



TECHNICAL BRIEF

MATERNAL & PERINATAL DEATH SURVEILLANCE and RESPONSE

In HUMANITARIAN and
FRAGILE SETTINGS in the
ARAB REGION

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Background

The Arab States/Eastern Mediterranean/Middle East and North Africa region¹ faces some of the world's most severe and protracted emergencies². Disparities in health indicators are stark, with fragile and crisis-affected areas suffering more than stable regions³. Progress towards global and national maternal and newborn health goals is stagnating or in some instances declining, necessitating collective action to improve access to quality care in fragile and hard-to-reach settings, particularly those affected by conflict, political, and economic instability, extreme weather events, and other emergencies. Maternal and perinatal death surveillance and response (MPDSR) approach offers a strategy to understand and address the circumstances surrounding and contributing to maternal and perinatal deaths, aiming to improve quality of care and prevent future mortality. MPDSR employs a cyclical process including identifying, reporting and reviewing deaths, and recommending/taking action to address causal and contributing factors.

This technical brief presents findings and technical recommendations generated from a Situational Analysis commissioned by UNFPA in 2023 which were presented and discussed at an inter-agency regional consultation organized by the regional offices of UNFPA, UNICEF and WHO in 2024 to inform future work on MPDSR implementation in fragile and humanitarian contexts.

- ¹ UNFPA, UNICEF and WHO have different geographical boundaries for the regions which mostly overlap in terms of country coverage with a few exceptions. UNFPA refers to the Arab States Region, UNICEF to the Middle East and North Africa Region, and WHO to the Eastern Mediterranean Region.
- ² UNHCR, *Global Appeal 2025: Executive Summary*, Geneva, United Nations High Commissioner for Refugees, 2024. Available at: <https://reporting.unhcr.org/global-appeal-2025-executive-summary>
- ³ World Health Organization, *Delivering Results and Carrying Forward the Momentum: WHO Results Report 2022–2023*, Geneva, WHO, 2024. Available at: <https://iris.who.int/handle/10665/376869>

Situation analysis methods

This situational analysis draws on a desk review of publicly available information and consultations with key informants, including UNFPA and WHO country offices, regional experts, ministry of health officials and other stakeholders involved in MPDSR implementation in six countries with 2023 humanitarian funding appeals and response plans: *Afghanistan, Palestine, Somalia, Sudan, Syria and Yemen*. Insights on MPDSR implementation in Palestine and Yemen were extracted from other recent assessments conducted by UNFPA and the Interagency Working Group for Reproductive Health in Crises (IAWG). Insights on MPDSR implementation in Afghanistan, Somalia, Sudan and Syria were collected and analyzed between November 2023 and February 2024. As per the above, selection criteria included countries with 2023 humanitarian appeals and active health clusters and that have been enduring protracted emergencies, in some cases compounded by acute and escalating humanitarian crises. The selection criteria underpinned our interest in exploring systems in countries with protracted emergencies and/or in fragile settings where national health systems have been seriously disrupted or compromised.



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Key findings from the situational analysis

The Arab States / Eastern Mediterranean Region / Middle East and North Africa has been at the forefront of MPDSR implementation over the last two decades, however, few countries affected by humanitarian crises are implementing components of the full MPDSR cycle at a national scale⁴. Across all contexts included in this situation analysis, key informants expressed the need for realistic, context-specific approaches and an interest in learning from others who are successfully introducing, integrating, and supporting MPDSR programming within contexts with limited resources, complex socio-political dynamics, fragilities, and insecure implementation environments. Common themes across contexts were the influence of the implementation climate (leadership engagement, health administration and provider buy-in, community involvement) and complex humanitarian-health system dynamics (constraints on government and non-state actor engagement, varied UN/development agencies and implementing partner mandates, power dynamics, and capacities) and acknowledgement of challenges overcoming blame culture (health providers fearing punishment, threats, or violence in relation to deaths).

4 World Health Organization, *Maternal and Perinatal Death Surveillance and Response: Materials to Support Implementation*, Geneva, WHO, 2021. Available at: <https://www.who.int/publications/i/item/9789240036666>



MPDSR implementation status in the six included countries

Across the six countries, the implementation of MPDSR systems has been affected by ongoing conflict, resource constraints, and variations in health infrastructure.

Afghanistan, Palestine and Sudan saw early efforts to establish maternal and neonatal death review systems, with Afghanistan's initiatives dating back to 2007, Palestine's national surveillance system for maternal mortality and reproductive age deaths established in 2009, and Sudan's system set up in 2009. Yemen's and Somalia's Maternal Death Surveillance and Response (MDSR) efforts took place later with Yemen's National Maternal Mortality Audit Guidelines first introduced in 2012 and updated in 2013 to align with WHO recommendations, and Somalia's MDSR committee established in 2015. Syria's system is the most recently established; it should be noted that the situation in Syria continues to evolve rapidly after the December 2024 political shift. Established in 2017 in areas previously governed by the Assad-government, Syria's system was leveraging existing commitments, death review practices, and a WHO-supported digital mortality surveillance system in over 70 public hospitals.

Afghanistan made strides with a national scale-up plan in 2018, but progress was stymied by the COVID-19 pandemic and the political changes that occurred in 2021. Since then, UN agencies and international partners have coordinated humanitarian health services, but with restrictions on supporting the Ministry of Public Health. Progress includes a costed implementation plan, renewed technical meetings, and a 2023 ministerial directive emphasizing maternal and neonatal death surveillance and response (MNDSR)⁵.

In Palestine, Sudan, and Syria, ministries initially led MDSR efforts, demonstrating a coordinated approach despite the constraints imposed by conflict and resource limitations. Palestine's Ministry of Health manages a sophisticated surveillance system, with the UN Relief Works Agency - UNRWA, UNFPA and WHO supporting maternal death investigations. However, the intensification of hostilities from 2023 has devastated Gaza's and West Bank's health infrastructure and exacerbated movement restrictions in the West Bank and Gaza, making data collection and surveillance difficult.

⁵ The terms MPDSR, MDSR, and MNDSR refer to different types of maternal death surveillance and response systems, each with a focus on tracking and responding to maternal deaths, but with additional focus on tracking perinatal and/or neonatal deaths. **MDSR** (Maternal Death Surveillance and Response) specifically focuses on maternal deaths. **MPDSR** (Maternal and Perinatal Death Surveillance and Response) tracks both maternal and perinatal deaths. **MNDSR** (Maternal, Newborn, and Death Surveillance and Response) expands surveillance to include both maternal and newborn deaths.

Issues around scale-up of MPDSR and its application in communities were salient across settings. Sudan has a facility-based MDSR system in some areas that expands to community-level deaths' investigation but faces challenges with community-level data and the ongoing conflict. Syria established MDSR efforts in areas previously under the Al Assad government's control, utilizing WHO-supported digital tools, though according to key informants, an analysis in 2023 indicated that only 12% of total deaths were captured due to limited geographic coverage. In the Northwest Syria, a sub-national area that prior to December 2024, had separate health authorities, 90% of births occurred in facilities with standardized death reporting tools and strong coordination among health cluster members, though formal review mechanisms were lacking. In North-East Syria, collaboration among UN partners existed, but health facility management was fragmented.

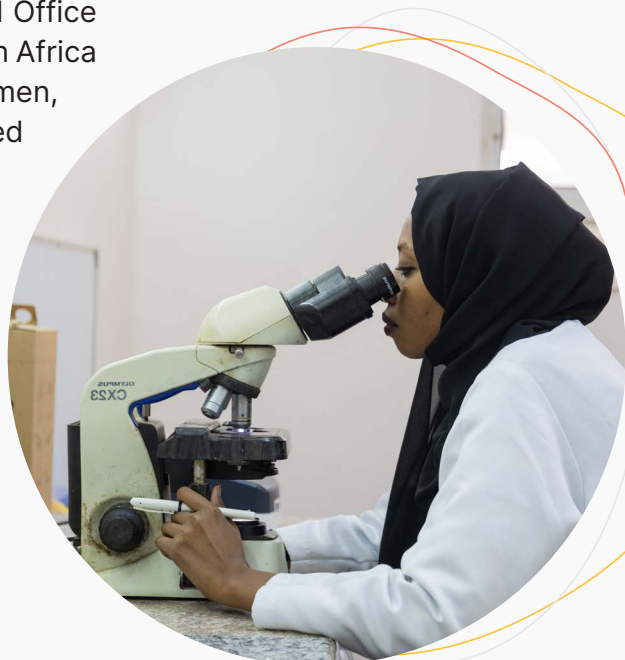
Somalia has piloted MPDSR in select hospitals but faces operational challenges to sustain or expand these efforts, due to insecurity and limited resources. A notable initiative includes an MPDSR pilot in six Mogadishu hospitals, resulting in the reporting of 56 maternal deaths in 2023. Over 340 facilities also submit weekly integrated disease surveillance and response reports and monthly HMIS reports including reporting (or zero reporting) on maternal and neonatal deaths.

Yemen's MPDSR system has similarly faced complex challenges due to prolonged conflict and limited resources. Although national maternal mortality audit guidelines were introduced in 2012 and updated in 2013, the escalation of conflict hindered effective implementation. Renewed efforts since 2020 focus on specific geographic areas with available health infrastructure -- like Aden, Abyan, Mukallah, and Hadhramaut.

Findings point to a trend observed across these countries, whereby establishing MPDSR systems in fragile contexts necessitates adaptable and localized and context-specific approaches that can function despite limited infrastructure and resource disruption.

Actions for consideration emanating from consultation with MPDSR regional experts

To share and validate findings from the Situation Analysis, generate recommendations for appropriate approaches in the region, and identify opportunities for inter-agency technical assistance on MPDSR, a consultation was held from August 20-22, 2024. Organized by UNFPA Arab States Regional Office, World Health Organization Eastern Mediterranean Regional Office and the United Nations Children Fund Middle East and North Africa Regional Office, MPDSR experts with experience from Yemen, Syria, Sudan, Somalia, Palestine and Afghanistan convened as part of a regional consultation convened in Amman, Jordan. They discussed practical actions that can be taken at country, regional and global levels to strengthen MPDSR implementation. The experts proposed the following actions to advance MPDSR implementation in their national contexts and beyond. Recommendations seek to improve the appropriateness and adaptability of MPDSR systems in humanitarian settings by ensuring they are tailored to specific crisis contexts, with simplified reporting processes and flexible guidance that can be adjusted to the nature and intensity of each emergency.



1. Leverage existing systems to facilitate MPDSR implementation

Utilizing established community-based healthcare systems and structures is essential to the successful implementation of MPDSR in humanitarian and fragile contexts. Engaging local community members, including traditional/professional midwives and village leaders, by training and sensitizing them for active participation in MPDSR is recommended to enhance notification, investigation and response. Mapping of community health resources, for instance, supports integration of MPDSR into existing community health strategies by identifying and leveraging existing structures such as the Expanded Programme on Immunization (EPI), Integrated Disease Surveillance and Response (IDSR) and the Early Warning, Alert, and Response System (EWARS) as accessible entry points. Through this mapping, MPDSR efforts can more effectively align with the outreach and established roles within existing health networks, ensuring a smoother implementation process and maximizing efficiencies, which is critical in low-resource settings and under-funded emergencies.

Building healthcare provider capacity is another important factor in enhancing MPDSR efforts. This can be achieved by providing pre-service and in-service training, regular refresher courses, and supportive supervision to strengthen provider skills in maternal and perinatal death surveillance and response. Integrating MPDSR components into community health worker and midwifery training curricula further ensures that both new and current providers are well-prepared to implement MPDSR effectively, fostering sustainable practices that continue even in challenging or resource-constrained settings.



2. Tailor MPDSR systems, tools and guidance to humanitarian settings

Tailoring MPDSR systems/tools to the nature, intensity, stage, and type of crisis at hand in specific settings is essential to improve the suitability and adaptability of MPDSR in unpredictable environments. Simplified and readily accessible reporting processes are key; streamlined, concise reporting mechanisms that account for the unique challenges of crisis settings and utilize functional aspects of the existing systems and available resources can greatly enhance data collection and analysis. Ensuring the availability of minimum standards that are both practical and effective for countries facing varied humanitarian crises can support consistency while allowing for the flexibility to address unique local needs. Introducing guidance for the context-specific adaptation of localized MPDSR standard operating procedures (SOPs) would be responsive to the diversity of emergencies and avoid a one-size-fits-all approach, while ensuring that MPDSR tools remain guided by international standards and national systems.

A piloting process of such operational guidance can enable local health workers, community leaders, and humanitarian organizations to refine and adapt MPDSR strategies and tools to address the unique challenges of and resources available in their specific contexts and can facilitate a more grounded, actionable approach to MPDSR.

3. Integrate MPDSR into humanitarian coordination and advocacy platforms

In both acute and protracted emergencies, MPDSR is critical from a quality of care and accountability perspective. Elements of MPDSR pertain to individual health worker and health facility teams' professional responsibilities and should be established, as soon as possible, or maintained as part of the Minimum Initial Service Package (MISP) to avert excess mortality and morbidity. During emergencies when the overall health system is disrupted, the focus of MPDSR needs to shift to the community, and health team at the facility level to avert future deaths. As possible, local actors can then report into sub-national and national mechanisms. Reporting of local to sub-national to national level coordination mechanisms from multiple actors in cases where multiple actors including non-governmental organizations and facilities are involved, and when national systems may be disrupted, can be supported through Sexual and Reproductive Health Task Teams. This would also facilitate the flow of data into the Health Cluster/Sector monitoring and humanitarian system response plans and advocacy in that country. To support these efforts, sensitization of high-level decision-makers and the development of targeted advocacy materials are essential. Advocacy with donors is also critical to encourage the integration of MPDSR within existing programmes, which can be done with minimal to no additional costs. Engaging the private sector who play a significant role in service provision, especially when government services break down is another critical recommendation. By

promoting MPDSR as a core component of emergency preparedness and humanitarian response, stakeholders can ensure better resource allocation and sustained focus on reducing maternal and perinatal deaths, even in crisis settings.

In settings where government structures remain functional or where there is a transition toward government-led systems, advocating for sustainable funding through budget allocations from the Ministry of Finance can further institutionalize MPDSR. Planning for long-term sustainability involves transferring roles and responsibilities from humanitarian actors and UN agencies to government or local authorities. Engaging influential government and community leaders as champions for MPDSR not only strengthens programme support but also enhances government accountability for resource mobilization and programme implementation, ensuring a more sustainable and locally owned approach.

Way forward

To address findings from the situational analysis and recommendations from the regional consultation, it was agreed that coordinated multidisciplinary efforts are needed by actors at local, national, regional and global levels. Strong regional partnership and commitment to MPDSR by the three UN agencies in the Arab States/ Eastern Mediterranean/ Middle East and North Africa provides an important opportunity to deliver coordinated technical assistance and advocacy for MPDSR in fragile and humanitarian contexts through country offices and their engagement with national counterparts. Piloting of adapted approaches in diverse settings in the region is needed to accommodate MPDSR processes in emergency settings.

In conclusion, support should focus on (1) more effectively mapping, engaging and capacitating community actors to leverage their contributions and integrate them into systems; (2) opportunistically linking MPDSR to existing data collection systems and efforts such as civil registration and vital statistics, early warning and response systems, and integrated disease surveillance and response; (3) developing operational guidance for adaptation of context-specific SOPs that can be updated periodically and scaled-up or down according to the nature of the crisis and changes in the resource and policy environments; (4) positioning death surveillance and response as an enabler to guide strategies to ensure quality of care and reduce excess maternal and perinatal mortality in fragile and humanitarian contexts (MISP objective 3); and (5) advocating with and engaging decision-makers across the humanitarian-development nexus to ensure prioritization and continuity of resourcing for MPDSR.

While informed by the region and its complexity of settings, these recommendations are applicable more widely and will be shared with global stakeholders interested in preventing excess maternal and perinatal deaths in humanitarian and fragile contexts. UNFPA ASRO, UNICEF MENARO and WHO EMRO will continue to identify opportunities to disseminate recommendations among relevant humanitarian and SRH/MNCH communities.



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