to the MoH. Fundamentally, the coordination assemblage that was centered around the COV20 column, uses the prospetto template and its coordinating functions (list and columns) to bring not only Regions, Local Health Authorities and hospitals into its own coordination assemblage, but also the actuator subjects' coordination assemblage, of which the EUSF is a part.

Due to the critical situation deriving from the pandemic second wave, on August 14, 2020, Legislative Decree n. 104 provided the regions' health care with financial assistance for additional services, assistance and specialists However, concerns arose regarding the reports that the Regional and Local Health Authorities would submit to the MoH. The Regions and Local Health Authorities had already submitted their second and third quarterly reports to the MoH, which included all their emergency expenses in the COV20 general column of their reporting template. At the same time, the Regional and Local Health Authorities were still updating their *prospetto sintetico*. The EHC and CPD requested that the Regional and Local Health Authorities continue updating their *prospetto sintetico* until October 16, 2020, following the submission of their First Wave report. This resulted in the preparation of two types of reports by the Regions, Local Health Authorities and hospitals. These reports were crucial for the new template the various regions and local authorities would fill out. The context suggests that preparing these reports was necessary to accurately document and track the emergency expenses and financial assistance provided to the healthcare system during the COVID-19 pandemic.

The State Accountant General, on behalf of the MoH, issued, on January 8, 2021, new guidelines that regions and hospitals would have to comply with to prepare their fourth quarterly report which would pave the way to the final FY 2020 balance [15]. The aim of the guidelines was to:

> ensure a much more systematic and uniform collection of revenues and cost data of the National Healthcare Service authorities . . ., thus guaranteeing a distinct keeping of accounting facts connected to the management of COVID-19 emergency [. . .]. (MoH Guidelines, 8 January 2021, p. 6)

The excerpt illuminates that until January 8, 2021 (after the end of FY, 2020) the State Accountant General, was concerned that the reporting for emergency funding had not yet achieved a "systematic and uniform collection of revenues and costs" throughout the Italian territory. This was exacerbated by the absence of guidelines and the amount of discretion that Regional and Local Health Authorities had when filling in the COV20 columns for the first, second and third quarterly reports to the MoH. The State Accountant General (Interview n. 28) sought to achieve this "systematic and uniform" reporting system by mandating Regional and Local Health Authorities to prepare their QR4 and FY 2020 reports with a newly mandated P&L emergency template.

Whereas Regional and Local Health Authorities and their hospitals had some discretion over how they developed their cost accounting center and populated the COV20 column for the first, second and third quarterly reports, in this updated template, the COV20 column exists alongside 10 other columns. They provide a visual (i.e. columns) and calculative guideline for

Regional and Local Health Authorities to populate the COV20 column. To populate it, they must first populate and add the totals of Columns 3–13. Each column documents the Regions and Local Health Authority sources of funding and related expenses. Columns 3–8 are used to classify and portion costs and revenues according to the funding articles of the main legislative provisions stipulated during the two main 2020 waves (i.e. Legislative Decree 18, columns 3 and 4; Legislative Decree 34, Columns 5, 6 and 7; and Legislative Decree 104, Column 8). Columns 9 and 10 are to insert the revenues and costs associated with the CPD and EHC. Column 11 is for private donations. Column 12 is for the costs submitted to and revenues from the EUSF. Finally, Column 13 is a residual container for any miscellaneous funding typology that does not neatly fit into the other nine columns.

Apart from the columns devoted to private donations and miscellaneous funding, the eight other columns are connected to the interventions documented in previous sections. Columns 3–8 correspond to the Legislative Decrees. This is based on the practice of dividing funding sources and expenditures by columns as we saw in the First Wave Report's Overall Calculation of Regional Hospital Expenditures table, or the *prospetto sintetico*. Similarly, this template, like the *prospetto*, now has columns for the CPD and EHC funding sources. The EUSF template (Figure 2), in turn, prepared Regional and Local Health Authorities to accumulate EUSF-related revenues and expenses into its own Column 12. Each funder, rather than being indistinguishably inserted into the COV20 column, is now its separate column, whose addition makes up the COV20 column.

Regional and Local Health Authorities worked their way into this report through the templates that they had to populate throughout the first wave.

As recalled by the Management Accounting Officer of Ancona Hospital:

> We were not only asked to fill in the prospetto for the period 31 Jan-31 May 2020, but we were later asked to update it to the subsequent months [. . .]. As a consequence of the administrative activities addressed to fill in, at different stages, the prospetto, by 16th of December 2020, 50% of the expenses included by the Marche region, Local Health Authority and hospital in the prospetto sintetico were reimbursed. (Interviews 24, 26, 27)

Those reimbursed expenses, whether through EHC, CPD or the EU would appear in the Regional and Local Health Authority's P&L FY 2020 report to the Ministries of Economics and Finance and of Health. For the Ancona Hospital Management Accounting Officer, noted for example, the EHC "reimbursed PPE and thus its insertion in the FY 2020 P&L scheme EHC column 10." Similarly, the category "Related Additional Personnel Costs," appearing both in the EUSF and *Prospetto*, "was reimbursed by the EU and as such appears in the EUSF column 12" (Interview n. 29).

One accounting and reporting scheme facilitated another. The insertion of the COV20 code enabled Regional and Local Health Authorities to accumulate the expenses associated with the emergency. This helped them to later populate the *prospetto sintetico*. This template, in turn, enabled them and national bodies to complete the EUSF funding proposal. However, the EUSF's categories were used to populate the *prospetto sintetico*. All these served the Ancona Hospital to populate the FY 2020 P&L template.

This is about the template components (list and columns) and content that move from one template to another (Crvelin and Löhlein, 2022) and how the state made useful this form of coordinating for its own coordinating assemblage. It is about the rhizomes, the flows of components (of template components) that inhabit and flow across coordination assemblages and make possible other templates. One template makes it possible and informs the other. They coexist and alter one another.

To finalize it, the State Accountant General's comments on the final accounting scheme for FY 2020 P&L statement:

> I'm an accountant, and that scheme is the result of the governmental aims, efforts, and experience on a never seen challenge. We had to track and link all the possible sources of emergency funding and accounting actors at the national/international level, mapping the origin and the use of emergency

> monies, and asking for precise responsibility of the Regions and Provinces on their use. We needed to be sure that every ascertained extraordinary pandemic cost would have been counted and restored only one time charging them on a precise funding source and avoiding any kind of mistake – and even camouflage maneuvers – in the accounting data and reports. (Interviews n. 28, 31). (Emphasis added)

The State Accountant General saw the FY 2020 P&L statement to monitor and control the emergency actuator subjects' system of financing the fight against COVID-19. It sought to restrict regional maneuver, gaming or misuse of the extraordinary emergency monies allocated for the COVID pandemic (e.g. double charging) through the partitioning of the international, national and regional funds as seen in the P&L reporting template. This scheme was created *with* and for the pandemic. It was about emerging accounting and reporting guidelines to the confrontation of a "never seen challenge." Through it, the MoH and the Accountant General tracked the movement of funds, connected national and international actors (actuator subjects, hospitals, EU) and held them responsible for the use of funds destined to combat the pandemic. Our interest though is in how this template came into being through the examination of its relation to other templates and the coordinating initiatives of which they are a part of. This was done by inserting components of the different cost centers and accounting systems that had been circulating *with* the pandemic into the state's accounting and reporting system, the FY 2020 P&L statement. What we show for the intents and purpose of our account, the finalization of what we have so far been documented. These rather loosely connected ways of coordinating reporting and accounting protocols are themselves coordinated, not only hierarchically through the imposition of a central accounting system but through the lateral flow of template components enabled through the visual features of the templates.

5. Discussions

This paper is about the healthcare emergency response and the management accounting and funding system that emerged with the pandemic. Unlike sudden impact disasters that elicit swift emergency intervention (Sargiacomo, 2015), we recount an emergency response that came into being *with* a novel slow-moving pandemic (Revet, 2020). We have, on the one hand, cost centers in Regional and Local Health Authorities and hospitals, and, on the other, actuator subjects, the EU and the MoH accounting with their own reporting systems. Unlike other more immediate disasters such as earthquakes, there was no *a priori* emergency and administrative guidelines for this disaster in Italy. This provides a fertile setting to investigate (a) how different funding, administrative and healthcare entities emerge with their own ways of standardizing their COVID-related costs and (b) their coordination.

We document two arboreal approaches to coordinating the Regional and Local Health Authorities and Hospitals own idiosyncratic ways of accounting for their COVID-related costs. First, the MoH mandates the insertion of its COV20 Column. The ministry mandates the insertion of a column across all regions and hospitals. It works by isolating costs into a designated column. While a code was inserted, there were no guidelines on how to do it. The COV20 column sought to segment cost reporting into a standard (column) but there was no clear standard way of doing so; each Regional and Local Health Authority and their hospitals had their own customs, their own way of plugging content into the COV20 column. This hierarchical bureaucratic intervention is in line with prior research, emphasizing the role of standardized practices (Rahaman *et al.*, 2010, p. 1098; Neu *et al.*, 2006), but the absence of guidelines limits the comparability of accounting and reporting activities.

Second, the actuator subjects themselves, under the leadership of the CPD and EHC, identify which actuator subjects will reimburse the hospitals and isolate those cost categories that will be reimbursed by the EU. The CPD, in tandem with the EHC, developed its own reporting system for the different Regions, Local Health Authorities and hospitals. At the center of this arrangement is the *prospetto sintetico* template, itself an assemblage of other reporting templates. It is composed of the EUSF's list of cost categories and the MoH's

COV20 columnar-based funding. That is, the *prospetto* standardizes and it coordinates, through the EU's cost category list and the MoH's column. These are, however, not just copy and pasted components, the decalcomania. For instance, the purchase of medical equipment in the EU list does not correspond precisely to the CPD and the EHC's, given the latter's reporting particularities. Rather than populate all COVID-related costs into one column, as the MoH did with its COV20 column, in the *prospetto* they distinguish it by national or regional actuator subject. These are transversal flows from the EU and the MoH into the *prospetto*. The CPD, in tandem with the EHC, used these to assemble its ledger, which is at the center of their coordination assemblage.

There was a similar dynamic in how the MoH used the *prospetto* to build on its initial COV20 cost coordination intervention. The MoH made the *prospetto* useful and made the CPD-EHC's coordination assemblage part of its own, consolidating in its FY2020 template different coordination functions. Preparing the P&L template with additional COV20 column, the form to apply for COVID-19 EUSF, and the *prospetto* got Regional and Local Health Authorities started on the accumulation of content for their respective columns. It prepared them not only in terms of content but also in terms of columnar- and list-based coordination. The MoH accumulated all these funds and the work that went into populating them into this new reporting template, as columns. The state, that is, brought these different accounting templates into its domain, its own arboreal assemblage, and made them useful. The coordination of micro-accounting techniques, of templates, columns and list, made possible an "*intra-consistency*" whereby the different components of the coordinating assemblages "resonate together" (Deleuze and Guattari, 1987, p. 433).

The assemblages literature helps us understand the interplay between the arboreal and rhizomes, between the more structured state bureaucracy and emergent. Or, as the accounting literature put it, between how the state and transnational institutions use accounting to intervene in a field through standardization (Rahaman *et al.*, 2010; Neu *et al.*, 2006; Preston *et al.*, 1997) and how accounting contains features that enable decentralized forms of arrangement where there are initially no centralized guidelines (Crvelin and Löhlein, 2022).

Studies often examine how international agencies and the state constitute a field. There is usually a top-down approach. For Rahaman *et al.* (2010) and Neu *et al.* (2006), coordination is ultimately arboreal: there is a central ledger and costing and budgeting protocols are used to insert some standardization hierarchically. It works by decalcomania, by copying and pasting from a central referent to the rest of the composition. This is noticeable in the emergency and healthcare studies on standardization (i.e. Sargiacomo *et al.*, 2014; Sargiacomo, 2015). This arboreal approach represents only a part of the whole pandemic field, as unveiled in the empirical analysis.

We show that there are several assemblages at stake in this process of coordinating a field and they are implicated in one another. When the state and international agencies constitute a field, there is not just one ledger, and we show how ledgers are implicated in one another and in the emergent process of coordination. Neu *et al.* (2009) discuss how several assemblages are involved in the international development field of El Salvador. Like them, we are interested in how several assemblages are implicated in the intervention of a field. We focus on how two coordinating assemblages emerge. Through the notion of coordinating assemblages, we conceptualize assemblages that are arranged based on a principle of standardization: there is a central ledger, and templates are used to enable the aggregation and consolidation of the different hospitals and healthcare authorities' COVID-related costs.

These templates, on a closer look, are also assemblages of other templates (Martinez and Cooper, 2019). It is by focusing on templates that we can appreciate how these coordinating assemblages are implicated in one another-how components transverse one assemblage with its own ledger into another. We can also appreciate how coordination is not just about standardization through imposed budgets and costing practices (Llewellyn and Northcott, 2005; Rahaman *et al.*, 2010; Chapman *et al.*, 2014; Sargiacomo, 2015) but also about the templates' lists and columns (Crvelin and Löhlein, 2022). Templates help us to examine

rhizomes in trees. While templates are seen as standardizing and bureaucratic, that is arboreal, they also enable unexpected transversal rhizomatic connections indispensable for coordination.

It is at the level of template where we can best appreciate the rhizomes in trees. This search for transversal flows and processes of emergence in bureaucratic arboreal structures was informed by Deleuze and Guattari's sensitivity to rhizomes in arboreal structures. For them "there are knots of arborescence in rhizomes, and rhizomatic offshoots in roots" (1987, p. 20). The root and the rhizome are "not opposed models." And these models are "perpetually in construction or collapsing" (p. 20). This is studied by looking at the flows and how they transversally connect entities that are also hierarchically arranged.

The notion of rhizome helps us understand the connections, an assemblage's relation of exteriority to other assemblages and their effects. The *prospetto*, for example, unlike a proper rhizome is not "open and connectible in all of its dimensions" nor is it "detachable, reversible, susceptible to constant modification" (Deleuze and Guattari, 1987, p. 12) or "something that can be torn, reversed, adapted to any kind of mounting, reworked by an individual, group or social formation" (p. 12). It is a template in a bureaucracy. The *prospetto* is operating in a tree structure: the state, bureaucracy and accounting. Our point is that there are rhizomes in and connecting tree structures. We sought to search for rhizome-like features in the templates. For example, the COV20 column, the EU's list of categories, the *prospetto* and the addition of additional columns to the MoH's FY2020 template were not mandated. They are part of this tacit way in which accounting coordinates (Vollmer, 2019), the way material features (columns, list) enable connections (Crvelin and Löhlein, 2022; Martinez and Cooper, 2019) and a will to escape, to form part of another, and make something different.

This paper has also shown how accounting emerges in an emergency and healthcare scenario, thus answering recent calls for further research on "forms of governmental ... accounting and accountability ... and the responsibility and accountability of states (and their health sectors)" (Robson *et al.*, 2021, p. 2). At an emergency level, we have observed a novel slow-moving disaster that allows us to visualize the transformations that we document. While the literature has looked at sudden impact emergencies (Baker, 2014; Lai *et al.*, 2014; Sargiacomo, 2015; Sciulli, 2018), the slow-moving emergency offers the opportunity to study emergencies when there are no clear guidelines. By studying the emergency as we collectively experienced it, in action (Hopwood, 1983), we show how guidelines emerge among different key institutional actors. Central to this are the templates, their visual features, and their top-down imposition that enabled transversal and emergent coordination of costing practices. This is important given the call for further research on the "functioning of accounting in the management of natural and humanitarian disasters" that, like "catastrophic societies" of which they are a part of, are in the making, emergent, and without a blueprint or guidelines (Walker, 2016, p. 48). This also has important implications for our understanding of the standardization of costs in healthcare because it is often through the imposition of budgets and costing categories (DRGs) (see Chua, 1995; Preston *et al.*, 1997; Kurunmäki, 2004; Llewellyn and Northcott, 2005). We show that there are rhizome-like flows in the midst of all the hierarchal imposition and that one place to find them is in the templates used to centrally coordinate.

6. Conclusions

Through our study of a slow-moving disaster, we show how different cost centers and accounting systems emerge and are centrally organized by the MoH for visibility and control. Alongside these centralized forms of coordination, there are decentralized and transversal flows enabled by templates. This builds on the scant COVID-19 accounting literature in healthcare, complementing and extending Huber *et al.* (2021), by moving beyond its focus on hospitals and looking not only at the internal accounting of hospitals but also the totality of the healthcare and the emergency response network. In doing so we build on another set of studies that have focused on how accounting and accountability practices changed and adapted

through the pandemic (Kober and Thambar, 2022; Moscariello and Pizzo, 2022; Parisi and Bekier, 2022; Yates and Difrancesco, 2022) and the danger of traditional accounting and accountability practices which can limit human action, exacerbate gender issues and reduce moral responsibility (Ahmad *et al.*, 2022; Perray-Redslob and Younes, 2022; Safari *et al.*, 2022; Sian and Smyth, 2022). Like these studies, we explored the changes in accounting systems and the resulting challenges for regional and local actors in reporting COVID-related expenses. In Italy, the central government was particularly focused on implementing its accounting system to prevent fund misuse, which informed concerns over cost standardization and monitoring. And yet, the resulting accounting system was an emergent assemblage of rhizomatic and arboreal features.

We aim to make two contributions to the accounting literature. First, it builds on studies that show that accounting creates a field of organizations by making them visible and manageable from a distance (Neu *et al.*, 2006; Rahaman *et al.*, 2010; Miller and Rose, 1990). Central to this is the coordination of field actors through central ledgers, budgets and cost controls, as seen in contexts like international development, disasters and hospitals. These studies illustrate how accounting requirements standardize and make comparable accounting practices, influencing actors' behavior and participation. We extend this by showing how templates themselves, through their visual features, facilitate emergent coordination across the field. There are rhizomes in trees and templates are where we see such interconnections taking place under these rather hierarchical and imposing systems.

Second, while much focus has been on rapid-onset events (Baker, 2014; Lai *et al.*, 2014; Sargiacomo *et al.*, 2014), our study examines the novel context of a slow-moving disaster such as HIV/AIDS (Rahaman *et al.*, 2010) and of the current pandemic (e.g. Yu, 2021; Ahrens and Ferry, 2021; Graham *et al.*, 2023). It is this feature of the pandemic that enables us to document how reporting and healthcare protocols emerge over different waves and times, with distinct accounting interventions at various levels. Our analysis shows how these disparate interventions are coordinated to form the state's comprehensive reporting apparatus, providing new insights into the dynamic nature of accounting coordination during prolonged crises.

In sum, coordinating is a central function of what accounting does (Vollmer, 2019). Advancing our understanding of the role of accounting through the notion of "coordinating assemblages" provides us with another conceptual tool to confront reporting and funding complexity in unprecedented slow-moving emergency contexts. Undoubtedly, in the literature there is still much to learn about the governing of healthcare during a pandemic and through our research we echo recent influential pleas for further research on "forms of governmental . . . accounting and accountability . . . and the responsibility and accountability of states (and their health sectors)" (Robson *et al.*, 2021, p. 2). At the same time, having considered a specific case related to Italy and Marche Region, future research should also aim to investigate these phenomena across diverse geographical areas and changing speeds and levels of intensity.

Notes

1. www.drought.gov/what-is-drought/monitoring-drought
2. Corriere Adriatico. Ospedale di Torrette, il virus corre: oltre 200 i ricoverati. E ora arriva il COVID-9 (corriereadriatico.it) 14 and 31 March 2020.
3. https://www.corriere.it/cronache/20_gennaio_30/coronavirus-italia-corona-9d6dc436-4343-11ea-bdc8-faf1f56f19b7.shtml.
4. https://time.com/5774747/coronavirus-who-public-health-emergency/.
5. https://news.un.org/en/story/2020/01/1056372
6. https://www.repubblica.it/cronaca/2020/02/22/news/cina_coronavirus_italia_virus_wuhan_influenza_codogno_lombardia_veneto_adriano_trevisan-249215365/

7. https://ec.europa.eu/regional_policy/en/funding/solidarity-fund/
8. https://ec.europa.eu/regional_policy/funding/solidarity-fund/COVID-19_en; accessed 10th April 2020.
9. To be eligible for funding, countries must have spent over €1.5bn in damages or over 0.3 GNI to tackle the pandemic. This contrasts with natural disasters which require spending over 3 billion euros in damages, or 0.6 GNI, to access funding.
10. https://ec.europa.eu/regional_policy/funding/solidarity-fund/COVID-19_en; accessed 10th April 2020.
11. Arcuri has been appointed through Legislative Decree 18, on March 17, 2020. Nevertheless, he took the reins formally on April 9, 2020.
12. For example, following the war in Ukraine, CPD opened another "special accounting system" specifically devoted to the management of emergency funds and activities devoted to Ukrainian citizens escaping from war and reaching Italy.
13. Minister of Healthcare and Regions.
14. https://ec.europa.eu/regional_policy/funding/solidarity-fund/COVID-19_en; accessed 10th April 2020.
15. The deadlines for QR 4 were 31 January 2021 for Ancona Hospital and 15 February 2021 for Marche Region. In a related manner, the deadlines for the Balance of FY 2020 were 31 May 2021 for Ancona Hospital and 30 June 2021 for the Marche Region (Interview n. 28).

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Appendix 1
Acronyms

CM -	Council of Ministers
DCM -	Decree of the Council of Ministers
PCM -	President of the Council of Ministers
DPCM -	Decree of the President of the Council of Ministers
MoH -	Ministry of Health
CMoH -	Circular of Ministry of Health
CPD -	Civil Protection Department
CCPD -	Chief of Civil Protection Department
DCCPD –	Decree of the Chief of Civil Protection Department
OCCPD -	Ordinance of the Chief of Civil Protection Department
LD -	Legislative Decree

Appendix 2
Sources

Primary Sources

Main Laws, Decrees, Circulars, Deliberations and Reports

European

EC-Council Regulation (EC) No 2012/2002 of 11 November 2002 establishing the European Union Solidarity Fund, published in European Official Gazette L 311, 14 November 2002, available at https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32002R2012

EU-Regulation (EU) No 461/2020 of the European Parliament and of the Council of 30/03/2020 amending Council regulation (EC) No 2012/2002 – published in European Official Gazette 31 March 2020, available at https://eur-lex.europa.eu/eli/reg/2020/461/oj

National

DCM-Decree of the Council of Ministers.

(1) 31 January 2020, Declaration of the State of Emergency

(2) 5 March 2020

MoH – Ministry of Health.

(1) n. 1997, 22 January 2020

(2) n. 2,302, 27 January 2020

(3) n. 2,619, 29 February 2020 0002619–29/02/2020-GAB-GAB-P

(4) n. 2627-P, 1 March 2000 0002627-P-01/03/2000

(5) n. 11,254, 29 May 2020

OCCPD-Ordinance of the Chief of Civil Protection Department.

(1) n. 630, 3 February 2020

(2) n. 635, 13 February 2020

(3) n. 639, 25 February 2020

(4) n. 640, 27 February 2020

(5) n. 658, 29 March 2020

DCCPD-Decree of the Chief of Civil Protection Department.

(1) n. 371, 5 February 2020

(2) n. 414, 7 February 2020

(3) n. 532, 18 February 2020

(4) 22–23 February 2020

(5) n. 628, 27 February 2020

DPCM-Decree of the President of the Council of Ministers.

(1) 22 February 2020

(2) 9 March 2020

(3) 18 March 2020

LD-Legislative Decree.

(1) n. 6, 23 February 2020

(2) n. 9, 2 March 2020

(3) n. 14, 9 March 2020

(4) n. 18 "Cura Italia" (Healing Italy), 17 March 2020

(5) n. 34, "Rilancio" (Re-launch), 19 May 2020

(6) n. 104, "Agosto" (August), 14 August 2020

CPD – Civil Protection Department "Operational measures to manage the epidemiological COVID-19 emergency," issued on 4 March 2020.

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Prot. 673,367, 24 Feb 2020, Opening of a new cost accounting center "Epidemics, Special and Extraordinary Events", later re-labeled "COV-20."

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