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Pan-European Response to the ImpactS of COVID-19
and future Pandemics and Epidemics

Best Practice in Multi-Level Governance During Pandemics: A Case Study Report

Deliverable 9.1

PERISCOPE

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Best Practice in Multi-Level Governance During Pandemics: A Case Study Report

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EXECUTIVE SUMMARY

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This report focuses on evaluating best practice in multi-level governance (MLG) during pandemics. It brings together contributions from multidisciplinary partners, who have conducted empirical and theoretical research in countries across Europe during the Covid-19 pandemic (March 2020 to May 2022).

The report presents contributions from PERISCOPE partners, led by the London School of Economics (LSE), and including the Karolinska Institute (KI), the Federation of European Academies of Medicine (FEAM) and the Centre for European Policy Studies (CEPS). It features social infrastructure case studies at varying levels: the local level (London, LSE), in civil society (Italy, CEPS), at the national level (Sweden, KI) and international level (cross-European, FEAM). It also spotlights a number of key issues and concepts identified by LSE as being pertinent to pandemic governance, including vaccine hesitancy, vaccine solidarity and state capacity.

In order to understand best practice in pandemic governance, it moves away from the dominant focus on resilience, and highlights instead a novel approach to multi-level governance, based on the combination of three frameworks.

The first of these frameworks, **social infrastructures**, is centred on networks of relationships in which people are embedded (home, community), and relationships between institutions (health-related, political) and society. A social infrastructure approach considers individuals in the context of a network of relationships, which shapes their behaviour, but which may also be characterised by inequalities that can be exacerbated by policy.

To bring into focus relations of power, this approach is complemented by the second framework, **public authority**, which seeks to understand the full range of actors claiming or being allocated power through appeals to popular social norms, the provision of public goods, and, sometimes, coercion and violence. This framework focuses on a range of institutions, and thus tends to challenge state-centric normative frameworks.

To take into account environmental and non-human factors, we draw on a third framework, **One Health**; this is a collaborative, multisectoral, and transdisciplinary approach that acknowledges the interdependence of human, animal, and environmental systems. It recognises that the health of humans, domestic and wild animals, plants, and the wider environment (including ecosystems) are closely linked and interdependent.

Through the contributions we present a number of key findings:

- **Decentralised governance** was critical to the implementation of pandemic policy and compliance with it.
- **Communities and Community Sector Organisations** (CSOs) played a key role in closing the gap between statutory services and community needs, especially for vulnerable groups.
- Innovative forms of **collaboration and mutuality** formed at different levels of government, facilitated by favourable legal and financial environments.
- Pandemic policies and governance approaches generated new forms of **stigma, exclusion and inequality** and exacerbated existing forms.
- **Scientific evidence** played a mixed role in informing policy making and governance.

Based on these core findings, we propose the following criteria as key to best practice in pandemic governance:

- **Decentralised governance structures** that are linked through strong communication channels and coordination mechanisms;
- **Empowered and well-funded CSOs** that are positioned to advocate for the needs of specific, and especially vulnerable groups;
- **Innovative funding and legal structures** that allow for rapid redistribution of funds and allow important collaborations to be sustained through periods of crisis and beyond;
- **Attention to the structural barriers created by pandemic bureaucracy** that exclude certain groups from uptake of vaccination, economic measures or healthcare;
- **Attention to non-human factors**, including a broad engagement with the needs of non-humans (animals and plant-life) and the impact of built environments on health outcomes through a One Health framework;
- **Investment in social listening mechanisms** that allow governments to understand, adapt and co-design their policies with communities, specifically using qualitative and ethnographic data;
- **A broad and diverse evidence base** to inform policy making, facilitated by interdisciplinary collaboration among scientific research actors and channelled through strong communication mechanisms.

INTRODUCTION

INTRODUCTION[1]

This report focuses on evaluating best practice in MLG during pandemics. It brings together contributions from diverse partners, who have conducted empirical and theoretical research in countries across Europe during the Covid-19 pandemic (March 2020 to May 2022).

Partners draw on expertise and empirical research from varied disciplines – including economics, psychiatry, public health, epidemiology, public policy, digital policy, anthropology, and political science. The report represents the culmination of a highly comparative conversation between these partners that has been ongoing since July 2021, facilitated by the EU Horizon 2020 PERISCOPE consortium. It showcases the best of existing research studies conducted by the report partners on key themes, in addition to new research commissioned in response to the group's key questions.

Conceptual framework

The term multi-level governance refers to coordination in the delivery of very different public goods. In the case of this report, the term is used in the context of the pandemic response within and across different levels of governance, and how this governance influences the overall effectiveness of the response and its impact on health and other inequalities (Ottersen *et al.,* 2014). This report focuses on three levels of statutory governance: the international level (including the EU), the national level and the municipal or local authority level. It is the interaction between these levels that ultimately generates negative or positive outcomes for interventions. As such, this report challenges a state-centric view of multi-level governance and aims for an analysis of other actors who engaged in or held authority during the pandemic response period (Parker *et al.,* 2020). These include, first, non-state actors providing formal care, including international health and aid organisations, community sector organisations, international and national scientific bodies and grassroots organisations. Second, it includes informal networks of care – households, families, communities, neighbourhoods and mutual aid groups – which people fell back on in order to navigate the pandemic and through which policies from state actors were filtered (Bear *et al.,* 2021). Third, it highlights the role of non-human actors, including animals, plant-life and built

[1] This report was compiled by Nikita Simpson, who also wrote the introduction and conclusion alongside Laura Bear, based on ongoing conversations with lead researchers at LSE (Allen and Storer).

environments, in pandemic governance, given the fact that Covid-19 is a zoonotic disease.

In considering these multiple actors, this report is uniquely scalar and relational in its presentation of best practice in MLG and the peopled landscape of the Covid-19 response. This report asks three sets of questions in relation to this landscape. The first set of questions concerns a comparative analysis of **statutory governance responses**. These questions include: *Who did what and when during the crisis response? What was the role of different levels of statutory governance with respect to public health orders, vaccination, and economic recovery? Did places where the response was centralised fare better or worse than those where the response was decentralised? What legal and financial mechanisms were necessary for coordination of different levels of government? To what extent, and how, were policies developed that recognised the significance interactions between the human and of the non-human?*

The second set of questions allows for an analysis of the role of **scientific evidence** in policy making and implementation. These questions include: *Which (epistemic) scientific communities were involved and at what stage of decision-making? How did scientific evidence translate into policy decisions, and how, in turn, were these policy decisions implemented? How did the media work to support or contradict evidence-based policy making? What role did trust – in evidence and authorities – play in compliance with* relates to the **role of community** and community sector organisations in the pandemic response. These questions include: *To what extent, and how, did pandemic policies pay attention to the needs of households and communities? To what extent, and how, did communities mobilise during the pandemic? To what extent, and how, did policies generate a cooperative or stigmatising public sphere?*

In order to investigate these questions, this report presents an innovative conceptual framework. Studies of multi-level governance in pandemics have often centred on the concept of *resilience* as a means of thinking about how different actors bounce back from shocks. While acknowledging the utility of this concept, this report regards resilience as too capacious and bound by its origins in the physical sciences to precisely capture the dynamics of social interactions and to sustain an interdisciplinary collaboration. We propose instead three core concepts that allow us to: (a) engage in interdisciplinary conversation; (b) bring into view the range of actors aforementioned; (c) evaluate the relations between such actors. Together these concepts allow us to address the social, political and environmental aspects of governance.

The social

Social infrastructures are defined as networks of relationships in which people are embedded (home, community), and relationships between (health-related, political) institutions and society. They include processes of social connection, such as trust and hope, which allow for successful MLG, but also account for processes of disconnection, including exploitation, stigma and discrimination, which prevent the successful implementation of policies. A social infrastructure approach, pursued in pandemic policy development by the LSE Covid and Care Group, considers individuals within a network of relationships, which shapes their behaviour, but which may also be characterised by inequalities that can be exacerbated by policy. Additionally, this approach is also important in spotlighting the non-human environment and actors as they shape policy outcomes. We see a social infrastructure approach as useful for cross-disciplinary collaboration as it has roots in both qualitative and quantitative methods, spanning scales from local community-based research (anthropology) to population studies (economics, epidemiology).

The political

The **public authority** framework seeks to understand the full range of actors claiming or being allocated power through appeals to popular social norms, the provision of public goods, and, sometimes, coercion and violence. Through its focus on a range of institutions, a public authority lens tends to challenge state-centric normative frameworks; such a lens enhances our understanding of what is actually happening on the ground, and why some policy interventions fail persistently. It directs our attention to who benefits and who is excluded from these actors' claims to authority, and how these actors are perceived by their rivals and those they seek to govern. This approach has been used to understand the local dimensions of the Ebola response and other disease outbreaks in Africa. We see a public authority approach as a helpful tool for multi-actor analysis of power relations across our case studies. This helps us to understand who has agency in building and breaking social infrastructures and the inequalities of pooling of influence and resources within particular nodes of these.

The environmental

One Health is a collaborative, multisectoral, and transdisciplinary approach that acknowledges the interdependence between human, animal, and environmental systems. It recognises that the health of humans, domestic and wild animals, plants, and the wider environment (including ecosystems) are closely linked and interdependent. The approach mobilises multiple sectors, disciplines and communities at varying levels

of society to work together to foster well-being and tackle threats to health and ecosystems, while addressing the collective need for clean water, energy and air, safe and nutritious food, action on climate change, and contributions to sustainable development. We see a One Health approach as useful since it allows us to understand the interdependence of actors and step back from a human-centre lens when considering these ecosystems. It helps us to ask, what sustains and disrupts social infrastructures and what forms of capture and exploitation of the human and non-human are part of public authority? We can track relational consequences that exist say between the spread of a non-human virus, the built environment, community networks and power dynamics.

Each of these frameworks share a perspective beneath their complimentary differences of emphasis. They all allow us to attend to the *relationality* of governance actors in the pandemic response. Relationality might be understood as the way in which different actors form relationships with each other at different scales of government, constituting dynamics of power and authority. Through these frameworks, a number of key concepts that define such relationality have emerged. These include forms of connection, collaboration and listening and how they speak to cross cutting concerns around trust, solidarity and mutuality; but they also include forms of disconnection including stigma, inequality and exclusion. Within the contributions to this report, we attend to these different types of relationality as they facilitated successful policy making, implementation and compliance; and in terms of how they were marred by existing and new structural barriers or generated new forms of inequality.

Structure of the report

This report begins with a deeper exposition of the conceptual frameworks used by the contributors. It then presents two kinds of contribution – case studies and spotlights.

Case studies are longer, geographically located pieces, written based on empirical research. These are organised around the ‘scales’ of social infrastructures and include:

- Local Social Infrastructures – UK, conducted by LSE; and Italy, conducted by the Centre for European Policy Studies
- National Social Infrastructures – Sweden, conducted by KI
- International Social Infrastructures – National Scientific Academies, conducted by FEAM

The report also includes a number of ‘spotlights’ – these are shorter, more illustrative pieces that examine particular concepts or phenomena that were relevant to pandemic

governance and cut across geographic areas. They also illustrate how our relational framework goes beyond usual individualised approaches or those that emphasise community culture or epiphenomenon of causality such as 'trust' or 'legitimacy' usually used to explain these phenomena. These were conducted by LSE research groups and include:

- vaccine solidarity
- vaccine hesitancy
- state capacity.

These case studies and spotlights have been written based on collaborative conversations and a series of workshops attended by group members; however, they also stand alone as specific research studies on different elements of MLG during the pandemic.

How to read this report

These case studies and spotlights do not offer a single political, disciplinary or empirical perspective on the pandemic, or on governance practices. Instead, they aim to draw attention to particular constellations of health outcomes, policy measures and empirical realities as they played out during the pandemic – analysing these through relational frameworks. The contributions are united in their attempt to make sense of a common set of questions, described above, that emerged as a result of an anthropological study of the pandemic in the UK (led by Bear and Simpson), and have relevance across different contexts. They are also united in their use of the three conceptual frameworks as a novel approach to these questions. This mode of conducting interdisciplinary research is experimental and we have found it to be generative due to an ongoing conversation and workshops. Rather than reconciling visions we have found that distinct disciplinary perspectives offer complimentary vistas that build into a better understanding of how relations at all scales affect pandemic outcomes.

We anticipate that the report will be used by policy makers and academics as a set of resources and tools that might be applicable in different contexts and at different scales of government. The core findings and recommendations present a cross-cutting message, but each contribution might be used separately to influence policy in more specific contexts.

Core findings

Cross-cutting the contributions within this report, we have identified a number of core findings.

First, **decentralised governance was critical to pandemic policy implementation and compliance**. Mandates such as stay at home, mask-wearing and vaccination orders may have been generated by central or national governments, but successful implementation of and compliance with such policies was often dependent on local social infrastructures – as described in the Local Social Infrastructures case study (Case Study 3). As Besley and Dann suggest (Spotlight 2), this 'bottom-up' approach to state capacity is rarely researched. One of their key findings suggests that certain governments – in societies with high levels of voluntary compliance that delegated Covid-19 policies to local tiers of government – implemented such policies without mandatory penalties. The International Social Infrastructures case study (Case Study 1) also includes this finding, but also suggests that countries with a decentralised health system delegated crisis management to regional authorities, requiring more sophisticated coordination, especially in the first difficult months of the pandemic. While decentralised health systems faced more difficulties in the early stages of the pandemic since regional authorities were not used to cooperating daily, this process generated unique and innovative policy initiatives that worked to meet the needs of communities. Findings from Italy in the Civil Society Infrastructures case study (Case Study 4) highlight that decentralised policy responses were facilitated by CSOs, which worked with statutory services to understand and meet the needs of specific groups.

Secondly, our report revealed that **communities and CSOs played a key role in closing the gap between statutory services and community needs, especially among vulnerable groups**. As CEPS found in the Civil Society Infrastructures case study (Case Study 4), CSOs applied their creativity, adaptability and energy to finding innovative solutions during the pandemic, and because of their roots in communities meant that they were uniquely positioned to be responsive as the pandemic changed shape. This is confirmed in the Local Social Infrastructures case study, where in the UK context (Case Study 3), CSOs came together in new collaborations, facilitated by suspended bureaucratic mandates around procurement or financing. However, this process was hindered by the environment of financial starvation resulting from the previous decade of austerity; and fears remain for the sustainability of such collaborations into the future. Storer and Sarafian also show (Spotlight 3) that the work of CSOs was critical, especially for vulnerable, marginal or mobile groups such as

undocumented migrants, in encouraging vaccine uptake and helping people to navigate bureaucracies.

A third finding from this report is that **innovative forms of collaboration and mutuality formed at different levels of government, facilitated by favourable legal and financial environments**. These forms of mutuality existed at local level, as aforementioned, but also at national and international level. In the case of Sweden, as KI points out in the National Social Infrastructures case study (Case Study 2), this mutuality should be recognised among human actors, but also non-humans and built environments which are deeply implicated in pandemic outcomes through exposure, containment and other health outcomes. Kleine *et al.,* in their spotlight on vaccine solidarity (Spotlight 1), highlight that the Joint Procurement Mechanism for Vaccines was a critical act of solidarity between EU governments that facilitated successful vaccine roll-out. However, they point out that this form of solidarity was at the expense of a wider form of global solidarity, and, as such, nations in the global south were left behind in the vaccine roll-out. The Local Social Infrastructures case study (Case Study 3) confirms this dynamic between mutuality and exclusion, confirming that the focus on engaging some groups at local level through innovative partnerships was often at the expense of other groups who were left behind or rendered even more marginal by the pandemic response.

A fourth finding from this report is that **pandemic policies and governance approaches generated new forms of stigma and inequality and exacerbated existing forms**. This is best illustrated in the case of migrants in Storer and Sarafian's spotlight (Spotlight 3); they found that structural barriers, rather than individual hesitancy, prevented such vulnerable groups from accessing vaccination. The Local Social Infrastructures case study confirms this (Case Study 3), with LSE suggesting that particular pandemic policies worked to further exclude and stigmatise some groups. However, this inequality is not exclusive to local areas but also exists at a national level, as highlighted by KI in the National case study of Sweden (Case Study 2). This case study demonstrates how the anthropocentric focus of pandemic policy – i.e., the emphasis on human needs - leaves out non-human forms including plant-life and animals with problematic effects for social relations and longevity in the long term.

A fifth finding from this report suggests that **scientific evidence played a mixed role in informing policy making**. This, like other problems addressed in the report, resulted from a disconnection of social relations, or a lack of relational channels and dense social networks between policy and health organisations. The reasons for these lacking connections are complex and specific to each national context, and its political and social provisioning history. The International Social Infrastructures case study (Case Study 1)

highlights the role played by national scientific academies, as important actors in influencing the policy-making process. However, they identify a gap between health organisations and national policy-making fora, which might be addressed though more stable and consistent communication channels, or in other words the building of channels for relational work and networks.

CONCEPTUAL FRAMEWORK

CONCEPTUAL FRAMEWORK

This report adopts a novel conceptual framework for understanding MLG through pandemics, which moves away from a more standard focus on resilience. In this section, we present, first, a succinct review of the resilience approach; and second, a proposal for three alternative conceptual frameworks – social, political and environmental – in order to inform our understanding of pandemic governance.

Beyond resilience

Across academic disciplines, scholars have consistently noted the vagueness of the term resilience. Yet, despite this, scholars and policymakers who adopt resilience frameworks continue to apply core ideas without question. Far from being contested then, resilience is assumed to refer to the ability of individuals, households, institutions and even whole societies to rebound after experiencing stressors. Increasingly, the concept also connotes the ability of systems to 'bounce-back better' following the onset of external shocks (Hoegl, 2021).

Given its ubiquity, resilience has become a central concept uniting discussions on pandemic recovery. Yet, in the context of emergency-thinking, previous critiques of or omission within the concept have been side-lined.

Different disciplines have long focused on different types of resilience – divergences between economics and anthropology are illustrative.

For economists, post-pandemic resilience relies on a functioning and robust economy (Schwab, 2022). This builds on long traditions of measuring resilience in distributional and material terms, which focus on a return to pre-crisis levels of production and consumption. Latterly, there have been efforts to take into account the politics of these transitions, and the institutions which govern growth, including through independent judiciaries and legislatures (cf. Besley & Mueller, 2018), which help cushion states against a host of system-wide risks. In the context of pandemic recovery, such approaches have usually prioritised macro-analysis, assuming that economic stability, assured to good institutions, will trickle down and benefit wider society.

Departing from complex social realities, anthropologists have had much to say about macro models of resilience. On the one hand, economic approaches, being material in nature, are devoid of consideration for social relations that can underpin the study of

resilience at more micro levels of analysis, such as across households and communities. 'Social infrastructures' lie far beyond the frame of analysis (Bear *et al.,* 2021). In their one-dimensional approach to bouncing back, economically grounded theorists have missed the forms of mutuality and cooperation embedded in social capital within localities.

On the other hand, anthropologists have also more vehemently rejected resilience thinking (Duffield, 2012; Bierman *et al.,* 2015; Fanstein, 2015; Ilcan and Rygiel, 2015). Noting the potential violence in abstract thinking, theorists have suggested that resilience approaches based on abstracted units fail to acknowledge the structural marginality residing in state and international power structures – which generates and sustains vulnerability in the first place. In focusing on creating robust households, resilience thinkers expect marginalised populations to recover and survive, without confronting disempowering institutional policies which create inequality. The source of resilience for economic thinkers is a potential driver of inequality and dispossession for anthropologists.

To move beyond this potential incompatibility, in the context of post-pandemic renewal, or pandemic preparedness, **we propose three alternative frameworks for analysis – social infrastructures, public authority and one health.** Critically, these three frameworks support one another to highlight the range of actors (including non-human actors) involved in pandemic governance, the power relations between them and the ways in which these relations work to build both connection and exclusion. The combination of these frameworks is used to guide all the case studies and spotlights in this report; and to attend to the multiple and non-linear scales through which multi-level governance works.

The social: social infrastructures[2]

A central conflict facing policymakers, the voluntary sector, and communities during the Covid-19 pandemic has been keeping safe from a virus that is transmitted interpersonally while also providing vital support to those in need. The Covid and Care Research group (Bear *et al.,* 2021) conducted ethnographic, participatory, and quantitative research, during a 12-month period, which has revealed that people have fallen back on their families, neighbourhoods and communities in order to navigate new challenges and burdens. **We call these networks of kinship and care within and between families,**

[2] Contributed by Laura Bear (LSE) and Nikita Simpson (LSE); economics section contributed by Chris Dann (LSE).

friends, and communities 'social infrastructures' and argue that economic life and pandemic recovery relies on the strength of these foundational relations.

Pandemic policies as introduced by governments have often side-lined issues of social inequality, have not taken into account impacts on the vital support networks of social infrastructures or have been designed using notions of individual behaviour – a generic 'subject', motivations, thought processes. This is why concepts like compliance and non-compliance rather than an emphasis on barriers and facilitators are so prolific in political interventions to prevent the spread of Covid-19. A social infrastructure approach looks at the individual within a network of relationships, which shapes their behaviour, but which may also be characterised by inequalities which can be exacerbated by policy. These networks are important in determining health outcomes and pandemic response and preparedness. Importantly, these relationships may be embedded in the home and community but may also include relationships with formal health-related and political institutions. Studying social infrastructures involves studying both processes of connection – trust, hope, mutuality – and those of disconnection – stigma, discrimination and exclusion. We might also consider the ways in which the non-human – including built environments and non-human agents like viruses, animals or plants – are implicated in social infrastructures.

Essential ties are used to navigate shocks, life events and economic pressures through the provision of mutual support. The question of who, within such relational networks, absorbs such uncertainty is one of intersectional inequality – for example, in the pandemic we found that middle-aged women took on much of the care of older and younger people. These inequalities have material effects. Understanding such inequalities requires us to understand the values, norms and morals that underpin and perpetuate them.

In economics and political science, the notion of 'social infrastructures' relies on alternative outlooks for modelling human behaviour beyond the standard *homo economicus*, and relating this to wider debates on how culture, norms and values contribute to various politico-economic outcomes. Economic models are typically devoid of any consideration for social relations; many theoretical insights revolve around arms-length interactions between rational, autonomous agents who act with self-interest. This approach has been critiqued, however, in famous essays, such as that by Sen (1977). New modelling approaches have arisen in more recent years, such as those focusing on agents who are 'mission-oriented', known as 'motivated agents', who produce 'collective goods' (Besley and Ghatak, 2005; 2018). Ashraf and Bandiera (2017) have developed

the idea of 'altruistic capital', defined as 'an asset that enables individuals to internalise the effect of their actions on others' (p. 70).

In addition to individual incentives, the literature on 'collective action' further predicts that rational agents are unlikely to cooperate in prisoner's dilemma games, even though it would be mutually beneficial to do so (Olson, 1965). '[U]nless the number of individuals in a group is quite small, or unless there is coercion or some other special device to make individuals act in their common interest, rational, self-interested individuals will not act to achieve their common or group interests' (Olson, 1965, p. 2). Notwithstanding this oft-claimed theoretical argument, Ostrom (2000) provides an extensive review of empirical fieldwork that questions the fundamental prediction of collective action. 'A central finding is that the world contains multiple types of individuals [– rational egoists, conditional cooperators and willing punishers –], some more willing than others to initiate reciprocity to achieve the benefits of collective action' (Ostrom, 2000, p. 138).

In macroeconomics, there has been growing interest among economists in studying how norms and values impact certain outcomes, especially over the last ten years. Albeit not limited solely to prosocial behaviour and cooperation, various models of evolutionary behaviour try to illustrate when certain norms become more dominant than others over time, and how such values are transmissible intergenerationally. In political economy, much of this relates to how individuals interact with the state and how different norms and values are more conducive to certain types of societies. In political science, the idea of 'civic culture' has emerged, arguing that democracy thrives in places with stronger 'democratic values', such as a propensity for participation in civic life (Almond and Verba, 1963; Putnam *et al.,* 1993; Besley and Persson, 2019). This idea is also strongly related to Putnam's (2000) work on 'social capital' comprising 'the connections among individuals' social networks and the norms of reciprocity and trustworthiness that arise from them' (p. 19).

Strong norms and values can also underpin the development of institutions and state capacity. For example, tax morale can be augmented when citizens see the state putting tax revenues to fruitful uses, yielding a type of quasi-voluntary compliance with government (Levi, 1988; Besley, 2020). Moreover, whilst it is ill-defined, 'interpersonal trust' as a manifestation of strong norms and values is shown to contribute to economic growth (e.g., Algan and Cahuc, 2013), and even be correlated with lower levels of mortality during Covid-19 (e.g., Besley and Dann, 2022). In certain respects, strong norms and values thus allow communities to overcome collective action problems via mutual reciprocity. This also reduces the need for the state to use formal coercion in order to implement policies successfully when it can rely on informal compliance in lieu.

Ultimately, despite not being specifically focused on 'care' and 'support', political economics has recognised the need to study informal human relationships and propensities as the bedrock of successful societies and states.

In anthropology, the concept of social infrastructures has its origins in attempts to understand how informal economies work. For example, AbdouMaliq Simone (2004a; 2004b) contends that Africa's cities function through fluid, makeshift collective actions which run parallel to proliferating decentralised local authorities, small-scale enterprises, and community associations. He argues that we must acknowledge the particular history of these cities and incorporate the local knowledge reflected in the informal urban economic and social systems which already exist. He calls this concept 'people as infrastructure' and suggests that this infrastructure is capable of facilitating the ways in which social networks intersect so that expanded economic and cultural spaces become available to residents of limited means. Similarly, Julia Elyachar (2010) – looking at women's financial practices in Cairo – has argued that a social infrastructure which includes strong channels of communication is as essential to the economy as roads, bridges, or telephone lines. Bear (2015) focusses more on how social infrastructures join informal and formal institutions. These relational networks mean that public policies have unintended consequences as they reverberate through these ties of friendship, patronage, community, and kinship. Even policies that appear to 'only' be about the economy lead to radical changes in family and community structure. Their legitimacy too is rejected or accepted by populations according to the extent to which policies enable them to reproduce relations of kinship and care. This provides a unique framework through which to understand questions such as trust, social capital and capacity. It is the ties between informal and formal networks and the extent to which policies sustain the social foundations of life that determines the outcome of interventions. This approach from within anthropology makes the centre of its analysis not top-down policies, but the social relations that make them manifest. Relational work becomes visible in a unique way in this approach.

In feminist studies – including feminist economics and geography – research into social infrastructures has been influential in conceptualising the 'invisible' forms of labour that sustain social and economic life. Feminist economists understand social infrastructures as encompassing all aspects of social reproduction, but these ideas are routinely side-lined in wider debates (Hall, 2020). Feminists have critiqued infrastructural approaches that focus on social spaces and spaces of sociability, such as community centres, parks and libraries, rather than the processes through which sociality is generated such as labour and social reproduction. Alongside feminist organisations such as the UK

Women's Budget Group, we argue that both short- and long-term investment in these integrated social infrastructures is crucial for the post-Covid recovery.

The political: public authority[3]

In order to bring into focus the different forms of authority and the power relations of different actors in governance structures, we draw attention to social infrastructures with a focus on public authority.

The term 'public authority' has long been used in legal discussion to refer to instruments of formal government, and to instruments of the state created by legislation to further public interests, such as the police, the army and various sanctioned forms of local administration. More generally, public authority is a term used to refer to matters associated with public, rather than private, law. In European countries where the idea of public authority has a long legal history, there is, in practice, a large tranche of social life that occurs between the private spaces of family life, and the public domain of formal, state governance.

That space is sometimes referred to as being associated with 'hybrid' kinds of public authority, such as government-like institutions that provide public services or a formally recognised charitable organisation. People depend on a host of institutions beyond the state, for example religious organisations, commercial enterprises, the third sectors, to obtain public goods such as justice, security, and health. All these phenomena can be categorised as manifestations of hybrid public authority.

Thus, a 'public authority' lens seeks to understand the full range of actors claiming or being allocated power through appeals to popular social norms and the provision of public goods. Research from the Centre of Public Authority and International Development (CPAID), at LSE, has involved the study of a host of public authorities – beyond the immediate family that commands a degree of consent – including clans, religious institutions, aid agencies, civil society organisations, rebel militia, and vigilante groups, to formal and semi-formal mechanisms of governance. Crucially, this includes those considered part of the state, such as village or street-level bureaucrats, and those seemingly far removed from or even standing in opposition to it – like customary leaders, civil society organisations, religious leaders, and armed groups.

To understand how governance works through these groups, CPAID researchers have developed 'logics' to explain how public authority is claimed, accrued, and employed.

[3] Contributed by Tim Allen (LSE) and Elizabeth Storer (LSE).

The logics have been useful in exploring comparison between places, specific public authorities and delineating patterns. Examples of these logics include moral populism (Allen, 2015), the political marketplace (Dewaal, 2014), social harmony (Porter, 2016), public mutuality, and intimate governance (CPAID, 2021. They have been used to refer to ways in which actors and organisations appeal to social norms and provide public goods, thereby gaining a modicum of legitimacy which allows them to govern others.

Much of the recent academic interest in public authority has focused on Africa, due to literature that has explored the micro-politics of post-colonial states. Anthropologists have described and analysed political orders regulated by different kinds of chiefs, ritual specialists, secret societies, lineages and kinship systems. Yet, ideas from such work are increasingly influencing research in other areas. There is a recognition that the state is far less all-encompassing than has been imagined, even in places where the idea of the state, and the notion of a nation state, originated. There has been fruitful application of the public authority lens to the recent Ebola epidemic, where it was used to understand the intersecting and sometimes conflictual authority of local chiefs, international humanitarian organisations and local NGOs (Parker *et al.,* 2019).

Thus, as a lens, public authority is beneficial and may be applicable to wider geographic contexts. Through its focus on a range of institutions, this framework tends to challenge state-centric normative approaches. **A public authority lens enhances our understanding of what is actually happening on the ground, and why some policy interventions fail persistently. It directs attention to who benefits and who is excluded from these actors' claims to authority, and how these actors are perceived by their rivals and those they seek to govern.**

Thus, though it has emerged from empirical research in the African context, we suggest that a public authority lens may provide valuable insights into the response to Covid-19 in Europe. On the one hand, the concept offers a window of understanding on divergent local responses to health policies, movement restrictions and vaccine rollouts. For example, we have seen that compliance and resistance to Covid-19 policies, as well as vaccine uptake, within and across European countries has been spatially uneven. Marginalised social groups continue to resist vaccine campaigns. In this manner, the concept of public authority allows us to understand the actors – within and beyond the national and local state – who are considered legitimate providers of public goods, healthcare and health information. It encourages us not only to map the levels of local government, and how state authorities' interface with health authorities, but also indicates how alternative authorities – such as religious actors, non-governmental

organisations (NGOs), activist networks – may influence and direct health-seeking behaviour.

The environmental: One Health[4]

To complement the emphasis on social and the political factors, we draw on the notion of One Health for the environmental perspective. Some of the most urgent issues of our time (e.g., climate change, environmental degradation, non-communicable diseases, emerging infectious diseases) can be found at the human-animal-environmental interface (Mackenzie, Jeggo, 2019; Magouras *et al.,* 2020) and demand integrated approaches and novel strategies that acknowledge human-animal-environmental interconnectedness (Akhtar, 2013). Moreover, anthropocentric drivers, such as encroachment of animal habitats, extreme exploitation of natural resources, and intense livestock farming are common to these issues (United Nations Environment Programme (UNEP) & International Livestock Research Institute (ILRI), 2020).

The One Health framework is a collaborative, multisectoral, and transdisciplinary approach that acknowledges the interdependence between human, animal, and environmental systems (Mackenzie, Jeggo, 2019). The approach relies on collaborations across levels and actors, mainly around joined-up surveillance initiatives. These are aimed at early detection of threats to prevent outbreaks, assessing and reporting the impact that disturbances to our environment have on the occurrence of (re)emerging diseases and implementing common methods of controlling these diseases. The concept has potential to be of benefit in pandemic prevention, preparedness, response and recovery (Häsler *et al.,* 2020). Warning surveillance at the human, animal, environment interface is perceived as a key tool for Global Health Governance (GHG) in order to support pandemic preparedness and response. The Covid-19 pandemic has catalysed the prioritisation of genomic surveillance on the global agenda (Aarestrup, Bonten, Koopmans, 2021). One Health has been understood as a framework that has the potential to unite diverse interests and expertise, thereby contributing to a deeper understanding, and a more balanced approach, to various health concerns (Kamenshchikova *et al.,* 2021). Consequently, the World Health Organization (WHO), amongst others, is emphasising the role of the concept in moving towards increased sustainability and improved public health (United Nations *UN News*, February 2021).

[4] Contributed by Elin Pöllänen (KI), Walter Osika (KI), Emma Martinez (FEAM) and Claudia Granaldi (FEAM).

Today's 'One World – One Health' concept started out as 'One Medicine', combining human medicine and veterinary medicine to combat zoonoses (Mackenzie, Jeggo, 2019). The first reference to the term 'One Health' appeared in wildlife conservation efforts in 2004, resulting in the Manhattan principles that recognise the link between human and animal health and the need to maintain ecosystem integrity (Grutzmacher *et al.,* 2020; One World – One Health, 2021; Mackenzie, Jeggo, 2019). To this day, however, the concept remains vaguely defined and subject to silo thinking, especially within the public health sector (Zinsstag *et al.,* 2011). This type of thinking reverberates on siloed governance mechanisms: despite the progress made (e.g., the creation of the One Health High-Level Experts Panel (OHHLEP)), there is still no single, global institution for One Health leadership and coordination. In other words, progress towards One Health implementation can be attributed mainly to 'soft forms of global health governance' (Ruckert *et al.,* 2021).

In order to mainstream One Health, OHHLEP has created a shared, operational definition of One Health that has been endorsed by the Food and Agriculture Organization (FAO) of the United Nations (UN), the World Organisation for Animal Health (OIE), UNEP and the WHO (Lee & Brumme, 2013; FAO, OIE, WHO, 2021). Potentially, this could move One Health beyond its current traditional focus on zoonoses and surveillance (Zinsstag *et al.,* 2011; Destoumieux-Garzón *et al.,* 2018; Chiesa *et al.,* 2021) to include other health matters and preventive measures (e.g., chronic non-infectious diseases which are the leading cause of global human mortality). A shared definition could also avoid 'half measures' within the On Health framework that are often taken at the expense of ecosystem health and biodiversity (Peters & das Neves, 2021).

There is also a need for complementing perspectives from social sciences, economics, law (Zinsstag *et al.,* 2011; Destoumieux-Garzón *et al.,* 2018; Chiesa *et al.,* 2021) and neuroscience (Pöllänen & Osika, 2018), as well as a need for distinct accountability measures. As One Health is largely shaped by its context, collaborators and stakeholders, its dominant characteristics stem from anthropocentric (and primarily Western, short-term) framing of problems and solutions. This would allow prejudicial attitudes towards environments and animals to be identified and promote an understanding of non-human entities as instruments for human health (Magouras *et al.,* 2020; Kamenshchikova *et al.,* 2021; Pöllänen & Osika, 2018).

One Health in its current form also neglects the recognised links between the rights of humans and animals. Therefore, there is an ongoing call for a ‘One Rights’ approach to solidify the role of One Health in equity and social sustainability. Within law, a ‘peacetime with animals’ has been suggested to complement the ongoing ‘war on animals,’ based on the resemblance between animal welfare laws and international humanitarian laws, both of which regulate violent activities (Sparks, Kurki & Stucki, 2020; Stucki, 2021).

CASE STUDY 1

International social infrastructures

CASE STUDY 1

CASE STUDY 1: International social infrastructures

Focus: Spain, Italy, Belgium, Netherlands, Romania, and the United Kingdom

Authors: Emma Martinez[5] and Claudia Granaldi[6]

Introduction

A small qualitative study was undertaken among some medical academies members of Federation of European Academies of Medicine (FEAM), to derive specific insights on the implementation of Covid-19 policy measures at various policy levels (European, national, regional, and local), in a selection of European countries.

The aim was to provide a comparative analysis of multilevel decision-making during the Covid-19 pandemic. The main objective was to gather the views of a specific stakeholder group on how countries perceived, implemented, and reacted to EU policy measures from the onset of Covid-19 in March 2020, and how the situation has evolved over time. This was with a view to contributing to the overall assessment of this report on the impact of policies on health disparities and enduring transmission, how policies were received and other unintended effects. First, we provide an overview of the national medical academies' mission and governance. Then, we define the research methodology which was followed. Finally, we summarise the more significant trends that emerged from the empirical approach, in order to identify potential 'best' and 'worst' practices in the countries under consideration.

International social and health infrastructures within the scientific community: The national medical academies

FEAM is the European umbrella group of national medical academies. Its membership network encompasses 23 academies of medicine, veterinary science, and pharmacy from 19 countries in the WHO European region.[7] FEAM's mission is to promote cooperation among its members, encourage them to articulate a common position on medical themes relevant to Europe (concerning human and animal medicine, biomedical

[5] Federation of European Academies of Medicine (FEAM)
[6] Federation of European Academies of Medicine (FEAM)
[7] For a list of countries within the WHO European region, see: https://www.euro.who.int/en/countries

research, education, and health), and bring their advisory support to the European authorities.

National Academies of Medicine are scholarly societies representing biomedical scientists, academics, and medical doctors at the national level that can act as independent, advisory bodies to government. Their mission is to enhance the highest level of research and ensure its translation into policy, with a view to impacting policy making and society. Academies represent the scientific community nationally and internationally, discussing scientific topics of utmost importance and cooperating with research institutes. Academies' membership is granted by peers based on an individual's excellent professional record of accomplishment. FEAM Member academies are self-governing, often funded by national governments and charitable organisations. Not all academies have a secretariat, but where it exists, it ensures that the gap between science and policy is bridged.

National Medical Academies are key social and health infrastructures. They are organised networks that can be impacted by policies and other socio-economic conditions; yet, unlike many other social infrastructures, their activities can and do have an impact on policies. First, such institutions offer a forum for researchers and experts to exchange views on relevant topics in the biomedical field, thereby promoting the quality and integrity of scientific research. Second, by collecting and publishing evidence, the academies produce knowledge that can be of benefit to society. Academies' involvement in policy making – both the 'policy for science' and 'science for policy' dimensions – is already documented in the literature (Engwall, 2015).

In this specific case study, the rationale for engaging academies was to collect their perceptions on MLG from institutions that, either directly or indirectly, played a role in advising on national pandemic responses. It is important to note that the opinions expressed by the respondents do not necessarily reflect the views of the affiliated academies.

Methodology

FEAM led a qualitative research study to collect insights on Covid-19 pandemic governance from the secretariat of a few member academies. In order to be included, academies had to be members of the FEAM network, had to have a secretariat, and had to be referenced in other case studies presented in this report. The overall aim was to supply a comparative analysis of the countries to which the included academies

belonged to complement the case studies included in this report. Data were collected between March and May 2022 through an online survey and interviews.

The survey

First, a Google Form survey was circulated to network members in Spain, Italy, Belgium, the Netherlands, Romania, and the United Kingdom between the second and the third week of March. Out of the six members contacted, one contributed to this analysis by providing publicly available materials (publications, government websites), one response was deemed invalid, and another did not reply (survey response rate 4 out of 6). The survey was compiled after months of research and discussion within the PERISCOPE project; this ensured that it was based on a deep awareness of concepts related to MLG such as resilience, social infrastructure, public authority, and One Health. The survey questions were designed to address all these aspects of MLG. The academies that replied to the survey were the Italian National Academy of Medicine (*Accademia Nazionale di Medicina*), the Spanish Royal Academy of Medicine (*Real Academia Nacional de Medicina de España*), the Royal Netherlands Academy of Arts and Sciences (*Koninklijke Nederlandse Akademie van Wetenschappen*), and the Romanian Academy of Medical Sciences (*Academia de Științe Medicale*). The UK's Academy of Medical Sciences also contributed to this study, although not directly impacted by the European Union's health policies. The response from Romania gave a less detailed appraisal of the situation; consequently, it was impossible to compare it with other data and it was discarded as invalid.

The survey[8] included a heading and two sections. The heading contextualised the data gathering within the PERISCOPE project, offering some background information about the project in general and this report in particular. Two sections of questions followed. The first included four questions focusing on coordination, governance, policy implementation, and bottom-up initiatives that emerged during the pandemic. Building on that, the second section asked six questions to evaluate the pandemic response in the first two years. These focused mainly on country preparedness, EU and national policy measures, and the perceptions of citizens. Overall, 9 out of 10 questions demanded long answers and one answer required participants to give their opinions numerically on a scale (linear scale).

[8] Appendix 4

CASE STUDY 1

The interviews

After a first evaluation of the survey responses, we asked each respondent to give a virtual interview during the first week of May. The acceptance rate was 3 out of the 4 approached respondents. On this occasion, participants could further elaborate on the views expressed in the survey responses. The interviews contributed to homogenising the type of information supplied in the survey.

Main evidence: Summary of what emerged from the survey and interviews

In the first section of the survey, we explored participants' perspectives on the response to the pandemic at the subnational, national, and international levels. In this section of the report, we compare these perceptions with the relevant literature.

Coordination at various levels of decision-making (national, regional, local) was perceived differently in the countries included in this study (Italy (IT), Spain (SP), the Netherlands (NL)). The most striking and recurrent information in the answers related to the perceived lack of coordination between the national and European levels, despite the fact that co-operative actions have been defined as 'important tools and institutional structures for coordination, mutual learning and solidarity' (Pacces, Weimer, 2020, p. 290).[9] The lack of coordination – to varying different degrees – was related to diagnostics, therapeutic responses, and vaccination, as one interviewee explained. It emerged that one potential obstacle to coordination was the difference, both in characteristics and dimension, in the SARS-CoV-2 waves across countries in the last two years. This observation is confirmed in the literature, where it has been noted that the Covid-19 crisis has 'a strong territorial dimension' (OECD, 2020). As a consequence, coordination is both crucial and problematic.

The countries involved in this analysis have different governance mechanisms and structures for their health systems and the resilience of these was tested by the pandemic. We relied on the following definition of health system resilience: the 'ability to prepare, manage (absorb, adapt and transform) and learn from shocks' (Sagan, 2020, p. 21). Additionally, differences in health systems – which are 'rooted in national culture and history' (Pacces, Weimer, 2020, p. 286) – reverberate through the different subnational and national coordination mechanisms. In the next section, we summarise

[9] On this issue, one participant mentioned Decision No 1082/2013/EU of the European Parliament and of the Council of 22 October 2013 on serious cross-border threats to health.

the main characteristics of the national health systems, governance approaches and key actors in Italy, the Netherlands, and Spain.

Italy

Italy's National Health Service is decentralised, with regional health management systems; it provides universal health coverage. The Ministry of Health guides national health policy, establishing principles and goals, and designating funds for the regions. There are 20 regions and these oversee and implement local administration and dispense healthcare, coordinating local health authorities according to the territory and population (WHO, 2014). The response to the Covid-19 crisis was guided by the Office of the Prime Minister and the Department of Civil Protection; additionally, the Extraordinary Commissioner – nominated in March 2020 – played a crucial role. In February 2020, a Scientific and Technical Committee was appointed to support the government with scientific-based advice (OECD/European Observatory on Health Systems and Policies, 2021).

The Netherlands

The healthcare system in the Netherlands is 'hybrid'; it combines private and public insurance (Kroneman, 2016, p. 15) and the governance is shared by government, professional organisations, and health insurers. The process of healthcare decentralisation has led to the acquisition of more competencies in the municipalities (Kroneman, 2016), with local and regional authorities playing a role in planning and implementation and providing a limited funding contribution from the sub-national budget. Since Dutch local authorities have an evidently operative function, this system is also referred to as 'operatively decentralised'. The National Institute for Public Health and Environment (RIVM) leads public health services nationally, and these are then implemented locally by municipalities. During the Covid-19 pandemic, the Institute had a coordinating role and it hosted and convened the Outbreak Management Team, the principal advisory body to the government (OECD/European Observatory on Health Systems and Policies, 2021). In the Netherlands, a lively plurality of scientific advisory bodies participated in the scientific debate on the pandemic response.

Spain

The Spanish National Health System is decentralised, and health coverage is universal and free. Nationally, the Ministry of Health is the key actor, and is in dialogue with the Departments of Health in the 17 Autonomous Communities (WHO, 2018). The Interterritorial Council coordinates and strategically leads the 17 Autonomous Communities. The national Ministry of Health hosts the Centre for Coordination of Health

Alerts and Emergencies, providing preparedness and response plans and overseeing compliance with the International Health Regulations (IHR) (Mattei, Del Pino, 2021). In addition, a Coronavirus Monitoring Committee was established.

The survey revealed that countries with a decentralised health system delegated crisis management to regional authorities, requiring more sophisticated coordination, especially in the first difficult months of the pandemic. Furthermore, decentralised health systems faced more difficulties in the early stages of the pandemic since the regional authorities were not used to cooperating daily. As also highlighted by Casula and Pazos-Vidal, 'The difference between unitary and regional is a "contemptuous" issue in normal times, but is particularly salient when an external major crisis such as COVID-19 tests the operation of these intergovernmental systems' (Casula, Pazos-Vidal, 2021, p. 994). As one interviewee reported, regionally there were some complaints about national policies that did not always take into account the specific needs of regional or local players, as well as local initiatives in bigger cities which ran contrary to national measures. On the other hand, regionally some best practices emerged: for instance, Intensive Care Unit (ICU) patient relocation within the Madrid region.

The role of science in policy was extensively debated in the literature well ahead of the outbreak of the Covid-19 pandemic (Pielke Jr, 2007). As listed in the 2021 United Nations Educational, Scientific and Cultural Organization (UNESCO) Science report, 'national technical and science-based commissions, scientific advisory offices, ad hoc committees, research institutes and university departments can all provide evidentiary synthesis' (Lewis, J., Schneegans, Straza, 2021). Scientific advice to policymakers was key to managing the pandemic, as proved by efforts of policymakers in reaching out to scientists.[10] The scientific community engaged in lively debate and was proactively involved in initiatives. It is worth noticing that knowledge exchange within the scientific community is the basis of scientific research and development and it was acknowledged by some interviewees that informal communication among scientists has been vibrant in the past months and years of the pandemic.

Among the initiatives that arose during the pandemic in the academic context, the Dutch Pandemic and Disaster Preparedness Center offers a good example of interdisciplinary collaboration. Founded by the University of Rotterdam, the Erasmus Medical Center in Rotterdam, and the Delft University, the Center aims to better prepare for future

[10] Among the EU's initiatives to collect scientific advice on Covid-19, it is worth mentioning the EU Scientific Advice platform on COVID-19. See: https://ec.europa.eu/health/health-security-and-infectious-diseases/preparedness-and-response/eu-scientific-advice-platform-covid-19_en

pandemics as a result of a 'convergence of the technical, medical and social sciences'.[11] Another example from the Netherlands is the Red Team, 'a wide variety of scientists, (retired) physicians and opinion makers who argued for a much more stringent policy approach like the obligation to wear face masks and to close schools in case of infections' (Wallenburg, Iris, Jan-Kees Helderman, Patrick Jeurissen, Roland Bal, 2022, pp. 34–35).

Nevertheless, participants argued that scientific advice was not always translated into policy. The rationale for this was due sometimes to the heterogeneity of advisory bodies, the difficulty of synthesising the evidence, and the need for more solution-oriented advice. At other times some specific information centres were arbitrarily excluded by the national advisory bodies. This was the case, for instance, for the Italian Association of Epidemiologists. In the interviews, we asked for possible solutions to ensure that scientific evidence informs national policies. In the views of one interviewee, a more comprehensive health policy debate at the European level would have helped to ensure that knowledge was shared and helped to overcome the sectorisation of resilience plans. Another suggestion to overcome the siloes was to arrange a governmental, national, and public platform for the exchange of scientific opinions and evidence. In particular, it was pointed out that, during a health emergency, scientific evidence must be disseminated prior to publication; there is no time to wait for the publication process.

Locally, different forms of mutuality (volunteering, self-help) arose. NGOs, universities, private sectors, and charities cooperated. A virtuous example from Italy was Doctors with Africa CUAMM[12] and the Project IRC19,[13] funded by the United States Agency for International Development (USAID), which aimed to support different types of activities to mitigate the impact of the Covid-19 pandemic on Italian territory.

The second part of the survey sought to frame the evaluation of the last two years of the pandemic, based on the views of the participants. The most striking feature that emerged from the survey was that all of the countries were caught unprepared for the pandemic. Even in a country where plans existed – sometimes adopted from other pandemics/epidemics such as influenza – they proved insufficient. Similarly, a general agreement emerged from the survey on the need for further EU policy measures in health to enhance preparedness in the event of a future pandemic. In particular, it was felt that

[11] For further information, https://convergence.nl/pandemic-disaster-preparedness/
[12] For further information on Doctors with Africa CUAMM: https://doctorswithafrica.org/en/who-we-are/mission/vision/
[13] For more information on the Project IRC19: https://doctorswithafrica.org/en/italian-response-to-covid-19/.

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EU health policy should orient more towards enhancing coordination locally and transnationally in case of cross-border health threats or to allow more authority to be divested with the European Commission from early on in a health crisis. Interestingly, one survey participant stated that 'Preparedness is a combination of local, state and EU levels' capacities that need improvement with a clear chain of command and proper funding'.

As part of the assessment of the response to the pandemic, feedback was collected on the inclusion of health measures that recognised the significance of non-humans among those adopted by governments to combat the Covid-19 pandemic. Despite the zoonotic origin of the virus, an anthropocentric approach prevailed in all the countries featured in the case study. As one survey participant pointed out, 'the health of nonhumans was only taken into account to the extent that it directly affected the health of humans.' As an example of that, the SARS-COV-2 infection of minks in the Netherlands, one of the biggest producers, and the government's decision to kill them were mentioned (Fenollar, Florence, 2021).

The UK case

We included the UK in this study although the EU's health policy did not directly impact it. In the following section, there is a summary of the information that emerged from the material that the UK Academy of Medical Science provided us with. An effort was made to collect data which were comparable to those revealed through the survey and in the interviews in the other countries.

The English health system is under the control of the Secretary of State for Health in the areas of finance and performance, while policy is set by the Department of Health. The Department of Health is responsible for healthcare in England but coordinates regularly with its equivalents in Scotland, Wales, and Northern Ireland. Each nation has a different level of decentralisation.

As was the case in the other countries surveyed and interviewed, the United Kingdom was also caught unprepared by the Covid-19 pandemic (Academy of Medical Sciences, 2020). The President of the Academy of Medical Sciences Professor Dame Anne Johnson blamed, in particular, the 'disinvestment in public health and diagnostic capability' (Johnson, 2022).

As elsewhere, policymakers in the UK also looked for scientific advice during the pandemic. For example, at the request of the Government Office for Science, the Royal Society established Science in Emergencies Tasking (SET-C) to access members'

expertise and satisfy the 'requests for rapid science advice on topics relevant to tackling the pandemic'.[14] Furthermore, upon the request of the government's Chief Scientific Advisor Professor Sir Patrick Vallance, the UK Academy of Medical Science published two reports on the challenges the UK was likely to face over the winters of 2020/21 and 2021/22, and how to mitigate against these challenges.

The role of media and scientific communication was also a sensitive topic in the UK. In an interview published on the Academy's website, the President of the Academy of Medical Science declared, 'With science hitting the headlines like never before, conveying uncertainty and unknowns became an increasingly important part of science communication, a skill which I and my peers had to hone. We need to continue to prioritise speaking clearly, openly, and honestly about science' (Johnson, 2022).

Conclusion

The findings from this study help in understanding pandemic response from the perspective of a specific social infrastructure in the realm of health, that of highly organised groups of academics in medicine with direct stakes in pandemic management. We conclude from our small study that decentralisation of the health system allowed for some best practices to flourish, such as the relocation of ICU patients within a region. However, decentralisation involves the intrinsic challenge of requiring more sophisticated coordination, both at the local as well as the transnational level for cross-border health threats. Emphasis, in this regard, could be placed on an EU mechanism that seeks to coordinate local authorities and the association of local authorities. The pandemic also sped up the establishment of national initiatives to enhance pandemic preparedness (in the Netherlands); in this regard, multidisciplinary collaboration allows organisations to step away from siloed working and understand the challenge based on an all-inclusive encompassing approach. However, as reported in this study and discussed at length in other publications, the scientific evidence on a given health crisis does not always resonate in national policy fora. In this regard, one of the solutions highlighted in this report would be a more comprehensive health policy debate at the European level, which could be complemented by public national platforms to allow timely exchange of scientific opinions and evidence.

[14] For further information, see: https://royalsociety.org/topics-policy/projects/set-c-science-in-emergencies-tasking-covid/

Finally, there was little that could be inferred from the data in this study regarding the considerations of pandemic response policies towards the non-human and the One Health approach. The limited information gathered here actually pointed towards an anthropocentric approach to health management whereby the health of non-human species was only taken into consideration with regard to their (possibly negative) impact on human health.

SPOTLIGHT 1

The European Union’s vaccine procurement: Solidarity in crisis or crisis in solidarity?

SPOTLIGHT 1

SPOTLIGHT 1: The European Union's vaccine procurement: Solidarity in crisis or crisis in solidarity?

Authors: Mareike Kleine,[15] Antoine Corporandy, [16]Asha Herten-Crabb, [17] Clare Wenham[18]

Introduction

Despite its bumpy start, the European Union's (EU) procurement of vaccines during the Covid-19 pandemic is now widely hailed as a success. In June 2020, the member governments 'agreed on the need for joint action to support the development and deployment of a safe and effective vaccine against Covid-19 by securing rapid, sufficient and equitable supplies' (European Commission, 2020a). By the end of 2020, the EU had secured a total of 2.6 billion doses from six vaccine developers. By the end of summer 2021, the EU reached its target of fully vaccinating seventy per cent of its adult population (Guarascio, 2021a).

The joint procurement scheme, which guaranteed the proportional distribution of vaccines to the same conditions, meant that smaller and poorer EU countries were able to receive vaccines more quickly than if they had procured them unilaterally. By implication, the larger and wealthier member states relinquished doses they could have received if they had procured them unilaterally. In other words, the EU's vaccine procurement scheme is considered to have been an act of solidarity of larger European countries with smaller ones. This spotlight explores the concept of solidarity, how vaccine solidarity was achieved and how it held up during the EU's pandemic response.

Drawing on Sangiovanni's (2013) account of global justice in the EU, we define solidarity as morally grounded demands for 'a fair return in the mutual production of important collective goods.' Accordingly, shared humanity creates a general duty to assist other people regardless of citizenship, gender, race, or any other attribute. More demanding solidarity claims beyond humanitarianism must be grounded in institutions and practices that go beyond transactional relationships, namely those that serve the production of common goods. By contributing to the generation of such goods, actors 'gain a stake in the fair share of the benefits made possible by them and an obligation to shoulder a fair

[15] London School of Economics, European Institute.
[16] European Commission, European Health Emergency Preparedness and Response Authority (HERA).
[17] London School of Economics, Department of International Relations.
[18] London School of Economics, Department of Health Policy.

share of the associated burdens' (Sangiovanni, 2013, p. 220). From this internationalist perspective, demands for solidarity can exist concurrently, albeit to different degrees, at multiple levels.

There is wide consensus that the EU is more than a transactional community. Its Member States have surrendered a significant amount of their sovereignty to produce important collective goods that are essential to the welfare and security of Europe. Chief among these collective goods are the Single Market and currency as well as the area of freedom, security, and justice, including the Schengen free travel zone. At the same time, the participation in the production of these goods involves both benefits and significant risks, as the Eurozone and the 2015 refugee crises have shown. The institutions and practices of the EU that come from the joint production of these important collective goods generate demanding claims for solidarity that go beyond basic humanitarianism, and the Covid-19 pandemic served as a significant test of these institutions and practices.

Health solidarity pre-Covid

Prior to the Covid-19 pandemic, the EU complemented national health policy by aiming to foster cooperation between Member States and with third countries, setting standards of quality and safety regarding certain medical and biomedical products, and adopting incentive measures to improve human health and combat cross-border health threats (Treaty on the Functioning of the EU, Article 168, Chamorro, 2016). Shortly after the H1N1 pandemic, the EU (2013) adopted a Decision on serious cross-border threats to health, to enhance its preparedness for and response to communicable disease outbreaks.

The EU Joint Procurement Agreement (JPA) was created one year later to enable Member States to engage voluntarily in joint procurements of medicines, medical devices and all other services and goods that can be used to respond to cross-border health threats (European Union, 2014). Its objective is to improve the security of supply and Member States' preparedness to mitigate serious cross-border threats to health by strengthening solidarity through more equitable access to specific medical countermeasures and balanced prices for participating countries (Azzopardi-Muscat *et al.,* 2017; Filia and Rota, 2021). By sharing risks and leveraging economies of scale, it was especially attractive to smaller Member States as it enabled price savings, reductions in operational costs and administrative burdens, and access to professional expert networks. It aimed to avoid competition for scarce resources among purchasing states (Glencross, 2020).

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Although the EU JPA provided a ready-to-use instrument for joint procurement in the event of a cross-border threat to health, it was not without controversy and inherent limitations. Primarily its non-exclusivity – which allowed especially larger Member States to engage in parallel negotiations with the same manufacturer for the same product – seriously undermined the solidarity and equity objectives. In addition, participation in the JPA remained voluntary, thus limiting the incentive for bigger Member States to join common procurement initiatives (Filia and Rota, 2021).

Solidarity in the EU's pandemic response

The outbreak of the Covid-19 pandemic dramatically changed this state of play. The characteristics of this fast-spreading pathogen affecting countries worldwide reflected global vulnerabilities regarding pandemic preparedness and response. The EU, as an integrated open market, a densely populated open border area and travel hub, was hit especially quickly and hard. As the Covid-19 crisis engulfed the rest of the world, an unprecedented race to develop vaccine candidates (Le *et al.,* 2020) and acquire vaccine doses ensued. Several countries launched state-backed initiatives to help companies develop Covid-19 vaccines that would gain them priority access to future products (Lancet Commission, 2021).

The EU was therefore confronted with a dual challenge: first, to ensure equitable access while not all Member States could fund vaccine research and development equally, and second, to enable rapid access while competing against stronger actors such as the United States (US) (Funk *et al.,* 2020). At first, the EU response to the pandemic was uncoordinated with little solidarity between Member States (Herszenhorn *et al.,* 2020). Several Member States established border controls and banned exports of medical equipment to other EU countries (Dimitrakopoulos and Lalis, 2020; Hackenbroich, 2020). Larger Member States such as France, Spain and Germany began to engage in independent talks with vaccine manufacturers (Deutsch and Wheaton, 2021). In June 2020, France, Germany, Italy, and the Netherlands announced the creation of the Inclusive Vaccine Alliance. However, despite statements suggesting that the Alliance was negotiating vaccine doses for all Europeans and that it remained open to all other EU Member States (Furlong, 2020), several smaller countries saw this as a threat (Deutsch and Wheaton, 2021). Representing 4/5 of the EU's largest economies and almost a 1/3 of the EU's population, it was seen as a powerful bloc that could undermine vaccine access for other Member States.

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To prevent any further fragmentation, the European Commission worked on the development of a common EU vaccine strategy. On 9 June 2020, Denmark initiated a letter to the Commission, supported by Germany, France, Poland, Belgium, and Spain, calling for a coordinated EU strategy on vaccine development, 'possibly' with EU funds to allow for a quick reaction (Momtaz, Deutsch and Bayer, 2020). However, a few days later, the Alliance undermined the Commission's legitimacy as a vaccine negotiator for the whole of the EU when it announced a deal with AstraZeneca to procure up to 400M vaccine doses (AstraZeneca, 2020). The parallel development of two competing procurement tracks enhanced uncertainty and threatened to obstruct access to vaccines among smaller Member States.

The European Commission (2020a) asserted its role as the exclusive negotiator on 17 June 2020 when it presented its EU Strategy for Covid-19 vaccines. In its Decision 4192/2020, the Commission (2020b) formulated a mandate to negotiate and conclude Advance Purchase Agreements (APAs) with vaccine manufacturers on behalf of Member States. In addition, it allocated €2.1 billion from its €2.7 billion Emergency Support Instrument to cover some of the upfront costs to de-risk essential investments of vaccine manufacturers in future APAs. By late June 2020, the Alliance eventually stopped its work. The Commission took over its negotiations with Johnson & Johnson and the deal with AstraZeneca (Deutsch and Wheaton, 2021).

During the negotiations, the EU's APA mechanism worked as a single central procurement mechanism for its Member States. The Commission covered part of the up-front costs needed to secure the APAs. In contrast to the JPA, the APA contained an exclusivity clause (Article 7) that prevented states from launching parallel negotiations with the same manufacturers for a similar product. The allocation of doses was to be based on a pro-rata population distribution key. Once vaccines were approved by the European Medical Agency, participating Member States could decide on their own vaccine mix, acquire their share of doses directly from the manufacturer and pay the uniform purchase price. Once purchased, these doses could be redistributed, resold to other participating Member States or made available to the global solidarity effort. Drawing on the Commission's negotiation expertise and economies of scale enabled EU members to leverage its market of 500M people to obtain favourable prices and liability conditions 'irrespective of the size of their population and their purchasing power' (European Commission, 2020a). The EU vaccine pool was also opened to members of the European Economic Area (Iceland, Liechtenstein, Norway) as well as Monaco and San Marino (Criric, 2022).

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Fragile solidarity during the vaccine rollout

Several commentators criticised the Commission for approaching the negotiations as a trade matter rather than a matter of crisis procurement, prioritising price over pace (Halloran, 2021, p. 77). This criticism increased when the EU's procurement effort suffered a serious setback in the early days of 2021. Following AstraZeneca's announcement in January that it would fail to deliver its EU doses on schedule, the ensuing supply bottleneck derailed Member States' rollout and put them weeks behind the US and UK. Considering the difficulties related to AstraZeneca shipments, Hungary, which eventually left the APA in May, and the Czech Republic decided to turn to vaccines manufactured in Russia and China. Equally frustrated with the short supply, Denmark and Austria turned to Israel to discuss the joint development of a second-generation vaccine (Petrequin and Moulson, 2021). Further tensions arose in March 2021 as BioNTech scaled up the production and shipment of its vaccine. The member states whose vaccine mix contained substantial amounts of BioNTech now experienced a rapid acceleration of their vaccine rollout, while those that had placed their bets on AstraZeneca were falling further behind. By late March, EU leaders confirmed the Commission's methodology of a pro-rata population key for the allocation of vaccines but asked EU ambassadors to allocate, in the spirit of solidarity, 10M additional Pfizer doses to countries whose vaccination campaigns heavily relied on AstraZeneca (European Parliament, 2021).

As supply issues subsided in summer 2021 and the whole of the EU steadily closed the gap on the British and American campaigns, more commentators began to praise the EU's joint procurement as a success and act of solidarity with smaller and poorer Member States (Marcus, 2021; Cameron, 2021). Although EU-wide solidarity was severely tested and several governments shifted the blame for some of their own failures onto EU institutions, it is notable that the larger Member States allowed the Commission to assume their place in the negotiation queue with manufacturers and respected the exclusivity of the deal that the Commission had negotiated.

Global solidarity

While there was solidarity, albeit frail, within the EU, the WHO criticised rich industrial nations for their lack of solidarity with poorer developing countries. Even if principles of solidarity may be less demanding beyond the EU level, it is doubtful whether the EU's (and other developed nations) aid to the global pandemic response met even minimal standards of humanitarian assistance. Indeed, most of the EU's exports (sold or shared)

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went to other high-income countries (Guarascio, 2021b). In many cases, the EU's own supply issues held up promised donations to its neighbouring countries, which ultimately turned to Russian or Chinese vaccines instead (Guarascio and Murphy, 2021). While the EU donated €3bn to COVAX, the WHO-led vaccine alliance with the goal of providing equitable global access to the Covid vaccines, its Member States also hoarded doses for boosters and future waves. As a result, many healthcare workers in developing countries were still waiting for their inoculation as EU countries (and many other industrialised countries) discarded millions of expired doses (Oxfam, 2022).

SPOTLIGHT 2

State capacity, compliance, and multi-level governance: Three facts from Covid-19

SPOTLIGHT 2

SPOTLIGHT 2: State capacity, compliance, and multi-level governance: Three facts from Covid-19

Authors: Timothy Besley[19] and Christopher Dann[20]

Introduction[21]

The idea of 'state capacity' fundamentally concerns the organisational structures that enable policies to be implemented effectively by government. The quintessential example is 'fiscal capacity' – the ability of the state to raise tax revenues to fund public policies. But 'legal capacity,' which enables the rule of law, and 'collective capacity,' to deliver basic goods and services, are also important (Besley, Dann and Persson, 2021).

Much of the existing literature focuses on investments by government to expand the coercive apparatus of the state to foster compliance by citizens – a 'top-down' approach (Besley and Persson, 2011). But a tangential line of work looks at state effectiveness in terms of voluntary compliance by citizens to abide by government policies through a process of mutual reciprocity (Besley, 2020). Here, citizens comply if they trust that the government is acting in their best interests, hence a more 'bottom-up' social contractarian perspective on state effectiveness.

In this piece, we develop a basic framework for thinking about policy effectiveness, using the Covid-19 pandemic as an arena to explore these ideas. Focusing on a more bottom-up approach, we present three facts that emerged during the pandemic to cast light on various drivers of state effectiveness, stressing the role of trust in state institutions, voluntary compliance and political decentralisation. In terms of lessons, we relate our

[19] The Suntory and Toyota International Centres for Economics and Related Disciplines (STICERD), LSE.
[20] The Suntory and Toyota International Centres for Economics and Related Disciplines (STICERD), LSE.
[21] The disciplinary orientation of the authors is 'political economy', primarily rooted in economics but working at the intersection with political science. The research is largely motivated by Professor Besley's work with Professor Torsten Persson at Stockholm University on 'state capacity' and building effective states. The work relates to emerging research in political economy on the importance of norms and values for policy, especially with regard to 'trust' and 'voluntary compliance' and how this enhances state effectiveness. Relevant publications are Besley (2020); Besley and Persson (2009; 2010; 2011; 2019); Besley, Dann and Persson (2021); Besley and Dray (2021; 2022). No ethical issues are raised by the research. Our spotlight piece highlights the importance of bringing the role of *trust* into discussions around effective states, especially in relation to pandemic responsiveness. It also relates to debates about the potential for decentralisation in multi-level governance systems as a vehicle for increasing trust, alongside more traditional arguments for devolving decision-making.

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conclusions to debates about the value of political decentralisation via Multi-Level Governance (MLG). Among the benefits of localising policymaking, one key area involves increasing trust in government and hence achieving higher levels of voluntary compliance.

The logic of effective policy making

We begin by sketching a rudimentary framework for thinking about how trust matters in policymaking. If an incumbent wants to implement a policy effectively during a pandemic, it has to take into account three key variables: 1) government-perceived effectiveness of the policy, such as the number of lives the government thinks it will save, 2) 'coercive authority' for implementation, i.e. whether the policy can be enforced effectively, and 3) the level of compliance by citizens, either voluntary or via coercion.[22] Figure 1 gives a visual representation of these ideas.

Figure 1: Basic framework

Government motivations can matter. But even if a government is benevolent, then government-perceived effectiveness matters because it shapes whether a policy is deemed worthwhile. Frequently, this reflects some kind of implicit or explicit cost-benefit test. Second, the government must assess the extent of coercive authority necessary to enforce a policy via, say, enforcing sanctions, as this is likely to involve some fiscal cost. Finally, and related to the previous point, the level of compliance by citizens is also important in terms of incentivising governments to implement policies in the first instance (Levi, 1988; Tyler, 1990). If the government anticipates that citizens simply will not abide

[22] There is obviously a plethora of other factors that feed into any government's policy decision. But this simple framework provides some traction into thinking about how governments have behaved during the pandemic.

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by the rules, and the costs of investing in coercion via sanctions are high, then there is less incentive to implement a policy given that it is unlikely to be respected.

Voluntary compliance is closely connected to notions of social and political trust (Levi, 1988; 1997). The former concerns interpersonal trust amongst fellow citizens whilst the latter focuses on trust in government and state institutions among citizens.[23] The two are not mutually exclusive. But focusing on the latter in the interest of our piece, it is easy to see how this can affect compliance levels during Covid-19. For example, if trust in state institutions is high, a government can roll out salubrious interventions such as vaccines and lockdowns without hesitation, suspicion, or belief in conspiracy theories by citizens. As per Figure 1, trust itself is thus a key determinant of compliance levels, and such norms and values help further enhance 'social capital' or 'social infrastructures' which are seen as the bedrock of effective states (Putnam, Leonardi and Nanetti, 1994; Bear *et al.,* 2021).

Using data from the Integrated Values Survey (IVS), we construct a measure of 'voluntary compliance' to summarise the underlying variation in three areas: i) willingness to fight for your country, ii) it being unjustifiable to cheat on one's taxes and iii) willingness to pay higher taxes to protect the environment.[24,25] We also use the IVS to construct a measure of 'trust in state institutions' by performing the same exercise on survey questions regarding confidence in: i) government, ii) the justice system/courts, iii) parliament, iv) the police and v) the civil service. We take an aggregate cross-country measure by averaging across respondents over all available IVS survey waves (1981–2014). We look at the EU 27 and the UK as our sample of interest.

FACT 1: SOCIETIES WITH HIGHER LEVELS OF POLITICAL TRUST HAVE HIGHER VOLUNTARY COMPLIANCE AND EXPERIENCED LOWER LEVELS OF EXCESS MORTALITY

The data show a positive correlation between trust in state institutions and voluntary compliance as shown in the left-hand panel of Figure 2.[26] The right-hand panel shows a negative correlation between trust in the state and average excess mortality p-scores over 2020–2021

[23] See Devine *et al.* (2021) for review of trust and Covid-19 policies/outcomes.
[24] Specifically, we take the first principal component across these three questions.
[25] These are fairly common and well-practised activities of compliance with the state (e.g., Levi, 1997).
[26] All charts in this piece purge variables of log GDP per capita, average executive constraints over a country's history since independence and whether a country has a federal system of government (partial or full). This means all associations are robust to 'conditioning out' these possible confounding factors.

SPOTLIGHT 2

(see Giattino *et al.,* 2022).[27] This points to the possibility of a link between behaviour, policy and outcomes. We record this as our first fact.

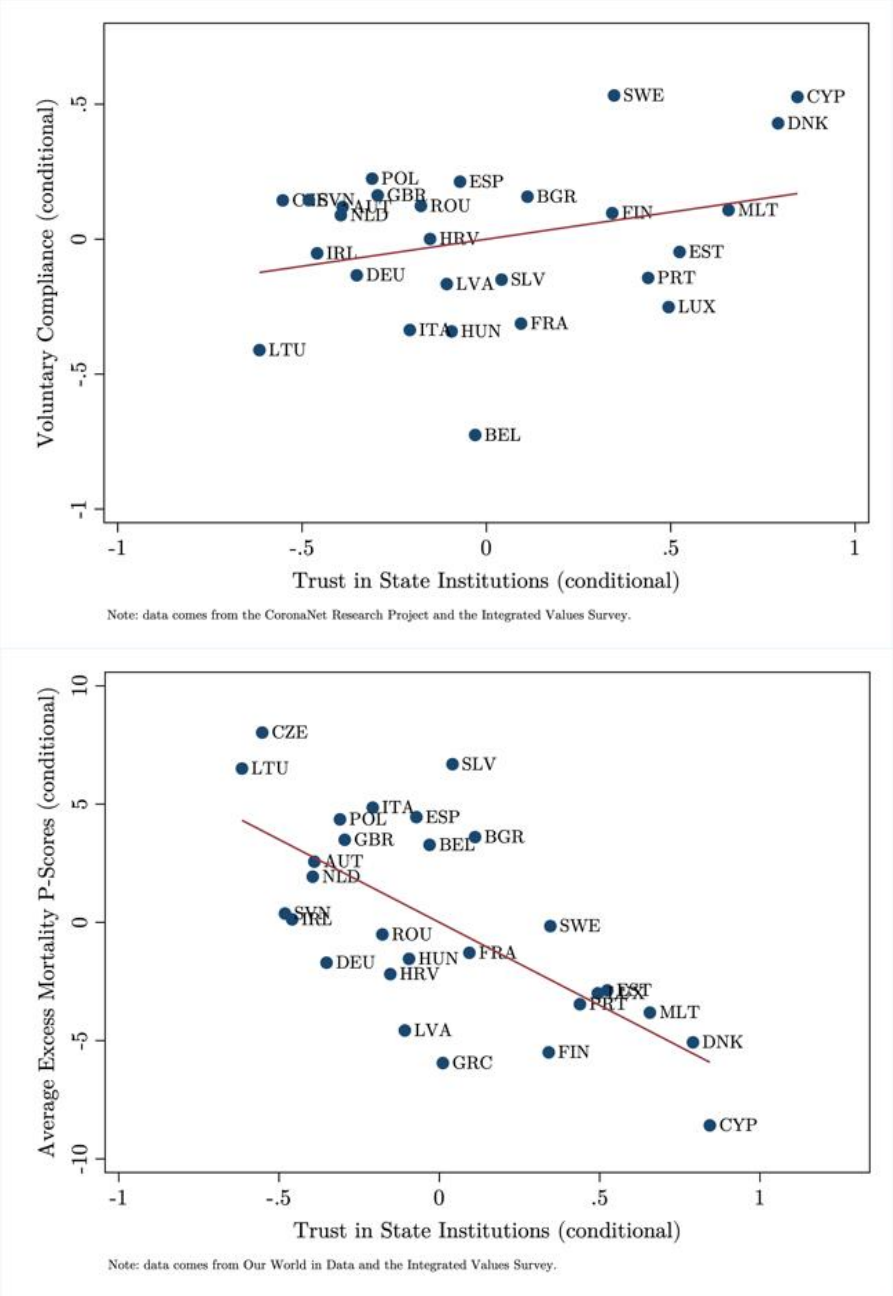

Figure 2: Trust, voluntary compliance and excess mortality

[27] This negative correlation also holds using a global sample of countries. See Besley and Dann (2022).

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Voluntary compliance

Voluntary compliance by citizens and state-driven investments in coercion need not be mutually exclusive approaches to policy effectiveness. However, voluntary compliance provides a less costly way of building effective states by economising on enforcement costs (Tyler, 1990). Figure 3 uses data from the CoronaNet project, looking at the proportion of all Covid-19 policies implemented by governments over the last two years requiring only voluntary compliance (Cheng *et al.,* 2020).[28] We correlate this with our measure of voluntary compliance values used in Figure 2.

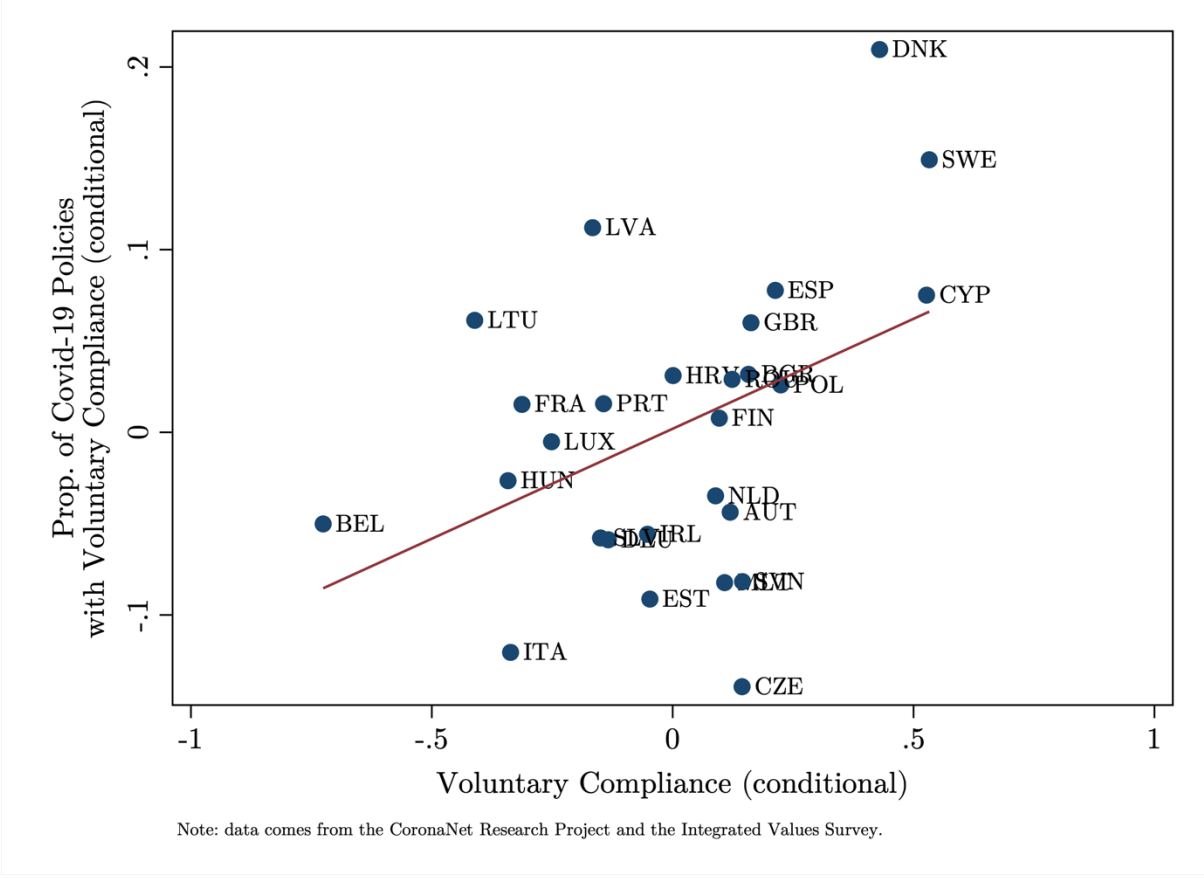

Figure 3: Covid-19 policies and voluntary compliance

Figure 3 shows that, during the pandemic, governments have relied heavily upon voluntary compliance when making their policy calculus versus utilising coercion. Again, whilst this is purely correlational evidence, this finding is worth highlighting. A substantial amount of literature has emerged on the importance of trust during Covid-19 and how

[28] i.e., the policies were not mandatory, and non-compliance was not met with state-delivered penalties, such as fees or incarceration.

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FACT 2: GOVERNMENTS IN SOCIETIES WITH HIGHER LEVELS OF VOLUNTARY COMPLIANCE IMPLEMENTED MORE COVID-19 POLICIES WITHOUT MANDATORY PENALTIES

this has interacted with policies to thwart the pandemic (see Devine *et al.,* 2021). Our measure of voluntary compliance is also interesting because this refers to pre-determined norms and values before the onset of the pandemic based on the IVS data. This helps address any notion of reverse causality (i.e., policies themselves impacting on aggregate compliance and not the other way around). This is our second fact.

Effective states and MLG

The idea of MLG revolves around political decentralisation; some policies can be more effectively implemented at different tiers of government (Treisman, 2007; Hooghe, Marks and Schakel, 2020). The development of, say, a village park is best left to local government given that the benefits are highly localised. This is in contrast to, say, investments in certain kinds of national infrastructure or defence systems. The 1999 World Bank Development Report argued that '[via] decentralised government where more decisions happen at subnational levels, closer to the voters, localization can result in more responsive and efficient local governance' (World Bank, 1999, p. III). Hence, decentralisation is often driven by ideas of efficiency gains if certain public goods have an optimal 'spatial scale' that different tiers of government can more aptly exploit.[29]

In these debates surrounding localisation, a key issue concerns optimising the delegation decision – exactly which policies are best left to different tiers of government? During the pandemic, many policies were decentralised. The paucity of data, however, makes it difficult to assess whether those countries that delegated decisions to the local level fared better during the pandemic according to some metric.

As we noted above, governments faced a decision on how far to invest in coercion or to rely on voluntary compliance. There is scant evidence to suggest that more local levels of government have greater coercive authority in enforcing compliance for local policies. But there is evidence to suggest that local government can be a more trusted institution than national government, hence encouraging voluntary compliance if citizens trust the government is making a policy choice that is justified (Abrams and Lalot, 2021; Eggers *et al.,* 2021).

[29] This relates to another large body of literature in public economics on 'fiscal federalism' (Oates, 1999).

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In a US context, Jennings (1998) argues that trust in local government is typically higher not due to performance-based metrics from policies delivered, which are more important for national government, but due to ease of access or 'proximity' to government by citizens. Jennings (1998) terms this a 'linkage' between government and citizenry, which local tiers simply do a much better job of facilitating by design. Applied to the UK for example, the average citizen has far more interactions with government services via their local council versus Westminster, with the council being far more accessible when someone wishes to express a concern compared to their national Member of Parliament (MP). Hence, if voluntary compliance is important in building effective states, it stands to reason that closer linkages via decentralisation should bolster compliance.

We can use data from CoronaNet to explore which policies were delegated away from the national government to more local tiers (e.g., municipal, provincial, etc). We then use the data to look at the proportion of these policies that were, similar to Figure 3, implemented with voluntary compliance mandates.

FACT 3: GOVERNMENTS IN SOCIETIES WITH HIGHER LEVELS OF VOLUNTARY COMPLIANCE THAT DECENTRALISED COVID-19 POLICIES IMPLEMENTED SUCH POLICIES WITHOUT MANDATORY PENALTIES

Correlating this with our aggregate measure of voluntary compliance norms and values, Figure 4 again shows a strong positive association. Although it does not prove there is a causal link, it is at least consistent with the idea that compliance and decentralisation may be connected as in the framework in Figure 1. This leads to our third fact.

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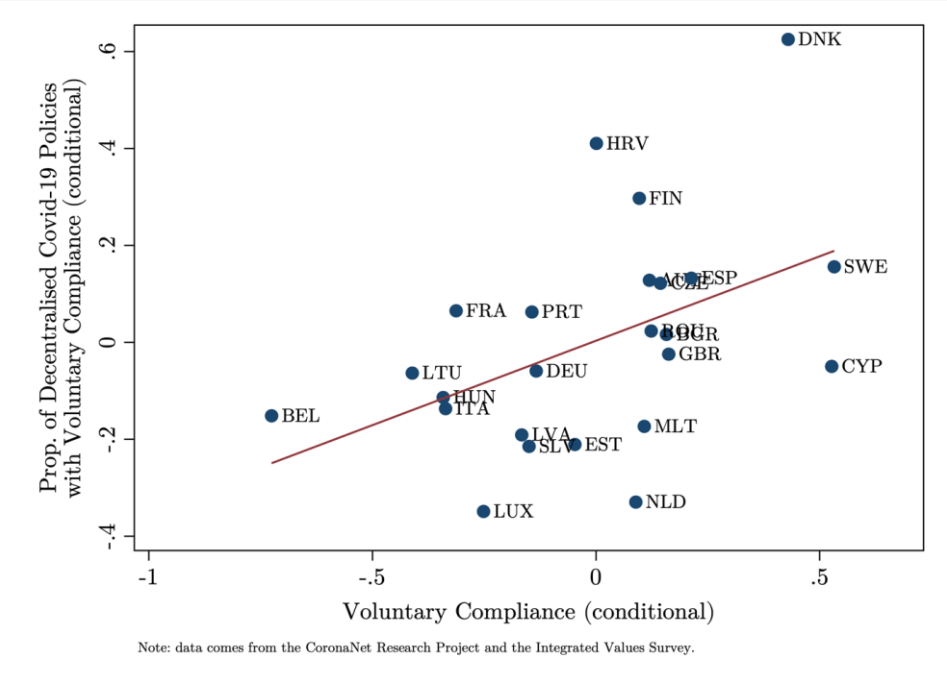

Figure 4: Decentralised Covid-19 policies and voluntary compliance

Conclusion

This brief piece has underlined the nexus between trust, voluntary compliance and political decentralisation to enhance effective policy making. We have summarised some broad-brush findings in three facts. While the patterns in the data are suggestive, they are supportive of a narrative which suggests that decentralisation can enhance trust. But such issues merit further attention in the future as better data become available.

CASE STUDY 2

National social infrastructures

CASE STUDY 2

CASE STUDY 2: National social infrastructures

Focus: Sweden[30]

Authors: Walter Osika[31] and Elin Pöllänen[32]

'The COVID-19 crisis crept up on countries, cities, and hospitals. It arrived in full view, yet still surprised politicians, hospital administrators, pundits, business owners, and citizens. But the COVID-19 pandemic is not the first crisis to arrive creeping and causing devastating surprise.'

Boin, Ekenberg & Rhinard, 2020

Background

The Covid-19 pandemic can be considered a *creeping crisis*, referring to a slow-acting threat that, if not addressed in time, can turn into an acute societal crisis (Boin, Ekenberg & Rhinard, 2020). Human activity is a major determinant of pandemic risk, and, in particular, the human- (non-human) animal[33] interface is a central component in pandemic risks due to spillover of viruses (Bernstein, 2022); around seventy-five per cent of emerging diseases are zoonotic; spreading between species, from humans to non-human animals or vice versa (Villarreal, 2022). The evidence of the origins of Covid-19 remains inconclusive, but most likely it had its origins in a zoonotic event, similar to previous outbreaks such as H1N1 influenza, Ebola, and HIV (Holmes *et al.,* 2021; Villarreal, 2022; Bernstein, 2022). One Health (OH)[34] has been proposed as a necessary framework when moving forward due to its collaborative, multisectorial and transdisciplinary function and its acknowledgement of human, animal and environmental connectedness (Mackenzie & Jeggo, 2019).

[30] We would like to gratefully acknowledge the input from Dr Aysha Akhtar, Prof. Mark Rhinard, Dr Pedro Villarreal, Dr Saskia Stucki, and Prof. Björn Olsen as well as the several professionals from Swedish agencies who took the time to participate in semi-structured interviews to give us a clearer picture of the definition and operationalisation of OH in Sweden today, and its potential role in the future.
[31] Karolinska Institute
[32] Karolinska Institute
[33] Whilst acknowledging that 'human' and 'animal' is a socio-cultural construct which refers to a human-animal divide, the term 'animal' will be used in the text to make it easier to read, but it refers to 'non-human' or 'more-than-human' animals.
[34] For more information about One Health, we refer to the short paper about OH in this report.

CASE STUDY 2

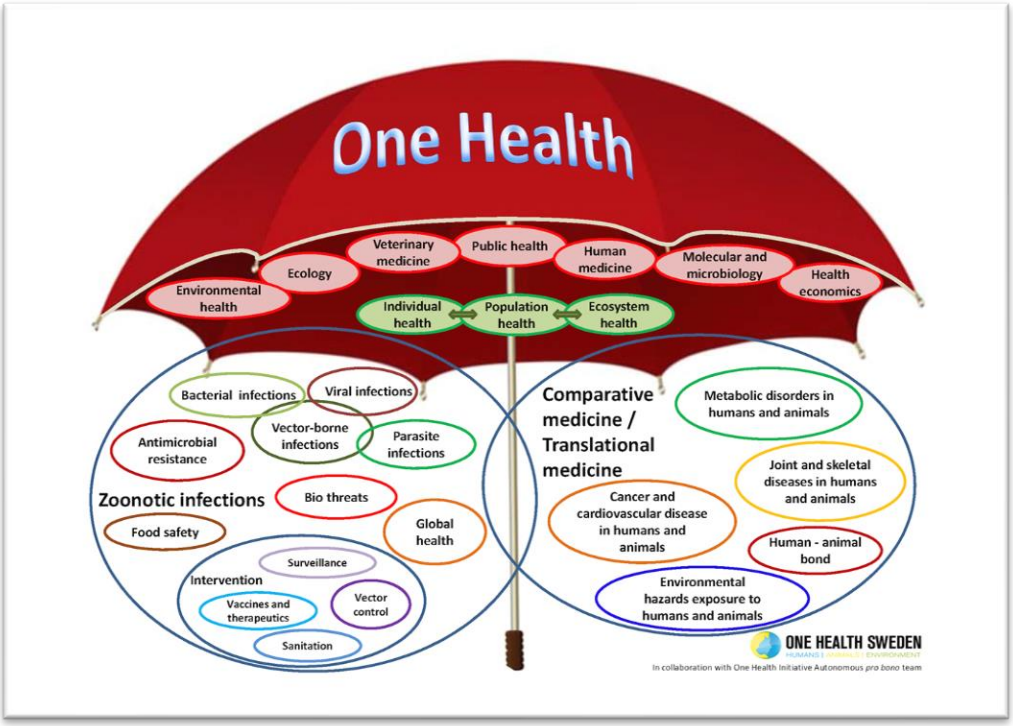

Figure 5: Illustration of the 'One Health umbrella' from One Health Sweden

Today, there are legally binding instruments that ensure a reactive response in case a pandemic emerges, but similar instruments to act on *underlying drivers* of pandemic risks are yet to be formulated by the international community (Villarreal, 2022). The current strategy is to respond once pathogens and diseases have emerged (e.g., with diagnosis, treatments and vaccinations); this approach allows a response to single diseases but does not prevent a novel pathogen from emerging (Bernstein *et al.,* 2022). Promisingly, there is an increasing call to address root causes of disease and act preventively (UNEP & ILRI, 2020), through 'deep prevention' (Villarreal, 2022; Woolaston & Lewis, 2022) or 'primary prevention',[35] which could cost less and bring additional benefits (Dobson *et al.,* 2020; Bernstein *et al.,* 2022). For instance, taking measures to reduce unsustainable animal-based consumption could reduce the risk of future pandemics (Sandhu *et al.,* 2021) and, in addition, improve human morbidity and mortality risk (Huang *et al.,* 2012; Rouhani *et al.,* 2014), climate change and environmental degradation, through for example decreased habitat destruction, deforestation (Machovina *et al.,* 2015), and anthropogenic greenhouse-gas emissions (Gerber *et al.,* 2013).

[35] Examples of primary prevention include efforts to decrease deforestation, wildlife trade and high-density livestock operations, as well as the development of surveillance pathogen spillover and global databases of virus genomics and serology (Bernstein *et al.,* 2022).

However, primary prevention efforts are largely challenged by epistemological gaps (Villarreal, 2022) and persistent epistemological exclusion, where some voices are at risk of being silenced (Schaubroeck, & Hens, 2022; Dotson, 2011, 2014). 'Bolder', more inclusive, and non-anthropocentric frameworks are needed to understand the complexity of risk and safeguard human, animal, and environmental health (Pöllänen & Osika, 2018; Villarreal, 2022; Stuart & Gunderson, 2020; Coughlan, Coughlan, Capon & Singer, 2021). Such frameworks need to include marginalised perspectives (standpoint epistemology, Schaubroeck & Hens, 2022), as well as animal interests in the ethics of care (Anthony & De Paula Viera, 2022) and within public health (Akhtar, 2013; Degeling, Brookes, Lea & Ward, 2018).

There are attempts to complement the dominant technical and external framing of issues such as climate change with internal and relational aspects (Wamsler, Osberg, Osika, Hendersson & Mundaca, 2021) due to the larger transformation potential for 'deeper' leverage points (e.g., culture, values, mindsets) in contrast to 'shallow' leverage points (e.g., technology), as suggested by systems theory (Meadows, 1999; Meadows, 2008). OH is no exception to the dominant technical and external framing, and has been found to be anthropocentric, focused on surveillance, and to display a lack of clarity, direction, accountability and policy impact (Chiesa *et al.,* 2021; Destoumieux-Garzón *et al.,* 2018).

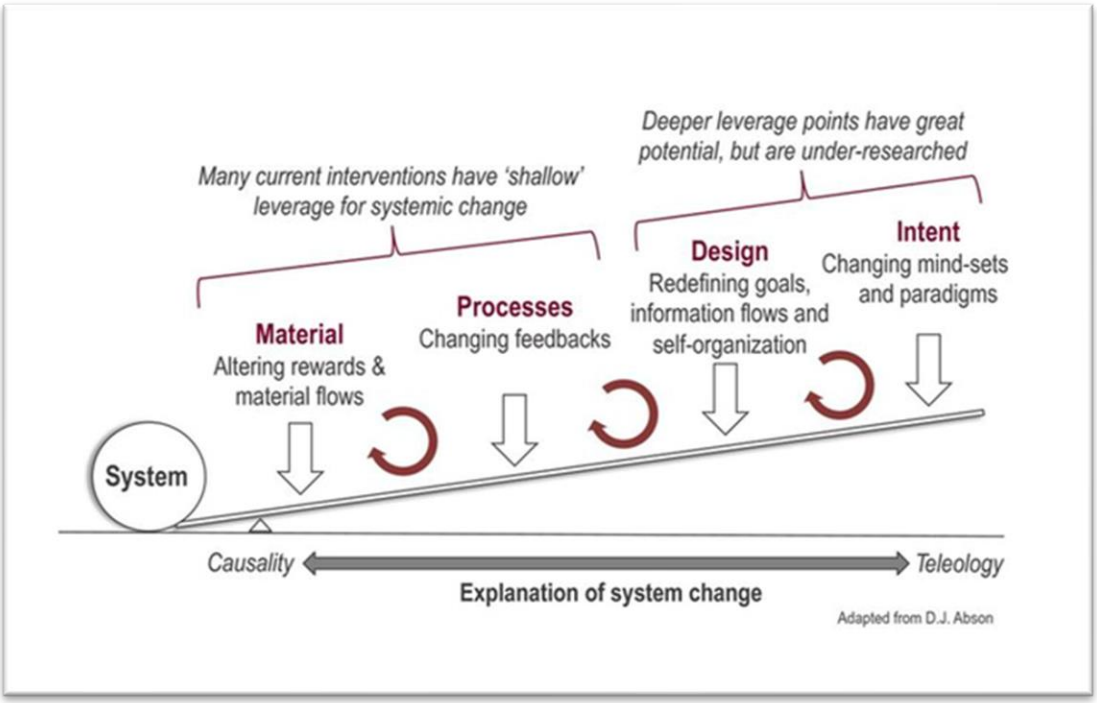

Figure 6 Illustration of shallow leverage points and deep leverage points (Woiwode, 2021)

CASE STUDY 2

Sweden & Covid-19

The crisis and emergency management system in Sweden relies on principles of responsibility (actors retain their responsibilities in times of crisis), a principle of proximity (crisis management close to the affected), and a principle of similarity (methods and structures should be similar to normal circumstances) (Public Health Agency of Sweden, 2019). In Spring 2020, Sweden had one of the highest death rates in Europe due to Covid-19, an excess in mortality that declined in later stages of the pandemic. The pandemic unevenly affected already vulnerable groups and a majority of deaths were amongst Sweden's elderly population, especially residents in care facilities whose medical needs were left unmet (Brusseleares *et al.,* 2022; SOU 2020, p. 80). Whilst Sweden could be considered to have the resources needed to be well equipped to deal with a pandemic, including over 280 years of cross-sectoral collaboration between politics and science and a high trust in authorities,[36] the country demonstrated 'a lack of material preparedness and inadequate mental preparedness on the part of decision-makers' (SOU, 2022, p. 10). Experts are now calling for a self-critical process regarding Sweden's political culture (Andersson *et al.,* 2022) and 'the lack of accountability of decision-makers to avoid future failures, as occurred with the COVID-19 pandemic' (Brusseleares *et al.,* 2022).

Aim & methodology

The aim of this case study is to explore the current status of the OH approach in Sweden relating to the Covid-19 pandemic, and more specifically concepts such as *creeping crises* and *human-animal relations*.

Thematic analysis was performed on national policy documents, reports and internal documents directly concerned with One Health or issues at the human-animal-environmental interface. Semi-structured interviews were held with representatives from four key agencies in Sweden. The Environment Protection Agency of Sweden was not available for interviews, but emails were exchanged. Interviews were also conducted with experts in preventive medicine and OH.

Example of questions explored are given below:

- How is OH applied across agencies in Sweden?
- What is the role of human, animal, environmental sectors?

[36] For a description of the Swedish governance model see also Castro *et al.* (2021).

CASE STUDY 2

- Are there signs of Sweden applying OH in pandemic prevention/preparedness strategies?
- What potential and obstacles for OH are mentioned?

Results

Sweden's work with OH: Antimicrobial Resistance (AMR)

> *'Political leadership, from the very top and from different sectors, is crucial in the fight against antimicrobial resistance [AMR]. The Swedish government has put the effort to combat the silent pandemic of AMR at the core of our agenda. The importance of using a One Health perspective must be underlined.'*
>
> *Minister for Health and Social Affairs Lena Hallengren at the UN High-level Interactive Dialogue on April 29 (Hallengren, 2021)*

When making a global comparison, Sweden introduced policies to combat antimicrobial resistance (AMR) early (1990s) and has a strong political commitment to the issue and a low level of antibiotic use and low prevalence of resistant bacteria in animals (Eriksen *et al.,* 2021). Sweden was the first country in the world to ban the use of antibiotics for animal growth promotion in 1982 (Wierup, 2001). Several events have been influential in Sweden's work on AMR, including a large Salmonella outbreak in 1953 (tracked to infected meat from a slaughterhouse) and a rapid increase in pneumococcal strains resistant to penicillin in the early 1990s, which led to incentives such as the Swedish strategic programme against antibiotic resistance (Strama) (Eriksen *et al.,* 2021).

Since 2010, the National Board of Health and Welfare (now at the Public Health Agency of Sweden (PHAS)) and the Swedish board of agriculture collaborate and coordinate cross-sectoral work against antibiotic resistance, work that now includes 25 agencies and actors (PHAS, 2022). Sweden considers itself to be a role model to the rest of the world for its successes in reducing the use of antibiotics in animals without a loss of production, largely due to preventive efforts and cross-sectoral collaborations and coaction with industries (especially in animal production and food security). This was echoed in interviews. In existing formal OH collaborations, the need to find a common language across sectors and improve opportunities for data sharing, both internationally and between Swedish agencies, was highlighted.

CASE STUDY 2

The extent of OH

The OH framework relating to AMR has been formally established in Sweden by the government (e.g., in strategic plans, announcements and reports, international collaborations), but Swedish agencies have not formally or practically embraced a 'wider' OH approach. OH is mentioned in reports concerning early threat detection of transmittable (zoonotic) diseases, and in the Swedish Zoonotic council that includes several agencies working with human, animal, and environmental health. OH is not easily detected in the councils' external communication, and in internal protocols it is rarely mentioned, e.g. regarding a workshop on infectious diseases in dogs, organised by the OH European Joint Programme, who also has distributed a survey regarding how delegates perceive their mandate. The national pandemic group established to foster coordination does not include representatives from the animal and environmental sector.[37] Email conversations and interviews revealed highly variable knowledge of OH between and within agencies; some individuals, for example, were unaware of the agency's (leading) involvement in OH. In an interview with someone from PHAS, the definition of and work on OH were unclear and no OH training had been offered. Another example is the Swedish Environmental Protection Agency, where email conversations, reports and interviews all confirmed that OH is not widely applied within the environmental sector, but rather, assigned to a few individuals working within the agency on One Health and AMR.

Several interviews indicated conflicts between a 'narrow' or 'wide' OH approach, including 'nothing or everything', where too many actors and issues might make it too wide and problematic to work with practically. However, interviewees also saw possibilities with an expanded OH and mentioned indications that it is expanding to involve the environmental sector to a greater extent, as well as other issues and disciplines (e.g., social sciences). Some believed OH to be applied in an ever-narrower way mainly to infectious diseases and AMR, whereas others perceived OH to be a mindset/framework applied to multiple issues, but not just mentioned as 'OH' per se; for instance, some saw it as related to the work of Agenda 2030 and the eight target areas for public health focused on equitable health, that are to be increasingly interlinked with environmental objectives.

Despite the environmental sector being officially involved in OH through the work on AMR, its role beyond that specific collaboration is not clear. In upcoming OH training at

[37] The group consists of the Public Health Agency of Sweden, the Swedish Civil Contingencies Agency, the Swedish medical products agency, the Swedish Work Environment Authority and the Swedish Association of Local Authorities and Regions.

the national level, the included agencies are the PHAS, Swedish Veterinary Institute and Swedish Food Agency. Reports on environmental protection do not mention OH, nor do reports that place (human) health at the centre of sustainability in order to motivate prioritisation and increased efforts. Reports on the health impacts of climate change deal with human health and animal health separately. Moreover, a report on the work against the illegal wildlife trade and poaching describes the need to work cross-sectorally with long-term commitments, resources and nationally stated targets, but does not mention OH. Several interviewees saw a need to strengthen the role of the environmental sector in OH collaborations, highlighting environmental health on the agenda.

Preventive action or acute reaction

It was concerning that limited resources are allocated to the work on OH, and clear ambitions and goals defined at the policy level in combination with dedicated funding are warranted. Demand for especially the animal sector was increasing but resources did not mirror this. Moreover, the most acute actions were said to be prioritised and preventive efforts and long-term aspects deprioritised; 'even preventive measures should be allowed to cost, not just when we are already in a crisis. Resources need to be given for preventive measures so crises do not blow out of proportions.' While the written reports on OH mainly focus on surveillance, concentrated on certain diseases and the detection of disease in certain types of animals, other and more preventive measures were mentioned in interviews, such as creating 'buffer zones' in systems to avoid spillover risk and infection transmission.

The need to have structures, resources and collaborations in place during 'peacetime' for them to work during times of crisis was emphasised. Those with a veterinary background identified one important use of OH: to prepare for a crisis, where the animal sector could contribute due to their experience in testing, tracking, threat detection and the handling of outbreaks. Furthermore, the veterinary sector is more used to working with both a population- and individual focus, and communicating the complex reality concerning disease outbreaks. Whilst there are different measures available to the animal sector and human sector during disease outbreaks, some decisions made by the (human health) agencies in charge of the pandemic were surprising and concerning, according to some of those interviewed, for instance, the lack of quarantine requirements following journeys abroad during high levels of Covid-19 cases. Some suggested that the Covid-19 pandemic might have opened up a window of opportunity for continued (post-pandemic) interconnectedness-thinking and solidarity, which could also increase support for OH-related measures.

Professionals with a veterinary background saw potential benefits in perceiving a smaller human-animal divide when working preventively in the area of OH issues. In contrast, the wider human-animal gap apparent in the thinking of those in the human sector was perceived to increase the risk of silos and knowledge, experience and capacity within the animal health sector being undermined. The animal sector was not invited to contribute to crisis preparation or management, and according to interviews, the exchange between the animal sector and PHAS was kept to a minimum during the outbreak. It was the Swedish Veterinary Institute agency itself who contacted the regions and volunteered to help by testing samples for Covid-19.

Human, animal and environmental health

'Health is a state of complete physical, mental and social well-being and not merely the absence of disease or infirmity.'

WHO

The definition of *human* health in OH and Swedish reports on health is aligned with the broad definition of WHO. The same cannot be said for *animal* health, especially animals most clearly related to OH (due to infectious diseases and AMR) such as animals in the food and fur industries. Animal health is generally described in terms of risk: risk of disease transmission, antimicrobial resistance and production/consumption. A new Swedish governmental instruction on new zoonosis from 2022 mentions investigations by the European Parliament (Brice *et al.,* 2021), and researchers in the Netherlands (Bekedam *et al.,* 2021), both proposing that the OH concept should be more integrated into the EU legislative system and in the public health work in Member States, and that increased collaboration should exist between agencies and medical, veterinary and environmental experts. In spite of this, OH has not been further mentioned with regard to zoonotic risk and prevention in Sweden.

Biosecurity in Swedish industries and animal welfare are considered high and the risk of zoonoses or a pandemic starting in Sweden is considered low. Nevertheless, annual inspections of animal welfare demonstrate that there are problems with welfare in many places remaining at the same level from year to year, and even decreasing in some. This is alarming for animal welfare and for people's trust. Despite biosecurity measures, there was extensive spread of Covid-19 on mink farms, where mink were infected by humans and vice versa. This led to a temporary breeding ban in 2021 that was resolved in 2022, yet conditions on mink farms still pose a risk of virus transmission with high susceptibility amongst mink. The lack of legal structures and mindsets to protect animals from being

infected by humans was problematised in interviews and a report on Methicillin-resistant Staphylococcus aureus (MRSA).

Environmental health and animal health are mainly defined in anthropocentric and risk aversive ways, with solutions based on external technical solutions (e.g., technological development, increased surveillance). For animal health within the application of OH, this means that mental health aspects and the subjective needs of animals (especially animals within industries) are largely excluded. The embedded tensions in human-animal relations are traceable in a report on the animal welfare strategy by the Swedish Board of Agriculture, stating that animal welfare is an issue that encompasses many feelings and opinions. The impact of human-centric attitudes and speciesism was recognised as a problem by interviewees. For instance the different status of animals in law and policy and the need to count animals as part of the vulnerable group that society means to protect are areas that need further consideration, and practical examples of difficulties were resource allocation, where many resources within the animal sector go to measures that mainly safeguard human health.

Conclusion

While Sweden has come a long way in its formal work on OH and AMR, there are existing gaps between veterinary sciences and human medicine regarding mandate and focus of action, which became evident during the pandemic. OH appears to be unevenly integrated across different agencies, with agencies linked to the animal sector more actively engaged with OH and identifying possibilities with a wider OH approach. The intangible role of the environmental sector in OH, sometimes included and sometimes excluded, might mirror the recent inclusion of UNEP to the Tripartite after decades of collaboration and advocacy for OH (OIE, 2021).

OH cannot be said to be part of Swedish pandemic and crisis management and the interviews for this case study pointed to the need to establish collaborative structures across agencies in ‘peacetime’, before a crisis. The current perceived human-animal divide within public health discourse was recognised as an obstacle for collaboration between the animal sector and human sector. In contrast to international reports highlighting the increasing relevance of OH in tackling pressing and multi-rooted issues such as pandemics, climate, biodiversity and pollution emergencies (UNEP, 2021; UNEP & ILRI, 2020), there are no indications that OH is to be implemented in the Swedish work on primary prevention to address the underlying causes of, for example, spillover risk. The main discourse suggests that spillovers might not be stopped, but that they could be

halted in time before a massive outbreak occurs that involves disease and production loss, and there is no evidence of further up-stream risk mapping or prevention.

The findings of this study are in line with previous studies (Chiesa *et al.,* 2021; Destoumieux-Garzón *et al.,* 2018; Kamenshchikova, Wolffs, Hoebe and Horstman, 2021), as they found OH to be applied in an ever-narrower way with a traditional (external) focus on surveillance and threat detection, unevenly including the three sectors and anthropocentrically shaped, centring human health and framing animal and environmental health as risks to (and bearing the responsibility for) human health and/or production/the economy.

The Covid-19 pandemic reminded us of our interconnectedness and that solidarity plays a key role in making sure that structural responses to underlying drivers of disease and social inequalities are realised in a post-Covid world (Tomson *et al.,* 2021). Despite having the resources, Sweden was not prepared to protect its vulnerable population, just as Sweden is not ready to reach its national environmental objectives (having reached only 2 out of 16 since 1999). Whilst the risk of a pandemic starting in Sweden is considered low, Sweden still contributes to the increased risk of pandemics globally.

A fundamental role of OH is to shine a light on current blindspots, address deep leverage points (Meadows, 2008), and actualise policy measures upstream to reduce overconsumption and divert investment away from unsustainable resource use (Sandhu, 2021; UNEP, 2021). Importantly, a sole focus on risks and threatening messages about human-animal-environment interactions can decrease support for actions promoting more-than-human solidarity (see Weinstein *et al.,* 2015; Degeling, Brookes, Lea & Ward, 2018). The rather successful work against AMR in Sweden, aiming to broadly affect attitudes and behaviours (that was preceded and triggered by several alarming events), could inspire the implementation of (a further developed) OH approach that also acknowledges the protective factors of human connection to and relations with animals and environments.

Notably, the need for transparency and accountability in crisis management and decision-making processes also applies to OH, as its function and aims are closely tied with (often invisible) power dynamics, stakeholders and underlying interests embedded in the concept and collaborations, which ultimately decide what issues, interests, needs and whose health to protect and prioritise.

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Policy recommendations

- Adopt an OH or similar framework for crisis management (including pandemics) that includes animal and environmental health.
- Link environmental and sustainability objectives to human and animal health; the suggestion is to achieve this by using a further developed OH approach (including aspects of equity and the human-animal rights link and non-anthropocentric definitions of animal and environmental health).
- Consider offering training on OH across agencies and collaborations that also address deep leverage points such as attitudes and mindsets.
- Implement real animal welfare laws, to complement existing animal welfare laws nationally and internationally.[38]
- Improve representation possibilities to decrease the risk of epistemological oppression, for instance by including representatives from animal rights in animal welfare discussions, and representatives from environmental protection in discussions that concern the environment.
- Increase transparency in decision-making processes, in part by stating the information and interests which are being prioritised, something which was lacking during management of the pandemic.
- Sufficiently address Sweden's role in pandemics and sustainability targets by addressing its role in wildlife trade, factory farms, and habitat destruction nationally but also internationally through consumption and resource use (imported and abroad).

[38] It is argued that animal welfare law is best understood as a kind of warfare law which regulates violent activities within an ongoing 'war on animals' and needs to be complemented by a jus contra bellum and peacetime animal rights (Stucki, 2021).

SPOTLIGHT 3

Vaccine hesitancy: A useful concept?

SPOTLIGHT 3

SPOTLIGHT 3: Vaccine hesitancy: A useful concept?

Authors: Elizabeth Storer[39] and Iliana Sarafian[40] (with research contributions from Costanza Torre[41] and Sara Vallerani[42])

Tackling the Covid-19 'infodemic'

A language of vaccine 'hesitancy' has emerged to encapsulate both reluctance and resistance to Covid-19 vaccines (Dubé et al., 2021). Vaccine hesitancy, identified in 2019 by the WHO as one of the main global threats to global health security, is defined by the WHO as a 'delay in acceptance or refusal of safe vaccines despite availability of vaccine services'. Whilst the notion of vaccine hesitancy long predates the Covid-19 pandemic (Dube et al., 2013), discourses of hesitancy have come to be identified as individuals making rational decisions in the context of imperfect information.

Important studies have linked Covid-19 vaccine hesitancy with an associated concept: the ''infodemic', defined as a parallel realm of misinformation and disinformation regarding the existence and origin of conspiracies about, as well as potential cures and prevention methods for Covid-19. Quantitative analysis has dominated an analysis of these connections, and has elucidated both the extent and different categories of misinformation. Such analysis has proved attractive to policymakers, since it easily lends itself to technocratic solutions – developing and disseminating relevant communication and public health messaging to dispel misinformation (Bunker, 2020).

Such approaches have been readily applied to EU vaccine policymaking. As has traditionally been the case in campaigns to achieve mass vaccination targets, the roll-out of Covid-19 vaccines has been designed around principles of uniformity, compliance and service-provision, rather than adaptation to specific local environments. Whilst vaccine roll-out varies according to disparities in health infrastructure at the regional level, at their core, Covid-19 vaccination campaigns are informed by the ideas that centralised government planning is the most efficient and effective way to achieve mass immunisation and herd immunity.

Policymakers have noted that resistance persists among particular groups, which have generally included ethnically and racially minoritised groups. Informed by thinking about

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vaccine hesitancy and the infodemic, interventions have maintained a focus on improving health literacy to promote vaccine uptake (Sharevski *et al.,* 2021). Where solutions have recognised diversity, interventions have usually taken the form of linguistically and culturally attenuated strategies to disseminate correct health information to marginalised populations (Cheng *et al.,* 2021).

Socio-political topographies

Yet, such approaches reveal only partial reasons for resistance, and, whilst championing individual decision making, fail to engage with complex social-political topographies which determine vaccine calculations. Research conducted under the auspices of the Ethnographies of Disengagement[43] project, explored vaccine orientations among migrant communities in Italy. Migrant communities are diverse, but our ethnographic and participatory methods revealed that mistrust in vaccines was often related less to do with misinformation (Torre, 2022) and more with processes of state disenfranchisement and structural discrimination (Vallerani, 2022).

Recent supranational EU policies (Paton, 2021) that seek to build inclusion and trust by engaging minoritised groups, including migrants, in vaccine campaigns, stand in tension with the shifting bureaucratic regulation of immunity. To encourage vaccine uptake, the Italian state introduced vaccine passports and restrictions which distinguish between vaccinated and unvaccinated population members. Undocumented migrants, now depicted as 'vaccine hesitant,' are subject to politicised stigma which feeds into the ongoing exclusionary impulses of anti-migrant populist discourses.

Among migrants living in Rome, we found that structural barriers, rather than individual choices, often prevent vaccine access. Migrants without documents were denied access to a campaign which relied on citizenship in order for individuals to access vaccines. Between January and July 2021, non-Italian citizens, without a National Insurance Number, could not register for a vaccine (Mateini, 2021). As of September 2021, it was possible to register for a vaccine using an STP code. Yet, early exclusion, limited information, and regional inequalities create uncertainties among migrants about accessing a vaccine.

During the research, employers across sectors where migrants are often employed, including in domestic or cleaning work, or in factories, were actively enforcing the vaccination Green Pass as a prerequisite for work. Indeed, on occasion, these

[43] https://www.lse.ac.uk/africa/research/Ethnographies-of-Disengagement

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narratives were often used by health workers to incentivise vaccination. Migrants were thus trapped in a paradoxical situation: the lack of a Green Pass and at the seeming impossibility of accessing a vaccine.

For other migrants, Italy served as a transit country. Migrants were trying to pass through undetected, to access final destination countries such as France, Germany and the UK. One part of this long trip involved crossing the Italian Alps, a treacherous journey on account of the weather conditions, as well as the increasing brutality of French border police seeking to push migrants back to Italy. Many of our interlocutors had fled from Afghanistan, and had been on the move for many months. To continue with long and expensive journeys, many had accepted a vaccine. Yet this had often been in Turkey or Bosnia, where humanitarian teams staffing camps had included vaccine distribution in their mandates. These were often Sinovac or Sputnik vaccines, which at the time of research were not recognised as eligible for the Italian Green Pass. This effectively created a bureaucratic and medical impasse.

People could not obtain Covid-19 certification which would allow them access to public transportation, thereby experiencing additional obstacles to their mobility. Undergoing a new vaccination course, on the other hand, was not deemed advisable according to the medical guidelines in place at the time.

These empirical portraits reveal that structural, rather than individual factors, prevented access to vaccines. Discourses of hesitancy occlude a consideration for the very barriers, which prevent migrants from accessing vaccines, often in spite of their best efforts to protect their health.

Alternative entry points to promote vaccine engagement

In departing from vaccines as understood from below, we propose a radically different starting point for policy making which privileges diversity, rather than uniformity, and considers longer temporal horizons than scoring metrics premised on numbers of jabs in arms.

On the one hand, vaccination strategies should engage with social and solidarity infrastructures. Tapping into the networks of kinship and care through trusted local partners – including community representatives and champions, voluntary sector workers, religious organisations, migrant shelters, advocacy organisations – could be important entry points for reaching those who are considered ‘hard to reach’, to encourage vaccination uptake. Since many of these structures rely on volunteerism, it

is important to fund and invest in outreach, particularly if this is in addition to ongoing forms of advocacy and support. It is also important to note that the politics of these infrastructures may not necessarily be 'pro-vax', and it may be important as a prerequisite to engagement to map insiders' orientations carefully.

But this is not just an issue of extending reach, and of instrumentalising networks derived from altruism. Campaigns must create spaces for deliberative engagement, where communities (and volunteers themselves) can openly discuss and debate fears around vaccination, science and the state. Rather than conceiving Covid-19 as a 'great equaliser', it is important to acknowledge inequalities perpetuated through the course of the pandemic. It is also important for deliberative spaces to acknowledge harms perpetuated not just by the health risks of the pandemic, but by state mandated lockdowns. Mediators should adapt an 'empathetic listening' approach, which decentres expert opinion and engages with communal ideations.

Ultimately, these 'bottom-up' interventions must connect communities to advocacy or state services which address wider domains of life. For many minoritised groups, the challenges of Covid-19 have been experienced as an extension of prior discrimination, or of attempts to self-secure in the absence of state welfare or support. Henceforth vaccine campaigns should provide a platform to make these struggles visible through advocacy which insists on reversing politico-economic processes which result in marginalisation. In the case of migrants, this must link to citizenship rights.

Concluding remarks

The issues of access, safety, vulnerability and equity in public health services stem from structural inequalities which existed prior to the pandemic but have been deepened by losses and restrictions. Viewing disadvantaged populations through the existing 'vaccine hesitancy' framework and shifting responsibility onto individuals can be misleading if the experience of structural inequalities informing vaccination choices is not taken into account. Finally, and most importantly of all, without communal participation and resources targeted at cultural, citizenship, movement and socio-economic interventions, efforts to increase vaccine uptake among those who are disenfranchised are likely to remain unsuccessful.

CASE STUDY 3

Local social infrastructures

CASE STUDY 3

CASE STUDY 3: Local social infrastructures

Focus: London, UK

Authors: Nikita Simpson[44] and Laura Bear[45] (with contributions from Jordan Vieira and Connor Watt)

Introduction[46]

Central government policies and public health orders, perhaps conceived at the federal or national governmental levels, inevitably involve implementation at the local level. In order to make space for local specificity in demographic, health and socio-economic profiles, the decision-making processes around such health policy implementation have been largely decentralised in recent decades as the state seeks to 'govern through community' (Rose, 2006).

During the Covid-19 pandemic, however, this centralised process of policy making intensified, and local governance, public health and civil society organs were tasked with implementing new mandates that encouraged citizens to stay at home, wear masks and refrain from social mixing. Local organs were also tasked with setting up public health – Covid-19 testing, quarantining and vaccination – services rapidly; and facilitating financial support mechanisms for businesses and families that were adapted to the needs of populations within their jurisdiction. Accordingly, rates of Covid-19 testing, cases, mortality and vaccination uptake were, in many cases, measured and monitored at the local or regional level. Patterns of transmission and mortality were compared and analysed by epidemiologists and policy makers using these same 'local' units; and often policies such as local or regional lockdowns were imposed accordingly.

In short, the Covid-19 pandemic has shone a spotlight on the local as a significant level of governance in health emergencies and beyond. This case study investigates the local level of governance within the context of a wider conversation on MLG using the framework of social infrastructures. As previously explained in this report, social

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[46] Content for this case study is drawn from the LSE Covid and Care Social Infrastructures report authored by Laura Bear, Nikita Simpson, Caroline Bazambanza, Rebecca E. Bowers, Atiya Kamal, Anishka Gheewala Lohiya, Alice Pearson, Jordan Vieira, Connor Watt, Milena Wuerth. Approval for this study was given by the London School of Economics Research Ethics Committee [REC ref. 1137]. This research was funded by the London School of Economics Research Office, with contributions from SAGE and Professor Laura Bear.

infrastructures are the networks of kinship and care within and between families, friends, and communities; economic life and pandemic recovery rely on the strength of these foundational relationships. At a local level of governance, these infrastructures critically involve the municipal organs of government; local public health organisations such a clinical commissioning groups and population health architectures; other statutory services in education, early child, mental health, disability and aged care, social work, domestic violence; civil society organisations such as local charities, trusts, shelters, community gardens and mutual aid groups; and faith-based organisations. These formal architectures of care intersect with informal care provision in the form of intergenerational and neighbourly care provided in homes, neighbourhoods and communities.

The Covid-19 pandemic has made our dependence on these local social infrastructures visible, and their constellations have shifted. When nurseries, schools and universities closed in lockdowns, when young adults lost their jobs or elderly relatives needed help, people fell back on these forms of informal care. As charities shut their doors, mutual aid groups and voluntary sector organisations stepped in to deliver food parcels or medicines, or to offer practical and mental health support. Without this work we would have no society left to rebuild, and the unwell and disadvantaged would have fared even worse.

This case study focuses on the ways in which local social infrastructures worked during the pandemic in the UK. It begins with a short description of the UK context, before clarifying the ethnographic methodology used by the LSE anthropology research team that was uniquely able to analyse the workings of local social infrastructures. It presents core findings from this study, before illustrating these findings with two case studies in Ealing, East London and Hackney, West London respectively. It concludes by foregrounding the ways in which inequality was generated by central government policies that shaped local realities; and by reflecting on the relational work of nodal figures in mitigating the negative effects of these inequalities.

Local social infrastructure in the UK

The precise structure of these regional bureaucratic units is variegated across the four nations of the United Kingdom (England, Scotland, Wales, and Northern Ireland). With some exceptions, local government services in England operate largely within a two-tier system that is split between overarching county councils and multiple district councils or local authorities (LAs) within them. London, however, is divided into 32 boroughs that

are responsible for administering most local government services, with police, fire and transportation services provided by the broader Greater London Authority (GLA).

Since 2010, local authorities and voluntary sector organisations in the UK have been severely affected by austerity policies. The multiple and uneven impacts of austerity policies contribute to differentiation in the local political economic contexts where the pandemic hit. Amid the wave of austerity policies after the 2008 financial crisis, the 2010 Conservative-led coalition government significantly cut the funding and low interest loans that had been made available to LAs from central government (see Koch and James, 2020). At the same time, the UK saw a massive extension of private banking loans to LAs with variegated interest rates based on LAs' political orientations, and some LAs began to trade in and own other LAs' banking debt in order to turn a profit. Shortly before the onset of the Covid-19 pandemic, the central government cut nearly all the grants available from them to LAs while transferring the responsibility to raise corporation tax to LAs. This has created a US-style system in the UK for the first time in the post-war period in which local tax bases determine the income levels of local governments rather than centrally administered funding allocations based on indices of poverty or need. As a result, LAs have had to tax and encourage local business, maximise local assets, and negotiate deals with local property developers in part to fund the local administration of statutory care provision. Particularly in urban settings, the effects of austerity funding cuts and LA debt have been key differentiators of inequality, hence the need for comparison across boroughs of the effect of Covid-19 on local social infrastructures. Indeed, Covid-19 entered into this austerity-starved context at the LA level.

In the UK, local social infrastructures saved lives as voluntary sector, religious organisations and community champions built on informal relations of care to encourage testing and vaccine uptake, and to fill the gaps when statutory provisioning was not possible. They also helped people to grieve and recover from losses of life and livelihoods. During the pandemic in the UK, public health mandates originated with scientific advice from SAGE and its sub-committees, which were then circulated to ministries after review by the Covid-19 committee in the prime ministers office. Also significant later on in the pandemic was the Joint-Biosecurity Centre and Joint Committee on Vaccinations. These mandates were acted on by the UK Health Security Agency, formerly Public Health England, and other relevant ministries and implemented at the local level through a collaboration between local Clinical Commissioning Groups (CCGs), National Health Service (NHS) public health bodies, LA communications and public health officials, and CSOs – working in conjunction with more grassroots and mutual aid organisations that existed prior to the pandemic, or were formed in its wake.

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Over the course of the pandemic, and especially as the first wave in the UK ended in the summer of 2020, the strategy for Covid-19 lockdowns shifted from a blanket national approach to a regionally specific approach based on transmission and mortality rates (SAGE local lockdowns paper, and housing paper). This generated significant divergence between different areas in terms of their experience of the pandemic. Furthermore, as the vaccination policy was rolled out at the end of 2020 and into 2021, regional and local actors played a significant role in facilitating uptake. These efforts have been supported by governance support policies such as the introduction of Community Champions to deliver health information and encourage uptake (South *et al.,* 2021). Indeed, as national and even regional public health orders have been lifted over the course of 2021, there are still some areas that are called 'areas of enduring transmission' where Covid-19 transmission and mortality rates remain high (ref enduring transmission paper).

Methods

An ethnographic methodology is uniquely suited to the analysis of local social infrastructures and their role in multi-level governance processes. In order to study this in both Ealing and Leicester, we conducted ethnographic research over a period of 14 months between April 2020 and June 2021. We deployed two methodological strategies. The first involved ethnographic open-ended interviews with local experts. Rather than trying to find a representative cross-section of respondents, as in Office of National Statistics (ONS) survey data collection or citizen juries, our sampling strategy involved identifying those 'local experts' who were at the centre of dense networks of social interaction and had access to a large volume of information on lived experiences that were changing in real time. They were recruited through the research team's existing personal or professional networks. Our questions focused on the health, social, economic, and cultural impacts of the pandemic, with particular attention given to mortality and morbidity, stigma, precarity, formalised care (i.e., welfare systems and new treasury policies), and informal care (i.e., kinship and friendship).

Second, we conducted participant observation in community forums and congregations. This involved both active and passive attendance of community consultations, co-design workshops, information and engagement briefings, focus groups, town hall discussions, and participation in virtual/online communities. Most of these events were held over Zoom or WhatsApp and were focused on the Covid-19 recovery and vaccine roll-out, although some were related to specific interests such as parenting, racism, care, or bereavement. Some were convened by LAs or counsellors, and others were hosted by

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Voluntary and Community Sector (VCS) organisations or grassroots groups. Engagement in these forums allowed us to track communications within and among organisations, as well as to discern key tensions and the intersections of interests in decision-making. Deploying these two strategies has allowed for comparative studies of local social infrastructures.

Summary of Findings

- The central government mandates did not fit with the realities of social life, meaning families and communities 'turned inwards'.
- They relied on local 'social infrastructures' – including grassroots, faith organisations, food banks etc; but also networks of kinship and neighbourhood mutual aid groups.
- In some boroughs, these infrastructures were supported by local authorities through grants and consortia spaces; but in others they were not.
- The success of the vaccine roll-out was dependent on the engagement of these local social infrastructures – and especially on mechanisms for social listening.
- Some communities experienced stigma as they were blamed for transmission of the virus by local authorities and media.
- Inequalities exist within boroughs (often between ethnic groups) and between boroughs as a result of differential funding and historical exclusion.

Core findings

Our ethnographic study revealed a number of important points related to the functioning of local social infrastructures during the Covid-19 pandemic. Here we present a number of themes that arose across local sites that we researched.

The impact of austerity

Our research revealed that the pandemic policies entered, at local level, into a set of fragile and often broken relationships between communities, local authorities, and voluntary sector organisations. Frequent changes to central government policy and bureaucratic organisation, especially around public health, have been disruptive to local social infrastructures in the past decades. These relations were rendered even more fragile as a result of more than a decade of austerity that has starved local public health, social care and housing infrastructures of funding, and induced new and often discriminatory protocols of reporting, impact assessment and procurement. The varying

constellations of NHS, local authority and CSO provision of public healthcare has seen people cycle through different roles without being able to institute lasting change.

Recognising existing work

The pandemic moment generated a 'state of exception' where the usual protocols for procurement, funding and reporting were suspended. This state of exception, as indicated in the previous section, has generated both opportunities for mutuality and relations of stigma. However, it has also indicated a new reliance on the voluntary sector and community groups. Such groups were able to mobilise quickly in order to meet the needs of those in their local communities by drawing on their nuanced local knowledge and existing relationships. However, our research revealed that much of this work remains invisible to both the government and public, where recognition has been directed instead to new mutual aid groups or central government efforts. The lack of recognition is experienced particularly acutely at the grassroots level, and by black and ethnic minority organisations which are generally smaller, more informally organised and hence have less access to decision-making spaces and funding.

Inequality in provision

There was a perception that nepotism in local authority funding panels results in inequality in provisioning, with decision makers tending to support larger and more established voluntary sector organisations with whom they have previous relationships. Some voluntary sector organisations have such deep and long-lasting relations to the state that they are seen as an extension of the local authority or arm of the council. Tensions often exist between the more established organisations and the smaller and newer organisations that can better reach people who are reluctant to actively seek support. This environment can create unhealthy competition and decreased cooperation as the pandemic continues, as groups vie for the same limited funding pools. The question of 'who is in the room' when funding decisions are made, both in the past and during the pandemic, was of critical importance in addressing these biases. Often the same people who work for the local authority move on to working in these large voluntary sector organisations – referred to as a 'revolving door' – resulting in decision-making power being concentrated in certain individuals.

Structural bias in data and impact

Our research revealed that structural bias in provisioning for voluntary sector and community groups, and hence the support for local social infrastructures, is marred by structural biases in the specific requirements for application to, monitoring and evaluation

of funding bodies. A 'data-gap' exists for many minority groups, meaning large-scale data sources do not disaggregate to evidence their needs; and specific studies don't exist to support their claims to local and central government. Moreover, many groups have expressed their view that local authority and funding body Key Performance Indicators (KPIs) and associated Monitoring and Evaluation (M&E) frameworks fail to address the needs of many groups and fail to capture the affective and social value provided by CSO organisations over private provision. Often the needs of many minority groups are only prioritised for short periods of time, before they are silenced or rendered invisible by a lack of engagement. Efforts to design more appropriate KPIs and M&E frameworks, as well as to map the range of voluntary sector and community groups in any given place are critical to redistributive efforts.

Sustaining energies

As aforementioned, an upsurge of energy surrounding community provisioning and volunteering has been largely well received and has reinvigorated relations between communities, voluntary sector organisations and LAs. This has led to innovative and layered efforts, new partnerships, and imagining about what the voluntary sector could and should be. However, new energies and partnerships have dissolved as the pandemic continues, and are further threatened as pandemic funding is withdrawn. The key issues perceived at the time of research related to how positive relationships could be entrenched, how new sources of funding could be sustained and how the energy and working relationships that emerged from the initial response could be harnessed in the hope of maintaining them. Interlocutors indicated that an overhaul of existing processes of consultation, engagement and co-production was required; as well as a profoundly greater commitment to funding local social infrastructures, especially for historically excluded and under-represented groups.

CASE STUDY 3

Two examples

1. Ealing, West London

Figure 7: Map of Ealing, West London

Ealing is a borough in West London that might be seen as a place of super-diversity. Areas of super-diversity are often characterised by local bureaucracies that haven't 'caught up' with their complexity and dynamism (Vertovec, 2007). Ealing is also a borough that has experienced 'super-austerity' – defined by Lowndes and Gardner (2016) as 'a situation in which "new cuts come on top of previous ones, compounding original impacts and creating dangerous (and unevenly spread) multiplier effects' (2016, pp. 358–359). Frequent changes to central government funding and bureaucratic organisation, especially around public health, have been extremely disruptive to local social infrastructures in the past decade. As one local healthcare provider stated, the varying constellations of NHS, LA and VCS provision of public healthcare have seen people cycle through different roles, without being able to institute lasting change. Our research revealed that the starvation of this infrastructure of funds since 2010 has damaged relationships and partnerships, leaving organisations feeling antipathy towards each other and particularly towards the LA. The increased oversight of procurement processes and complex tendering means only organisations with the governance capacity and existing networks are able to access funds from the LA. These organisations are seen to be operated primarily by white groups, or established migrant groups, meaning funding and support were even more difficult to reach for newer migrant and more deprived groups. The result was a very fragile network of relationships and fraying social cohesion.

At the onset of the pandemic, the lockdown caused an immediate suspension or significant reduction in voluntary organisations' ability to deliver support. The loss of volunteers was a significant blow to many community-based organisations which lost up to twenty per cent of their workforce. Some organisations spoke of staff, all of whom

knew someone who had either died or had been seriously ill from Covid-19. It was this palpable sense of anxiety that drove many of the CS workers, and LA officers towards new forms of collaboration to meet basic needs. Most services were able to transition to some form of digital or telephonic outreach and adapt their services. The lack of face-to-face care made other kinds of figures – such as outreach workers, telephone providers and delivery drivers – important sources of referrals and information about who needed what kind of support. These forms of spontaneous collaboration were not necessarily sustained, but offered innovative solutions to practical problems in the borough, and were facilitated by a number of factors.

First, the 'historical antagonism' with the LA was tempered by the provision of unrestricted funds to community groups, and the suspension of procurement processes left organisations feeling 'liberated', able to 'get the job done' and to 'form new collaborations and partnerships' in order to layer care provision successfully. 'There was an attitude of "let's have a clean slate, come together and get things done"', the director of a local mental health service told us, citing the example of collaborating closely with the Met police to ensure those living with severe mental disorders were not criminalised during the lockdown.

Second, the establishment of purpose-driven community spaces for discussion and collaboration, funded by the LA, allowed for strong communication and alignment around a common set of objectives. The relational work of 'breaking down the walls of mistrust at community level' was primarily performed by well-connected, dynamic individuals. These people were sometimes considered well positioned community or faith leaders, but in other instances they were figures such as hospital or GP receptionists or local business owners who were considered to 'have a lot of power' in linking different people and shaping their encounters with services.

Indeed, there was an awareness that people from diverse backgrounds needed to be well positioned and visible in the Covid-19 response. 'Use people who are already embedded,' said Margaret, a community development worker. 'It's about how visible you are in these spaces, you need to spend time in communities, get to know them, not just set up consultation tick-box exercises'. However, the issue with this kind of 'diversification' of work, she reflected, was the fact that grassroots organisations were being pulled into government-led exercises having previously experienced exclusion. She gave the example of a local Muslim interfaith organisation, which was pulled into the UK government's census taking, and then vaccine roll-out.

CASE STUDY 3

Another interlocutor drew our attention to a recent report authored by six black and ethnic minority led groups, who asserted that their organisations had been denied access to funding to deliver vital services, evicted from LA-owned workspaces without risk or impact assessments being conducted, had their ideas plagiarised without consent or attribution by bigger, better-resourced organisations, were excluded from local decision-making processes, and had witnessed tokenistic employment of Black, Asian and Minority Ethnic (BAME) personnel. These groups feel the experience of structural racism to be pervasive, and the experience of daily racism in accessing services to be ubiquitous. There is a sense that efforts to engage these communities around vaccine uptake is, in the words of one white public health expert, a 'trojan horse' for other forms of social control.

2. Hackney, London

Figure 8: Map of Hackney, London

At the onset of the pandemic, the borough of Hackney in East London was already served by a dense network of voluntary and community groups that had grown in response to need arising from the significant cutbacks to statutory services since 2010. Ranking high on several indices of deprivation, Hackney had also been severely impacted by austerity. Many community organisations had sprung up in an effort to provide for those most impacted by these measures – independent food banks, community hubs providing professional advice services, and voluntary organisations targeting various 'at-risk' groups. As in Ealing, austerity had strained relationships and partnerships, resulting in a very fragile social ecosystem at the beginning of the pandemic.

Gentrification, for instance, has contributed to social fragmentation; several groups that we spoke to conveyed their experience of 'two Hackneys'. On the one hand, there is an older, more established yet poorer and marginalised Hackney (notably characterised by community groups of Afro-Caribbean, Vietnamese, and Turkish origin or nationality). On

the other hand, there is an incoming and affluent (mainly white middle class) population that can afford the increasingly privatised housing market. These tensions were somewhat increased over the course of the lockdown, as marginalised community groups were more vulnerable to the epidemiological effects of Covid-19, more likely to be key workers, and also felt that their actions and movements were more strictly policed than those of white residents.

Despite this context of deprivation, tension, and fragmentation, our research revealed how class and ethnic divides somewhat softened to allow for cross-community forms of care. This was a welcome (if ephemeral) development, not least due to the strain placed on statutory care providers.

However, the same funding issues and tensions as documented in Ealing also abound in Hackney. Given this environment, embedded umbrella groups have been instrumental in channelling funds to small grassroots organisations.

In order to address unequal access to funding, Hackney Council trialled a 'consortia funding' approach with the Borough's Food Network; this included a range of frontline community anchors from across Hackney which run essential services centred on food provision, as well as senior Council officers. A number of organisations were encouraged to collaborate on funding applications, thereby sharing the capacity and expertise of the larger groups with the smaller ones and allowing the larger organisations to achieve greater reach through the more fine-scale networks of the smaller organisations. Although beneficial in terms of allowing the smaller organisations access to administrative infrastructures and extensive knowledge – that, in turn, increased the likelihood of winning funding bids – there was little incentive for the larger organisations. Such groups have, in several cases, found the process a drain on resources and were also reluctant to share best practices. Note that these larger organisations often have a dedicated member of staff engaged solely in fundraising efforts, an example of what 'infrastructure' might consist of, and what the consortia funding scheme also aimed to redistribute.

Another shift in community relationality spearheaded by the Food Network has been the flexibility around referrals between statutory and informal care providers. This endeavour has created a more concerted effort to narrow gaps in provision through increased collaboration and strategic referrals within particular geographic boundaries. Prior to this mutual orchestration, various groups were unable to manage demand for food provision from individuals beyond their immediate neighbourhoods, and the LA would not make referrals to VCS organisations. With time and what some of our interlocutors feel is a

working partnership with the LA, individuals have been directed to resources that make more geographic/logistical sense and are better able to manage demand.

Beyond temporarily 'filling gaps' in food provision, the director of a CSO organisation involved in the Food Network felt that these efforts made by Hackney Council and the Network have effectively 'reset the relationship between the voluntary community sector and the Council', in terms of 'a more equitable and strategic partnership' and a focus on a 'collaborative response'.

Concluding remarks

The local level of governance was critical to the implementation of successful Covid-19 policies in the UK. Indeed, policies entered into and shaped relationships between local authorities, community sector organisations, grassroots groups and informal care networks. They worked to exacerbate existing forms of inequality and generate new forms of inequality. However, innovative collaborations facilitated by legal and financial regimes allowed for the mitigation of these inequalities in some cases.

CASE STUDY 4

Civil society infrastructures

CASE STUDY 4

CASE STUDY 4: Civil society infrastructures

Focus: Italy

Authors: Jane Arroyo[47], Chiara Del Giovane[48] and Timothy Yu-Cheong Yeung[49]

Introduction

CSOs play an important role in a multi-governance framework by assisting or complementing the actions of the public sector to advocate for the rights of the most fragile and vulnerable, and in safeguarding civic participation. However, the role of CSOs during the Covid-19 pandemic is less well understood than the role of governmental bodies.

While CSOs are less prominent in the public eye, their networks could be essential in helping society to endure a public health emergency. In the early chaotic phase of the Covid-19 pandemic especially, CSOs were put in a difficult position, though their provision was essential, while national and regional governmental bodies suddenly faced changing priorities and had to make important decisions based on little scientific evidence.

The role of non-state actors in the Italian MLG framework has long been considered important. This reflects the longstanding research interest on social capital in Italy that has been studied by anthropologists, sociologists, and economists since Putnam (2000). To examine the role of CSOs during the Covid-19 pandemic in Italy, we distributed a survey to Italian CSOs to find out more about their activities during the pandemic as well as their interactions with other actors in the multi-level governance framework. In addition, we interviewed four CSOs who provided us with valuable insights into their interactions with different levels of government.

In short, the survey demonstrates that CSOs in Italy did not stop working during the pandemic and many even initiated new actions for their target groups, with or without governmental support. The opinions of our interviewees were in line with our interpretation that maintaining viable communication channels between the government and CSOs is essential in protecting the welfare of vulnerable groups during any public

[47] Centre for European Policy Studies
[48] Centre for European Policy Studies
[49] Centre for European Policy Studies

emergency. Governmental support is helpful and, in many cases, crucial for the realisation of the potential benefits of CSOs. One lesson learnt is that governments should not neglect the potential of CSOs, as they could well make a major contribution during a public emergency.

Civil society organisations during the pandemic

Séamus Boland, the President of the Diversity European Group, in a report by the European Economic and Social Committee (EESC) stated that CSOs around Europe 'have acted as a bulwark at the local and community levels, providing incalculable assistance, notably in the provision of essential health and social care services. Working on behalf of or in addition to local authorities, CSOs applied their creativity, adaptability and energy to finding innovative solutions for the common good' (Tageo, 2021). Youngs (2020) stated that the Covid-19 pandemic has been defined a 'wake-up call for global civil society, prompting CSOs to deepen their presence in local societies'. Cai *et al.* (2021) found that the CSOs in China, Japan, and South Korea were important non-state actors in the Covid-19 pandemic response, either by reinforcing government-led efforts or by filling the institutional voids left by government. A report by the National Democratic Institute (National Democratic Institute, 2022), focusing on Pacific Island Countries, documented that CSOs responded to the Covid-19 pandemic by adjusting their operations, engaging with beneficiaries, finding creative ways to respond to the pandemic (raising public awareness of protection measures, distributing aid and personal protective equipment (PPE), fostering community resilience), leveraging ties with local communities and calling for a broader engagement. A report from the Asian Development Bank (Bhargva, 2021) affirms that 'i) research and evidence on impact evaluation show that CSOs' engagement produces positive results when the context is supportive, ii) CSOs have enhanced roles in design, implementation, and monitoring of COVID-19 response and recovery programmes, iii) CSOs have begun engaging in COVID-19 programmes, particularly at the community level, setting the stage for scaling up, iv) CSOs are well suited to play significant roles in COVID-19 vaccination programmes'. Against this background, and research in other countries, this case study focuses on Italy.

CASE STUDY 4

Empirical investigation

Our empirical investigation relies on a survey targeting Italian CSOs and on four interviews with four responsible persons within their corresponding CSOs. We explored their actions and their attitudes towards different levels of government.

Survey

Data collection through the survey started in mid-December 2021 and ended in early-February 2022. The survey targeted all the official registered Organizzazioni della Società Civile whose contacts were identified thanks to a list provided by the Italian Agency for Development Cooperation (AICS, Agenzia Italiana per la Cooperazione allo Sviluppo), and a random sample of Third Sector Entities (TSEs) whose contacts were taken from a permanent list of the accredited voluntary bodies provided by the Revenue Agency (Agenzia delle Entrate); this contains a total of almost 50 000 entities. The total number of organisations contacted was 598 and we received 91 effective responses (response rate of 15.21%). As shown in Figure 9, the CSOs that participated in the survey were spread across Italy, from north to south, and cover 16 out of 20 regions. Understandably, a higher number of responses come from CSOs located in areas where the density of such associations is higher, such as the Lombardy, Lazio, Emilia-Romagna, Tuscany and Veneto regions.

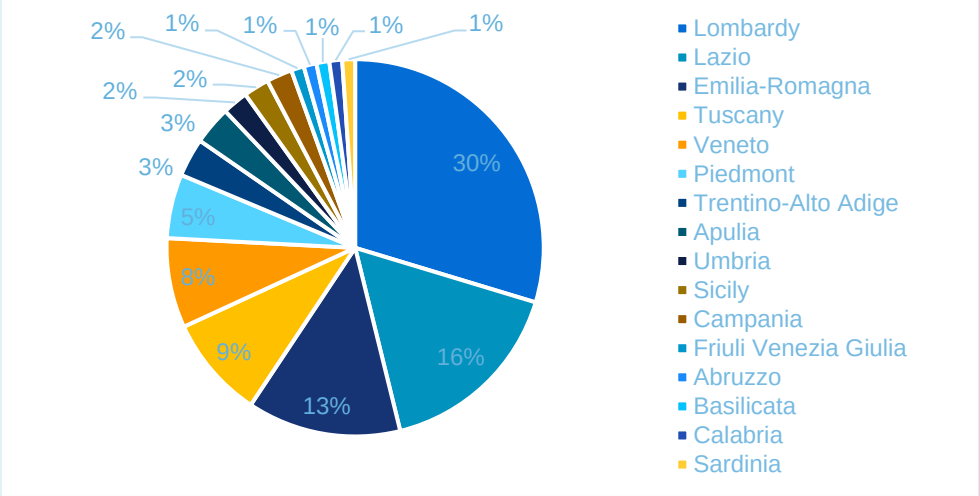


Figure 9: Geographical locations of the CSOs participating in the survey

After collecting general information about the CSOs, such as their sector of activity and type of beneficiaries, the survey investigated the impacts of the Covid-19 pandemic on the operations of the CSOs, their main problems, the type of external help received and the activities that the associations undertook to deal with the effects of the pandemic. The survey specifically asked about the quantity and quality of the interactions of the

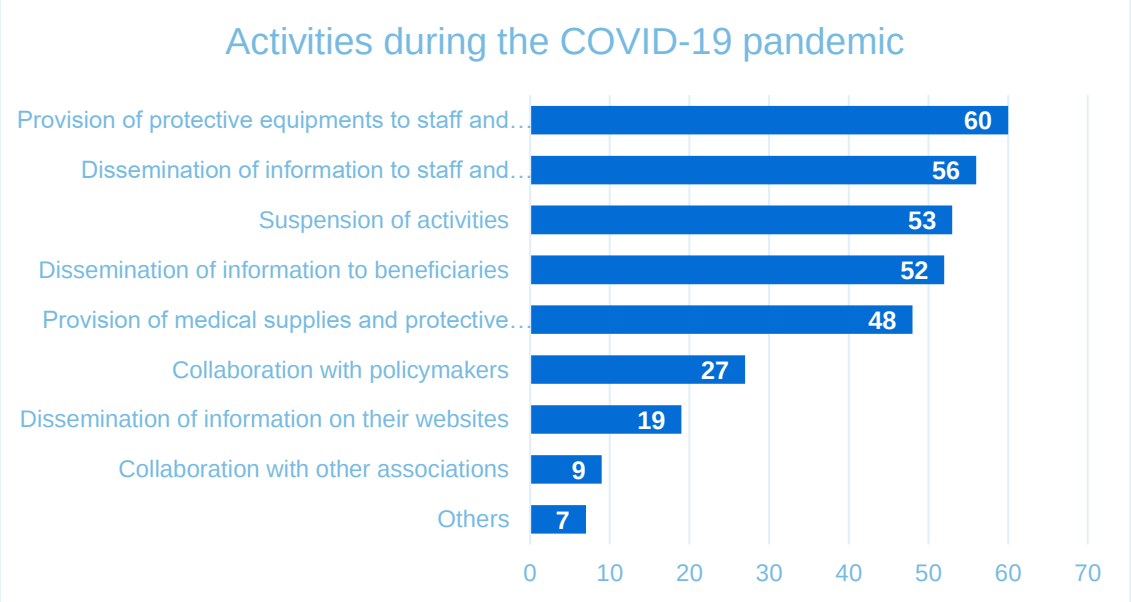
CASE STUDY 4

CSOs with the public during the Covid-19 pandemic as well as their interactions with the government at national, regional, provincial, and municipal level.[50]

Main findings

Actions of CSOs during the pandemic

Our survey reveals that CSOs adapted to the new environment during the pandemic. According to the responses, as illustrated by Figure 10, the most common activities performed by CSOs in response to the Covid-19 pandemic included: i) provision of protective equipment to staff and volunteers (60 organisations out of 91), ii) dissemination of specific information to staff and volunteers (56 out of 91), iii) suspension of activities posing an increased risk of infection (53 out of 91), iv) dissemination of specific information to beneficiaries/recipients of activities (52 out of 91). Apart from providing safety measures to their staff and volunteers as well as beneficiaries, almost 30% of the 91 CSOs collaborated with policymakers and 10% with other associations in response to the pandemic.



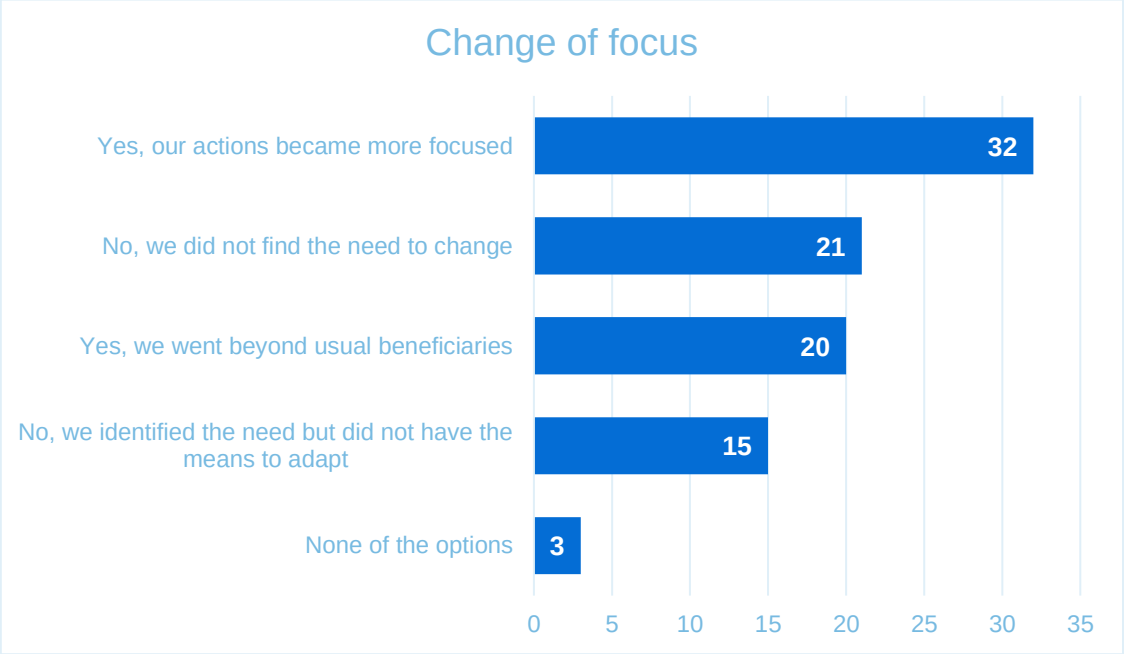
Source: Survey results.
Note: The bars indicate how many associations that answered the survey undertook each activity to combat the negative effects of the Covid-19 pandemic.

Figure 10: What kind of activities has your organisation undertaken to combat the negative effects of the Covid-19 pandemic?'

[50] The survey questions can be found in Appendix 4.

CASE STUDY 4

As the pandemic transformed the world, we were interested in whether CSOs adjusted their focuses. As shown in Figure 11, 57% of the CSOs (32+20) adapted their activities, either expanding the scope or reinforcing the focus, to contain the negative impacts of the Covid-19 pandemic. Fifteen associations identified the need to change their focus but did not possess the means to adapt.



Source: Survey results.

Figure 11: Has your organisation adapted its activities (change in beneficiaries/target groups or focus) to contain the negative impacts of the Covid-19 pandemic?'

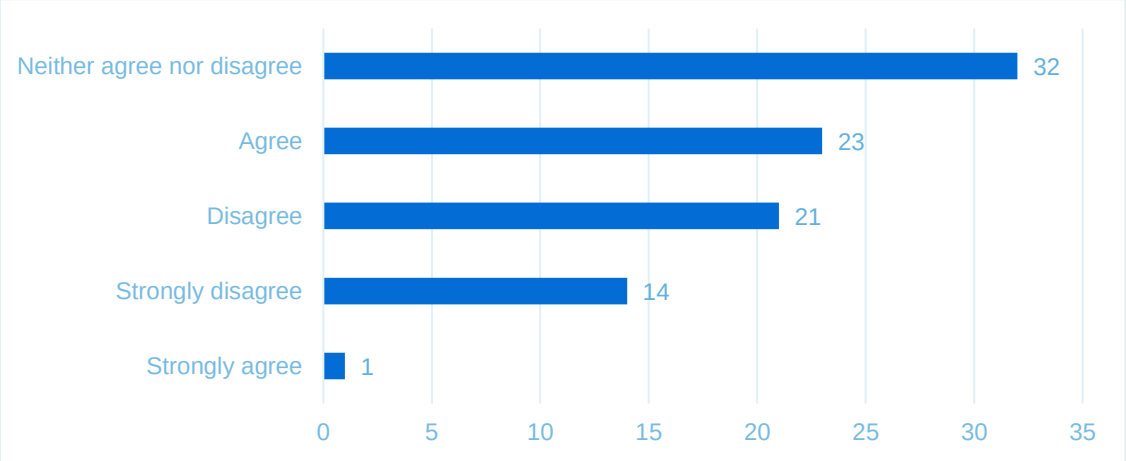
In the survey some organisations provided examples of the new activities they performed to mitigate the impacts of Covid-19 on the population. Many activities were directed at protecting vulnerable families and families in need,[51] fighting social exclusion and isolation, providing food and other primary goods to people, and providing psychological support.[52] Activities were carried out both in Italy and abroad.

[51] In Italy, see https://www.vsi.org/it/campaign/italia-accanto-a-chi-ha-bisogno/44/, https://www.actionaid.it/informati/notizie/emergenza-covid19-insiemesipuo or abroad, see https://www.actionaid.it/contro-covid-nel_mondo#namesen, https://www.nooneout.org/images/bilanci/NOONEOUT/BILANCIO_SOCIALE_2020.pdf (p. 30).
[52] See https://www.psicologisoleterre.org/.

To perform these activities, the organisations affirmed that they collaborated with other CSOs (15), local communities (15), governmental bodies (14), and international organisations (8).

Interactions of CSOs with governmental bodies (contacts and assistance)

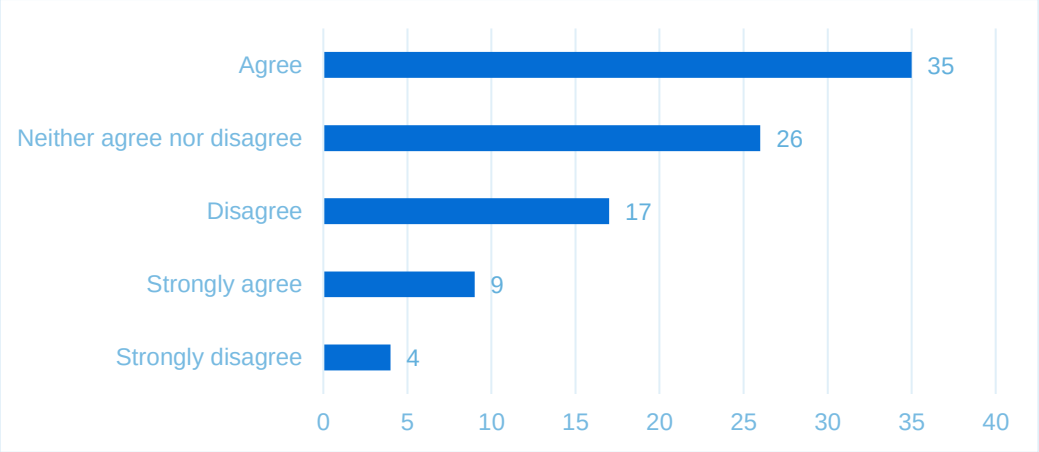
As reported in Figure 12, a relatively large percentage (38%; 21+14) of the CSOs disagreed that Italian governmental bodies at any level actively engaged with them in providing assistance during Covid-19, while 26% (23+1) held the opposite opinion. On this question, respondents gave opposing opinions, implying contrasting approaches taken by governments at different levels and in different regions.



Source: Survey results.

Figure 12: Opinions on the statement 'Italian governmental bodies, at any level, have actively engaged with your civic association in providing assistance during the Covid-19 pandemic'

As shown in Figure 13, almost half of the respondents (48%; 35+9) stated that public policies implemented by the authorities did not sufficiently protect vulnerable groups during the pandemic.



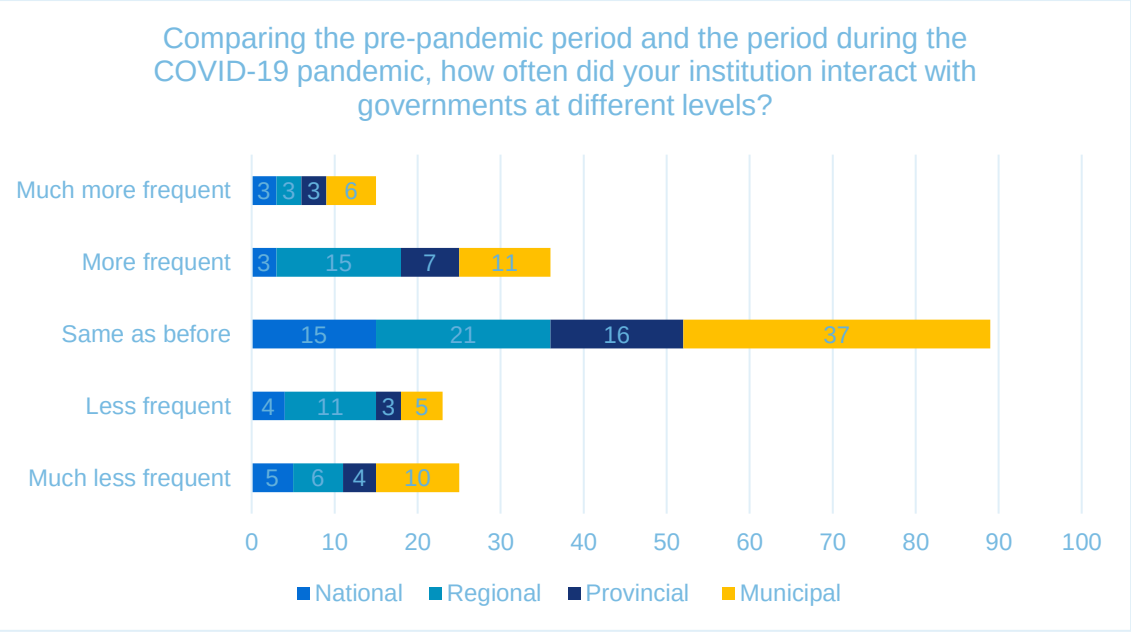
Source: Survey results.

Figure 13: Opinions on the statement 'Public policies implemented by the authorities have not been sufficient to protect vulnerable groups during the pandemic.'

The pandemic undoubtedly imposed extra burdens on officials and public finance. We were thus interested to know if their interactions with CSOs became less frequent. As shown in Figure 14, 27% of the CSO-government interactions became more frequent while almost the same number of interactions became less frequent.[53] The result is consistent with the contrasting opinions on whether the government provided sufficient assistance.

[53] CSOs could answer the same question with respect to each level of government. In total, there were 188 responses and thus 188 CSO–government pairs.

CASE STUDY 4



Source: Survey results.

Figure 14: How often did your institution interact with the government?

Interviews

Background to the interviews

In March 2022, we performed four in-depth interviews with four CSOs. The four CSOs had been involved in aiding different categories of the population in need: people affected by rare diseases, disabled people, victims of violence, and migrants.

Main findings

Actions of CSOs during the pandemic

The Covid-19 pandemic put CSOs, like everyone in Italy, into a strict lockdown for several months, especially in spring 2020, with minimal social interactions. While regular activities were disrupted or halted by the lockdown, social-distancing measures, and the prohibition on meeting beneficiaries in person, CSOs were proactive in changing how they operated. CSOs quickly adapted to the new context caused by the pandemic and answered the call for a renewed and stronger requirement for assistance for vulnerable groups. Some CSOs managed to adapt their activities by providing assistance remotely (e.g., organising webinars and newsletters) or by obtaining special authorisations from the government (e.g., local police) as a derogation to the 'stay at home' rule, in order to provide assistance to vulnerable people (e.g., provide hot meals to migrants). In addition, CSOs performed a different range of activities, such as providing psychological support

to their target groups and to their family members who asked for support – taking care of those in a less-privileged position during lockdown could be exceptionally difficult. One interviewee stated that Covid-19 has been an 'incubator of new ideas' and accelerated new activities and procedures in favour of its beneficiaries, such as tele-assistance and tele-medicine. Similarly, another interviewee stated that with Covid-19 the association needed to 'reinvent' its activities and start digital and remote assistance. However, CSOs did not receive additional or targeted support or resources to undertake these activities during the Covid-19 pandemic. Only bigger organisations received public funding from the government. During and after the most severe lockdown period, CSOs provided ongoing assistance to their target groups by disseminating Covid-19-related information about the rules imposed, as well as by distributing PPE.

Thirdly, CSOs played an important role during the vaccination campaign, by giving migrants access to vaccines, providing information about alternative treatments to people with rare diseases who could not be vaccinated, and providing general information about vaccination priorities.

Opinion of CSOs on the actions of governmental bodies

CSOs adapted their activities in response to the inaction of the government to support specific groups of people who were unfortunately left behind by governments during the chaotic early phase of the pandemic. The role of CSOs turned out to be even more relevant than in normal times because of the increased need to fill the gap left by the government for the marginalised population. According to the CSOs interviewed, the magnitude of the emergency and the need to address pressing issues at national level led to governmental bodies being even more detached from addressing the needs of specific categories of the population, such as people affected by rare diseases, disabled people, victims of violence, or migrants – representing a relatively small section of the population. The actions of volunteers in CSOs were then fundamental to providing support at the local level. One interviewee affirmed that the activities of CSOs can be defined as 'proximity assistance', meaning that the goal of each association is to provide targeted and direct assistance to anyone in need and those in remote locations.

Notwithstanding the efforts of the CSOs to adapt to the new reality brought about by the Covid-19 pandemic, their activities were not recognised by the government and associations did not receive financial support to facilitate the implementation of these activities. For small associations, participation in tenders and projects for public funding are difficult and hindered by a lack of resources and capabilities, and thus they see this

potential channel for public funding shut. This was compounded by the fact that fund raising was considerably more difficult for small associations during Covid-19.

CSOs mostly had unilateral conversations with the government, working as a medium between their target groups and governmental bodies. CSOs reported the specific needs of their target groups to the government but often their voice was not heard. Irregular migrants in the Lazio region, where one of the interviewed CSOs operates, were precluded from having access to vaccines because vaccination was subject to registration with an online platform using the national health insurance number as an identifier. Migrants in transit or asylum seekers did not have a number so could not follow this procedure and thus did not have access to vaccines. Thanks to the activism of the CSO, they managed to collaborate with the local health company, ASL (Azienda Sanitaria Locale) Roma 1, to allow migrants in transit or asylum seekers to be vaccinated.

There were a few collaborations with governmental bodies. Indeed, bigger and more influential CSOs or federations of CSOs managed to establish collaborative contacts with the government. For example, one association interviewed, which supports people with rare diseases and their families, managed to establish synergies with the government by setting up a working group with Istituto Superiore di Sanita (ISS), the Italian national institute for health, and establishing regular contacts with the Cabina di Regia of Generale Figliulo, the Special Commissioner for the Covid-19 emergency. The association stated that, during the pandemic, its visibility to governmental bodies increased.

Interactions of CSOs with members and beneficiaries

The CSOs interviewed stated that, in general, the volunteers continued to be active despite the Covid-19 pandemic; there were only a few instances of volunteers who discontinued volunteering. Meanwhile, as target groups became more isolated, CSOs started additional activities to provide support and to offer a sense of proximity to the target groups, such as providing regular newsletters, webinars, remote psychological support, food and hot meals, information about access to vaccines, face masks and other medical countermeasures.

Conclusion

Civil society organisations no doubt play a role in the MLG of a polity. From providing care to vulnerable groups to disseminating essential information, CSOs occupy a unique

position as they fill the gaps that the government or other authorities are less interested in or lack the corresponding expertise to support. During a public emergency, such as the Covid-19 pandemic, CSOs become even more important as, to a certain extent, they replace the government and become the ‘authority’ or ‘patron’ for their target groups when the state is retreating and refocusing its attention on a more urgent issue.

Our survey shows that CSOs in Italy felt they needed to provide urgent assistance to vulnerable groups during the pandemic while also feeling not supported by governmental bodies. There were some collaborations between CSOs and the government in response to the pandemic, but CSOs would welcome closer engagement. This shows the potential of CSO–government partnership, which was not sufficiently exploited, in mitigating the adverse impacts of the pandemic. The contrasting experience and opinions of the respondents illustrate both the benefit and the untapped possibilities of collaborations.

The most urgent request was not funding. Rather, in most circumstances, attention would have been the most helpful support. One interviewee mentioned that since migrants in transit and asylum seekers did not possess an official social security number, they could not make an appointment for a vaccine. While the cost of vaccinating a small group of people was small, the additional contribution to public health may have been huge given the extraordinarily infectious nature of the disease. Adjustments for such circumstances are just a matter of changing the existing mentality.

REPORT CONCLUSION

REPORT CONCLUSION

In conclusion, this report has examined best practice in multi-level governance through a number of case studies and spotlights deploying the conceptual lenses of social infrastructures, public authority and One Health.

This report is an experiment that brings together a broad range of disciplines, actors from a range of national backgrounds, and diverse types of data and evidence in a comparative conversation. This layered evidence base is necessary because of the lack of comprehensive data generated at national or EU level on issues related to pandemic policy, and especially to health inequalities in Covid-19 transmission, morbidity and mortality.

As mentioned in the introduction, across these contributions we present a number of key findings:

- Decentralised governance was critical to pandemic policy implementation and compliance.
- Communities and CSOs played a key role in closing the gap between statutory services and community needs, especially among vulnerable groups.
- Innovative forms of collaboration and mutuality formed at different levels of government, facilitated by favourable legal and financial environments.
- Pandemic policies and governance approaches generated new forms of stigma and inequality and exacerbated existing forms.
- Scientific evidence played a mixed role in informing policy making.

Based on these core findings, we propose the following criteria as key to best practice in pandemic governance:

- **Decentralised governance structures** that are linked through strong communication channels and coordination mechanisms;
- **Empowered Community Sector Organisations** that are positioned to advocate for the needs of specific, and especially vulnerable groups;
- **Innovative funding and legal structures** that allow for rapid redistribution of funds and allow important collaborations to be sustained through periods of crisis and beyond;
- **Attention to the structural barriers created by pandemic bureaucracy** that exclude certain groups from uptake of vaccination, economic measures or healthcare;

- **Attention to the non-human** including a broad and preventative engagement with the needs of non-humans and the impact of built environments on health outcomes through a One Health framework;
- **Investment in social listening mechanisms** that allow governments to understand, adapt and co-design their policies with communities, specifically using qualitative and ethnographic data;
- **A broad and diverse evidence base** that facilitates interdisciplinary collaboration across scientific research actors, and channels this through strong communication mechanisms to policymakers.

APPENDICES

APPENDIX 1: Abbreviations

AICS	Agenzia Italiana per la Cooperazione allo Sviluppo
AMR	Antimicrobial Resistance
APAs	Advance Purchase Agreements
ASL	Azienda Sanitaria Locale
BAME	Black, Asian and Minority Ethnic
bTB	Bovine Tuberculosis
CCGs	Clinical Commissioning Groups
CEPS	Centre for European Policy Studies
CPAID	Centre of Public Authority and International Development
CSOs	Community Sector Organisations
EESC	European Economic and Social Committee
EU	European Union
FAO	Food and Agriculture Organization
FEAM	Federation of European Academies of Medicine
GHG	Global Health Governance
GLA	Greater London Authority
ICU	Intensive Care Unit
IHR	International Health Regulations
ILRI	International Livestock Research Institute
ISS	Istituto Superiore di Sanita
IVS	Integrated Values Survey
JPA	Joint Procurement Agreement
KI	Karolinska Institute
KPIs	Key Performance Indicators
LAs	Local Authorities
LSE	London School of Economics
M&E	Monitoring and Evaluation
MLG	Multi-Level Governance
MRSA	Methicillin-Resistant Staphylococcus Aureus
NGOs	Non-Governmental Organisations
NHS	National Health Service
OECD	Organisation for Economic Co-operation and Development
OH	One Health

OHHLEP	One Health High-Level Experts Panel
OIE	World Organisation for Animal Health
ONS	Office of National Statistics
PHAS	Public Health Agency of Sweden
PPE	Personal Protective Equipment
RIVM	National Institute for Public Health and Environment (Netherlands)
SET-C	Science in Emergencies Tasking
TSEs	Third Sector Entities
UK	United Kingdom
UNEP	United Nations Environment Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
US	United States
USAID	United States Agency for International Development
VCS	Voluntary and Community Sector
WHO	World Health Organization

APPENDIX 2: Methodology, ethics and review statement

Methodology

Case studies and spotlights were developed by independent partners. However, in order to build a comparative and collaborative conversation the partners of WP9 engaged in monthly meetings and two workshops. In the first, theoretical, workshop, four groups presented and commented on the essays written on resilience, social infrastructures, public authority and One Health. They then used these frames, and a set of research questions developed by Bear and Simpson to guide their case study analysis. In the second workshop, all partners presented preliminary findings for their spotlights or case studies, which were guided and reviewed.

Ethics

There were only three contributions to this study that required ethical approval, as all others involved the use of secondary data.

These included:

- UK Local Social Infrastructures - Approval for this study was given by the London School of Economics Research Ethics Committee [REC ref. 1137].
- Vaccine Hesitancy Spotlight – Approval for this study was given by the London School of Economics Research Ethics Committee [REC ref. 48844].
- Vaccine Solidarity Spotlight - Approval for this study was given by the London School of Economics Research Ethics Committee [REC ref. 58384].

Review

This report was copyedited by Scientia Scripta (www.scientiascripta.co.uk).

It was internally reviewed by Nikita Simpson, Laura Bear, Tim Allen and Liz Storer; and through peer engagement between partners at two workshops.

It was externally reviewed by Pasha Shah OBE, Assistant Director of the Department for Levelling up, Housing and Communities, UK.

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- Vaccine Hesitancy Spotlight - The "Ethnographies of Disengagement" project was funded by the British Academy COVID-19 Recovery: G7 Fund (COVG7210058)
- Social Infrastructures conceptual work and UK case study – The LSE Research Office Covid-19 Rapid Research Grant.

APPENDIX 3: Additional information on One Health

FEAM

Global acknowledgment is required if the One Health approach is going to be implemented: it cannot be merely a Western concept. There is 'considerable' appreciation for it in Europe (Sikkema & Koopmans, 2016) and it gained more visibility in North America during the first decade of the 21st century (Stroud *et al.,* 2016). Moreover, scientific interest in the concept has increased in the Asia Pacific region, particularly in Australia and New Zealand (Reid, McKenzie & Woldeyohannes, 2016), and in China (Wu *et al.,* 2016). In South Asia, research noticed some gaps in scientific information (McKenzie *et al.,* 2016). Much research on the implementation of the One Health approach has been carried out in sub-Saharan Africa, as the concept is 'suitable for Africa's current challenges' (Rwego *et al.,* 2016). Those are both related to challenges faced by African countries in the past (i.e., the Ebola outbreak) and the structure of African communities, which are suited to the implementation of the concept at different levels (local, regional, international).

Logically, this theoretical recognition needs to be translated into a policy-making process to support the operationalisation of the concept. One Health is referred to more and more frequently in the global political agenda, as testified by repeated references in speeches by European e.g., (European Council press release, 2021) and global leaders (e.g., G7, 2021a; 2021b). In addition, references to One Health can be found in policies relating to antimicrobial resistance, both in the EU (e.g., European Commission, 2011; 2017) and globally (e.g., UN, 2016). Furthermore, EU-funded research is being encouraged to incorporate the concept of One Health in food systems (e.g., European Commission grant information, 2021).

Another key aspect in the implementation of One Health relates to global health governance and law. It has been noticed (Lee & Brumme, 2013) that measures to address the approach mainly originate from 'soft global health governance'. International law is deemed necessary when it comes to One Health. This discussion echoes the debate around the missed recognition of ecocide as a crime against humanity in the Rome Statute of the International Criminal Court (Hellman, 2014), despite the support of citizens and local initiatives to encourage such a change.

Finally, 'a multidisciplinary One Health approach to health security will ensure more comprehensive, collaborative, and coordinated pandemic prevention, preparedness and response efforts in communities across the globe' (Fill, 2020). The contribution that could

have been made by a One Health approach to address the Covid-19 pandemic has been already highlighted (Ruckert *et al.,* 2020). Nevertheless, One Health has been more integrated within pandemic preventative measures (e.g., early threat detection and surveillance, health threat risk management) than with the response or recovery stages (Destoumieux-Garzón *et al.,* 2018; Chiesa *et al.,* 2021).

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Although ground-breaking in the way it acknowledges human-animal-environmental interconnection, One Health is still a highly anthropocentric concept; it does not yet encompass the perspectives of non-human animals or reimagine our relations with humans, non-human animals and the environment. Unless it can do this, One Health will not contribute fully to the optimisation of health that is part of its aim and the purpose of its existence (Coghlan *et al.,* 2021). Naturally, One Health collaborations involve interests that may conflict, and the concept lacks transparency in terms of how it prioritises issues and in terms of ethics, as well as accountability for stakeholders.

One example of a public health measure that raises questions concerning One Health/public health ethics and the current way of handling issues at the human-animal-environmental interface is culling. The ongoing culling of badgers in England to control bovine tuberculosis (bTB) is a clear example of when existing policies and the status quo inhibit evidence-based, innovative and interconnected approaches and strategies, something which is also a reality in the One Health concept. Although culling has been shown to be an ineffective and/or cost-ineffective way of controlling the spread of disease, it has been justified by framing badgers as pests, not taking into account their place in their natural and social environments, and using them as scapegoats for the spread of bTB. The impact on ecosystems has largely been excluded from decision-making processes, and so too has the harm that culling can have on local communities through disrupted environments and human-animal relations (Rock & Degeling, 2015).

Some scholars point to the role of more-than-human solidarity (human trade-offs for the benefit of non-human animals, plants and places) to advance public health ethics, deepen humanist solidarity and refine One Health interventions (Rock & Degeling, 2015). In addition, there is a need to expand on the notion of ‘public’ in public health to ‘include all creatures that possess moral worth, which ought to include animals and even plants or ecosystems in particular contexts’ (Degeling, 2018). One Health lacks a representation of animal interests (from animal studies researchers, NGOs, etc.) and animal health is mainly translated into physical health whereas the mental health of

animals is largely disregarded (Lederman, Magalhães-Sant'Ana & Voo, 2021). Another blind spot identified in the One Health framework is the impact on human mental health due to the way animals currently are treated (Hoffman, 2020). Moreover, the experience and normative values of local communities as well as their relationship with animals are important factors in decision-making processes. Alongside scientific endeavours, the work of re-visiting terms such as 'optimal', 'effective', and even 'health', as well as underlying ethical and cultural assumptions, is of importance for the credibility of the One Health concept.

'... the name of the approach matters less than the normative commitments that drive research and practice towards the optimization of health: whether it be 'One Health Ethics", "One Bioethics", EcoHealth or "Public Health 2.0," the main idea is that humans are not and should not be the sole stakeholders or members of the moral community' (Degeling, 2018).

The problems with surveillance, by Karolinska Institute

***Excerpts from interview with Dr Aysha Akhtar*[54]**

'The One Health approach often translates into increased surveillance, which is like putting a bandaid on an injury that is incredibly large and is continually bleeding. The One Health approach thinks that just by surveillance, surveying animals or surveying what is going on in factory farms as far as infectious diseases that may be coming up, will be enough. *We know that it is not enough.* What happens with that approach is that we only see the diseases that are concerning usually after it is too late, meaning that they only tap into our radar after they start causing disease in humans. That approach will not solve the problem because we will not be able to survey all the infectious diseases that are running around, especially the type of viruses that do not cause illness in animals. Also, it requires international cooperation and transparency, and that is not going to happen anytime soon. Importantly, it does not address the root causes of disease and it does not do anything to alleviate the human suffering from infectious diseases, not to mention the animal suffering that comes from the practices that we currently have in place, such as industrialised meat production where conditions of confinement and stress make up the perfect breeding grounds for deadly new viruses.'

[54] See also Akhtar (2013) and Akhtar (2021).

One Health & One Rights – creating animal welfare laws, by Karolinska Institute[55]

There is a very strong comparison to be made between international humanitarian law and animal welfare law, as they both seek to humanise the inhumane and regulate violent activities, often by finding a balance between necessary instrumental violence and unnecessary suffering. This comparison helps us to capture the violent character of existing human-animal relations and to indicate the need for welfare laws which complement the *existing laws facilitating efficient warfare against animals:* a jus contra bellum law that would protect animals in peacetime. This notion is tightly linked to the call for a *One Rights approach* in One Health, to acknowledge the interconnectedness of rights and explore how the legal protection of human, animal, and also environmental health can become more aligned. Mounting existential threats due to human pressures on the planet (Anthropocene), such as climate change, biodiversity loss, but also Covid-19, make the dismantling of artificial divides between the rights of humans and of animals all the more urgent.

Brief description of human-animal relations, by Karolinska Institute

Current concepts of human-animal relations are largely based on ideas of *human exceptionalism and prejudice towards animals* depending on their species and function to humans (also referred to as speciesism) (Singer, 2009). These biases largely shape our daily interactions with animals (or our daily disconnection from them) (Amiot, Sukhanova & Bastian, 2020; Bastian & Loughnan, 2017), as well as governance and decision-making processes. For instance, conservation and welfare efforts have been shown to favour certain animals based on similarity and likeability (Batt, 2009). Human-animal relations have implications for humans, animals and the environment. A greater tendency to see a hierarchy in the human-animal divide has been linked to dehumanising tendencies against human groups, whilst social identification decreases speciesism and out-group oppression (e.g., sexism, ageism, racism) (Costello & Hodson, 2010). In contrast, viewing something from the perspective of another animal can increase pro-environmental behaviour (Berenguer, 2007), and positive human-animal relations have been shown to contribute to increased quality of life and more inclusive and resilient communities (Hediger & Beetz, 2020).

[55] Inspired by an interview with Prof. Saskia Stucki and writings from Stucki in Sparks, Kurki & Stucki (2020) and Stucki (2021).

APPENDIX 4: Supporting information for case studies

Appendix to Case Study 1: International social infrastructures

Annex 1: The survey

Preamble

In the context of the EU-funded research project PERISCOPE (https://periscopeproject.eu/start), FEAM aims to provide a comparative analysis of multilevel decision-making during the Covid-19 pandemic.

In this framework, FEAM is seeking your feedback regarding the implementation of health policy measures through a short survey that seeks to understand:

- *Who did what when during crisis response;*
- *The impact of a different division of responsibilities between national and sub-national levels and the role of the wider governance context, including media.*

The responses to this survey will be reported as a case study on governance practices in selected member states that will be included in a PERISCOPE report, due in autumn 2022.

Section I: In the middle of the pandemic

1. *How much coordination was there between European/national/regional/local decision-making levels during the Covid-19 crisis in your country? What were the main obstacles?*
2. *How did European, national, regional, and local governance take into account the scientific advice while facing the pandemic? Were any scientific communities /committees involved and at what stage of decision-making? Do you think there was enough coordination in the scientific community at the different levels?*
3. *At national levels, how were EU policy decisions implemented during the Covid-19 situation? Did you notice any differentiated implementations since March 2020? If yes, how could these be explained?*
4. *At the local level, what old and new forms of mutuality were drawn on (volunteering, food banks, self-help) to create responses to the pandemic? Were the governmental authorities and the communities collaborating or conflicting with each other while addressing the Covid-19 crisis?*

Section II: Year two of pandemic: An evaluation

1. *Did the pandemic catch your country unprepared? Do you think EU policy measures on health enhanced your country's preparedness for the next pandemic? If yes, could you please give one example of an area in which this happened?*
2. *Do you think EU policy measures on health should increase or decrease? Are they relevant and appropriate to your specific national context? Feel free to give examples if useful.*
3. *To what extent did Covid-19 national policies consider the health of nonhumans (i.e., animal, environment, ecosystems)? Rank from 1 (not at all important) to 5 (very important).*
4. *Could you please justify your answer with some examples?*
5. *How are EU decisions related to health perceived? Was there any change of perception during the Covid-19 pandemic? If yes, did the media have a role in this change?*
6. *Would you recommend any literature (i.e., policy papers, evaluation reports, academic articles, newspaper articles) that could help us?*

Appendix to case study 2: National social infrastructures

Table 1: Selected national policy documents specifically about One Health and cross-sectoral collaboration

Title	Translated titles	Author(s)	Year
Strategi för Sveriges samarbete med Världshälsoorganisationen (WHO) 2021–2025	Strategy for Sweden's collaboration with World Health Organization 2021–2025	Regeringskansliet	2021
Swedish strategy to combat antibiotic resistance 2020–2023		Ministry of Health and Social Affairs	2020
Tvärsektoriell handlingsplan för antibitotikaresistens 2021–2024	Cross-sectoral action plan for antibiotic resistance 2021–2024	Public Health Agency of Sweden, Swedish Board of Agriculture	2021
Samverkansfunktionen mot antibiotikaresistens, kommunikationsstrategi	Collaboration to combat AMR, communication strategy	Public Health Agency of Sweden, Swedish Board of Agriculture	2019
Regeringsuppdrag om nya zoonoser: Uppdrag att granska djurhållning med avseende på risken för uppkomst och spridning av nya smittor mellan djur och människa	Government assignment concerning zoonoses: mission to review animal husbandry regarding the risk of spill-overs between animals and humans	The Swedish Veterinary Institute, Swedish Board of Agriculture	2022
Surveillance of infectious disease in animals and humans in Sweden 2020		Public Health Agency of Sweden, Swedish Veterinary Institute, Swedish Board of Agriculture, Swedish Food Agency	2020

Table 2: Selected published documents/reports regarding human, animal, and environmental health and/or pandemic prevention

Title	Translated titles	Author(s)	Year
Pandemiberedskap – hur vi kommunicerar	Communication concerning pandemics	Public Health Agency of Sweden	2019
Pandemiberedskap – hur vi förbereder oss	Pandemic preparedness – how we prepare	Public Health Agency of Sweden	2019
Fördjupad analys av den svenska klimatomställningen 2021	Analysis of the Swedish climate transition 2021	Swedish Environmental Protection Agency	2022
FNs politiska högnivåforum för hållbar utveckling (HLPF)	Sweden's contributory role in Agenda 2030 and strategies for public health and recovery after the Covid-19 pandemic	Public Health Agency of Sweden	2021
Folkhälsa i ett förändrat klimat	Public health in a changing climate	Public Health Agency of Sweden	2021
Hälsa som drivkraft i miljömålen och för hållbar utveckling	Health as a driver in the environmental objectives and sustainability	Public Health Agency of Sweden	2021
Djurskyddskontrollen 2020	Animal protection controls 2020	Swedish Board of Agriculture	2020
Jordbruksverkets djurskyddsstrategi	Animal protection strategy	Swedish Board of Agriculture	2019
Förslag på åtgärder för ett stärkt arbete mot artskyddsbrott	Suggestions for measures to strengthen work to combat crime toward species	Swedish Board of Agriculture	2019
Handlingsplan för klimatanpassning	Action plan for climate adaptation	Swedish Veterinary Institute	2019
Miljömålen: årlig uppföljning av Sveriges nationella miljömål 2022	Annual report of Sweden's environmental quality objectives 2022	Swedish Environmental Protection Agency	2022

Förebyggande av spridning av MRSA från människa till lantbrukets djur	Prevention of MRSA spreading from humans to animals in agriculture	National Board of Health and Welfare	2015

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PERISCOPE

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