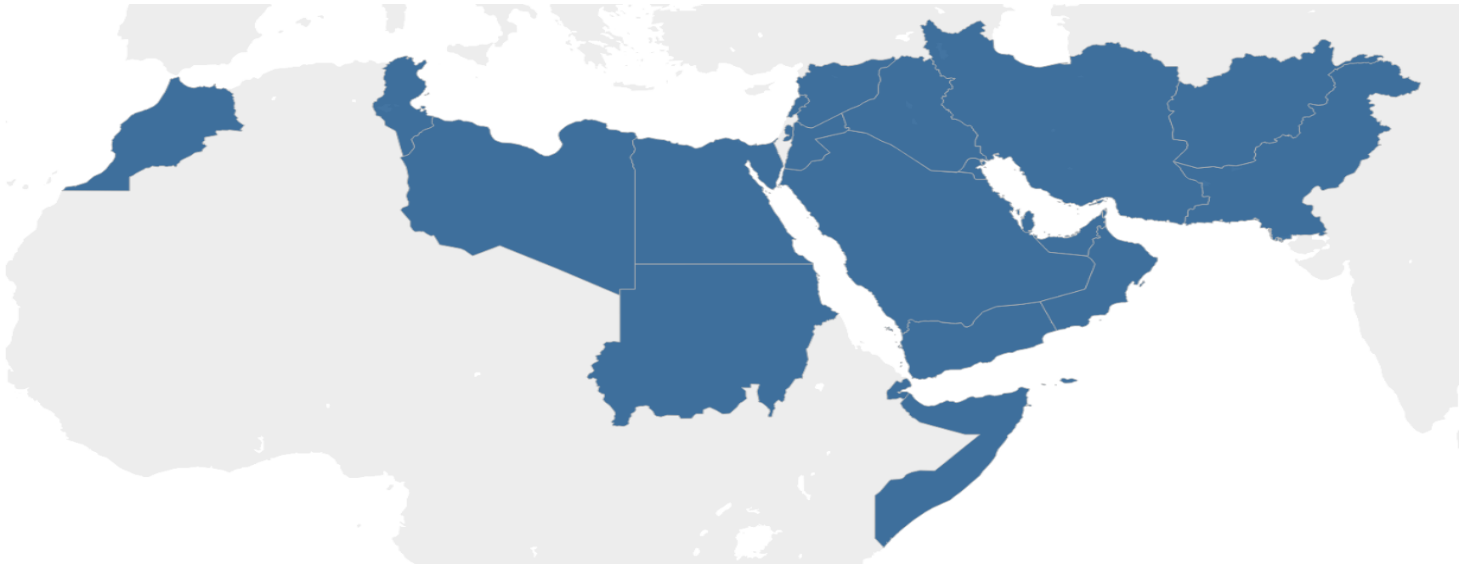
DEM in MENA:

Current State & Future Directions

Prof. Anas Khan

جامعة الملك سعود
King Saud University



Overview

- Regional risk profile
- Current state
- Structural gap
- Future directions

Overview

- Regional risk profile
- Current state
- Structural gap
- Future directions

DEM in MENA is not underdeveloped.. It is unevenly overdeveloped..

Current State.. The Paradox

- Health needs
  - Young populations
  - Foreign population
  - Economic strains (health system stress)

Risk Profile

- Natural (environmental – ST/LT) hazards
- Technological/industrial hazards
- IDs
- Complex emergencies
- MGs

The absence of capacity is debatable, but the region clearly needs system coherence.

Current State.. WHO EMRO Programs

- Emergency preparedness:

  PoE & Border Health, One Health, & MGs
- Operational readiness:

  EC Systems, EMTs, PHEOC, Risk Profiling and Emergency Planning & Health Security Interface.
- RCCE & Infodemic Mx

ICS is not system integration..
LT investment (sustainability)

Current State.. System Capacity & Resilience

Group 1: High-capacity with surge readiness, well-resourced, mature emergency response capacity

Strong EMS and hospital infrastructure

Centralized command, good logistics

Variable integration with PH

Group 2: Existing systems under chronic pressure, facing sustained demand & resource constraints

Broad service coverage, experienced workforce, with Strained surge capacity

Group 3: Recovery, post-conflict/shock rebuilding emergency capacity

Human capital is still present

Infrastructure damage, governance instability

High vulnerability to shocks

Group 4: Fragility-affected & humanitarian-dependent systems, Crisis-driven

Severe workforce and infrastructure loss

Limited national coordination

High excess mortality from indirect causes

What is Needed.. For real:

- **No more: courses, guidelines, or ambulances**
- **Structural gaps:**

What is Needed.. For real:

- **No more: courses, guidelines, or ambulances**
- **Structural gaps:**
    - Governance gap:
      Disaster medicine is still treated as a project, not a function
    - Data gap:
      AARs exist. Learning systems don’t.
    - Workforce gap:
      Heroes > roles. Individuals > teams.
    - Interface gap:
      Fragmented EMS–ED–ICU–PH, lacking a unified command/operations center
    - Academic gap:
      Celebrating research output, missing decision support centers

Future Directions.. Strategic Bets:

1- Disaster Medicine as a system, not a specialty

Embedded in health systems

Standing capabilities, not ad-hoc activation

2- Regional interoperability

Shared doctrines

Mutual aid compacts

Cross-border credentialing in crises

3- Data → intelligence

Live dashboards

Standardized AARs

Regional learning loops

4- Workforce architecture

Tiered competencies

Credentialed disaster clinicians

Leadership pipelines

5- MENA as a global hub

Heat, crowds, conflict, migration

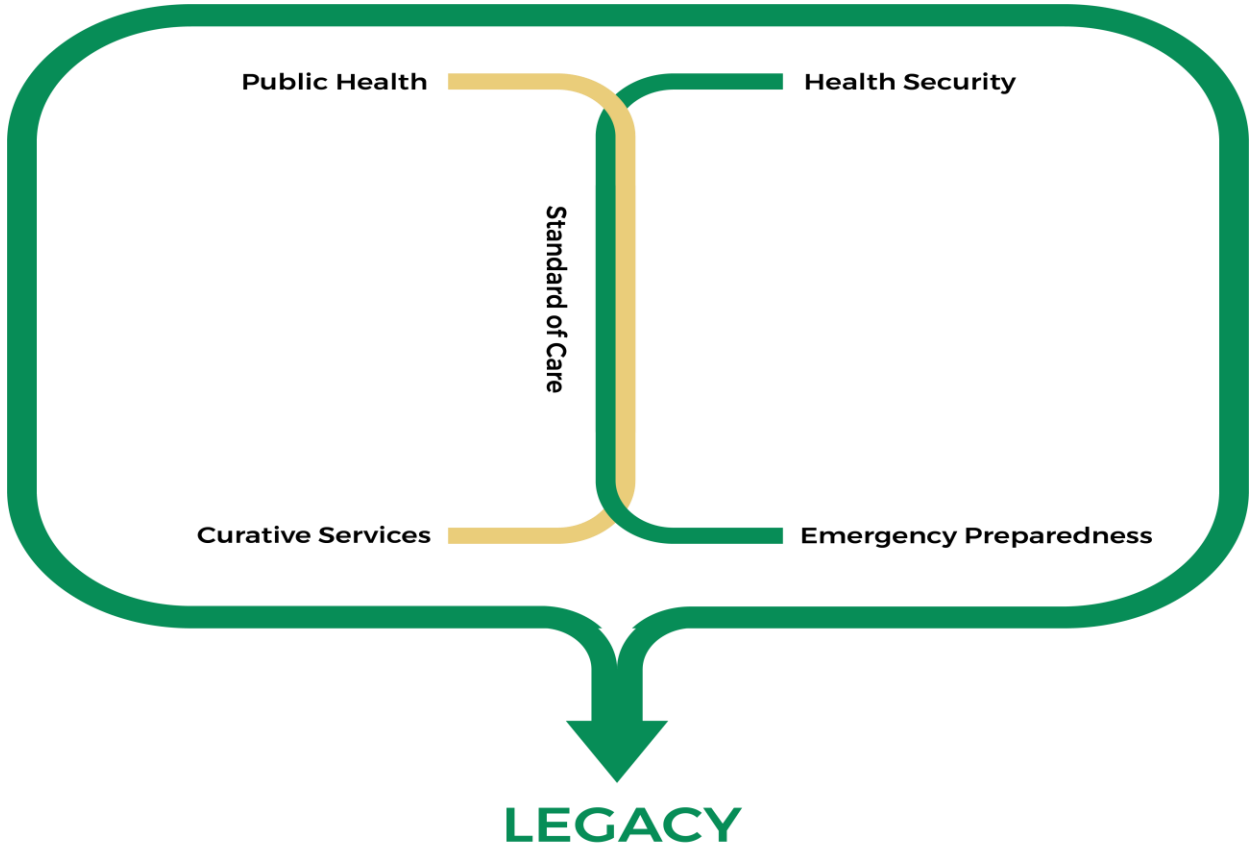
From aid recipient → knowledge exporter

MENA should stop importing disaster models and start exporting them.

Frameworks:

- R/A & Intelligence
- Multi-Agency Coordination
- Medical Response – CBRNE-ready, decon
- Capacity Building – responder training
- Technology & Surveillance

→ STAR, IHR, ..



Take Home Message

Institutional Memory

Continuous learning cycles institutionalized (documentation & LLs)

Knowledge Capital

- **Guidelines, and peer-reviewed studies**
- **C4, policy & governance → exercise**
- **Innovation & scaling**

Q & A