

MEDICAL SCIENCES	ASSESSING THE EFFECTIVENESS OF THE EXTRAORDINARY TERRITORIAL PUBLIC HEALTH COMMISSIONS COORDINATION MECHANISMS IN THE COVID-19 RESPONSE IN REPUBLIC OF MOLDOVA: COORDINATION AND CAPACITY GAPS					
	Daniela DEMISCAN [®]					
ВУ	Nicolae Testemițanu State University of Medicine and Pharmacy, Republic of Moldova					
	Corresponding author: Daniela Demiscan email: demiscandaniela@gmail.com					
	https://doi.org/10.38045/ohrm.2025.2.05	CZU: 614.2:[616.98:578.834.1]-036.21+614.4(478)				
ABSTRACT:						
Introduction	The COVID-19 pandemic highlighted the need for effective coordination in managing health crises. In the Republic of Moldova, the response was managed by the National Extraordinary Public Health Commissions but implemented by the Extraordinary Territorial Public Health Commissions (TEPHCs).					
Materials and methods	The observational epidemiological study employed a cross-sectional design, collecting data through an online questionnaire between December 2021 and March 2022 from 294 members (94.8% response rate) of TEPHCs from 35 territorial units. The sample included 179 women (60.9%) and 115 men (39.1%). The study assessed coordination mechanisms, existing legislation, and imple- mentation barriers.					
Rezults	The results show a high level of awareness of the National Response Plan to COVID-19 (92%) and recognition of its importance (95%). However, only 26% felt that the measures were clear and easy to implement. Resource issues were significant, with 65% reporting staff shortages and 75% reporting financial constraints. Despite 67% of respondents having received training, 94% expressed a need for further support in pandemic management.					
Conclusions		TEPHCs have been essential in managing the pandemic at local level, but their effectiveness has been hampered by an inadequate legal framework, poor communication and lack of adequate re-				
	sources and training. The study recommends updating the legal framework and improving coordi- nation mechanisms. Additional investments in preparedness are vital.					
Keywords	COVID-19, coordination mechanisms, public health, public safety, measures.					

EVALUAREA EFICACITĂȚII MECANISMELOR DE COORDONARE A COMISIEI EXTRAORDINARE TERITORIALE DE SĂNĂTATE PUBLICĂ ÎN RĂSPUNSUL LA COVID-19: DOVEZI DIN REPUBLICA MOLDOVA

Introducere	Pandemia COVID-19 a evidențiat necesitatea unei coordonări eficiente în gestionarea crizelor sani- tare. În Republica Moldova, răspunsul a fost gestionat de către Comisia Națională Extraordinară de Sănătate Publică, dar implementarea a fost realizată de Comisiile Teritoriale Extraordinare de Sănătate Publică (CTESP). Primul caz COVID-19 în Moldova a fost înregistrat pe 7 martie 2020, ceea ce a dus la activarea Comisiei Naționale Extraordinare de Sănătate Publică și, ulterior, a CTESP. La 17 martie 2020 Parlamentul a declarat stare de urgență pe întreg teritoriul țării, marcând prima astfel de declarație din istoria Republicii Moldova.
Materiale și metode	În studiul epidemiologic observațional, de tip transversal, s-a utilizat un chestionar online aplicat în perioada decembrie 2021 – martie 2022. Au participat 294 de membri ai CTESP (rata de răspuns: 94,8%) din 35 de unități teritoriale. Eșantionul a fost format din 179 femei (60,9%) și 115 bărbați (39,1%). Studiul a evaluat mecanismele de coordonare, cadrul legislativ și barierele de punere în aplicare.
Rezultate	Studiul aplicat a arătat că 92% dintre respondenți cunoșteau despre Planul național de răspuns la COVID-19, iar 95% i-au recunoscut importanța. Cu toate acestea, doar 26% au considerat măsurile clare și ușor de aplicat. Problemele legate de resurse au fost semnificative: 65% au raportat lipsa de personal, iar 75% constrângeri financiare. Deși 67% au beneficiat de instruiri, 94% au menționat necesitatea unui sprijin suplimentar.
Concluzii	CTESP au fost esențiale în gestionarea pandemiei la nivel local, dar eficiența acestora a fost afec- tată de cadrul legal insuficient, comunicarea deficitară, lipsa resurselor și a formării adecvate. Stu- diul recomandă actualizarea legislației și îmbunătățirea mecanismelor de coordonare. Investițiile în pregătire sunt esențiale.
Cuvinte cheie	COVID-19, mecanisme de coordonare, sănătate publică, siguranță publică, măsuri.

INTRODUCTION

The Coronavirus Disease 2019 (COVID-19) continues to pose a persistent global threat, with new mutations of the viral agent (SARS-CoV-2) causing ongoing socioeconomic challenges and keeping many countries in a continuous state of alert (1).

Prior to the COVID-19 pandemic, the Republic of Moldova had established a public health emergency framework based on its experiences with previous outbreaks and health crises. The Territorial Extraordinary Public Health Commissions (TEPHCs) were originally designed as local response bodies to manage regional health emergencies, including seasonal influenza outbreaks and localized infectious disease incidents. These commissions operated under the legal framework provided by Law No. 10/2009 on state supervision of public health, which defined their structure, responsibilities, and coordination mechanisms. However, prior to COVID-19, these bodies had never been activated simultaneously across the entire country for a prolonged period – an unprecedented situation that challenged their functionality and coordination capabilities.

Research question and hypothesis: This study explores how effectively the Territorial Extraordinary Public Health Commissions functioned as coordination mechanisms during the COVID-19 pandemic in the Republic of Moldova. The underlying hypothesis is that, although these commissions were essential to the pandemic response, their effectiveness was limited by structural, resource, and coordination barriers that could be identified and addressed through systematic evaluation.

The COVID-19 crisis underscores the fundamental need for a coordinated response to emergencies and their aftermath. It highlights the risks associated with uncoordinated and overly bureaucratic approaches to crisis management – regardless of whether a country is federal or unitary, centralized or decentralized. Coordination is equally essential across and among levels of government, as well as between government and non-government actors, including citizens (2).

The effectiveness of short-, medium-, and long-term responses to the coronavirus largely depends on well-structured coordination mechanisms. Government actors must align priorities, implement joint responses, support one another, and facilitate information sharing, including with citizens (3).

A crisis situation requires a rapid response to prevent escalation and mitigate damage. Adapting to uncertainty, adjusting strategies as needed, and maintaining flexibility are key elements of effective crisis management. Because emergencies have an immediate local impact, regional and local governments must have the authority to act quickly, efficiently, and responsibly.

According to the International Health Regulations, each country must ensure transparent role distribution and effective coordination mechanisms across the health sector, government, and intersectoral levels – before, during, and after public health emergencies (4).

Governance for health requires a synergistic set of policies, many of which reside in sectors other than health and outside government, and must be supported by structures and mechanisms that facilitate collaboration (5).

At the national level, the government is typically responsible for leading overall coordination in risk management (6). Effective coordination should be based on established public health emergency protocols, preparedness strategies, and response plans, including those developed for pandemic influenza (7). A critical step is to activate existing National Emergency Response Committees/Commissions to take the lead in coordinating these functions and to ensure that all partners and sectors, including international partners, are involved in response operations.

On 7 March, the World Health Organization recommended that coordination mechanisms be activated as early as possible – ideally before large-scale community transmission occurs. Existing national preparedness plans and public health incident management systems were proposed to be revised to include a joint approach involving government and the whole of society (8).

In the Republic of Moldova, the first case of COVID-19 was registered on March 7, 2020. Over 598,000 positive cases of SARS-CoV-2 and more than 11,000 deaths have been reported by the National Agency for Public Health (9).

To mitigate the impact of the COVID-19 pandemic, the Government of the Republic of Moldova established the National Extraordinary Public Health Commission and implemented a range of quarantine measures, each with a corresponding level of rigidity – from keeping only essential businesses open to allowing all facilities to operate at full capacity.

Aim. This study aims to evaluate the functionality and coordination mechanisms of the Territorial Extraordinary Public Health Commissions (TEPHCs), which serve as local public health bodies in the Republic of Moldova, during the COVID-19 pandemic. Specifically, the study seeks to:

Assess the roles, responsibilities, and effectiveness of Territorial Extraordinary Public Health Commissions in managing public health emergencies.

Identify gaps and challenges in implementing public health measures, including coordination between national and local levels, resource allocation, and stakeholder engagement.

Provide evidence-based recommendations to strengthen governance and preparedness for future public health emergencies. These recommendations, by highlighting best practices and areas for improvement in Moldova's response framework, offer a hopeful and optimistic outlook for the future. This study aims to evaluate the functionality and coordination mechanisms of the Territorial Extraordinary Public Health Commissions in the Republic of Moldova during the COVID-19 pandemic by assessing their roles, responsibilities and effectiveness; identifying critical gaps in multi-level coordination, resource allocation and stakeholder engagement; and deriving evidence-based recommendations to improve public health governance and preparedness for future emergencies. By addressing these objectives, the study directly engages with the global discourse on enhancing public health leadership and governance in times of crisis, fostering a sense of connection and relevance among the audience.

Governments worldwide are currently selecting appropriate intervention strategies to address the effects of the COVID-19 pandemic. This is a highly challenging task, as strict measures may lead to economic collapse, while a more lenient approach could result in a high death toll (10).

Many governments at all levels have reacted quickly. A combination of national and subnational measures contributes to an effective response to the COVID-19 public health and economic crisis. Leadership and coordination by the national government are critical.

The biggest challenge facing national and local governments in addressing the outbreak is to effectively coordinate actors, resources, and activities flexibly in order to design and adopt an adequate response. The global COVID-19 pandemic of 2020–2021 required politicians to collaborate with and rely on scientists more closely than any other event in recent history (11).

Federal countries face distinctive coordination challenges. Elected regional governments, often representing various parties, can have different priorities and ideas, might not appreciate coordination, and might compete for resources and blame other governments for apparent problems (12).

This article analyzes national strategies to combat the COVID-19 pandemic in the Republic of Moldova.

In the Republic of Moldova, to ensure an adequate level of preparedness for public health emergencies, and in accordance with Article 55 of Law No. 10/2009 on state supervision of public health, the Government established the National Extraordinary Public Health Commission, and the local public administration authorities established Territorial Extraordinary Public Health Commissions (13).

The Commission's duties include preventing and managing public health emergencies through an integrated approach to all public health hazards. This involves activities related to prevention, emergency management, and multisectoral mobilization to ensure an appropriate level of preparedness for public health emergencies at the national and territorial levels. The Commission is responsible for coordinating the efforts of the central and local public administration authorities to implement measures aimed at preventing and mitigating the consequences of public health emergencies. Its responsibilities also include analyzing data received regarding the resulting situation and adopting decisions on urgent measures and subsequent actions for protecting the population and territory, including locating and addressing the consequences of such emergencies.

The presidents of the Territorial Extraordinary Public Health Commissions are the mayors or vice-mayors of the municipalities or cities. Members include representatives from key local institutions and sectors, such as those from the health sector, the education sector, the Ministry of Internal Affairs, the General Inspectorate for Exceptional Situations, and others.

This study examines the effectiveness of the Territorial Extraordinary Public Health Commissions in implementing COVID-19 response measures. The findings will help develop recommendations for improving coordination during public health emergencies.

MATERIALS AND METHODS

SAMPLE AND RESEARCH SETTING

The study was conducted using a comprehensive survey approach, targeting all members of the Territorial Extraordinary Public Health Commissions in the Republic of Moldova. The questionnaire was distributed to all commission members across the country, aiming to ensure full representation of the perspectives and experiences of individuals involved in managing public health emergencies at the territorial level. This inclusive approach allowed for a thorough and robust analysis of the functioning and coordination mechanisms of the Territorial Extraordinary Public Health Commissions during the COVID-19 pandemic.



The sampling strategy employed a comprehensive approach, targeting all 310 members of the Territorial Extraordinary Public Health Commissions across the Republic of Moldova. Of these, 294 members (94.8%) responded to the survey, representing 35 territorial administrative units.

Standardized questionnaires developed by international bodies were used and analyzed. The primary research tool was the WHO's standardized Intra-Action Review (IAR) questionnaire, which was adapted to the national context and self-administered online. Elements from the UN 2008 "Capacity Assessment Framework" model were also incorporated.

The research adopted a comprehensive quantitative approach, using a structured questionnaire designed to capture both demographic information and substantive insights related to the COVID-19 response. The statistical component of the questionnaire included questions on personal data such as date of birth, place of residence, and level of education. In addition, the questionnaire addressed several key thematic areas: coordination of the COVID-19 response, existing legislation, the declaration of the state of emergency, coordination mechanisms under Moldovan legislation, the roles and responsibilities of the Territorial Extraordinary Public Health Commissions, and related barriers and challenges.

Coordination of the COVID-19 response: The study assessed the effectiveness of coordination mechanisms at national and local levels.

Existing legislation: The study reviewed the legal framework for public health emergencies in the Republic of Moldova.

Emergency declaration: The study explored respondents' perspectives on the process and impact of declaring a state of emergency.

Coordination mechanisms under Moldovan legislation: The study examined how national legislation implements the established coordination mechanisms.

Roles and responsibilities of the Territorial Extraordinary Public Health Commissions: These commissions, established under Moldovan legislation, are responsible for coordinating and implementing public health measures at the local level. The study assessed the clarity and implementation of their mandates. Barriers and challenges: The study identified key barriers to implementing public health interventions, including issues related to resource allocation and communication.

This design enabled the collection of measurable data to analyze the effectiveness of coordination and operational strategies during the COVID-19 pandemic. The study's conclusions, supported by statistically robust evidence, hold significant relevance for the field of public health and the continued response to the pandemic.

DATA ANALYSIS PROCEDURE

Data collection was conducted between December 2021 and March 2022. The quantitative analysis of the collected data involved coding and processing using Microsoft Excel 2013, with variables such as gender, age, length of employment, and the institution represented in the Territorial Extraordinary Public Health Commissions, among others.

The study employed both quantitative and qualitative analysis techniques to process and interpret the data collected. Descriptive statistics, including fre-



quencies and percentages, were used to summarize the socio-demographic characteristics of participants and their responses to closed-ended questions. Cross-tabulation was applied to explore relationships between variables such as professional experience, educational background, and perceptions of the COVID-19 response. In addition, thematic content analysis was conducted on open-ended responses to identify common challenges and best practices.

The study involved 294 respondents, all of whom were voting members of the Territorial Extraordinary Public Health Commissions Among them:

- 179 (60.9%) were women.
- 115 (39.1%) were men.

Respective questions and performed thematic content analysis aimed to identify common (between territories) and cross-cutting (across the response pillars) themes on best practices, challenges, and priority actions.

During data analysis, the hypotheses regarding the obtained results were either confirmed or disproved. Participation in the study was voluntary and unpaid. The research concluded with proposals for developing and updating the national normative framework, as well as enhancing existing coordination mechanisms for public health emergencies in the Republic of Moldova.

RESULTS

Two hundred ninety-four questionnaires were collected from members across 35 territorial administrative units, out of a total of 310 targeted members of the Territorial Extraordinary Public Health Commissions.

In the Republic of Moldova, the coordination of responses to public health emergencies, including the COVID-19 pandemic, follows a generic approach applicable to all public health risks. Intersectoral coordination during the COVID-19 crisis was ensured by the Extraordinary Public Health Commissions at both national and local levels. Following the confirmation of the first COVID-19 case in the Republic of Moldova, the National Agency for Public Health developed a comprehensive COVID-19 preparedness and response plan. This plan was subsequently approved by the National Extraordinary Public Health Commission, which defined multisectoral objectives to protect the population during the pandemic.

The effectiveness of this approach is reflected in the responses of the members of the Territorial Extraordinary Public Health Commissions: 92% of members were aware of the COVID-19 response plan, and 95% recognized its importance. However, only 26% felt that the actions outlined in the plan were clear and easy to implement.

Multi-sectoral mobilization is essential to ensure a unified approach to managing public health emergencies. Clearly defining and regularly updating the roles and responsibilities of TEPHCs members is critical to prevent overlaps or gaps in coordination. **Results:** While 82% of respondents reported that roles were established, 58% felt they lacked sufficient knowledge and skills to effectively implement measures. This highlights gaps in professional training and capacity-building efforts.

Although coordination between national and local levels is crucial, the Territorial Extraordinary Public Health Commissions still depend heavily on the National Commission. This suggests that the decentralization process remains incomplete. **Results:** Only 56% of respondents appreciated the support from the National Commission, and just 38% felt their input was considered. This points to a need for stronger communication and feedback mechanisms between the two levels of governance. Indicators are foundational for adjusting measures based on the alert level in each territory, but implementation remains a challenge. **Results:** Although 93% of respondents appreciated the support of public health specialists, only 58% successfully implemented the prescribed measures. This suggests operational barriers, possibly related to limited resources or insufficient training.

The absence of clear accountability mechanisms and tools for evaluating decisions reduces the efficiency and effectiveness of Territorial Extraordinary Public Health Commissions' operations. **Results:** Addressing these gaps by introducing robust monitoring frameworks can enhance transparency and ensure adherence to decisions.

Continuous training is essential to improve the ability of Territorial Extraordinary Public Health Commission members to manage public health emergencies. **Results:** Despite 67% of respondents having received training, 94% expressed a need for further support in pandemic management at the local level, underscoring a gap in practical, hands-on expertise.

Effective pandemic management requires more than plans and legislation; adequate human and financial resources are indispensable for implementation. **Results:** 65% of respondents highlighted the insufficiency of human resources, and 75% emphasized gaps in financial resources. This indicates a misalignment between strategic planning and the capacity for execution.

Local leaders play a critical role in coordinating measures, and their active involvement is key to the success of interventions. **Results:** Recognition by 80% of respondents for district presidents and healthcare representatives highlights the importance of these actors in driving local-level response efforts.

DISCUSSION

This study provides a comprehensive evaluation of the Territorial Extraordinary Public Health Commissions in Moldova during the COVID-19 pandemic, analyzing their coordination mechanisms, level of preparedness, and operational barriers. The findings are contextualized within global experiences, highlighting both shared patterns and unique challenges.

Based on the national code red alert regarding the unfavorable epidemiological situation caused by COVID-19, and at the proposal of the Government, the Parliament declared a State of Emergency throughout the territory of the Republic of Moldova from March 17 to May 15, 2020. The provisions of the Commission for Exceptional Situations of the Republic of Moldova are binding and enforceable for the heads of central and local public administration authorities, economic agents, public institutions, as well as for citizens and all other persons located within the territory of the Republic of Moldova. For the first time in the country's history, a state of emergency was declared (14).

During the state of emergency, the coordination mechanism was the Emergency Situations Commission, which issued 30 provisions. It established quarantine regimes for localities with outbreaks of infection, approved several exemptions from existing legislation, introduced restrictions for natural persons and economic agents, set rules for public procurement, and authorized charter flights or passenger transport for the repatriation of Moldovan citizens (15).

The results demonstrated that while most members of the Territorial Extraordinary Public Health Commissions (95.9%) were aware of coordination mechanisms, only 53% correctly identified the National Extraordinary Public Health Commission (CNESP) as the central coordinating body. This finding indicates gaps in communication and understanding of governance roles, which could undermine the effective implementation of public health measures.

Awareness of the Preparedness and Response Plan was high (92%), and its importance was acknowledged by 95.6% of respondents. However, only 58% reported effective implementation of measures, reflecting significant barriers such as insufficient resources, unclear legal frameworks (noted by 31.3% of respondents), and inadequate training. These challenges hinder the uniform application of public health measures across administrative levels.

Additionally, multisectoral involvement was deemed crucial but remained uneven, with 54% of respondents affirming sectoral integration, while 30% reported insufficient engagement. This discrepancy highlights the need for improved coordination across non-health sectors, which play a vital role in pandemic response efforts.

The findings align with global research that emphasizes the importance of robust coordination mechanisms, clear governance structures, and adequate resource allocation. For example:

Studies from European countries have similarly highlighted challenges in integrating multisectoral approaches during the early stages of the pandemic.

The first wave of the pandemic brought about a marked trend toward centralization within governments almost everywhere (see Table 1). As Table 1 indicates, during the spring and summer of 2020, most European countries adopted centralized strategies to manage the crisis. This approach, characterized by swift, top-down directives issued through interministerial committees, national security councils, or similar bodies, proved effective in coordinating the initial response. Heads of government were incentivized to take charge, demonstrating leadership and avoiding blame for inaction – actions that reassured both the public and policymakers.

Moldova followed a similar pattern. Shortly after the first confirmed COVID-19 case, national authorities activated the National Extraordinary Public Health Commission. A state of emergency was declared, and the Commission for Exceptional Situations became a central node for enacting measures. This shift reflected the broader European trend of governments centralizing authority to respond rapidly and decisively.

However, Moldova's administrative framework relies on Territorial Extraordinary Public Health Commissions (TEPHCs) at the local level. These commissions are legally mandated to coordinate response activities within their respective territories. Like other decentralized systems – such as Germany – Moldova faced challenges in maintaining effective horizontal and vertical coordination as the pandemic progressed. The difficulties encountered by these local commissions, despite having clearly defined responsibilities on paper and a legal mandate, often stemmed from their heavy reliance on central directives. This mirrored Germany's struggle to maintain voluntary coordination among its Länder and elicited empathy from observers for the challenges faced at the local level.

Vertical Coordination: In the Republic of Moldova, TEPHCs reported limited feedback loops with the national commission – an issue akin to the communication gaps observed between federal and regional governments in countries like Germany and Spain.

Horizontal Coordination: Despite the legal framework for multisectoral collaboration – including sectors such as health, education, and law enforcement – local commissions in Moldova reported barriers to consistent implementation. These challenges were partly due to uneven resource distribution and unclear lines of authority.

Table 1 also shows that some European countries shifted their governance approach in autumn and winter by either reasserting central authority or experimenting with forms of decentralization. Moldova similarly oscillated between strong central directives (e.g., national-level restrictions) and sporadic empowerment of local bodies. This empowerment often took the form of allowing TEPHCs to make decisions on specific local measures, such as enforcing curfews or closing non-essential businesses. Yet, as in many countries, sustaining genuine decentralization proved challenging: local actors often faced insufficient resources, while national authorities remained cautious about ceding control during a high-stakes public health crisis (1).

Early Centralization: Moldova's immediate reliance on central bodies – namely, the National Commission and the Commission for Exceptional Situations – mirrored the Europe-wide trend of consolidating power to manage the initial surge of the pandemic.

Persistent Coordination Barriers: Like decentralized systems elsewhere, Moldova's local commissions faced challenges in maintaining effective, longterm coordination with the central level, particularly evident in communication gaps and uneven resource allocation.

The case of the Republic of Moldova underscores a broader European finding: while swift centralization can be effective for immediate crisis response, durable collaboration mechanisms, clear legal frameworks, and strong local capacities are not just beneficial, but essential for long-term pandemic management. This emphasis on robust structures highlights the critical need for well-defined legal frameworks, encouraging the audience to recognize their foundational role in effective crisis governance.

The Republic of Moldova's experience aligns with the centralization–decentralization pattern observed across Europe. Early in the crisis, central governments took the reins to provide a unified response. Over time, however, sustaining collaborative, multisectoral approaches proved challenging – particularly in administrative systems like Moldova's, which depend on both strong national-level leadership and empowered local bodies.



Domain of int	tervention	Centralisation within government (spring/summer)	Centralisation between governments (spring/summer)	Centralisation within government (autumn/winter)	Centralisation between governments (autumn/winter)	Decentralisation (any kind) (autumn/winter)
Governance	Interministerial committee, Coordination agency, National security council					
	Expert/Vaccine committee		I+I		-	-
	State of emergency/ Emergency Laws		Ð		-	-
	Centralised governance of the health care system	-		-		-

Table 1: Centralization and decentralization by country and domain of intervention. Eurohealth, No. 1, 2021.

Comparisons with Taiwan and New Zealand underscore the value of clear leadership and consistent public communication, which Moldova could emulate in future preparedness efforts.

The experiences of Taiwan and New Zealand provide valuable lessons that could be adapted to the Moldovan context, despite differences in health infrastructure and political systems:

Taiwan's success factors included: 1) early activation of a central epidemic command centre that unified decision-making; 2) transparent communication through daily briefings; 3) technological integration for contact tracing and resource allocation; and 4) clear delineation of responsibilities between central and local authorities.

New Zealand implemented: 1) a four-tier alert system with clearly defined triggers and actions; 2) consistent messaging from both political and public health leadership; 3) science-based decision-making with transparent rationale; and 4) localized implementation of national guidance, accompanied by appropriate resources.

These approaches could be adapted to Moldova by:

1. Strengthening the authority and autonomy of TEPHCs, while maintaining alignment with the national strategy through improved communication channels and feedback mechanisms.



- 2. Implementing a transparent alert system with clear criteria for transitions between levels, accompanied by predefined resource allocation plans.
- 3. Developing a crisis communication framework tailored to the Moldovan media landscape and the challenges of public trust.
- 4. Building capacity for data-driven decision-making at local level, supported by simplified reporting systems to reduce administrative burden.
- 5. Establishing formal mechanisms for knowledge sharing between territorial units to facilitate peer learning.

These adaptations acknowledge Moldova's unique health infrastructure challenges, including rural-urban disparities in access to health care, a limited public health workforce, and funding constraints. They also recognize Moldova's semi-centralized governance structure, which differs from both Taiwan's unified model and New Zealand's decentralized system with strong central coordination.

While many countries reported resource constraints, Moldova's reliance on centralized decision-making mechanisms revealed specific limitations in empowering local commissions. Strengthening local autonomy, while maintaining national oversight, could help address these gaps.

The research question focused on evaluating the functionality and coordination mechanisms of the Territorial Extraordinary Public Health Commissions. The findings are significant in identifying systemic barriers – such as insufficient human (65%) and financial resources (75%), a lack of accountability mechanisms, and gaps in training – that hinder effective public health responses. Addressing these barriers through policy reforms and capacity-building initiatives could significantly enhance emergency preparedness and response.

The study also highlights the critical role of local leadership, with 80% of respondents emphasizing the importance of district presidents and healthcare representatives in driving coordinated efforts. This finding underscores the need to invest in local leadership development and strengthen intersectoral collaboration.

The study provides actionable insights for strengthening Moldova's public health governance:

Develop and implement targeted training programs for members of the Territorial Extraordinary Public Health Commissions, with a focus on pandemic management and crisis communication.

Enhance the clarity and accessibility of legal frameworks governing public health emergencies.

Allocate dedicated resources to support both central and local-level commissions, ensuring equitable distribution.

Throughout the pandemic, political leaders and policymakers took into account the views of public health specialists and the scientific community, calling for evidence-based decisions to approve and implement response measures. Countries that effectively managed the coordination of their public health specialists were best able to quickly and effectively design and implement responses that reduced the spread of infection and minimized the impact on citizens' lives and the economy.

The impact of the COVID-19 crisis is primarily perceived as a national issue, with the central government playing a critical role due to the need for a whole-of-government approach, legislative and executive authority, sufficient resources, and high-level expertise. However, the local level is equally essential for several reasons. The impact of the pandemic has a significant territorial dimension, carrying important policy implications for managing its consequences. Knowledge of local conditions, culture, and institutions, as well as awareness of vulnerable segments of the population, is crucial for effective crisis management (17).

The COVID-19 pandemic revealed serious shortcomings in preparedness for and response to health emergencies at both national and global levels. Traditional health governance mechanisms were confronted with an unprecedented need to coordinate the complex and interdependent aspects of society and systems in order to manage the response (6).

COVID-19 has highlighted the need for functional governance frameworks for health emergencies. Routine governance structures must become more agile and adaptable to keep pace with the speed required for urgent and coordinated action in complex and large-scale responses. The WHO Emergency Response Framework has been instrumental in enhancing the organization's response capacity in the European Region, providing accountability, responsibility, delegation of authority, and rapid access to response resources, demonstrating significant progress in regional response capabilities.

As revealed by the COVID-19 pandemic, the existing broader governance and accountability frameworks for emergencies at both international and national levels were found to be inadequate.

Health governance and coordination mechanisms have faced an unprecedented need to interconnect various complex aspects of society with public health emergency response management systems. Studies on intergovernmental relations generally suggest that transparency in decision-making, clear communication and coordination between officials and ministers, and the use of evidence-based data enable effective collaboration and alignment, even in countries where intergovernmental relations are typically marked by high levels of conflict.

It is also suggested that aligning powers and responsibilities leads to more effective outcomes. Countries with strong public health leadership were better able to design and implement rapid and effective responses. These efforts helped reduce the spread of infection, minimize the impact on lives and the economy, and – importantly – foster a sense of connection through public engagement, making people feel involved and part of the solution. This multidisciplinary approach must be supported and embedded in policies, laws, and procedures that enable a swift response to emergency situations. It should also be continuously strengthened in line with evolving evidence, technology, skills, and the competencies required in the public health workforce. Yet to this day, many countries, both rich and poor, have not adequately invested in the systems necessary for effective response and preparedness.

The ability of decision-makers to make high-quality, timely, evidence-based, and contextually relevant decisions requires an effective command-control-coordination architecture anchored in human rights, ethics, and integrity. Such systems must be transparent, accountable, participatory, and subject to continuous monitoring to ensure their effectiveness.

An effective global health governance framework, centered on people and integrated across all levels of society, can serve as a foundation for building resilience. It must recognize the interconnected nature of risks and embrace the holistic *One Health* approach, ensuring inclusivity for all. Only through comprehensive coordination and the establishment of equitable governance structures can the world become more resilient and better prepared for future challenges – leaving no one behind.



CONCLUSIONS

Based on the analysis of the study's data, the following conclusions have been established:

- 1. The Territorial Extraordinary Public Health Commissions represent essential element in the management of the COVID-19 pandemic, particularly in coordinating public health measures at the local level. Their attributions and responsibilities are aligned with those of the National Extraordinary Public Health Commission.
- 2. The current regulatory framework governing coordination mechanisms for public health emergency preparedness is insufficient and requires significant improvement.
- 3. The existence of a COVID-19 prevention and response plan, along with the provision of indicators and support in the development of public health measures by the National Agency for Public Health (NAPH), contributed to improved management at the local level.
- 4. Communication and coordination remain weak, both horizontally (between representatives of different territorial structures) and vertically (with relevant national authorities, such as the Ministry of Health and NAPH).
- 5. The members of the Territorial Extraordinary Public Health Commissions require methodical support in developing action plans, setting criteria and indicators for evidence-based decision-making, and establishing control mechanisms to monitor the implementation of public health measures.
- 6. The members of the Territorial Extraordinary Public Health Commissions lack sufficient knowledge and skills for managing public health emergencies, including the COVID-19 pandemic, at the local level.

The COVID-19 pandemic has exposed significant deficiencies in public health emergency preparedness and response at both the national and local levels.

RECOMMENDATIONS:

- 1. Improve coordination and monitoring mechanisms for responding to public health emergencies, including COVID-19, at both the national and local levels;
- 2. Approve operating regulations for coordination mechanisms to ensure accountability of members of the Territorial Extraordinary Public Health Commissions in decision-making and implementation;
- 3. Update the legislative framework related to the prevention and management of public health emergencies;
- 4. Revise public health emergency response plans to reflect the current epidemiological situation, new scientific evidence, and lessons learned from the COVID-19 pandemic, providing members of the Commissions with an updated strategic and operational framework;
- 5. Develop legal provisions to regulate communication and collaboration among Territorial Extraordinary Public Health Commissions, including the establishment of formal dialogue mechanisms both horizontally (local partnerships) and vertically (with relevant authorities such as NPHA, Ministry of Health, and the Government).



CONFLICT OF INTEREST The authors have no conflict of interest to declare.

FUNDING STATEMENT This article presents a synthesis of the findings from a study conducted as part of a master's thesis defended in 2022 at the School of Public Health Management. No external funding was received.

ETHICS APPROVAL Ethical approval was not required for this article, as it does not involve ethical risks.

BIBLIOGRAPHY

- 1. Coccia M. Optimal levels of vaccination to reduce COVID-19 infected individuals and deaths: A global analysis. *Environ Res.* 2022;204(Pt C):112314. doi:10.1016/j.envres.2021.112314.
- 2. OECD. The territorial impact of COVID-19: Managing the crisis across levels of government. OECD Policy Responses to Coronavirus (COVID-19). Paris: OECD Publishing; 2020. doi:10.1787/d3e314e1-en.
- 3. OECD. Making Decentralisation Work: A Handbook for Policy-Makers, OECD Multi-level Governance Studies, OECD Publishing, Paris. 2019. https://doi.org/10.1787/g2g9faa7-en.
- 4. World Health Organization. International Health Regulations. Geneva: WHO; 2005. Available at: https://iris.who.int/bitstream/handle/10665/246107/ 9789241580496-eng.pdf (Accessed in May 16, 2024).
- Kickbusch I, Gleicher D. Governance for Health in the 21st Century. WHO Regional Office for Europe. 2012. Available at: https://iris.who.int/bitstream/ handle/10665/326429/9789289002745-eng.pdf (Accessed in May 12, 2024).
- 6. Nitzan D, Perehinets I, et al. Drawing lessons on better governing for emergencies against health emergencies. *Eurohealth*. 2021;27(1):16-19. Available at: https://iris.who.int/bitstream/handle/10665/344934/Eurohealth-27-1-16-19-eng.pdf (Accessed in May 12, 2024).
- World Health Organization. WHO Director-General's opening remarks at the media briefing on COVID-19. March 11, 2020. Available at: https://www.who.int/director-general/speeches/detail/who-director-general-s-opening-remarks-at-the-media-briefing-on-covid-19---11-march-2020 (Accessed in May 23, 2024).
- 8. World Health Organization. Responding to community spread of COVID-19. March 7, 2020. Available at: https://www.who.int/publications-detail/ responding-to-community-spread-of-covid-19 (Accessed in May 12, 2024).
- 9. Worldometers. Coronavirus in Moldova. Available at: https://www.worldometers.info/coronavirus/ country/moldova (Accessed in May 12, 2024).

Date of receipt of the manuscript: 18.06.2024

Date of acceptance for publication: 23.05.2025

- Kasis A, Timotheou S, Monshizadeh N, Polycarpou M. Optimal intervention strategies to mitigate the COVID-19 pandemic effects. *Sci Rep.* 2022;12(1):6124. doi:10.1038/s41598-022-09857-8.
- 11. Ball P. What the COVID-19 pandemic reveals about science, policy and society. *Interface Focus*. 2021;11(6):20210022. doi:10.1098/rsfs.2021.0022.
- 12. Greer S, Rozenblum S, Wismar M, Jarman H. How have federal countries organized their COVID-19 response? *Eurohealth Observatory*. 2020. Available at: https://eurohealthobservatory.who.int/publications/i/how-have-federal-countries-organizedtheir-covid-19-response (Accessed in May 23, 2024).
- Parliament of the Republic of Moldova. Law no. 10 on state surveillance of public health. Official Gazette of the Republic of Moldova. April 3, 2009. Available at: https://faolex.fao.org/docs/pdf/ mol178582.pdf (Accessed in May 12, 2024).
- 14. Government of the Republic of Moldova. Government Decision no. 55 on declaring the state of emergency. Official Gazette of the Republic of Moldova. March 17, 2020. Available at: https://www. constcourt.md/ccdocview.php?tip=hotariri&docid=738&l=ro (Accessed in May 16, 2024).
- Alegeri.md. Gestionarea crizei COVID-19 în Republica Moldova. Available at: https://alegeri. md/w/Gestionarea_crizei_COVID-19_%C3%AEn_ Republica_Moldova (Accessed in May 12, 2024).
- Greer S, Falkenbach M, et al. Centralisation and decentralisation in a crisis: how credit and blame shape governance. Eurohealth. 2021;27(1):36-40. Available at: https://iris.who.int/bitstream/handle/10665/344946/Eurohealth-27-1-36-40-eng.pdf (Accessed in May 16, 2024).
- 17. Anttiroiko A. Successful government responses to the pandemic: Contextualizing national and urban responses to the COVID-19 outbreak in East and West. *Int J E-Planning Res.* 2021;10:1-17. doi:10.4018/IJEPR.20210401.oa1.