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Rising Health and Humanitarian Threats Amid the Escalating Middle East Conflict

As conflict continues to escalate across the Middle East, health systems are coming under increasing strain, with disrupted services, limited access, and growing public health risks affecting vulnerable populations. In such complex settings, understanding challenges and identifying practical response approaches is more important than ever.

This issue of EMPHNET's Emergency Bulletin explores the evolving health crisis in the region, the persistent challenges facing vaccination efforts amid conflict, and the potential of the 7-1-7 approach to strengthen early detection and timely response in fragile contexts, offering practical insights to inform response efforts and support more resilient public health systems in times of crisis.

Escalating Health Crisis Amid Intensifying Conflict in the Middle East

By Dr. Mohannad Al Nsour, Executive Director, EMPHNET

Amid the rapidly escalating conflict in the Middle East, a complex health crisis is emerging, one that is no longer confined to geography or politics alone, but has evolved into a far-reaching humanitarian emergency with regional and global implications. Data and assessments from international health organizations indicate that the impact of this crisis is no longer limited to active conflict zones. Instead, it is gradually extending across multiple countries in the region, with growing indications that its scope may widen further, placing increasing strain on health systems, public services, economies, and societies.

In this context, some analyses indicate that the effects of the crisis may extend beyond the immediate area and reach neighboring countries, though the extent will vary depending on how closely economies are linked, how supply chains function, and how resilient health systems are. This underscores the region's deep interconnection, where the consequences of crises can cross borders despite political boundaries.

Experiences from conflict-affected settings consistently show that prolonged instability places severe pressure on health systems. In Lebanon, for example, successive crises have led to significant population displacement, a noticeable decline in access to essential healthcare services, increased burden on hospitals, and damage to critical infrastructure. In Yemen, the continued conflict has resulted in widespread deterioration of the health system and the re-emergence of preventable diseases, driven by low vaccination coverage and limited access to medical care.

As the crisis persists, local communities face mounting challenges, particularly in accessing healthcare, food, and basic services. In many affected areas, meeting these daily needs has become increasingly difficult.

In response, health and humanitarian organizations, working in collaboration with international and regional partners, continue to support national health systems in affected countries. This includes strengthening emergency response capacities, delivering essential medicines and medical supplies, and striving to maintain continuity of healthcare services under extremely challenging conditions. International health organizations are also enhancing field monitoring and supporting healthcare facilities to mitigate further deterioration of essential services.

The delivery of medical supplies remains a cornerstone of the humanitarian response. However, it faces significant obstacles due to insecurity, logistical constraints, and limited access to certain areas. These challenges continue to delay and undermine the effectiveness of response efforts.

At the same time, conflict settings are witnessing growing environmental and public health risks, including water and air pollution and damage to critical infrastructure networks. In some contexts, phenomena such as "black skies" caused by heavy smoke and emissions, and even "black rain" linked to severe atmospheric pollution, have also been observed. These developments raise serious concerns about their implications for public health, including higher rates of respiratory illness, contamination of water sources, and an increased risk of infectious disease transmission—particularly in fragile health systems.

In light of this situation, health authorities are working to strengthen health and environmental surveillance systems and enhance their capacity to respond to emerging risks, with the aim of protecting public health and mitigating the impacts of the escalating crisis, particularly in the most affected countries.

Overall, current assessments suggest that this crisis is no longer confined to a single area, but has become a region-wide challenge with far-reaching impacts. This makes international support and humanitarian cooperation more urgent than ever to sustain essential health services and prevent further deterioration.

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Spotlight on Vaccination Challenges Amid Conflicts

By Dr. Huda Hakim, Technical Specialist, EMPHNET

Immunization stands as one of the most effective public health interventions, preventing more than 20 life-threatening diseases and saving millions of lives annually. It constitutes a fundamental aspect of primary health care and is a significant contributor to achieving Universal Health Coverage and the Sustainable Development Goals. The Immunization Agenda 2030 (IA2030) underscores the need to ensure equitable access to vaccines for all population groups.

Conflict settings pose significant challenges to immunization programs. Approximately, one in six children worldwide lives in areas affected by conflict, and nearly 40% of unvaccinated children are concentrated in these regions. The Eastern Mediterranean Region (EMR) is particularly impacted, hosting a large proportion of displaced populations and ongoing humanitarian crises. Countries such as Sudan, Yemen, Syria, and Palestine have faced severe disruptions to their immunization services due to continuous conflicts.

Challenges Facing Immunization Programs During Conflicts

Immunization programs face complex, interconnected challenges in conflict-affected areas, significantly undermining their performance and sustainability, as the destruction and deterioration of health infrastructure disrupts routine service delivery and creates significant operational challenges. Additionally, fragile supply chains lead to frequent vaccine shortages and uneven distribution, while interruptions to electricity and fuel supplies compromise cold-chain systems, reducing vaccine effectiveness.

The capacity of the human resources sector is strained when healthcare workers are displaced, injured, or subjected to excessive demands during emergency responses. This situation hampers their ability to sustain routine immunization services. Additionally, insecurity restricts access to healthcare, impeding outreach efforts and limiting the effectiveness of vaccination campaigns. Population displacement poses another significant challenge, as it complicates identifying, tracking, and following up with target populations.

Moreover, misinformation and Inadequate surveillance systems due to underreporting of vaccine-preventable diseases worsen this issue by delaying outbreak detection. Vaccine hesitancy, and low community trust further diminish demand for immunization services.

As a result of all these challenges, we can expect an increase in the number of children who have not received any vaccinations at all, leading to low immunization coverage, especially among vulnerable populations. This decline threatens to hinder progress toward global immunization goals, including those specified in the IA2030.

Consequences of Disrupted Immunization

The repercussions of disrupted immunization systems are significant and far-reaching. A decline in vaccination coverage diminishes herd immunity, thereby facilitating the re-emergence of vaccine-preventable diseases such as measles, polio, and diphtheria. Recent incidents in countries within the EMR have underscored this concern, with outbreaks of measles, circulating vaccine-derived poliovirus, cholera, and other infectious diseases becoming increasingly prevalent. This alarming trend has resulted in heightened morbidity and mortality rates, particularly among the pediatric population.

Strategies to Improve Immunization in Conflict Settings

Despite these challenges, several strategies have proven effective in maintaining immunization services in conflict settings:

- Flexible delivery approaches, including mobile teams, outreach campaigns, and vaccination at transit points, help reach displaced populations.
- Alternative dosing strategies, such as fractional doses, can optimize limited vaccine supplies during emergencies.
- Integration of immunization with other humanitarian services, such as nutrition and WASH program, improves efficiency and increases service uptake.
- Expanding partnerships with international organizations, NGOs, and community groups enhances access in hard-to-reach areas.
- Rebuilding community trust through engagement with local leaders is critical to improving vaccine acceptance.

In conclusion, conflict significantly disrupts immunization systems, particularly in fragile regions like the EMR. However, adaptive strategies, strong partnerships, and community engagement can help sustain immunization efforts. Ensuring equitable access to vaccines in conflict settings is essential to protect vulnerable populations and prevent disease outbreaks.

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Updates from the International Academy of Public Health (IAPH)

Be prepared before emergencies happen.

This self-paced course, offered by IAPH, introduces the core principles of public health emergency management and builds the foundational skills needed to assess risks, plan responses, and coordinate effectively during crises.

Start Learning and Enroll Now

Early Action Reviews Using 7-1-7 Approach in Conflict Settings: Strengthening Health Security Through Timely Action in the EMR

By Dr. Mohamed Elhakim, Technical Officer, WHO Regional Office for the Eastern Mediterranean – WHO EMRO

In conflict-affected and vulnerable settings, the speed of public health detection, notification, and completion of early response actions is not just a technical performance measure*. It can determine whether a localized health threat is contained early or becomes another layer of suffering for communities already facing displacement, disrupted services, insecurity and limited access to healthcare. Across the Eastern Mediterranean Region, conflicts continue to affect health systems, damage health facilities, disrupt supply chains, constrain humanitarian access and increase public health threats. The World Health Organization (WHO) has noted that the escalation of conflict in the Middle East since February 2026 has affected people's health across the region and beyond, including through population displacement, civilian and health worker casualties, damaged health facilities and disrupted health services.[1]

In such contexts, outbreak detection, notification and response systems are tested under the most difficult conditions. Surveillance officers may be displaced. Laboratories may be inaccessible. Health workers may be overwhelmed by trauma care or unable to safely report from the field. Communities may be displaced frequently, informal settlements may grow rapidly and rumors may spread faster than verified information. At the same time, the risk of communicable diseases may also increase when people are living in crowded shelters with limited access to safe water, sanitation, hygiene services, essential health care, and vaccination. WHO has warned that deteriorating public health conditions in crowded collective shelters increase the risk of respiratory infections, diarrhoeal diseases and other communicable illnesses, especially among vulnerable populations such as women and children.[2]

A Simple Approach for Rapid Learning and Action

This is where the Early Action Reviews using the 7-1-7 approach become particularly useful. The framework provides a simple but powerful way to ask three practical questions for every suspected outbreak or public health event: was it detected within seven days of emergence? was it notified to public health authorities within one day of detection? were key early response actions completed within seven days of notification? WHO describes Early Action Reviews as an agile performance-enhancement methodology that leverages these 7-1-7 metrics to optimize early disease detection, timely notification and swift response actions.[3]

The value of the EARs using 7-1-7 approach lies in both the targets themselves, and in the discipline they bring to learning. In conflict settings, delays are often expected, but they should not remain invisible or ignored. The 7-1-7 approach helps teams identify exactly where time was lost: was the event recognized late at community or facility level? was the notification delayed because reporting channels were disrupted? were early response actions delayed because investigation teams could not safely access the affected area, supplies were unavailable, or coordination mechanisms were unclear? While exposing these bottlenecks, the approach converts a general sense of system weakness into specific and actionable improvements.

Applying EAR in Real Operational Settings – regional and National Experiences

From my perspective, as WHO EMRO focal point for Early Action Review, one of the most important strengths of the 7-1-7 approach is that it is practical enough to be used in real operational settings. It does not require a perfect system before piloting begins. Instead, it supports rapid reflection while memories are fresh, response actors are still engaged and corrective actions can still influence the ongoing or next public health event. WHO's EAR guidance emphasizes that the approach is designed to optimize early detection, timely notification, and swift response during public health emergencies, and that Member States are encouraged to integrate EAR into existing response frameworks and coordination structures.[4]

The sub-regional meeting on EARs using the 7-1-7 approach held in Amman, Jordan, during February 2026 was a regional milestone that reflected an important lesson: while countries in EMR are facing different hazards and operating realities, many of the early response challenges are shared. Participants from 8 Member States, namely Afghanistan, Iraq, Jordan, Lebanon, Libya, Pakistan, Tunisia and Yemen, reflected on the importance of connecting surveillance, laboratory confirmation, risk assessment, field investigation, risk communication, logistics and coordination. In conflict and fragile settings, these functions cannot operate in silos. Any delayed signal at community level, any delayed laboratory referral, or a delayed operational decision can each affect the entire response timeline.

The national training workshop organized in Tunis, Tunisia, during April 2026 further demonstrated the importance of adapting EARs using 7-1-7 to country context. Trained participants explored how the approach can be applied as a review tool during and/or retrospectively after an event, as well as a mindset for preparedness. When teams understand the 7-1-7 milestones before an emergency occurs, they can map the systems, actors, reporting pathways, and decision points that must work rapidly during a real event. This is particularly relevant for countries that may be affected by cross-border population movements, climate-sensitive diseases, vector-borne risks, or disruptions linked to regional instability.

Protecting Communities and Healthcare through Rapid Detection, Notification, and Response

The 7-1-7 approach, in conflict settings, has also a community protection dimension. Rapid detection depends on trust between communities and the health system. Timely notification depends on safe, functional and clearly understood reporting channels. Early response depends on the ability to reach affected people with investigation, medical countermeasures, infection prevention and control, risk communication and other priority interventions. If any of these links is disrupted, the burden is often carried first by communities with the weakest protection and the least access to services.

Protecting healthcare is also inseparable from timely outbreak response. WHO notes that attacks on healthcare include violence against health workers, facilities, patients and ambulances, as well as disruption of electricity, water, fuel and access to besieged populations. WHO has also established systems to collect data on attacks on healthcare in complex emergencies to identify patterns and mitigate disruptions to service delivery.[5] When health workers cannot safely work, report, investigate or respond, the 7-1-7 targets become harder to achieve. This makes the protection of health services and respect for international humanitarian law a core enabler of outbreak control using the approach.

For the WHO Eastern Mediterranean Region, the promise of 7-1-7 is its clarity. In complex crises, public health systems can become overwhelmed by competing priorities. The framework helps bring attention back to the earliest moments of an outbreak, when timely action has the greatest potential to prevent escalation. It provides a common language for ministries of health, WHO, partners, humanitarian actors and communities to examine whether the system is moving fast enough, where it is being slowed and what must be improved.

In conclusion, the 7-1-7 is more than a metric. It is a practical approach to equity, protection and preparedness. In vulnerable environments, every day saved in detecting, notifying and initiating the response to an outbreak can mean less people exposed, less families affected and greater trust in public health action. The experience from regional and national EAR capacity-building efforts shows that the approach can help countries move from delayed recognition of problems to rapid learning and corrective action. In a region facing rising health and humanitarian threats, this kind of disciplined, real-time learning is not really optional. It is one of the ways we protect communities when they are most at risk.

*The 7-1-7 Early Response Actions to be Completed:

- Initiate investigation or deploy investigation/response team;
- Conduct epidemiologic analysis and initial risk assessment;
- Obtain laboratory confirmation of the outbreak etiology;
- Initiate appropriate case management and IPC measures in health facilities;
- Initiate appropriate public health countermeasures in affected communities;
- Initiate appropriate risk communication or community engagement activities; and
- Establish a coordination mechanism.

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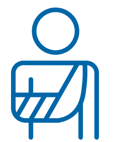
In Numbers

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 vulnerable populations. This section highlights key alarming statistics and underscores the critical role of NGOs in responding to these challenges:

Gaza

72,562
people have been killed, as of April 22, 2026



172,320
people have been injured, as of April 22, 2026

>2,800
children aged 6-59 months were admitted for malnutrition treatment in March, compared with >3,700 in February 2026

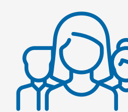
37,000
pregnant and breastfeeding women are projected to suffer from acute malnutrition and require treatment in 2026

36
Emergency Medical Teams (EMTs) are operational, including 310 national and 72 international personnel, as April 15, 2026

1,322
displacement sites (81%) reported the presence of skin infections or rashes

254,800
people on average have been reached weekly through health service delivery in Gaza in 2026, according to health partners

Sudan



34 million
people in Sudan require aid, and 21 million lack access to health services following three years of conflict

4 million
people are estimated to be acutely malnourished in 2026

37%
of health facilities remain non-functional across Sudan's 18 states

217
attacks on health care have been reported since April 15, 2023, resulting in 2,052 deaths and 810 injuries.

14 million
people have been displaced since April 15, 2023, including 9 million within Sudan and 4.4 million who have fled across borders.

Lebanon

2,300+
people have been killed since March 2, 2026, as of April 24, 2026

7,500+
people have been injured since March 2, 2026, as of April 24, 2026

100
deaths and more than 200 injuries among health workers have been reported as a result of attacks on health care, as of April 24, 2026

15
hospitals have been damaged, and 6 hospitals have been closed, as of April 24, 2026

7
primary health care centers have been damaged, and 46 primary health care centers remain closed, as of April 24, 2026

1.2+ million
people have been displaced following sweeping displacement orders covering around 15 per cent of the country

Afghanistan

Between March 26 and April 6, 2026, heavy rainfall and flash floods affected nearly all of Afghanistan; 31 of 34 provinces, including 165 districts and 546 villages, covering roughly one-third of the country.

73,300
people have been affected, with at least 93 people killed, 181 injured and four missing.

31,600+
people have been confirmed as requiring urgent assistance out of the 73,300 initially estimated to be affected, with assessments ongoing in 75 districts

9,010
homes have been affected, including 1,338 destroyed and 7,672 damaged

62
health facilities sustained partial damage, mainly in Kunar and Nangarhar provinces, while additional facilities experienced temporary service disruptions due to access constraints

6,300
people have received essential services from health partners, including emergency care, maternal and child health, nutrition, immunization, and psychosocial support across multiple provinces

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