Analysis of the Implementation and Follow-Up Recommendations of Neonatal Maternal and Perinatal Audit Surveillance and Response (MPASR)

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Abstract

Neonatal mortality remains a critical barrier to achieving the Sustainable Development Goals (SDGs), particularly in District X, where deaths during the first 0–6 days of life are rising. This study explores the implementation of the Maternal Perinatal Audit Surveillance and Response (MPASR) policy at the hospital level and evaluates the extent to which its recommendations are followed to reduce preventable neonatal deaths. A descriptive qualitative case study was conducted in two referral hospitals (one public and one private) in District X. Twelve purposively selected informants directly involved in neonatal MPASR implementation participated in in-depth interviews. Data were triangulated through direct observation and document review, including perinatal medical records, neonatal mortality reports, MPASR policy documents, meeting minutes, and MPASR notification data. Thematic analysis was guided by the Van Meter and Van Horn policy implementation framework to identify factors influencing performance. Findings indicate that neonatal MPASR has been implemented in line with national guidelines, and all procedural stages (identification, reporting, audit, and response) are formally conducted. However, implementation remains inconsistent and unsustained. Gaps were observed in SOP adherence, human resource capacity, training continuity, and structured monitoring of recommendation follow-up. Communication across organizations is not standardized and often depends on key individuals. High clinical workload, limited financing, systemic constraints within the MPASR system, and administrative requirements of National Health Insurance contribute to reporting delays and weak execution of corrective actions. Although MPASR functions as a surveillance and audit mechanism, systemic weaknesses in follow-up and monitoring limit its effectiveness as an integrated quality improvement system, undermining its potential to reduce neonatal mortality and advance SDG targets. Strengthening integration with hospital quality systems, digitalizing reporting processes, establishing structured monitoring mechanisms, and reinforcing managerial and policy support are essential to optimize impact.

Keywords: MPASR, Neonatal Mortality, Policy Implementation.

INTRODUCTION

Infant Mortality Rate (IMR) and Neonatal Mortality Rate (NMR) are critical indicators of population health and progress toward the Sustainable Development Goals (SDGs). In 2022, 2.4 million infant deaths were recorded globally, with 47% occurring during the neonatal period. Between 2021 and 2023, global NMR remained high (17.26–17.9%), while Southeast Asia reported rates of 11.8–12.3%. Indonesia contributed substantially to these figures (WHO, 2024; UNICEF, 2024). Nationally, IMR increased by 56.55% from 2022 to 2023, with most deaths occurring within the first week of life (Indonesian Ministry of Health, 2024). In Central

Java, NMR rose by 14.61% in 2023 (Dinkes Jateng, 2024). and Demak Regency reported 7.3 neonatal deaths per 1,000 live births in 2024, primarily within 0–6 days of life. The leading causes included low birth weight, asphyxia, sepsis, and congenital anomalies, with most cases occurring in referral hospitals (Dinkes Kab. Demak, 2024).

Efforts to reduce maternal and infant mortality have been pursued through the Maternal Perinatal Audit Surveillance and Response (MPASR) program, which seeks to identify preventable causes of death and generate improvement recommendations through four main cycles: identification, reporting, review, and response (Indonesian Ministry of Health, 2023; Willcox et al., 2021). However, multiple studies highlight that MPASR implementation at the regional and hospital levels remains suboptimal, particularly in reporting, case review, and follow-up of recommendations (Rusmawati, 2023; Ambarwati et al., 2023). Only 41.93% of hospitals conduct maternal perinatal medical or clinical audits, and the recommendations produced are often nonspecific to underlying causes and inadequately implemented (Indonesian Ministry of Health, 2023).

International literature consistently emphasizes that while audit systems can reduce perinatal mortality, their effectiveness depends on structured follow-up, leadership, adequate governance and resources, and the cultivation of a non-punitive culture (Willcox et al., 2021; Yuya et al., 2025; Gutman et al., 2022). Persistent barriers, including limited human resources, heavy clinical workload, weak coordination, incomplete data, and fear of blame, often hinder the translation of audit findings into sustained quality improvement (Ogola et al., 2022). These insights highlight that the success of MPASR relies not only on technical procedures but also on data quality, organizational commitment, coordination, and overall system capacity. Preliminary hospital-level studies in Indonesia further reveal delays in MPASR notifications, incomplete documentation, weak team coordination, and recommendations that are not SMART (Specific, Measurable, Achievable, Relevant, Time-bound), leading to inconsistent application (Safitri & Pujiyanto, 2021).

Despite the formal establishment of MPASR, empirical evidence on operational barriers to effective recommendation follow-up at the hospital level in Indonesia remains limited. Most evaluations focus narrowly on procedural compliance rather than examining how policy standards, resources, organizational structures, communication patterns, environmental pressures, and implementer attitudes interact to shape outcomes. This study addresses that gap by applying the Van Meter and Van Horn policy implementation framework, providing a structured and theoretically grounded analysis of MPASR implementation in district referral hospitals. By dissecting the interplay between policy design, resource capacity, organizational

characteristics, communication systems, and external socio-political environments, this study offers new insights into why audit follow-up remains suboptimal and how systemic strengthening can enhance MPASR effectiveness in reducing preventable neonatal mortality.

METHODS

This study employed a descriptive qualitative case study design to enable an in-depth exploration of the processes, context, and dynamics of neonatal Maternal Perinatal Audit Surveillance and Response (MPASR) policy implementation as a complex and context-specific system within referral hospitals. The study variables were guided by the Van Meter and Van Horn policy implementation model. Primary data were collected through in-depth interviews using structured interview guides and direct observation. Secondary data were obtained from supporting documents, including Perinatal Medical Records (PMR), hospital and district neonatal mortality reports, MPASR policy documents, review meeting minutes, and MPASR notification data.

The study was conducted in two main referral hospitals in District X, one public and one private, and included informants from the District Health Office, serving as regulators and external supervisors of MPASR implementation. A total of 18 informants were purposively selected, comprising 12 key informants and 6 triangulation informants, based on their direct involvement or strategic roles in neonatal MPASR implementation. All participants had at least one year of experience and were actively engaged in the MPASR cycle. Data collection continued until saturation was reached, as indicated by recurring information and the absence of new emerging themes. Thematic analysis was performed through data reduction, display, verification, and conclusion drawing, guided by the theoretical framework. Credibility was ensured through member checking, whereby interview transcripts and preliminary interpretations were returned to informants for validation. Ethical principles, including informed consent, confidentiality, and anonymity, were strictly observed, and the study received approval from the Ethics Committee of Diponegoro University, Semarang (No. 238/EA/KEPK-FKM/2025).

RESULTS

Overview of Neonatal Mortality

In District X, both hospitals function as primary referral centers for maternal and neonatal cases. Most neonatal deaths occurred during the early neonatal period (0–6 days), primarily due to asphyxia, prematurity, low birth weight, infections, and delivery complications. In

contrast, late neonatal deaths (7–28 days) were fewer and largely associated with secondary infections, nutritional problems, and congenital anomalies. Figures 1 and 2 illustrate neonatal mortality trends in the public and private hospitals from 2021 to 2023. These figures are presented to provide contextual background on neonatal mortality in the district and do not directly reflect the outcomes of MPASR implementation.

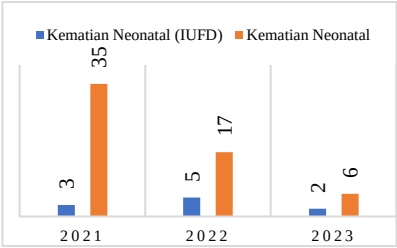

Figure 1. Neonatal Mortality Trend at Public Hospital, 2021–2023

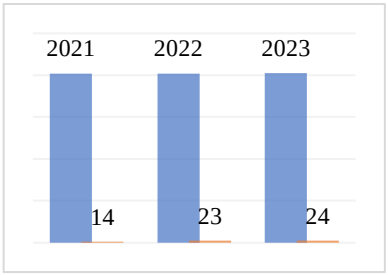

Figure 2. Neonatal Mortality Trend at the Private Hospital, 2021–2023

The public hospital recorded a substantial decline in neonatal mortality, from 38 cases in 2021 to 8 in 2023, reflecting improvements in neonatal care and clinical management. In contrast, the private hospital exhibited an upward trend, with deaths increasing from 14 cases in 2021 to 24 in 2023. Despite resource limitations, the private hospital remained actively engaged in neonatal MPASR implementation, particularly in the documentation and reporting of death cases.

Characteristics of Respondents

This study involved 18 informants: 12 key informants and 6 triangulation informants. All participants had at least one year of experience, were actively involved in the neonatal MPASR cycle, and provided informed consent.

Table 1. Characteristics of Key Informants

Code	Age	Sex	Education	Position	Length of Service
IU1	47 years	Male	General Practitioner	Head of MPASR Committee / Working Group, Public Hospital	15 years
IU2	38 years	Female	Professional Nurse	MPASR Secretariat Coordinator, Public Hospital	10 years
IU3	33 years	Female	Bachelor of Midwifery	MPASR Administrator, Public Hospital	6 years
IU4	45 years	Male	General Practitioner	Pediatrician, Private Hospital	14 years
IU5	36 years	Female	Professional Nurse	MPASR Team Coordinator, Private Hospital	9 years
IU6	31 years	Female	Bachelor of Midwifery	Medical Records Administrator, Private Hospital	5 years
IUP1	46 years	Female	Bachelor of Midwifery	Head of Perinatology Unit, Public Hospital	18 years
IUB1	34 years	Female	Diploma in Midwifery	NICU Nurse, Public Hospital	9 years

IUP2	43 years	Female	Bachelor of Midwifery	Head of Perinatology Unit, Private Hospital	15 years
IUB2	31 years	Female	Diploma in Midwifery	Midwife, Perinatology Unit, Private Hospital	7 years
IUA1	45 years	Female	Pediatric Specialist	Pediatrician, Public Hospital	15 years
IUA2	42 years	Male	Pediatric Specialist	Pediatrician, Private Hospital	12 years

Table 2. Characteristics of Triangulation Informants

Code	Age	Sex	Education	Position	Institution / Location	Years in Program
IT1	52 years	Female	Bachelor of Midwifery	Head of Family Health Team (Kesga)	District Health Office	7 years
IT2	38 years	Female	Bachelor of Midwifery	MPASR Verifier	District Health Office	5 years
IT3	38 years	Female	Bachelor of Midwifery	Maternal and Child Health (MCH) Coordinating Midwife	Primary Health Center	12 years
IT4	42 years	Female	Diploma in Midwifery	Maternal and Child Health (MCH) Coordinating Midwife	Primary Health Center	9 years
IT5	46 years	Male	General Practitioner	Head of Medical Services Division	Public Hospital	6 years
IT6	48 years	Male	General Practitioner	Head of Medical Services Division	Private Hospital	10 years

Key informants consisted of hospital staff directly involved in neonatal MPASR implementation at two referral hospitals in District X, including committee heads, secretariat coordinators, pediatricians, MPASR administrators, heads of perinatology units, and neonatal nurses and midwives. They were predominantly female, aged 31–47 years, and represented multidisciplinary backgrounds in medicine, nursing, and midwifery with 5–18 years of professional experience. Triangulation informants were drawn from the District Health Office, Puskesmas, and hospital management, comprising the Head of the Family Health Team, MPASR verifiers, MCH coordinating midwives, and Heads of Medical Services. With 14–25 years of professional experience and 5–12 years in related programs, they contributed broader institutional and policy-level perspectives on neonatal MPASR implementation.

Implementation of Neonatal MPASR in District X

The implementation of Neonatal MPASR in District X generally aligns with national policy, encompassing the stages of identification and notification, reporting, review, and response with follow-up. Hospitals and stakeholders perceive it not merely as a reporting requirement, but as a tool for learning and improving neonatal care. In the identification and notification Stage, neonatal death reporting follows a structured pathway from service unites to the MPASR team and system, under hospital and District Health Office supervision. However, timely notification within 24 hours is often delayed due to limited human resources, multi-level verification processes, hybrid reporting systems, and incomplete initial documentation.

At the reporting stage, neonatal death cases are documented through standardized procedures, beginning at service units and progressing to the MPASR secretariat, followed by team verification, data entry into the MPASR system, and submission to the District Health Office. Although this tiered process is implemented in accordance with established protocols at both facility and district/city levels, incomplete and low-quality Perinatal Medical Records (PMRs) remain a major limitation, undermining data accuracy and completeness. The assessment or audit stage is conducted by a formally established multidisciplinary team using a non-blaming, learning-oriented approach. While this process is consistent with national guidelines, the target timeline of ≤14 days is often not achieved due to delays in data submission, incomplete documentation, and limited staff availability.

In the response stage, hospitals implemented MPASR recommendations through SOP revisions, strengthened referral systems, staff training, and improvements in neonatal infrastructure, particularly within delivery and perinatology units where most deaths occurred. However, the consistency and sustainability of these efforts remain uneven, constrained by human resource limitations, workload, and variable hospital policy and budget support. Follow-up of MPASR recommendations is carried out through hospital quality meetings, multidisciplinary discussions, and formal assignment to responsible units. Recommendations are categorized into short- and medium-term actions, with a primary focus on neonatal care pathways, early stabilization, referral coordination, and MPASR documentation.

Using the Van Meter and Van Horn framework, the implementation of neonatal MPASR in District X can be examined across four dimensions: Resources, Inter-organizational Communication, Organizational Structure, and Policy Response. This synthesis integrates interview findings, observational data, and hospital documentation to provide a comprehensive understanding of systemic barriers and facilitators. Figure 3 (Conceptual Diagram) maps these barriers and facilitators onto the Van Meter and Van Horn framework, illustrating how resources, communication, organizational structures, and policy responses interact to shape the effectiveness of neonatal MPASR implementation in District X.

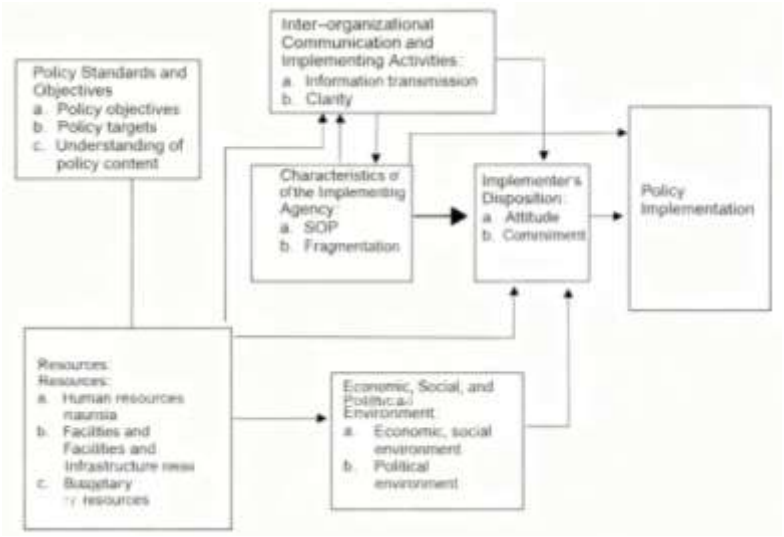

Figure 3. Van Meter and Van Horn Framework

In terms of resources, neonatal MPASR implementation in District X is formally supported by the availability of human resources, budget allocations, infrastructure, time, and structurally established systems. Both hospitals have administratively well-organized MPASR teams consisting of clinical and managerial personnel, including pediatricians, obstetricians, midwives, NICU nurses, medical record officers, and secretariat staff. Despite this structural completeness, active participation remains limited due to dual clinical responsibilities and heavy workloads, which reduce the time available for case review and follow-up of recommendations. Hybrid manual–digital reporting systems are used to support documentation; however, they remain vulnerable to inconsistencies and incomplete data, further constraining effective implementation.

Inter-organizational communication between service units, the MPASR team, and the District Health Office follows a structured pathway but faces several operational challenges. Early identification relies on tiered verbal reporting within 24 hours; however, delays frequently occur due to the need for physician confirmation and incomplete initial data. Coordination for review and response tends to be stronger in public hospitals, reflected in faster SOP updates and more consistent cross-unit communication, whereas private hospitals demonstrate slower integration of audit recommendations despite active documentation practices. Although the reporting flow is clearly defined and supported by verification and feedback from the Health Office, communication barriers persist, including limited human resources, delayed clinical validation, gaps in referral feedback, and difficulties in obtaining family data for verbal autopsy.

From an organizational perspective, both hospitals have formally established multidisciplinary MPASR teams legitimized through Director's Decrees and integrated into

hospital quality structures. These teams include representatives from clinical, nursing, administrative, and managerial units, enabling the audit process to be conducted systematically. However, adherence to the ≤14-day review target remains inconsistent due to staff scheduling constraints, delayed data submission, and incomplete documentation. Prioritizing high-risk or preventable cases helps optimize limited resources, yet not all neonatal deaths undergo comprehensive review, thereby reducing overall audit coverage. In addition, role overlap frequently occurs as a result of limited staffing and uneven understanding of shared responsibilities, leading MPASR secretariats and administrators to assume additional tasks when unit-level data preparation is insufficient.

Regarding policy standards and targets, both hospitals implement neonatal MPASR in accordance with the 2022 National Guidelines, supported by technical instructions from the Health Office, internal SOPs, and formal institutional structures such as MPASR committees and secretariats. Post-review responses are translated into SOP revisions, strengthened inter-unit coordination, staff training initiatives, and improvements in neonatal infrastructure, particularly in delivery and perinatology units. These recommendations are formally discussed in hospital quality meetings and assigned to responsible units. However, the absence of structured monitoring mechanisms, reminder systems, and clearly defined timelines limits the consistency and sustainability of implementation. Public hospitals demonstrate more systematic adoption of recommendations, while private hospitals face operational and resource constraints that delay full integration. Overall, despite clear policy frameworks and institutional support, operationalization remains inconsistent due to budget limitations, insufficient dedicated time, varying levels of SOP comprehension, and overlapping administrative responsibilities, ultimately reducing the effectiveness of neonatal MPASR implementation.

The synthesis of findings highlights several common barriers across both hospitals, including delayed notification, incomplete documentation, limited human resources, and weak monitoring of recommendation follow-up. Key facilitators include the presence of multidisciplinary team structures, formalized review processes, and institutional engagement through hospital quality committees. Public hospitals demonstrated stronger inter-unit coordination and faster implementation of recommendations, whereas private hospitals excelled in meticulous documentation but struggled with operational consistency. Overall, these findings underscore the need to integrate MPASR activities into hospital quality systems, strengthen digital reporting, and establish structured follow-up mechanisms to enhance policy implementation.

DISCUSSION

Implementation of Neonatal MPA-SR

Neonatal Maternal Perinatal Death Surveillance and Response (MPASR) in District X operates as a cyclical quality improvement mechanism encompassing case identification, notification, reporting, multidisciplinary review, and follow-up response, consistent with WHO recommendations for systematic, non-punitive perinatal audits (WHO, 2022). The findings indicate that although all core stages are formally implemented, operational performance remains uneven. Effectiveness is shaped by policy clarity, resource availability, organizational structures, communication systems, and external environmental factors, aligning with the dimensions outlined in the Van Meter and Van Horn policy implementation model.

Identification and notification follow a defined workflow from service units to the MPASR team and the MPASR system. The 24-hour reporting target is often unmet due to limited human resources, reliance on hybrid manual–digital systems, and incomplete medical records. These challenges mirror findings in other LMIC contexts, where delays and incomplete data undermine the effectiveness of perinatal audits (Lundin et al., 2022). Further delays in completing Medical Summary and Verbal Autopsy forms disrupt case reviews and mortality audits, postponing corrective actions and weakening the continuous quality improvement cycle, thereby limiting prevention effectiveness (Yanti et al., 2025; Gutman et al., 2022). Patterns of early neonatal deaths, primarily linked to prematurity, asphyxia, and infection, reflect national and global trends (Qin et al., 2025, Dol et al., 2023).

Reporting and documentation processes adhere to formal mechanisms; however, incomplete Perinatal Medical Records and inconsistent cause-of-death classification limit analysis of preventable factors. Similar challenges have been reported in middle-income countries such as Kenya and South Africa, where inadequate record integration and documentation gaps remain pervasive barriers. In District X, these weaknesses are compounded by a reliance on key individual staff for data continuity, reflecting a contextual vulnerability (Gondwe et al., 2021; Ahmed et al., 2023). Comparable challenges in busy hospitals with non-integrated systems hinder the identification of contributing factors and the formulation of actionable recommendations (Ngwena et al., 2024). Evidence suggests that electronic medical record integration with MPASR enhances timeliness and completeness (Özkan & Acar, 2025), whereas delays are commonly associated with manual documentation, limited staff time, and insufficient understanding of audits as tools for quality improvement tools (Helps et al., 2021; Webb et al., 2021).

The audit stage aligns with national guidelines and employs a non-blaming, learning-oriented approach. However, compliance with the ≤14-day review target remains inconsistent due to delayed data, incomplete records, and limited staff availability. Prioritization typically focuses on preventable cases and those with high learning value, helping to optimize limited resources. These challenges underscore the importance of implementer capacity and organizational characteristics as critical determinants of policy success, consistent with the Van Meter and Van Horn framework (Gondwe et al., 2021; Mary et al., 2024). While multidisciplinary collaboration supports the formulation of effective recommendations, delays in data availability and gaps in documentation reduce audit effectiveness and limit the potential for timely corrective action (Fithriany et al., 2024).

Response and follow-up activities, such as SOP revisions, staff training, and infrastructure strengthening, are implemented but executed inconsistently and rarely adhere fully to SMART principles. Global evidence confirms that weaknesses in the response and monitoring stages undermine the overall effectiveness of MPASR (Kinney, et al., 2021;Choobdarnezhad et al., 2024). Targeted interventions remain consistent with findings that perinatal audits can address stabilization gaps, referral delays, and SOP inconsistencies (Medeiros et al., 2023). However, without strong managerial commitment and adequate resources, audit recommendations often fail to translate into sustained systemic change (Kebaya et al., 2021). In District X, weak managerial support, fragmented communication, and resource limitations further constrain follow-up, underscoring the interplay of policy, organizational, and environmental factors as highlighted in the Van Meter and Van Horn framework (Palestra et al., 2025).

Follow-Up of Recommendations

Follow-up of MPASR recommendations is conducted through quality meetings and assignment of responsibility to designated units, with a focus on workflow improvement, high-risk screening, early neonatal monitoring, and documentation. However, limited human resources, bureaucratic processes, and weak organizational commitment constrain optimal implementation. To generate sustained impact, audit recommendations must be translated into procedural adjustments, staff training, and system-level changes (Gondwe et al., 2021; Helps et al., 2021). Compared with similar middle-income settings, District X demonstrates a uniquely high reliance on informal communication and individual initiative, reflecting contextual organizational constraints (Gutman et al., 2022; Woerdt-Eltink et al., 2025). Although MPASR standards and the no-blame, no-shame principle are clearly defined, policy internalization at the service- unit level remains inconsistent, with audits at times perceived as

administrative burdens rather than quality improvement tools. Similar gaps between policy clarity and operational capacity have been widely reported (Gutman et al., 2022), underscoring the need for consistent operational enforcement despite the existence of national guidelines (Ambarwati et al., 2023).

Key barriers to effective MPASR implementation include limited staffing, uneven training, high workload, and financial constraints. Leadership, organizational culture, and inter-unit or cross-facility communication play a critical role in sustaining audit continuity (Kinney, et al., 2021). Persistent shortages of trained personnel and difficulties in maintaining functional audit teams remain major obstacles in LMIC settings (Yanti et al., 2025). Socio-economic disparities, local cultural factors, financing policies, and limitations in digital infrastructure further complicate implementation (Pusponegoro et al., 2025). Formally, MPASR in District X is institutionally supported through director decrees and integration within hospital quality committees, providing structural legitimacy. Leadership, staff capacity, and clear organizational structure are essential for effective MPASR implementation (Kinney, et al., 2021). Follow-up actions, including SOP revisions and clinical feedback, are central to reducing mortality (Belaid et al., 2020), yet weak managerial support and resource constraints continue to undermine their effectiveness.

Communication systems are formally structured but function suboptimally due to delayed information flow, reliance on informal practices, and incomplete data, all of which compromise review and response processes (Fithriany et al., 2024). Weak inter-unit coordination and documentation gaps further diminish audit cycles and follow-up quality (Tayebwa et al., 2020). Fear of blame and unsupportive work environments may also limit openness in case discussions (Willcox et al., 2021), while fragmented data integration impedes meaningful service improvements (Madjid et al., 2023). Implementers' attitudes strongly influence performance: although healthcare workers generally perceive MPASR positively, levels of support vary depending on context, training, and experience (Kashililika et al., 2024). Time constraints and resource limitations reduce engagement (Khader et al., 2022). Positive attitudes, adequate knowledge, and a supportive learning culture are therefore critical to audit effectiveness (Yuya et al., 2025).

Based on the Van Meter and Van Horn framework, MPASR implementation in District X rests on a strong policy and structural foundation. Nevertheless, effectiveness is shaped by human resource limitations, organizational characteristics, implementer attitudes, weak information system integration, and external economic, social, and political pressures. Strengthening MPASR requires a systemic approach that addresses audit technicalities,

supporting policies, organizational culture, and protections for implementers to achieve optimal reductions in neonatal mortality.

Public Health Implications for Policy and Practice

The central public health challenge identified is the systemic failure in the response stage, which prevents MPASR from functioning as an effective mortality reduction intervention. Without closing this loop, the policy remains primarily a surveillance tool rather than a mechanism for improving outcomes. Actionable strategies include strengthening hospital management by mandating the integration of MPASR into hospital quality committees, establishing structured digital tracking tools for recommendations, and incorporating MPASR performance into accreditation and clinical governance metrics. At the district level, the Health Office should enhance technical guidance, coordinate cross-facility audits, provide resource support for follow-up actions, and facilitate the integration of MPASR data systems. At the national level, policymakers need to develop standardized digital infrastructure, enforce policy guidelines for SMART recommendation follow-up, link audit performance with national quality standards, and allocate sustainable funding for MPASR implementation. By addressing the organizational, resource, and policy gaps identified in this study, these strategies can transform neonatal MPASR from a surveillance mechanism into an effective intervention for reducing neonatal mortality, in line with SDG targets and international audit best practices.

Study Limitations

This study has several limitations. The qualitative case study design in two hospitals in District X provides in-depth contextual insights; however, findings cannot be generalized broadly due to differences in social context, policies, and healthcare systems across regions. Limitations and incompleteness of secondary documents constrained data verification and in-depth analysis. Researcher bias in data interpretation cannot be fully eliminated, despite triangulation efforts. Constraints in time, access, and informant workload also affected the depth and breadth of data collection.

CONCLUSIONS

Neonatal MPASR implementation in District X has formally followed the national framework and covered all key stages. Its main systemic weakness lies in the response cycle, particularly in the follow-up and monitoring of recommendations. As a result, MPASR functions largely as a surveillance and audit mechanism rather than as an effective mortality reduction intervention. Although organizational structures and the *no–blame–no–shame* principle have been established, limited resources, inconsistent SOP adherence, fragmented

communication, and a weak information system hinder sustainable implementation. Without closing the response loop, MPASR cannot fully operate as a continuous quality improvement tool in neonatal care.

Strengthening implementation requires integrating MPASR into hospital quality assurance systems, ensuring dedicated resources and clinical leadership for structured follow-up, and standardizing and digitalizing reporting mechanisms. The District Health Office should intensify technical supervision, strengthen cross-level coordination, and secure policy and budgetary support to operationalize audit recommendations. At the national level, clearer regulatory oversight, integration with accreditation and quality frameworks, and sustainable digital infrastructure are essential to ensure MPASR evolves beyond surveillance toward measurable reductions in neonatal mortality.

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