COVID-19 Induced Policy Changes, Crisis-Driven
Learning, and Future Policy Preparedness In Kenya: Evidence
From Kisii County and Intergovernmental Coordination Teams

COVID-19 Induced Policy Changes, Crisis-Driven Learning, and Future Policy Preparedness in Kenya: Evidence from Kisii County and Intergovernmental Coordination Teams

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Abstract

Purpose: This study examined the key COVID-19 policy shifts introduced by the Government of Kenya; assessed the effectiveness of COVID-19–induced policy interventions in addressing public health risks and mitigating socio-economic disruptions; analyzed the role of crisis-driven policy learning and crisis governance mechanisms in shaping policy responses; and evaluated the extent to which lessons from the pandemic have been institutionalized to enhance preparedness for future crises.

Methodology: Anchored in Policy Learning Theory, Crisis Governance Theory, and Resilience Theory, the study adopted a mixed-methods research design integrating quantitative and qualitative approaches. Quantitative data were collected using structured questionnaires, while qualitative data were derived from government policy documents, Kenya Gazette notices, sectoral reports, and in-depth interviews with policymakers and public health officials. Quantitative data were analyzed using descriptive statistics in SPSS version 26.0, while qualitative data were subjected to thematic analysis and process tracing.

Findings: The findings indicate that COVID-19 prompted significant policy shifts and adaptive learning across key sectors in Kenya. Policy effectiveness was strongly associated with instrumental and conceptual learning, reflecting adjustments in policy tools and problem framing during the crisis.

Unique Contribution to Theory, Policy and Practice: The study makes a unique contribution by demonstrating, from a theoretical perspective, how crisis-driven policy learning mediates the relationship between crisis governance and future preparedness within a devolved governance system.

Keywords: Policy Change, Crisis-Driven Policy Learning, Policy Preparedness; Public Policy, Emergency Response, Institutionalization of Policy Lessons.

1.0 Introduction

1.1Background of the Study

1.1Background of the Study

The COVID-19 pandemic, declared by the WHO in March 2020, stands as one of the most disruptive global crises in history, testing the resilience and preparedness of governments worldwide (Borkowski et al., 2021). In Kenya, the first case reported in March 2020 triggered rapid policy interventions, including curfews, lockdowns, and school closures, which reflected emergency decision-making under high uncertainty (Ogira et al., 2022). While these actions aimed to contain the virus, they exposed deep-seated governance vulnerabilities and disrupted essential services, such as maternal and reproductive healthcare, due to resource reallocation and workforce shortages (Kamita et al., 2023; Wangamati et al., 2025).

These disruptions highlight how crises serve as critical "learning junctures" where policymakers must assimilate information to revise institutional strategies for future preparedness (Ogira et al., 2022). This involves both intra-crisis learning making real-time adjustments as new data emerges and inter-crisis learning, where reflective evaluations inform long-term disaster management frameworks (Zaki & Wayenberg, 2024). Such processes are essential for shifting from a reactive stance to a more adaptive governance model capable of responding to various future shocks, including climate-related disasters or economic crises (Crow et al., 2022; Borkowski et al., 2021).

Crises have historically served as critical moments for policy change, institutional learning, and governance reform. Global health emergencies, in particular, expose structural weaknesses in public systems while simultaneously creating opportunities for innovation, coordination, and long-term policy transformation (Borkowski et al,2021).

While some pandemic policies contributed to slowing infection rates, they also disrupted essential healthcare delivery and socio-economic functioning. For instance, interruptions to maternal and child health services and the reallocation of healthcare resources toward COVID-19 response illustrated significant systemic strains (Ogira et al., 2022; Kuria-Ndiritu et al., 2024). Evidence from maternal health research further suggests that COVID-19 containment measures impeded access to and quality of reproductive and maternal health services due to workforce shortages, service closures, and infection control protocols (Wangamati et al., 2025).

The pandemic also revealed the uneven impacts of policy responses across sectors. Disruptions to economic activity, supply chains, and labor markets highlighted the interconnected nature of public health and economic policy domains and underscored the need for multi-sectoral coordination in crisis settings (Kamita et al., 2023; Onyango, 2023). In Kenya specifically, these shocks occurred within the context of pre-existing challenges such as decentralized health governance structures,

funding constraints, and variable county-level capacities as factors that influenced policy execution and outcomes during the crisis (Ogira et al., 2022).

Crises such as COVID-19 can also function as critical learning junctures for public policy. Policy learning refers to how policymakers and institutions assimilate information from policy implementation and crisis experiences to revise goals, strategies, and institutional arrangements for future preparedness (Ogira et al., 2022).Research in public policy shows that during extended crises like COVID-19, governments are compelled to adjust policy tools, update guidelines based on emerging evidence, and revise approaches in real time, providing fertile grounds for both experiential learning and institutional adaptation (Crow et al., 2022).

Importantly, learning from COVID-19 responses involves both intra-crisis learning where immediate adjustments to ongoing responses are made based on new data and outcomes and inter-crisis learning, where reflective evaluation after a crisis contributes to future preparedness strategies (Zaki & Wayenberg, 2024). These learning processes can reshape public health policies, emergency management frameworks, and governance systems to better respond to future shocks, whether pandemics, climate-related disasters, or economic crises (Borkowski et al,2021).

Despite the extensive policy changes and emerging discussions on crisis learning globally, there is limited empirical evidence on how COVID-19–induced policy changes in Kenya have been internalized or institutionalized to enhance future policy preparedness. Understanding these dynamics is crucial for improving Kenya's policy frameworks in health security, disaster risk management, and governance more broadly. This study thus situates itself at the intersection of policy change theory and crisis-driven policy learning, seeking to analyze how pandemic-era policy adaptations and the lessons derived from them may influence Kenya's capacity to prepare for, and respond to, future crises.

1.2The Problem Statement

In an ideal policy environment, national governments are expected to maintain robust public health systems, stable economic frameworks, and well-coordinated emergency preparedness mechanisms capable of responding swiftly to large-scale crises. Policies should be proactive, evidence-based, and institutionally embedded to ensure continuity of essential services, protection of lives and livelihoods, and rapid recovery. Effective crisis responses require foresight, adaptive governance, inter-agency coordination, adequate financing, and resilient service delivery systems. However, the COVID-19 pandemic revealed a stark contrast between this ideal and the situation in Kenya, exposing weaknesses in health infrastructure, emergency coordination, surveillance systems, social protection, and policy implementation. Key sectors including healthcare, education, transport, tourism, agriculture, and commerce faced major disruptions from lockdowns, curfews,

school closures, and economic slowdown, while reactive, rapidly changing, and sometimes inconsistently enforced policies highlighted concerns around efficiency, equity, and accountability.

The consequences were far-reaching, including overstretched healthcare facilities, widened educational inequalities, increased unemployment and business closures, and deeper household poverty due to limited social protection. Governance challenges such as institutional fragmentation and weakened public trust further underscored the fragility of Kenya's crisis preparedness. Despite extensive research on epidemiological trends and economic impacts, scholarship on Kenya's COVID-19 response has largely overlooked public policy change, institutional learning, and the long-term sustainability of emergency reforms (Njenga & Mwangi, 2021; Kathula, 2021; KIPPRA, 2020; Onyango & Ochieng, 2023; World Bank, 2020). This study addresses that gap by analyzing the nature, effectiveness, and institutionalization of Kenya's COVID-19 policy responses using the PET framework, with the goal of strengthening preparedness for future public health emergencies.

1.3 Research Objectives

1.3.1 Main Objective:

To examine the influence of COVID-19–induced policy changes and crisis-driven policy learning on enhancing Kenya's future policy preparedness, with empirical insights from Kisii County and intergovernmental coordination mechanisms.

1.3.2 Specific Objectives

I.   To analyze the key COVID-19 policy shifts introduced by the Government of Kenya across major affected sectors of the Economy.
II. To assess the effectiveness of COVID-19–induced policy changes in addressing public health risks and mitigating socio-economic disruptions.
III. To investigate the role of crisis-driven policy learning in informing adjustments and improvements to Kenya's policy frameworks during the pandemic.
IV. To evaluate Crisis Governance mechanisms employed and their efficacy in addressing public health risks and mitigating socio-economic disruptions.
V.   To evaluate the extent to which lessons learned from COVID-19 have been institutionalized to enhance Kenya's preparedness for future crises.

2.0 LITERATURE REVIEW

2.1 Theoretical Literature

This study is anchored in three key theories: Policy Learning Theory, Crisis Governance Theory, and Resilience Theory, each providing a distinct lens for understanding Kenya's COVID-19 policy responses. **Policy Learning Theory**, first advanced by Peter Hall (1993) and further developed by

scholars such as John D. Brewer and Hugh Heclo, posits that governments and institutions learn from policy outcomes to adjust future strategies. Learning can be instrumental, involving changes in policy tools, or conceptual, involving shifts in understanding policy problems. While critics

argue that the theory overemphasizes rational decision-making and underestimates political constraints, it provides a useful framework for examining intra-crisis and inter-crisis learning. In the context of this study, the theory guides the analysis of how Kenya's policymakers adjusted COVID-19 interventions in real time and how lessons were institutionalized for future preparedness, highlighting adaptive strategies and knowledge-driven policy shifts.

Crisis Governance Theory, with its foundations in the work of Charles Perrow (1984) and later expanded by Boin, Hart, Stern, and Sundelius (2005), emphasizes that effective crisis management depends on coordinated decision-making, resource mobilization, leadership, and adaptive institutional arrangements under high uncertainty. Although critics note that it can understate the influence of political and social contexts, the theory informs this study's evaluation of Kenya's governance mechanisms during COVID-19, including intergovernmental coordination, emergency decision-making, and leadership effectiveness, thereby linking governance structures to policy effectiveness and institutional learning.

Resilience Theory, introduced by C.S. Holling (1973) and expanded by Folke (2006) and Walker et al. (2004), highlights the capacity of systems to absorb shocks, adapt to changing conditions, and transform to maintain essential functions. While some critiques suggest the concept is broad and challenging to operationalize, it provides a complementary lens for this study by framing Kenya's ability to absorb COVID-19 shocks, adapt policies, and strengthen preparedness for future crises. Together, these three theories enable a comprehensive analysis of policy shifts, crisis-driven learning, governance effectiveness, and long-term resilience in Kenya's COVID-19 response.

2.2 Empirical Literature

The COVID-19 pandemic prompted governments worldwide to implement rapid policy interventions to curb viral transmission and mitigate socio-economic impacts. Empirical studies have shown that measures such as lockdowns, curfews, travel restrictions, and school closures were effective in slowing infection rates when implemented in a timely and coordinated manner (Borkowski et al., 2021; Crow et al., 2022). In Kenya, the government enacted multiple interventions, including movement restrictions, curfews, mandatory mask-wearing, and public health campaigns (Ogira et al., 2022). While these measures were critical in controlling the spread of the virus, evidence indicates that inconsistencies in enforcement, resource limitations, and variations in county-level capacities affected their overall effectiveness (Kuria-Ndiritu et al., 2024; Wangamati et al., 2025). Similar studies in low- and middle-income countries highlight that rapid

policy shifts often expose systemic vulnerabilities in governance, healthcare infrastructure, and social protection mechanisms (Kamita et al., 2023; Onyango, 2023).

Research assessing the effectiveness of COVID-19–induced policy interventions shows mixed results. Globally, countries that combined public health measures with socio-economic support programs experienced better health and social outcomes (Zaki & Wayenberg, 2024; Borkowski et al., 2021). In Kenya, empirical studies indicate that curfews and lockdowns slowed viral transmission but disrupted essential services, particularly maternal and child healthcare, while cash transfers and food aid mitigated some socio-economic hardships (Njenga & Mwangi, 2021; Kathula, 2021). However, limited reach of social protection programs and gaps in emergency financing reduced the ability of policies to fully cushion vulnerable populations. These findings underscore the importance of context-specific policy design and the integration of multi-sectoral strategies to improve effectiveness.

Evidence on crisis-driven policy learning demonstrates that governments can adapt and improve policies during emergencies based on real-time information. Studies in Kenya reveal that policymakers adjusted containment measures, health protocols, and communication strategies based on emerging epidemiological data and public feedback (Ogira et al., 2022; Zaki & Wayenberg, 2024). International literature shows that countries with structured mechanisms for intra-crisis learning (real-time adjustments) and inter-crisis learning (reflective evaluation for future preparedness) achieved more coordinated and adaptive responses (Crow et al., 2022). These findings highlight the role of policy learning in refining interventions, enhancing responsiveness, and informing strategies for subsequent crises.

Governance mechanisms have been shown empirically to influence the success of COVID-19 policy implementation. Research indicates that strong leadership, intergovernmental coordination, rapid decision-making, and efficient resource mobilization are associated with better crisis management outcomes (Perrow, 1984; Boin et al., 2005). In Kenya, studies note that decentralized governance, fragmented institutional arrangements, and variable county-level capacities limited coordination and slowed policy enforcement during the pandemic (Ogira et al., 2022; Kamita et al., 2023). Comparative analyses suggest that robust governance structures, clear communication channels, and well-defined roles enhance the efficiency, equity, and effectiveness of emergency responses (Borkowski et al., 2021; Crow et al., 2022).

Finally, the institutionalization of lessons learned is critical for long-term preparedness and resilience. Empirical research shows that embedding crisis-driven learning into policies, guidelines, and strategic plans improves future readiness (Holling, 1973; Folke, 2006). In Kenya, while some insights from COVID-19, such as health protocols and emergency coordination guidelines, have been incorporated into policy frameworks, structural, legal, and financial limitations have constrained full institutionalization (Ogira et al., 2022; Wangamati et al., 2025). Global studies

indicate that countries with formalized monitoring and evaluation systems, dedicated contingency funding, and documented crisis protocols are better prepared to respond to future shocks, underscoring the importance of translating experiential learning into sustainable governance reforms (Zaki & Wayenberg, 2024; Borkowski et al., 2021).
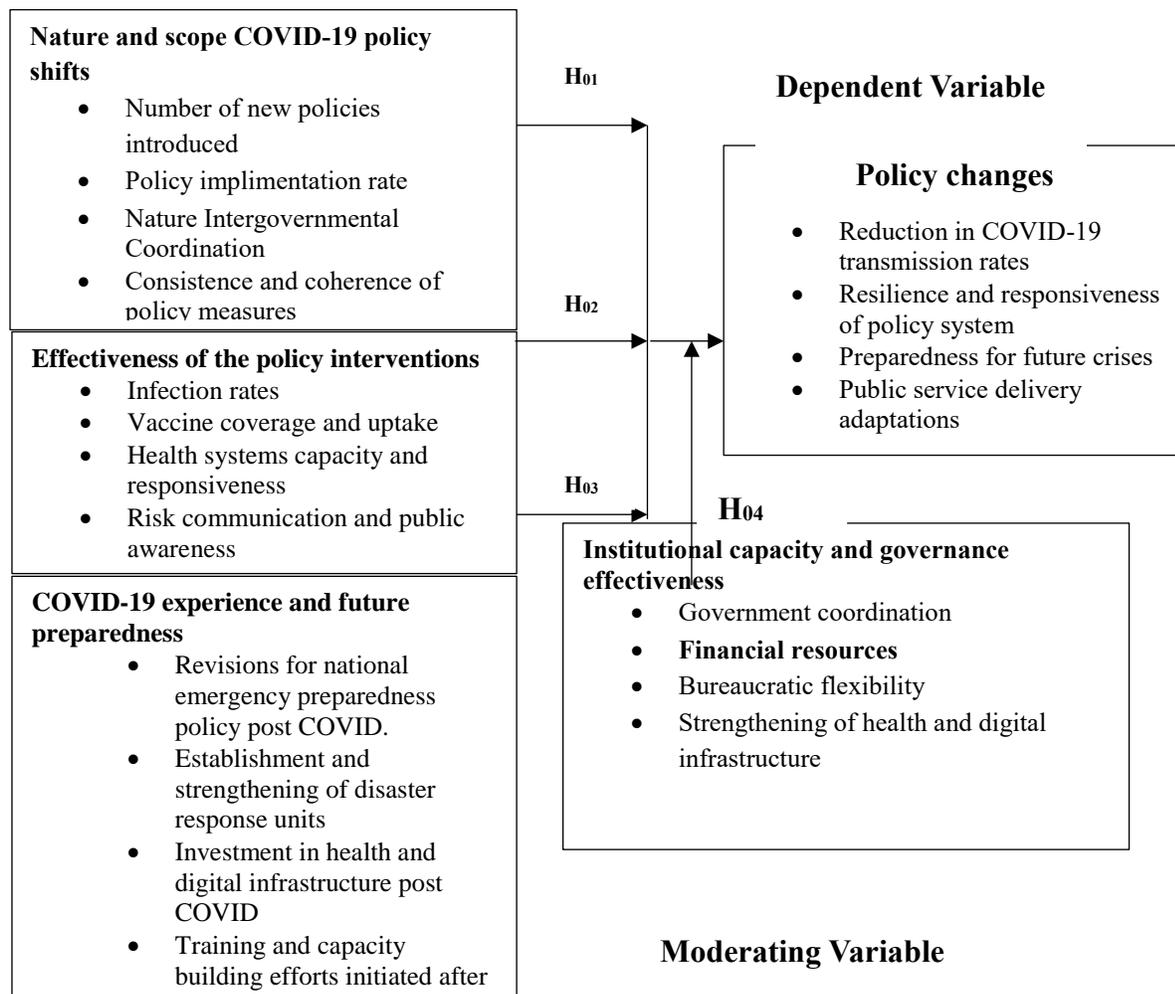
2.3 Research Gaps

Despite the extensive literature on COVID-19 policy responses globally and in Kenya, significant gaps remain in understanding how these policies translate into sustainable governance and institutional learning. Most studies in Kenya have concentrated on epidemiological patterns, economic cost assessments, or short-term sectoral impacts, such as disruptions to healthcare, education, and commerce (Njenga & Mwangi, 2021; Kathula, 2021; KIPPRA, 2020; Onyango & Ochieng, 2023; World Bank, 2020). While these analyses provide valuable insights into immediate effects, they offer limited empirical evidence on the processes through which COVID-19–induced policy interventions were adapted, learned from, and formally integrated into institutional frameworks for future preparedness.

Furthermore, existing research has not adequately examined the interaction between crisis governance, policy learning, and resilience in shaping Kenya's long-term readiness for public health emergencies. There is insufficient knowledge on how governance mechanisms, intergovernmental coordination, leadership effectiveness, and resource mobilization influenced both policy effectiveness and the institutionalization of lessons learned (Ogira et al., 2022; Kamita et al., 2023; Wangamati et al., 2025). This gap limits the ability to identify structural, legal, and financial constraints that hinder adaptive learning and sustainable emergency preparedness. Consequently, the current study seeks to address these gaps by analyzing the nature, effectiveness, crisis-driven learning, and institutionalization of COVID-19 policy interventions in Kenya to inform future policy and governance reforms.

2.4 Conceptual Framework

Independent Variable

COVID-19 pandemic (as a crisis

Nature and scope COVID-19 policy shifts • Number of new policies introduced • Policy implimentation rate • Nature Intergovernmental Coordination • Consistence and coherence of policy measures	H_{01}	**Dependent Variable**

Policy changes
- Reduction in COVID-19 transmission rates
- Resilience and responsiveness of policy system
- Preparedness for future crises
- Public service delivery adaptations

Effectiveness of the policy interventions
- Infection rates
- Vaccine coverage and uptake
- Health systems capacity and responsiveness
- Risk communication and public awareness

H_{02}

H_{03} H_{04}

COVID-19 experience and future preparedness
- Revisions for national emergency preparedness policy post COVID.
- Establishment and strengthening of disaster response units
- Investment in health and digital infrastructure post COVID
- Training and capacity building efforts initiated after

Institutional capacity and governance effectiveness
- Government coordination
- **Financial resources**
- Bureaucratic flexibility
- Strengthening of health and digital infrastructure

Moderating Variable

3.0 MATERIAL AND METHODS

The study adopted a mixed-methods research design, integrating both quantitative and qualitative approaches to provide a comprehensive understanding of COVID-19 policy responses in Kenya. It was conducted across selected counties in Kenya to capture variations in governance capacity and policy implementation. The study population comprised policymakers, public health officials, and key stakeholders involved in the COVID-19 response at national and county levels. A sample of 120 respondents was selected using a combination of purposive and stratified random sampling techniques to ensure representation of different sectors and decision-making levels. Quantitative data were collected through structured questionnaires, while qualitative data were obtained from

in-depth interviews and document reviews, including government policy documents, Kenya Gazette notices, and sectoral reports. Quantitative data were analyzed using descriptive statistics in SPSS version 26.0, whereas qualitative data were subjected to thematic analysis and process tracing to identify patterns, relationships, and insights relevant to policy shifts, crisis-driven learning, governance mechanisms, and institutionalization of lessons learned.

4.0 RESEARCH FINDINGS

4.1 Response Rate

Of the 120 distributed questionnaires, 112 were returned, representing a response rate of 93.3%, which is considered adequate for statistical analysis (Cochran, 1977). All 10 key informants participated in interviews, providing detailed insights into policy coordination, decision-making, and institutional learning during the pandemic. Table 4.1 presents respondents' demographic characteristics, including gender, age, education, and role within the government.

Table 2: Demographic Characteristics of Respondents (N = 112)

Demographic Variable	Frequency	Percentage (%)
Gender		
Male	70	62.5
Female	42	37.5
Age (years)		
25–34	30	26.8
35–44	50	44.6
45–54	25	22.3
55+	7	6.3
Level of Education		
Diploma	20	17.9
Undergraduate	55	49.1
Postgraduate	37	33.0
Position/Role		
Senior official	10	8.9
Technical officer	40	35.7
County administrator	62	55.4
Researcher 2026		

4.2 Crisis Governance Mechanisms

The study examined governance structures and mechanisms utilized during the COVID-19 pandemic.

Table 3: Crisis Governance Mechanisms: Descriptive Statistics

Governance Mechanisms	Mean	SD	Interpretation
Leadership effectiveness	4.2	0.65	High
Intergovernmental Coordination	3.8	0.72	Moderate-High
Emergency decision making efficiency	4.0	0.68	High
Resource mobilization	3.6	0.75	Moderate

Note. Ratings based on a 5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree).

Interviews revealed that task forces and emergency committees facilitated coordination between national and county governments. A senior official explained:

"*The crisis forced us to break silos. Task forces allowed real-time decision-making and integration of technical advice into policy actions."*

This suggests that Kenya employed adaptive crisis governance mechanisms, with particular strengths in leadership and decision-making efficiency, though resource mobilization remained moderately constrained.

4.3 Crisis-driven policy learning

Policy learning was evaluated across instrumental, conceptual, and social learning dimensions.

Table 4: Policy Learning Dimensions: Descriptive Statistics

Learning dimensions	Mean	Std,dev	Interpretation
Instrumental learning	4.0	0.60	High
Conceptual Learning	3.7	0.68	Moderate
Social Learning	3.5	0.72	Moderate-High

Note. Ratings based on a 5-point Likert scale (1 = Strongly Disagree, 5 = Strongly Agree).

The study's findings indicate that instrumental learning was the most immediate and observable form of policy adaptation during Kenya's COVID-19 response, with a mean score of 4.0 (SD = 0.60). Policymakers effectively adjusted practical tools such as testing, contact tracing, and quarantine protocols in response to emerging challenges, reflecting real-time, solution-focused learning (Zaki, 2024). One county administrator noted improvements in isolation enforcement and coordination, while a senior national official highlighted how daily monitoring and feedback allowed rapid scaling of resources where needed, demonstrating how crisis-driven learning directly informed actionable policy measures.

Conceptual learning was also evident, though slightly slower, with a mean score of 3.7 (SD = 0.68). Respondents described a shift in problem framing, moving beyond purely health-focused interventions to integrate socio-economic considerations, such as support for livelihoods, education, and social protection. This holistic approach reflects the reassessment of assumptions and incorporation of systemic understanding into policy design, consistent with Crow et al. (2024). A county administrator explained that early health interventions alone were insufficient, and policies had to account for broader societal impacts to be effective.

Social learning emerged as the slowest to consolidate, with a mean score of 3.5 (SD = 0.72). Respondents described enhanced intergovernmental coordination, creation of joint task forces, regular data sharing, and structured communication channels as mechanisms for institutional learning. These improvements in collaboration and organizational culture demonstrate that social learning develops over time and is critical for embedding lessons into long-term governance practices (Boin et al., 2005; Hall, 1993).

Overall, the findings show that policy learning in Kenya was ongoing and multi-layered, with instrumental learning driving rapid, practical adjustments, conceptual learning shaping broader strategic thinking, and social learning strengthening institutional coordination and governance. Together, these forms of learning illustrate how crisis-driven experiences during the pandemic mediated the relationship between governance mechanisms and preparedness for future emergencies, supporting the study's conceptual framework (Hall, 1993; Zaki, 2024; Boin et al., 2005).

4.4 Key COVID-19 policy shifts introduced by the Government

Table 5: Descriptive Statistics for Key COVID-19 Policy Shifts

Sector/Policy Area	Mean	Std. Dev	Interpretation
Public Health Policies	4.2	0.55	High adoption/approval
Economic & Fiscal Policies	3.9	0.62	Moderately high adoption
Education & Learning Policies	3.7	0.68	Moderate adoption
Social Protection Policies	3.8	0.64	Moderate-high adoption
Emergency Governance Measures	4.0	0.60	High adoption
Health System Strengthening Policies	4.1	0.58	High adoption

Note: Likert scale: 1 = Strongly Disagree, 5 = Strongly Agree

The findings indicate that public health policies were the most recognized COVID-19 interventions in Kenya, receiving a mean score of 4.2 (SD = 0.55). Respondents highlighted measures such as lockdowns, testing protocols, and vaccination campaigns as critical and timely. A senior national official stated, "The government acted swiftly to implement testing centers and isolation facilities. Adjustments were made daily based on case trends," reflecting instrumental learning where policy tools were adapted in real time to emerging challenges (Zaki, 2024; WHO, 2022; KPMG, 2023). Emergency governance measures also received high recognition (mean = 4.0, SD = 0.60), including curfews, task forces, and emergency declarations. A national taskforce member noted, *"Establishing daily briefings and coordination between national and county governments allowed rapid decision-making and resource allocation,"* demonstrating social learning through improved intergovernmental coordination (Boin et al., 2020).

Health system strengthening efforts, such as expansion of ICU capacity, oxygen provision, and deployment of healthcare personnel, scored a mean of 4.1 (SD = 0.58). A hospital administrator explained, "We had to rapidly increase ICU beds and reallocate staff. These measures saved lives and strengthened the health system," reflecting instrumental learning and resilience in real-time response (Kruk et al., 2020). Economic and fiscal policies received moderate-high recognition (mean = 3.9, SD = 0.62), including stimulus packages, tax relief, and support for businesses. An economist observed, *"Without the emergency stimulus and relief measures, many businesses would have collapsed, and livelihoods would have been severely affected,"* highlighting conceptual learning as policymakers acknowledged the need to integrate socio-economic support alongside health measures (OECD, 2021).

Finally, social protection (mean = 3.8, SD = 0.64) and education policies (mean = 3.7, SD = 0.68) received moderate recognition. Respondents emphasized cash transfers, food aid, and remote learning interventions. A community development officer stated*, "Social protection measures were crucial for households that lost income due to the lockdowns, although delivery and coverage were sometimes limited"* (Gentilini et al., 2020), while a county education officer noted, "Transitioning to online learning revealed infrastructure gaps and inequalities, but it was critical to keep students engaged" (UNESCO, 2021). Overall, the findings show Kenya prioritized immediate public health and governance interventions, while economic, social, and education measures were moderately recognized, suggesting areas for future policy improvement and holistic crisis preparedness.

4.5 The effectiveness of COVID-19–induced policy changes

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Table 6: Descriptive Statistics for Effectiveness of COVID-19 Policy Interventions

Effectiveness Dimension	Mean	Std. Dev	Interpretation
Reduction in COVID-19 Infection Rates	4.1	0.59	High effectiveness
Vaccination Coverage and Uptake	4.0	0.61	High effectiveness
Health System Responsiveness	3.9	0.63	Moderately high effectiveness
Continuity of Essential Health Services	3.8	0.65	Moderate effectiveness
Livelihood and Employment Protection	3.7	0.68	Moderate effectiveness
Social Protection Programs	3.8	0.64	Moderate-high effectiveness
Business Continuity and Economic Stabilization	3.6	0.70	Moderate effectiveness
Food Security and Cost of Living Stability	3.7	0.66	Moderate effectiveness
Education Continuity	3.5	0.72	Moderate effectiveness

Note: Likert scale: 1 = Strongly Disagree, 5 = Strongly Agree

The study found that COVID-19 policy interventions in Kenya were largely effective in addressing public health risks and mitigating socio-economic disruptions. Public health measures received the highest ratings, with mean scores of 4.1 for infection reduction and 4.0 for vaccination coverage, reflecting strong agreement on their effectiveness. A senior national health official observed, *"The rapid rollout of vaccination and expansion of testing centers significantly slowed the spread in high-risk areas, and daily monitoring allowed us to adapt protocols as needed"* (WHO, 2022). Health system responsiveness and continuity of essential services were moderately high (means of 3.9 and 3.8), indicating that resource constraints and implementation challenges somewhat limited their impact.

On the socio-economic front, respondents moderately agreed that policies aimed at protecting livelihoods, supporting businesses, ensuring food security, and maintaining education continuity were effective, with mean scores ranging from 3.5 to 3.8. A county economic officer noted*, "While not all households were reached, the financial support prevented many families from falling into extreme poverty during the lockdowns"* (OECD, 2021; Gentilini et al., 2020). Education policies, including school closures and remote learning, were partially effective due to infrastructure and connectivity challenges. A county education officer explained, "Remote learning ensured continuity for some students, but many in rural areas missed out due to lack of connectivity" (UNESCO, 2021).

Emergency governance measures, such as curfews, taskforces, and intergovernmental coordination, were highlighted as key enablers of policy effectiveness. Respondents reported that daily briefings, joint decision-making, and structured communication channels improved response efficiency and reduced bureaucratic delays. A national taskforce member noted, *"Establishing*

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daily briefings and coordination between national and county governments allowed rapid decision-making and resource allocation" (Boin et al., 2020).

Overall, the findings show that Kenya's COVID-19 interventions were most effective in the public health and emergency governance sectors, moderately effective in social protection and economic stabilization, and partially effective in education. Respondents emphasized that adaptive implementation and adjustments based on emerging challenges reflected instrumental and conceptual learning, while gaps in socio-economic and educational interventions suggest areas for strengthening future crisis preparedness (OECD, 2021; Gentilini et al., 2020; WHO, 2022).

4.6 The extent to which lessons learned from COVID-19 have been institutionalized

Table 7: Descriptive Statistics for Institutionalization of COVID-19 Lessons

Dimension of Institutionalization	Mean	Std. Dev	Interpretation
Integration of Lessons into Policy Frameworks	3.8	0.64	Moderate-high institutionalization
Development of Emergency Preparedness Plans	3.9	0.62	Moderate-high institutionalization
Strengthening Intergovernmental Coordination	3.7	0.68	Moderate institutionalization
Updating Health System Protocols & Guidelines	4.0	0.59	High institutionalization
Establishment of Monitoring & Evaluation Mechanisms	3.6	0.70	Moderate institutionalization
Capacity Building & Training for Future Crises	3.7	0.66	Moderate institutionalization
Resource Mobilization & Contingency Funding	3.5	0.72	Moderate institutionalization

Note: Likert scale: 1 = Strongly Disagree, 5 = Strongly Agree

The findings indicate that lessons learned from the COVID-19 pandemic have been moderately institutionalized within Kenya's policy and governance systems, with mean scores of 3.8–3.9 for integration into policy frameworks and emergency preparedness plans. This reflects conceptual policy learning, where past experiences are reinterpreted to guide future strategies (Crow et al., 2024). The health sector showed the highest level of institutionalization, particularly in updating protocols, surveillance, and case management (mean = 4.0). A senior health official noted, *"The pandemic forced us to revise protocols and improve surveillance; these changes are now part of routine preparedness planning,"* highlighting instrumental learning where practical lessons are embedded in operational procedures (Zaki, 2024; Kruk et al., 2020).

Other areas, such as intergovernmental coordination, monitoring and evaluation, and capacity-building initiatives, recorded moderate scores (3.6–3.7), suggesting uneven institutionalization. Respondents explained that while coordination platforms and emergency committees improved crisis response, these structures often became reactive and ad hoc once the immediate crisis subsided. A county administrator observed, *"Coordination improved during COVID-19, but once the crisis subsided, many of the coordination platforms became inactive"* (Boin et al., 2005).

Resource mobilization and contingency funding were identified as the weakest institutionalized areas (mean = 3.5). Respondents acknowledged the importance of emergency funds but noted structural and fiscal limitations. A senior treasury official stated, "*We learned the importance of emergency funds, but establishing permanent financing mechanisms remains a challenge*" (OECD, 2021). These findings underscore persistent constraints in embedding fiscal preparedness despite recognition of its necessity. Qualitative insights revealed that lessons were most successfully institutionalized where mandates were clear and technical authority centralized, such as health system protocols and operational procedures. In contrast, governance and policy frameworks, while informed by COVID-19 experiences, remained unevenly integrated across ministries and sectors, reflecting ongoing challenges in conceptual learning (Crow et al., 2024).

Overall, Kenya has made meaningful but uneven progress in institutionalizing lessons from COVID-19. Health systems and technical preparedness measures show strong integration, policy frameworks and coordination mechanisms moderate integration, and governance and financing structures remain the least institutionalized. The findings support the study's conceptual framework, emphasizing that policy learning mediates the relationship between crisis experience and future preparedness, and highlight the need for deliberate reforms to convert temporary crisis responses into durable capacities (Boin et al., 2005; Zaki, 2024; OECD, 2021).

4.7 Inferential Statistics Results

Inferential analysis was conducted to examine the relationships and predictive effects among COVID-19 policy shifts, crisis governance mechanisms, crisis policy learning, COVID-19 policy changes and future policy preparedness in Kenya. The level of significance was set at $\alpha = 0.05$.

Table 8: Correlation Matrix of Key Study Variables

Variables	1	2	3	4	5
1. COVID-19 Policy Shifts	1				
2. Crisis Governance mechanisms	.62	1			
3. COVID-19–induced policy changes	-.54	-.59	1		
4. Crisis Policy Learning	.68	.71	-.47	1	
5. Future Policy Preparedness	.65	.73	-.51	.79	1

Note. $p < .01$

The results show strong, positive, and statistically significant correlations between COVID-19 policy shifts and Crisis governance mechanisms ($r = .62$), Crisis policy learning ($r = .68$), and future policy preparedness ($r = .65$). Policy effectiveness exhibited a strong positive relationship with future preparedness ($r = .73$), while COVID-19 induced policy changes were negatively correlated with all outcome variables. The strongest relationship was observed between Crisis Governance mechanisms and future preparedness ($r = .79$), underscoring the central role of learning in strengthening crisis readiness.

4.8 Multiple Regression Analysis

Multiple linear regression was conducted to assess the extent to which policy shifts, policy effectiveness, implementation challenges, and policy learning predict future policy preparedness.

Table 9: Multiple Regression Results Predicting Future Policy Preparedness

Predictor Variable	β	t	p
Crisis Governance mechanisms	.21	2.87	0.05
COVID-19 Policy Shifts	.29	3.94	< .001
COVID-19–induced policy changes	-.18	-2.45	.016
Crisis Policy Learning	.41	5.98	< .001
R²	.64		
F(4,115)	51.2		< .001

The regression model was statistically significant, explaining 64% of the variance in future policy preparedness ($R^2 = .64$). Policy learning emerged as the strongest predictor ($\beta = .41$, $p < .001$), followed by COVID-19 Policy Shifts ($\beta = .29$, $p < .001$). COVID-19–induced policy changes had a significant negative effect ($\beta = −.18$, $p = .016$), indicating that institutional and governance constraints undermine preparedness. These results demonstrate that preparedness is not solely a

function of policy design but is strongly shaped by learning processes and implementation capacity.

The inferential findings reinforce policy learning theory, which posits that crises serve as catalysts for institutional learning and reform (Crow et al., 2024; Zaki, 2024). The strong predictive power of policy learning confirms that learning mechanisms transform crisis experiences into durable preparedness capacities, while persistent governance challenges constrain this transformation (Boin et al., 2005). The results also align with comparative COVID-19 studies showing that countries that institutionalized learning achieved higher resilience and preparedness (OECD, 2021).

5.0 CONCLUSION AND RECCOMMENDATIONS

5.1 Conclusion

The study concludes that the COVID-19 pandemic served as a critical learning moment for Kenya, revealing both strengths and weaknesses in policy response, governance mechanisms, and crisis preparedness. While the country demonstrated adaptive capacity through policy adjustments and crisis-driven learning, the institutionalization of lessons remains partial, limiting long-term preparedness. Strengthening governance coordination, investing in resilient health systems, integrating digital technologies, and systematically adopting global best practices are essential to enhance future policy readiness. Overall, the findings underscore that sustained reforms and deliberate institutionalization of crisis lessons are key to building a resilient, responsive, and well-prepared public policy framework capable of managing future emergencies effectively.

5.2 Study Recommendations

Based on the study findings, several recommendations are proposed in alignment with the research objectives. In relation to the first objective, which examined COVID-19–induced policy changes, the study found that policies were adapted across health, economic, education, and social protection sectors but were unevenly applied. Therefore, it is recommended that Kenya institutionalize comprehensive crisis management frameworks to ensure that such policy adjustments are coordinated, standardized, and sustainable for future emergencies. Concerning the second objective on crisis-driven policy learning, findings revealed that policymakers adapted interventions in real time, though lessons were only partially documented. This highlights the need to strengthen intergovernmental coordination mechanisms and integrate digital technologies into crisis response to improve knowledge sharing, data management, and real-time decision-making.

Regarding the third objective, which focused on the extent of institutionalization of lessons, the study found that some lessons had been integrated into strategic plans and health system protocols, but full legal and structural adoption remained incomplete. Consequently, the study recommends prioritizing investment in public health systems and establishing formal monitoring and evaluation

mechanisms to ensure lessons are embedded and sustained. Finally, in line with the fourth objective on enhancing future policy preparedness, findings indicated that Kenya's preparedness has improved but remains inconsistent across sectors. To address this, the study recommends the

systematic adoption and contextualization of global best practices to strengthen resilience and ensure that future crises are managed more effectively.

The study recommends that Kenya institutionalize comprehensive crisis management frameworks and strengthen public health systems through sustained investments in infrastructure, workforce, and surveillance. Intergovernmental coordination should be enhanced with clear mandates and collaborative platforms, while digital technologies should be integrated into emergency response to improve efficiency and decision-making. Mechanisms for documenting and institutionalizing lessons learned should be established, alongside formal monitoring and evaluation frameworks. Additionally, Kenya should adopt and contextualize global best practices, invest in continuous capacity building and training for policymakers and health workers, and ensure rapid resource mobilization and contingency funding to enhance preparedness for future crises.

6.0 REFERENCES

Abdel-Motaal, K. A., & Chun, S. (2025). Governance in crisis: A mixed-methods analysis of global health governance during COVID-19. International Journal of Environmental Research and Public Health, 22(8), 1305.

Aluga, M. A. (2020). Coronavirus Disease 2019 (COVID-19) in Kenya: Preparedness, response and transmissibility. *Journal of Microbiology, Immunology and Infection*, *53*(5), 671-673.

Boin, A., & Lodge, M. (2020). *Responding to COVID-19: The politics of crisis management*. Governance, 33(4), 965–972.

Boin, A., & van Eeten, M. J. G. (2013). The resilient organization. Public Management Review, 15(3), 429–445.

Boin, A., 't Hart, P., Stern, E., & Sundelius, B. (2005/2022). The politics of crisis management: Public leadership under pressure (2nd ed.). Cambridge University Press.

Boin, A., McConnell, A., & 't Hart, P. (2020). Governing the pandemic: The politics of crisis management. Cambridge University Press.

Boin, A., McConnell, A., & 't Hart, P. (2017). *Governing after crisis: The politics of investigation, accountability, and learning*. Cambridge University Press.

Borkowski, P., Jażdżewska-Gutta, M., & Szmelter-Jarosz, A. (2021). Lockdowned: Everyday mobility changes in response to COVID-19. *Journal of Transport Geography*, *90*, 102906.

Carroll, B. J., Brummel, L., Toshkov, D., & Yesilkagit, K. (2025). Multilevel governance and responses to the COVID-19 pandemic: a systematic literature review. *Regional & Federal Studies*, *35*(2), 305-326.

Crow, D. A., Albright, E. A., Koebele, E. A., & Lawhon, L. A. (2024). Learning in crisis: Policy narratives, uncertainty, and governance change during COVID-19. Policy Studies Journal, 52(1), 3–25.

Duit, A., Galaz, V., Eckerberg, K., & Ebbesson, J. (2020). Governance, complexity, and resilience. Global Environmental Change, 62, 102064

Edelenbos, J., van Popering-Verkerk, J., Taanman, M., & Stouten, M. (2025). Multilevel governance in times of COVID-19 pandemic. Patterns of legitimacy and governance capacity. *Urban Governance*, *5*(1), 94-102.

Folke, C. (2006). Resilience: The emergence of a perspective for social–ecological systems analyses. Global Environmental Change, 16(3), 253–267.

Folke, C., Biggs, R., Norström, A. V., Reyers, B., & Rockström, J. (2016). Social-ecological resilience and biosphere-based sustainability science. Ecology and Society, 21(3), 41.

Gentilini, U., Almenfi, M., Orton, I., & Dale, P. (2020). Social protection and jobs responses to COVID-19: A real-time review of country measures. World Bank.

Hall, P. A. (1993). Policy paradigms, social learning, and the state: The case of economic policymaking in Britain. Comparative Politics, 25(3), 275–296.

Holling, C. S. (1973). Resilience and stability of ecological systems. Annual Review of Ecology and Systematics, 4, 1–23.

Kamita, M., Okiira, C., & Wekesa, P. (2023). Governance challenges and health system responses to COVID-19 in Kenya. Journal of Public Health in Africa, 14(1), 214–223.

Kathula, E. (2021). Effect of the COVID-19 pandemic on the education system in Kenya. Journal of Education and Learning, 10(3), 112–126.

Kenya Institute for Public Policy Research and Analysis (KIPPRA). (2020). COVID-19 impacts and short-term economic recovery in Kenya. Nairobi: KIPPRA. https://repository.kippra.or.ke/items/39b8eda8-6520-4002-8c02-389a8c78d8d2

KPMG. (2023). COVID-19 policy response: Lessons from global practices. KPMG International.

Kruk, M. E., Myers, M., Varpilah, S. T., & Dahn, B. T. (2020). What is a resilient health system? Lessons from Ebola. The Lancet, 385(9980), 1910–1912.

Lagat, P. (2022). COVID-19 impacts, mitigation strategies, and learning efficiency in private universities in Kenya. Strategic Journal of Education, 5(4), 78–92.

Liu, W., Yue, X. G., & Tchounwou, P. B. (2020). Response to the COVID-19 epidemic: the Chinese experience and implications for other countries. *International journal of environmental research and public health*, *17*(7), 2304.

Moyson, S. (2017). Policy learning over a decade or more and the role of interests therein. Policy Sciences, 50(3), 493–512

Mugo, P., & Otieno, S. (2021). *Policy responses to COVID-19 in Kenya: Assessing preparedness and institutional capacity*. African Journal of Public Administration and Development, 28(2), 45–62.

Njenga, C., & Mwangi, D. (2021). Socio-economic impacts of COVID-19 in Bomet County, Kenya: Education and livelihoods under lockdown. International Journal of Social Sciences and Innovation, 3(2), 55–70.

Njuguna, J., & Ooko, D. (2022). *Digital transformation and intergovernmental coordination during the COVID-19 pandemic in Kenya*. Journal of African Governance, 7(1), 59–78.

OECD. (2021). Building resilience to future shocks: Lessons from COVID-19. OECD Publishing.

Ofosu-Ampong, K., Agyekum, M. W., & Garcia, M. B. (2024). Long-Term Pandemic Management and the Need to Invest in Digital Transformation: A Resilience Theory Perspective. In *Transformative Approaches to Patient Literacy and Healthcare Innovation* (pp. 242-260). IGI Global.

Ogira, D., Okech, T. C., & Macharia, P. M. (2022). Kenya's health system response to COVID-19: A review of policy actions and system challenges. BMC Health Services Research, 22, 1087

Okuku, E., Kiteresi, L., Owato, G., Otieno, K., Mwalugha, C., Mbuche, M., ... & Omire, J. (2021). The impacts of COVID-19 pandemic on marine litter pollution along the Kenyan Coast: a synthesis after 100 days following the first reported case in Kenya. *Marine Pollution Bulletin*, *162*, 111840.

Onyango, J., & Ochieng, P. (2023). Effect of COVID-19 on health financing in Kenya: Disruptions and challenges in service delivery. Journal of Health Policy Research, 15(2), 45–61. https://pubmed.ncbi.nlm.nih.gov/37889878

Republic of Kenya. (2020). Kenya COVID-19 emergency response plan. Government Printer.

UNDP. (2022). *Building forward better: Strengthening resilience after COVID-19 in Africa*. United Nations Development Programme.

UNESCO. (2021). Education: From disruption to recovery. United Nations Educational, Scientific and Cultural Organization.

Wang, Q., Su, M., Zhang, M., & Li, R. (2021). Integrating digital technologies and public health to fight Covid-19 pandemic: key technologies, applications, challenges and outlook of

digital healthcare. International Journal of Environmental Research and Public Health, 18(11), 6053.

Wangamati, C. K., Geissler, P. W., Nyambedha, E. O., & Prince, R. J. (2025). Health providers' perspectives on effects of the COVID-19 pandemic and anti-epidemic measures on maternal health services in Nairobi, Kenya: A qualitative study. BMC Pregnancy and Childbirth, 25, Article 430

WHO. (2021). *Kenya COVID-19 response report: Strengthening public health preparedness*. World Health Organization Regional Office for Africa.

WHO. (2022). Global COVID-19 strategy and lessons learned. World Health Organization.

World Bank. (2021). *Social protection and COVID-19 in Kenya: Lessons for future shock-responsive systems*. World Bank Group.

World Bank. (2020). Kenya economic update: COVID-19 erodes progress in poverty reduction in Kenya, increases number of poor citizens. World Bank. https://www.worldbank.org/en.

Zaki, B. L. (2024). Policy learning under uncertainty: Crisis-driven governance reforms in the Global South. Journal of Public Policy, 44(2), 241–260.