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The Role of Emergency Medicine in Addressing the Global Burden of Maternal and Child Health: A Public Health Approach

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Abstract: Maternal and child health (MCH) remains a major global public health priority, with hundreds of thousands of preventable maternal deaths and millions of neonatal and under-five deaths occurring annually, disproportionately affecting low- and middle-income countries (LMICs), where approximately 95% of maternal deaths occur. Emergency medicine (EM), including emergency obstetric and newborn care (EmONC), plays a critical role in the rapid assessment, stabilization, and management of life-threatening complications during pregnancy, childbirth, and the postpartum period; however, its integration into broader MCH strategies remains inconsistent across health systems. This review synthesizes existing evidence on the role, impact, and challenges of emergency medicine in addressing the global burden of maternal and child mortality from a public health perspective. A structured literature review was conducted using multiple databases to identify peer-reviewed studies, systematic reviews, policy documents, and clinical guidelines examining emergency care interventions relevant to MCH outcomes. Findings indicate that timely emergency care substantially improves maternal and child survival through effective management of obstetric hemorrhage, sepsis, hypertensive disorders of pregnancy, birth asphyxia, and postpartum emergencies, particularly when emergency departments, prehospital care, referral systems, and EmONC services are well integrated with antenatal and community-based care. Nonetheless, persistent challenges, including workforce shortages, inadequate infrastructure, limited emergency transport, and inequitable access to EmONC, continue to constrain impact in many LMIC settings. Strengthening emergency medicine systems through targeted policy reforms, workforce development, and integration within maternal and child health frameworks is essential for reducing preventable mortality, addressing health system inequities, and advancing progress toward the Sustainable Development Goals.

Keywords: Emergency Medicine, Maternal Health, Child Health, Public Health, Emergency Obstetric and Newborn Care, Health Systems, LMICs.

Research Paper

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INTRODUCTION

Maternal and child health remains a central concern in global public health, despite decades of international commitment and sustained interventions (Lawrence, 2025). Although significant reductions in maternal and child mortality have been recorded since the early 2000s, recent evidence suggests that progress has slowed and, in some regions, reversed. According to the World Health Organization (WHO, 2023a), an estimated 287,000 women die each year from pregnancy-related causes, while millions more suffer severe maternal morbidities that compromise long-term health and wellbeing. Similarly, neonatal and under-five mortality continue to account for a substantial proportion of the global disease burden, with preventable and treatable conditions such as birth asphyxia, sepsis, pneumonia, diarrheal diseases, and complications of prematurity remaining leading causes of death (UNICEF, 2023; WHO, 2023b).

These adverse outcomes are disproportionately concentrated in low- and middle-income countries

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(LMICs), particularly in sub-Saharan Africa and South Asia, where approximately 99 percent of maternal and neonatal deaths occur (WHO, 2023a). Structural inequities, weak health systems, inadequate infrastructure, and shortages of skilled health personnel continue to limit access to timely and quality care in these settings (Ayalew *et al*., 2021). In response, the global community has articulated ambitious targets through the Sustainable Development Goals (SDGs), notably SDG 3.1 and SDG 3.2, which aim to reduce global maternal mortality to fewer than 70 deaths per 100,000 live births and end preventable deaths of newborns and children under five by 2030 (United Nations, 2015). However, achieving these targets remains challenging, particularly in contexts where emergency care services are poorly developed or unevenly distributed (Sigua *et al.,* 2025)

Pregnancy, childbirth, and the early postnatal period are inherently dynamic and unpredictable, with an estimated 15 percent of pregnancies complicated by potentially life-threatening conditions such as postpartum haemorrhage, hypertensive disorders, sepsis, and obstructed labour (Campbell & Graham, 2006). Newborns are similarly vulnerable during the immediate post-delivery period, when delays in recognition and management of complications can rapidly lead to death or long-term disability (WHO, 2018). Evidence consistently demonstrates that most maternal and neonatal deaths are preventable through timely access to skilled care and effective emergency obstetric and newborn services (WHO, 2019).

Emergency medicine serves as a significant guild in tackling these time-sensitive conditions. Traditionally viewed as a specialty focused on acute illness and injury, emergency medicine occupies a strategic position at the intersection of clinical care and public health (Almubarak., 2025). Emergency departments and prehospital services often serve as the first and sometimes only point of contact for women and children experiencing life-threatening complications, particularly in settings where routine antenatal or postnatal care is limited (Reynolds *et al*., 2017). Through rapid assessment, stabilization, and referral, emergency care systems directly influence survival outcomes for obstetric and neonatal emergencies.

From a public health perspective, the role of emergency medicine extends beyond individual patient management to encompass system-level functions such as surveillance, referral coordination, and health system resilience (Megan, 2013). Emergency care data provide valuable insights into patterns of morbidity and mortality, helping to identify gaps in maternal and child health services and inform policy responses (Kruk *et al*., 2018). More so, effective emergency medical services can mitigate the well-documented “three delays” that contribute to maternal and neonatal deaths, delays in deciding to seek care, reaching an appropriate facility, and receiving timely treatment (Tamir, 2024). In spite of its importance, access to emergency care remains highly unequal. Studies have shown that large segments of the population in sub-Saharan Africa lack timely access to emergency hospital services, particularly in rural and hard-to-reach areas (Ouma *et al*., 2018). In such contexts, strengthening emergency medicine, including emergency obstetric and newborn care (EmONC), referral systems, and prehospital transport has been identified as a cost-effective and impactful strategy for reducing maternal and child mortality (WHO, 2019; IFEM, 2024).

In recent years, global health discourse has increasingly recognised emergency medicine as a foundational component of high-quality health systems and universal health coverage. Integrating emergency care into maternal and child health strategies enhances continuity across the care pathway, from community-level prevention to facility-based intervention and referral (Reynolds *et al*., 2017). When adequately resourced and strategically aligned with primary and maternal health services, emergency medicine contributes not only to survival during crises but also to equity, system responsiveness, and long-term population health gains.

Against this backdrop, this article adopts a public health approach to examine the role of emergency medicine in addressing the global burden of maternal and child health. By synthesising evidence from global health literature and policy frameworks, the article emphasises how emergency medicine contributes to prevention, early intervention, and health system strengthening, and stresses its relevance to achieving global maternal and child health goals.

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Figure 1: A diagram illustrating the role of emergency medicine
Source: Visual Imagine

METHODOLOGY

Study Design

This article employed a narrative literature review design to synthesise and critically interpret existing evidence on the role of emergency medicine in addressing maternal and child health (MCH) challenges from a public health perspective. The narrative approach was considered appropriate given the multidisciplinary scope of emergency medicine, its integration within broader health systems, and the heterogeneity of study designs and outcomes across global contexts. Rather than focusing on quantitative effect estimation, the review emphasised contextual interpretation, policy relevance, and health system implications.

Review Objectives

The review was guided by three key objectives: to examine the contribution of emergency medicine to reducing preventable maternal and child morbidity and mortality; to identify gaps in emergency care delivery that affect MCH outcomes; and to generate policy- and practice-relevant insights that inform health system strengthening, particularly in low- and middle-income countries (LMICs). These objectives shaped the analytical framing of the introduction and the interpretive emphasis of the discussion.

Scope of the Review

The scope of the review included literature published between 2000 and 2025 addressing emergency care interventions for obstetric and newborn complications, including emergency obstetric and newborn care (EmONC); the role of emergency departments and prehospital emergency medical services in maternal and child health outcomes; and public health frameworks that integrate emergency care within maternal and child health strategies. To enable a balanced global perspective, evidence from low-, middle-, and high-income settings was considered.

Data Sources and Search Strategy

A comprehensive search of academic and grey literature was conducted using major databases, including PubMed/MEDLINE, EMBASE, CINAHL, ScienceDirect, Google Scholars, and Scopus, selected for their coverage of emergency medicine, maternal and child health, nursing, and public health research. Grey literature from authoritative organisations such as the World Health Organization (WHO) and the International Federation for Emergency Medicine (IFEM) was also reviewed to capture policy-oriented and system-level perspectives. Reference lists of key articles were manually screened to identify additional relevant studies. The search strategy employed structured combinations of key terms, including "emergency medicine," "emergency obstetric care," "maternal mortality," "newborn health," "child health," "emergency department," and "public health," with Boolean operators (AND, OR) used to refine results across databases.

Study Selection

Studies were considered eligible for inclusion if they were published in peer-reviewed journals or issued as authoritative public health or policy reports and examined emergency care interventions relevant to maternal or child health outcomes. Eligible studies were required to provide empirical findings, conceptual frameworks, or policy-relevant analyses that addressed the integration of emergency medicine within health systems. Only studies available in the English language

were included. Studies were excluded if they addressed emergency medicine without relevance to maternal or child health, focused exclusively on emergency conditions unrelated to pregnancy, childbirth, or paediatric care, lacked sufficient methodological clarity or analytical depth, or consisted solely of opinion-based commentaries without supporting evidence or synthesis.

Screening and Appraisal Process

Titles and abstracts were initially screened for relevance to the review objectives. Full-text articles were retrieved for studies that met the inclusion criteria or where relevance could not be determined from abstracts alone. Retrieved articles were appraised for methodological robustness, relevance to global and LMIC contexts, and contribution to understanding the role of emergency medicine in maternal and child health. Duplicate records and studies outside the defined scope were excluded.

Data Extraction and Synthesis

Data were extracted using a structured approach that captured key information on study aims and design, geographic and health system context, emergency care interventions or service components, and maternal and child health outcomes, including mortality reduction, access to timely care, and system responsiveness. Extracted data were synthesised thematically, allowing for comparative interpretation across diverse settings and study designs. This approach supported a policy-focused discussion of emergency medicine's contribution to health system performance, equity, and public health outcomes.

DISCUSSION

Emergency Medicine and Maternal Health

Maternal health emergencies, including postpartum haemorrhage, hypertensive disorders of pregnancy (such as eclampsia), sepsis, and obstructed labour, remain among the leading causes of maternal morbidity and mortality globally, particularly in low- and middle-income countries (LMICs) (World Health Organization [WHO], 2019; Say *et al.,* 2014). Despite significant advances in obstetric care, many women continue to die from complications that are largely preventable with timely and appropriate emergency intervention (Asiri *et al*., 2025). Emergency medicine therefore occupies a central position in the continuum of maternal healthcare, as it provides the first point of definitive care for women presenting with life-threatening obstetric complications. (Lakshmi *et al*., 2021).

The role of emergency medicine in maternal health is especially critical in the prompt recognition, stabilization, and management of acute obstetric conditions (Banke-Thomas *et al*., 2016). It has been observed that the role of EM in the global effort to reduce maternal mortality has been clearly established. There is substantial evidence supporting EM as the most cost-effective strategy for reducing maternal mortality in LMIC (Austin *et al*., 2015). Rapid triage, early diagnosis, and immediate initiation of life-saving interventions, such as fluid resuscitation, administration of uterotonics, magnesium sulphate for eclampsia, broad-spectrum antibiotics for sepsis, and timely blood transfusion, are fundamental determinants of maternal survival (Knight *et al*., 2019; WHO, 2022). In view of Tolamise & Adebobola (2025), effective emergency referral systems that facilitate swift transfer to higher-level facilities for surgical interventions, including caesarean section or hysterectomy when indicated, significantly reduce maternal mortality and severe morbidity The presence of skilled emergency and obstetric personnel, supported by functional health infrastructure and essential supplies, has been consistently associated with improved maternal outcomes (Campbell & Graham, 2006).

Apart from its immediate clinical function, emergency medicine also contributes to maternal health from a broader public health perspective (Khan, S. A., *et al*., (2018). Emergency departments often act as critical surveillance points for identifying delays in care-seeking, gaps in antenatal and intrapartum services, and systemic weaknesses within the health system, commonly conceptualised within the "three delays" framework (Thaddeus & Maine, 1994). Research by Lwanga *et al*., (2016) recommended that data gathered from emergency obstetric presentations can inform health policy, resource allocation, and targeted interventions aimed at strengthening maternal health services. In this regard, emergency medicine not only saves live at the individual level but also supports health system strengthening through improved referral networks, emergency preparedness, and maternal death surveillance and response mechanisms (WHO, 2021). Integrating emergency medicine into national maternal health strategies is therefore essential for achieving sustained reductions in maternal mortality and for advancing progress toward global maternal health targets.

Emergency Medicine and Child Health

Children represent one of the most vulnerable populations within healthcare systems due to their physiological immaturity and heightened susceptibility to acute illnesses and injuries (O., Suberu *et al*., 2024). Conditions such as severe infections, including pneumonia and meningitis, respiratory distress, dehydration from diarrhoeal diseases, and trauma continue to contribute significantly to childhood morbidity and mortality worldwide (Lazzerini *et al*., 2020; UNICEF, 2023). Timely access to emergency medicine services is therefore critical in mitigating the immediate risk of death and preventing long-term disability, particularly in low- and middle-income countries where the burden of child mortality remains

disproportionately high (WHO, 2022; GBD 2019 Child Mortality Collaborators, 2020).

According to Iyer *et al*., (2024), the role of emergency medicine is particularly pronounced for neonates and young infants. Neonatal complications such as birth asphyxia, neonatal sepsis, and conditions associated with prematurity demand rapid recognition and intervention, often within the first hours of life, to avert irreversible neurological damage or death (Lawn *et al.,* 2021). Emergency care systems equipped with neonatal resuscitation capabilities, appropriate antimicrobial therapy, and supportive care for premature or low-birth-weight infants are essential for improving neonatal survival outcomes (WHO, 2021a).

Outside the scope of immediate clinical interventions, emergency departments frequently serve as sentinel points within the broader health system, identifying gaps in primary and preventive care (Samuels-Kalow *et al*., 2021). Integrating child-friendly emergency services enhances early diagnosis and management, while simultaneously promoting preventive strategies such as immunisation follow-up, nutrition counselling, and caregiver education on recognizing danger signs in children (Hargreaves *et al*., 2022). This dual role stresses the importance of emergency medicine not only in acute life-saving care but also in informing public health strategies, strengthening referral networks, and guiding health policy to reduce avoidable child deaths.

Furthermore, research suggests that structured pediatric emergency care, including triage protocols, dedicated pediatric spaces, and trained personnel, significantly improves treatment outcomes, reduces delays in care, and optimizes resource utilization (Graham *et al*., 2018; Olivieri *et al*., 2021). Investing in robust emergency medicine systems for children, therefore, represents a critical component of global health initiatives aimed at achieving Sustainable Development Goal 3, which targets ending preventable deaths of newborns and children under five years of age (UN, 2015).

A Public Health Approach to Emergency Care

Emergency care has traditionally been viewed as clinical management of acute illness and injury within healthcare facilities (Chiossi *et al*., 2021). However, when viewed through a public health lens**,** emergency care becomes foundational to population-level health improvement**,** disease surveillance**,** disaster preparedness**,** and health equity (Chiossi *et al*., 2021). The World Health Organization (WHO) emphasises that emergency and critical care services are important platforms for saving lives, reducing disability, and preventing complications when integrated into health systems, especially in low- and middle-income countries (LMICs) (WHO, 2023). Strengthening emergency care systems aligns with Universal Health Coverage (UHC) and Sustainable Development Goals (SDGs) by ensuring that vulnerable populations–including pregnant women, children, and marginalised groups–can access appropriate and timely care.

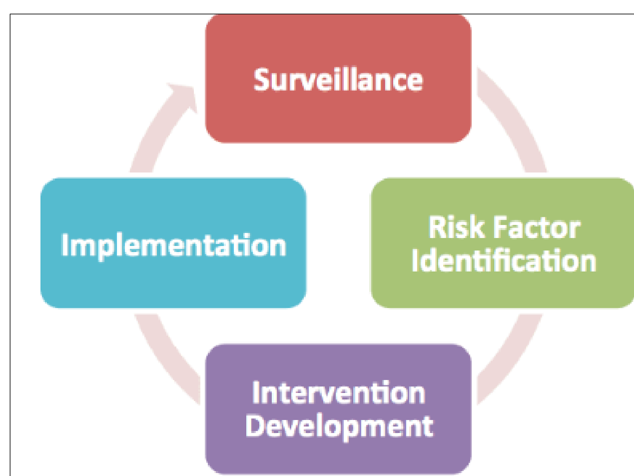

Figure 2: A diagram illustrating public health approach to emergency medicine
Source: Maryam (2013)

1 Surveillance Foundational Data for Public Health Action

Surveillance involves the continuous, systematic collection, analysis, and interpretation of health data to monitor the burden and patterns of disease and injury. Effective surveillance ensures that resources are directed toward problems of true public health significance and that interventions are data-driven and equitable (Edelstein *et al*., 2018).

In emergency departments (EDs), routinely collected data illuminate crucial questions: What is the prevalence of undiagnosed HIV infection among ED patients? (Fassas *et al.,* 2024). How frequently do

individuals present after intimate partner violence (IPV)? What proportion of injured patients survive to reach a hospital? These types of data form unique population-level intelligence that can guide prevention programmes, public health policy, and resource allocation (Reynolds *et al.,* 2017).

Studies in LMICs reveal that ED-based HIV testing can uncover high rates of previously unknown infection, highlighting the potential of emergency care settings as surveillance points for infectious diseases and unmet public health needs. For example, a systematic review by Haberer *et al*., (2016) found that undiagnosed HIV prevalence in ED populations ranged widely, with notably high proportions of previously undiagnosed cases in Uganda and India. According to Miskeen *et al*., (2025), innovative surveillance approaches, such as artificial intelligence for real-time disease monitoring, are being explored to improve detection and prediction of outbreaks in settings with limited resources.

2 Risk Factor Identification — Understanding the Determinants

Identification of risk factors seeks to explain why observed public health problems occur and which determinants might be modifiable (Tshimula *et al*., 2024). Linking surveillance to risk analysis reveals the drivers of vulnerabilities and informs targeted strategies. For example, Haberer *et al*., (2016), pointed that barriers to HIV testing in EDs are frequently related to stigma, lack of routine testing protocols, and limited resources, suggesting potential areas for intervention.

Similarly, intimate partner violence presents significant clinical and public health challenges. Reviews by Kalra *et al*., (2020) and others demonstrate that healthcare professionals often lack adequate training and cultural competence to identify and manage IPV effectively in ED settings, pointing to the need for provider education as a modifiable risk factor.

Qualitative studies, such as those by Nabayinda *et al*., (2023). In Uganda, reveal provider experiences with IPV survivors, indicating that health worker readiness and culturally competent care are central to addressing risk factors and improving care outcomes. Extending beyond clinical determinants, systemic risk factors such as under-resourced EDs, weak prehospital care, and unequal access to services are evident across many African countries (Marsh *et al*., 2018). Robust analyses of these determinants are necessary before interventions are designed.

3 Intervention Development - Evidence-Based and Contextualised by Public Health

Intervention development uses theory, evidence, and context-specific insight to design strategies that address identified risks. These strategies should be acceptable, feasible, and capable of improving outcomes in real-world settings.

A number of ED-based public health interventions have demonstrated effectiveness:

- ❖ Universal HIV screening in EDs improves case detection and linkage to care, particularly in high-prevalence settings (Haberer *et al*., 2016) Intimate partner violence screening and response protocols improve identification and referral when healthcare workers are trained appropriately.
- ❖ Influenza vaccination programmes integrated into ED care increase vaccination coverage among at-risk older adults (Kassim *et al*., 2025)
- ❖ In African emergency care innovation, community first-responder models such as the Emergency First Aid Responder (EFAR) system, developed by Wallis and Sun, harness local volunteers to provide prehospital assistance, improving timely care in areas without formal EMS infrastructure (Slingers *et al*., 2022: Diango *et al*., 2023). Additionally, the Lay First Responder model deploys trained motorcycle taxi drivers to deliver basic trauma care in Uganda, Chad, and Sierra Leone, addressing gaps in emergency access (Eisner *et al*.,2020).
- ❖ In several Asian contexts, emergency care scholarship increasingly points the importance of locally responsive models that deliberately embed public health functions within acute clinical settings, particularly during disasters and infectious disease outbreaks. Experiences from recent pandemics illustrate how emergency departments can serve not only as points of clinical response but also as critical nodes for surveillance, early warning, and coordinated public health action. For instance, following lessons learned from the COVID-19 pandemic, China enacted reforms aimed at strengthening frontline reporting mechanisms and accelerating emergency notification systems, reinforcing the role of emergency care providers in population-level risk detection and response (Li *et al*., 2021; Yang, Chen, & Wang, 2022). Such policy shifts stress a broader regional recognition that resilient emergency care systems must be tightly integrated with public health governance rather than operating in isolation.

4 Implementation: Translating Evidence into Practice

Implementation is widely recognised as the most complex and fragile stage of the public health action cycle. Although robust evidence often emerges from pilot interventions and controlled evaluations, many effective strategies fail to achieve scale or

sustainability in real-world settings due to weak policy alignment, limited institutional ownership, and inadequate workforce preparation (Peters *et al.,* 2013; Fixsen *et al*., 2020). In emergency care, this "implementation gap" is particularly pronounced, given the high-pressure nature of clinical environments and competing service demands.

Evidence from implementation science suggests that successful translation of emergency care innovations into practice depends on several interrelated strategies. First, preventive and screening interventions must be seamlessly embedded into routine emergency department workflows rather than introduced as parallel or optional activities, thereby reducing disruption to clinical practice and improving uptake (Bernstein *et al.,* 2017). Second, sustained investment in workforce development, including continuous training, supportive supervision, and cultural competence, enhances provider readiness and promotes consistent delivery of public health–oriented emergency services (Rowe *et al*., 2018). Third, aligning emergency care strategies with national health plans and multisectoral frameworks, as advocated by the World Health Organization and regional health bodies, strengthens political legitimacy and facilitates long-term financing and coordination (World Health Organization [WHO], 2019).

Crucially, implementation must be accompanied by ongoing surveillance and feedback mechanisms that allow policymakers and practitioners to assess real-world effectiveness, identify unintended consequences, and iteratively refine interventions (Maryan 2013). Such learning systems ensure that emergency care reforms translate into measurable gains in service utilisation, quality, and equity rather than remaining confined to policy documents or pilot projects (Gilson *et al*., 2018).

Emergency Care and Health Equity

Health equity has become a foundational principle in contemporary emergency care practice. Riwitis and Navarroli (2024) define health equity as the assurance of conditions that enable optimal health for all individuals, a process that requires valuing all people and populations equally, acknowledging and addressing historical injustices, and allocating resources according to need. Similarly, Lewis *et al.,* (2022), in their nursing concept analysis, conceptualise health equity as the fair and just opportunity for all individuals to achieve their highest attainable level of health, free from disparities arising from personal characteristics, historical oppression, or broader societal influences.

In recent years, the proliferation of misinformation and disinformation has contributed to widespread ambiguity surrounding the meaning of "equity" and its application within healthcare delivery. Valdez (2025) argues that advancing health equity is rooted in an ethical commitment to ensuring that all individuals receive the best available evidence-based care in ways that respect and affirm their inherent dignity and humanity. Importantly, equity must be clearly distinguished from equality. Whereas equality entails providing identical care to all patients, equity involves delivering care that is responsive to individual needs in order to achieve optimal outcomes. This approach necessitates the tailoring of healthcare interventions to patients' social, cultural, and contextual circumstances (Valdez, 2025).

The distinction between equity and equality is particularly evident in emergency care settings, where social and political determinants of health significantly shape patient needs. For instance, two patients presenting with diabetic ketoacidosis may require markedly different post-stabilisation care despite sharing the same clinical diagnosis. One patient may be a middle-aged man with long-standing type 1 diabetes who has recently lost his employment and is therefore rationing insulin due to financial constraints. In contrast, another patient may be a school-aged child with newly diagnosed type 1 diabetes, supported by a well-insured family with prior experience managing the condition. Although clinical guidelines for managing hyperglycaemia, electrolyte imbalances, and dehydration may be similar for both patients, achieving health equity requires differentiated care planning. In particular, discharge education, follow-up arrangements, and access to resources must address the distinct social determinants that influence each patient's capacity for effective disease management.

Apart from the individual patient encounters, emergency care occupies a pivotal position in broader efforts to reduce avoidable mortality and improve health system performance, particularly in contexts where structural barriers limit access to routine healthcare services. Morisod *et al.,* (2021) stresses that emergency care systems play a critical role in mitigating preventable deaths, especially in low- and middle-income countries, where emergency conditions account for a substantial proportion of mortality. This burden is disproportionately concentrated in sub-Saharan Africa, underscoring the equity implications of under-resourced emergency services (Reynolds *et al*., 2017). Strengthening emergency care systems is therefore not solely a clinical imperative but a core public health strategy for advancing equity and health system resilience.

Furthermore, Cookson *et al*., (2018) emphasise that aligning emergency department practices with broader public health functions, such as disease surveillance, injury prevention, and community linkage, can substantially enhance equity outcomes. By integrating acute care services with referral pathways to preventive care, social support mechanisms, and chronic disease management, emergency departments can

function as critical safety nets for populations that are otherwise marginalised within healthcare systems (Obermeyer *et al.,* 2015). In this way, emergency care contributes not only to immediate life-saving interventions but also to sustained reductions in health disparities, reinforcing its role as a cornerstone of equitable, people-centred health systems.

Challenges and Opportunities

Emergency medicine is widely recognised as a critical component of health systems, yet it faces numerous challenges, particularly in low- and middle-income countries (LMICs) and other resource-constrained settings (Martin & Betts, 2025). Key barriers include insufficient infrastructure, shortages of trained personnel, fragile referral networks, and limited integration with primary healthcare and maternal and child health services (Ayalew Tiruneh *et al.,* 2021). These gaps often result in delayed care, increased morbidity, and preventable mortality, highlighting the urgent need for systemic strengthening. Addressing these challenges requires coordinated, multisectoral interventions, sustained political commitment, and the alignment of emergency medicine initiatives with broader public health priorities (Ng'anjo Phiri *et al*., 2016).

Despite these challenges, substantial opportunities exist to leverage emergency medicine as a platform for improving maternal and child health outcomes. Strategic innovations, such as task-shifting to trained community health workers, establishment of community-based emergency transport systems, and the adoption of digital health technologies for triage, communication, and data management, can significantly enhance the timeliness and effectiveness of emergency responses. Additionally, integrating emergency medicine into public health strategies facilitates early recognition of high-risk cases, strengthens referral pathways, and promotes resilience within health systems, thereby reducing preventable deaths among mothers and children.

Conclusion

Emergency medicine constitutes a vital pillar in addressing the global burden of maternal and child health by providing timely, life-saving interventions and improving overall health system responsiveness. When effectively integrated within a broader public health framework, emergency medicine not only improves individual patient outcomes but also contributes to population-level health gains, equity, and system resilience. Strengthening emergency care systems, through investment in infrastructure, workforce development, technological innovations, and policy integration, should therefore be recognised as a public health priority in global efforts to reduce maternal and child morbidity and mortality.

Limitations

1. The review includes only literature published in English, potentially excluding relevant research in other languages.
2. Variability in study designs, settings, and outcome measures limits direct comparability and quantitative synthesis.
3. There is limited high-quality, region-specific data on emergency medicine's direct impact on maternal and child health outcomes in many LMIC contexts, especially in sub-Saharan Africa and rural areas.
4. Emergency medicine and health systems evolve rapidly; some newer interventions and policies might not yet be reflected in published literature.
5. As a narrative review, the methodology lacks the structured synthesis of a systematic review with meta-analysis and is subject to interpretative bias.

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