



EMPHNET

The Eastern Mediterranean  
Public Health Network

► GHD | EMPHNET: working  
together for better health

Issue 32 | December 2025

# The EMPHNET Emergency Bulletin





# **SPECIAL REVIEW ISSUE: 2025 EMERGENCY BULLETIN HIGHLIGHTS**

## **Introduction**

The year 2025 was shaped by a range of public health challenges and emerging health threats, highlighting the importance of advancements in response and emergency management, and showcasing the dedication of professionals working tirelessly on the frontlines. Throughout the year, the EMPHNET Emergency Bulletin documented these challenges, highlighting not only the pressures on health systems and the impact of protracted conflicts but also the innovations, collaborations, and resilience that drove effective responses. This special review issue brings together key lessons, insights, and stories from all 2025 publications, offering a comprehensive reflection on preparedness, response strategies, human experiences, and public health action.



## Foundations of Effective Emergency Response: Preparedness and Collective Response

Effective public health emergency management begins with strong systems, proactive planning, and collaborative action. This section highlights how global readiness, national public health institutes, and coordinated response teams come together to prevent, detect, and manage crises. From promoting cross-border collaboration to strengthening national institutions and integrating emergency medical and rapid response teams, these articles explore strategies, innovations, and lessons that enhance resilience and ensure a unified, impactful approach to public health emergencies.

*Photo@FETP Afghanistan*

## Lessons Learned from One Health Partnerships and their Role in Strengthening Collaborative Frameworks to Prevent Future Epidemics

*By Prof. Dr. Mahmudur Rahman, the Director of EMPHNET's Office in Bangladesh*

The One Health approach highlights the interconnectedness of human, animal, and environmental health in preventing and controlling diseases such as Nipah, Ebola, avian influenza, and SARS. By fostering collaboration among health experts, veterinarians, environmental scientists, and policymakers, the One Health approach strengthens early warning systems, risk assessment, and preparedness. Investment in One Health reduces the risk of emerging infectious diseases, though implementation requires tailored local strategies. Challenges include institutional silos, limited awareness, and political barriers. The COVID-19 pandemic has underscored the critical importance of this approach. Successful examples also include controlling avian influenza, rabies, and the Nipah virus in Bangladesh and Malaysia, demonstrating the approach's potential to prevent future epidemics and pandemics.

## Integrating RRTs and EMTs in the EMR

*By Dr. Sherif Shamseldein, WHO Consultant*

EMR faces complex health emergency challenges due to its diverse geopolitical landscape and frequent humanitarian crises. An effective response requires integrating Rapid Response Teams (RRTs) with Emergency Medical Teams (EMTs) to ensure timely, high-quality, and context-specific interventions.

A key focus of the EMR's integration strategy is strengthening national and sub-national capacities. While international support remains valuable, resilient local systems form the foundation of effective emergency management. Several EMR countries are leading these efforts. Egypt has incorporated the One Health approach into its RRT and EMT integration, strengthening rapid response capacities across the human, animal, and environmental health sectors. While Yemen has mapped priority tasks across ten integration areas, creating structured work plans to improve coordination and operational readiness.

The foundation for these efforts was set during a global consultative meeting in Lyon, France, in December 2023, organized by WHO and CDC. Representatives from 18 countries agreed on the importance of integrating RRT and EMT programs at national and sub-national levels, providing a framework for adaptation across the EMR.

Implementation relies on structured work plans covering management, staffing, standard operating procedures (SOPs), equipment, training, and deployment. By sharing experiences, building local capacities, and leveraging WHO support, the EMR aims to improve response efficiency, optimize resources, and strengthen health outcomes, while offering insights for other regions pursuing similar strategies.

## National Public Health Institutes in Action: The Robert Koch Institute (RKI) as an Example

*By. Dr. Andreas Jansen, Head of the Information Centre for International Health Protection (INIG), the Robert Koch Institute in Berlin*

The Robert Koch Institute (RKI) supports public health emergency management at global, regional, and national levels, working closely with other NPHIs, international networks, and bilateral partners. Globally, RKI contributes to WHO's Global Outbreak Alert and Response Network (GOARN) by deploying experts to outbreaks and emergency operations. It hosts the first WHO Collaborating Centre for GOARN and strengthens epidemiological and laboratory capacities through Germany's Global Health Protection Program (GHPP), particularly in low- and middle-income countries. The institute also engages in global research collaborations to help develop international standards and surveillance tools.

Regionally, RKI works with ECDC and WHO EURO on joint assessments, cross-border response, EU-funded preparedness projects, and simulation exercises. Nationally, it leads Germany's disease surveillance, outbreak response, and pandemic planning, including COVID-19 management. Through networks such as IANPHI, RKI shares expertise, training, and technical support, demonstrating how strong international partnerships enhance coordination, efficiency, and rapid response in global health emergencies.



## Emerging and Complex Health Risks

The Eastern Mediterranean Region (EMR) faces an evolving landscape of public health challenges, where climate change, conflict, and migration intersect to create complex and emerging risks. This section explores these dynamics, highlighting how environmental and human-driven challenges impact populations and health systems alike. It also examines critical approaches to humanitarian aid, emphasizing the importance of decolonizing and regionalizing response efforts to ensure equitable, effective, and context-sensitive interventions.

Photo@KSA.com

## How Overlapping Crises of Climate Change, Conflict, and Displacement are Reshaping Public Health Challenges in the EMR

*By Ms. Hannah Marcus, the co-chair for the World Federation Public Health Association (WFPHA) Environmental Health Working Group*

The EMR faces growing public health challenges driven by climate change, conflict, and mass displacement. These factors undermine access to food, water, sanitation, healthcare, and social services, disproportionately affecting refugees, internally displaced persons (IDPs), and marginalized communities.

Climate change intensifies these risks. The EMR is warming nearly twice as fast as the global average, leading to prolonged droughts, extreme weather events, disrupted livelihoods, and water scarcity. Countries like Morocco, Egypt, Sudan, Yemen, Jordan, Iraq, and Syria face acute water shortages that threaten hygiene, sanitation, and the prevention of communicable diseases. Reduced crop yields exacerbate food insecurity and malnutrition, particularly among children under five, pregnant women, and lactating mothers. Climate change also increases the risk of vector-borne diseases, including malaria and dengue. Heatwaves and environmental stress further strain healthcare systems.

Decades of armed conflict have weakened health infrastructures, destroying facilities, displacing personnel, and disrupting essential services. In Yemen, the civil war has caused the world's largest cholera outbreak, while Syria has seen the resurgence of polio and measles.

The overlap between climate change and conflict drives migration and displacement, increasing public health risks in refugee camps and informal settlements that lack healthcare, clean water, and sanitation. Addressing these crises requires multi-sectoral collaboration, climate-resilient health systems, inclusive healthcare for displaced populations, and regional cooperation. Coordinated action is essential to reduce risks and improve equitable, sustainable health outcomes in the EMR.

## Spotlight on the Need for Transformation in Humanitarian Aid: KSRelief as a Regional Example

*By Prof. Ziad A Memish, Senior Advisor for Medical and Humanitarian Research, King Salman Humanitarian Aid and Relief Centre (KSrelief)*

Humanitarian aid has long followed a Global North-to-South model, which can limit the recognition of local expertise and the adaptation of interventions to community needs. Decolonizing aid means elevating the knowledge, leadership, and capacity of affected populations, ensuring programs are culturally and contextually appropriate.

Regional approaches offer a promising solution. Organizations with local knowledge, linguistic and cultural understanding, and geographic proximity can respond faster and more effectively. For example, during the 2023 earthquake in Syria and Turkey, regional actors navigated complex environments and reached diverse communities. Similarly, the African Union deployed health workers efficiently during the 2018–2020 Ebola outbreak in Eastern DRC.

Since 2015, the King Salman Humanitarian Aid and Relief Centre (KSrelief) has reshaped regional humanitarian action, implementing thousands of projects across 107 countries. In Yemen, it supports 147 health facilities, malnutrition treatment centers, prosthetic programs, and mine-clearing operations. The centre also builds sustainable local capacity by training health workers in Somalia and collaborating with local organizations in Syria. KSrelief also invests in resilient infrastructure, such as hospitals in Lebanon, and develops digital tools for coordination and beneficiary registration. Through adaptive funding, multi-sector programs, and context-driven strategies, KSrelief delivers humanitarian aid that is inclusive, responsive, and sustainable.



Photo@KSA.com



## Frontline Perspectives: Experiencing Emergencies Firsthand

The realities of public health emergencies are best understood through the experiences of those who face them directly. This section showcases the voices of frontline professionals, revealing the challenges, critical decisions, and daily realities of responding to crises. Their firsthand experiences provide unique insights into the complexities of emergency response and highlight the resilience, innovation, and dedication that drive public health action on the ground.

Photo@Arab News

## Rebuilding from Within: The Unseen Strength of Syria's Health Workforce in a Time of Transition

By Dr. Yaser Alfarouh, Director of Communicable Diseases, Syrian Ministry of Health

Fourteen years of conflict have left Syria's health system severely weakened. Only 57% of hospitals and 37% of primary healthcare centers are fully functional, and over 15 million people rely on humanitarian assistance. Many health workers have fled, yet those who remain continue providing care, responding to outbreaks, and sustaining essential services under extreme conditions.

As a step toward recovery, the Ministry of Health launched the National Health Plan in December 2024, outlining goals to expand access to care, strengthen infrastructure and workforce readiness, ensure essential medicines and mental health services, improve health information systems, and enhance governance and financing. A key milestone has been the ongoing work to integrate the Early Warning Alert and Response Network (EWARN) and the Early Warning and Response System (EWARS) under the framework of an Integrated Disease Surveillance and Response (IDSR) platform, aiming to improve national cohesion and epidemic preparedness.

Building human capacity is a priority. In 2025, preparations have begun to launch the Syria Field Epidemiology Training Program (FETP) with EMPHNET and WHO, preparing epidemiologists to lead surveillance, outbreak response, and data-driven planning. Crisis-driven innovations like EWARN are also being absorbed into national digital health systems, informing electronic health records, national dashboards, and integrated outbreak and vaccination databases.

Challenges remain: the workforce is overstretched, hospitals operate with minimal supplies, and many regions lack specialists. Sustained technical and financial support is essential. With continued investment, Syria's resilient health workers can guide the country toward a stronger, more equitable, and prepared health system.

## How Frontline Workers are Shaping the Response to Public Health Emergencies in Afghanistan?

By Mr. Shoaib Naeemi, Technical Officer, EMPHNET's Afghanistan Office

Frontline public health professionals in Afghanistan play a vital role in responding to complex emergencies, from disease outbreaks to natural disasters. The country faces recurring outbreaks of acute watery diarrhea, measles, acute respiratory infections, malaria, dengue, and Crimean-Congo Hemorrhagic Fever. Frontline responders do more than investigate and contain these diseases; they coordinate with authorities, engage communities, and advocate for urgent needs, often under extremely challenging conditions and in remote, hard-to-reach areas.

Beyond outbreak response, they also address natural disasters, including earthquakes, floods, and avalanches, which exacerbate existing public health challenges. The 2025 earthquake in eastern Afghanistan killed over 2,200 people and affected 20,000, while the 2023 Herat earthquake caused 1,500 deaths and displaced tens of thousands. Frontline professionals provide immediate care, conduct rapid risk assessments, and coordinate relief efforts with NGOs, frequently working long hours in mobile health teams or makeshift facilities.

Their resilience, adaptability, and deep community engagement are crucial for effective emergency response. Supporting these professionals with resources, training, and recognition is essential to strengthening Afghanistan's health system, enhancing preparedness, and ensuring timely, context-sensitive responses during crises.



Photo@EMPHNET



## Protracted Conflicts and Health System Collapse

Long-standing conflicts in Gaza and Sudan have placed immense pressure on already fragile health systems, threatening the delivery of essential services and the well-being of affected populations. This section examines the impact of protracted crises on health infrastructure, workforce capacity, and service continuity. By highlighting the experiences in Gaza and Sudan, these featured articles shed light on the urgent need for resilience and coordinated interventions to protect public health amid ongoing instability.

*Photo@Amanah Relief*

## Building Community Resilience in Gaza and the West Bank: A Community-Based Model

*By Dr. Rand Salman, Director of the Palestinian National Institute of Public Health (PNIP)*

Gaza and the West Bank are facing one of the most severe humanitarian crises in recent history. Years of conflict, bombardment, displacement, and economic decline have shattered basic services, leaving millions struggling for survival. Health systems are overstretched, infrastructure is damaged, and food insecurity and psychosocial trauma are widespread. Movement restrictions and limited aid delivery exacerbate these hardships.

Amid these challenges, Palestinian communities have emerged as the backbone of resilience. Locally led initiatives focus on practical solutions, including sustainable food production, water management, renewable energy, and community-based health services.

Community-led responses span multiple sectors: mental health support through hotlines, mobile teams, and child-friendly spaces; nutrition initiatives such as community kitchens and neighborhood gardens; mobile health clinics and training for local medical staff; community-managed water and sanitation efforts; and rehabilitation and inclusion programs for people with disabilities.

Palestinian youth play a growing role in humanitarian response, delivering immediate relief while building skills for future leadership. Despite limited funding, damaged infrastructure, and coordination challenges, these community-based models have proven effective and sustainable. Rooted in trust, local leadership, and cultural understanding, they demonstrate that true resilience is built by empowering communities to act collectively and rebuild with dignity.

## Current Humanitarian and Health Challenges in Sudan: Spotlight on El Fasher

*By Dr. Salim Mohamed Nour, a Public Health Physician Specialist and Independent Expert in Epidemic Response and Health Systems Strengthening*

Nearly three years into the conflict between the Sudanese Armed Forces (SAF) and the Rapid Support Forces (RSF), Sudan is facing one of the world's worst humanitarian crises. More than 30 million people, including 16 million children, require urgent assistance, and over 12.8 million have been displaced. North Darfur is among the hardest-hit areas, with El Fasher under siege-like conditions, widespread hunger, disease outbreaks, and the near-total collapse of health services. Famine has been confirmed in parts of the region, while others remain at high risk.

Years of conflict and neglect have left health systems extremely fragile. By mid-2023, 60% of health facilities nationwide were non-functional, and violence, looting, and staff flight have further crippled services in Darfur. El Fasher's last partially functioning hospital has been repeatedly attacked, leaving civilians with little access to lifesaving care. Cholera, malaria, dengue, measles, and severe acute malnutrition are spreading amid collapsed water, sanitation, and immunization services.

Humanitarian access to El Fasher remains severely constrained by conflict, insecurity, and damaged infrastructure, effectively placing the city under blockade. Delayed or blocked aid convoys prevent essential food, medical supplies, and clean water from reaching civilians, accelerating malnutrition and disease outbreaks. As displacement extends across borders, neighboring countries face growing strain on already fragile health systems, heightening the risk of regional disease transmission.

Addressing Sudan's crisis requires moving beyond short-term relief toward the Humanitarian–Development–Peace (HDP) nexus, where lifesaving assistance is combined with early recovery, health system restoration, and peace-supportive interventions to reduce vulnerability and build longer-term resilience.



*Photo@Human Rights Watch*





Photo@EMPHNET

## Lessons Learned and Way Forward

The experiences of 2025 have reinforced that public health emergencies in the EMR cannot be addressed through isolated or short-term measures. Effective preparedness and response require robust national public health institutes capable of leading surveillance, coordinating multi-sectoral action, and guiding evidence-based decision-making.

Equally critical is integrating emergency medical teams and rapid response units into a unified framework, ensuring clinical care and public health interventions complement each other for maximum impact.

The complex interplay of climate change, conflict, and migration in shaping emerging health risks also highlighted the need for adaptive strategies that account for both

environmental and human-driven challenges. Frontline professionals reminded us that human experiences matter: their insights, resilience, and problem-solving in the field are invaluable for designing practical, context-sensitive interventions.

Finally, regional leadership and solidarity, coupled with a commitment to decolonizing and localizing humanitarian aid, are essential to ensuring effective, inclusive, and sustainable responses. Together, these lessons call for a shift from reactive, externally driven approaches toward a more integrated, locally empowered, and collaborative public health framework; one capable of anticipating, mitigating, and responding to the diverse challenges facing the region.

## Acknowledging Our Contributors

We extend our sincere thanks to all the professionals whose expertise and insights contributed to the 2025 issues of the EMPHNET Emergency Bulletin. Your insights and efforts have played a crucial role in documenting challenges, sharing knowledge, and supporting public health action across the region.

Special thanks to:

|  |  |
|--|--|
| → Dr. Mohamed Nageeb, the Sudan FETP Technical Advisor   | → Dr. Khaled Abdallah, Yemen FETP Resident   |
| → Prof. Dr. Mahmudur Rahman, the Director of EMPHNET's Office in Bangladesh  | → Dr. Rand Salman, Director of the Palestinian National Institute of Public Health (PNIP)  |
| → Dr. Khawaja Mir Islam Saeed, the Afghanistan FETP Technical Advisor  | → Dr. Ghada Alnajar, United Palestinian Appeal (UPA) Programs Manager/ Head of Office, Gaza  |
| → Ms. Hannah Marcus, the co-chair for the World Federation Public Health Association (WFPHA) Environmental Health Working Group.                               | → Mr. Khalil Atatari, Security Officer at the Campaign for the Children of Palestine (CCP) Japan                                       |
| → Dr. Hussein Muhiadin, NIH Executive Director, Somalia.   | → Dr. Mohammed Zaghar, Dean of the Faculty of Medicine at Al-Azhar University in Gaza  |
| → Dr. Mogahid Halaly, General Practitioner, Humanitarian Activist, Sinnar University Graduate  | → Prof. Bettina Borisch, CEO, World Federation of Public Health Associations (WFPHA)   |
| → Dr. Salim Mohamed Nour, a Public Health Physician Specialist and Independent Expert in Epidemic Response and Health Systems Strengthening                    | → Prof. Ziad A Memish, Senior Advisor for Medical and Humanitarian Research, King Salman Humanitarian Aid and Relief Centre (KSrelief) |
| → Mr. Amjad Shawwa, Palestinian NGO Network (PNGO) Director  | → Prof. Mohammed Shaheen, Dean of Graduate Studies and Scientific Research, Dar Al-Kalima University, Palestine                        |
| → Ms. Yousra Abu Sharekh, Gaza Program Coordinator, International Network for Aid, Relief & Assistance (INARA)   | → Dr. Yaser Alfarouh, Director of Communicable Diseases, Syrian Ministry of Health   |
| → Dr. Ahmed Shatat, Director General of Planning, Palestinian Ministry of Health   | → Mr. Ismael Aladani, Manager of Sudan's Expanded Program on Immunization (EPI), Sudan Federal Ministry of Health                      |
| → Mr. Mohamed Al Kamel, Senior GIS Analyst   | → Dr. Muhammad Saleem, KPK RRT Lead; and Dr. Mussawir Manzoor, KPK Deployment and Readiness Coordinator                                |
| → Mr. Mohammad T. Asfour, Global Green Strategist  | → Dr. Ayman Abourahma, Director of Preventive Medicine Department, Palestinian Ministry of Health                                      |
| → Dr. Sherif Shamseldein, WHO Consultant   | → Mr. Anas Musallam, Food Security Gaza Coordinator, Food Security Sector (FSS)  |
| → Dr. Yanal Al Ajlouny, President of Jordan Paramedic Society (JPS)<br>Dr. Abdu Adawi, Director of the National RRT Program, Ministry of Health, Saudi Arabia. | → Dr. Eyad Krunz, Manager of Stars of Hope   |
| → Dr. Andreas Jansen, Head of the Information Centre for International Health Protection (INIG), the Robert Koch Institute in Berlin                           |  |



# In Numbers

In today's turbulent world, crises ranging from natural disasters to conflict-driven emergencies have become a persistent reality across the EMR and beyond, placing immense strain on health systems and populations. This section highlights key alarming statistics:

## Gaza



**71,266**

people have been killed, as of December 30, 2025.



**165,697**

people have been injured, as of December 30, 2025



**256**

Journalists and media workers killed, as of December, 2025



**1.6 million**

people will continue to face Crisis or worse levels of acute food insecurity (IPC Phase 3 or above) through April 2026, including about 571,000 people in Emergency (IPC Phase 4) and approximately 1,900 people in Catastrophe (IPC Phase 5).



**65,000**

households have been affected by recent rainstorms, as of December 30, 2025



**~1.28 million**

people are in need of emergency shelter items, as of December, 2025.



**35**

Emergency Medical Teams (EMTs) are operational, including 270 national and 73 international personnel, as of December 2025.



**1,939,232**

People have been displaced, as of November 30, 2025



Photo@Al Jazeera

## Sudan



**12 million+**

people are currently displaced, including approximately 9.5 million internally displaced persons and over 3 million who have fled to neighboring countries.



**113,000+**

cholera cases and over 3,000 deaths have been reported since 2024.



**41%**

of global malaria cases are in Sudan, where the disease has reached epidemic proportions.



**~25 million**

people, more than half the population, are experiencing acute food insecurity.



**3.7 million**

children under five years, pregnant and breastfeeding women need treatment for acute malnutrition in 2025.



**63**

attacks on healthcare were recorded by WHO in Sudan in 2025, causing 1,611 deaths and 259 injuries.



**46**

Health facilities have been impacted by the attacks.



**> 25%**

of health facilities are functioning in the worst-affected areas.

## Youth Driving Change in Health and Awareness

EMPHNET, in partnership with the United Nations Population Fund and the Social Developmental Forum, celebrated key milestones of its Gaza-based project focused on enhancing youth leadership in sexual and reproductive health awareness. The event highlighted youth-led initiatives, community participation, and dialogue sessions that addressed critical health topics, helped break stigma, and promoted inclusive, informed, and resilient communities led by young people.



## References

- <https://www.ochaopt.org/content/reported-impact-snap-shot-gaza-strip-30-december-2025>
- <https://www.ochaopt.org/content/humanitarian-situation-update-351-gaza-strip>
- <https://reliefweb.int/report/sudan/sudan-key-facts-and-figures-30-november-2025>
- <https://reliefweb.int/report/occupied-palestinian-territory/unicef-state-palestine-humanitarian-situation-report-no-45-30-november-2025>
- <https://reliefweb.int/report/sudan/sudan-crisis-situation-analysis-period-151225-211225>