

25 Years of Disaster Medicine in the Middle East:

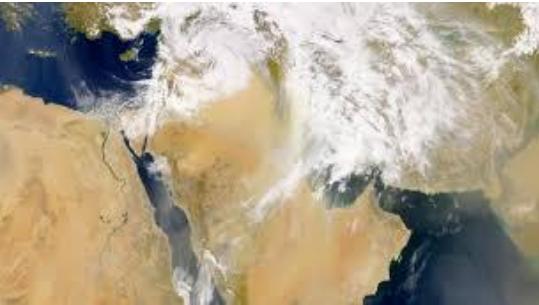
Lessons Learned and the Way Forward in a changing world

Saleh Fares Al-Ali

MBBS, MPH, DrPH, FRCPC(EM), FACEP, FAAEM, FIFEM, FFSEM

Consultant, Emergency Medicine, EMS and Disaster Medicine

President, International Federation for Emergency Medicine



Note: The insights shared are based on personal professional experience over 25 years in the MENA region and may not be generalizable to all countries or contexts.



Daily routine....

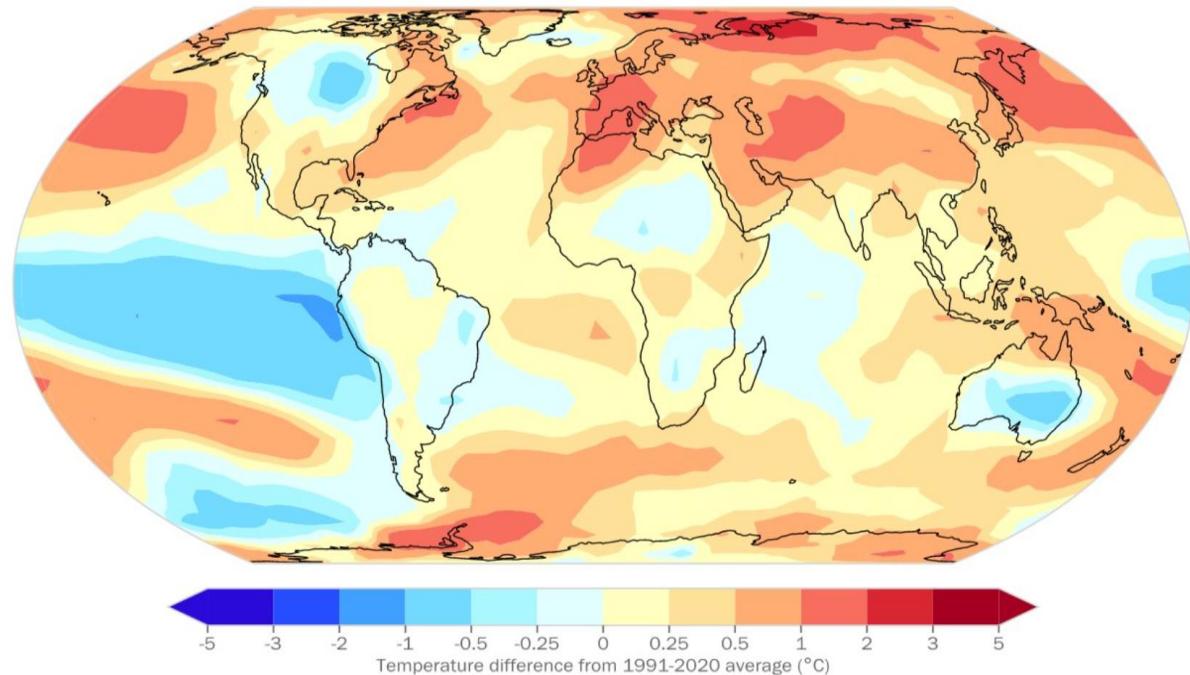


But





Annual Temperature Anomalies 2022



In 2022, the planet was
1.15 ± 0.13 °C warmer than the
pre-industrial (1850-1900)
average, making the **last 8 years**
the warmest on record.

Roadmap today:

- 1 Context: Why MENA is Different
- 2 Challenges: Common Problems Across the Region
- 3 Success Stories: What We've Learned Works
- 4 The Way Forward: From Lessons to Action





North American
Model



French Model



British Model

Why MENA Matters Now



Field Validation Zone

Real-world testing ground for *refining* disaster medicine principles.



Complexity and Urgency

Immediate action is needed to address unique, evolving challenges.



Global Relevance

Lessons learned *directly influence* worldwide practices and policies.

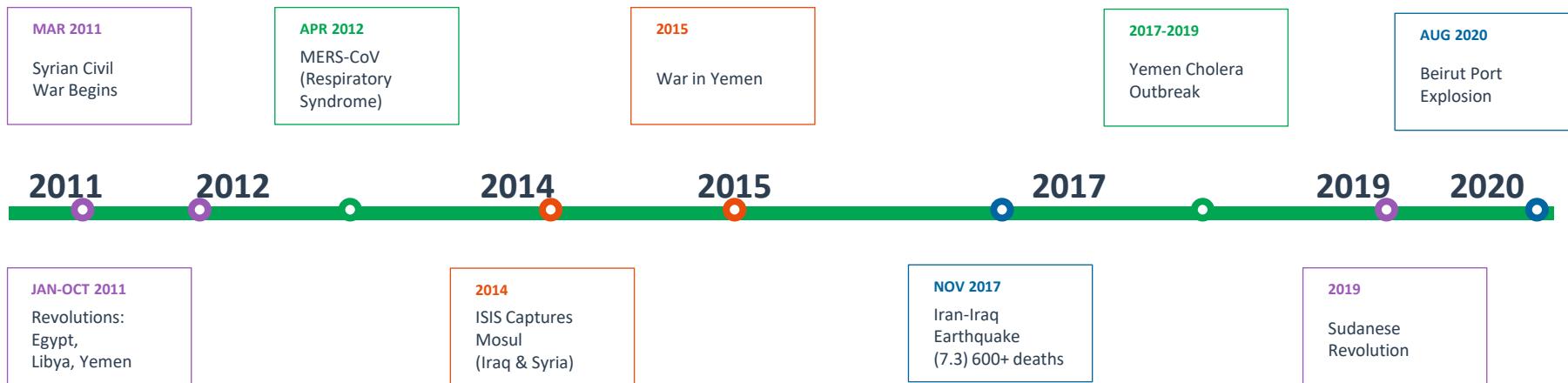
Driving Innovation in Global Disaster Medicine.

Disasters in the MENA Region



Disasters in the MENA Region

2011-2020



Disasters in the MENA Region

2021-2025



Why MENA is Different?

One Region, Many Realities

UAE/Saudi Arabia

Well-Resourced Gulf States

Yemen/Syria

Conflict-Affected Systems

Healthcare Models in MENA

- Private Sector
- Government-Led Systems
- NGO-Led Humanitarian
- Military-Supported Care

The Fragmented Patient Journey

Scene/Incident

Pre-hospital Care

Hospital Treatment

Recovery/Follow-up

⚡ Disconnected Models = Lost Continuity in Mass Casualty Events ⚡

Cultural Nuances

- Family Presence at Bedside
- Gender Considerations in Care
- "Informal First Responders"
- Community-Based Response

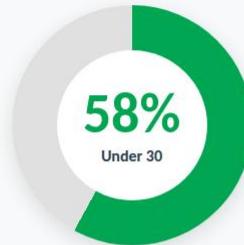
MENA in numbers



Population Growth Trends



Youth Demographics



2nd Youngest Region Globally
After sub-Saharan Africa

Youth Bulge (15-29 years)
~30% of population (110M people)

Under-30 Population
55-60% vs 36% OECD average



Urbanization Rates



Megacity Status

Current: Cairo (10M+)

Projected: Baghdad, Riyadh, Tehran approaching megacity status

The Disaster Burden

NATURAL HAZARDS

48

Major Events
2001-2025

- Earthquakes: 18 events
- Floods: 15 events
- Droughts: 8 events
- Other (storms, fires): 7 events

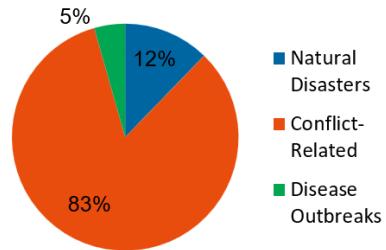
CONFLICT-RELATED

32

Major Crises
2001-2025

- Active conflicts: 12
- Insurgencies/Civil wars: 11
- Mass displacement events: 9

Estimated Deaths by Disaster Type



KEY STATISTICS

Total Deaths

~1.02M

(83% conflict-related)

People Affected

180M+

(floods, earthquakes, droughts)

Displaced Persons

40M+

(current displacement 2025)

Disease Outbreaks

15

(MERS, COVID-19, cholera, etc.)

Active Conflicts

8

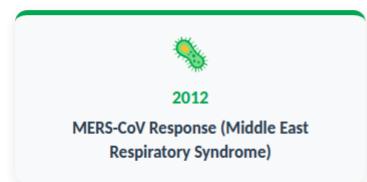
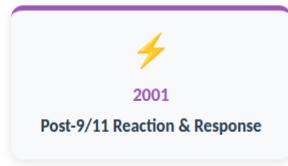
(ongoing as of 2025)

Economic Losses

\$500B+

(estimated total damage)

Personal Journey Timeline



What are the key challenges I observed?

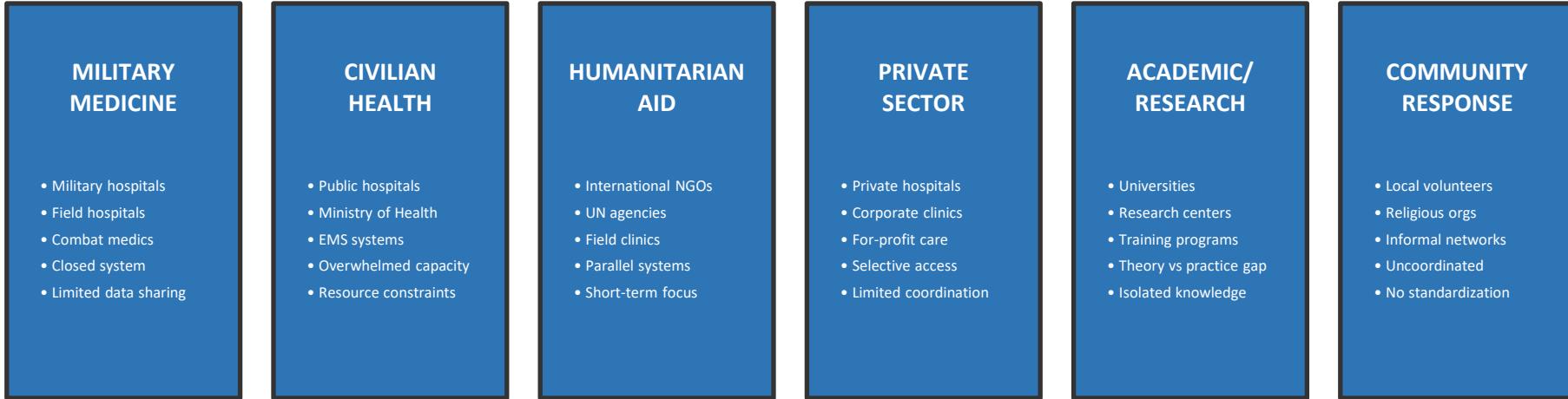
Challenge 1 - Disconnection across Borders



Challenge 1 - Disconnection across Borders



Challenge 2 - The Silo Effect



Different protocols

No data sharing

Competing priorities

Language barriers

Trust issues

CONSEQUENCES OF SILOS:

- ✗ Duplicated efforts & wasted resources
- ✗ Delayed response times

- ✗ Gaps in patient care continuity
- ✗ Inconsistent quality of care

- ✗ Patient 'lost' between systems
- ✗ No unified data for decision-making

Challenge 3 - The Response Trap



Challenge 4 – The Data

WHY THE DATA GAP EXISTS

Security & Access

- Conflict zones unsafe for data collection
- Restricted access to affected areas
- Security classifications limit sharing

No Standardization

- Different collection methods per org
- No common terminology/definitions
- Incompatible data formats

Infrastructure Gaps

- Paper-based systems in many facilities
- No EMR/EHR in many hospitals
- Destroyed infrastructure in conflicts

Institutional Issues

- No data sharing between organizations
- No data-sharing agreements
- Political sensitivities prevent transparency

Human Resources

- Lack of trained data officers
- Overwhelmed staff = no documentation
- High turnover in crisis zones

Funding Priorities

- Response prioritized over data
- No budget for surveillance systems
- Short-term project funding only

You can't manage what you don't measure

Challenge 5 - Untapped Potentials



Civilian-Military

The Military has the logistics; Civilians have the clinical volume



PPP

Private sector holds infrastructure, technology, specialized skills

Additional Critical Challenges

- Brain drain: Losing our best-trained experts when we need them most
- Funding and sustainability
- Education/training gaps
- Leadership continuity during crises
- Mental health
- Community trust

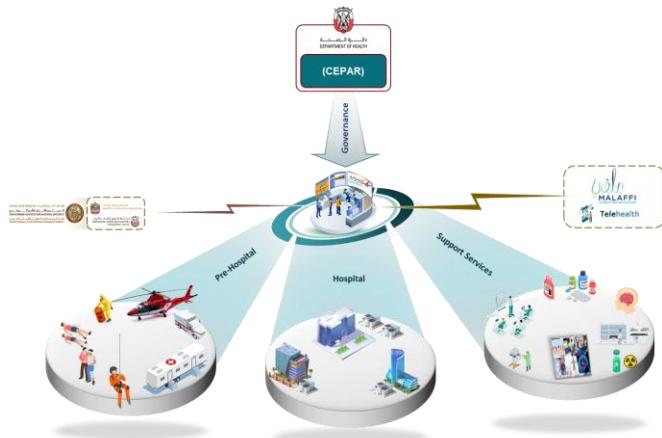


But not everything has failed

Success Story



Success Story



Emerging Best Practices



Now we know the problems. The question is
how we move forward?

Priority 1 – System Approach

- Clear integration across: Governance, operation centers, Prehospital, Hospital and enabling services
- Move from ad-hoc to structured frameworks
- Use data to drive DM
- From Individual to Institutional
- Defined roles, not overlapping mandates



NEEDED: Integrated Command Structure • Shared Data Systems • Unified Protocols • Cross-sector Training

Priority 2 - Building the MENA Evidence Base

- We should not “cut and paste” solutions for MENA problems
- Publishing imperative
- Share failures, not just successes



MENA must contribute to global knowledge, not just consume it

Priority 3 - Team-Based Regional Collaboration

- Multidisciplinary approach
- Cross-country learning
- Joint exercises and training
- Trust and relationships before disasters



Priority 4 – Sustain WADEM MENA Chapter

- Platform for alignment and knowledge exchange
- Advocacy for regional priorities
- Standardizing training



Priority 5 - Strategic Partnerships

- Working with WHO-EMRO, IFEM, regional governments
- Public-Private Partnerships aligned to public interest
- Support disaster laws and policies



Don't reinvent the wheel

Additional Way Forward Elements

- Regional DM curriculum standardization
- Simulation and training centers network
- Community-based activities
- Mental health and psychosocial support
- Technology and digital solutions



What success looks like in 10-25 years?

- MENA as a global contributor in DM
- A regional network where no country faces disaster alone



Key Takeaways

- MENA is complex, diverse, and resilient
- Experience exists but must be systematized
- Collaboration is the accelerator

Thank you

Saleh.fares@gmail.com