Actors Constellation and COVID-19 Crisis in Friuli-Venezia Giulia. Decision-making, Experts and the Management of the Vaccination Campaign

GIUSEPPE IERACI and GAIA MATILDE RIPAMONTI

Introduction

The increase in the weight of technicians and of technical knowledge in political decisions in contemporary democracies ranges from the capacity of experts to gain autonomy from the political institutions, and consequently control over policy areas, to their ability to set the terms of policy problems according to their preferred values (Snow 1961; Meynaud 1969; Gunnell 1982; Radaelli 1999; Bertsou and Caramani 2020; Tortola and Tarlea 2021). Normally, it is assumed that the relationship between experts and politicians is somehow 'sequential' in policymaking (Tortola and Tarlea 2021: 1953), that is the former intervene before the decision is made, providing the politicians with the 'intelligence needs' to come to a correct decision (Lasswell 1951). Experts and technicians share practices associated with the problems towards which their professional competence is directed (Haas 1992: 3; Zito 2001; Dunlop 2013; Galanti 2017; Caselli 2020). On these lines of investigation, and with regard to the management of the COVID-19 crisis, previous researches showed the relevance of the Technical Scientific Committee (TSC), appointed by the Civil Protection Department (CPD) of the Italian Government (Ieraci 2022; 2023).

The scope of this research is to verify whether a similar "actor constellation", which included at the central level the TSC, the Government, and some agencies, was influential at the regional level in the case of Friuli-Venezia Giulia, or whether regional and local government exercised a more autonomous and effective role once dealing with the implementation of the anti-crisis programmes. Whilst the role of experts in policy decisions, especially in cases of emergencies and environmental disasters, resulted evident in many studies conducted at the national or central government level (Collingridge and Reeve 1986; Collins and Evans 2002; Ieraci 2019), it is a question of concern whether the purely administrative or implementation character of the policies at the local level would reduce their role leaving momentum to local administrative agencies and public services. The growing role of experts and scientists in decision-making processes, particularly when dealing with some global impact problems (very often environmental problems), is connected to the complexity of the issues, and the increasing elements of uncertainty and technical complexity of the decision (Haas 1992), that insinuate themselves into policy deliberation (Weiss 1980).

These traits were easily recognizable in the description of the COVID-19 emergency management in Italy (Ieraci 2022; 2023). However, shifting the analysis to the level of local government, the question arises as to whether a similar guiding action of the scientific and expert communities can still occur or whether the political-administrative sphere regains its centrality at the bottom level. In fact, while the central level defines priorities, goals and allocates resources for the implementation of a certain policy, at the local level the political-administrative competence and agencies for the pursuit of the selected goals essentially come into play. In addition, particularly in the Italian quasi-federal model, it was necessary to examine whether COVID-19 epidemic containment policies followed specific lines of implementation given that healthcare structures are regionally sovereign and autonomous.

In fact, there is this more compelling interest for the analysis of the implementation processes at the peripheral level, because as shown elsewhere (Ieraci and Ripamonti 2025, *forthcoming*) during the pandemic the regions came into play directly in the management of the implementation programmes to fight the emergency. The "agencies" responsible for implementing anti-crisis policies (hospitals, vaccination centres, medicines, medical and hospital staff, police forces) were directly controlled by the regional governments (particularly, as we said, in the case of the national health service which in Italy is regionalised) or allocated and operating within the regional territory. Thus, the regions and their administrative apparatuses were potentially capable of re-balancing in their favour the centre-periphery relations and affecting the success of the anti-pandemic poli-

cies. Put more crudely, without the direct action of the administrative apparatus and regional health structures, the pandemic could not have been fought.

The methodological approach here employed is inspired by Lowi's concept of arena of power, with "its own characteristic political structure, political process, elites, and group relations" (Lowi 1964: 689-690). In this research, we tried (next section) to define the composition of the power arena that managed the COVID-19 emergency in Friuli-Venezia Giulia (FVG). Then, we will focus on a specific case study, namely the 2021 vaccination campaign in the FVG Region. The analysis will show the way the programme was implemented at the regional level and the critical issues associated with its implementation. The final section of the chapter will present conclusions regarding the role of the region, its institutions and other actors in the management of the COVID-19 crisis and the related vaccination campaign.

Power arena and COVID-19 management in FVG

As other studies have highlighted (Vampa 2021; Vicarelli and Neri 2021), the management of the COVID-19 emergency has exacerbated the competition between the State and the regions in Italy which in some phases has turned into a real confrontation. Ultimately, as shown very well by Baldi and Profeti (2020), decision-making centralization feeds the conflict and the mobilization of the regions against central administration for various reasons: the spread of infections varies from region to region; the control of health expenditure is borne by each region;[1] the composition of political coalitions in regional governments differs; there is no clear distinction between state and regional spheres of competence (Baldi and Profeti 2020: 286-293).[2] The regions have tried to defend their capacity of autonomous political response from the interference of the central administration, on aspects such as the management of the health emergency, the regulation of socio-cultural activities, and the closure of the territories to the outside world.

[1] For the implementation of the health measures in Italy at the regional level, see Capano and Lippi (2021), according to whom the initial response to the pandemic depended on the health policy organizational capacity; decentralized health systems (i.e. Italy, Sweden) implement very differentiated first responses.

[2] See also Casula, Terlizzi and Toth (2020) and Toth (2021) who stress the effect of the regionalization of the Italian health system on the management of the COVID-19 pandemic. Similar tendencies by the central government to centralize decision-making to the highest degree, marginalizing the regions, were also reported in the management of the National Recovery and Resilience Plan. See Profeti and Baldi 2021.

On January 31, 2020 the Italian government declared a state of emergency, for a duration of six months, as a result of the health risk associated with the spreading of COVID-19.[3] Although at the beginning of February 2020 the spreading of the virus was evident in Italy, the initial reaction of the Italian government was characterized by poor coordination and a rather limited capacity for policy response (Capano 2020). Due to the worsening of the situation, on February 5, 2020 the Head of the *Dipartimento della Protezione Civile* (CPD) established a Technical Scientific Committee (TSC), made up of experts and representatives of the State Administrations, with the competence of consulting, supporting and coordinating the actions in order to fight the epidemiological emergency due to the spread of the COVID-19 virus (Galanti and Saracino 2021; Ieraci 2022, 2023).

The involvement of the Italian regions was immediately evident and inevitable, as from the very beginning (cfr. decree of February 25, 2020, and following) the measures to contain the epidemic provided for the restriction of the movement of people, first within the regional territory and then later within the municipal territories. However, a pivotal actor in the management of the crisis became the TSC of the CPD, therefore a "technical agency" and the set of technical-scientific experts operating inside it, with a consequent relative marginalization of the Italian regional system (Ieraci 2022; 2023). This decision-making structure inevitably lost specific weight the more we moved from immediate pandemic containment measures to those of prevention and effective counteraction through vaccination from 2021 onwards. Can we assume that in this phase the regions regained their functional centrality and their capacity for political-administrative guidance?

To answer this question, the methodological assumption of this research is behaviourist and linked to the perspective of actor-centred institutionalism:

> The basic idea is that the solutions (identified by substantive policy research) to a given policy problem must be produced by the interdependent choices of a plurality of policy actors with specific capabilities and with specific perceptions and preferences regarding the outcomes that could be obtained (Scharpf 1997: 69).

[3] The state of emergency has been subsequently extended with the following measures: decree-law of July 29, 2020 (until October 15, 2020); resolution of the President of the Council of Ministers of October 7, 2020 (until January 31, 2021); decree-law of January 14, 2021 (until April 30, 2021); decree-law of April 22, 2021 (until July 31, 2021); decree-law of July 23, 2021 n. 105 (until January 31, 2021). With the Council of Ministers of December 15, 2021, the extension was set for March 31, 2022.

The concept of "actor constellation" developed by Scharpf (1997) is central in the methodological approach here employed. The actors can be individual or collective, they are involved in the policy process and their choices determine the outcome of the process, as each actor is "characterized by specific capabilities, specific perceptions, and specific preferences" (Scharpf 1997: 43). Therefore, "the constellation describes the players involved, their strategy options, the output associated with strategy combinations, and the preferences of the players over these outcomes" (Scharpf 1997: 44).[4] Accordingly, this research tries to account for the network of relationships and influences that manifested themselves during the vaccination campaign in FVG: how was the vaccination campaign implemented? What was the actor constellation that most influenced the policy implementation?

Decision-making and Experts: The Task Force for the epidemiological monitoring of COVID-19[5]

The direct involvement of experts in the management of the health crisis was not immediate, both because its development in pandemic form could not initially be foreseen, and because in the Italian administrative structure, which does not admit any spoil system, any involvement of actors or agencies must follow very stringent legal procedures and thus pass through legislative measures or public acts. There was, therefore, towards the end of January 2020 only an informal involvement of a number of technicians and in particular epidemiologists of infectious diseases in a meeting organised by the FVG Region's Health Councillor Riccardo Riccardi. The meeting was attended by the President of the FVG Region, Massimiliano Fedriga, the Central Director of Health, Gianna Zamaro, various hospital chiefs and professors of epidemiology and virology at the Universities of Trieste and Udine, and of the Burlo Children's Hospital in Trieste, who would later become key figures in a Task Force for the fight against COVID-19 in FVG. Thus, the initial impulse to set up a Task Force in FVG came from the "troika" made up of the FVG Department of Health, the Central Director of Health and the Presidency of the FVG Region.

[4] An application of the actor-centered institutionalist approach is offered by Kriesi and Jegen (2001).

[5] This paragraph is based on an interview with one of the experts, who exercised a leading role in the Task Force. S/he demanded for anonymity. The interview was recorded on 28th November 2024. We would like to thank for this contribution.

Following that first meeting of the end of January 2020, a pool of consultants from the FVG Region was informally established by the Central Director of Health, Gianna Zamaro (also a doctor), some hospital heads of infectiology in Trieste and Udine (also university professors in Udine and Trieste, in the relevant scientific fields of virology, epidemiology, hygiene and infectiology), the head of the Regional Virologic Laboratory of Molecular Biology (who was then responsible for the anti-COVID tests). After this initial involvement of experts of the medical sector, the formal investiture of the Task Force was on 3 February 2020 through an ordinance issued by the President of the Region Friuli-Venezia Giulia Massimiliano Fedriga,[6] which in art. 2 established "that the Vice-President and Councillor for Health, Social Policies and Disability, Social Cooperation and the Third Sector, delegate for civil protection Dr Riccardo Riccardi be in charge of the coordination of the Task Force". Although the Councillor for Health Riccardi maintained his central and decisive role as coordinator, *de facto* at the end of March 2020, a hierarchy of responsibility among the experts was established in the "Task Force for the epidemiological monitoring of COVID-19", which in addition to the experts mentioned above also included now a statistician, a healthcare assistant responsible for notifying affected individuals of COVID-19 positivity, and a nursing manager in charge of relations with hospitals (specifically on the monitoring of bed availability).[7]

The Task Force could also rely on an administrative officer of the Central Direction of Health as responsible for the technical-instrumental supplies and molecular swabs to the regional health authorities, who although not directly part of the Task Force was daily co-operating with it. After the issuance of the DPCM of 26.4.2020, the obligations of the regions towards the central state administration, for the transmission of data and monitoring the progress of the epidemic with respect to a series of indicators, became increasingly pressing. At this point, the regional Task Force was involved daily in the management of information flows and logistics, sometimes also involving other scientific and technical-administrative authorities.[8] As the

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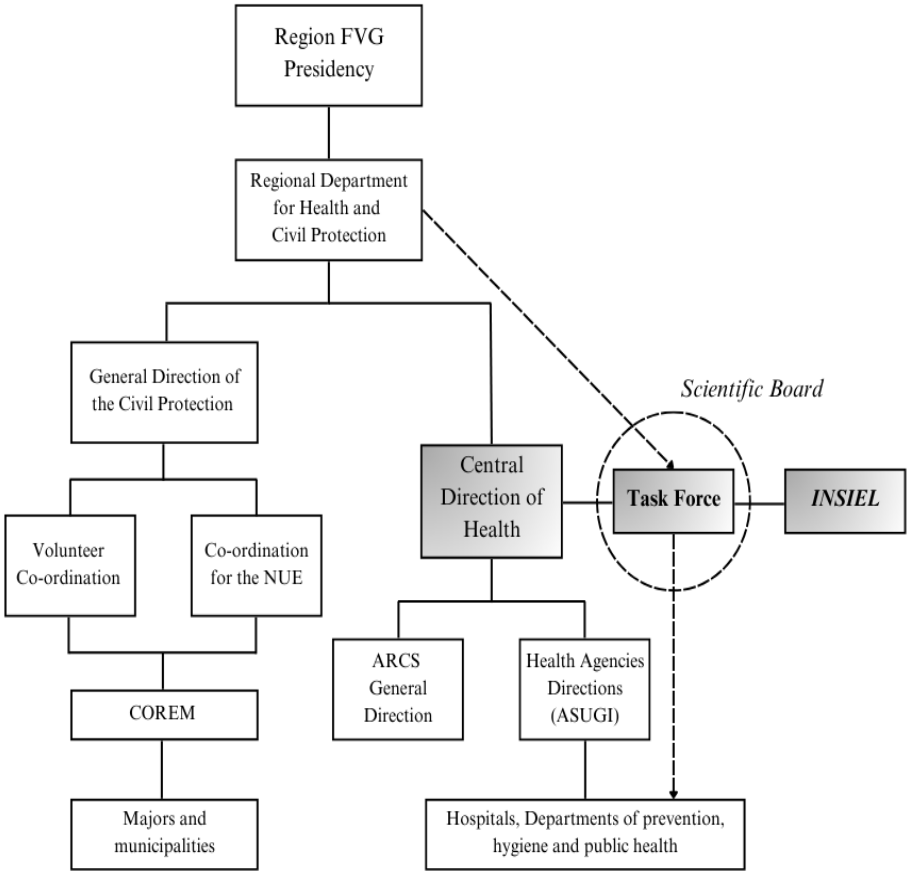
6 *Ordinanza Capo Dipartimento Protezione Civile Coordinatore* (OCDPC, n. 630).

7 Singularly, the involvement of experts in the management of the COVID-19 crisis in the case of FVG was very similar to the modality followed by the Apulia Region. In the latter, Prof. Lo Palco was placed at the head of a Task Force from the very beginning of the crisis, but with a formal and contractual assignment of technical-scientific consultancy, unlike what happened in the case of the experts and the other medical technicians and scientists involved in FVG.

8 It should be noted that regions that did not regularly transmit, as required, data flows on the various indicators of pandemic trends risked being classified as 'red zones', a term that will be explored further later.

flow of organizational relations in Fig. 1 shows, the Task Force found itself at the centre of a broader field of organizational and institutional actors which could be defined as a sort of "technical-scientific board" with a variable field.

Figure 1. The management of the COVID-19 crisis in FVG and the anti-COVID Task Force.



Legenda: INSIEL = Informatica per Il Sistema degli Enti Locali S.P.A.; NUE = Numero Unico Emergenze; COREM = Comitato Regionale per le Comunicazioni; ARCS = Azienda Regionale di Coordinamento per la Salute.

Source: our own elaboration based on <https://www.regione.fvg.it/rafvg/cms/RAFVG/salute-sociale/promozione-salute-prevenzione/FOGLIA101/>.

One can immediately notice a difference in this regional experience if compared with that of the TSC established by the CDP at the nation-

al level, because the FVG Task Force had almost exclusively an entirely technical-scientific composition since its origins while at least initially the TSC had a mixed composition of administrators and technicians (see Ieraci 2022; 2023). Secondly, the FVG Task Force reported directly to the Central Direction of Health of the Region, although both the President of the Region and the Regional Health Councillor had direct access to the Task Force. The regional division of the CPD was involved in the activity of the Task Force in a marginal way, in particular in the creation of a website and a mapping of the trend of infections at municipal level. The operational centre of the Task Force was established in Palmanova (where the regional CPD is based) and the Regional Health Councillor Riccardi, who was formally in charge of the coordination of the Task Force, in fact acted directly on it, dictating its agenda, convening its meetings in Palmanova and directing the Task Force's attention to specific COVID-19 crisis situations or territorial areas. Moreover, within the network, an important function was exercised by INSIEL, a regional company in charge of managing the computers for the local institutions system, to which the Task Force transmitted the pandemic data on a daily basis for their statistical processing and dissemination, as well as for the implementation of measures to contain and prevent the spread of the virus. Precisely for the fulfilment of these specific tasks (monitoring of COVID-19 cases and rates of hospital beds available for emergency admissions), in addition to the epidemiologists, the medical assistant in charge and the nursing manager within the Task Force assumed a central role.

With the start of the vaccination campaign, which was managed by the Central Direction of Health, the direct action of the Task Force diminished, although the role of managing information and data on the spread of COVID-19 was maintained. In a more peripheral position, however, the Task Force continued to participate in meetings of the Central Direction of Health and in meetings of regional leaders at the "State-Region Conference". Basically, the FVG Task Force acted indirectly on the action of the FVG Region at the "State-Regions Conference", by systematically sending critical notes and observations to the Central Director of Health (Gianna Zamaro) and to the secretariat of the Regional Health and Civil Protection Councillorship, assuming a role that we could define as one of technical-scientific consultancy and influence through competence and "know-how".

The evolution of the pandemic in FVG in 2021

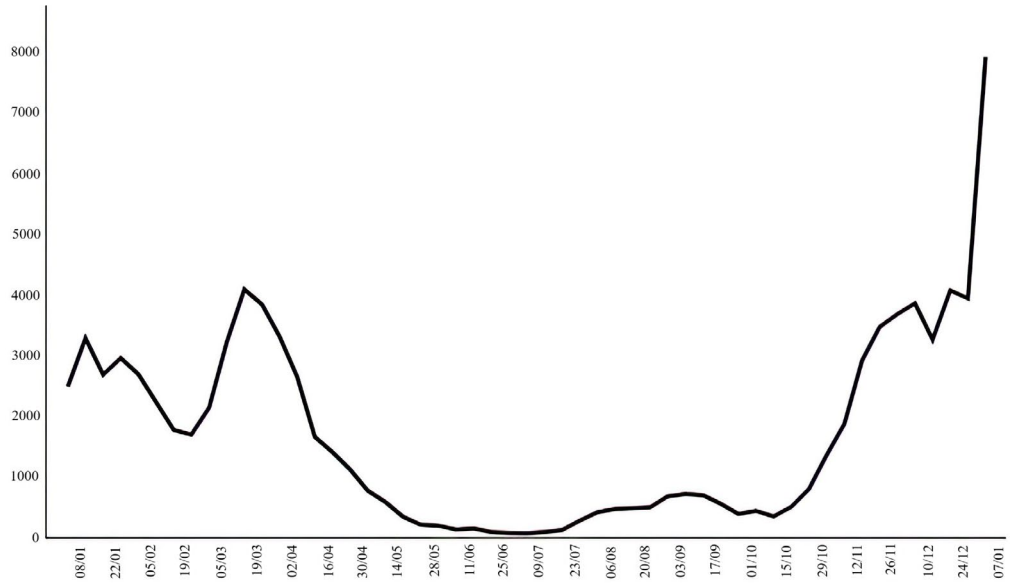
The year 2021 marked a new phase of the pandemic in Italy, with several significant developments contributing to this shift. Among them, the launch of the vaccination campaign on 27 December 2020 gave rise to optimism that the possibility of resuming a normal way of life might be within reach. Furthermore, a novel national system of territorially differentiated closures was introduced in the latter months of 2020. This system employed a differentiated approach to reopening and restriction measures based on the monitoring of the pandemic's progress within each region. The designation of regions into distinct "colour" zones permitted a degree of flexibility in the management of the pandemic, reflecting the varying degrees of success in containing the spread of the virus across regions. The zones were categorised on a scale from "white", representing full normality, to "red", indicating a level of restriction comparable to that of the previous year's national lockdown. Two intermediate zones, "yellow" and "orange", were also designated.

The FVG was severely affected by the pandemic in 2021, resulting in the region being repeatedly classified not only as "yellow zone" and "orange zone", but also as "red zone". Following a period of several weeks in the "orange zone" (between 10 and 25 January and from 5 March), the FVG region was reclassified as "red zone" for almost a month, from 12 March until 8 April. This reclassification was primarily due to an increase in the number of new cases and an elevated bed occupancy rate by COVID-19 patients, as reported by the Ministry of Health, even though the vaccination campaign had been underway for two months. From 9 April to 5 May, the region was in "orange zone" again. From end of May, FVG remained in the "white zone", which permitted the greatest freedom of movement and the resumption of most activities. However, from 26 November, the region was reclassified as "yellow zone", and some restrictions were reintroduced.

During the pandemic, FVG consistently exhibited a higher prevalence of cases than the national average (Cartabellotta et al. 2023). However, the elevated number of cases was undoubtedly linked also to the intensive and accurate testing policies that the region implemented throughout the crisis: FVG conducted a greater number of total tests per 100,000 inhabitants than the national average, and the highest number of molecular tests per 100,000 inhabitants among all territories (Cartabellotta et al. 2023).

Figure 2 shows the weekly number of new cases in FVG during 2021, which is consistent with the patterns of change of the coloured area observed throughout the year. Indeed, the number of weekly new cases reached a peak between March and April 2021, subsequently declining to almost zero during summer.[9] Finally, there was a notable rise by the end of the year, with 7,888 new cases recorded in the final week of 2021.

Figure 2. Weekly number of new cases in FVG in 2021.



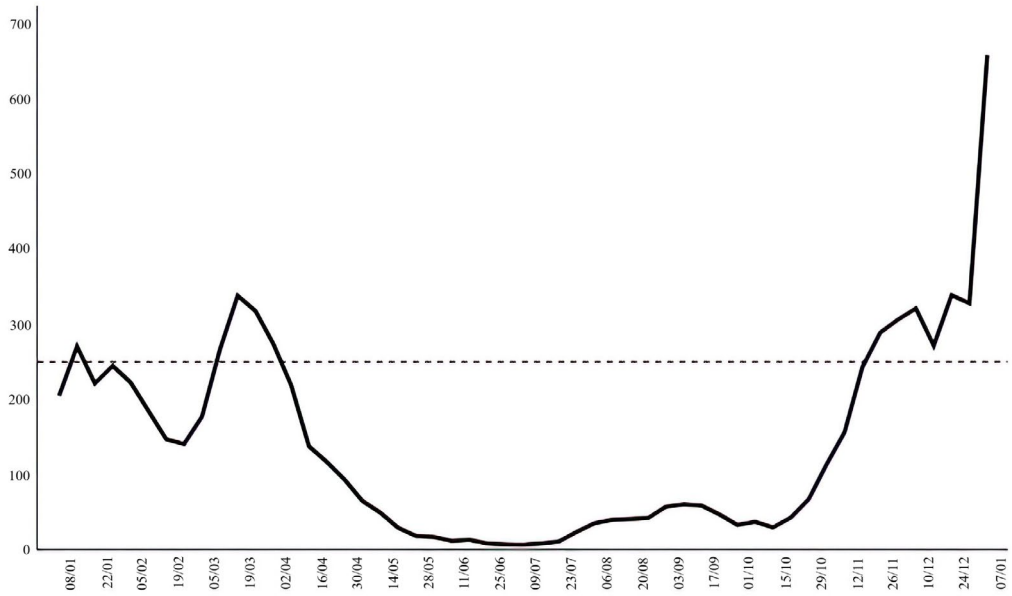
Source: own elaboration based on the weekly reports of the Ministry of Health.

With regards to the incidence of new cases, the Ministry of Health had determined that a threshold of 50 cases per 100,000 inhabitants was optimal for the complete re-establishment of case identification and contact tracing, while a threshold of 250 cases per 100,000 inhabitants represented a critical threshold for monitoring the infection trend. The incidence in FVG (Figure 3) exceeded the latter threshold twice in 2021, at the beginning and at the end of the year. During the so-called phase 2 (18 September 2020 to

[9] The expert we interviewed stated that the contagion had been completely under control for a short period at the beginning of summer.

15 October 2021), the incidence of new cases in FVG was slightly above the national average (Cartabellotta et al. 2023).

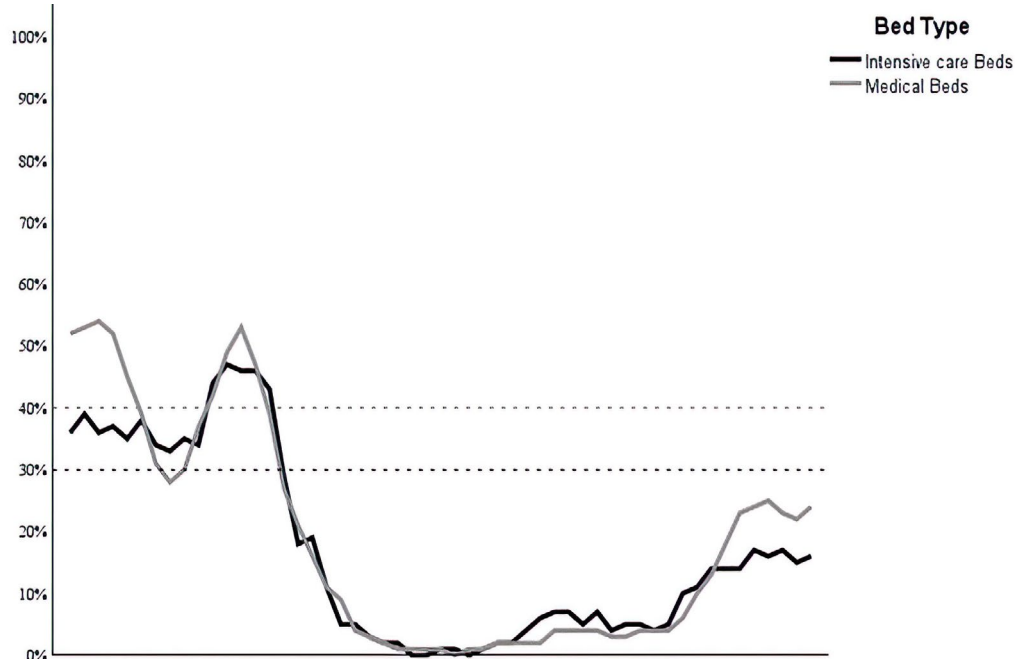
Figure 3. Weekly incidence of new cases per 100,000 inhabitants in FVG in 2021.



The dotted line indicates the critical threshold (incidence = 250) identified by the Ministry of Health.
Source: own elaboration based on the weekly reports of the Ministry of Health.

Finally, a third indicator of pandemic trends is the ratio of beds occupied by COVID-19 patients to the total number of medical and intensive care beds (Figure 4). This pair of indicators was very important for assessing the impact of the pandemic on the regional health system and the consequences of the contagion on the ability to deal with other needs for care between 2020 and 2022. The Ministry of Health had considered the thresholds of 40% of occupied medical beds and 30% of occupied intensive care beds as critical. In FVG, the two thresholds were exceeded several times in the first months of 2021, only to remain stable below the alert levels for the rest of the year, with an increase in December.

Figure 4. Weekly rates of medical and intensive care beds occupied by COVID patients in FVG (2021).



The dotted lines indicate the critical thresholds (40% of medical beds in grey; 30% of intensive care beds in black) identified by the Ministry of Health.
Source: own elaboration based on data of Ministry of Health.

The vaccination campaign in FVG

The following section investigates the implementation of the vaccination campaign in FVG, highlighting both its strengths and weaknesses. The aim is to provide an overview of the organisation of the vaccination programme, including an examination of the planning, distribution of vaccination points and regional initiatives. The analysis uses data collected from different sources, including the scientific reports elaborated by the Gimbe Foundation and the Ministry of Health, the FVG Region's informative webpage on COVID-19, the Opendata dataset on the Coronavirus pandemic, which was made available in open access by the Ministry of Health. The second part of the analysis aims to identifying the criticalities of the vaccination campaign in FVG. To this aim, a content analysis is conducted of the articles

published by two regional newspapers (*Il Piccolo* and *Il Messaggero Veneto*) and of the oversight activities of the regional councillors in 2021.

Implementation of the vaccination campaign

The nationwide vaccination campaign against the coronavirus began on 27 December 2020. The target groups and the schedule for the vaccination plan were determined at the national level and all regions were required to comply with the specified timings and priorities. However, in some instances, uncertainties and exceptions were reported, which contributed to a general sense of discontent towards the political actors at various levels, as we will see in the final section of the analysis.

The vaccination plan had to establish priorities regarding the population to be vaccinated in consideration of the necessary authorisations for anti-COVID vaccines by AIFA, as well as the availability of vaccine doses.[10] In this respect, the only autonomous decision taken by the region, especially in the uncertainty of the first months of 2021, was to reserve a certain percentage of doses to administer the booster shots in case the planned ones were not delivered.

Initially, the vaccination campaign was authorised for healthcare and non-healthcare workers employed in public, private and contracted healthcare and social care facilities. These workers were able to choose whether to be vaccinated, on a voluntary and autonomous basis, with the at-that-time-only authorised vaccine (Comirnaty PfizerBioNTech). The Italian government initiated the country's vaccination campaign on 27 December 2020. In FVG, approximately 250 healthcare professionals were symbolically vaccinated against the virus on that day. The regional campaign was officially inaugurated on 30 December 2020, when all regional healthcare authorities started to administer the vaccine. Additionally, the initial recipients included operators and guests of residential care facilities for the elderly to be vaccinated at the very same facilities. For organisational reasons, however, the vaccinations of those staying in the FVG residential care facilities did not begin until mid-January 2021.

In February 2021, two further vaccines were approved for use (Moderna and AstraZeneca) and two further target groups were included in the cam-

[10] The reconstruction of the phases of the vaccination campaign in FVG was made possible by the report of ASUGI (2021).

paign: the population over the age of 80 on 15 February and workers employed in public services on 18 February (e.g. teaching and non-teaching staff at private and public universities and schools, police and law enforcement officers, etc.). For individuals above the age of 80 with reduced mobility and/or unable to be moved, the health districts provided financial assistance for home vaccination.

In March, the fourth vaccine against the virus (Janssen) was approved by AIFA. By the end of March, the vaccination campaign had been expanded to include two additional target populations: individuals belonging to the most vulnerable categories, along with their cohabitants and caregivers; and individuals within the 70-79 age group. In April, the vaccination campaign was expanded to include two additional groups: individuals aged 60-69 and those under the age of 60 with chronic illnesses. In May and June, the vaccination campaign was progressively expanded to include all age groups from 12-years-old onwards. Furthermore, the vaccination campaign was opened to include production activities, as had been previously agreed upon in April at the national level, towards which the health authorities were responsible for supplying the necessary vaccine doses and devices for inoculation, as well as for providing the required training as well as administrative and IT support. Additionally, vaccines were made available to seafarers on ships docking in ports under the jurisdiction of FVG health authorities, regardless of their nationality or the duration of their staying.

Since 16 August, it had been possible for individuals aged between 12 and 18 to access vaccination without prior appointment in order to facilitate the safe reopening of educational institutions and the eventual resumption of sporting activities – this opportunity was extended to teaching staff and university students in September. Furthermore, vaccination sessions at hospitals and universities were organised with the aim of increasing vaccination coverage to achieve herd immunity as quickly as possible. Following the summer period, the regional health authorities also initiated the organisation of training courses for the purpose of issuing vaccine eligibility certificates to pharmacists.

In this context, all the main decisions were made by the central government, in particular by the Ministry of Health and the *Commissario Straordinario per la campagna vaccinale*. In addition to the decision on which target group to vaccinate, the responsibility for the provision of the COVID-19 vaccines and material resources (e.g. the devices necessary for the administration of the vaccines) rested with the national commissarial structure. The *Commissario Straordinario* also identified

the daily target for inoculations to be reached based on the supply and availability of vaccine doses.

The regional level was responsible for the organisation and management of the vaccination campaign, as well as its promotion. In particular, great responsibility was assigned to the Regional Health Counsellor Riccardi, as political authority, and the Central Direction of Health, as the administrative one. The health authorities' directors coordinated the vaccination campaign following the indications of the regional Central Direction of Health, with the aim of its uniformity within the region. Therefore, the role of the FVG Task Force was not relevant with regards to the vaccination campaign since it was only in charge of collecting, monitoring and transmitting data about the vaccination coverage.

One of the responsibilities of the FVG Region was to determine the number and location of facilities that would be allocated for use as vaccination centres. As indicated in the Opendata dataset on the Coronavirus of the Ministry of Health, there were a total of 30 vaccination centres in FVG, distributed in a heterogeneous way throughout the territory (Figure 5): 8 under the health authority for the western area (*Azienda Sanitaria Friuli Occidentale* – ASFO), 14 under the health authority for the central area (*Azienda Sanitaria Universitaria Friuli Centrale* – ASUFC), and 13 under the health authority of the eastern area (*Azienda Sanitaria Universitaria Giuliano Isontina* – ASUGI). However, the vaccination campaign entailed the continuous integration, elimination and transformation of vaccination centres, in accordance with the evolving needs of the vaccination plan. For instance, when the campaign was restricted to health workers, the ASUGI established only two vaccination centres at the delivery sites of the authorised vaccine, the Cattinara hospital in Trieste and the San Polo hospital in Monfalcone. In February 2021, two further vaccination points were established at the San Giovanni di Dio Hospital in Gorizia and the Maggiore Hospital in Trieste. Additionally, health districts' facilities were opened to facilitate access for individuals aged 80 and above. While some vaccination centres were closed (Cattinara, San Polo and San Giovanni di Dio hospitals), others were opened during spring, also in response to the increased volume of vaccine deliveries. In September 2021, the vaccination centres activated by ASUGI were: Porto Franco, Molo IV (Trieste), the *Palestra comunale* of Muggia, and the *Palestra comunale* of Duino Aurisina; the *Centro per Anziani* in Gorizia, the Expomego Fiera in Gorizia, the *Palestra comunale* of Ronchi dei Legionari, and the health district of Cormons.

Figure 5. List of vaccination centres in FVG.

Healthcare Authority	Area	Location	Name
ASFO	Pordenone	San Vito al Tagliamento	Associaz. "La nostra famiglia"
		Pordenone	Bambini e autismo
		Maniago	Maniago - Ex IPSIA
		San Vito al Tagliamento	Zona Industriale Ponterosso - San Vito
		Pordenone	Cittadella della salute
		Roveredo in Piano	Friuli riabilitazione s.r.l.
		Pordenone	Studio fis. Busetto & ponte
		Fontanafredda	UILDM sezione di Pordenone
ASUFC	Udine	Tolmezzo	Comunità di rinascita
		Udine	Comunità Piergiorgio - onlus
		Tricesimo	Ist.med.pedag. "S.Maria colli"
		Pasian di Prato	La nostra famiglia
		Cividale del Friuli	Palazzetto dello sport
		Codroipo	Tensostruttura
		Gemona del Friuli	Centro comm.le le manifatture Gemona
		Martignacco	Ente fiera Udine
		Latisana	Palestra scuola
		Manzano	Palazzetto dello sport
		Tarcento	Modus tennis club
		Latisana	Palasport Latisanotta
		Tarvisio	Palazzetto dello sport
		Tolmezzo	Palatennis
ASUGI	Gorizia	Gorizia	Gorizia fiera
		Monfalcone	Centro anziani Monfalcone
		Gorizia	Dip. prevenzione Gorizia
		Ronchi dei Legionari	Ronchi dei Legionari
		Grado	Ospizio marino di Grado
	Trieste	Trieste	Burlo
		Trieste	Dip. prevenzione San Giovanni
		Trieste	Molo IV
		Muggia	Montedoro
		Duino Aurisina	Palestra comunale di Aurisina
		Muggia	Palestra comunale di Muggia
		Trieste	Porto Franco
		Trieste	Eutonia Sanità e Salute

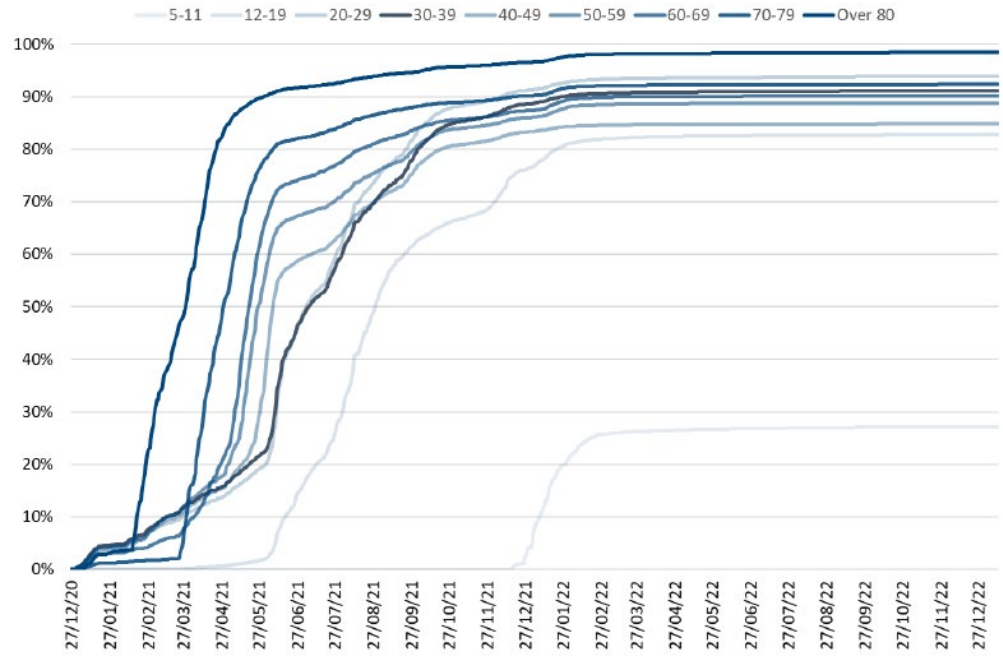
Source: our elaboration on Opendata dataset on the Coronavirus by the Ministry of Health.

Another field in which the region had some "room of manoeuvre" was the involvement of general practitioners (*medici di medicina generale* - Mmg) in the vaccination campaign. In consequence of the national agreement signed in February, regional agreements on Mmg involvement in FVG were concluded in April 2021. Mmg could participate in the vaccination campaign on a voluntary basis and in a number of ways. They could, for instance, administer vaccinations to their own non-transportable patients at home, or alternatively, they could do so at outpatient clinics and at the healthcare district facilities. However, as we will see, the organisation of Mmg' involvement represented one of the most critical issues of the vaccination campaign in FVG.

The data concerning the coverage rate and the vaccination campaign for 2021 at the regional level are no longer accessible on the Ministry of Health website. However, the GIMBE Foundation report (Cartabellotta et al. 2023) indicates that the total number of vaccine injections (considering primary cycle, third dose and fourth dose) has been in line with the national trend when the relative number of people who can be vaccinated is considered.

An examination of the trend in vaccination coverage with the primary cycle (Figure 6) shows a positive relationship between the coverage rate with one dose and age, particularly in 2021. Indeed, the over 80 age group exhibited the highest coverage rate, reaching 90% on 31 May 2021 and subsequently maintaining a relatively constant level. Similarly, the 70-79 age group reached 80% coverage on 8 June 2021 and then exhibited a gradual increase to over 90% after 2021. It is notable that all age groups from 20 to 69 years show lower coverage rates and a slower trajectory in reaching the 90% threshold. Following a decline in September 2021, the 12-19 age group reversed this trend, with a subsequent recovery to 79.5%. In contrast, for the children's age group (5-11 years), for whom vaccination was initiated at the end of 2021, the data indicate a rapid reaching of a plateau in mid-March 2022, with a coverage rate of just over 20%.

Figure 6. Primary cycle vaccination coverage rate by age group in FVG.



Source: Cartabellotta et al. 2023, p. 57.

Criticalities of the vaccination campaign

The Region's involvement in the vaccination campaign, in conjunction with the lack of clarity surrounding the responsibilities of the levels of government throughout the whole pandemic, gave rise to criticisms of the shortcomings in the organisation of the service. In order to identify the critical issues that arose in FVG, two distinct data sources were consulted: the two major local newspapers (*Il Piccolo* and *Il Messaggero Veneto*) and the oversight activities of the regional councillors.

A total of 352 newspaper articles published between 1 January and 31 December 2021 were collected using a keyword search in the Factiva-Dow Jones database. The aim was to identify only those articles that reported some kind of problems with the regional vaccination campaign.[11] The content analysis of the articles identified a number of categories of problems, as

[11] Each article could contain references to more than one criticality.

illustrated in Figure 7. The most critical issue reported in the press was the presence and the activities of those campaigning against vaccination (also known as "no-vax") (n = 97; 27.6%). This result was not solely associated with the well-documented street demonstrations in the city of Trieste, which represented a place of infection for many,[12] but also with the challenges they posed in the workplaces, particularly among healthcare professionals. The second critical issue most frequently discussed in the press was the insufficient vaccination coverage in relation to the regional population (n = 74; 21%), as evidenced also by the GIMBE report (Cartabellotta et al. 2023). In this instance, the newspapers highlighted that specific demographic groups, including those already mentioned, as well as specific occupational categories did not respond adequately to the vaccination appeal. Furthermore, another critical issue for the success of the campaign was the shortage of health workers (n = 64; 18.2%), which was also attributed to the suspension of those who had refused to be vaccinated.

Several press articles were published that highlighted challenges associated with the vaccination plan (n = 59; 16.8%), particularly about the identification of target groups and the organisation of their vaccination. Such issues arose mainly in relation to the elderly population as well as the vaccination of the vulnerable and the identification of those who fell into this latter category. These concerns also had a national, rather than merely regional, dimension, given that the central government was responsible for determining the priority target groups for the vaccination campaign. The critical concerns related to doses and healthcare resources (n = 46; 13.1%), which relate to the insufficient doses and resources required to carry out vaccinations in the region, also had a national, if not an extra-national, dimension as they were connected to the lack of vaccines' supply by pharmaceutical companies.

A critical issue with a regional dimension was the processing and storage of vaccines, the management and relocation of vaccination centres, and inefficiencies related to the vaccine delivery service (n = 37; 10.5%). The category "Mmg & pharmacists" (n = 35; 9.9%) also alluded to a regional competence, as we mentioned before. Following the agreement reached at the national level in February 2021, which permitted the voluntary participation of the Mmg in the vaccination campaign, the professional associations and regional executive initially struggled to reach an agreement at the regional level. Newspapers reported a divergence of opinions regarding the remuneration to be paid by the region per inoculated dose. Additionally,

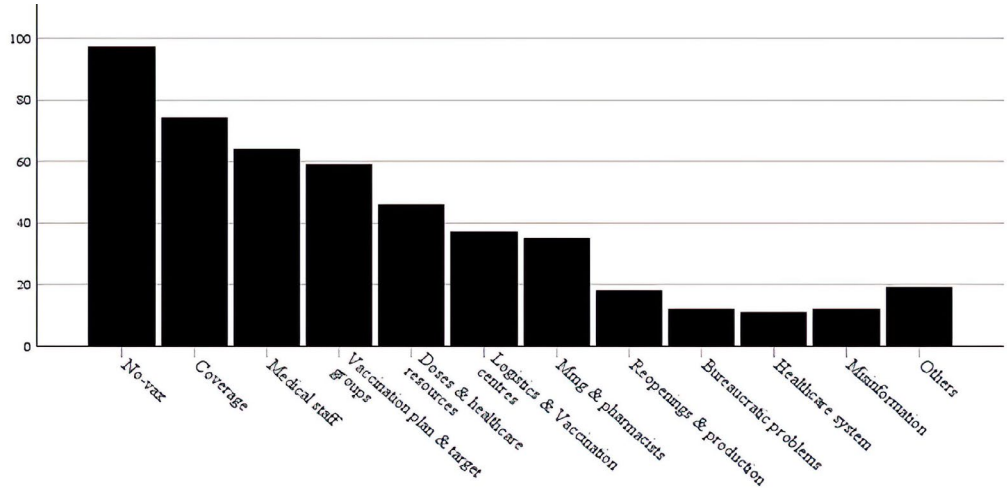
[12] As evidenced also by the expert in the interview.

following the agreement reached in April, discrepancies emerged concerning the organisation of the service specifically regarding the locations for vaccinations and the platform to be used for their registration.

Finally, the press articles highlighted few issues regarding the reopening of schools and production activities (n = 18; 5.1%), the dissemination of misinformation about the vaccination campaign (n = 12; 3.4%), bureaucratic problems associated with the booking system and the "green pass" for vaccinated individuals (n = 12; 3.4%), and concerns about the healthcare system because of the effort displayed in the vaccination campaign (n = 11; 3.1%). The residual category, "others" includes critical issues related to the regulation of the vaccination campaign (such as the lack of provisions regarding those incapable of deciding), the indirect compulsory nature of vaccination in Italy, and problems related to privacy and the handling of sensitive data.

Ultimately, the analysis shows that 79.3% of the described issues originated at the regional level, 13.6% were under the responsibility of the national level, and 6.3% were beyond the scope of the regional and national levels. These additional problems typically pertained to the supply of doses, which fell under the responsibility of pharmaceutical companies.[13]

Figure 7. Number of criticalities on the FVG vaccination campaign identified in the press media (N=352).



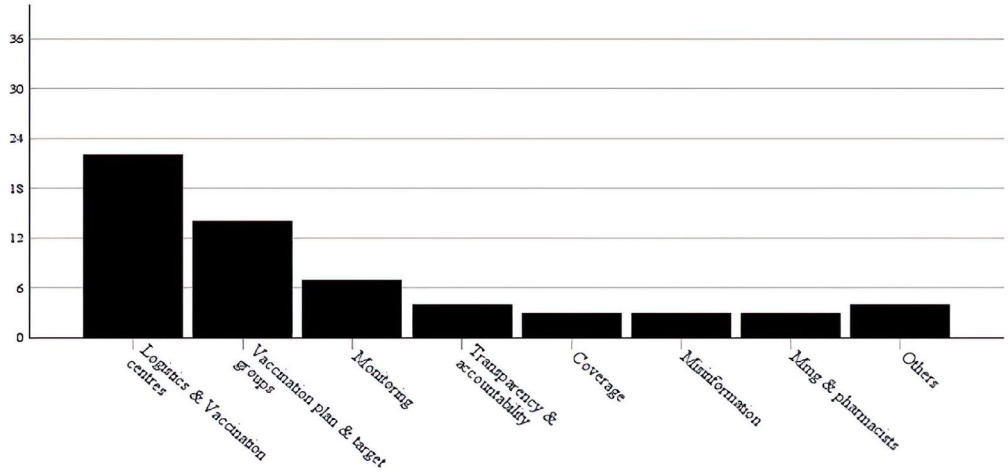
Source: own elaboration.

[13] Each article could contain references to none or more than one level of responsibility.

The oversight activities were collected from the website of the FVG regional council via a keyword search conducted over the period between 1 January 2021 and 31 December 2021. The dataset consists of 36 oversight activities,[14] of which 68.4% were transmitted by councillors representing opposition parties, while 31.6% were questioned by councillors representing the regional ruling majority. With regard to content (Figure 8), some categories are identical to those that emerged in the regional press. Indeed, the most frequently discussed issues by councillors were those concerning "Logistics & Vaccination Centres" (n = 22; 61.1%) and the "Vaccination plan & target groups" (n = 14; 38.9%). Issues concerning the coverage of the vaccination campaign (n = 3; 8.3%) and "Mmg & pharmacists" (n = 3; 8.3%) were reported to a lesser extent than in the newspapers' articles. On the contrary, the category of "Misinformation" (n = 3; 8.3%) was represented to a greater extent than in the press.

In oversight activities, new issues emerged that were not found in newspapers' articles, for example with respect to the regional monitoring activities (n = 7; 19.4%), in instances where requests were made for data or for a specific type of monitoring activity to be carried out. Moreover, issues concerning transparency and accountability (n = 4; 11.1%) were identified when irregularities or a clientelist inoculation of vaccines were reported.

Figure 8. Number of criticalities on the FVG vaccination campaign identified in the oversight activities (N = 36).



Source: our own elaboration.

[14] Each oversight activity could contain references to more than one criticality.

Conclusion

This investigation into the management of the COVID-19 crisis in FVG was oriented in two directions, the study of the crisis management structure and the organisation of the vaccination campaign. With regards to the first task, the aim was to reconstruct the most influential "constellation of actors" as of the occurrence of the pandemic in February 2020. We can note, in this respect, a fundamental "mimetic isomorphism", understood as "resulting from standard responses to uncertainty" (Powell and Di Maggio 1983: 150). In fact, the reaction of government institutions, from the central to the peripheral level, was characterised by similar modalities, so that at the periphery – at least limited to the case of the FVG Region – we found an evident and great centralisation of organisation, similarly to what occurred at the central level (Ieraci 2022; 2023). Even at the regional level, these isomorphic adaptations end up resembling the organisations on which it depends for resources.

At the national level, resources were centralised in the hands of the executive and the central ministries (in particular the CPD). Here in the "periphery", in FVG but ultimately also in the other Italian regions, centralisation was in the hands of the Presidency of the Region, the Health Department and the regional branch of the CPD. It should be added that, in the case of FVG, the Health Department also controls the Civil Protection. Therefore, we can observe in this configuration that, in conditions of uncertainty in the relationship between means and ends (as was certainly the case in the fight against the pandemic in the phase preceding the introduction of vaccines), the regional organisations adopt the paradigms that have proved successful at the centre or that have been adopted at the centre, according to a typically "mimetic" reaction in a situation in which key technologies are only poorly understood (March and Cohen 1974).

At the centre of the decision-making flow for countering the pandemic spread was therefore the Regional Department for Health and Civil Protection, which at the end of February 2020 was placed in charge of coordinating a Task Force dedicated to pandemic management. The influence of this Task Force in the decision-making flow was considerable. Firstly, the Regional Department for Health and Civil Protection became the axis of a decision-making nexus that branched out from the Task Force itself and passed through the Central Direction of Health to the Civil Protection and the municipalities on the one hand, while on the other hand it acted directly on the health facilities and hospitals. Secondly, the Task Force conditioned

the content of public decisions both through the exercise of expertise and – using Majone's (1997) perspective – "regulation through information", also relying on the regional agency INSIEL to process data and transmit them to the central government. In the terms of Craft and Howlett (2012) (see also Galanti 2017: 261), we could conclude that the policy advisory system that emerged in the case of FVG combined "short-term and reactive advice" with "substantive content". This could not have been otherwise, given the nature of the crisis (the sudden spread of a pandemic), which directly involved the expertise of epidemiologists and virologists, as well as the direct engagement of hospitals.

The management of the vaccination campaign in the FVG Region relied on the existing political and administrative structures of the health sector. Therefore, the responsibility for implementing the vaccination programme was not delegated to a technical actor operating outside the established political-administrative competences, in contrast with the approach taken at the national level with the appointment of the *Commissario Straordinario per l'Emergenza COVID*. Even the regional Task Force was in fact not involved in the organisation of the vaccination campaign, its role being limited to the collection and monitoring of data on the progress of the campaign. For those aspects falling within the jurisdiction of the FVG Region, the Regional Councillor for Health and the Central Direction of Health were mainly entrusted with the success of the campaign, together with the regional health authorities and their prevention departments.

In the end, the FVG Region had limited influence over the content of the vaccination plan, which had been determined at the national level. Consequently, for example, the criticism directed at the FVG Region concerning the low vaccination coverage of the population, particularly among specific age groups or professional categories, was not primarily a result of the Region's action or inaction. Rather, it was largely attributed to a general reluctance towards vaccines, a sentiment that had been acknowledged in various press articles as a distinctive feature of the FVG regional population. Nevertheless, in the areas of action that had been under the responsibility of the regions, the FVG Region implemented several significant measures. For instance, the stockpiling of a proportion of doses for booster shots, the continuous activation and deactivation of vaccination centres in accordance with the needs, and the involvement of general practitioners in the vaccination campaign. These measures demonstrated the FVG Region's capacity to act in a flexible and responsive manner, adapting its approach to meet the specific needs that arise in a crisis context.

As typical in such circumstances, however, the organisation of the vaccination campaign was not without its difficulties. The implementation of the national vaccination plan and the management of vaccination centres presented a number of organisational and logistical challenges. The FVG Region was often considered unable to respond promptly to the shortage of health personnel, which was due to the high level of demand during the health crisis. The recruitment of personnel during the vaccination campaign, also considering the suspension for the doctors and nurses who refused vaccination, proved in fact to be a significant issue. Finally, while the initiative to involve general practitioners by the FVG Region was commendable, it required considerable effort, initially in negotiating with the relevant professional associations and subsequently in organising the necessary facilities and procedures for vaccine administration.

Ultimately, as the crisis evolved and a promising vaccination campaign began in 2021, the technical actors experienced a loss of power at both the national (TSC) and regional (Task Force) levels. Conversely, the FVG Region reassumed its central role and capacity for political-administrative guidance, while simultaneously accepting accountability for the outcomes of its decisions and thus assuming responsibility for the most critical aspects of the vaccination campaign's management.

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