



EMPHNET
The Eastern Mediterranean
Public Health Network

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together for better health

ADVANCING PUBLIC HEALTH DIALOGUE IN THE EASTERN MEDITERRANEAN REGION

2026

Message from EMPHNET Leadership

Acknowledgments

Dear Reader,

Since its launch in 2020 amid the global disruption caused by the COVID-19 pandemic, the WEBi Series has reflected EMPHNET's commitment to advancing structured, evidence-informed public health dialogue across the Eastern Mediterranean Region (EMR) and beyond.

What began as an urgent response to unprecedented disruption evolved into a sustained and institutionalized platform for regional exchange. The Series convenes policymakers, practitioners, researchers, and development partners in a shared space where evidence informs practice and experience strengthens perspective.

Public health challenges continue to grow in scale and complexity. Effective responses require coordination, credible information, and sustained professional engagement. Through the WEBi Series, EMPHNET provides a continuous forum for regional learning, cross-border collaboration, and strategic dialogue.

This booklet documents the evolution of the Series from 2020 through 2025. It captures the themes addressed, the expertise mobilized, and the knowledge products generated, while reaffirming EMPHNET's commitment to strengthening resilient health systems through dialogue and collective action.



Dr. Mohannad Al Nsour
EMPHNET's Executive Director

EMPHNET extends its sincere appreciation to all individuals and institutions whose contributions made the EMPHNET WEBi Series possible between 2020 and 2025.

First and foremost, we acknowledge the distinguished speakers, public health experts, policymakers, researchers, and practitioners who generously shared their knowledge and experience through the WEBi sessions. Their insights and commitment to advancing public health dialogue enriched the discussions and contributed to the exchange of practical lessons and evidence across the Eastern Mediterranean Region and beyond.

We also express our gratitude to the many regional and global partners, academic institutions, and public health organizations that collaborated with EMPHNET in organizing and supporting these webinars. Their continued engagement has strengthened the Series as a platform for regional learning, technical exchange, and cross-border collaboration.

Special recognition goes to the teams within EMPHNET who coordinated the planning, organization, and dissemination of the WEBi Series. Their dedication ensured the continuity and quality of the sessions, enabling the platform to grow into a sustained forum for professional learning and dialogue.

Finally, we acknowledge the editorial, technical, and communication teams who contributed to the preparation of this publication. Their efforts in documenting, synthesizing, and presenting the discussions reflected in this booklet have made it possible to capture five years of knowledge exchange and regional collaboration through the EMPHNET WEBi Series.

Abbreviations List

ACO — Accountable Care Organization
AFP — Acute Flaccid Paralysis
AMR — Antimicrobial Resistance
APHEA — Agency for Public Health Education Accreditation
AUB — American University of Beirut
CDC — Centers for Disease Control and Prevention
cVDPV — Circulating Vaccine-Derived Poliovirus
CEAE — Center of Excellence for Applied Epidemiology
CGHE — Center for Global Health Equity
CSOs — Civil Society Organizations
DHIS2 — District Health Information Software 2
DTP3 — Third Dose of Diphtheria–Tetanus–Pertussis Vaccine
EBS — Event-Based Surveillance
ECDC — European Centre for Disease Prevention and Control
EFED — Electronic Field Epidemiology Database
EHWG — Environmental Health Working Group
ELISA — Enzyme-Linked Immunosorbent Assay
EMPHNET — Eastern Mediterranean Public Health Network
EMR — Eastern Mediterranean Region
EPI — Expanded Programme on Immunization
EPIET — European Programme for Intervention Epidemiology Training
EWARN — Early Warning, Alert and Response Network
FAO — Food and Agriculture Organization of the United Nations
FELTP — Field Epidemiology and Laboratory Training Program (Pakistan; now referred to as FETP Pakistan)
FETP — Field Epidemiology Training Program
FMOH — Federal Ministry of Health
Gavi — Gavi, the Vaccine Alliance
GCC — Gulf Cooperation Council
GICR — Global Initiative for Cancer Registry Development
GIS — Geographic Information Systems
GISRS — Global Influenza Surveillance and Response System
GPE — Global Prioritization Exercise
GPEI — Global Polio Eradication Initiative
H5N1 — Highly Pathogenic Avian Influenza A (H5N1)
HBV — Hepatitis B Virus
HCV — Hepatitis C Virus
Health-EDRM — Health Emergency and Disaster Risk Management
HPV — Human Papillomavirus
HRP — Humanitarian Response Plan
HRI — Humanitarian Research and Innovation
IA2030 — Immunization Agenda 2030
IAPH — International Academy of Public Health
IANPHI — International Association of National Public Health Institutes
IARC — International Agency for Research on Cancer
IFRC — International Federation of Red Cross and Red Crescent Societies
IFRC–MENA — International Federation of Red Cross and Red Crescent Societies, Middle East and North Africa Region
IgG — Immunoglobulin G
IgM — Immunoglobulin M
IHR — International Health Regulations
IMC — International Medical Corps
IPC — Infection Prevention and Control

KHCC — King Hussein Cancer Center
KSrelief — King Salman Humanitarian Aid and Relief Centre
LMICs — Low- and Middle-Income Countries
MENA — Middle East and North Africa
MENA ISN — Middle East and North Africa Influenza Surveillance Network
MenMap — Meningitis Surveillance and Mapping Project
MSC — Member State Consultation
MSF — Médecins Sans Frontières (Doctors Without Borders)
N4H — Network for Health
NCDC — National Center for Disease Control
NCDs — Noncommunicable Diseases
NGOs — Non-Governmental Organizations
NIH — National Institute of Health
nOPV2 — Novel Oral Poliovirus Vaccine Type 2
OH JPA — One Health Joint Plan of Action
PAHO — Pan American Health Organization
PBCRs — Population-Based Cancer Registries
PCR — Polymerase Chain Reaction
PHC — Primary Health Care
PHEIC — Public Health Emergency of International Concern
PPE — Personal Protective Equipment
PPRR — Prevention, Preparedness, Response, and Recovery
PPPs — Public–Private Partnerships
R&I — Research and Innovation
RKI — Robert Koch Institute
RMNCH — Reproductive, Maternal, Newborn, and Child Health
RRT — Rapid Response Team
RSV — Respiratory Syncytial Virus
RTI — Research Triangle Institute / Research Triangle International
SAGE — Strategic Advisory Group of Experts on Immunization
SARS-CoV-2 — Severe Acute Respiratory Syndrome Coronavirus 2
SDG — Sustainable Development Goals
SIAs — Supplementary Immunization Activities
SLG — Senior Leadership Group
TEPHINET — Training Programs in Epidemiology and Public Health Interventions Network
UATC — United Against Tobacco and COVID Project
UHC — Universal Health Coverage
UNEP — United Nations Environment Programme
UNICEF — United Nations Children’s Fund
UNICEF/MENARO — UNICEF Middle East and North Africa Regional Office
US CDC — United States Centers for Disease Control and Prevention
VPDs — Vaccine-Preventable Diseases
WANA — West Asia and North Africa
WASH — Water, Sanitation and Hygiene
WEbi — EMPHNET Webinar Series
WFPHA — World Federation of Public Health Associations
WHO — World Health Organization
WHO AFRO — WHO Regional Office for Africa
WHO EMRO — WHO Regional Office for the Eastern Mediterranean
WOAH — World Organisation for Animal Health
WPV1 — Wild Poliovirus Type 1

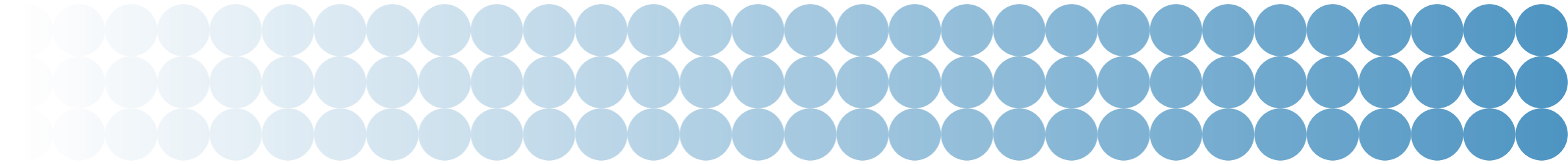
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Foundations and Evolution of the EMPHNET WEBi Series

Purpose of This Booklet



A Record of Regional Dialogue and Learning

This publication provides structured documentation of the EMPHNET WEBi Series from June 2020 through December 2025.

The statistics and insights presented represent a defined timeframe, while recognizing that the Series continues to expand and evolve.

Beyond numbers, this booklet captures:

- The thematic priorities addressed
- The diversity of institutions and experts engaged
- The regional and global reach achieved
- The translation of dialogue into policy briefs, technical reports, and other knowledge products

The WEBi Series remains an active and growing platform. This publication documents its progress to date and provides an institutional record of its contribution to regional public health discourse.

Why the WEBi Series was Launched

The EMPHNET WEBi Series was initiated in response to the disruptions caused by the COVID-19 pandemic and the accompanying infodemic. Travel restrictions and physical distancing measures limited traditional learning platforms. Simultaneously, misinformation spread rapidly, creating urgent demand for credible and evidence-based discussion spaces.

The Series addressed this need by offering:

- Rapid access to trusted expertise
- Inclusive and open participation
- Timely discussions aligned with emerging health priorities
- Concise sessions designed for time-constrained professionals

What began as an emergency response evolved into a trusted and structured virtual platform for knowledge exchange and professional learning.

Alignment with EMPHNET's Strategic Priorities

The WEBi Series directly supports EMPHNET's strategic objectives by:

- Strengthening regional capacity through continuous learning
- Promoting evidence-informed decision-making
- Elevating the region's voice in global health discourse
- Facilitating cross-border technical collaboration

The webinars in this documents are organized into the following public health areas:

- Pandemic preparedness and COVID-19 Response
- Immunization Systems and Vaccine-Preventable Diseases (VPDs)
- Field Epidemiology, Surveillance, and Workforce Development
- Risk Communication, Community Engagement, and Digital Health
- Health System Resilience, Governance, and Multisectoral Action
- Humanitarian Crises, Conflict, and Recovery
- One Health, Environment and Climate Change

These public health areas reflect regional priorities and global health agendas, reinforcing EMPHNET's role as a regional convener and a structured platform for sustained public health dialogue.

Language, Format, and Accessibility

Accessibility and inclusiveness guided the design of the WEBi Series. Key features include:

- Free and open access
- Scheduling optimized across multiple time zones
- Focused and time-efficient formats
- Recorded and archived sessions for continued access
- Participation across all levels of the health system

Content delivery prioritizes clarity, practicality, and applicability. Sessions emphasize operational insights and real-world implementation.


The concise structure enables participants to absorb key messages efficiently and apply learning within their professional contexts.

The EMPHNET WEBi Series: Scope, Reach, and Impact

JUNE 2020 – DECEMBER 2025

By the Numbers

 **50**
Webinars
Conducted

 **240+**
Expert Speakers
Featured

 **105+**
Institutions
Represented

 **9,171+**
Attendees
Reached

Institutional Representation

Participating institutions include:

- Ministries of Health
- Universities and research centers
- International, regional, and national organizations
- Non-governmental organizations (NGOs) and civil society

From Dialogue to Knowledge Products

The WEBi Series has contributed to tangible outputs, including:

- 50 Documented technical discussions
- 7 Policy briefs developed
- 13 Detailed technical reports produced
- Citations in peer-reviewed journals
- References in sectoral reports and digital knowledge platforms

Audience Profile

The Series attracts diverse participants, including:

- Policymakers and policy advisors
- Public health professionals
- Scientists and researchers
- Academics and educators
- International development partners

Geographic Reach

The WEBi Series is a globally engaged knowledge exchange platform, anchored in the EMR, with participation from over **134** countries.

Participants marked with 

Speakers from **~30** countries across the region and globally contributed to the series, reinforcing regional leadership while maintaining international engagement.

Speakers marked with 



Technical Dialogues Shaping Regional Public Health

From its inception, the EMPHNET WEBi Series evolved beyond an emergency response mechanism into a structured platform addressing priority public health domains across the Eastern Mediterranean Region (EMR).

While the Series was launched during the COVID-19 pandemic, its thematic scope quickly expanded to reflect the broader determinants of health security, system resilience, and multisectoral coordination. Over time, the platform convened experts to examine both immediate threats and long-term structural challenges affecting public health systems.








The webinars presented in this section are organized thematically to reflect core public health areas that shape regional preparedness and response. The numbering of each WEBi corresponds to its chronological delivery within the overall Series (2020–2025). Webinars are grouped here according to thematic relevance rather than sequence of delivery.

Each chapter highlights how dialogue within that domain contributed to:

- Elevating regional perspectives within global health discourse
- Encouraging cross-border collaboration
- Contributing to technical capacity and knowledge
- Informing policy and operational practice

Together, these thematic dialogues illustrate how sustained knowledge exchange supports resilient health systems and informed decision-making.

The seven chapters that follow represent the principal public health areas addressed through the EMPHNET WEBi Series:

- | | |
|---|--|
|  <u>Pandemic Preparedness and COVID-19 Response</u> |  <u>Health Systems Resilience, Governance, and Multisectoral Action</u> |
|  <u>Immunization Systems and Vaccine-Preventable Diseases</u> |  <u>Humanitarian Crises, Conflict, and Recovery</u> |
|  <u>Field Epidemiology, Surveillance, and Workforce Development</u> |  <u>One Health, Environment, and Climate Change</u> |
|  <u>Risk Communication, Community Engagement, and Digital Health</u> | |

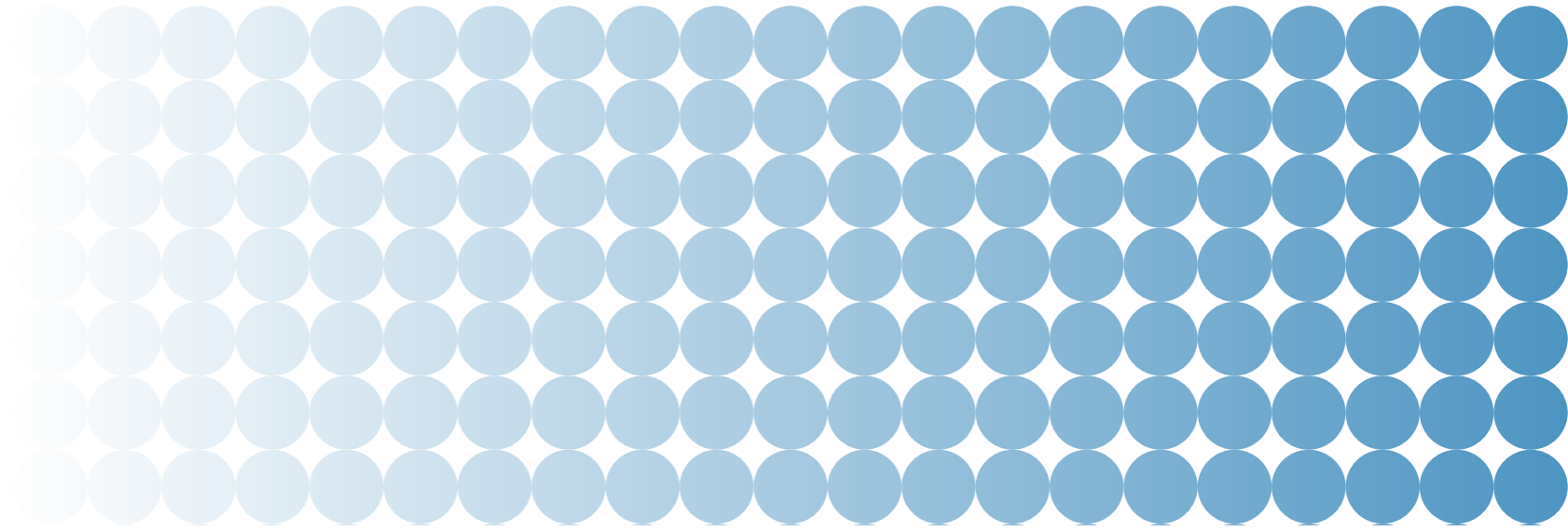
Each public health area chapter begins with an interpretive overview that situates the webinars within their broader public health context. This is followed by structured summaries of individual sessions delivered between 2020 and 2025. This format allows readers to trace the evolution of regional public health priorities over time and engage selectively with areas most relevant to their work and interest.

Chapter

1



Pandemic Preparedness and COVID-19 Response



Pandemic preparedness and COVID-19 response formed the foundational phase of the EMPHNET WEBi Series, spanning from June 2020 to March 2023. This period coincided with the emergence, global spread, and successive phases of the COVID-19 pandemic, during which public health systems operated under conditions of profound uncertainty, rapidly evolving evidence, and unprecedented operational pressure^{1,2}.

Countries were required to make high-stakes decisions under conditions of uncertainty and evolving evidence^{3,4}. Early response efforts unfolded in the absence of established protocols for managing a novel pathogen. While global guidance gradually emerged, national authorities faced the critical task of interpreting and contextualizing recommendations within diverse system capacities and sociopolitical realities. Public health priorities extended beyond outbreak containment. Governments and institutions were required to sustain essential health services, preserve immunization gains, strengthen surveillance and laboratory networks, protect the public health workforce, and address widening inequities.^{5,6}

Within this context, the EMPHNET WEBi Series served as a structured regional platform for collective learning⁷. It enabled public health professionals to share real-time experiences, examine implementation challenges, and interpret emerging evidence through the lens of operational realities. Over time, dialogue evolved from immediate response considerations to broader questions of preparedness, resilience, and equity.

COVID-19 as an Adaptive Crisis

COVID-19 represented more than an acute health emergency. It was a complex and adaptive crisis that required continuous learning rather than static solutions. Through peer exchange and structured discussion, the WEBi Series fostered adaptive thinking and highlighted how preparedness frameworks must be tested, recalibrated, and strengthened over time.

Approach of the WEBi Series During the Pandemic

Between 2020 and 2023, EMPHNET delivered 18 WEBi sessions under this public health area. Collectively, these webinars document how public health priorities shifted as the pandemic unfolded – from urgent containment measures toward service continuity, system adaptation, and long-term resilience.

The primary approach of these sessions was structured knowledge exchange. The WEBi Series provided a forum to:

- Interpret evolving global guidance through regional and country-specific experiences
- Share operational lessons on surveillance, laboratory systems, immunization services, and workforce deployment
- Examine governance, equity, and risk communication challenges under emergency conditions
- Reflect on strategies for sustaining essential services amid disruption

The platform strengthened regional coherence during a period marked by fragmentation and uncertainty.

Public Health Areas Addressed

Webinars under this chapter examined interconnected domains affected by the pandemic, including:

- Response and transition strategies, including easing restrictions and managing successive waves.
- Surveillance and laboratory capacity, including event-based surveillance, testing systems, and the implications of emerging variants.
- Immunization systems, focusing on service continuity, vaccine confidence, demand generation, and equity.

- Field epidemiology and workforce capacity, highlighting the role of Field Epidemiology Training Programs (FETPs), Rapid Response Teams (RRTs), and frontline responders.
- Broader health system impacts, including noncommunicable diseases (NCDs), cancer services, tobacco control, and environmental health.

As conditions evolved, discussions increasingly emphasized how pandemic lessons could inform long-term preparedness and resilience planning.

Webinars Included in This Chapter

A total of 18 webinars were delivered under the Pandemic Preparedness and COVID-19 Response area between June 2020 and March 2023.

Numbering reflects the chronological order of delivery within the overall WEBi Series (2020–2025).

1. [Implementing Strategies for Easing Off COVID-19 Restrictions](#)
2. [Countries' Strategies to Maintain Immunization Achievements During the Pandemic while Adapting to Post-Pandemic](#)
3. [COVID-19: An Opportunity for More Equitable Health Systems](#)
4. [COVID-19 Public Hesitancy and Provider Reluctance and Its Impact on Immunization Services](#)
5. [Role of FETPs and RRTs as First Line Responders during the COVID-19 Pandemic](#)
6. [Impact of COVID-19 on Polio Eradication and Other VPD Elimination and Control Efforts](#)
7. [The Role of Public Health Laboratories and Testing in the COVID-19 Response](#)
8. [Event-Based Surveillance in the Eastern Mediterranean Region: Progress and Best Practices](#)
9. [A New Lens for NCDs in the Context of COVID-19](#)
10. [COVID-19 and the Health Workforce: Implications for Public Health Capacity](#)
11. [Building Resilient Immunization Programs, Reducing Vaccination Inequities](#)
12. [Field Epidemiology Training Programs and the COVID-19 Pandemic](#)
13. [Increasing Vaccine Demand and Uptake During the COVID-19 Vaccine Infodemic](#)
14. [COVID-19 Pandemic and Global Environmental Health: Effects and Lessons Learned](#)
15. [COVID-19 Fate During 2022](#)
16. [Impact of COVID-19 Variants on Laboratory Tests and Vaccine Efficacy](#)
17. [COVID-19 and Cancer](#)
18. [Advocacy and Capacity Strengthening: United Against Tobacco and COVID \(UATC\) Project](#)

Detailed summaries of each webinar are presented in the following pages.

Outcomes for Regional Learning

Across this public health area, the WEBi Series contributed to:

- Enhancing shared understanding of response options as scientific evidence evolved
- Documenting regional implementation experiences that complemented global guidance
- Supporting practical approaches to sustaining essential public health functions
- Reinforcing the importance of surveillance systems, workforce readiness, and equity in outbreak response

The central outcome was strengthened regional learning to support adaptive public health action across diverse settings.

Related Webinars on Preparedness and Outbreak Response

The following WEBi sessions further expanded dialogue on cross-border coordination and outbreak performance accountability:

- [Cross-Border Preparedness: Optimizing Pre-Pandemic and Early Pandemic Communication and Data Sharing Across Borders](#)
- [Accelerating Outbreak Detection, Notification, and Response in the EMR: Advocating for the 7-1-7 Approach](#)

¹ <https://www.tandfonline.com/doi/full/10.1080/13669877.2025.2569437?src=#abstract>

² <https://pmc.ncbi.nlm.nih.gov/articles/PMC9409667/>

³ <https://www.sciencedirect.com/science/article/pii/S277265332500067X>

⁴ <https://pmc.ncbi.nlm.nih.gov/articles/PMC9409667/>

⁵ <https://pmc.ncbi.nlm.nih.gov/articles/PMC9409667/>

⁶ <https://www.frontiersin.org/journals/public-health/articles/10.3389/fpubh.2025.1653111/full>

⁷ <https://www.sciencedirect.com/science/article/pii/S0305750X20302333>

Implementing Strategies for Easing Off COVID-19 Restrictions

 16 June 2020  Attendees: 269

As countries across the Eastern Mediterranean Region (EMR) and beyond began to consider lifting COVID-19 lockdown measures, decision-makers faced complex trade-offs between public health risks and growing social, economic, and political pressures^{8 9 10}. At that stage of the pandemic, uncertainty around second waves, health system capacity, and public compliance remained high, while evidence continued to evolve.^{11 12}

Against this backdrop, EMPHNET launched the WEBi Series as a virtual dialogue platform to support timely knowledge exchange and coordination during a period of restricted travel and heightened operational pressure. The first session, “Implementing Strategies for Easing Off COVID-19 Restrictions”, was convened on 16 June 2020 to examine approaches to transitioning out of lockdown while minimizing the risk of resurgence.

The discussions highlighted that easing restrictions is not a single decision but a phased and reversible process that depends on multiple indicators. Speakers emphasized the importance of surveillance and testing systems capable of detecting resurgence, alongside the need for effective contact tracing and health system surge capacity. Experiences from the United Kingdom illustrated how modeling, governance structures, and risk communication informed policy decisions, while Africa CDC shared guidance developed to support member states in transitioning gradually and safely.

Country experiences underscored the role of preparedness and governance. Oman’s response was anchored in a pre-existing all-hazards preparedness framework, allowing for structured decision-making and coordinated recovery planning. Morocco’s approach emphasized data-driven, region-specific easing strategies, supported by surveillance indicators and continuous monitoring.

Across presentations, speakers stressed that lockdown measures provided critical time to strengthen preparedness but carried significant social and economic costs. As such, easing restrictions required balancing public health protection with broader societal impacts. Clear and transparent communication was repeatedly identified as essential for sustaining public trust and compliance during transition phases.

The webinar concluded with an interactive question-and-answer session, during which participants engaged with speakers on topics including assessment of containment measures, risks of resurgence, international travel considerations, and the challenges of aligning scientific evidence with political decision-making. In his closing remarks, Dr. Lami highlighted the importance of agreed indicators, continuous monitoring, and adaptability as countries navigated the easing of restrictions.

A total of **269 participants** attended the session, representing public health professionals, epidemiologists, policymakers, academics, and practitioners from the EMR and beyond.

As the inaugural session of the EMPHNET WEBi Series, the webinar set the tone for subsequent discussions by establishing a space for comparative learning, peer exchange, and practical reflection during an evolving public health emergency.

Speakers



Dr. Mark Salter
Consultant in Global Health and Senior Medical Advisor, Public Health England, United Kingdom



Dr. Wessam Mankoula
Lead of the Emergency Operations Centre, Africa Centres for Disease Control and Prevention (Africa CDC)



Dr. Seif Al-Abri
Director General of Disease Surveillance and Control, Ministry of Health, Oman



Dr. Mohammed Youbi
Director of Epidemiology at the Ministry of Health and Social Protection, Morocco

Moderator



Dr. Faris Lami
Public Health Expert and Associate Professor, University of Baghdad, Iraq



Key Takeaways

- Easing COVID-19 restrictions is a phased and reversible process guided by epidemiological indicators and health system capacity.
- Surveillance, testing, and contact tracing are essential to detect resurgence during transition periods.
- Lockdown measures create critical time for preparedness but require careful balancing with social and economic impacts.
- Clear, transparent risk communication strengthens public trust and supports compliance as restrictions are lifted.
- Country experiences highlight the importance of governance, coordination, and context-specific decision-making.



Policy and Knowledge Outputs

- [Webinar recording](#)
- [Webinar brief](#)
- [Webinar news article](#)

⁸ <https://publichealth.jmir.org/2024/1/e40491/>

⁹ https://cdn.who.int/media/docs/default-source/evaluation-office/who-s-response-to-covid-19-in-the-emr---independent-review-february-2023_final.pdf?sfvrsn=130ab01a_3%26download=true

¹⁰ <https://pmc.ncbi.nlm.nih.gov/articles/PMC7834675/>

¹¹ <https://www.emro.who.int/pandemic-epidemic-diseases/information-resources/weekly-epidemiological-monitor.html>

¹² <https://applications.emro.who.int/docs/WHOEMCSR331E-eng.pdf>

Countries' Strategies to Maintain Immunization Achievements During the Pandemic while Adapting to Post-pandemic

 7 July 2020  Attendees: 181

As the COVID-19 pandemic intensified in early 2020, countries across the Eastern Mediterranean Region (EMR) and globally were forced to rapidly reallocate health system resources toward emergency response. While necessary, these shifts resulted in widespread disruption of essential health services, including routine immunization. In several settings, vaccination services were reduced or suspended, raising concerns about immunity gaps, increased susceptibility to vaccine-preventable diseases, and the reversal of long-standing immunization gains^{13 14}.

Against this backdrop, EMPHNET convened its second WEBi session "Countries' Strategies to Maintain Immunization Achievements During the Pandemic while Adapting to Post-pandemic" on 7 July 2020, focusing specifically on how countries were navigating the dual challenge of sustaining immunization services during the acute phase of the pandemic while preparing for recovery and post-pandemic adaptation. This webinar marked the first immunization-focused session within the WEBi Series and reflected EMPHNET's long-standing engagement in supporting immunization systems across the region.

Global perspectives underscored the broader implications of service disruptions. Presentations addressed the impact of COVID-19 on progress toward the Global Vaccine Action Plan and the transition toward Immunization Agenda 2030, emphasizing that the pandemic affected not only coverage levels but also surveillance, supply chains, and workforce availability. Speakers also highlighted the indirect effects of the pandemic on child health, noting that while children experienced limited direct clinical impact from COVID-19, they faced heightened risks from interrupted immunization, nutrition challenges, and widening inequities.

Country experiences from Egypt and Iraq illustrated how national immunization programs adapted under severe constraints. Egypt's response was informed by early risk assessment and mitigation planning, combining infection prevention measures, risk communication, and close monitoring of coverage to sustain routine immunization services. In Iraq, response measures to COVID-19 led to notable declines in coverage, prompting the development of a dedicated immunization continuity plan aimed at closing immunity gaps, tracing missed children, and restoring demand while safeguarding health workers and communities.

Across presentations, speakers emphasized that maintaining immunization during a pandemic required more than technical guidance. Community engagement, trust, and transparent communication emerged as critical enablers of service continuity, particularly in settings affected by fear, misinformation, and reduced access. The discussions also highlighted the importance of ring-fencing financing for immunization and protecting routine services from being fully absorbed into emergency response efforts.

The session concluded with two interactive question-and-answer segments, allowing participants to engage directly with speakers on issues such as balancing immunization risks and benefits during community transmission, managing supply chain disruptions, addressing vaccine hesitancy, and rebuilding immunization systems more equitably in the post-pandemic phase.

A total of **181 participants** attended the webinar, representing public health professionals, immunization managers, epidemiologists, policymakers, and partners from the EMR and beyond.

Key Takeaways

- COVID-19 response measures disrupted routine immunization services and increased the risk of immunity gaps and vaccine-preventable disease outbreaks.
- Maintaining immunization during a pandemic requires context-specific risk assessment, infection prevention measures, and continuous monitoring of coverage.
- Indirect effects of the pandemic on child health highlight the importance of protecting immunization as an essential service.
- Community engagement and clear communication are critical to sustaining demand and trust in vaccination services.
- The pandemic presents an opportunity to rebuild immunization systems with greater equity, resilience, and integration.

Policy and Knowledge Outputs

- [Webinar brief](#)
- [Webinar news article](#)

Speakers



Dr. W. William Schluter

Director of the Global Immunization Division, U.S. Centers for Disease Control and Prevention (US CDC)



Prof. Zulfiqar Bhutta

Co-Director of the Centre for Global Child Health in Toronto and Founding Director of the Institute for Global Health and Development at Aga Khan University in Pakistan



Dr. Ehab Basha

National Vaccination Officer for EPI in Egypt



Dr. Firas Jabbar

National EPI Manager in Iraq

Moderator



Dr. Salah Al Awaidy

Communicable Diseases Adviser to Health Affairs in Oman and Former Member of the WHO Strategic Advisory Group of Experts on Immunization (SAGE)

¹³ <https://pmc.ncbi.nlm.nih.gov/articles/PMC7908591/>

¹⁴ <https://iris.who.int/server/api/core/bitstreams/be2d159a-45e5-4043-af47-5776e61eaa23/content>

COVID-19: An Opportunity for More Equitable Health Systems

 14 July 2020  Attendees: 205

The COVID-19 pandemic exposed how unprepared many health systems were to manage a rapidly spreading novel pathogen while maintaining routine and specialized care. Countries had to reorganize services under pressure, protect health workers amid supply constraints, and sustain public trust as guidance evolved. This underscored the need for clearer system design around core functions such as management, protection, containment, information, and support¹⁵.

Against this backdrop, EMPHNET convened its third WEBi Series session, “COVID-19: An Opportunity for More Equitable Health Systems,” on 14 July 2020. The webinar aimed to move the conversation beyond emergency response and toward a critical examination of how health systems could emerge from the pandemic more equitable, resilient, and better prepared for future shocks.

Opening the session, Dr. Al Nsour framed COVID-19 as a global crisis that magnified health system vulnerabilities while underscoring the central importance of equity, preparedness, and resilience. He emphasized that pandemic response could not be separated from longer-term health system strengthening and called for sustained investment in public health functions, surveillance, and data systems.

From a global perspective, Prof. Rawaf examined how health systems across regions performed during the pandemic, noting that even well-resourced systems struggled to respond effectively. He highlighted the importance of governance, emergency preparedness, primary health care, and protection of health workers, stressing that the severity of future pandemic waves would depend on behavioral factors, system readiness, and coordinated action across sectors.

Focusing on low- and middle-income countries, Prof. Siddiqi explored health equity as both a moral imperative and a practical necessity. He illustrated how COVID-19 disproportionately affected vulnerable populations and reinforced pre-existing disparities in access to care, income, and social protection. Drawing on examples from Pakistan and the broader EMR, he argued that inequities in health outcomes were neither new nor inevitable, but rather the

result of chronic underinvestment and structural weaknesses that the pandemic brought into sharper focus.

From a national implementation perspective, Dr. Al-Omari shared the experience of the United Arab Emirates, highlighting how early action, large-scale testing, continuity of essential services, and strong risk communication contributed to relatively low fatality rates. He emphasized that wealth alone did not explain system performance, pointing instead to preparedness, leadership, and coordinated decision-making as key determinants of resilience.

Across presentations, speakers converged on the view that COVID-19 should be treated as a turning point rather than a temporary disruption. The pandemic reinforced the need to prioritize universal health coverage, strengthen primary health care, invest in public health infrastructure, and integrate equity considerations into preparedness planning. Digital health, community engagement, and multisectoral collaboration emerged as cross-cutting enablers of more responsive and inclusive health systems.

The session concluded with an interactive discussion facilitated by Dr. Al Ajlouni, during which participants engaged with speakers on governance reforms, sustainability of emergency investments, and strategies for embedding equity into post-pandemic recovery. In his closing remarks, Dr. Al Nsour underscored that health systems strengthened during COVID-19 must continue to evolve beyond the crisis, ensuring that gains in preparedness, surveillance, and service delivery are sustained over time.

A total of 205 participants attended the webinar, representing a wide range of public health professionals, policymakers, academics, and practitioners from the EMR and beyond.

As part of the early phase of the EMPHNET WEBi Series, this webinar broadened the COVID-19 dialogue by linking emergency response to long-term system transformation, setting the stage for subsequent discussions on resilience, governance, and equity across the region.

Speakers



Prof. Salman Rawaf
Professor of Public Health and Director of the WHO Collaborating Centre at Imperial College London



Prof. Sameen Siddiqi
Professor and Chair of the Department of Community Health Sciences at Aga Khan University, Pakistan



Dr. Basem Al-Omari,
Assistant Professor of Public Health and Epidemiology at Khalifa University, United Arab Emirates and Visiting Professor at the University of Edinburgh

Moderator



Dr. Mousa Al Ajlouni
Health Systems Consultant to WHO



Dr. Mohannad Al Nsour
EMPHNET's Executive Director



Key Takeaways

- COVID-19 exposed and intensified existing health inequities across countries and populations.
- Health system resilience depends on governance, preparedness, primary care, and workforce protection.
- Equity must be central to pandemic response and recovery, particularly in fragile and resource-constrained settings.
- Investments made during crises should be sustained to strengthen long-term system performance.
- Multisectoral collaboration and community engagement are critical to building equitable health systems.




Policy and Knowledge Outputs

- [Webinar recording](#)
- [Webinar brief](#)
- [Webinar news article](#)

¹⁵ <https://pmc.ncbi.nlm.nih.gov/articles/PMC9409667/>

COVID-19 Public Hesitancy and Provider Reluctance and Its Impact on Immunization Services

 11 August 2020  Attendees: 266

As the COVID-19 pandemic disrupted health services worldwide, immunization programs faced a compounded challenge affecting both demand and delivery. Fear of exposure to SARS-CoV-2, movement restrictions, and rapidly evolving guidance reduced caregivers' willingness to seek routine vaccination services, while health workers operated under heightened risk, uncertainty, and resource constraints. Evidence from global studies shows that vaccine hesitancy increased over the course of the pandemic, driven by risk perception, concerns about vaccine safety, misinformation, and uneven trust in health systems. These disruptions led to delays in routine immunization in many settings, heightening the risk of outbreaks of vaccine-preventable diseases (VPDs), particularly among populations already facing social, economic, or geographic barriers to care^{16 17}.

Against this backdrop, EMPHNET convened its fourth WEBi session "COVID-19 Public Hesitancy and Provider Reluctance and Its Impact on Immunization Services" on 11 August 2020, in partnership with the U.S. Centers for Disease Control and Prevention (US CDC) and with the participation of UNICEF Middle East and North Africa Regional Office (UNICEF/MENARO). The webinar formed part of a dedicated immunization-focused sequence within the WEBi Series, responding to early signals that the indirect effects of COVID-19 could undermine years of progress in vaccination coverage across the Eastern Mediterranean Region (EMR).

Opening the session, Dr. Al-Gunaid framed vaccine hesitancy as a long-standing challenge that predated COVID-19 but had been intensified by the pandemic. He highlighted that hesitancy affects both caregivers and health workers, reflecting broader community beliefs, trust in institutions, and confidence in health systems. He emphasized that understanding these behavioral dimensions was essential to sustaining immunization services during health emergencies.

From a global perspective, Dr. Abad examined how vaccine-related decision-making is influenced by multiple interacting factors, including confidence in the health system, the vaccinator, and the vaccine itself. Drawing on global data and country experiences, she outlined how COVID-19 amplified barriers to demand through fear of exposure,

misinformation, service disruptions, and mobility constraints. She emphasized practical interventions shown to mitigate these effects, including strengthening community engagement, enhancing health worker communication skills, and proactively addressing misinformation to rebuild public trust.

Dr. Ngevera provided a regional overview, highlighting that many countries were simultaneously responding to COVID-19 while facing increased risks of VPD outbreaks. He noted that declining coverage trends in some countries preceded the pandemic and were exacerbated by lockdowns and postponed campaigns. Despite these challenges, he shared examples of adaptive responses, including multi-antigen campaigns in Syria and polio and diphtheria campaigns in Yemen, demonstrating that immunization activities could be safely sustained with appropriate planning. He outlined priority areas for action, including resuming services, implementing targeted demand interventions, documenting lessons learned, and strengthening coordination among partners.

Focusing on the national context, Dr. Abusal described Jordan's immunization achievements prior to COVID-19 and the disruptions caused by movement restrictions and service closures. He outlined mitigation measures implemented to restore coverage, including reopening primary health centers for vaccination services, expanding mobile outreach to reach refugees and hard-to-reach populations, and reinforcing infection prevention and control measures at vaccination sites. He also highlighted the importance of formal assessment of vaccine hesitancy to inform targeted responses.

The webinar concluded with an interactive discussion session facilitated by Ms. Wilhelm, during which participants engaged with speakers on issues such as misinformation, community engagement, equity, and the future introduction of COVID-19 vaccines.

A total of 266 participants attended the session, representing public health professionals, immunization managers, policymakers, and partners from the EMR and beyond.

By foregrounding behavioral, social, and system-level determinants of immunization during the pandemic, this webinar reinforced that sustaining vaccination services requires more than technical availability. It underscored the importance of trust, communication, and coordinated action in protecting immunization gains during public health emergencies.

Key Takeaways

- Vaccine hesitancy and provider reluctance are long-standing challenges that were intensified by COVID-19.
- Fear of exposure, misinformation, and movement restrictions were major drivers of declining immunization demand.
- Community engagement and health worker communication are critical to rebuilding trust during crises.
- Immunization services can be sustained safely during pandemics with adaptive strategies and strong coordination.
- COVID-19 presents an opportunity to strengthen demand for all vaccines through aligned communication and outreach.

Policy and Knowledge Outputs

- [Webinar recording](#)
- [Webinar brief in English](#)
- [Webinar brief in Arabic](#)
- [Webinar news article](#)

¹⁶ <https://www.sciencedirect.com/science/article/pii/S0264410X24006005>

¹⁷ <https://pmc.ncbi.nlm.nih.gov/articles/PMC11262288/>

Speakers



Dr. Neetu Abad
Behavioral Scientist at the Global Immunization Division, US CDC



Dr. Daniel Ngevera
Senior Immunization Specialist, UNICEF/MENARO



Dr. Kamel Abusal
National EPI Manager in Jordan

Moderator




Ms. Elisabeth Wilhelm
Health Communication Specialist, US CDC



Dr. Magid Al-Gunaid
EMPHNET's Director of Public Health Programs

Role of FETPs and RRTs as First Line Responders during the COVID-19 Pandemic

 25 August 2020  Attendees: 269

As countries activated their COVID-19 preparedness and response mechanisms, the availability of a trained and deployable public health workforce became a defining factor in the effectiveness of national responses. Field Epidemiology Training Programs (FETPs) and Rapid Response Teams (RRTs) played a central role in translating preparedness plans into operational action, supporting surveillance, outbreak investigation, contact tracing, risk communication, laboratory coordination, and incident management at national and subnational levels.^{18,19}

In this context, EMPHNET convened its fifth WEBi session “Role of FETPs and RRTs as First Line Responders during the COVID-19 Pandemic” on 25 August 2020. The webinar provided a platform to reflect on how investments in field epidemiology and rapid response capacity prior to the pandemic shaped countries’ ability to detect, respond to, and manage COVID-19 transmission. Case examples from Pakistan, Tunisia, Yemen, and Egypt illustrated how trained epidemiologists were mobilized across diverse and often challenging settings.

Opening the session, Dr. Lami emphasized that the effectiveness of FETPs and RRTs during COVID-19 was the result of sustained investment in applied training and real-world practice. He highlighted that these programs are designed to strengthen national capacities to detect, notify, report, and respond to events of public health concern, aligning closely with International Health Regulations (IHR) core capacities.

Dr. Al Nsour provided an overview of EMPHNET’s long-standing collaboration with Ministries of Health and partners to build workforce capacity across the EMR. He outlined EMPHNET’s support to FETPs during the pandemic, including technical assistance, coordination, and facilitation of experience exchange. He noted that FETP residents and graduates contributed across multiple response pillars, including infection prevention and control, laboratory strengthening, data collection and analysis, partner coordination, and documentation of response activities aligned with country priorities.

From Pakistan, Prof. Ikram described how FELTP residents and graduates were rapidly mobilized to support real-time surveillance and emergency preparedness in line with the WHO COVID-19 Strategic Preparedness and Response Plan. He reported that more than 500 FELTP residents and graduates were engaged in coordination, planning, monitoring, and field deployment. Their contributions extended to points of entry surveillance, training of medical and non-medical frontline workers in infection prevention and control, and support to risk communication and community engagement activities, reinforcing the value of an embedded epidemiology workforce during large-scale emergencies.

Prof. Bou Afif presented Tunisia’s experience, highlighting how FETPs were integrated into the national preparedness and response framework. She described their involvement in revising and operationalizing response plans, investigating and confirming cases, developing standard operating procedures, and supporting laboratory and surveillance systems. FETPs and RRTs played a critical role in contact tracing, follow-up of hospitalized cases, point-of-entry surveillance, quarantine implementation, and coordination across levels of the health system.

Country reflections from Yemen and Egypt further illustrated the adaptability of FETP-trained personnel in fragile and resource-constrained settings. Dr. Kohlani described how FETP residents and graduates in Yemen conducted assessments of points of entry, laboratory capacity, hospital preparedness, infection prevention and control, logistics, and coordination mechanisms, contributing to the updating of national response plans and guidelines. Dr. Sami shared Egypt’s experience, noting the involvement of FETP residents and graduates in screening, follow-up, data collection at points of entry, and strengthening surveillance systems through the development of standard operating procedures and response protocols.

The webinar concluded with a discussion session in which participants explored operational challenges, coordination mechanisms, and sustainability of workforce deployment beyond the acute phase of the pandemic.

A total of 269 participants attended the session, representing public health professionals, epidemiologists, policymakers, and partners from the region and beyond.

Key Takeaways

- FETPs and RRTs were central to COVID-19 detection, response, and coordination across countries.
- Applied field epidemiology training enabled rapid translation of knowledge into operational action.
- FETP residents and graduates supported surveillance, contact tracing, points of entry, laboratories, and IPC.
- Strong integration of FETPs into national systems strengthened IHR core capacities during the pandemic.
- Workforce preparedness is a critical determinant of effective response in both stable and fragile settings.

Policy and Knowledge Outputs

- [Webinar recording](#)
- [Webinar brief in English](#)
- [Webinar brief in Arabic](#)
- [Webinar news article](#)

Speakers



Prof. Amer Ikram
Executive and Clinical Director of the Field Epidemiology and Laboratory Training Program (FELTP) at the National Institute of Health, Pakistan



Prof. Nissaf Bou Afif
General Director of the National Observatory of New and Emerging Diseases and FETP Director in Tunisia



Dr. Mohannad Al Nsour
EMPHNET’s Executive Director



Dr. Abdulhakeem Kohlani
FETP Director in Yemen



Dr. Sahar Sami
FETP Director in Egypt

Moderator



Dr. Faris Lami
Public Health Expert and Associate Professor at the University of Baghdad, Iraq



Ms. Heather Burke
CDC Regional Director for the Middle East and North Africa

¹⁸ <https://www.frontiersin.org/journals/public-health/articles/10.3389/fpubh.2021.688119/full>

¹⁹ <https://pubmed.ncbi.nlm.nih.gov/35012482/>

Impact of COVID-19 on Polio Eradication and Other VPD Elimination and Control Efforts

 15 September 2020  Attendees: 218

As the COVID-19 pandemic intensified, its indirect effects on immunization programs became increasingly evident. Global reports indicated that routine immunization services were substantially disrupted in at least 68 countries, placing an estimated 80 million children under the age of one at risk of vaccine-preventable diseases (VPDs), particularly polio.²⁰

Surveillance systems that underpin polio eradication were also affected. Acute flaccid paralysis (AFP) detection, laboratory confirmation through the Global Polio Laboratory Network, specimen transport, and field operations were disrupted by lockdowns, limited transport, and the diversion of health workforce capacity toward emergency COVID-19 response.²¹

In Afghanistan and Pakistan, supplementary immunization activities (SIAs) were paused for several months, creating immunity gaps and increasing the risk of both wild poliovirus (WPV1) transmission and circulating vaccine-derived poliovirus (cVDPV) outbreaks^{22 23 24}.

Between January 2019 and March 2020, cVDPV transmission had already been confirmed in 26 countries, including several in the Eastern Mediterranean Region (EMR). Following the onset of the pandemic, reported polio and cVDPV cases increased, with a significant burden in EMR countries. These trends raised concerns that delayed detection and reduced surveillance sensitivity could mask the true magnitude of transmission²⁵.

Against this backdrop, EMPHNET convened the sixth webinar of the WEBi Series “Impact of COVID-19 on Polio Eradication and Other VPD Elimination and Control Efforts” on 15 September, 2020, to explore strategies for sustaining and revitalizing immunization programs during and beyond the pandemic.

During the webinar, speakers highlighted that the pandemic affected immunization programs at multiple levels. Globally, approximately 23% of countries reported disruption to essential health services, with higher levels of disruption among low-income countries. Supplementary immunization activities entered an emergency pause phase between

March and June 2020, followed by cautious resumption in endemic and outbreak settings. An estimated 60 million vaccination opportunities were lost during the pause in SIAs, affecting roughly 50 million children. Surveillance indicators declined in several regions, and laboratory shipment disruptions further reduced sensitivity for early outbreak detection.

Regional perspectives emphasized that polio eradication efforts must now coexist with COVID-19. Revised operational guidelines, provision of personal protective equipment (PPE) for frontline workers, synchronized campaigns in endemic countries, and integration with routine immunization were identified as critical adaptation measures.

Country experience from Sudan illustrated how delayed outbreak detection, reduced sentinel site reporting, laboratory backlog, and transport interruptions increased vulnerability to VPD outbreaks. At the same time, Sudan demonstrated how demand creation and strengthened interpersonal communication (IPC) could support recovery and restore immunization uptake.

Across discussions, speakers framed COVID-19 as both a setback and a catalyst. While the pandemic reversed progress and exposed fragilities, it also created opportunities to integrate polio eradication with routine immunization and essential health services, modernize data use, and strengthen coordination between global and national partners.

The webinar concluded with an interactive discussion addressing safe resumption of campaigns, balancing outbreak risk with COVID-19 transmission concerns, strengthening routine immunization as the backbone of eradication, and adapting strategic goals to control cVDPV2 and interrupt WPV1 transmission.

A total of 218 participants attended the webinar, representing public health professionals, epidemiologists, immunization managers, and partners from the EMR and beyond.

As part of the broader Pandemic Preparedness and COVID-19 Response public health area, this session reinforced a central message: immunization is one of the most effective public health interventions and must be protected even during prolonged emergencies.

Key Takeaways

- COVID-19 disrupted routine immunization, SIAs, surveillance, and laboratory systems across multiple regions.
- An estimated 60 million vaccination opportunities were lost during the emergency pause phase.
- Immunity gaps increased the risk of WPV1 transmission and cVDPV outbreaks, particularly in EMR countries.
- Safe resumption of campaigns requires adapted operational guidance, PPE for frontline workers, and integration with routine immunization.
- Sustaining polio eradication depends on maintaining surveillance sensitivity, strengthening routine immunization, and embedding immunization within resilient health systems.

Policy and Knowledge Outputs

- [Webinar recording](#)
- [Webinar brief in English](#)
- [Webinar brief in Arabic](#)
- [Webinar news article](#)

²⁰ <https://www.unicef.org/press-releases/least-80-million-children-under-one-risk-diseases-such-diphtheria-measles-and-polio>

²¹ <https://www.sciencedirect.com/science/article/pii/S0264410X21013475>

²² <https://journals.sagepub.com/doi/10.1177/10105395211048617>

²³ <https://www.tandfonline.com/doi/full/10.1080/21645515.2021.1979380>

²⁴ <https://www.dovepress.com/the-impact-of-covid-19-pandemic-lockdown-on-routine-immunization-in-th-peer-reviewed-fulltext-article-RMHP>

²⁵ https://emphnet.net/media/5hbd5mzc/webi6_brief-english.pdf

Speakers



Dr. Jeffrey McFarland

Medical Epidemiologist and Measles Elimination Team Lead, Global Immunization Division, US CDC



Dr. Muhammad Obaid ul Islam

Surveillance Expert and Member of the Global Surveillance Task Team and nOPV2 Working Group



Dr. Ezzeddine Mohsni

Public Health Expert and Member of the Strategic Advisory Group of Experts (SAGE)



Dr. Mawahib Jubarah

National EPI Manager in Sudan

Moderator



Prof. Hyam Nicola Bashour

Public Health Expert and Chair of the WHO EMRO Regional Verification Commission for Measles and Rubella Elimination

The Role of Public Health Laboratories and Testing in the COVID-19 Response

 29 September 2020  Attendees: 249

As COVID-19 cases continued to rise globally in late 2020, testing became one of the most critical pillars of response. By mid-September, more than 29 million confirmed cases had been reported worldwide, underscoring the urgency of early detection, accurate diagnosis, and strong laboratory systems^{26 27}. Public health laboratories were not only processing unprecedented volumes of tests, but they were also guiding surveillance, informing policy decisions, and shaping reopening strategies.

Against this backdrop, EMPHNET convened the seventh webinar of the WEBi Series, titled “The Role of Public Health Laboratories and Testing in the COVID-19 Response” on 29 September 2020. The session examined how laboratory systems underpin outbreak control and explored the strengths, limitations, and performance of different diagnostic approaches.

Dr. Al-Sanouri opened the discussion by framing laboratories as the backbone of detection, confirmation, and surveillance. He emphasized that without reliable testing, there is no accurate epidemiological picture and no effective response planning.

Prof. Mahafzah provided a technical overview of SARS-CoV-2, its virological characteristics, and the molecular basis of diagnosis. He detailed the role of reverse transcription polymerase chain reaction (RT-PCR) as the gold standard for detecting active infection, while highlighting the importance of specimen quality, timing of collection, biosafety practices, and rigorous quality assurance. He underscored that false-negative and false-positive results can occur, and that interpretation must consider clinical and epidemiological context.

Prof. Araj focused on antibody response, serological testing, and the immunological dynamics of COVID-19 infection. He explained the evolution of IgM and IgG responses, the utility of ELISA and rapid serological

assays, and the need for validation amid the proliferation of tests of varying quality. He stressed that PCR positivity does not necessarily equate to infectiousness and highlighted the importance of understanding predictive values in relation to disease prevalence.

Dr. Sorrell broadened the discussion to global laboratory systems. She emphasized the value of tiered laboratory networks, including sentinel, reference, and national laboratories, and the need for integrated data management and continuous quality management systems. She addressed operational challenges such as supply chain disruptions, limited human resources, repurposing of laboratory infrastructure, and the strain placed on testing for other priority diseases. She also discussed the use of antigen tests for surveillance, pooling strategies, and the interpretation of test positivity rates in guiding public health decisions.

Across presentations, speakers reinforced that laboratory capacity is not a peripheral function but a central determinant of outbreak control. Accurate, timely, and safe diagnostic testing enables case isolation, contact tracing, surveillance, and evidence-based policy decisions. At the same time, the pandemic exposed structural weaknesses in laboratory networks, supply systems, and quality oversight mechanisms.

A total of 249 participants attended the session, reflecting strong regional and international engagement.

The discussion session addressed practical questions on PCR interpretation, predictive values, duration of infectivity, use of rapid antigen tests in community transmission, and the implications of testing capacity on broader disease surveillance.



Key Takeaways

- Public health laboratories are central to early detection, confirmation, and surveillance during pandemics.
- RT-PCR remains the gold standard for diagnosis, yet interpretation must consider timing, specimen quality, and epidemiological context.
- Serological testing supports surveillance and exposure assessment but requires careful validation and quality assurance.
- Test positivity rates and predictive values depend on disease prevalence and influence policy decisions.
- Strong, tiered laboratory networks with integrated data systems are essential for resilient outbreak response.



Policy and Knowledge Outputs

- [Webinar recording](#)
- [Webinar brief in English](#)
- [Webinar brief in Arabic](#)
- [Webinar news article](#)

Speakers



H.E. Prof. Azmi Mahafzah

Professor of Microbiology and Immunology, University of Jordan and Consultant Clinical Pathologist, Jordan University Hospital



Prof. George F. Araj

Director of Clinical Microbiology, American University of Beirut (AUB) Medical Center



Dr. Erin M. Sorrell

Assistant Professor, Georgetown University and member of the Center for Global Health Science and Security

Moderator



Dr. Tarek Al-Sanouri

Disease Control and Prevention Team Leader, EMPHNET

²⁶ <https://www.who.int/news/item/29-06-2020-covidtimeline>

²⁷ <https://pmc.ncbi.nlm.nih.gov/articles/PMC11312261/>

Event-Based Surveillance in the Eastern Mediterranean Region: Progress and Best Practices

 27 October 2020

 Attendees: 247

As COVID-19 continued to spread across countries, the importance of early warning systems became increasingly evident. Traditional indicator-based surveillance systems, while essential, often rely on structured and confirmed data.²⁸ Event-Based Surveillance (EBS), by contrast, collects and analyzes unstructured information from multiple formal and informal sources, including media reports, community signals, rumors, health facilities, and other sectors.²⁹ This approach increases the sensitivity of surveillance systems and enables earlier detection of acute public health threats.

Within the Eastern Mediterranean Region (EMR), where several countries face conflict, displacement, and fragile health infrastructure, strengthening EBS has become a critical component of preparedness and response.³⁰ In this context, EMPHNET convened the eighth webinar of the WEBi Series, titled “Event-Based Surveillance in the Eastern Mediterranean Region: Progress and Best Practices” on 27 October 2020. The session aimed to review regional progress, identify operational gaps, and share practical country experiences from Libya and Sudan.

Opening the session, Dr. Kayed highlighted the growing importance of EBS in mitigating the health impact of COVID-19. He also shared findings from a regional poll conducted in collaboration with CDC and WHO EMRO, which examined the availability of active reporting systems and electronic event-based platforms across EMR countries. Results indicated varying levels of implementation, with many countries reporting active hospital-based reporting systems, while fewer had fully integrated electronic EBS platforms.

From a global perspective, Ms. Merali emphasized that increasing globalization and population mobility accelerate the emergence and re-emergence of diseases, making early warning systems indispensable. She clarified that EBS complements, rather than replaces, indicator-based surveillance. While indicator-based systems rely on predefined case definitions and structured reporting, EBS captures broader signals that may indicate unusual events requiring verification and risk assessment. She underscored that EBS supports an all-hazards approach and is a core requirement under the International Health Regulations (IHR 2005).

Dr. Nabeth discussed the strategic integration of surveillance systems in the region. He noted that fragmentation, unclear roles, limited data sharing, and high staff turnover weaken surveillance effectiveness. Integration of EBS within national health information systems, including platforms such as DHIS2, was presented as a best practice. He also introduced Epidemic Intelligence from Open Sources (EIOS) as a tool that aggregates information from multiple media and open sources to support early detection.

Country experiences provided operational insight. In Libya, Dr. Al-Faqeh described how conflict and instability disrupted routine surveillance systems, prompting the introduction and expansion of the Early Warning, Alert and Response Network (EWARN) in collaboration with WHO. During COVID-19, EBS was scaled up through additional training, strengthened rapid response teams, and improved laboratory coordination. Challenges included underreporting, limited testing capacity, resource constraints, and sustainability concerns.

In Sudan, Dr. Osman outlined the evolution of EBS from 2016 onward, including the establishment of trained focal points and standardized procedures. Information sources included community-based surveillance, media monitoring, points of entry, and intersectoral partners. Daily reporting during COVID-19 strengthened real-time awareness. However, high turnover of trained staff, limited communication tools, and coordination gaps across sectors were identified as persistent challenges.

Across discussions, speakers emphasized that effective EBS requires political commitment, trained workforce, integration within existing surveillance systems, and centralized data management, often through Public Health Emergency Operations Centers. The importance of feedback mechanisms to community reporters and frontline staff was highlighted to maintain engagement and data quality.

A total of 247 participants attended the webinar. The session concluded with an interactive discussion on practical implementation steps, software options, integration with routine systems, and strategies to enhance sustainability and intersectoral collaboration.

As part of the Pandemic Preparedness and COVID-19 Response area, this webinar reinforced that early detection is foundational to effective response. Strengthening event-based surveillance systems enhances countries’ ability to detect signals rapidly, verify threats, and respond before localized events escalate into large-scale outbreaks.



Key Takeaways

- Event-Based Surveillance enhances early detection by capturing signals from multiple formal and informal sources.
- EBS complements indicator-based surveillance and supports an all-hazards approach aligned with IHR requirements.
- Integration within national health information systems improves sustainability and efficiency.
- Trained workforce, centralized coordination, and feedback mechanisms are essential for effective implementation.
- Country experiences from Libya and Sudan demonstrate both operational value and implementation challenges in fragile settings.



Policy and Knowledge Outputs

- [Webinar recording](#)
- [Webinar brief](#)
- [Webinar news article](#)

²⁸ <https://pmc.ncbi.nlm.nih.gov/articles/PMC9745250/>

²⁹ <https://pmc.ncbi.nlm.nih.gov/articles/PMC10712973/>

<https://www.sciencedirect.com/science/article/pii/S2950347725000027>

<https://www.frontiersin.org/journals/public-health/articles/10.3389/fpubh.2025.1697663/full>

³⁰ <https://applications.emro.who.int/docs/Health-systems-recovery-eng.pdf>

Speakers



Ms. Sharifa Merali
Epidemiologist, US CDC



Dr. Pierre Nabeth
Program Area Manager for Health Emergency Information and Risk Assessment, WHO EMRO



Dr. Mohamed Al-Faqeh
National Surveillance and Rapid Response Teams’ Focal Point, National Center for Disease Control (NCDC), Libya



Dr. Muntasir Mohammed Osman
Deputy Director of Health Emergencies and Epidemic Control Directorate, Federal Ministry of Health, Sudan

Moderator




Dr. Arun Balajee
Associate Director for Global Health Sciences, US CDC



Dr. Mahmoud Kayed
Public Health Specialist, EMPHNET

A New Lens for NCDs in the Context of COVID-19

 1 December 2020

 Attendees: 317

As the COVID-19 pandemic unfolded, its impact extended far beyond infectious disease control. Noncommunicable diseases (NCDs), including cardiovascular diseases, diabetes, cancer, and chronic respiratory diseases, remained the leading causes of death globally, accounting for more than 70% of deaths worldwide. In the Eastern Mediterranean Region (EMR), where fragile systems, protracted emergencies, and inequities already strain service delivery, the pandemic further disrupted essential NCD care.

People living with NCDs faced a dual burden. They were at higher risk of severe COVID-19 outcomes, and at the same time experienced reduced access to routine services due to lockdowns, diverted resources, and overwhelmed health systems.

Against this backdrop, EMPHNET convened the ninth session of the WEBi Series, titled “A New Lens for NCDs in the Context of COVID-19.” The webinar created a space to examine how countries could protect essential NCD services during emergencies and how lessons from COVID-19 could inform more resilient and integrated health systems.

Prof. Alwan described the convergence of three interconnected crises: NCDs, gaps in UHC, and COVID-19. He emphasized that weak public health leadership, fragmented systems, and insufficient political commitment limited countries’ ability to maintain essential services during the pandemic. He argued that pandemic preparedness must explicitly secure essential health services, including NCD care, within national emergency response frameworks.

Prof. Richter presented global evidence showing that NCD services were partially or completely disrupted in many settings. Overwhelmed facilities, redeployed staff, disrupted supply chains, and public fear reduced access to hypertension, diabetes, and cancer care.

She highlighted practical adaptations adopted by countries, including:

- Multi-month dispensing of medications
- Medicine pickup points outside facilities
- Telehealth for consultation, screening, and follow-up
- Task shifting and redistribution of health workers

These service delivery innovations demonstrated how continuity of care could be maintained while minimizing infection risk.

Dr. Fadhil emphasized that the EMR already carries a high and growing NCD burden, with millions living with hypertension, diabetes, and cancer. She stressed that COVID-19 served as a wake-up call to integrate NCDs into all public health emergency protocols.

She also underscored the critical role of civil society organizations (CSOs) in advocacy, accountability, and community engagement. The NCD Alliance Accountability Toolkit was presented as a mechanism to track national commitments and strengthen oversight in NCD prevention and control.

The interactive discussion explored the intersection between UHC, NCD care, and pandemic preparedness. Participants examined the implications of financial mismanagement during emergencies, the role of the private sector, mental health impacts, and supply chain resilience.

The webinar attracted 317 participants, making it the most widely attended session in the WEBi Series at that time.

Speakers



Prof. Alaa Alwan

Professor of Global Health, University of Washington, and Former WHO Regional Director for the EMR



Prof. Patricia Richter

Principal Deputy Director, Division of Global Health Protection and Chief of the Global NCD Branch, CDC



Dr. Ibtihal Fadhil

Chairperson, NCD Alliance – Eastern Mediterranean Region

Moderator



Prof. Raeda Al Qutob

Member of the Jordan Senate and Professor of Public Health, Jordan



Dr. Mohannad Al Nsour

EMPHNET’s Executive Director



Key Takeaways

- COVID-19 significantly disrupted essential NCD services across regions and income levels.
- People living with NCDs faced increased vulnerability to severe COVID-19 outcomes.
- Pandemic preparedness must secure essential services, including NCD care, within response frameworks.
- Telehealth, multi-month dispensing, and decentralized medicine distribution improve service continuity.
- Accountability mechanisms and civil society engagement are central to advancing NCD action.
- Building resilient systems requires integrating NCDs, UHC, and emergency preparedness into a unified agenda.



Policy and Knowledge Outputs

- [Webinar recording](#)
- [Webinar brief in English](#)
- [Webinar brief in Arabic](#)
- [Webinar news article](#)

³¹ <https://pmc.ncbi.nlm.nih.gov/articles/PMC8178653/>

³² <https://www.ssph-journal.org/journals/international-journal-of-public-health/articles/10.3389/ijph.2025.1607723/full>

³³ <https://www.emro.who.int/emhj-volume-28-2022/volume-28-issue-7/the-impact-of-the-covid-19-pandemic-on-service-delivery-for-noncommunicable-diseases-in-the-eastern-mediterranean-region.html>

³⁴ <https://pmc.ncbi.nlm.nih.gov/articles/PMC12351779/>

COVID-19 and the Health Workforce: Implications for Public Health Capacity

 January 12, 2021

 Attendees: 310

As the COVID-19 pandemic intensified, it exposed deep structural gaps in public health capacity worldwide. Health workers faced unprecedented pressure, including long working hours, infection risks, psychological distress, and service disruptions.³⁵ At the same time, the pandemic revealed a broader and longstanding challenge: the insufficient integration of public health competencies within the health workforce, particularly in the Eastern Mediterranean Region (EMR), where shortages, maldistribution, and weak competency frameworks already existed.³⁶

Against this backdrop, EMPHNET, in collaboration with the Association of Arab Universities, convened a regional webinar titled “COVID-19 and the Health Workforce: Implications for Public Health Capacity.” The session created a platform for global and regional experts to examine health workforce gaps, discuss competency development, and propose strategic reforms to strengthen public health systems during emergencies and beyond.

Speakers emphasized that COVID-19 revealed both quantitative and qualitative workforce gaps. Many countries lacked sufficient public health professionals trained in epidemiology, surveillance, risk communication, health systems leadership, and emergency preparedness. Infection prevention and control measures required reinforcement, and psychosocial support for health workers emerged as a priority.

Regional challenges included unclear career pathways for public health professionals, limited competency-based curricula, weak linkage between education and practice, insufficient research capacity, and fragmented professional networks. The pandemic also disrupted health professional education, accelerating the transition to online learning while highlighting digital inequities and the need for blended educational models.

Discussions stressed that strengthening public health capacity requires modernized curricula, competency frameworks aligned with national priorities, professional training pathways, regulatory reforms, and stronger partnerships between academia and health services. Speakers called for mainstreaming workforce development into national and international health strategies, ensuring worker safety, and investing in sustainable training models that combine in-service and academic learning.

The session concluded with reflections on how COVID-19 can serve as a catalyst for workforce reform. Participants underscored that resilient health systems depend on a skilled, protected, and strategically developed public health workforce capable of responding to future emergencies.

A total of 310 participants attended the webinar, with strong engagement throughout the session.

Key Takeaways

- COVID-19 exposed critical gaps in public health workforce capacity, competencies, and preparedness.
- Health workers require protection, psychosocial support, and clear competency frameworks during emergencies.
- Public health education must shift toward competency-based, practice-oriented, and blended learning models.
- Career pathways, accreditation systems, and regulatory frameworks need strengthening in the EMR.
- Workforce development must be embedded in national preparedness and health system strengthening strategies.

Policy and Knowledge Outputs

- [Webinar recording](#)
- [Webinar brief in English](#)
- [Webinar brief in Arabic](#)
- [Webinar news article](#)

Speakers



Dr. Fethiye Gülin Gedik
Coordinator for Health Workforce Development, WHO EMRO



Dr. Elsheikh Badr
Health Workforce Consultant and Chairperson of the Community Medicine Council, Arab Board for Health Specialties



Dr. Julien Goodman
Director of the Agency for Public Health Education Accreditation (APHEA)



Dr. Scott J.N. McNabb
Research Professor at Emory University, Rollins School of Public Health and Managing Partner at Public Health Practice, LLC

Moderator



Dr. Amr Salama
Secretary General, Association of Arab Universities



Dr. Mohannad Al Nsour
EMPHNET's Executive Director

³⁵ <https://pmc.ncbi.nlm.nih.gov/articles/PMC8611576/>
<https://pmc.ncbi.nlm.nih.gov/articles/PMC9409667/>

³⁶ <https://pubmed.ncbi.nlm.nih.gov/38163282/>

Building Resilient Immunization Programs, Reducing Vaccination Inequities

 29 September 2020  Attendees: 213

Public health emergencies disrupt health systems in multiple ways. Natural disasters, conflict, and pandemics often interrupt routine service delivery, weaken supply chains, and widen existing inequities. Immunization services are particularly vulnerable. When vaccination coverage declines, the risk of outbreaks of vaccine-preventable diseases (VPDs) increases, placing additional strain on already stretched health systems.³⁷

In late 2020, WHO and UNICEF warned that millions of children were at increased risk of polio and measles due to immunization disruptions during COVID-19. Coverage in some settings declined sharply, in some cases by nearly half, as lockdowns, movement restrictions, and fear of infection limited access to services.³⁸ These disruptions highlighted the urgency of embedding immunization within resilient health systems that can maintain core functions during crises.

Against this backdrop, EMPHNET convened its eleventh WEBi session on 26 January 2021 titled “Building Resilient Immunization Programs, Reducing Vaccination Inequities.” The webinar examined how recurrent emergencies affect immunization systems and explored practical strategies to reach zero-dose and under-vaccinated children, particularly in fragile and conflict-affected settings.

Dr. Mahoney presented global trends showing stagnation in immunization coverage and the growing concentration of zero-dose children in fragile and conflict-affected contexts. He emphasized that civil conflict, displacement, infrastructure loss, and mistrust between communities and service providers significantly reduce vaccination coverage. Case studies from fragile settings demonstrated the value of microplanning, reliable facility mapping, community engagement, and innovative tools such as satellite imagery to estimate population denominators.

He underscored that resilient systems must remain flexible, maintain supply chains, strengthen data use, and engage trusted community actors to sustain services during emergencies.

Dr. Nazary shared Afghanistan’s experience managing multiple overlapping emergencies, including measles, polio,

and COVID-19. He described how access limitations, security challenges, and campaign suspensions created immunity gaps. In response, the program strengthened community-based surveillance networks, adapted communication strategies, maintained vaccine supply and cold chain systems, and integrated multi-antigen campaigns to restore coverage.

He also highlighted lessons learned regarding coordination across emergency response platforms and the need for unified emergency structures to sustain both routine immunization and outbreak response functions.

Dr. Sosler outlined Gavi’s strategic shift toward identifying and reaching zero-dose children as a marker of acute inequity. He emphasized that zero-dose children often reside in marginalized, displaced, or conflict-affected communities. Reaching them requires new partnerships with humanitarian actors, stronger community engagement, flexible policies, and integration of immunization within broader primary health care platforms.

He stressed that political commitment, advocacy, and cross-sector collaboration are essential to reduce inequities, particularly as COVID-19 exacerbates vulnerability and service disruption.

Across presentations, speakers emphasized that resilient immunization systems must:

- Maintain uninterrupted service delivery during emergencies
- Promote universal health coverage to reach vulnerable populations
- Integrate routine immunization within broader emergency preparedness frameworks
- Strengthen community engagement to address mistrust and vaccine hesitancy
- Use data-driven planning and innovative technologies to reach missed populations

The webinar concluded with a discussion session focusing on global aid effectiveness, misinformation and community trust, integration of emergency response platforms, and strategies to identify and reach zero-dose children in fragile contexts.

A total of 213 participants attended the session, reflecting strong regional and international engagement.

As part of the broader Pandemic Preparedness and COVID-19 Response area, this webinar reinforced that immunization resilience is central to health system resilience. Protecting gains in vaccination coverage during crises requires foresight, coordination, and sustained commitment to equity.

Key Takeaways

- Emergencies disproportionately disrupt immunization services in fragile and conflict-affected settings.
- Zero-dose children represent concentrated inequity and require targeted strategies.
- Resilient immunization systems depend on universal health coverage, flexible service delivery, and strong community engagement.
- Innovation, microplanning, and improved data use strengthen outreach in insecure or hard-to-reach areas.
- Sustained political commitment and cross-sector partnerships are essential to reduce vaccination inequities.

Policy and Knowledge Outputs

- [Webinar recording](#)
- [Webinar brief in English](#)
- [Webinar brief in Arabic](#)
- [Webinar news article](#)

Speakers



Dr. Frank Mahoney
Infectious Disease
Epidemiologist, US CDC/
IFRC



Dr. Dastagir Nazary
National EPI Manager in
Afghanistan



Dr. Stephen Sosler
Epidemiologist and
Immunization Senior
Technical Advisor, Gavi

Moderator



Dr. Magid Al-Gunaid
Public Health Programs
Director, EMPHNET

³⁷ <https://pmc.ncbi.nlm.nih.gov/articles/PMC10687930/>

³⁸ <https://www.who.int/news/item/22-05-2020-at-least-80-million-children-under-one-at-risk-of-diseases-such-as-diphtheria-measles-and-polio-as-covid-19-disrupts-routine-vaccination-efforts-warn-gavi-who-and-unicef>

Field Epidemiology Training Programs and the COVID-19 Pandemic

 23 February 2021

 Attendees: 241

From the earliest stages of the COVID-19 pandemic, Field Epidemiology Training Programs (FETPs) stood at the front lines of national response efforts. Residents and graduates supported surveillance, outbreak investigation, contact tracing, risk communication, and coordination across multiple response pillars.³⁹ At the same time, the pandemic disrupted traditional training modalities, paused field assignments in some settings, and required rapid adaptation to evolving operational realities.⁴⁰

COVID-19 exposed both the strength and the gaps within applied epidemiology systems. While FETPs demonstrated their value in real-time emergency response, it also became clear that training models, competency frameworks, and sustainability mechanisms required modernization to match the scale and complexity of global health threats.⁴¹

Against this backdrop, EMPHNET convened the twelfth session of the WEBi Series titled “Field Epidemiology Training Programs and the COVID-19 Pandemic.” The webinar created a platform to examine how FETPs contributed to national responses, how training programs adapted during disruption, and what lessons should inform the future of applied epidemiology in the region and globally.

Dr. Williams presented findings from a global survey documenting FETP engagement across WHO response pillars. Results showed that the majority of FETPs worldwide were actively involved in COVID-19 response activities, particularly in surveillance, case investigation, coordination, and risk communication. The findings reinforced that FETPs are deeply embedded within Ministries of Health and serve as operational assets during emergencies. He emphasized the need to expand frontline and intermediate tiers and strengthen leadership and management competencies within training curricula.

Ms. Abdelnour highlighted the regional experience in the Eastern Mediterranean Region (EMR). She described the growth of FETPs over the years and EMPHNET’s role through the Center of Excellence for Applied Epidemiology (CEAE). During the pandemic, programs adapted by introducing online modules, expanding intermediate and basic tiers, producing COVID-19 case studies, and strengthening rapid response training. She emphasized that innovation in delivery models, including blended learning platforms, created opportunities to widen access and improve sustainability.

Dr. Osman presented Sudan’s experience, illustrating how FETP residents and graduates contributed directly to national COVID-19 response efforts despite operational constraints. Graduates supported surveillance, laboratory coordination, risk communication, rapid response teams, and national planning committees. While the pandemic disrupted training schedules and mobility, it simultaneously provided intensive field exposure and practical learning opportunities that strengthened applied competencies.

Across presentations, speakers stressed that the pandemic validated the importance of field epidemiology as a core public health function. It also revealed the need to modernize curricula, diversify professional backgrounds within FETPs, strengthen sustainability frameworks, and enhance cross-country exchange and mentorship mechanisms.

The discussion explored how to maintain essential services during emergencies, how to close competency gaps revealed by COVID-19, and how to institutionalize innovation within training systems. Participants reflected on the importance of aligning FETP expansion with national workforce planning and global health security priorities.

A total of 241 participants attended the webinar, reflecting strong engagement across the region and internationally.

Speakers



Dr. Seymour Williams
Principal Technical Deputy for Workforce and Institute Development Branch, US CDC



Ms. Samar Abdelnour
Senior Advisor to the Executive Director, EMPHNET



Dr. Shahd Osman
Epidemiologist and Expert in Bioethics and Health Sciences Education, and Technical Advisor for Sudan FETP

Moderator



Dr. Faris Lami
Public Health Expert and Associate Professor at the University of Baghdad, Iraq



Dr. Mohannad Al Nsour
EMPHNET’s Executive Director



Key Takeaways

- FETPs played a central role in COVID-19 surveillance, investigation, and coordination across response pillars.
- The pandemic disrupted traditional training models but accelerated innovation in blended and online learning.
- Leadership, management, and multidisciplinary competencies must be strengthened within FETP curricula.
- Expanding frontline and intermediate tiers improves surge capacity during emergencies.
- Sustainability frameworks and stronger Ministry of Health ownership are essential for long-term resilience.
- Cross-country exchange and alumni engagement enhance regional learning and workforce cohesion.



Policy and Knowledge Outputs

- [Webinar recording](#)
- [Webinar brief in English](#)
- [Webinar brief in Arabic](#)
- [Webinar news article](#)

³⁹ <https://pmc.ncbi.nlm.nih.gov/articles/PMC8747444/>

⁴⁰ <https://www.mdpi.com/2227-7102/14/1/19>

⁴¹ <https://pmc.ncbi.nlm.nih.gov/articles/PMC8747444/>

Increasing Vaccine Demand and Uptake During the COVID-19 Vaccine Infodemic

 30 March 2021

 Attendees: 138

As COVID-19 vaccines became available, countries faced a parallel crisis: an overabundance of information spreading alongside the virus. The World Health Organization defines an infodemic as an overabundance of information, some accurate and some not, that spreads during an epidemic. In the context of COVID-19, misinformation and disinformation circulated rapidly through social media, news outlets, and informal communication networks, shaping public perceptions and influencing vaccine decision-making.

False claims, conspiracy narratives, and fear-based messaging undermined trust in health authorities, amplified anxiety, and contributed to vaccine hesitancy. In many settings, misinformation spread faster than verified guidance, creating confusion and weakening confidence in national vaccination roll-out plans. As a result, increasing vaccine supply alone was not sufficient. Building vaccine demand required coordinated infodemic management strategies rooted in behavioral science, risk communication, and community engagement.

Against this backdrop, EMPHNET convened its thirteenth WEBi session titled “Increasing Vaccine Demand and Uptake During the COVID-19 Vaccine Infodemic.” The webinar examined the drivers of misinformation, its impact on vaccine uptake, and practical strategies to strengthen resilience against false narratives while promoting trust and informed decision-making.

Mr. AbdAllah described how the infodemic amplified vaccine hesitancy across the African region and highlighted the Africa Infodemic Response Alliance as a multi-partner mechanism to monitor misinformation, strengthen social listening, and coordinate rapid response messaging. He emphasized the need for proactive disclosure of information, collaboration with media partners, and strategic amplification of credible health messages.

Dr. Omer introduced practical frameworks for misinformation management, including the Vaccine Misinformation Management Field Guide and structured approaches centered on preparation, listening, understanding, and engagement. He underscored that infodemic response must address underlying beliefs and values rather than only correcting false claims. Behavioral insights, community trust, and consistent messaging were presented as central pillars for increasing vaccine confidence.

The case study from Pakistan illustrated how misinformation influenced public attitudes during vaccine roll-out. Provincial authorities strengthened coordination between health and communication teams, engaged community leaders and media outlets, and prioritized transparent communication with healthcare workers as the first vaccine recipients. The experience demonstrated that visible vaccination of frontline workers, open dialogue about side effects, and consistent public messaging helped increase confidence over time.

Across presentations, speakers emphasized that infodemic management requires a whole-of-society and whole-of-government approach. Monitoring misinformation trends, investing in behavioral research, empowering trusted messengers, and aligning national communication strategies are essential to sustain vaccine uptake during health emergencies.

The webinar attracted 138 participants from across regions, with strong engagement during the interactive discussion.

As part of the broader Pandemic Preparedness and COVID-19 Response area, this session reinforced that vaccine delivery depends not only on logistics and supply chains, but also on trust, communication, and community partnership. Addressing misinformation is central to strengthening immunization systems and sustaining public health gains.

Speakers



Mr. AbdelHalim AbdAllah
Crisis Communications Officer, WHO AFRO



Dr. Saad B. Omer
Director of the Yale Institute for Global Health and Professor of Medicine and Epidemiology, Yale University



Dr. Niaz Muhammad
Director General of Health Services, Khyber Pakhtunkhwa, Pakistan

Moderator



Prof. Hyam Nicola Bashour
Professor of Epidemiology and Community Health, Al Sham Private University and Public Health Expert



Mr. Atsuyoshi Ishizumi
Research Fellow, US CDC



Key Takeaways

- Infodemics amplify confusion, mistrust, and vaccine hesitancy during public health emergencies.
- Effective infodemic management requires coordinated monitoring, rapid response, and strategic communication.
- Behavioral science approaches help address underlying beliefs driving misinformation.
- Empowering trusted messengers and community leaders strengthens vaccine confidence.
- Demand generation strategies must complement vaccine supply to ensure successful rollout.




Policy and Knowledge Outputs

- [Webinar recording](#)
- [Webinar brief in English](#)
- [Webinar brief in Arabic](#)
- [Webinar news article](#)

⁴² <https://pmc.ncbi.nlm.nih.gov/articles/PMC12344792/>
⁴³ https://www.who.int/health-topics/infodemic#tab=tab_1
<https://pmc.ncbi.nlm.nih.gov/articles/PMC11375383/>
<https://www.who.int/news/item/11-12-2020-call-for-action-managing-the-infodemic>

⁴⁴ <https://pmc.ncbi.nlm.nih.gov/articles/PMC11606073/>
<https://www.springermedizin.de/health-conspiracy-theories-a-scoping-review-of-drivers-impacts-a/50830550>
<https://pmc.ncbi.nlm.nih.gov/articles/PMC9359307/>

COVID-19 Pandemic and Global Environmental Health: Effects and Lessons Learned

 27 July 2021

 Attendees: 225

The COVID-19 pandemic reinforced a fundamental public health reality: human health is inseparable from environmental systems.⁴⁵ The emergence and rapid spread of SARS-CoV-2 highlighted the interconnectedness of human, animal, and environmental health, while exposing vulnerabilities in water, sanitation, waste management, and environmental governance structures worldwide.⁴⁶

As countries focused on infection control and emergency response, environmental health systems experienced both disruption and transformation. Lockdowns temporarily reduced air pollution and emissions in many cities. At the same time, increased demand for water, sanitation, personal protective equipment (PPE), and medical supplies generated unprecedented volumes of medical and plastic waste. Wastewater management, sanitation infrastructure, and environmental monitoring systems faced heightened pressure, particularly in fragile and humanitarian settings.⁴⁷

Against this backdrop, EMPHNET convened its fourteenth WEBi session titled “COVID-19 Pandemic and Global Environmental Health: Effects and Lessons Learned.” The webinar explored how the pandemic reshaped environmental determinants of health, examined global and regional challenges, and highlighted practical lessons for strengthening environmental health resilience.

Mr. Ahmad presented the global WASH landscape through a COVID-19 lens. He emphasized that while attention shifted toward pandemic response, other humanitarian and environmental health interventions slowed, affecting vulnerable populations. He highlighted increased water demand for hygiene practices, strain on sanitation systems, growth in medical waste, and the need to strengthen wastewater treatment capacity. He underscored that improving water and sanitation services in underserved areas is a critical lesson from the pandemic and a prerequisite for future preparedness.

Dr. Massoud examined the broader environmental determinants of health during COVID-19. She described the dual environmental impact of the pandemic. Temporary lockdowns led to improvements in air quality, reduced

emissions, and lower noise pollution in some regions. Conversely, increased medical and plastic waste, reduced recycling activities, and growing municipal solid waste posed new environmental risks. She emphasized the importance of establishing and enforcing strong environmental regulations, strengthening waste management systems, and promoting sustainable production and recycling practices at national and international levels.

Dr. Dahab provided a country perspective from Sudan, where COVID-19 intensified pressure on an already fragile economic and humanitarian context. She outlined how the pandemic strained environmental health services while also stimulating innovation. Initiatives such as solar-powered water pumps and pedal-operated handwashing stations expanded safe water access and reduced contamination risks. She highlighted youth engagement and community-driven solutions as critical drivers of effective hygiene promotion and environmental interventions during crisis conditions.

Across presentations, speakers emphasized that environmental health must be embedded within emergency preparedness frameworks. Sustainable WASH systems, resilient waste management infrastructure, regulatory enforcement, and climate-sensitive policies are essential components of health system resilience. The pandemic demonstrated that environmental health protection is not peripheral but central to disease prevention and long-term public health security.

The webinar concluded with an interactive discussion exploring opportunities for deeper regional collaboration, operationalizing lessons learned, and translating environmental insights into tangible preparedness actions.

A total of 225 participants attended the session, reflecting strong interest in the intersection between environmental health and pandemic response.



Key Takeaways

- COVID-19 highlighted the interconnection between environmental systems and infectious disease transmission.
- Water, sanitation, and hygiene (WASH) infrastructure are foundational to pandemic preparedness.
- The pandemic produced both short-term environmental benefits and long-term waste management challenges.
- Medical and plastic waste management requires stronger regulation and sustainable solutions.
- Community innovation and youth engagement enhance environmental health interventions in fragile settings.
- Environmental health must be integrated into national preparedness and health security strategies.



Policy and Knowledge Outputs

- [Webinar recording](#)
- [Webinar news article](#)

⁴⁵ <https://pubmed.ncbi.nlm.nih.gov/32431286/>

⁴⁶ <https://www.sciencedirect.com/science/article/pii/S0160412020322273>

⁴⁷ <https://pmc.ncbi.nlm.nih.gov/articles/PMC7860963/>

<https://www.sciencedirect.com/science/article/pii/S2773049224000205>

<https://iris.who.int/server/api/core/bitstreams/468fe4ae-da61-4080-bc40-26458aef2ed2/content>

Speakers



Mr. Syed Yasir Ahmad
Global WASH Advisor, IMC



Dr. May Massoud
Associate Professor at the Department of Environmental Health and Director of the Interfaculty Graduate Environmental Sciences Program, AUB, Lebanon



Dr. Asia Dahab
National Sanitation and Hygiene Coordinator, Federal Ministry of Health, Sudan

Moderator



Dr. Faris Lami
Public Health Expert and Associate Professor at Baghdad University, Iraq

COVID-19 Fate During 2022

 25 January 2022

 Attendees: 190

As the world entered 2022, a central question shaped global public health discussions: how will the COVID-19 pandemic evolve? After two years of successive waves, variant emergence, and unprecedented social and economic disruption, experts began assessing whether SARS-CoV-2 might transition from an acute global emergency to a more predictable, seasonal respiratory disease. At the same time, uncertainties remained regarding variant evolution, vaccine equity, booster strategies, and health system resilience.^{48 49}

While vaccination campaigns expanded and testing capacity improved in many countries, stark global inequities persisted. Large segments of populations in low-income settings remained unvaccinated, increasing the risk of continued transmission and new variant emergence. Public health leaders emphasized that managing 2022 would require balancing COVID-19 response measures with the protection of essential health services and broader system stability.⁵⁰

Against this backdrop, EMPHNET convened its seventeenth WEBi session titled “COVID-19 Fate During 2022.” The webinar created a platform for regional and global experts to examine current epidemiological trends, explore certainties and uncertainties surrounding emerging variants, and reflect on what the coming year might hold for public health systems.

Dr. El Rabbat opened the discussion by situating the global epidemiological context. She emphasized that the world remained in the midst of the pandemic, with new variants such as Omicron continuing to exert pressure on health systems. She underscored persistent vaccine inequities, noting that large proportions of populations in Africa had not yet received a first dose. She stressed that achieving at least 70% vaccination coverage globally is critical to reducing emergency-level transmission and reiterated that it is premature to consider COVID-19 fully endemic.

Dr. Baidjoe explored the “certainties and uncertainties” of the pandemic trajectory. He discussed known characteristics of emerging variants and the

unpredictable nature of viral evolution. He highlighted the need to strengthen public health microbiology, genomic surveillance, and laboratory capacity to detect and monitor new variants rapidly. Sustaining high vaccine uptake and adapting booster strategies were presented as central pillars of managing future waves.

Dr. Awadalla provided a national perspective from Sudan, reflecting on the pandemic’s impact on health systems. He described both positive and negative system-level effects. On one hand, COVID-19 strengthened inter-sectoral coordination, expanded telehealth services, and built workforce capacity. On the other, hospitals experienced exhaustion, service disruptions, inequities widened, and parallel response structures sometimes fragmented care delivery. He emphasized the importance of achieving balance between COVID-19 control efforts and maintaining essential health services, in line with WHO guidance.

Across presentations, speakers agreed that 2022 would require strategic adaptation rather than abrupt transition. Managing COVID-19 alongside other health priorities demands sustained vaccination efforts, strengthened surveillance, equitable access to tools, and resilient health systems capable of responding to evolving threats without compromising routine services.

The session concluded with an interactive discussion addressing endemicity, booster policies, global solidarity, and long-term health system reform.

A total of 190 participants attended the webinar, reflecting continued regional engagement in shaping forward-looking pandemic dialogue.



Key Takeaways

- The pandemic remained ongoing in early 2022, with uncertainty around variant evolution and transmission dynamics.
- Achieving global vaccination coverage of at least 70% is critical to reducing emergency-level transmission.
- Vaccine inequity continues to pose a major threat to global recovery.
- Genomic surveillance and public health microbiology capacity are essential to track emerging variants.
- Health systems must balance COVID-19 control with maintaining essential services.
- Transitioning toward endemic management requires sustained global solidarity and system resilience.



Policy and Knowledge Outputs

- [Webinar recording](#)
- [Webinar news article](#)

Speakers



Dr. Maha El Rabbat

Professor of Public Health at Cairo University, WHO Director-General Special Envoy on COVID-19 for the EMR, and Former Minister of Health of Egypt



Dr. Amrish Baidjoe

Director of the MSF (OCB) LuxOR Unit on Humanitarian Operational Research and Epidemiology and President of the EPIET Alumni Network



Dr. Heitham Awadalla

Professor of Community Medicine at the University of Khartoum and Undersecretary and Minister of Health at Sudan’s Federal Ministry of Health

Moderator



Dr. Faris Lami

Public Health Expert and Associate Professor at Baghdad University, Iraq



Dr. Mohannad Al Nsour



EMPHNET’s Executive Director

⁴⁸ <https://pmc.ncbi.nlm.nih.gov/articles/PMC9409667/>

⁴⁹ <https://www.sciencedirect.com/science/article/abs/pii/S0002962925012480>

⁵⁰ <https://pmc.ncbi.nlm.nih.gov/articles/PMC11360777/>

Impact of COVID-19 Variants on Laboratory Tests and Vaccine Efficacy

 22 February 2022  Attendees: 122

Since the emergence of SARS-CoV-2, genomic sequencing has played a central role in understanding transmission patterns, monitoring viral evolution, and informing public health decision-making. As the virus continued to mutate, new variants of concern and interest emerged, raising critical questions about transmissibility, disease severity, diagnostic accuracy, and vaccine effectiveness.⁵¹

Variants such as Alpha, Delta, and Omicron demonstrated that viral evolution can influence epidemic dynamics at national and global levels. Mutations in the spike protein and other genomic regions raised concerns about immune escape, reinfection risk, and potential reductions in vaccine-induced protection. At the same time, laboratory systems faced the challenge of adapting testing strategies to detect new variants accurately while scaling up sequencing capacity.⁵²

Against this backdrop, EMPHNET convened its eighteenth WEBi session titled “Impact of COVID-19 Variants on Laboratory Tests and Vaccine Efficacy.” The webinar provided a platform to examine the science of viral mutations, explore their implications for diagnostics and vaccines, and reflect on national laboratory experiences in managing evolving variants.

Dr. Al-Sanouri opened the technical discussion by clarifying key terminology that became widely used during the pandemic, including mutations, variants, strains, and lineages. He reviewed the structure and genome of SARS-CoV-2 and explained the WHO’s labeling system for variants of interest and concern. He emphasized that viral mutations are a natural and expected phenomenon, particularly when transmission levels are high. He also outlined how certain mutations may affect transmissibility, reinfection risk, disease severity, and diagnostic performance.

Dr. Sorrell examined the implications of emerging variants on vaccine effectiveness. She underscored that vaccination remains the most effective strategy for preventing severe disease and death. However, she noted that immune escape and waning immunity, combined with global inequities in vaccine distribution, create ongoing vulnerabilities. She highlighted that vaccination coverage in many low-income

countries remained critically low and stressed that vaccine equity is both a moral and epidemiological imperative. Future priorities include sustained global supply, continued surveillance, investment in second-generation vaccines, and strengthening public health measures alongside immunization.

Dr. Salman shared Pakistan’s experience in scaling laboratory detection and adapting testing strategies during successive waves. He described challenges such as regional disparities in testing capacity, equipment maintenance constraints, supply chain limitations, and limited domestic biotechnology production. He emphasized the importance of linking laboratory data to epidemiological intelligence and recommended strengthening national sequencing strategies with clearly defined objectives.

Across presentations, speakers emphasized that managing variants requires a coordinated approach that integrates genomic surveillance, diagnostic quality assurance, vaccination equity, and adaptive public health strategies. Variants do not represent isolated laboratory phenomena but dynamic drivers of epidemic behavior that demand sustained scientific vigilance.

The session concluded with an interactive discussion focused on diagnostic sensitivity, booster strategies, sequencing priorities, and the global implications of uneven vaccine coverage.

A total of 122 participants attended the webinar, reflecting continued engagement in addressing evolving scientific and operational challenges within the pandemic response.



Key Takeaways

- Viral mutations are natural but can alter transmissibility, severity, and diagnostic performance.
- High transmission increases the likelihood of variant emergence.
- Vaccination remains the strongest protection against severe disease and death.
- Vaccine inequity prolongs transmission and increases the risk of new variants.
- Genomic surveillance and sequencing capacity are critical for early detection and response.
- Laboratory strategies must be continuously adapted and linked to epidemiological data.



Policy and Knowledge Outputs

- [Webinar recording](#)
- [Webinar news article](#)

Speakers



Dr. Tarek Al-Sanouri
Disease Control and Prevention Team Leader, EMPHNET



Dr. Erin Sorrell
Assistant Professor in the Department of Microbiology and Immunology, Georgetown University



Dr. Muhammad Salman
Chief of the Public Health Laboratories Division, National Institute of Health, Pakistan

Moderator



Dr. Faris Lami
Public Health Expert and Associate Professor at Baghdad University, Iraq

⁵¹ <https://pmc.ncbi.nlm.nih.gov/articles/PMC10145020/>
<https://www.sciencedirect.com/science/article/pii/S1876034125004241>
⁵² <https://pmc.ncbi.nlm.nih.gov/articles/PMC10145020/>
<https://pmc.ncbi.nlm.nih.gov/articles/PMC10525159/>
<https://www.nature.com/articles/s41579-022-00841-7>

COVID-19 and Cancer

 29 March 2022

 Attendees: 81

As the COVID-19 pandemic progressed into its third year, its ripple effects across noncommunicable diseases became increasingly evident. Among the most affected populations were people living with cancer. Cancer patients face elevated risks of severe COVID-19 outcomes due to immunosuppression, comorbidities, and the effects of ongoing treatments such as chemotherapy and radiotherapy.^{53 54}

Beyond clinical vulnerability, the pandemic disrupted cancer diagnosis, screening, treatment continuity, and research worldwide. Lockdowns, overwhelmed hospitals, delayed diagnostics, and the reprioritization of health resources resulted in postponed surgeries, interrupted treatment schedules, and slowed clinical trials. These disruptions raised concerns about long-term survival outcomes and widened inequities in cancer care.⁵⁵

Against this backdrop, EMPHNET convened its nineteenth WEBi session titled “COVID-19 and Cancer.” The webinar examined the intersection between infectious disease emergencies and oncology care, explored research disruptions, and highlighted strategies to sustain cancer services during prolonged crises.

Prof. Kerr presented insights from the UK Coronavirus Cancer Monitoring Project, sharing data on patient outcomes and the implications of chemotherapy in proximity to COVID-19 infection. He described how staff shortages, repurposed clinical facilities, delayed imaging, and laboratory constraints disrupted ongoing cancer clinical trials. He also discussed emerging research avenues, including potential antiviral applications of oncology-related therapeutics, highlighting how scientific innovation accelerated during the pandemic.

Prof. Al Salih provided a national perspective from Kuwait. He reviewed the country’s COVID-19 epidemiological situation and described how cancer services adapted during peak transmission periods. He emphasized the role of oncologists in balancing

infection risk with treatment urgency and highlighted the contributions of non-governmental organizations in supporting cancer patients throughout the crisis.

Ms. Qatamish focused on cancer care provision and recovery from COVID-19 spillovers. She described how the pandemic redirected attention and funding from noncommunicable diseases toward communicable disease response, straining oncology services. She emphasized that agile and adaptive service delivery models are essential to maintain uninterrupted cancer care during emergencies. She also underscored the importance of patient and staff safety, tailored risk communication, and resilient leadership. Her concluding message stressed that while pandemics disrupt systems, they also create opportunities to strengthen them.

Across presentations, speakers reinforced that cancer care cannot pause during global health crises. Integrated emergency planning, protected oncology pathways, research continuity mechanisms, and adaptive service models are essential to safeguard vulnerable patients.

With 81 people in attendance, the session concluded with an interactive session moderated by Dr. Lami and Dr. Alwan, during which participants explored topics including vaccine prioritization for cancer patients, balancing treatment delays, research resilience, and long-term system reforms.

Speakers



Prof. David Kerr

Professor of Cancer Medicine at the University of Oxford and Associate Editor-in-Chief of the Journal of Global Oncology



Prof. Khaled Al Salih

Consultant Oncologist and Editor-in-Chief of the Gulf Federation of Cancer Control, Kuwait



Ms. Nisreen Qatamish

Director General of the King Hussein Cancer Foundation, Jordan

Moderator



Dr. Nada Alwan

Professor of Pathology at the University of Baghdad, Iraq



Dr. Faris Lami

Public Health Expert and Associate Professor at Baghdad University, Iraq



Key Takeaways

- Cancer patients face increased risk of severe COVID-19 outcomes.
- The pandemic disrupted cancer diagnosis, treatment continuity, and clinical research.
- Adaptive service delivery models are essential to sustain oncology care during crises.
- Clinical trial continuity requires protected staffing, facilities, and diagnostic capacity.
- NGOs and civil society play a critical role in supporting cancer patients during emergencies.
- Health systems must integrate noncommunicable disease continuity into emergency preparedness planning.



Policy and Knowledge Outputs

- [Webinar recording](#)
- [Webinar news article](#)

⁵³ <https://pmc.ncbi.nlm.nih.gov/articles/PMC12535003/>

⁵⁴ <https://www.mdpi.com/2227-9032/11/2/248>

<https://www.sciencedirect.com/science/article/pii/S0277953623003647>

⁵⁵ <https://pmc.ncbi.nlm.nih.gov/articles/PMC10195653/>

<https://www.ap.org/news-highlights/spotlights/2026/pandemic-disruptions-to-health-care-worsened-cancer-survival-study-suggests/>

Advocacy and Capacity Strengthening: United Against Tobacco and COVID (UATC) Project

 15 March 2023

 Attendees: 255

As countries continue to confront the dual burden of tobacco use and COVID-19, advancing tobacco control requires more than awareness campaigns. Effective policy change depends on strategic communication, research-informed advocacy, and sustained engagement with policymakers, media, and communities.⁵⁶

Within this context, EMPHNET launched a Special Edition of the WEBi Series under the [United Against Tobacco and COVID \(UATC\) Project](#). In collaboration with Vital Strategies, EMPHNET delivered a dedicated capacity-building webinar series aimed at strengthening strategic communication, research, evaluation, and digital advocacy skills across the Middle East and North Africa (MENA) region.

The UATC Project sought to develop country-tailored and culturally appropriate risk messaging to reduce COVID-19 morbidity and mortality associated with tobacco use, while increasing awareness of smoking-related harms, decreasing uptake, and strengthening cessation efforts. The project was funded by US CDC and implemented by EMPHNET with technical assistance from Vital Strategies.

Under this special edition, five webinars were delivered in 2022, followed by a sixth session in 2023. The webinar highlighted here, delivered on 15 March 2023, focused on strengthening advocacy strategies through structured communication, research, and evaluation approaches.

Titled “*Using Best Practices to Advance Anti-Tobacco Policy Objectives*,” the session equipped advocates and communication professionals with practical tools to design research-informed campaigns, apply structured communication frameworks, and drive evidence-based tobacco control policy change.

Ms. Puri introduced the “*Aspire to Change*” communication strategy framework, which consists of five steps: Analyze, Strategize, Prepare, Implement, and Review/Evaluate. She emphasized that successful advocacy begins with clearly defined objectives and measurable key performance indicators. She stressed the importance of identifying primary and secondary target audiences based on campaign goals, allocating sufficient resources, and continuously monitoring

conversations among both supporters and opponents to adapt strategies during implementation.

Ms. Zeynalova and Mr. Gupta focused on the role of research and evaluation in strengthening media campaigns for policy change. They explained the importance of formative evaluation, message pretesting, and continuous performance monitoring to assess effectiveness and detect unintended consequences. Case examples from Jordan and Palestine illustrated how post-campaign evaluations informed strategy adjustments. Findings showed measurable differences in behavior among individuals exposed to campaign messaging, including increased calls to smoking cessation clinics during campaign dissemination. These insights reinforced the value of integrating evaluation results into ongoing advocacy efforts.

Ms. Hailu addressed the strategic use of social media in policy advocacy. She highlighted that social media could amplify advocacy messages, mobilize stakeholders, attract media attention, and create public pressure for reform. However, she cautioned that social media is a tool that must be embedded within a clear strategic framework. Effective use requires defined goals, targeted audiences, platform prioritization, and deliberate choices between paid and organic engagement strategies.

Across presentations, speakers emphasized that advancing tobacco control policy requires coordinated communication, evidence generation, and structured digital engagement strategies. Advocacy grounded in research supports credibility and strengthens alignment among stakeholders.

The session concluded with an interactive discussion moderated by Dr. Saad and Ms. Perl, allowing participants to reflect on implementation considerations and advocacy practice across different country contexts.

This Special Edition of the WEBi Series expanded the platform’s scope to include structured public health advocacy and capacity strengthening within the broader COVID-19 context. It demonstrated how technical exchange can support the development of research-informed and strategically designed communication initiatives.

The full UATC advocacy and capacity-building webinar series can be accessed [here](#).

Speakers



Ms. Pallavi Puri
Communication Manager, Food Policy Program, Vital Strategies



Ms. Elizaveta Zeynalova
Research Manager, Vital Strategies



Mr. Ashish Kumar Gupta
Associate Director, Vital Strategies



Ms. Yayne Hailu
Senior Content Strategist, Vital Strategies

Moderator



Dr. Randa Saad
Technical Specialist, EMPHNET



Ms. Rebecca Perl
Vice President, Vital Strategies



Key Takeaways

- Strategic communication frameworks strengthen advocacy impact.
- Clear objectives and measurable indicators are essential from the outset.
- Formative and post-campaign evaluations improve effectiveness and guide adaptation.
- Social media supports policy advocacy when aligned with defined goals and audiences.
- Research-informed messaging increases credibility and policy influence.
- Continuous monitoring and adaptive strategies enhance campaign outcomes.



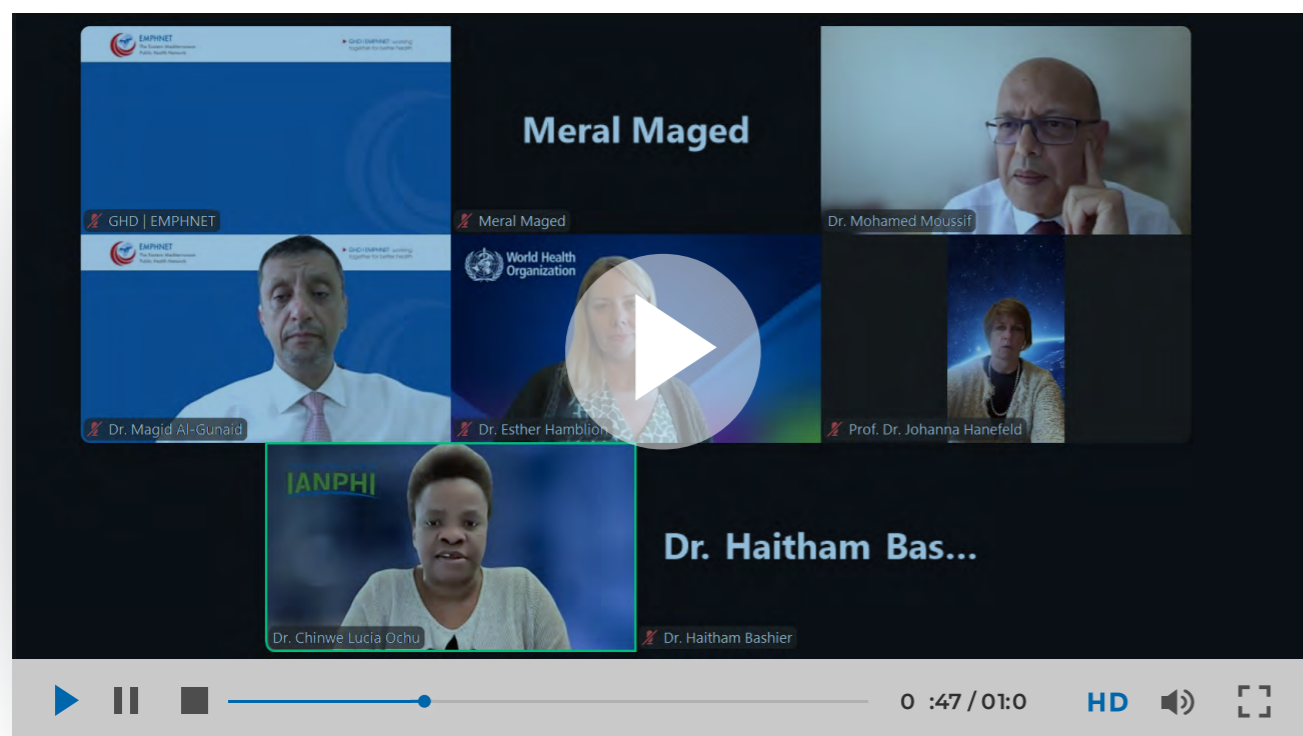
Policy and Knowledge Outputs

- [Webinar recording](#)
- [Webinar news article](#)

⁵⁶ <https://pmc.ncbi.nlm.nih.gov/articles/PMC9251628/> <https://iris.who.int/server/api/core/bitstreams/d6747635-8c77-431e-9554-b3a2cd4d21a1/content>

Related Pandemic Preparedness and COVID-19 Response Webinar

A related webinar further expanded this dialogue by examining cross-border preparedness and coordination. Titled [“Cross-Border Preparedness: Optimizing Pre-Pandemic and Early Pandemic Communication and Data Sharing Across Borders.”](#) the session explored how timely information exchange, harmonized surveillance systems, and coordinated response mechanisms between neighboring countries can mitigate the spread of emerging threats. The discussion reinforced that pathogens do not recognize borders, and that effective preparedness depends on structured communication channels, interoperable data systems, and sustained regional collaboration before and during public health emergencies.



The Pandemic Preparedness and COVID-19 Response public health area documents sustained regional dialogue during one of the most disruptive public health emergencies in recent history.⁵⁷

Across 18 sessions delivered between 2020 and 2023, the WEBi Series moved from immediate response discussions to focused examination of immunization continuity, laboratory systems, field epidemiology, workforce capacity, risk communication, essential services, and equity.

Together, these webinars trace how priorities shifted from crisis management toward system adaptation and longer-term preparedness. This chapter serves as a consolidated record of lessons shared and a reference point for strengthening preparedness, resilience, and equity in future public health emergencies.

While the pandemic triggered immediate response-focused dialogue, it also catalyzed deeper conversations around resilience, governance, and equity that continue to shape the public health areas that follow in this booklet.

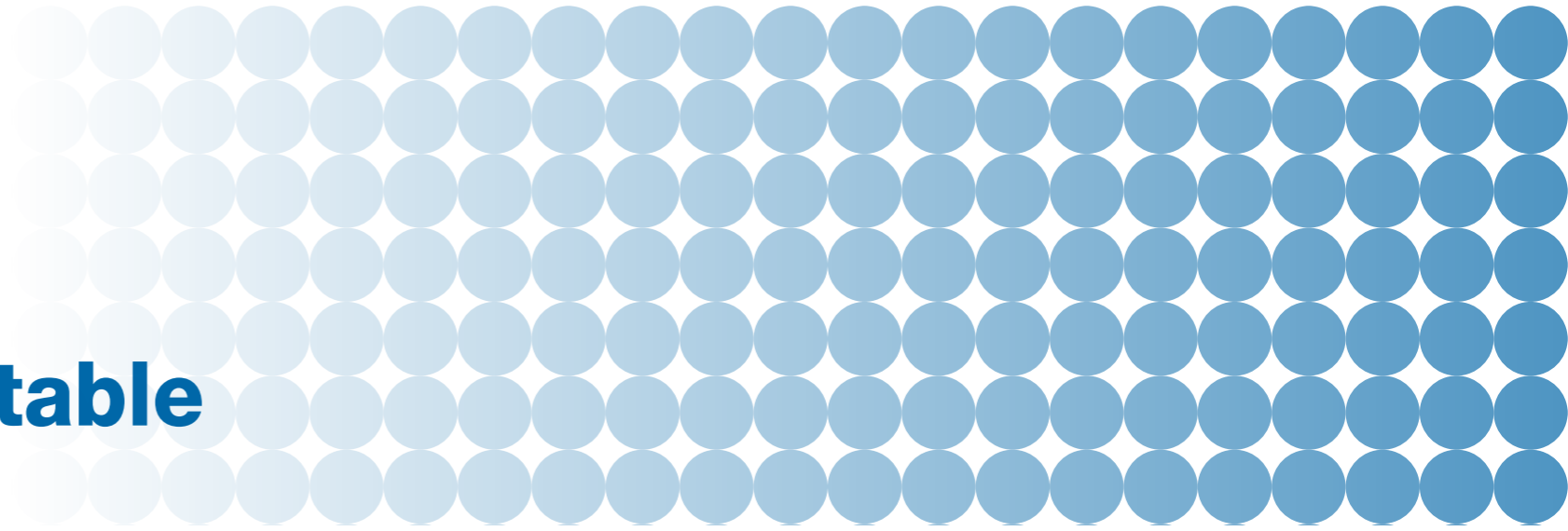
⁵⁷ <https://pmc.ncbi.nlm.nih.gov/articles/PMC7239206/>

Chapter

2.



Immunization Systems and Vaccine-Preventable Diseases



Immunization systems and vaccine-preventable diseases represent a central pillar of the EMPHNET WEBi Series. This public health area reflects both long-standing public health priorities and emerging challenges in the post-pandemic era. Discussions under this theme span 2021 through 2025 and capture a period marked by service disruption, recovery efforts, outbreak resurgence, and renewed calls for sustained investment in routine immunization.⁵⁸

Globally, immunization remains one of the most successful public health interventions. Vaccines have saved more than 150 million lives over the past five decades and continue to prevent an estimated 4.2 million deaths annually.⁵⁹ Yet progress has slowed. Even before the COVID-19 pandemic, coverage gains had plateaued in several regions. The pandemic further strained health systems in 2020 and 2021, disrupting routine services, delaying campaigns, and widening inequities.⁶⁰

Global coverage with the third dose of diphtheria–tetanus–pertussis–containing vaccine (DTP3) declined from 86 percent in 2019 to 82 percent in 2021 before recovering to 85 percent in 2024. Despite this rebound, substantial immunity gaps persist.⁶¹ In 2023, an estimated 14.5 million children received no routine vaccine doses, and millions more were partially vaccinated. Measles cases reached approximately 10.3 million in 2023, while outbreaks of meningitis and yellow fever re-emerged in multiple regions.⁶² These trends have unfolded amid humanitarian crises, misinformation, demographic pressures, and constrained financing that threaten routine immunization and surveillance systems.

Countries now face a dual imperative: restore disrupted services while strengthening immunization systems for the future. Performance is increasingly measured not only by coverage levels but also by resilience, equity, policy readiness, and the capacity to responsibly introduce new vaccines across the life course.⁶³

Within this evolving landscape, the EMPHNET WEBi Series provided a structured regional platform for dialogue on immunization policy, service recovery, outbreak response, vaccine demand, and forward-looking system strengthening.

Approach of the WEBi Series to Immunization Dialogue

Between 2021 and 2025, EMPHNET delivered six WEBi sessions under this public health area. Collectively, these webinars created a structured forum for regional exchange on immunization policy, program performance, and system resilience.

The primary approach of these sessions was structured knowledge exchange. The WEBi Series provided a platform to:

- Examine disruptions to routine immunization and share recovery strategies
- Address vaccine demand, confidence, and risk communication
- Discuss disease-specific prevention strategies, including influenza, human papillomavirus (HPV), hepatitis, and respiratory syncytial virus (RSV)
- Highlight equity gaps affecting zero-dose and under-vaccinated populations
- Share operational lessons on vaccine introduction, delivery, and monitoring

The discussions supported policymakers, immunization managers, researchers, and partners in translating global guidance into context-specific action informed by country experience.

Public Health Areas Addressed

Webinars under this chapter examined interconnected immunization priorities, including:

- Service continuity and recovery following pandemic-related disruptions
- Integration of routine immunization within primary health care systems
- Disease-specific prevention strategies targeting influenza, HPV, hepatitis, and RSV
- Life-course immunization approaches beyond early childhood
- Public–private partnerships supporting immunization delivery
- Vaccine demand generation, community engagement, and confidence-building
- Introduction of new vaccines and alignment with national policy frameworks

Over time, discussions evolved from short-term recovery to longer-term system strengthening and alignment with global commitments, including Immunization Agenda 2030.⁶⁴

Webinars Included in This Chapter

This chapter includes webinars delivered between 2022 and 2025 that focus specifically on immunization systems and vaccine-preventable diseases. Numbering reflects the chronological order of delivery within the overall WEBi Series (2020–2025).

1. [Combating the Influenza Viruses](#)
2. [Combating the HPV: EMR Efforts to Prevent the Spread of the Virus](#)
3. [Life Course Immunization: A Safer World, for All Ages](#)
4. [Advancing Hepatitis Elimination in the Eastern Mediterranean Region: Strategies and Challenges](#)
5. [Emerging Challenges in Influenza: Updates, Vaccines, and Regional Strategies](#)
6. [Making New Vaccines Work: Strategies for Introduction, Delivery, and Demand – Example of RSV](#)

Detailed summaries of each webinar are presented in the following pages.

Outcomes for Regional Learning

Across this public health area, the WEBi Series contributed to:

- Strengthening regional dialogue on immunization system resilience
- Documenting implementation experiences across diverse country contexts
- Highlighting equity as a core performance metric
- Supporting informed decision-making related to vaccine introduction and prioritization
- Reinforcing the importance of integrating immunization within broader health system strengthening efforts

The central outcome was enhanced regional understanding of how to sustain and modernize immunization systems in complex and evolving environments.

Related Immunization-Focused Webinars

Several WEBi sessions addressed immunization within the broader context of the COVID-19 pandemic. These discussions focused on sustaining vaccination services during disruption, addressing hesitancy, protecting elimination gains, and strengthening equity.

- [Countries' Strategies to Maintain Immunization Achievements During the Pandemic while Adapting to Post-Pandemic](#)
- [COVID-19 Public Hesitancy and Provider Reluctance and Its Impact on Immunization Services](#)
- [Impact of COVID-19 on Polio Eradication and Other VPD Elimination and Control Efforts](#)
- [Building Resilient Immunization Programs, Reducing Vaccination Inequities](#)
- [Increasing Vaccine Demand and Uptake During the COVID-19 Vaccine Infodemic](#)
- [Public-Private Partnership to Promote Primary Health Care, Including Immunization](#)

⁵⁸ <https://www.unicef.org/lac/en/press-releases/increases-vaccine-preventable-disease-outbreaks-threaten-years-progress-amidst-funding-cuts>

⁵⁹ <https://www.who.int/news/item/24-04-2024-global-immunization-efforts-have-saved-at-least-154-million-lives-over-the-past-50-years>

⁶⁰ <https://www.who.int/news/item/24-04-2024-global-immunization-efforts-have-saved-at-least-154-million-lives-over-the-past-50-years>

<https://www.unicef.org/eca/press-releases/increases-vaccine-preventable-disease-outbreaks-threaten-years-progress-warn-who>

⁶¹ <https://www.who.int/news-room/fact-sheets/detail/immunization-coverage>

⁶² <https://www.who.int/news/item/24-04-2025-increases-in-vaccine-preventable-disease-outbreaks-threaten-years-of-progress--warn-who--unicef--gavi>

⁶³ <https://pmc.ncbi.nlm.nih.gov/articles/PMC11812773/>

<https://www.mdpi.com/2076-393X/13/6/649>

⁶⁴ <https://www.who.int/teams/immunization-vaccines-and-biologicals/strategies/ia2030>

Combating the Influenza Viruses

 15 November 2022  Attendees: 134

Seasonal influenza remains a persistent and unpredictable public health threat⁶⁵. Each year, influenza viruses cause widespread illness across all age groups. While many individuals experience mild symptoms, others develop severe complications that lead to hospitalization or death. The intensity of influenza seasons varies, and the burden is shaped by circulating strains, population immunity, and vaccination coverage. Preparedness, surveillance, and sustained vaccination efforts are central to reducing morbidity, mortality, and pressure on health systems.⁶⁶

Despite clear evidence that annual influenza vaccination reduces disease severity and hospitalization, uptake remains suboptimal in many countries. Vaccine hesitancy, limited risk perception, and competing health priorities contribute to low demand. Within the Eastern Mediterranean Region (EMR), influenza continues to rank among priority vaccine-preventable diseases, requiring coordinated surveillance, risk communication, and policy action.

Against this backdrop, EMPHNET convened its twenty-fifth WEBi session titled “Combating the Influenza Viruses” on 15 November 2022. The session created a platform for regional and global experts to examine influenza trends, review preparedness efforts, and address influenza vaccine hesitancy through evidence-based communication strategies.

Mr. Alam opened the technical discussion by reviewing regional influenza trends and surveillance capacity. He noted that influenza seasons in the southern hemisphere can provide early signals for EMR countries and emphasized the importance of sustained surveillance systems to monitor circulating strains. He highlighted WHO EMRO’s efforts to strengthen regional preparedness and disseminate technical guidance and public information resources.

Dr. Al Awaidy presented the experience of Gulf Cooperation Council (GCC) countries in managing seasonal and pandemic influenza during the COVID-19 era. He underscored that influenza is frequently

underestimated despite its significant mortality and morbidity burden. He shared surveillance data, including FluNet reporting trends for influenza and SARS-CoV-2 detection in the region, and discussed policy approaches adopted by GCC countries. He emphasized that restoring and maintaining community trust remains essential to improving vaccine uptake.

Ms. McCarron focused on influenza vaccine hesitancy. She discussed drivers of low coverage, including misconceptions, limited perceived risk, and misinformation. She highlighted that healthcare workers face elevated exposure risk and that vaccinated health workers are more likely to recommend vaccination to patients. She also addressed concerns surrounding the co-circulation of COVID-19 and influenza, often referred to as a “twindemic,” and clarified misconceptions about both viruses and their vaccines.

Across presentations, speakers reinforced that combating influenza requires integrated strategies that combine strong surveillance, evidence-informed policy, targeted risk communication, and sustained immunization campaigns. Influenza vaccination remains the most effective preventive measure, particularly for high-risk populations.

The session concluded with an interactive discussion facilitated by Dr. Lami, during which participants engaged with speakers on vaccine confidence, surveillance coordination, and preparedness strategies.

A total of 134 participants attended the webinar, reflecting continued regional engagement on influenza prevention and control.

Key Takeaways

- Seasonal influenza remains a significant and often underestimated public health threat.
- Robust surveillance systems are essential to monitor circulating strains and guide preparedness.
- Influenza vaccination reduces disease severity and hospitalization, particularly among high-risk groups.
- Vaccine hesitancy and low risk perception contribute to suboptimal coverage.
- Healthcare workers play a critical role in promoting influenza vaccination.
- Integrated communication strategies are needed to address misconceptions and improve demand.

Policy and Knowledge Outputs

- [Webinar recording](#)
- [Webinar news article](#)

Speakers



Mr. Noore Alam
Technical Officer and Senior Epidemiologist, WHO EMRO



Dr. Salah Al Awaidy
Communicable Disease Surveillance and Control Advisor, Ministry of Health, Oman



Ms. Margaret McCarron
Health Scientist and Epidemiologist, US CDC

Moderator




Dr. Faris Lami
Public Health Expert and Professor at the University of Baghdad, Iraq

⁶⁵ <https://www.who.int/emergencies/disease-outbreak-news/item/2025-DON586>
<https://pmc.ncbi.nlm.nih.gov/articles/PMC12640676/>
⁶⁶ [https://www.who.int/news-room/fact-sheets/detail/influenza-\(seasonal\)](https://www.who.int/news-room/fact-sheets/detail/influenza-(seasonal))
<https://www.mdpi.com/1999-4915/17/12/1574>

Combating the HPV – EMR Efforts to Prevent the Spread of the Virus

 21 March 2023

 Attendees: 85

Cervical cancer remains the fourth most common cancer among women globally and a leading cause of cancer-related deaths in women⁶⁷. Most cervical cancer deaths occur in low- and middle-income countries.⁶⁸ Persistent infection with human papillomavirus (HPV) is the primary cause of cervical cancer. The disease is largely preventable through vaccination, early detection, and timely treatment.⁶⁹

The World Health Organization (WHO) has endorsed a global strategy to eliminate cervical cancer as a public health problem. The strategy is anchored in vaccination, screening, and management targets. However, implementation remains uneven across regions, including the Eastern Mediterranean Region (EMR), where gaps in vaccine introduction, screening access, and public awareness persist.⁷⁰

Within this context, EMPHNET convened its twenty-ninth WEBi session titled “Combating the HPV: EMR Efforts to Prevent the Spread of the Virus” on 21 March 2023. The session provided a platform to examine the global and regional burden of HPV, review progress toward elimination, and share country experience in vaccine introduction.

Prof. Saville opened the session with a global overview of HPV-related cervical cancer burden and progress toward elimination. She emphasized that inequitable access to vaccination and screening drives the disproportionate burden in low- and middle-income countries. She reviewed WHO’s elimination target of reducing cervical cancer incidence to fewer than four cases per 100,000 women in every country. She also discussed barriers to screening, including cultural acceptability and laboratory limitations, and highlighted WHO recommendations for HPV DNA testing as the primary screening method. The high negative predictive value of HPV testing, she noted, allows for extended screening intervals and improved program efficiency. She also presented evidence on self-collection approaches, which have shown promise in reaching under-screened women and improving equity.

Dr. Fahmy provided a regional perspective on HPV vaccine introduction in the EMR. He outlined the three pillars of the global elimination strategy and stressed the need for cross-sector collaboration and coordinated planning. He

discussed barriers to vaccine introduction, including hesitancy, stigma, safety concerns, limited awareness, and cost. He emphasized the importance of advocacy at decision-maker level, community engagement, and structured communication strategies to achieve high coverage. He also noted improvements in vaccine supply and support mechanisms, including Gavi assistance to eligible countries.

Dr. Ben Azzouz shared Morocco’s experience with HPV vaccination within the National Immunization Program. He reviewed the steps taken to introduce the vaccine and emphasized the role of advocacy and awareness campaigns in improving acceptance. He presented findings from a national study that identified varying attitudes toward the HPV vaccine and highlighted the need for targeted communication to address misconceptions. He also underscored the importance of monitoring and evaluation to assess program performance and inform adjustments.

With a total of 85 people in attendance, the session concluded with an interactive discussion facilitated by Dr. Ahmad, during which participants engaged with speakers on vaccine acceptance, screening strategies, and implementation considerations.

The webinar reinforced that eliminating cervical cancer requires integrated action across vaccination, screening, and treatment, supported by sustained political commitment and effective communication.

Speakers



Prof. Marion Saville
Executive Director of the Australian Centre for the Prevention of Cervical Cancer



Dr. Kamal Fahmy
Medical Officer, WHO EMRO



Dr. Mohammad Ben Azzouz
Head of the Child Health Protection Service and EPI Manager, Ministry of Health and Social Protection, Morocco

Moderator



Dr. Nada Ahmad
Public Health Specialist at EMPHNET



Key Takeaways

- Cervical cancer is largely preventable through HPV vaccination and screening.
- Inequitable access to preventive services drives higher mortality in low- and middle-income countries.
- HPV DNA testing is recommended by WHO as the primary screening method.
- Self-collection approaches can expand screening coverage and improve equity.
- HPV vaccine introduction requires advocacy, community engagement, and clear communication strategies.
- Monitoring and evaluation are essential to ensure program effectiveness and sustainability.



Policy and Knowledge Outputs

- [Webinar recording](#)
- [Webinar news article](#)

⁶⁷ <https://www.who.int/news-room/fact-sheets/detail/cervical-cancer>

⁶⁸ <https://www.who.int/news-room/fact-sheets/detail/cervical-cancer>

⁶⁹ <https://www.who.int/news-room/fact-sheets/detail/cervical-cancer>

⁷⁰ <https://www.who.int/publications/i/item/9789240014107>

Life Course Immunization: A Safer World for All Ages

 19 September 2023  Attendees: 66

As countries work to restore and strengthen routine immunization following pandemic-related disruptions, attention has increasingly shifted toward a life-course approach to vaccination.⁷¹ The Immunization Agenda 2030 (IA2030), aligned with the Sustainable Development Goals (SDGs), emphasizes equitable vaccine access across all stages of life, from infancy and adolescence to adulthood and older age.⁷²

Within this evolving policy landscape, life-course immunization offers a framework for strengthening prevention, closing coverage gaps, and integrating vaccination more effectively into primary health care systems.⁷³

To explore these dimensions, EMPHNET convened its 34th webinar “Life Course Immunization: A Safer World for All Ages”, on 19 September 2023 as part of its WEBi Series. The session examined policy directions, operational strategies, and country experiences related to advancing vaccination beyond childhood and embedding immunization across the continuum of care.

Dr. Mere opened the technical discussions by outlining the IA2030 vision of a world where everyone, at every age, benefits fully from vaccines. He emphasized reducing morbidity and mortality from vaccine-preventable diseases, ensuring equitable access, and strengthening immunization within primary health care. He highlighted the benefits of adopting a life-course approach and reviewed WHO guidance on catch-up vaccination, underscoring the importance of minimizing missed opportunities. His concluding message reinforced a core principle of immunization practice: it is better to vaccinate late than never.

Dr. Albayyat presented Qatar’s experience in strengthening vaccination programs across different population groups. She addressed barriers to equitable access, including issues related to convenience, confidence, and trust. She emphasized that improving vaccine confidence requires practical solutions to access challenges, supported by tailored communication strategies. Her presentation illustrated how routine vaccination, COVID-19 vaccination, influenza campaigns, and the introduction of new vaccines can be aligned within a broader system-strengthening framework.

Dr. Sugerman focused on integrating life-course vaccination into broader health programs. She described integration across service delivery, data systems, supervision, supply chain management, and planning processes. She explained that integration creates multiple contact points for immunization and supports more efficient health system functioning. Drawing on country examples, she outlined practical considerations when embedding vaccination into existing health services, emphasizing alignment with governance, financing, and delivery structures.

With a total of 66 people in attendance, the session concluded with an interactive discussion moderated by Ms. Daoud, during which participants engaged speakers on implementation challenges, equity gaps, and operational strategies for advancing life-course vaccination.

This webinar expanded the immunization dialogue beyond routine childhood schedules and highlighted how policy alignment, integration, and equity-focused strategies can strengthen immunization systems across the life course.

Speakers



Dr. Mohammed Osama Mere

Life Course Immunization Lead and COVID-19 Vaccination Regional Coordinator, WHO EMRO



Dr. Suha Shawqi Albayyat

Health Emergency Director, Ministry of Health, Qatar



Dr. Ciara Sugerman

Acting Lead of the Immunization Delivery Science Team in the Global Immunization Division, US CDC

Moderator



Ms. Leen Daoud

Technical Officer at EMPHNET



Key Takeaways

- Life-course immunization aligns with IA2030 and supports equitable vaccine access across all ages.
- Catch-up vaccination and minimizing missed opportunities remain critical to closing coverage gaps.
- Addressing barriers related to access, confidence, and trust strengthens vaccine uptake.
- Integrating immunization within broader health services improves efficiency and expands contact points.
- Policy alignment, governance, and system readiness are essential to operationalizing life-course strategies.



Policy and Knowledge Outputs


- [Webinar recording](#)
- [Webinar news article](#)
- [Policy Brief: Life Course Immunization: A Safer World for All Ages](#)

⁷¹ <https://pmc.ncbi.nlm.nih.gov/articles/PMC8920227/>

⁷² <https://www.who.int/docs/default-source/immunization/strategy/ia2030/ia2030-document-en.pdf>

⁷³ <https://pmc.ncbi.nlm.nih.gov/articles/PMC10937433/>

Advancing Hepatitis Elimination in the Eastern Mediterranean Region Strategies Challenge

 16 July 2024

 Attendees: 166

Viral hepatitis remains a major public health challenge in the Eastern Mediterranean Region (EMR), particularly Hepatitis B (HBV) and Hepatitis C (HCV).⁷⁴ The Region faces a dual burden shaped by high prevalence in several countries, population displacement, health system strain, and uneven access to screening and treatment services. Despite global commitments to eliminate viral hepatitis as a public health threat by 2030, progress across the EMR remains variable.^{75 76}

Within this context, EMPHNET, in collaboration with the Coalition for Global Hepatitis Elimination (CGHE), convened its forty-first WEBi session titled “Advancing Hepatitis Elimination in the Eastern Mediterranean Region: Strategies, Challenges, and Collaborations.” The webinar examined global and regional elimination strategies.

Dr. Abdel Fattah presented Egypt’s journey toward HCV elimination. He described the “100 Million Healthy Lives” initiative, which screened more than 60 million individuals and integrated rapid testing, electronic data systems, decentralized treatment centers, and large-scale procurement strategies. He highlighted reductions in HCV RNA prevalence from 10% in 2008 to 0.38% in the 2022 serosurvey among adults aged 15–59 years. He also outlined validation milestones that culminated in WHO recognition of Egypt’s achievement of the Gold Tier status for HCV elimination in October 2023. His presentation emphasized political leadership, mass screening, centralized data systems, and strategic purchasing to reduce diagnostic and treatment costs.

Dr. Qureshi focused on Pakistan’s hepatitis burden and elimination strategy. She noted that Pakistan carries one of the largest HCV burdens globally, with an estimated 9–10 million people infected and an incidence of approximately 110,000 new cases annually. She described the Prime Minister’s Hepatitis C Elimination Program, supported by substantial domestic funding, with plans to screen over 160 million individuals and expand treatment access nationwide. She highlighted progress in generic DAA production, decentralized PCR capacity, and integration with provincial health systems, while also addressing challenges related to supply chains, data systems, and reaching key populations.

Dr. Sabry provided a regional and global epidemiological overview of viral hepatitis, focusing on the Eastern Mediterranean Region. Globally, an estimated 296 million people live with chronic HBV and 58 million with chronic HCV, with approximately 3 million new infections and more than 1 million hepatitis-related deaths annually. He reiterated the 2030 elimination targets of reducing new infections by 90% and mortality by 65%, and stressed the importance of scaling five core interventions: hepatitis B vaccination, prevention of mother-to-child transmission, blood and injection safety, harm reduction, and testing and treatment.

Within the EMR, the burden remains substantial:

- Approximately 15 million people live with chronic HBV
- Around 12 million people live with chronic HCV
- 86,000 new HBV infections annually
- 183,000 new HCV infections annually
- 41,000 HBV-related deaths and 56,000 HCV-related deaths per year

He highlighted major gaps in the cascade of care, noting that diagnosis and treatment coverage remain limited across many countries. While some progress has been made in hepatitis B vaccination and HCV treatment scale-up, gaps persist in birth dose vaccination, harm reduction services, data systems, and sustainable domestic financing. Dr. Sabry emphasized that translating policy commitments into operational, scalable services remains the central challenge in achieving elimination across the Region.

With 166 participants in attendance, the session generated active discussion on financing models, decentralized screening strategies, surveillance systems, pharmaceutical access, and the role of political leadership and regional collaboration in accelerating elimination.

Key Takeaways

- The EMR continues to face a substantial HBV and HCV burden, with significant variation across countries.
- Political leadership and domestic financing are central to large-scale elimination programs.
- Mass screening initiatives combined with electronic data systems strengthen cascade-of-care performance.
- Strategic purchasing and local production significantly reduce diagnostic and treatment costs.
- Decentralized implementation and integration with primary health care enhance reach and sustainability.
- Strengthening diagnosis, treatment coverage, surveillance systems, and harm reduction services is essential to meet 2030 elimination targets.
- Cross-sector collaboration and public health diplomacy accelerate progress toward elimination.

Policy and Knowledge Outputs

- [Webinar recording](#)

⁷⁴ https://applications.emro.who.int/docs/em_rc56_3_en.pdf

⁷⁵ https://applications.emro.who.int/docs/em_rc56_3_en.pdf

⁷⁶ <https://pmc.ncbi.nlm.nih.gov/articles/PMC12363047/>

Speakers



Dr. Mohammad Abdel Fattah

Undersecretary for Public Health, Ministry of Health and Population, Egypt



Dr. Huma Qureshi

National Focal Point for Hepatitis, Pakistan



Dr. Ahmed Sabry

Technical Officer, WHO EMRO

Moderator



Dr. John W. Ward

Director of CGHE



Ms. Nadine Haddad

Senior Technical Officer at EMPHNET

Emerging Challenges in Influenza Updates, Vaccines, and Regional Strategies

 26 November 2024  Attendees: 216

Seasonal influenza continues to impose a substantial global and regional burden, with up to one billion cases annually and hundreds of thousands of respiratory-related deaths.⁷⁷ In the Eastern Mediterranean Region (EMR), recent seasons have been characterized by the emergence of H3N2 subtypes, co-circulation with SARS-CoV-2 and RSV, and increasing reports of co-infections. These overlapping respiratory threats have intensified pressure on health systems and underscored the need for strengthened surveillance, improved vaccines, and coordinated regional strategies.^{78 79}

In response, EMPHNET convened its WEBi session titled “Emerging Challenges in Influenza: Updates, Vaccines, and Regional Strategies,” in partnership with the Middle East and North Africa Influenza Surveillance Network (MENA ISN). This webinar marked the second session in the influenza-focused series organized jointly with MENA ISN, building on earlier discussions to deepen regional dialogue. The session provided updated epidemiological insights, advances in influenza vaccine development, and practical approaches to strengthen preparedness and improve vaccine uptake across the Region.

[Read about the first session on Influenza](#)

Dr. Barakat presented updates on the regional influenza landscape and emphasized the central role of WHO’s Global Influenza Surveillance and Response System (GISRS). She highlighted sustained surveillance across EMR countries, integrated monitoring of influenza and other respiratory viruses, and ongoing vigilance for avian influenza A(H5N1). While sporadic human infections linked to animal exposure continue to be reported, no sustained human-to-human transmission has been detected, and the current global public health risk remains low. Early detection, genomic sequencing, and timely reporting were emphasized as pillars of preparedness.

Dr. Koul reviewed current challenges in seasonal influenza vaccination. Vaccine effectiveness typically ranges from 20% to 60% and varies by circulating subtype, particularly for H3N2 strains. He outlined advances in enhanced vaccines,

including high-dose, adjuvanted, recombinant, and cell-based platforms, and discussed the development of next-generation and broadly protective influenza vaccines. He stressed the importance of integrating improved vaccine technologies into existing immunization programs while ensuring equitable access and sustainable financing.

Dr. Tanriover addressed vaccine hesitancy as a persistent barrier in the Region. Evidence presented showed that healthcare provider recommendation strongly influences vaccine acceptance, while misinformation contributes to hesitancy. Behavioral drivers such as confidence, collective responsibility, and reduced perceived constraints were associated with higher vaccination rates. She introduced motivational interviewing as a practical tool to strengthen communication, build trust, and support informed decision-making.

With 216 participants in attendance, the session generated active discussion on surveillance integration, vaccine effectiveness, hesitancy, and regional collaboration through MENA ISN. The webinar reinforced that addressing emerging influenza challenges in the EMR requires sustained surveillance, innovation in vaccine development, effective risk communication, and coordinated regional action to reduce disease burden and strengthen pandemic preparedness.

Key Takeaways

- Influenza strain evolution and co-circulation with other respiratory viruses increase system pressures.
- Integrated surveillance through GISRS remains foundational for preparedness.
- Vaccine effectiveness varies by subtype, reinforcing the need for improved platforms.
- Healthcare provider engagement is central to improving vaccine uptake.
- Addressing hesitancy requires evidence-based communication and behavioral strategies.
- Regional collaboration strengthens coordinated response and preparedness.

Policy and Knowledge Outputs

- [Webinar recording](#)

Speakers



Dr. Amal Barakat
Team Lead, Influenza and Other Emerging Respiratory Diseases Program, WHO EMRO



Dr. Parvaiz A. Koul
Vice Chair, ME’NA ISN



Dr. Mine Durusu Tanriover
Chair, Hacettepe University Vaccine Institute

Moderator



Dr. Fatima Al Slail
Director of the National Diabetes Prevention and Control Program, and Director of Cardiovascular Prevention and Control Program at the Ministry of Health, Saudi Arabia



Ms. Leen Daoud
Technical Officer at EMPHNET

⁷⁷ [https://www.who.int/news-room/fact-sheets/detail/influenza-\(seasonal\)](https://www.who.int/news-room/fact-sheets/detail/influenza-(seasonal))

⁷⁸ https://www.researchgate.net/publication/392160314_Unmasking_the_risk_and_burden_of_seasonal_influenza_in_the_Middle_East_Strengthening_prevention_and_control_strategies_for_a_healthier_tomorrow Unmasking the risk and burden of seasonal influenza in t

⁷⁹ <https://pmc.ncbi.nlm.nih.gov/articles/PMC12640676/>

Making New Vaccines Work: Strategies for Introduction, Delivery, and Demand – Example of RSV

 16 December 2025  Attendees: 95

The rapid development of new vaccines has transformed global public health.⁸⁰ Scientific innovation alone, however, does not guarantee impact. Countries must translate new products into effective national programs through evidence-based policy decisions, delivery readiness, financing strategies, and demand generation.⁸¹

To conclude its 2025 calendar, EMPHNET convened the 50th session of the WEBi Series titled “*Making New Vaccines Work: Strategies for Introduction, Delivery, and Demand – Example of RSV*” on 16 December 2025. The session used Respiratory Syncytial Virus (RSV) as a case study to examine how countries can assess readiness, interpret evidence, and operationalize introduction of new immunization tools within national systems.

Prof. Memish underscored that decisions on introducing new vaccines should be based on solid evidence, practical feasibility, and a clear understanding of health system capacity, especially in contexts where countries face competing priorities and limited resources.

Dr. Nogareda shared the experience of RSV prevention strategies in the Region of the Americas. He presented epidemiological data demonstrating that the highest RSV burden occurs among infants, particularly in the first months of life. He outlined PAHO’s recommendations on maternal RSV vaccination during late pregnancy and the use of the long-acting monoclonal antibody nirsevimab for newborns and high-risk infants. Drawing on early adopter experiences, including Argentina and Chile, he highlighted practical considerations for introduction. These included aligning strategies with local seasonality, integrating RSV prevention within antenatal and newborn care platforms, and establishing safety surveillance and post-introduction monitoring systems.

He also emphasized that introducing RSV products requires careful assessment of affordability, sustainability, and cost-effectiveness within national immunization programs. He also underscored the importance of documenting implementation lessons to inform other regions considering introduction.

Dr. Nisar presented evidence on RSV disease burden and prevention tools. He described RSV as a leading cause of severe pneumonia and lower respiratory tract infections in infants worldwide, with a disproportionate burden in low- and middle-income countries.

He reviewed findings from clinical trials and real-world studies demonstrating strong effectiveness and an acceptable safety profile of maternal RSV vaccination in preventing severe disease and hospitalization during the first six months of life. Dr. Nisar noted that many RSV-related deaths occur in community settings rather than hospitals, highlighting gaps in surveillance and the need for stronger data systems.

He discussed implementation considerations including cost-effectiveness analysis, supply constraints, health system readiness, and the critical role of National Immunization Technical Advisory Groups (NITAGs) in guiding evidence-based decisions. He stressed that generating local data is essential to support national policy deliberations.

Dr. Mohsni described RSV as a major yet under-recognized cause of severe respiratory infections among infants under six months of age. He highlighted limited and uneven surveillance data across the region, gaps in documenting burden among different age groups, and the need to better understand seasonality patterns to guide introduction strategies. Dr. Mohsni emphasized that informed decision-making requires strengthened surveillance systems, functional advisory bodies, sustainable financing, robust logistics, and effective communication strategies. He concluded that strengthening maternal immunization delivery platforms and improving regional data generation are essential prerequisites for evidence-based RSV prevention decisions in the EMR.

Prof. Memish facilitated the Q&A session reflected strong engagement from participants, focusing on cost-effectiveness, seasonal versus year-round introduction strategies, diagnostic capacity, and improving maternal vaccine uptake.

With a total of 95 attendees joining the session, speakers emphasized that successful introduction depends on context-specific planning, reliable surveillance, demand generation among health workers and communities, and sustained financing. Participants also discussed whether seasonal introduction aligned with local epidemiology may be feasible in some settings.

Key Takeaways

- New vaccine introduction requires evidence on burden, effectiveness, cost-effectiveness, and feasibility.
- Strengthened surveillance systems and functional NITAGs support informed policy decisions.
- Maternal immunization platforms play a central role in RSV prevention strategies.
- Integration within existing health systems improves readiness and sustainability.
- Learning from early adopters is valuable, while adaptation to national context remains essential.

Policy and Knowledge Outputs

- [Webinar recording](#)
- [Webinar news article](#)

⁸⁰ <https://www.sciencedirect.com/science/article/pii/S2667009724000794>

<https://pmc.ncbi.nlm.nih.gov/articles/PMC7381976/>

⁸¹ <https://www.sciencedirect.com/science/article/pii/S0264410X22014554>

Speakers



Dr. Ezzeddine Mohsni
Public Health Advisor and Chair of the WHO EMRO Regional Immunization Technical Advisory Group (RITAG)



Dr. Muhammad Imran Nisar
Associate Professor and Vice-Chair, Department of Pediatrics and Child Health, Aga Khan University, Pakistan



Dr. Francisco Nogareda
Focal Point for Influenza, COVID-19, and RSV Immunization, WHO PAHO

Moderator



Prof. Ziad A. Memish
Senior Advisor for Medical and Humanitarian Research at KSrelief and Professor of Infectious Diseases at Alfaisal University, Saudi Arabia

Related Immunization-Focused Webinars

Several WEBi sessions addressed immunization within the broader context of the COVID-19 pandemic. These discussions focused on sustaining vaccination services during disruption, addressing hesitancy, protecting elimination gains, and strengthening equity. Detailed summaries of these sessions are presented in [Chapter 1](#).

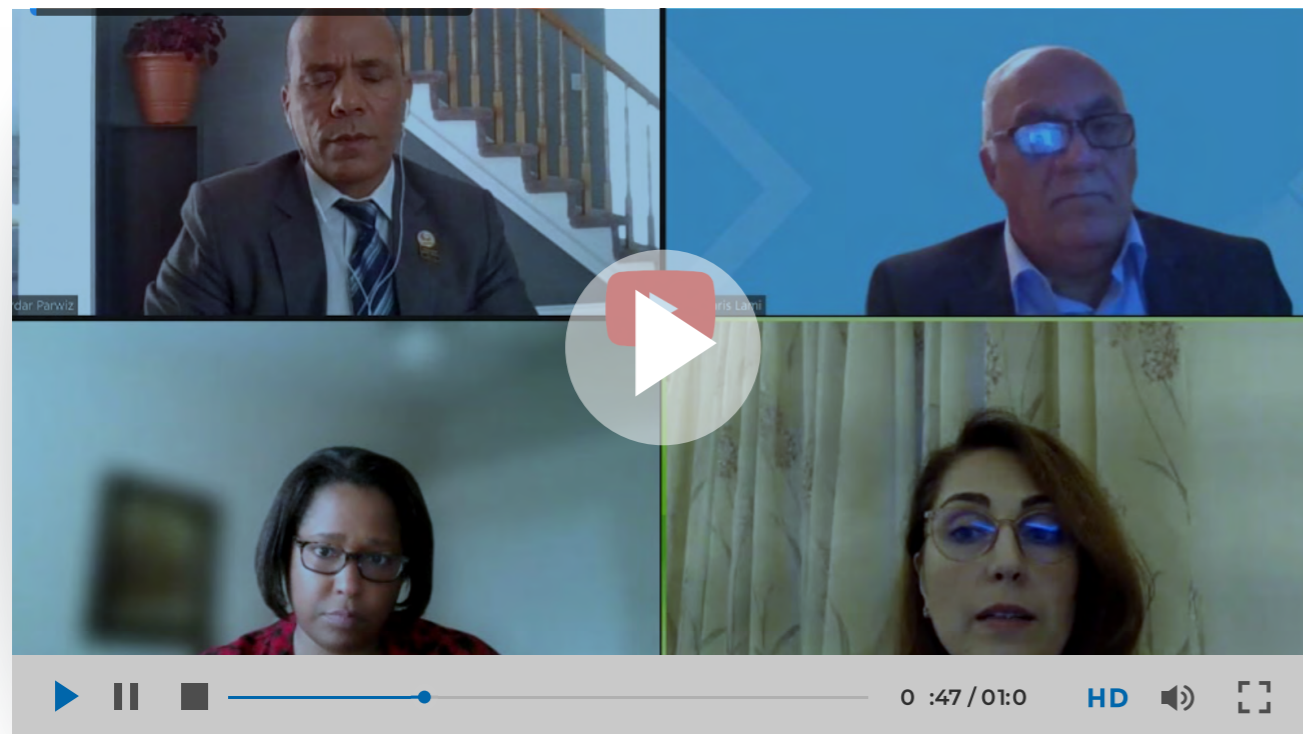
- [Countries' Strategies to Maintain Immunization Achievements During the Pandemic while Adapting to Post-Pandemic](#)
- [COVID-19 Public Hesitancy and Provider Reluctance and Its Impact on Immunization Services](#)
- [Impact of COVID-19 on Polio Eradication and Other VPD Elimination and Control Efforts](#)
- [Building Resilient Immunization Programs, Reducing Vaccination Inequities](#)
- [Increasing Vaccine Demand and Uptake During the COVID-19 Vaccine Infodemic](#)
- [Public-Private Partnership to Promote Primary Health Care, Including Immunization](#)

The Immunization Systems and Vaccine-Preventable Diseases public health area documents sustained regional dialogue during a period defined by disruption, recovery, and renewed global commitment to routine vaccination.⁸²

Across sessions delivered between 2020 and 2025, the WEBi Series evolved from safeguarding immunization services during the COVID-19 crisis to addressing life-course immunization, disease elimination strategies, vaccine demand, public-private collaboration, and evidence-based introduction of new vaccines.

Together, these webinars illustrate how immunization systems are transitioning from recovery to resilience. The discussions highlight that strong surveillance, equitable access, sustained financing, and policy readiness are essential to prevent resurgence of vaccine-preventable diseases and to operationalize new tools effectively.

This chapter serves as a consolidated record of regional exchange and a reference point for strengthening resilient, integrated, and future-oriented immunization systems.



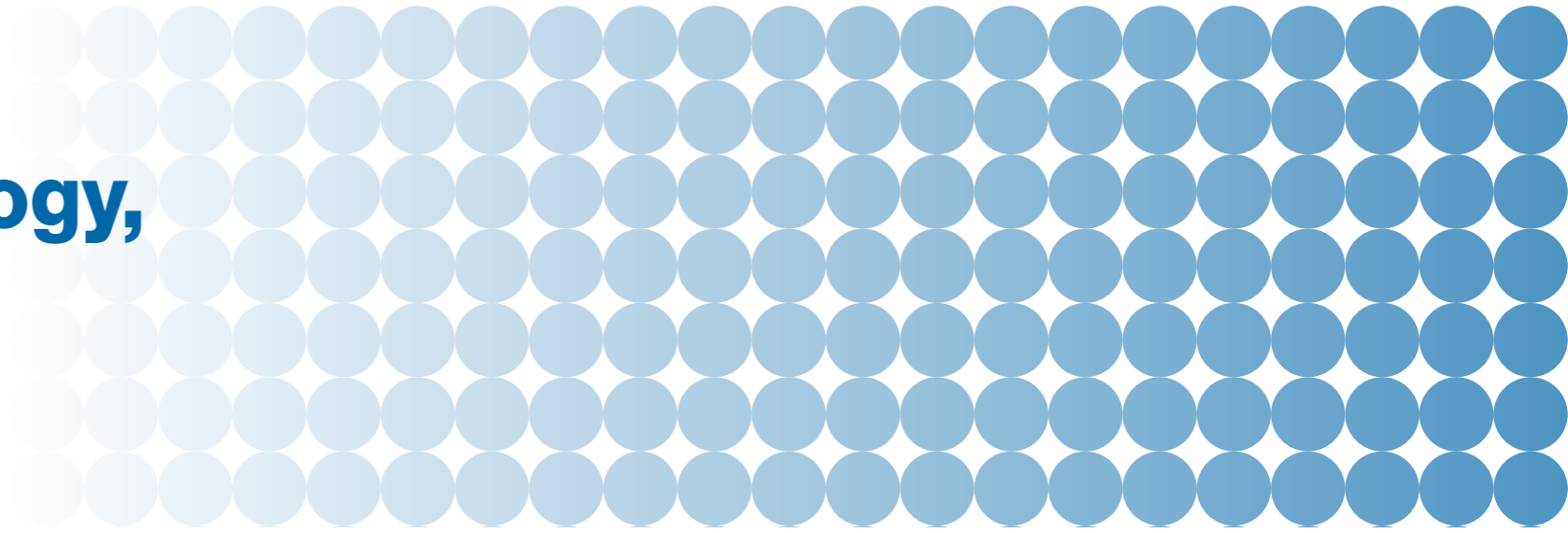
⁸² <https://pmc.ncbi.nlm.nih.gov/articles/PMC12031510/>
<https://pmc.ncbi.nlm.nih.gov/articles/PMC7239206/>

Chapter

3



Field Epidemiology, Surveillance, and Workforce Development



Field epidemiology, surveillance, and workforce development form a foundational pillar of resilient public health systems. Effective epidemic and pandemic response depends on the capability, agility, and institutional positioning of field epidemiologists operating at local, national, and regional levels.

^{83 84}

Field epidemiologists play a central role in outbreak investigation, surveillance, contact tracing, data analysis, and evidence-informed decision-making. Their contribution during the COVID-19 pandemic reinforced the importance of applied epidemiology capacity embedded within national systems.⁸⁵

At the same time, the field is evolving. Electronic surveillance platforms, geographic information systems (GIS), genomic tools, laboratory integration, blended learning modalities, and expanded regional collaboration are reshaping how surveillance is conducted and how epidemiologists are trained. Sustaining these advances requires long-term investment in Field Epidemiology Training Programs (FETPs), national public health institutions, and professionalization pathways grounded in operational realities.⁸⁶

Surveillance systems remain central to monitoring disease patterns, detecting emerging threats, and guiding timely response. Continuous monitoring of morbidity, mortality, populations at risk, and pathogen evolution enables rapid intervention. Beyond infectious diseases, surveillance supports antimicrobial resistance monitoring, noncommunicable disease tracking, cancer registries, and evidence-based priority setting.⁸⁷

Maintaining a skilled and institutionalized public health workforce remains both essential and complex. High turnover, workforce shortages, and gaps in formal training can weaken institutional memory and response capacity. Sustainable workforce development therefore requires competency frameworks, accreditation mechanisms, professional standards, and training models integrated within national systems. Collaboration among ministries of health, academic institutions, regional networks, and global partners strengthens long-term system resilience.^{88 89}

Within this context, the EMPHNET WEBi Series provided a regional platform to examine the FETP enterprise, workforce professionalization, surveillance strengthening, laboratory integration, and institutional sustainability.

Approach of the WEBi Series to Field Epidemiology and Surveillance Dialogue

Between 2021 and 2025, EMPHNET delivered multiple WEBi sessions under this public health area. Collectively, these sessions created a structured forum for regional exchange on epidemiology capacity, surveillance system strengthening, and workforce investment.

The WEBi Series provided a platform to:

- Reflect on the evolution and sustainability of the global and regional FETP enterprise
- Examine the role of field epidemiologists in advancing public health practice
- Discuss workforce professionalization, accreditation, and competency development
- Explore disease surveillance strengthening, including meningitis surveillance and cancer registries
- Share country experiences integrating surveillance within preparedness and response frameworks
- Highlight regional collaboration initiatives and cross-country learning mechanisms

These discussions supported policymakers, FETP directors, workforce planners, surveillance officers, and technical partners in translating global frameworks into context-specific strategies informed by regional realities

Public Health Areas Addressed

Webinars under this chapter examined interconnected priorities related to epidemiology, surveillance, and workforce development, including:

- Sustainability and quality assurance within the FETP enterprise
- Lessons emerging from FETP engagement during the COVID-19 pandemic
- Blended learning approaches and field-based training models
- Core competencies required for a modern public health workforce

- Accreditation and professional standards in applied epidemiology
- Surveillance system gaps and opportunities across the EMR
- Strengthening cancer registries and laboratory-based surveillance
- Regional collaboration mechanisms supporting cross-border learning
- Enhancing workforce visibility and professional networking platforms

Over time, discussions shifted from pandemic-era engagement toward broader considerations of institutional sustainability, surveillance integration, and long-term workforce strengthening.

Webinars Included in This Chapter

This chapter includes webinars delivered between 2021 and 2025 that focus specifically on field epidemiology, surveillance, and workforce development. Numbering reflects the chronological order of delivery within the overall WEBi Series (2020–2025).

1. [The FETP Enterprise: An EMR Reflection](#)
2. [The Role of Field Epidemiologists in Advancing Public Health Practice](#)
3. [Investing in Public Health Workforce Capacity in the Eastern Mediterranean Region: Progress, Lessons, and Prospects](#)
4. [Cancer Registries in the EMR](#)
5. [Advancing Meningitis Surveillance in the Eastern Mediterranean Region](#)

Detailed summaries of each webinar are presented in the following pages.

Outcomes for Regional Learning

Across this public health area, the WEBi Series contributed to:

- Strengthening regional reflection on the future of the FETP enterprise
- Elevating workforce development as a strategic priority for health security
- Promoting integration between surveillance systems and preparedness frameworks
- Highlighting practical approaches to professionalization and accreditation
- Reinforcing collaboration across ministries, academic institutions, and regional networks

The central outcome was enhanced regional alignment around applied epidemiology capacity as a cornerstone of resilient health systems.

Related Field Epidemiology and Surveillance-Focused Webinars

Several WEBi sessions addressed epidemiology and surveillance within the broader context of the COVID-19 pandemic and immunization efforts. These discussions are documented in [Chapters 1 and 2](#).

- [Role of FETPs and RRTs as First Line Responders during the COVID-19 Pandemic](#)
- [Field Epidemiology Training Programs and the COVID-19 Pandemic](#)
- [Event-Based Surveillance in the Eastern Mediterranean Region: Progress and Best Practices](#)
- [Combating the Influenza Viruses](#)
- [Advancing Hepatitis Elimination in the Eastern Mediterranean Region: Strategies and Challenges](#)
- [Emerging Challenges in Influenza: Updates, Vaccines, and Regional Strategies](#)
- [Accelerating Outbreak Detection, Notification, and Response in the EMR: Advocating for the 7-1-7 Approach](#)

⁸³ <https://emergencies.pubpub.org/pub/field-epidemiology/release/3>

⁸⁴ <https://pmc.ncbi.nlm.nih.gov/articles/PMC8747444/>
<https://www.frontiersin.org/journals/public-health/articles/10.3389/fpubh.2025.1566824/full>

⁸⁵ <https://pmc.ncbi.nlm.nih.gov/articles/PMC8747444/>

⁸⁶ <https://pmc.ncbi.nlm.nih.gov/articles/PMC12521429/>
<https://www.frontiersin.org/journals/public-health/articles/10.3389/fpubh.2024.1490125/full>

⁸⁷ <https://www.emro.who.int/noncommunicable-diseases/data-statistics/ncd-surveillance.html>

<https://www.emro.who.int/noncommunicable-diseases/publications/questions-and-answers-on-importance-of-surveillance-in-preventing-and-controlling-noncommunicable-diseases.html>

⁸⁸ <https://pmc.ncbi.nlm.nih.gov/articles/PMC11925482/>

⁸⁹ <https://pmc.ncbi.nlm.nih.gov/articles/PMC9812945/>

The FETP Enterprise: An EMR Reflection

 7 September 2021  Attendees: 185

Field Epidemiology Training Programs (FETPs) have expanded significantly since their establishment by the US Centers for Disease Control and Prevention (CDC) in 1980.⁹⁰ Today, more than 80 countries host FETPs globally, with over 22,000 graduates contributing to surveillance, outbreak investigation, and public health response.⁹¹

In June 2018, the Task Force for Global Health convened a meeting in Bellagio to strengthen the global FETP partnership. Nineteen FETP leaders, implementing partners, funders, and stakeholders developed a comprehensive roadmap to accelerate field epidemiology capacity worldwide. The FETP Enterprise and the Strategic Leadership Group (SLG) were launched to guide this effort.⁹²

In recognition of World Field Epidemiology Day (WFED), EMPHNET convened its fifteenth WEBi session on 7 September 2021 titled “*The FETP Enterprise: An EMR Reflection*.” The webinar examined the FETP Enterprise concept, the Global Field Epidemiology Roadmap, and implications for sustainability in the Eastern Mediterranean Region (EMR).

Dr. Al Nsour opened the session by highlighting the significance of World Field Epidemiology Day and the growing visibility of FETPs globally. He framed the webinar as an opportunity to reflect on the evolution and future direction of the FETP enterprise.

Dr. Reddy presented the development and implementation of the Global Field Epidemiology Roadmap. He reviewed the growth of FETPs since 1975 and discussed the increasing complexity associated with expansion. He outlined the roadmap’s vision and eight actionable recommendations aimed at strengthening field epidemiology capacity worldwide. He also provided updates on the Strategic Leadership Group and the establishment of Working Groups to advance each recommendation. He emphasized the

importance of collaboration among regional networks, FETP directors, fellows, graduates, and partners to ensure continued progress.

Dr. Khader addressed the impact of the COVID-19 pandemic on FETP sustainability in the EMR. He presented regional graduation figures, noting that over 900 advanced-level residents, 834 basic-level residents, and 55 intermediate-level residents graduated during the year. He described EMPHNET’s support to countries through COVID-19 strategic working areas and highlighted the engagement of FETPs in preparedness and response activities. He stressed that sustaining FETPs requires deliberate strategies, stable support, and alignment with national health priorities.

Dr. Bashier presented “*FETP: From Face-to-Face to Blended Modality*.” He described blended learning approaches adopted during 2020–2021 and compared the classic and blended FETP models. He introduced EMPHNET’s Learning Management System (LMS) and noted that nine cohorts, involving more than 180 residents in the EMR, participated in blended learning. He concluded by discussing evaluation findings, challenges, and mitigation measures.

The session concluded with an interactive discussion facilitated by Dr. Al Nsour, where participants engaged speakers on roadmap implementation, sustainability, and training models.

A total of 185 participants attended the webinar, reflecting strong regional engagement on field epidemiology capacity development.

Speakers



Dr. Carl Reddy
Director of Training Programs in Epidemiology and Public Health Interventions Network (TEPHINET)



Dr. Yousef Khader
Director of the Center of Excellence for Applied Epidemiology (CEAE), EMPHNET



Dr. Haitham Bashier
Workforce Capacity Team Leader at EMPHNET

Moderator



Dr. Mohannad Al Nsour
EMPHNET’s Executive Director



Key Takeaways

- The FETP Enterprise provides a coordinated roadmap to strengthen global field epidemiology capacity.
- Sustaining FETPs requires structured leadership, regional collaboration, and strategic alignment.
- The COVID-19 pandemic underscored the critical role of FETPs in emergency response.
- Blended learning models offer practical solutions to training continuity challenges.
- Long-term sustainability depends on institutional support and integration within national systems.



Policy and Knowledge Outputs

- [Webinar recording](#)
- [Webinar news article](#)

⁹⁰ <https://www.cdc.gov/global-health-protection/php/programs-and-institutes/field-epidemiology-training-program.html>

⁹¹ <https://www.frontiersin.org/journals/public-health/articles/10.3389/fpubh.2025.1669324/full>

⁹² <https://www.tephinet.org/tephinet-learning-center/tephinet-library/global-field-epidemiology-roadmap>

The Role of Field Epidemiologists in Advancing Public Health Practice

 18 October 2022

 Attendees: 213

Field epidemiologists have remained at the forefront of public health emergency response and system strengthening efforts.⁹³ Equipped with competencies gained through Field Epidemiology Training Programs (FETPs), they have contributed extensively to surveillance, outbreak investigation, contact tracing, data analysis, and community engagement. During the COVID-19 pandemic, their role became more visible, reinforcing the importance of sustained investment in field epidemiology workforce development.⁹⁴

In 2021, the Training Programs in Epidemiology and Public Health Interventions Network (TEPHINET) launched World Field Epidemiology Day (WFED) to recognize the vital contributions of field epidemiologists and advocate for increased support to training programs globally.⁹⁵ In recognition of the second WFED, EMPHNET convened its twenty-fourth WEBi session on 18 October 2022 titled “*The Role of Field Epidemiologists in Advancing Public Health Practice.*”

The webinar provided a platform to examine the evolving role of field epidemiologists, reflect on milestones achieved by FETPs in the Eastern Mediterranean Region (EMR), and discuss future directions for program sustainability and visibility.

Prof. Ben Alaya opened the session by highlighting the growing recognition of field epidemiologists globally and framing the webinar as an opportunity to reflect on their expanding role in advancing public health practice.

Dr. Bashier discussed the broad contributions of FETP residents and graduates across the EMR. He emphasized their engagement in surveillance systems, outbreak response, data management, and capacity building of public health professionals, particularly during the COVID-19 pandemic. He outlined key

milestones achieved by FETPs in the region, including expansion of programs, enhancement of training modalities, and efforts to maximize training outcomes. He also presented future expectations for FETPs in terms of strategic direction, structure, content, and delivery modalities, highlighting enabling factors required to sustain impact.

Dr. Al Serouri presented lessons and experiences from Yemen FETP, established in 2011. He described the context of Yemen’s public health system, including the effects of the ongoing conflict, and outlined how the program has contributed to workforce development, crisis response, evidence-informed decision-making, and awareness of public health priorities. He also addressed operational and contextual challenges facing the program.

Ms. Shalabi focused on the concept of visibility and its importance for FETPs and public health professionals. She described EMPHNET’s efforts to enhance regional visibility through the establishment of the Knowledge Exchange and Networking unit and initiatives such as the Electronic Library (EEL), bi-annual conferences and symposiums, FETP newsletters, the FETP Ambassador Program, and the WEBi Series itself.

The session concluded with an interactive discussion facilitated by Prof. Ben Alaya, during which participants engaged speakers on program sustainability, workforce development, and strategies to strengthen visibility.

A total of 213 participants attended the webinar, reflecting strong regional engagement in advancing field epidemiology capacity and public health practice.

Speakers



Dr. Haitham Bashier
Workforce Capacity Team
Leader at EMPHNET



Dr. Abdulwahed Al Serouri
Technical Advisor for
Yemen FETP



Ms. Dana Shalabi
Knowledge Exchange and
Networking Team Leader at
EMPHNET

Moderator



Prof. Nissaf Bouaff Ben Alaya
Director of the National
Observatory of New and
Emerging Diseases and
FETP Tunisia Director



Key Takeaways

- Field epidemiologists play a central role in emergency response, surveillance, and health system strengthening.
- Sustaining FETPs requires strategic planning, adaptive training modalities, and institutional support.
- Experience from fragile contexts highlights the importance of resilient epidemiology workforce development.
- Visibility initiatives strengthen recognition of FETPs and promote regional knowledge exchange.
- Continued investment in field epidemiology is essential for advancing public health practice.



Policy and Knowledge Outputs

- [Webinar recording](#)
- [Webinar news article](#)

⁹³ <https://pmc.ncbi.nlm.nih.gov/articles/PMC11688247/>

⁹⁴ <https://pmc.ncbi.nlm.nih.gov/articles/PMC8747444/>

⁹⁵ <https://www.tephinet.org/news/announcing-first-world-field-epidemiology-day-2021>

Investing in Public Health Workforce Capacity in the Eastern Mediterranean Region: Progress, Lessons, and Prospects

 21 February 2023

 Attendees: 171

Investing in public health workforce capacity remains central to strengthening health systems, improving preparedness, and ensuring sustainable service delivery.⁹⁶ Progress in training, education, and professional development has contributed to more resilient systems across the Eastern Mediterranean Region (EMR). At the same time, continued advancement depends on political commitment, regulatory frameworks, economic stability, and sustained resource allocation.^{97 98}

Against this backdrop, EMPHNET convened its twenty-eighth session of the WEBi Series on 21 February 2023 titled “Investing in Public Health Workforce Capacity in the Eastern Mediterranean Region: Progress, Lessons, and Prospects.” The webinar provided a platform to reflect on educational needs, regulatory considerations, professional standards, and practical capacity-building models that support workforce development in the region.

Prof. Middleton presented “Public Health Education and Practices About Essential Public Health Functions.” He emphasized the need for strong, adequately funded public health systems at national and local levels. He referred to the World Health Organization’s essential public health functions, including monitoring health hazards, health promotion, disease prevention, equitable financing, advocacy, and communication. He highlighted the importance of professionalizing the public health workforce through competency development, continuing professional development accreditation, curriculum validation, and program accreditation mechanisms such as those offered by APHEA. He also underscored the multidisciplinary nature of public health and the need for clearly defined standards.

Dr. Bashier presented “Field Epidemiology Training Program (FETP) as an Example of Capacity Building for the Health Workforce.” He described FETPs as competency-based training and service programs operating through a three-tiered model that emphasizes field practice and mentorship. He explained how FETP graduates develop competencies in surveillance data management, outbreak investigation, public health event monitoring, communication, and response to emerging threats. He highlighted the adaptability of FETPs to country contexts and the role of regional networking platforms, conferences, and guidelines in reinforcing workforce development.

Dr. Elsheikh Badr addressed the regional context and framework for public health workforce capacity in the EMR. He discussed regulatory challenges, standardization of public health practice, networking and association capacity, and efforts to elevate the professional profile of public health. He outlined prospects for strengthening education through accreditation, linking training to practice and regulation, expanding regional exchanges, and establishing advanced professional degrees. He emphasized that sustainable progress requires funding, enabling policy environments, health system commitment, and political support.

The session concluded with an interactive discussion facilitated by Dr. Lami, where participants engaged speakers on accreditation, regulation, training models, and practical steps for strengthening workforce capacity.

A total of 171 participants attended the webinar, reflecting continued regional interest in advancing public health workforce development.

Speakers



Prof. John Middleton
President of the Agency for Public Health Education Accreditation (APHEA)



Dr. Haitham Bashier
Executive Director of the International Academy of Public Health (IAPH)



Dr. Elsheikh Badr
Chairperson of the Community Medicine Council at the Arab Board of Health Specializations

Moderator



Dr. Faris Lami
Public Health Expert and Professor at the University of Baghdad, Iraq



Key Takeaways

- Public health workforce investment is fundamental to resilient and effective health systems.
- Accreditation, competency frameworks, and professional standards strengthen workforce quality and recognition.
- FETPs provide a practical, field-based model for sustainable capacity building.
- Regional collaboration and regulatory alignment support professionalization of public health.
- Political commitment, funding, and enabling environments are critical for long-term workforce sustainability.




Policy and Knowledge Outputs

- [Webinar recording](#)
- [Webinar news article](#)

⁹⁶ <https://www.ncbi.nlm.nih.gov/books/NBK594108/>
<https://iris.who.int/server/api/core/bitstreams/3ef6ee65-42fa-4d2b-9c75-d55b2df17f9a/content>
⁹⁷ <https://www.frontiersin.org/journals/public-health/articles/10.3389/fpubh.2025.1745722/full>
⁹⁸ <https://pmc.ncbi.nlm.nih.gov/articles/PMC10037172/>
<https://emphnet.net/media/ql1knym3/advocacy-toolkit.pdf>

Cancer Registries in the Eastern Mediterranean Region

 23 May 2023

 Attendees: 110

Accurate assessment of cancer burden is essential for effective national cancer control planning and strengthened health systems. Population-based cancer registries (PBCRs) play a central role in generating reliable incidence data, guiding prevention strategies, and evaluating control measures. In the Eastern Mediterranean Region (EMR), cancer burden continues to rise, while only a limited number of countries operate PBCRs, many facing quality and sustainability challenges.⁹⁹

To explore these issues, EMPHNET convened its thirtieth WEBi session on 23 May 2023 titled “*Cancer Registries in the EMR*.” The webinar examined the role of cancer registries in surveillance, policy development, and regional capacity strengthening, while highlighting global and regional initiatives supporting registry development.

Dr. Znaor presented “*Cancer Registries and Global Cancer Surveillance*.” She introduced IARC’s mandate to promote international collaboration in cancer research and prevention, particularly in low- and middle-income countries. She outlined the three core functions of IARC’s Cancer Surveillance Branch: technical support and training for cancer registries, compilation of global cancer indicators and databases, and descriptive epidemiology research. She discussed the “*Cancer Incidence in Five Continents*” publication as a global reference for comparable cancer incidence data, emphasizing its rigorous quality review process. She also explained how IARC generates global cancer estimates using the best available registry data to inform burden assessment, projections, and planning.

Dr. Fadhil presented “*Exploring the Role of Cancer Registries in Cancer Control in the EMR*.” She emphasized the importance of comprehensive cancer data for shaping national cancer control strategies, monitoring screening and treatment programs, and

improving survivorship care. She highlighted how registries support evidence-based policymaking and identification of underserved populations. She acknowledged progress in Gulf Cooperation Council countries in endorsing WHO recommendations on National Cancer Control Plans and noted the contribution of the GCC Registration Center in strengthening regional data collection. She also addressed ongoing challenges, including limited funding, technical capacity, and sustainability constraints.

Prof. Eser delivered the presentation “*The Global Initiative for Cancer Registry Development (GICR) & Izmir Hub*.” She described the GICR framework, which focuses on global coordination, establishment of regional hubs, and technical collaboration to strengthen cancer registration systems. She explained the train-the-trainer model used through the GICR network and highlighted online learning resources and best practice portals. She detailed the activities of the Izmir Hub, which supports countries across Northern Africa, Central and Western Asia through training courses, site visits, tailored technical support, and virtual capacity-building initiatives adapted during the COVID-19 pandemic. She reaffirmed the importance of strengthening PBCRs to ensure reliable and actionable cancer data across the region.

The session concluded with an interactive discussion facilitated by Dr. Saad, where participants engaged speakers on registry quality improvement, sustainability mechanisms, and regional collaboration.

A total of 110 participants attended the webinar, reflecting continued regional interest in strengthening cancer surveillance systems.

Speakers



Dr. Ariana Znaor

Scientist at the Cancer Surveillance Branch, International Agency for Research on Cancer (IARC)



Dr. Ibtihal Fadhil

Founder and Chair of the Eastern Mediterranean Non-Communicable Disease Alliance



Prof. Sultan Eser

Associate Professor at Balıkesir University and Principal Investigator of the Regional Hub for Cancer Registration in Northern Africa, Central and Western Asia

Moderator



Dr. Randa Saad

Technical Specialist at EMPHNET



Key Takeaways

- Public health workforce investment is fundamental to resilient and effective health systems.
- Accreditation, competency frameworks, and professional standards strengthen workforce quality and recognition.
- FETPs provide a practical, field-based model for sustainable capacity building.
- Regional collaboration and regulatory alignment support professionalization of public health.
- Political commitment, funding, and enabling environments are critical for long-term workforce sustainability.



Policy and Knowledge Outputs

- [Webinar recording](#)
- [Webinar news article](#)
- [Policy Brief: Strengthening Cancer Registries in the Eastern Mediterranean Region](#)

⁹⁹ <https://pmc.ncbi.nlm.nih.gov/articles/PMC7957339/>
<https://www.mdpi.com/2072-6694/17/7/1123>
<https://oncodailyjournal.com/10.69690/odmj-001-0811-4701/>

Advancing Meningitis Surveillance in the Eastern Mediterranean Region

 26 August 2025

 Attendees: 240

Meningitis remains a major global health threat, particularly in low- and middle-income countries where fragile health systems face competing priorities.¹⁰⁰ Despite the availability of effective vaccines, outbreaks continue to occur, highlighting persistent gaps in prevention, surveillance, and response. In the Eastern Mediterranean Region (EMR), limited laboratory capacity, delayed diagnostics, and data gaps continue to challenge timely detection and control.¹⁰¹

To strengthen regional progress, EMPHNET has supported meningitis control through surveillance strengthening, cross-country collaboration, and knowledge exchange. A key initiative is the [Meningitis and Septicemia Mapping \(MenMap\)](#) Network, which connects Iraq, Jordan, and Egypt to enhance surveillance systems, diagnostic capacity, and regional coordination.¹⁰²

Building on these efforts, EMPHNET convened its forty-sixth WEBi session on 26 August 2025 titled “*Advancing Meningitis Surveillance in the Eastern Mediterranean Region.*” The webinar brought together global experts and regional practitioners to examine the global burden of meningitis and share lessons from the first year of MenMap implementation.

Prof. Caugant presented an overview of the global meningitis burden. She underscored the disproportionate impact on children and vulnerable populations and emphasized that the WHO 2030 meningitis targets are achievable through sustained vaccination, strengthened surveillance, effective advocacy, and equitable access to interventions. She highlighted Africa’s rollout of the Men5CV vaccine as a promising example of impact when high coverage and coordinated implementation are achieved.

Prof. Taha presented findings from the first year of MenMap implementation between December 2023

and November 2024. Across Iraq, Jordan, and Egypt, over 2,100 suspected cases were reported, with 191 confirmed as bacterial meningitis. *Streptococcus pneumoniae* was identified as the most common pathogen, with children under five years most affected. Iraq reported the highest number of confirmed cases. He highlighted how the introduction of real-time PCR improved diagnostic speed and accuracy, while External Quality Assessments strengthened laboratory performance across sentinel sites. He framed MenMap as a collaborative regional model that enhances surveillance systems and fosters cross-country learning. [Read more about the results here.](#)

Dr. Shoubaki shared Jordan’s national experience in expanding laboratory networks and strengthening diagnostic capacity. She emphasized workforce training, integration of meningitis surveillance within broader preparedness frameworks, and the importance of sustaining sentinel sites for long-term impact.

With more than 240 participants attending the webinar, the session concluded with an interactive panel discussion and audience question-and-answer session. Participants explored technical and policy considerations, including balancing clinical and laboratory diagnosis, the added value of Men5CV compared to Men4CV, and progress toward WHO’s 2030 Roadmap goals. Discussions also addressed data sharing, regional coordination, and lessons from countries with low meningitis incidence to inform regional strategies.



Key Takeaways

- Meningitis remains a preventable yet deadly disease requiring sustained global and regional attention.
- The MenMap Network demonstrates how regional collaboration can strengthen surveillance and diagnostics.
- Real-time PCR and quality assurance mechanisms significantly improve case confirmation and data reliability.
- National investments in laboratory networks and workforce capacity are translating into measurable progress.
- Achieving WHO’s 2030 meningitis targets requires coordinated action across governments, academia, and partners.



Policy and Knowledge Outputs

- [Webinar recording](#)
- [Webinar news article](#)

Speakers



Prof. Dominique A. Caugant

Chief Scientist at the Division for Infection Control at the Norwegian Institute of Public Health and WHO Collaborating Centre for Reference and Research on Meningococci



Prof. Muhamed-Kheir Taha

Head of the Invasive Bacterial Infections Unit at Institut Pasteur, Paris, Head of the French National Reference Centre for Meningococci and Haemophilus influenzae, and WHO Collaborating Centre for Meningitis



Dr. Areej H. Shoubaki

Field Epidemiologist at the Surveillance Department, Ministry of Health, Jordan

Moderator



Dr. Deema Al Bakri

Technical Officer at EMPHNET

¹⁰⁰ <https://pubmed.ncbi.nlm.nih.gov/41076501/>

¹⁰¹ <https://www.emro.who.int/images/stories/about-who/rc72/RC72-Meningitis-Regional-Framework.pdf>

¹⁰² <https://menmap.emphnet.net/>

Related Field Epidemiology and Surveillance-Focused Webinars

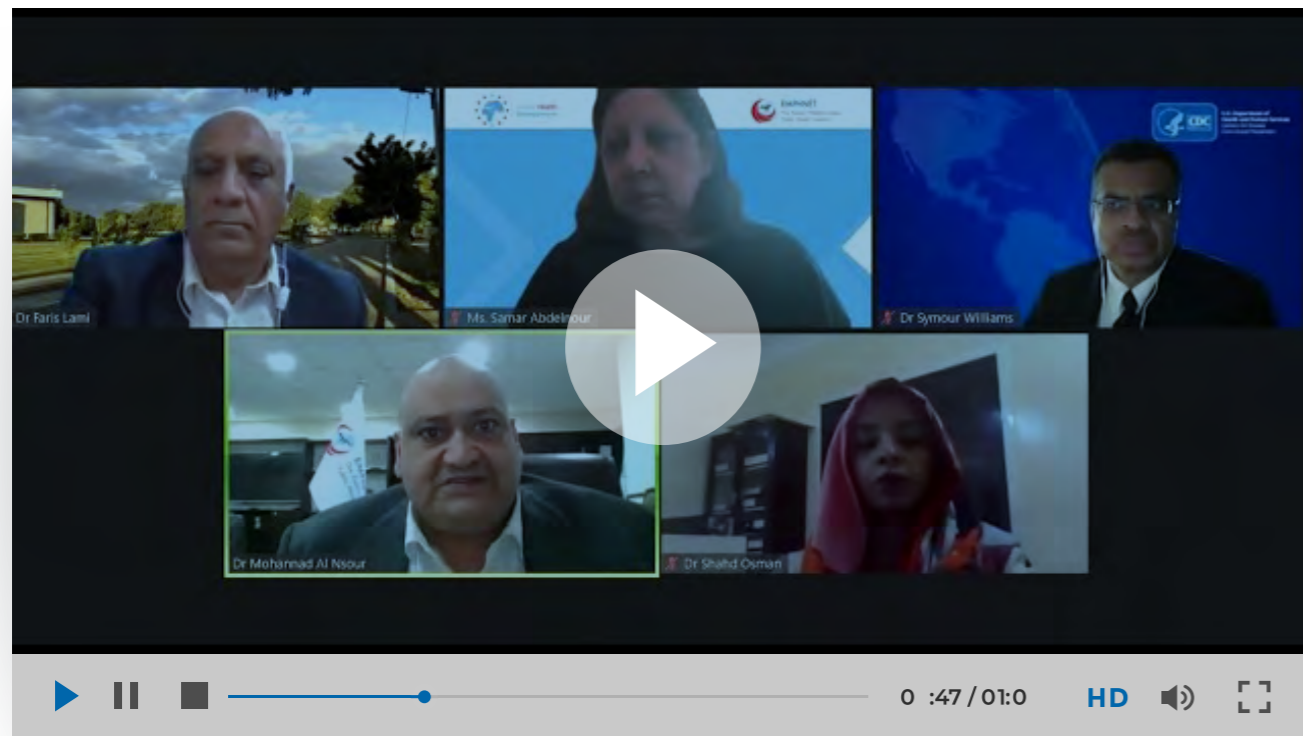
Several WEBi sessions addressed field epidemiology and surveillance within the broader context of the COVID-19 pandemic. These discussions are documented in [Chapter 1](#) and [2](#), and examine response coordination, workforce engagement, and real-time surveillance during the crisis.

- [Role of FETPs and RRTs as First Line Responders during the COVID-19 Pandemic](#)
- [Field Epidemiology Training Programs and the COVID-19 Pandemic](#)
- [Event-Based Surveillance in the Eastern Mediterranean Region: Progress and Best Practices](#)
- [Combating the Influenza Viruses](#)
- [Advancing Hepatitis Elimination in the Eastern Mediterranean Region: Strategies and Challenges](#)
- [Emerging Challenges in Influenza: Updates, Vaccines, and Regional Strategies](#)

The Field Epidemiology, Surveillance, and Workforce Development public health area documents sustained regional dialogue on strengthening applied epidemiology capacity and surveillance systems in the Eastern Mediterranean Region.

Across sessions delivered between 2021 and 2025, the WEBi Series moved from reflecting on the global FETP enterprise and pandemic-era engagement to examining workforce professionalization, accreditation, blended training models, cancer registry development, and laboratory-based meningitis surveillance.

Together, these webinars trace how regional priorities evolved from immediate emergency engagement toward institutional sustainability, surveillance integration, and long-term workforce strengthening. This chapter serves as a consolidated record of regional exchange and a reference point for building resilient epidemiology systems, integrated surveillance platforms, and a professionalized public health workforce.



Chapter

4.



Risk Communication, Community Engagement, and Digital Health

Risk communication, community engagement, and digital health constitute essential components of modern public health systems and emergency response.^{103 104 105} Effective action during health threats depends not only on technical capacity, but also on timely information exchange, trusted communication channels, responsible media engagement, and secure, interoperable digital infrastructures that support decision-making and service delivery.¹⁰⁶

Across the Eastern Mediterranean Region (EMR), these transformations are unfolding within complex operating environments shaped by socio-political pressures, health system constraints, and rapidly evolving information ecosystems.¹⁰⁷ Digital transformation has accelerated across health information systems, registries, surveillance platforms, and mobile applications. At the same time, public health communication has expanded through digital media, social listening mechanisms, and coordinated messaging strategies, while misinformation and polarization increasingly influence public trust and behavioral compliance.^{108 109}

Between 2022 and 2025, the EMPHNET WEBi Series provided a structured platform to examine how information ecosystems influence public health outcomes. Discussions explored digital knowledge access, electronic libraries, digital reproductive, maternal, and child health systems, media engagement, tobacco control advocacy, and cross-border communication and data-sharing mechanisms during health emergencies.

A consistent theme emerged across these sessions: public health effectiveness depends on how information is generated, governed, communicated, and trusted. Digital registries, surveillance dashboards, media campaigns, and regional coordination platforms all shape preparedness, equity, and policy implementation.

Within this context, the WEBi Series facilitated dialogue on strengthening digital governance, enhancing risk communication strategies, countering misinformation, safeguarding privacy and human rights, and building interoperable systems that enable coordinated action across sectors and countries.

Approach of the WEBi Series to Risk Communication and Digital Health Dialogue

Through this public health area, WEBi sessions created space for multi-country and cross-sector exchange on communication strategy, digital innovation, and the enabling conditions required to support effective communication and public health action.

The WEBi Series provided a platform to:

- Highlight the role of open access and digital libraries in strengthening public health research and practice
- Share operational experiences in digitizing health services, registries, and surveillance tools
- Examine governance, privacy, and human rights considerations within digital health initiatives
- Analyze how media and communication strategies influence public norms, demand, and policy action

These discussions supported policymakers, communication specialists, digital health practitioners, and public health leaders in translating global guidance into context-sensitive strategies

Public Health Areas Addressed

Webinars under this chapter examined interconnected issues, including:

- Reducing the information-to-action gap through open access and electronic knowledge platforms
- Strengthening digital health tools for reproductive, maternal, and child health (RMNCH) services
- Addressing data fragmentation and improving registry harmonization
- Designing communication strategies that influence behavior and support policy implementation

- Understanding industry tactics that shape public perception and leveraging media to advance public health
- Enhancing cross-border communication and data sharing

Over time, discussions shifted from immediate pandemic-related communication challenges toward broader governance, digital transformation, and long-term information system strengthening.

Webinars Included in This Chapter

This chapter includes WEBi sessions focused on risk communication, knowledge access, media, and digital health. Numbering reflects the chronological order of delivery within the overall WEBi Series (2020–2025).

1. [The Transfer of Knowledge in the Digital Age, and the Increased Significance of E-Libraries](#)
2. [Tobacco: The Epidemic, the Industry and Importance of Media](#)
3. [Digital Health for Reproductive, Maternal, and Child Health](#)
4. [Cross-Border Preparedness: Optimizing Pre-Pandemic and Early Pandemic Communication and Data Sharing Across Borders](#)

Detailed summaries of each webinar are presented in the following pages.

Outcomes for Regional Learning

Across this area, the WEBi Series contributed to:

- Advancing regional dialogue on digital governance and health information systems
- Elevating risk communication as a strategic function within public health systems
- Highlighting the intersection of media, policy, and behavioral science
- Promoting ethical considerations related to privacy, human rights, and data protection
- Strengthening cross-border communication and coordination mechanisms

The central outcome was enhanced regional understanding of how information systems and communication strategies shape preparedness, equity, and public trust.


Related Webinars in Other Chapters

Several WEBi sessions in [Chapters 1](#) and [2](#) addressed communication and digital health themes within pandemic response and immunization system strengthening. These discussions complement [Chapter 4](#) by examining vaccine confidence, infodemic dynamics, and communication factors influencing service continuity and uptake.

- [Increasing Vaccine Demand and Uptake During the COVID-19 Vaccine Infodemic](#)
- [COVID-19 Public Hesitancy and Provider Reluctance and Its Impact on Immunization Services](#)

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- ¹⁰³ <https://emergencies.pubpub.org/pub/rcce/release/5?readingCollection=36ef2bb3>
- ¹⁰⁴ https://gh.bmj.com/content/7/Suppl_3/e008652
- ¹⁰⁵ <https://emergencies.pubpub.org/pub/rcce/release/5?readingCollection=36ef2bb3> <https://www.who.int/docs/default-source/documents/g4dhd2a9f352b0445bafbc79ca799dce4d.pdf>
- ¹⁰⁶ <https://pmc.ncbi.nlm.nih.gov/articles/PMC9933676/>
- ¹⁰⁷ https://emphnet.net/media/tdajt5fy/state-of-public-health-in-the-emr_challenges-and-opportunities-english.pdf <https://applications.emro.who.int/docs/9789290223399-eng.pdf> <https://www.frontiersin.org/journals/public-health/articles/10.3389/fpubh.2025.1745722/full>
- ¹⁰⁸ <https://ijsra.net/content/role-digital-health-technologies-strengthening-public-health-surveillance-and-disease>
- ¹⁰⁹ <https://pmc.ncbi.nlm.nih.gov/articles/PMC9976934/>

The Transfer of Knowledge in the Digital Age, and the Increased Significance of E-Libraries

 7 June 2022

 Attendees: 132

Rapid advances in technology continue to reshape how knowledge is produced, accessed, and shared.¹¹⁰ In the health sector, effective knowledge transfer remains essential for strengthening the quality of care and research, particularly in settings such as the Eastern Mediterranean Region (EMR), where socio-political and economic instability can limit access to reliable evidence and learning resources.¹¹¹

Against this backdrop, EMPHNET convened its twentieth WEBi session on 7 June 2022 titled “*The Transfer of Knowledge in the Digital Age, and the Increased Significance of E-Libraries.*” The two-hour webinar examined how open access and electronic libraries can support public health practice and research, and it introduced the recently launched EMPHNET Electronic Library (EEL).

Dr. Al-Shorbaji opened the technical discussion with a presentation on open access and its implications for public health research and practice. He described how the internet has changed scientific publishing and knowledge distribution, outlined definitions and types of open access, and distinguished between traditional, open access, and hybrid publishing models. He also highlighted the value of open access archiving and the shifts it has created in research patterns.

Ms. Haddadin and Mr. Salameh addressed the role of digital libraries in public health practice taking Jordan as an example. Ms. Haddadin reflected on how the function of libraries has evolved over time and outlined the concept, goals, challenges, and practical roles of digital libraries in supporting health professionals. Mr. Salameh emphasized the urgency of strengthening health libraries and their influence on information-seeking behavior, drawing on ELM’s experience in digital transformation and in maintaining access to information during the COVID-19 crisis.

Dr. El Zein shared AUB’s experience in supporting learning and access to resources during the COVID-19 pandemic. She discussed efforts to make teaching resources available electronically, highlighted AUB’s collections and open access materials, and described AUB’s partnership with the Arabic Collections Online Project (ACO) to digitize, preserve, and provide open access to Arabic-language books. She concluded by encouraging advocacy for open science and open culture, investment in open science infrastructure and services, stronger links between science and society, and active knowledge sharing.

Ms. Al-Gunaid introduced EEL and presented it as a resource serving field epidemiologists and public health professionals in the EMR and beyond. She described EEL’s vision, mission, and target audience, and highlighted how it aims to provide tools that support research and help bridge the information-to-action gap. She also outlined the types of publications, resources, and trials available on the platform and provided participants with a guided tour of the EEL portal.

The session concluded with a question-and-answer discussion facilitated by Dr. Lami, allowing participants to engage speakers on practical considerations related to open access, digital libraries, and knowledge accessibility.

A total of 132 participants attended the webinar, reflecting strong interest in strengthening access to evidence and supporting public health knowledge systems through digital platforms.

Speakers



Dr. Najeeb Al-Shorbaji

President of the Jordan Library and Information Association



Ms. Alice Haddadin

Director of the Medical Library and Educational Resources Center at King Hussein Cancer Center (KHCC), Jordan



Mr. Ghaith Salameh

Head of the Electronic Library of Medicine (ELM), Jordan



Dr. Ola El Zein

Director of the Medical Library at the American University of Beirut (AUB), Lebanon



Ms. Meral Al-Gunaid

Networking Officer and EEL Administrator at EMPHNET

Moderator



Dr. Faris Lami

Public Health Expert and Associate Professor at Baghdad University, Iraq



Ms. Dana Shalabi

Knowledge Exchange and Networking Team Leader at EMPHNET



Key Takeaways

- Open access models are reshaping knowledge distribution and can strengthen public health research and practice.
- Digital libraries support health professionals by improving access to reliable information, especially during crises.
- Maintaining access to electronic resources during COVID-19 highlighted the operational value of strong library systems.
- Digitization initiatives, including Arabic-language open access collections, expand equity in knowledge access.
- EEL supports field epidemiologists and public health professionals and aims to bridge the information-to-action gap.



Policy and Knowledge Outputs

- [Webinar recording](#)
- [Webinar news article](#)

¹¹⁰ <https://www.scholink.org/ojs/index.php/wjer/article/view/4611/5347>

¹¹¹ <https://pmc.ncbi.nlm.nih.gov/articles/PMC3286421/>

Tobacco: The Epidemic, the Industry, and the Importance of Media

 20 December 2022  Attendees: 143

Tobacco use remains one of the leading preventable causes of death worldwide.¹¹² It kills half of its users and is responsible for approximately eight million deaths each year, including more than seven million deaths from direct use and around 1.2 million from exposure to second-hand smoke.¹¹³

In several countries of the Eastern Mediterranean Region (EMR), smoking prevalence continues to rise. Despite growing evidence of harm, the tobacco industry continues to influence public opinion and interfere with health policy.¹¹⁴ At the same time, large-scale mass media campaigns remain a proven instrument for shifting social norms, influencing behavior, and supporting policy change.¹¹⁵

Against this backdrop, EMPHNET convened its twenty-sixth WEBi session on 20 December 2022 titled “Tobacco: The Epidemic, the Industry, and the Importance of Media.” The webinar examined the burden of tobacco in the EMR, the tactics used by the tobacco industry, and the role of media and communication in advancing tobacco control efforts.

Dr. Khader presented global and regional data on the tobacco epidemic, referencing World Health Organization statistics on tobacco-related mortality and the expanding tobacco market. He described tactics used by the tobacco industry to influence public opinion and disrupt tobacco control policies, including advertising and sponsorship, creation of front groups, media manipulation, funding of research, and political lobbying. He emphasized the need for comprehensive countermeasures, including mass media anti-smoking campaigns, strong health warnings on packaging, and regulatory measures for products such as e-cigarettes. He also introduced the “Big Tobacco’s Dirty Tricks” casebook as a resource highlighting industry practice.

Ms. Pearl focused on the role of media in generating public demand for tobacco control. She described

mass media campaigns as cost-effective tools for changing social norms and behaviors. Drawing on examples from Vital Strategies’ work, she demonstrated how strategic communication can strengthen tobacco policy support. She also referenced the United Against Tobacco and COVID campaign, implemented in collaboration with EMPHNET in four EMR countries, and emphasized the growing importance of digital advertising, earned media, social media content, and influencer engagement.

Dr. Al-Awa provided a regional perspective on the tobacco epidemic in the EMR. She shared key facts related to tobacco burden and policy status across countries and noted that 19 EMR countries are parties to the WHO Framework Convention on Tobacco Control (FCTC). She highlighted Article 5.3 of the FCTC, which calls for protecting public health policies from tobacco industry interference. She also reflected on lessons learned from the COVID-19 pandemic relevant to tobacco control efforts.

The session concluded with a question-and-answer discussion facilitated by Dr. Saad, where participants engaged speakers on policy implementation, communication strategies, and industry interference.

A total of 143 participants attended the webinar, reflecting strong regional engagement on advancing tobacco control and strengthening the role of media in public health advocacy.

Key Takeaways

- Tobacco remains a leading cause of preventable death, with significant burden in the EMR.
- The tobacco industry employs coordinated strategies to influence policy and public opinion.
- Mass media campaigns are effective tools for shifting social norms and generating demand for policy change.
- Digital platforms and strategic communication enhance the reach and impact of tobacco control initiatives.
- Protecting health policy from industry interference, as outlined in the WHO FCTC, remains essential for effective tobacco control.

Policy and Knowledge Outputs

- [Webinar recording](#)
- [Webinar news article](#)

¹¹² <https://www.who.int/news-room/fact-sheets/detail/tobacco>
¹¹³ https://archive.cdc.gov/www.cdc.gov/tobacco/data_statistics/fact_sheets/fast_facts/diseases-and-death.html
¹¹⁴ <https://www.who.int/news-room/fact-sheets/detail/tobacco>
¹¹⁴ <https://pmc.ncbi.nlm.nih.gov/articles/PMC11077135/>
¹¹⁵ <https://applications.emro.who.int/docs/9789292741983-eng.pdf>

Speakers



Dr. Yousef Khader
 Director of the Center of Excellence for Applied Epidemiology (CEAE), EMPHNET



Ms. Rebecca Pearl
 Vice President of Partnerships and Engagement, Vital Strategies



Dr. Fatima Al-Awa
 Regional Advisor, Tobacco Free Initiative, WHO EMRO

Moderator



Dr. Randa Saad
 Technical Specialist at EMPHNET

Digital Health for Reproductive, Maternal, and Child Health

 15 August 2023

 Attendees: 187

Digital transformation is reshaping health systems worldwide, including reproductive, maternal, newborn, and child health (RMNCH).^{121 122} Digital registries, surveillance platforms, telehealth services, and mobile applications offer new opportunities to expand access, improve coordination, and strengthen service quality. At the same time, countries face governance, privacy, infrastructure, and equity challenges, particularly in low- and middle-income settings where digital maturity varies widely.^{123 124}

To explore these dimensions, EMPHNET convened its thirty-third WEBi session on 15 August 2023 titled “*Digital Health for Reproductive, Maternal, and Child Health*.” The webinar examined governance, surveillance systems, digital applications, harmonized registries, and human rights considerations in RMNCH digitalization efforts.

Dr. Nemer presented the state of digital health for reproductive, maternal, and child health in Palestine. She highlighted collaborative research involving Birzeit University, JUST, Privacy International, the University of Oslo, and IDRC. Her presentation examined the transition toward digitalized health systems, including surveillance platforms, registries, and mobile applications such as Nabdh Al Hayat and e-MCH tools. She emphasized that digital expansion must be accompanied by strong governance frameworks that safeguard privacy, security, and human rights. She introduced a maternity digital assessment tool evaluating digital maturity, governance, privacy, gender, and human rights dimensions. She underscored persistent challenges related to infrastructure, cultural considerations, regulatory gaps, and gender equity. She concluded that digital health initiatives must be anchored in comprehensive policies, stakeholder engagement, and institutional accountability to ensure sustainability.

Prof. El-Khatib presented the Children Immunization App (CIMA), designed to support parents and strengthen immunization tracking. Developed to address misinformation and confusion around vaccination schedules, the app replaces traditional paper-based cards with digital reminders and educational content. Initially piloted in the Zaatari refugee camp, the app has expanded to multiple countries, including Rwanda, Japan, and Cameroon. It enables clinics to monitor vaccination trends, identify defaulters, and visualize geographic patterns. An automated SMS feature

extends outreach to parents without smartphones. He emphasized the participatory development approach, nurse training integration, and trust-building partnerships that supported implementation. The app illustrates how digital tools can strengthen routine immunization systems while addressing misinformation.

Prof. Mohammad Alyahya presented Jordan’s Stillbirths and Neonatal Deaths Surveillance System, a digital platform designed to measure and analyze perinatal mortality. The system integrates individual-level data collection, mortality rate calculation using registered births as denominators, and cause-of-death analysis. Implemented in major health institutions, the platform supports clinical reporting, indicator tracking, and identification of preventable deaths through a matrix-based analytical tool. Evaluations confirmed its usability, transparency, and privacy safeguards. Prof. Alyahya highlighted the system’s potential expansion to maternal mortality and morbidity surveillance, positioning it as a cost-effective and scalable innovation.

Dr. Amiri introduced the Harmonized Reproductive Health Registry (hRHR), funded by IDRC. The initiative addressed fragmentation across multiple data systems by harmonizing data collection and integrating gender-sensitive indicators. Piloted in Mafraq, Jordan, the project strengthened coordination, digitized data collection, and improved evidence generation. Evaluations demonstrated positive outcomes and informed recommendations for national expansion. Dr. Amiri emphasized that transitioning from paper-based systems requires staff training, institutional buy-in, and sustained investment.

Ms. Simms presented a human rights perspective on digital health systems. She emphasized that digitalization introduces privacy, security, dignity, and discrimination risks that extend beyond technical compliance. Drawing on Privacy International’s research on menstrual tracking applications, she highlighted risks related to data sharing and consent. Advocacy efforts led to policy improvements affecting millions of users. She called for human rights-based due diligence throughout the lifecycle of digital health initiatives, including impact assessments, accountability mechanisms, grievance procedures, and transparency standards. She emphasized that participation, non-discrimination, and accountability must guide digital transformation.

A total of 187 participants attended the session, reflecting strong regional engagement in digital health innovation and governance.

Key Takeaways

- Digital health tools can improve access, coordination, and monitoring in RMNCH services.
- Governance, privacy, and human rights safeguards are essential for sustainable digital transformation.
- Harmonized registries and interoperable systems reduce data fragmentation and improve decision-making.
- Digital immunization platforms can address misinformation and strengthen routine services.
- Institutional capacity building and stakeholder engagement are critical for successful implementation.

Policy and Knowledge Outputs

- [Webinar recording](#)
- [Webinar news article](#)
- [Policy Brief: Digital Solutions for Reproductive, Maternal, Neonatal, and Child Health](#)

¹²¹ <https://publichealth.jhu.edu/sites/default/files/2025-11/RMNCH-report-V5-1.pdf>

¹²² <https://pubmed.ncbi.nlm.nih.gov/articles/PMC4774905/>

¹²³ <https://pubmed.ncbi.nlm.nih.gov/articles/PMC10572344/>

¹²⁴ <https://www.who.int/health-topics/digital-health>

Speakers



Dr. Maysa Nemer

Director of the Institute of Community and Public Health, Birzeit University



Prof. Ziad El-Khatib

Associate Professor in Global Health, Karolinska Institute



Prof. Mohammad Alyahya

Professor at the Department of Health Management and Policy in the Faculty of Medicine, Jordan University of Science and Technology (JUST)



Dr. Mirwais Amiri

Research Specialist, EMPHNET



Ms. Sarah Simms

Policy Officer, Privacy International

Moderator



Prof. Yousef Khader

Director of the Center of Excellence for Applied Epidemiology (CEAE) at EMPHNET

Speakers



Dr. Esther Hamblion

Unit Head of the Public Health Intelligence Unit, WHO Health Emergencies Programme



Prof. Johanna Hanefeld

Acting Vice President, Robert Koch Institute, Germany



Dr. Mohamed Moussif

Chief Medical Officer, Casablanca International Airport, Morocco

Moderator



Dr. Chinwe Lucia Ochu

Vice Chair of IANPHI's PPRR Committee and Director of Planning, Research, and Statistics at the Nigeria Centre for Disease Control and Prevention



Dr. Magid Al-Gunaid

EMPHNET's Deputy Executive Director and Director of Public Health Programs

Cross-Border Preparedness: Optimizing Pre-Pandemic and Early Pandemic Communication and Data Sharing Across Borders



21 October 2025



Attendees: 191

Effective pandemic preparedness depends on cooperation that extends beyond national borders. Recent health emergencies, including COVID-19, demonstrated that delayed communication, fragmented data systems, and limited coordination can undermine early warning and response.¹²⁵ Strengthening cross-border mechanisms therefore requires trust, interoperable systems, aligned legal frameworks, and sustained regional collaboration.¹²⁶

To advance this agenda, EMPHNET, in collaboration with the International Association of National Public Health Institutes (IANPHI) Committee for Pandemic Preparedness, Response, and Recovery (PPRR), convened the forty-eighth session of the WEBi Series on 21 October 2025 titled "Cross-Border Preparedness: Optimizing Pre-Pandemic and Early Pandemic Communication and Data Sharing Across Borders." The session brought together global and regional experts to translate lessons from recent emergencies into operational strategies for cross-border coordination.

In her opening remarks, Dr. Ochu emphasized the urgency of establishing cross-border communication systems before crises emerge. She highlighted that preparedness requires structured mechanisms, shared protocols, and sustained engagement among neighboring countries. From his end, Dr. Al-Gunaid underscored the importance of translating pandemic lessons into practical coordination models. He framed the session as an opportunity to move from reflection toward implementation.

Delivering the keynote address for the webinar, Dr. Hamblion emphasized that pandemic preparedness depends on coordinated action across borders. She traced the evolution of the International Health Regulations (IHR) and the 2025 Pandemic Agreement as global instruments designed to strengthen solidarity and collective response. Reflecting on recent outbreaks, she stressed that pandemics require trust and cooperation from local to global levels. She highlighted the importance of intelligence-sharing systems, aligned reporting standards, and interoperable surveillance platforms.

The webinar then opened the panel discussion that focused on operational barriers and practical solutions. Panelists included Prof. Hanefeld, Dr. Moussif, and Dr. Hamblion.

Prof. Hanefeld identified persistent barriers to cross-border coordination, including fragmented governance structures, weak communication channels, and concerns about political or economic repercussions. She emphasized sustained relationship-building through joint simulation exercises, peer networks, and Field Epidemiology Training Programs (FETPs) as mechanisms to build trust and readiness.

Dr. Moussif addressed the growing impact of misinformation and disinformation on public trust. He referenced relevant IHR provisions that encourage formal cross-border collaboration and stressed that risk communication and infodemic management must be embedded within preparedness plans. He highlighted the role of social listening, partnerships with digital platforms, and transparent communication strategies.

Dr. Hamblion examined technical and legal barriers to harmonizing data systems, including variations in definitions, formats, and privacy regulations. She called for common data standards, strengthened informatics capacity, and the use of digital tools to enhance interoperability, drawing lessons from established regional systems.

Participants engaged in a live poll simulating a regional outbreak to assess priorities for data sharing and communication, where 44% said case counts should be shared first; 60% believed national governments should lead communication; and 53% favored WHO IHR notification systems for cross-border coordination. Panelists noted that these responses reinforce the need for predefined communication protocols and regular simulation exercises to improve operational readiness.

With a total of 191 people in attendance, the session concluded with reflections emphasizing that preparedness is a sustained, multi-level effort requiring transparency, equity, and professional collaboration. The webinar reaffirmed EMPHNET and IANPHI's shared commitment to strengthening regional solidarity and advancing global health security.



Key Takeaways

- Cross-border preparedness requires structured communication mechanisms established before crises occur.
- Trust-building through joint simulations and professional networks strengthens regional coordination.
- Legal alignment with the amended IHR (2025) and the Pandemic Agreement supports institutional coherence.
- Risk communication and infodemic management must be integrated within preparedness frameworks.
- Interoperable surveillance systems, shared standards, and informatics capacity are essential for timely data exchange.



Policy and Knowledge Outputs

- [Webinar recording](#)
- [Webinar news article](#)

¹²⁵ <https://pmc.ncbi.nlm.nih.gov/articles/PMC12718427/>

<https://www.sciencedirect.com/science/article/pii/S2212420925002171>

¹²⁶ <https://africacdc.org/wp-content/uploads/2024/10/Strengthening-Cross-Border-Surveillance-and-Information-Sharing-in-Africa-strategic-framework.pdf>

Related Webinars in Other Chapters

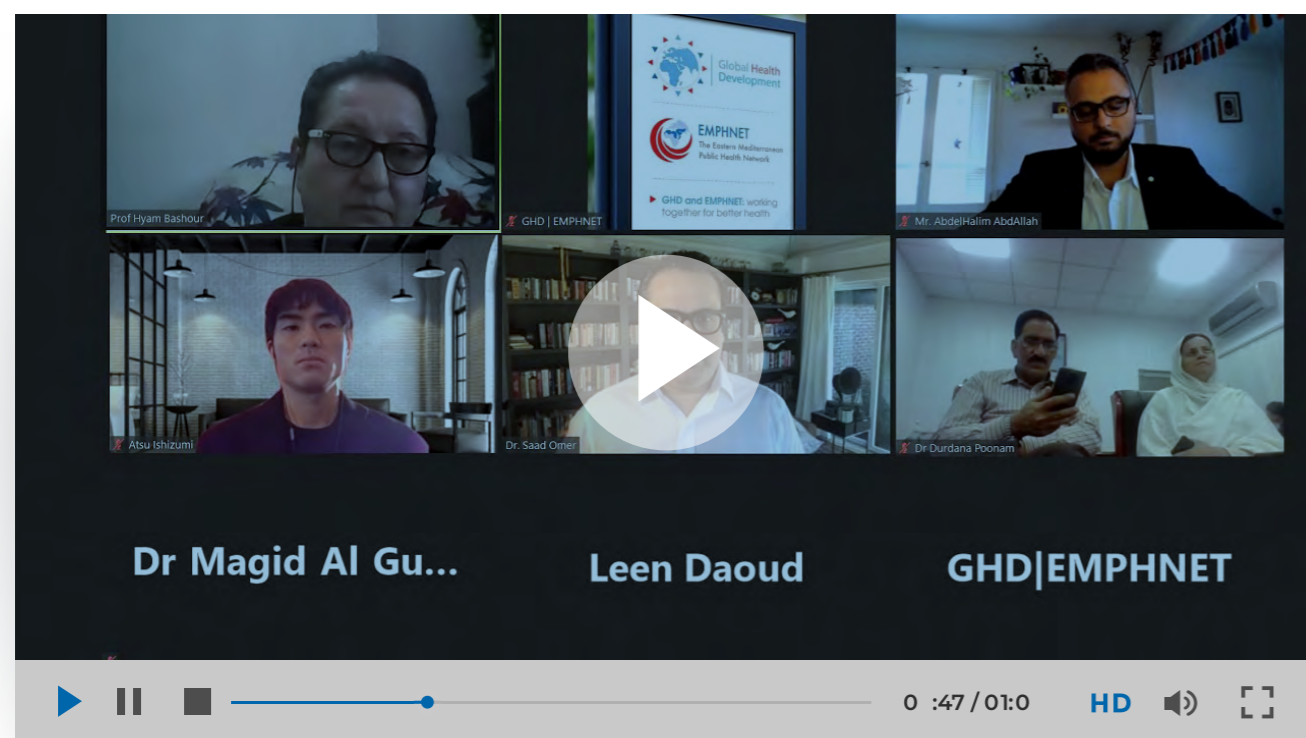
Several WEBi sessions in [Chapters 1](#) and [2](#) addressed communication and digital health themes within pandemic response and immunization system strengthening. These discussions complement [Chapter 4](#) by examining vaccine confidence, infodemic dynamics, and communication factors influencing service continuity and uptake.

- [Increasing Vaccine Demand and Uptake During the COVID-19 Vaccine Infodemic](#)
- [COVID-19 Public Hesitancy and Provider Reluctance and Its Impact on Immunization Services](#)

The Risk Communication, Community Engagement, and Digital Health public health area documents sustained regional dialogue on how information ecosystems influence public health action in the EMR.

Between 2020 and 2025, the WEBi Series explored digital knowledge platforms, media engagement for public health advocacy, digital health applications, harmonized registries, and cross-border communication and data sharing. Discussions progressed from improving access to evidence and strengthening communication practices toward a deeper focus on governance, privacy, interoperability, and institutional accountability.

Together, these webinars provide a consolidated record of regional exchange and a reference point for strengthening trusted communication, responsible media engagement, rights-based digital transformation, and coordinated information systems that support public health action and health system performance.

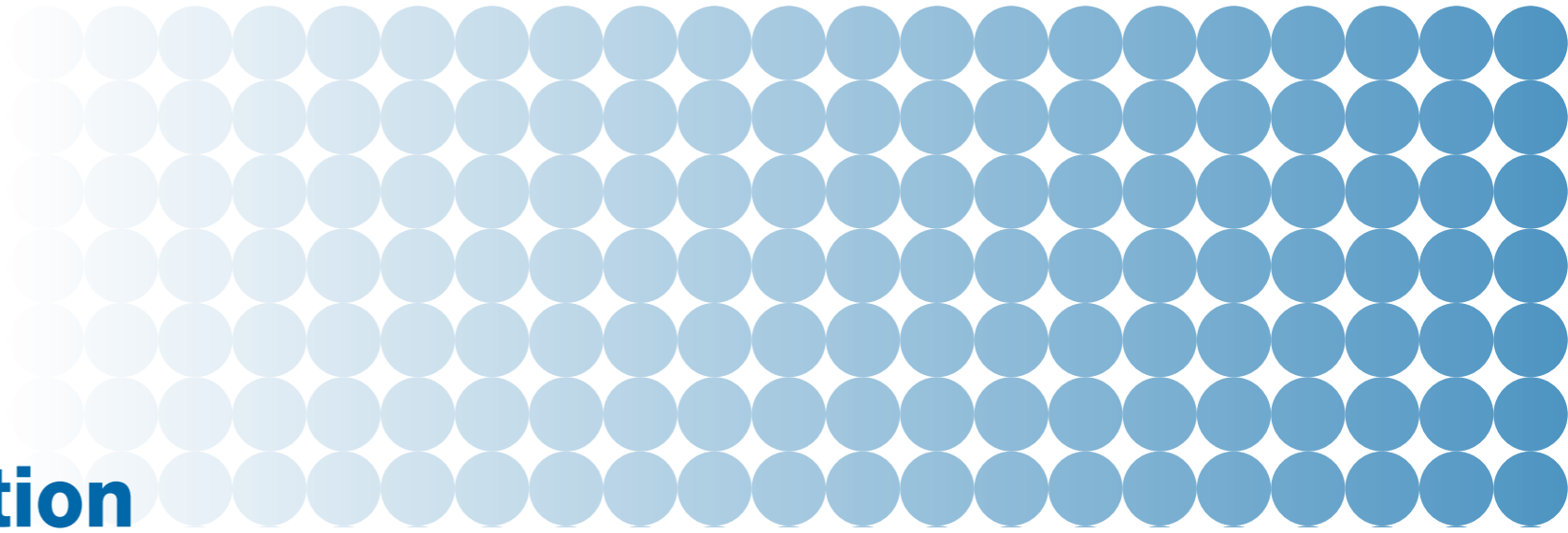


Chapter

5.



Health Systems Resilience, Governance, and Multisectoral Action



Health systems resilience is shaped by governance structures that enable coordination, accountability, regulation, and sustainable financing.¹²⁷ Political leadership, legal mandates, and institutionalized coordination mechanisms determine whether collaboration across sectors occurs reactively during crises or operates as an embedded, sustained function within national systems.¹²⁸

Across the Eastern Mediterranean Region (EMR), strengthening governance has become central to addressing infectious disease threats, noncommunicable diseases (NCDs), and structural health system vulnerabilities. The COVID-19 pandemic demonstrated that resilience is inseparable from governance quality. Countries with formal coordination platforms, multisectoral mechanisms, and defined accountability frameworks were better positioned to align preparedness efforts with International Health Regulations (IHR) obligations and broader global health security objectives.¹²⁹

^{130 131}

Primary health care (PHC), reaffirmed in the Astana Declaration as the foundation of Universal Health Coverage (UHC), depends on governance models that align public authorities, private sector actors, and community stakeholders.¹³² At the same time, the rising burden of NCDs, including cancer, requires governance approaches that extend beyond the health sector and address political, economic, and commercial determinants of health.^{133 134}

Between 2020 and 2025, the EMPHNET WEBi Series evolved from examining equity gaps exposed by COVID-19 toward applied governance questions shaping system performance in both emergencies and routine services. Discussions explored how countries institutionalize multisectoral coordination, strengthen accountability and financing mechanisms, and formalize public-private partnerships, with a focus on improving governance. Governance dialogue also extended to NCD prevention and control, including breast cancer, where progress depends on coordinated early detection, referral pathways, quality assurance, and active engagement of civil society.

Collectively, these sessions document a transition from crisis-driven coordination to structured, accountable, and sustainable governance models.

Approach of the WEBi Series to Governance and Resilience Dialogue

Through this public health area, the WEBi Series provided a structured regional platform to:

- Strengthen governance frameworks aimed at improving equity and efficiency
- Institutionalize multisectoral coordination for preparedness and response
- Examine public-private partnerships in strengthening PHC and immunization
- Address governance challenges in NCD prevention and control
- Promote performance measurement approaches that enhance accountability

These discussions supported policymakers, health system planners, and regional partners in translating governance principles into operational frameworks suited to national contexts

Public Health Areas Addressed

Webinars under this chapter examined interconnected governance and health system resilience priorities, including:

- Institutionalizing multisectoral coordination mechanisms
- Strengthening preparedness through formal accountability structures
- Designing and sustaining public-private partnerships
- Embedding PHC within broader resilience frameworks
- Addressing governance barriers to NCD prevention and cancer control

Over time, discussions moved beyond emergency coordination to examine long-term system performance, institutionalization of partnerships, and sustainable governance reform.

Webinars Included in This Chapter

This chapter includes WEBi sessions focused on governance, multisectoral coordination, and health systems resilience. Numbering reflects the chronological order of delivery within the overall WEBi Series (2020–2025).

1. [Public–Private Partnership to Promote Primary Health Care, Including Immunization](#)
2. [Multi-sectoral Coordination for Preparedness and Response to Public Health Threats](#)
3. [Good Governance to Tackle NCDs in the EMR](#)
4. [Breast Cancer Awareness Month Educate, Empower, and Advocate](#)

Detailed summaries of each webinar are presented in the following pages.

Outcomes for Regional Learning

Across this area, the WEBi Series contributed to:

- Elevating governance as a core determinant of resilience
- Promoting structured multisectoral collaboration
- Strengthening dialogue on accountability and financing mechanisms
- Advancing regional understanding of governance challenges in NCD control

The central outcome strengthened regional alignment around governance as a foundational element of resilient health systems.

Related Webinars in Other Chapters

Several WEBi sessions in previous chapters addressed governance-related themes within pandemic response and humanitarian settings. These discussions complement [Chapter 5](#) by illustrating governance under crisis conditions and cross-border coordination dynamics.

- [COVID-19: An Opportunity for More Equitable Health Systems](#)
- [A New Lens for NCDs in the Context of COVID-19](#)
- [Cross-Border Preparedness: Optimizing Pre-Pandemic and Early Pandemic Communication and Data Sharing Across Borders](#)
- [Sudan Crisis: Impacting Health and Creating Support Opportunities](#)
- [Global Prioritization Exercise: Humanitarian Research and Innovation in WANA](#)
- [Navigating Challenges in Humanitarian Action](#)
- [Eastern Mediterranean Region: From Crisis to Solutions](#)
- [Marking One Year of War in Sudan](#)
- [Public Health Emergency and Humanitarian Needs in Sudan: From Survival to Recovery](#)

¹²⁷ <https://www.who.int/teams/primary-health-care/health-systems-resilience>

¹²⁸ <https://pmc.ncbi.nlm.nih.gov/articles/PMC10719692/>

¹²⁹ <https://pmc.ncbi.nlm.nih.gov/articles/PMC12425886/>

¹³⁰ <https://pmc.ncbi.nlm.nih.gov/articles/PMC10316386/>

¹³¹ <https://pmc.ncbi.nlm.nih.gov/articles/PMC9476489/>

¹³² <https://pmc.ncbi.nlm.nih.gov/articles/PMC7607474/>

Public–Private Partnership to Promote Primary Health Care, Including Immunization

 5 October 2021

 Attendees: 136

Primary health care (PHC) is widely recognized in the literature as the foundation of resilient health systems and a central pathway toward achieving Universal Health Coverage (UHC) and the health-related Sustainable Development Goals.¹³⁵ The Astana Declaration reaffirmed that strong PHC requires multisectoral collaboration and whole-of-society engagement. Within this framework, public–private partnerships (PPPs) have emerged as one governance mechanism to expand access, improve quality, and address persistent resource constraints.¹³⁶

In many countries of the Eastern Mediterranean Region (EMR), financial pressures, workforce shortages, and operational gaps continue to affect PHC performance.¹³⁷ ¹³⁸ ¹³⁹ These structural challenges directly influence service continuity, including immunization delivery.¹⁴⁰ ¹⁴¹ Strengthening governance arrangements and clarifying roles between public authorities and private actors are therefore central to health systems resilience.

Against this backdrop, EMPHNET convened its sixteenth WEBi session on 5 October 2021 titled “Public–Private Partnership to Promote Primary Health Care, Including Immunization.” The session examined how structured collaboration between public and private actors can reinforce PHC governance, mobilize resources, and enhance system adaptability during periods of stress and reform.

Ms. Hill highlighted the role of strategic partnerships in advancing global immunization efforts. She outlined core elements of effective PPPs, including shared vision and objectives, clearly defined roles, alignment on strategy, flexibility, and recognition of complementary strengths. She referenced global partnership platforms such as the Global Polio Eradication Initiative and the Measles and Rubella Initiative as examples of coordinated collaboration across planning, financing, and vaccine delivery. She also introduced innovations such as microneedle patch technology under development, noting its potential to simplify vaccine delivery and expand access.

Representing Lebanon, Dr. Shaya presented the structure of the country’s PHC network and its Expanded Program on

Immunization (EPI), highlighting collaboration with national and international partners. She emphasized that PPPs have been particularly critical during Lebanon’s economic crisis to sustain vaccine supply and service delivery. Challenges included vaccine stock-outs in the private sector, geographic and security barriers, limited awareness, and rising operational costs. Strengthening collaboration with private physicians and providers was identified as a key strategy to address service gaps.

From Afghanistan, Dr. Parwiz discussed private sector engagement within broader health system reforms. He described PPPs as a central component of PHC financing and service delivery, supported by partnerships and donor engagement. Persistent challenges included disparities between urban and rural coverage and maldistribution of health facilities. He shared findings from a rapid assessment conducted in Paktya province on public–private engagement and emphasized the importance of engaging community leaders and ensuring transparent selection of primary health service providers.

Across presentations, speakers emphasized that PPPs function most effectively when embedded within strong public governance frameworks. Partnerships were presented as instruments to reinforce system resilience, enhance coordination, and support equitable service delivery, rather than replace public sector leadership.

The session concluded with an interactive discussion in which participants raised questions on governance arrangements, financing mechanisms, and practical implementation challenges.

A total of 136 participants attended the webinar, including policymakers, immunization managers, public health professionals, and development partners.

Within this chapter, the webinar demonstrates how structured multisectoral collaboration and governance mechanisms contribute to health systems resilience. It highlights that sustainable PHC performance depends on coordinated institutions, accountability frameworks, and strategic engagement across sectors.

Key Takeaways

- Public–private partnerships can strengthen PHC systems and service delivery when grounded in shared objectives and accountability.
- Clear roles, coordination mechanisms, and alignment on strategy are central to effective multisectoral collaboration.
- Economic and operational crises increase the importance of structured partnerships to sustain essential services.
- Equity requires addressing geographic disparities and ensuring balanced engagement of private providers.
- Innovation and community engagement support resilience when integrated within accountable.

Policy and Knowledge Outputs

- [Webinar recording](#)
- [Webinar news article](#)

¹³⁵ <https://www.who.int/news-room/fact-sheets/detail/primary-health-care>

¹³⁶ <https://pmc.ncbi.nlm.nih.gov/articles/PMC6861067/>

¹³⁷ <https://applications.emro.who.int/docs/9789290223399-eng.pdf>

¹³⁸ <https://pmc.ncbi.nlm.nih.gov/articles/PMC11955536/>

¹³⁹ <https://jogh.org/documents/issue201901/jogh-09-010313.pdf>

¹⁴⁰ <https://www.frontiersin.org/journals/public-health/articles/10.3389/fpubh.2025.1654089/full>

¹⁴¹ <https://pmc.ncbi.nlm.nih.gov/articles/PMC10711895/>

¹⁴¹ <https://pmc.ncbi.nlm.nih.gov/articles/PMC11955536/>

Speakers



Dr. Gena Hill

Associate Director for Policy and Partnerships, Global Immunization Division, US CDC



Dr. Randa Hamade

Director of Primary Health Care, Ministry of Public Health, Lebanon, represented by **Dr. Rima Shaya**; Primary Healthcare and EPI Coordinator, Ministry of Health, Lebanon



Dr. Ghulam Dastagir Nazary

National EPI Manager of Afghanistan, represented by **Dr. Sardar Parwiz**, Polio and Immunization Specialist, EMPHNET



Moderator



Dr. Faris Lami

Public Health Expert and Associate Professor at the University of Baghdad, Iraq

Speakers



Dr. Dalia Samhouri
Regional Manager of
Emergency Preparedness
and IHR, WHO EMRO



Dr. Faris Lami
Public Health Expert and
Associate Professor at
Baghdad University, Iraq



Dr. Mumtaz Ali Khan
Senior Scientific Officer and
Field Epidemiologist, US
CDC

Moderator



Ms. Leen Daoud
Technical Officer at
EMPHNET

Multi-sectoral Coordination for Preparedness and Response to Public Health Threats that Threaten Global Health Security: Lessons Learned from the COVID-19 Pandemic



5 July 2022



Attendees: 105

Public health emergencies affect far more than population health.^{142 143} They disrupt travel, trade, economic stability, and social systems. Experience from COVID-19 demonstrated that weak preparedness and fragmented response mechanisms can amplify these impacts.¹⁴⁴ Global health security therefore depends on coordinated action that extends beyond ministries of health and engages multiple sectors of government and society.¹⁴⁵

Multisectoral coordination (MSC) is recognized in global health governance frameworks, including the International Health Regulations (IHR), as a foundational element of preparedness and response.¹⁴⁶ Effective MSC requires political commitment, formalized structures, alignment of mandates, and shared accountability across sectors. Without these components, preparedness plans remain fragmented and difficult to operationalize.^{147 148}

Within this context, EMPHNET convened a WEBi session on 5 July 2022 titled “Multi-sectoral Coordination for Preparedness and Response to Public Health Threats That Threaten Global Health Security: Lessons Learned from the COVID-19 Pandemic.” The webinar examined how countries can institutionalize multisectoral coordination mechanisms to strengthen compliance with IHR requirements and close preparedness gaps identified during the pandemic.

Dr. Samhouri provided a regional overview of multisectoral coordination in the Eastern Mediterranean Region (EMR). She noted that numerous global reviews of COVID-19 preparedness generated extensive recommendations, reinforcing that coordination gaps remain a recurring challenge. She described MSC as a dynamic governance process involving government institutions, civil society, academia, private sector actors, and international organizations. Key elements highlighted included country ownership, political commitment, alignment of coordination

platforms, and formalization of mechanisms to ensure continuity beyond crisis periods.

Dr. Lami presented Iraq’s experience, emphasizing contexts in which multisectoral collaboration is particularly critical, including mass gatherings and cross-border movement. He identified areas where collaboration across sectors can address structural determinants of health, such as water and sanitation, poverty, food security, air pollution, and housing conditions. He outlined priority actions including revising public health legislation, strengthening enforcement of regulations, enhancing training for personnel at points of entry and mass gatherings, allocating dedicated budget lines for MSC, and reinforcing cross-border collaboration.

Dr. Khan shared lessons from Pakistan’s response to COVID-19. He highlighted that coordinated multisector engagement strengthened response effectiveness by leveraging existing capacities. He emphasized the importance of structured emergency preparedness plans, clear operational systems, and prioritization of objectives in resource-constrained settings. He also underscored the role of frontline responders and organized coordination platforms in sustaining response efforts.

The webinar concluded with an interactive discussion focused on practical strategies for formalizing coordination mechanisms and translating multisectoral collaboration from theory into institutional practice.

With a total of 105 participants attending the session, the discussion illustrated that health systems resilience depends on governance arrangements that enable coordinated action across sectors. It demonstrates that preparedness is strengthened when multisectoral coordination is formalized, resourced, and embedded within national systems rather than activated only during crises.



Key Takeaways

- Multisectoral coordination is essential for effective preparedness and IHR compliance.
- Political commitment, formalized mechanisms, and country ownership underpin sustainable coordination.
- Revising legislation, allocating dedicated budgets, and strengthening cross-border collaboration reinforce institutional resilience.
- Clear emergency preparation plans and organized operational systems improve response effectiveness.
- Multisectoral approaches address broader social and structural determinants that influence health outcomes.



Policy and Knowledge Outputs

- [Webinar recording](#)

¹⁴² <https://www.who.int/our-work/health-emergencies>

¹⁴³ <https://knowledge.unicef.org/emergencies/public-health-emergencies>

¹⁴⁴ <https://pmc.ncbi.nlm.nih.gov/articles/PMC10687930/>

¹⁴⁵ https://www.afro.who.int/sites/default/files/2017-07/who-global-strategy-on-pcihs-main-document_final.pdf

¹⁴⁶ <https://pmc.ncbi.nlm.nih.gov/articles/PMC12343634/>

¹⁴⁷ <https://pmc.ncbi.nlm.nih.gov/articles/PMC12343634/>

¹⁴⁸ <https://pmc.ncbi.nlm.nih.gov/articles/PMC4911720/>

Good Governance to Tackle NCDs in the EMR

6 September 2022 Attendees: 141

Noncommunicable diseases (NCDs) is one of the leading causes of death globally and across the Eastern Mediterranean Region (EMR).^{149 150} While clinical services and behavioral risk factors are central to NCD prevention and control, the growing burden of NCDs is also shaped by political, economic, and commercial determinants.¹⁵¹ Addressing these structural drivers requires governance approaches that extend beyond the health sector and enable coordinated, multisectoral action.^{152 153}

Good governance is increasingly recognized in literature as a core pillar of resilient health systems.¹⁵⁴ It influences priority-setting, policy coherence, accountability, regulation of commercial interests, and sustained financing. Without strong governance mechanisms, national NCD strategies risk fragmentation and limited implementation.¹⁵⁵

Against this backdrop, EMPHNET convened its twenty-third WEBi session on 6 September 2022 titled “Good Governance to Tackle NCDs in the EMR.” The session examined governance frameworks, policy instruments, and multisectoral mechanisms required to strengthen national responses to NCDs and ensure sustainable implementation.

Dr. Mahmoud provided a regional overview of the NCD burden and emphasized its scale and urgency, particularly in low- and middle-income countries. She linked NCD prevention and control to the Sustainable Development Goals (SDGs) and highlighted the importance of aligning national governance mechanisms with global commitments and WHO technical guidance. Her presentation underscored the need for political leadership and sustained advocacy to elevate NCDs within national agendas.

Dr. Abou Taleb examined governance from a health systems perspective. She presented a conceptual analytical framework that situates NCD programs within broader governance functions. She discussed

sub-functions of governance relevant to NCD control, including policy formulation, regulation, accountability, and coordination. Her reflections emphasized that effective NCD governance requires coherence across ministries and institutional clarity in roles and responsibilities.

From Iraq, Dr. Ata-Allah presented the national experience in developing and implementing a multisectoral NCD strategy. She described how NCD priorities were integrated into national policy platforms and Ministry of Health strategies. She highlighted challenges affecting implementation and discussed next steps to sustain progress, including maintaining coordination across sectors and addressing key risk factors.

From Oman, Dr. Al-Raisi outlined the country’s response to the NCD burden through formalized multisectoral structures. She described the establishment of national committees, including a National Multi-sectoral NCD Committee and a National Committee for Tobacco Control, and the development of a national NCD action plan. She emphasized the importance of ongoing dialogue, monitoring, and institutionalized coordination to ensure implementation and accountability.

With a total of 141 participants, the session concluded with an interactive discussion addressing governance challenges, multisectoral engagement, and sustainability of national NCD strategies.

Speakers



Dr. Lamia Mahmoud
Regional Advisor for NCD Prevention, WHO EMRO



Dr. Hala Abou Taleb
Regional Advisor a.i. for Health Systems Governance, WHO EMRO



Dr. Muna Khalifa Ali Ata-Allah
Director of Non-Communicable Diseases at the Ministry of Health, Iraq



Dr. Shadha S. Al-Raisi
Director of Non-Communicable Diseases, Ministry of Health, Oman

Moderator



Dr. Faris Lami
Public Health Expert and Professor at University of Baghdad, Iraq



Key Takeaways

- Effective NCD prevention and control require strong governance mechanisms that extend beyond the health sector.
- Political leadership and alignment with global commitments support sustained national action.
- Multisectoral coordination structures enhance accountability and policy coherence.
- Integrating NCD priorities into national strategies strengthens long-term sustainability.
- Institutionalized committees and monitoring mechanisms reinforce governance and implementation capacity.



Policy and Knowledge Outputs

- [Webinar recording](#)
- [Webinar news article](#)

¹⁴⁹ <https://www.who.int/news-room/fact-sheets/detail/noncommunicable-diseases>
¹⁵⁰ <https://www.emro.who.int/media/news/noncommunicable-diseases-in-emergencies.html>
¹⁵¹ <https://www.who.int/europe/teams/special-initiative-on-ncds-and-innovation/commercial-determinants-of-ncds>
¹⁵² <https://www.who.int/news-room/fact-sheets/detail/noncommunicable-diseases>
¹⁵³ <https://pmc.ncbi.nlm.nih.gov/articles/PMC7082905/>
¹⁵⁴ <https://pmc.ncbi.nlm.nih.gov/articles/PMC10113585/>
¹⁵⁵ <https://pmc.ncbi.nlm.nih.gov/articles/PMC9059443/>

Breast Cancer Awareness Month Educate, Empower, and Advocate

 29 October 2024

 Attendees: 121

Breast cancer is the most frequently diagnosed cancer among women globally and across the Eastern Mediterranean Region (EMR).¹⁵⁶ It remains a leading cause of cancer-related mortality, with significant variation in incidence, mortality, stage at diagnosis, and access to care across countries. The growing burden reflects not only epidemiological trends, but also gaps in early detection, referral systems, multidisciplinary care, and equitable access to treatment services.^{157 158}

Beyond its health impact, breast cancer carries a substantial economic and social burden. Indirect costs related to premature mortality and productivity loss represent a large proportion of the overall economic impact in the region. Addressing breast cancer therefore requires comprehensive strategies that integrate prevention, early detection, diagnosis, treatment, survivorship, and community engagement within strengthened health systems.^{159 160}

In October 2024, under the global theme “*No one should face breast cancer alone*,” EMPHNET convened its forty-second WEBi session titled “*Breast Cancer Awareness Month: Educate, Empower, and Advocate*.” The session examined the regional burden of disease, policy frameworks, WHO guidance, civil society engagement, and national experiences aimed at improving breast cancer outcomes across the EMR.

Dr. Mahmoud provided a regional overview of breast cancer incidence and mortality in the EMR and presented key elements of the WHO Global Breast Cancer Initiative. She emphasized the importance of stage shifting through early detection, strengthening primary health care platforms, and ensuring timely diagnosis and multimodality treatment. Her presentation underscored that comprehensive management approaches are highly cost-effective and aligned with broader commitments to universal health coverage and women’s health.

Dr. Fadhil highlighted the role of civil society organizations in addressing breast cancer through advocacy, stigma reduction, community awareness campaigns, and engagement of people living with NCDs. She discussed how regional alliances can support policy dialogue, accountability, and capacity building, particularly in contexts affected by displacement, fragility, and limited health system resources.

Dr. Abu Tahoun presented the Jordan experience, focusing on the role of specialized centers in strengthening early detection, diagnostic imaging, multidisciplinary case management, and integrated care pathways. She emphasized the importance of coordinated referral systems, quality assurance mechanisms, clinical guidelines, and research in improving outcomes and ensuring continuity of care across the cancer control continuum.

With active participation from regional stakeholders and the attendance of 121 people, the session concluded with a discussion on implementation challenges, including late-stage presentation, health system readiness, financing constraints, and the need for stronger partnerships between governments, civil society, and clinical institutions.

Speakers



Dr. Lamia Mahmoud
Regional Advisor for NCD Prevention, WHO EMRO



Dr. Ibtihal Fadhil
Chair of the Eastern Mediterranean NCD Alliance



Dr. Laila Abu Tahoun
Consultant Radiologist and Director of the Breast Imaging Unit at King Hussein Cancer Center, Jordan

Moderator



Dr. Nada Ahmad
Senior Technical Specialist at EMPHNET



Key Takeaways

- Breast cancer remains a major public health and economic challenge in the EMR.
- Early detection and strengthened primary health care systems are critical for stage shifting and improved survival.
- Comprehensive diagnosis and treatment approaches generate significant health and economic returns.
- Civil society engagement plays a central role in awareness, stigma reduction, and policy advocacy.
- Multisectoral partnerships and coordinated national strategies are essential for sustainable implementation.



Policy and Knowledge Outputs

- [Webinar recording](#)

¹⁵⁶ <https://www.emro.who.int/media/news/advancing-breast-cancer-care-in-the-eastern-mediterranean-region.html>

¹⁵⁷ <https://annalsofglobalhealth.org/articles/10.5334/aogh.2521>

¹⁵⁸ <https://pmc.ncbi.nlm.nih.gov/articles/PMC12377464/>

¹⁵⁹ <https://pmc.ncbi.nlm.nih.gov/articles/PMC11213812/>

¹⁶⁰ <https://pmc.ncbi.nlm.nih.gov/articles/PMC12468891/>

Related Webinars in Other Chapters

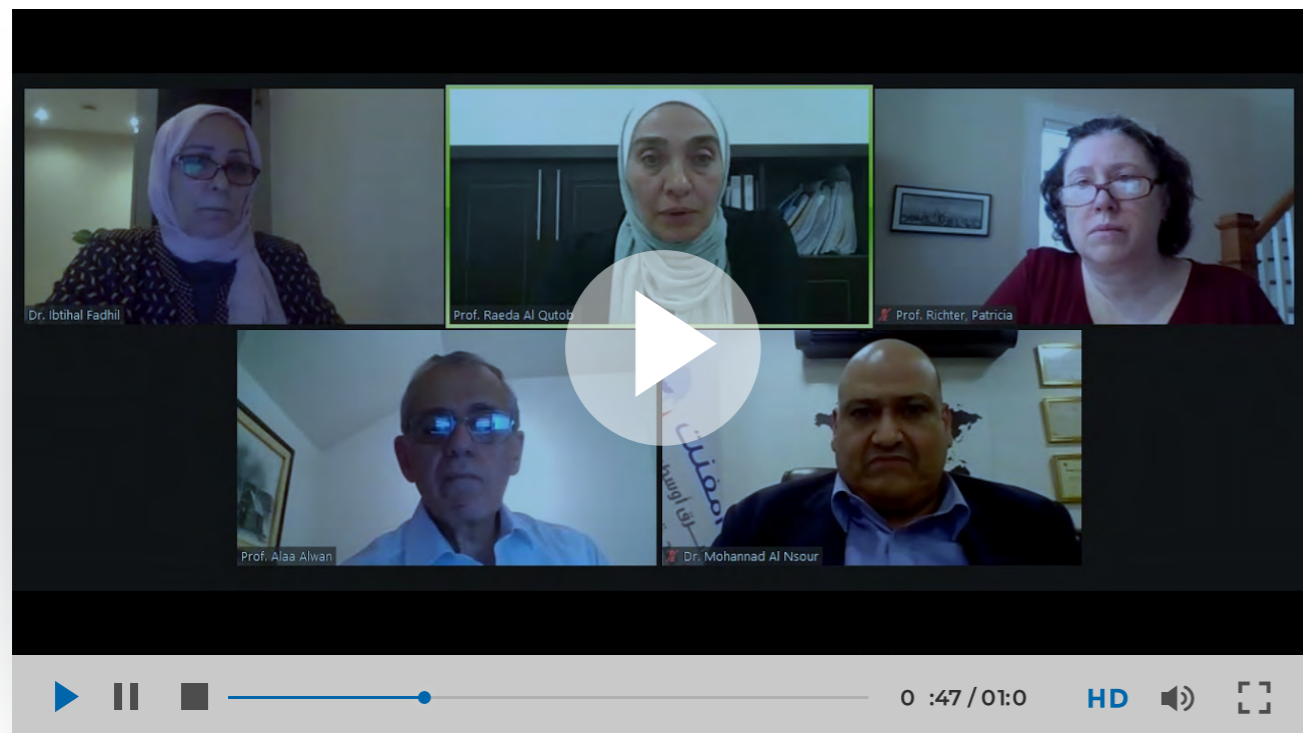
Some of the related webinars can be found in previous chapters, particularly those addressing public-private collaboration and cross-border preparedness, which are integral to the broader themes of governance and health systems resilience.

- [COVID-19: An Opportunity for More Equitable Health Systems](#)
- [A New Lens for NCDs in the Context of COVID-19](#)
- [Cross-Border Preparedness: Optimizing Pre-Pandemic and Early Pandemic Communication and Data Sharing Across Borders](#)
- [Sudan Crisis: Impacting Health and Creating Support Opportunities](#)
- [Global Prioritization Exercise: Humanitarian Research and Innovation in WANA](#)
- [Navigating Challenges in Humanitarian Action](#)
- [Eastern Mediterranean Region: From Crisis to Solutions](#)
- [Marking One Year of War in Sudan](#)
- [Public Health Emergency and Humanitarian Needs in Sudan: From Survival to Recovery](#)

The Health Systems Resilience, Governance, and Multisectoral Action public health area documents the evolution from crisis response toward institutionalized coordination, structured partnerships, and governance reform.^{165 166}

Across sessions delivered between 2020 and 2022, the WEBi Series advanced dialogue on embedding accountability, multisectoral collaboration, and policy coherence within national systems.

This progression provides a foundation for the next chapter, which examines how governance, coordination, and resilience operate under the pressures of conflict, displacement, and humanitarian crises.



¹⁶⁵ <https://www.frontiersin.org/journals/public-health/articles/10.3389/fpubh.2025.1745722/full>

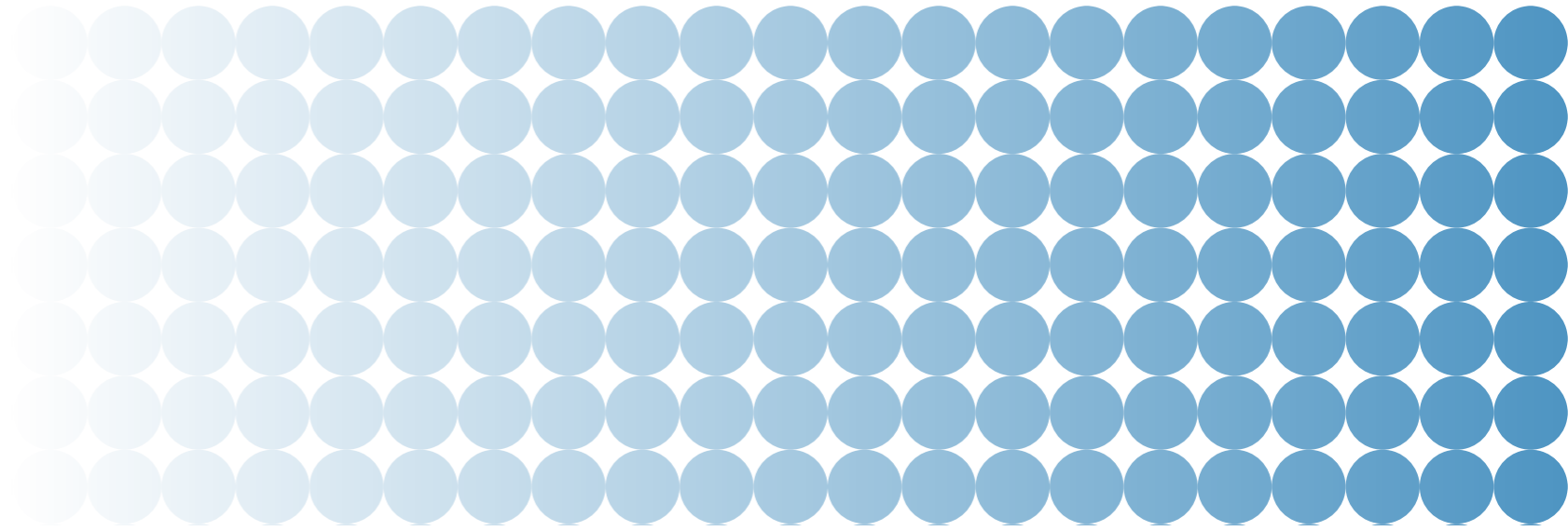
¹⁶⁶ <https://pmc.ncbi.nlm.nih.gov/articles/PMC9795408/>

Chapter

6



Humanitarian Crises, Conflict, and Recovery



Humanitarian crises and armed conflict continue to reshape public health realities across the Eastern Mediterranean Region (EMR) and neighboring sub-regions.¹⁶⁷ These shocks disrupt essential services, weaken governance and coordination mechanisms, displace health workers and communities, and intensify outbreaks, malnutrition, and unmet needs for maternal, child, and chronic disease care.¹⁶⁸ In fragile and conflict-affected settings, health systems must operate under extreme pressure while sustaining core public health functions and public trust.^{169 170 171}

Between 2023 and 2025, the EMPHNET WEBi Series created a structured platform to examine how protracted crises affect system functionality and how actors transition from emergency response toward recovery and institutional rebuilding. While discussions centered prominently on Sudan following the April 2023 escalation, sessions also reflected broader regional realities, including Gaza and other conflict-affected contexts.

Across these dialogues, a consistent message emerged: crises expose structural vulnerabilities and test institutional resilience. Protecting primary health care (PHC), maternal and child health services, surveillance systems, and continuity of care for noncommunicable diseases remains essential even amid infrastructure damage, displacement, and resource constraints.

Over time, the WEBi Series documented progression from survival-focused emergency response toward phased recovery planning, humanitarian research and innovation, workforce rebuilding, governance reform, and long-term resilience strategies.

Collectively, these sessions trace a trajectory from acute crisis management to structured recovery and sustainable system strengthening.

These discussions also highlighted the importance of structured risk management and governance approaches to support recovery and continuity in crisis-affected settings.

Approach of the WEBi Series to Humanitarian and Recovery Dialogue

Through this public health area, the WEBi Series provided a regional platform to:

- Highlight the role of risk management and governance in supporting recovery and continuity of health services
- Share real-time insights on how conflict disrupts health service delivery and public health functions, with Sudan as a central case study
- Examine operational constraints affecting humanitarian response, including access limitations, safety risks, coordination challenges, and adherence to humanitarian principles
- Strengthen dialogue on phased recovery pathways, governance considerations, and system rebuilding under protracted crises
- Highlight the importance of humanitarian research and innovation aligned with regional priorities
- Promote accountability and long-term resilience planning

These discussions supported policymakers, humanitarian actors, public health leaders, and development partners in aligning emergency response with sustainable recovery frameworks.

Public Health Areas Addressed

Webinars under this chapter examined interconnected humanitarian priorities, including:

- Risk management approaches and their role in navigating complex humanitarian contexts
- The impact of conflict and displacement on service continuity and workforce stability
- Operational strategies for sustaining PHC and outbreak control in insecure environments
- Governance and coordination challenges within fragmented systems
- The influence of political, media, and funding dynamics on humanitarian action

- Research and innovation priorities relevant to fragile and conflict-affected settings
- Planning phased transitions from emergency survival to reconstruction and development

Over time, dialogue expanded from immediate operational concerns to broader system rebuilding, accountability mechanisms, and resilience integration.

Webinars Included in This Chapter

This chapter includes WEBi sessions focused on humanitarian crises, conflict, and recovery. Numbering reflects the chronological order of delivery within the overall WEBi Series (2020–2025).

1. [Emergency Risk Management](#)
2. [Sudan Crisis: Impacting Health and Creating Support Opportunities](#)
3. [Global Prioritization Exercise: Humanitarian Research and Innovation in the West Asia and North Africa Region](#)
4. [Navigating Challenges in Humanitarian Action: The Example of the Eastern Mediterranean Region](#)
5. [Eastern Mediterranean Region: From Crisis to Solutions](#)
6. [Marking One Year of War in Sudan](#)
7. [Public Health Emergency and Humanitarian Needs in Sudan: From Survival to Recovery](#)

Detailed summaries of each webinar are presented in the following pages.

Outcomes for Regional Learning

Across this public health, the WEBi Series contributed to:

- Strengthening regional reflection on humanitarian health system performance
- Elevating recovery planning as a structured, phased process rather than an ad hoc transition
- Promoting alignment between emergency response and long-term development objectives
- Highlighting the role of research and innovation in crisis settings
- Reinforcing the importance of governance, accountability, coordination, and risk-informed approaches in fragile contexts

The central outcome was enhanced regional understanding of how to navigate the continuum from crisis response to institutional recovery.

Related Webinars Addressing Health Systems Under Crisis

Several WEBi sessions in other chapters addressed health system fragility, equity, and service continuity within the broader context of public health emergencies. These discussions complement [Chapter 6](#) by illustrating how both pandemics and conflicts expose structural vulnerabilities and require coordinated national and regional action.

- [COVID-19: An Opportunity for More Equitable Health Systems](#)
- [A New Lens for NCDs in the Context of COVID-19](#)
- [Cross-Border Preparedness: Optimizing Pre-Pandemic and Early Pandemic Communication and Data Sharing Across Borders](#)

Together, these sessions complement chapter 6 public health by illustrating how shocks, whether pandemic- or conflict-related, disrupt essential services and require coordinated national and regional action.

¹⁶⁷ <https://www.emro.who.int/media/news/humanitarian-health-needs-in-whos-eastern-mediterranean-region-remain-highest-globally-in-2026.html>

¹⁶⁸ <https://www.emro.who.int/media/news/humanitarian-health-needs-in-whos-eastern-mediterranean-region-remain-highest-globally-in-2026.html>

¹⁶⁹ <https://pmc.ncbi.nlm.nih.gov/articles/PMC10763433/>

¹⁷⁰ <https://pmc.ncbi.nlm.nih.gov/articles/PMC7124814/>

¹⁷¹ https://emphnet.net/media/tdajt5fy/state-of-public-health-in-the-emr_challenges-and-opportunities-english.pdf

Emergency Risk Management

 17 January 2023

 Attendees: 171

Public health emergencies place immediate and long-term pressure on health systems.¹¹⁶ Effective emergency risk management requires structured frameworks, clear governance arrangements, sustainable investment, and integration with broader health and development agendas.¹¹⁷ In the Eastern Mediterranean Region (EMR), countries face complex and overlapping risks, making coordinated and institutionalized approaches to Health Emergency and Disaster Risk Management (Health-EDRM) increasingly critical.^{118 119 120}

Against this backdrop, EMPHNET convened its twenty-seventh WEBi session on 17 January 2023 titled “*Emergency Risk Management*.” The webinar provided a platform for global, regional, and national perspectives on Health-EDRM, its alignment with Universal Health Coverage (UHC), the International Health Regulations (IHR), and the Sustainable Development Goals (SDGs), and the practical challenges of operationalizing risk management frameworks in the region.

Dr. Samhuri presented a regional overview of emergency management institutional arrangements and the importance of embedding risk management within national health systems. She highlighted that emergency risk management must move beyond reactive response toward structured governance, preparedness, and coordinated action. She presented the implications of public health emergencies on health systems, the need for adaptive governance mechanisms that enable coordination across sectors, and the importance of aligning Health-EDRM approaches with IHR obligations and broader health system strengthening. She underscored that managing risk requires understanding complexity, uncertainty, and systemic vulnerabilities, and that institutional arrangements must support multisectoral coordination and accountability.

Dr. Abualenain shared Saudi Arabia’s experience in operationalizing Health Emergency Risk Management. His presentation outlined practical steps taken to integrate disaster risk management into health sector planning and service delivery. He highlighted the importance of mainstreaming disaster risk management across all levels of decision-making and the role of preparedness planning, resilient infrastructure, and coordinated ambulance and emergency services. He also underscored the need to bridge observed gaps through structured governance and continuous capacity building. His presentation reinforced

that development efforts that fail to account for risk cannot be sustained, and that resilient systems require balancing efficiency with preparedness to withstand shocks.

Ms. Qannas presented a practical overview of disaster risk management (DRM) implementation, emphasizing the importance of mainstreaming risk reduction into development planning and health systems strengthening. She highlighted that sustainable development cannot be achieved without systematically addressing risk, and she underscored the complementary roles of sustainability and resilience in protecting health systems from shocks. Drawing on the Sendai Framework for Disaster Risk Reduction and ISO 31000 principles, she outlined the four global priorities for action and explained how they translate into operational measures within the health sector. Her presentation emphasized governance, accountability, and institutional alignment as essential foundations for effective Health Emergency and Disaster Risk Management (Health-EDRM).

She then examined the practical hurdles countries face when integrating DRM into policy and programming across the Eastern Mediterranean Region. These include limited use of risk data in decision-making, fragmented coordination mechanisms, insufficient funding, weak data systems, and gaps in community-level engagement. Ms. Qannas stressed that overcoming these challenges requires sustained advocacy, strengthened accountability mechanisms, capacity development, and the production of practical tools that guide implementation. She concluded that DRM mainstreaming must move beyond policy language toward institutionalized practice embedded within national planning cycles and sectoral strategies.

With a total of 171 people in attendance, the discussion reinforced that effective risk management requires sustained investment, inclusive participation, and integration across health and non-health sectors.

Speakers



Dr. Dalia Samhuri

Regional Manager, Emergency Preparedness & IHR, WHO-EMRO



Dr. Jameel Talal Abualenain

General Supervisor, General Directorate of Emergency, Disaster, and Ambulance Services, Ministry of Health, Saudi Arabia



Ms. Asma Qannas

Senior Technical Officer at EMPHNET

Moderator



Ms. Leen Daoud

Technical Officer at EMPHNET



Ms. Rana Al-Hamawi

Technical Officer at EMPHNET



Key Takeaways

- Emergency risk management must be institutionalized within health systems rather than treated as an ad hoc response function.
- Governance arrangements and multisectoral coordination are central to effective Health-EDRM implementation.
- Risk assessment and data-driven decision-making underpin resilient health systems.
- Mainstreaming disaster risk reduction into development planning prevents the creation of new vulnerabilities.
- Alignment with UHC, IHR, and SDGs strengthens coherence between preparedness and long-term system sustainability.



Policy and Knowledge Outputs

- [Webinar recording](#)

¹¹⁶ <https://www.who.int/our-work/health-emergencies>


¹¹⁷ <https://iris.who.int/server/api/core/bitstreams/219a1a08-9ec5-4f2d-9aff-54c713fca7c/content>

¹¹⁸ <https://pmc.ncbi.nlm.nih.gov/articles/PMC11424434/>

¹¹⁹ <https://www.emro.who.int/media/news/who-calls-for-urgent-action-to-health-systems-recovery-in-emergencies-in-the-eastern-mediterranean-region.html>

¹²⁰ <https://pmc.ncbi.nlm.nih.gov/articles/PMC12425886/>

Sudan Crisis: Impacting Health and Creating Support Opportunities

 20 June 2023

 Attendees: 161

On 15 April 2023, armed conflict erupted in Sudan, triggering widespread violence, displacement, and disruption of essential services. The escalation rapidly evolved into a public health emergency, characterized by damage to health infrastructure, interruptions in service delivery, medication shortages, and the displacement of both patients and healthcare workers. Hospitals were forced to evacuate patients, ambulances faced difficulties reaching critical cases, and humanitarian organizations encountered insecurity that impeded the delivery of aid.^{172 173}

Against this backdrop, EMPHNET convened its thirty-first WEBi session, titled “Sudan Crisis: Impacting Health and Creating Support Opportunities,” on 20 June 2023. The webinar brought together national and international perspectives to examine the immediate impact of the conflict on Sudan’s health system and outline urgent response priorities.

Dr. Eltayeb outlined the immediate and structural impacts of the conflict. As of mid-June 2023, at least two million people were displaced internally or across borders, placing immense pressure on already limited health resources. A national health emergency was declared, activating response committees and prompting urgent actions such as securing essential supplies and mobilizing resources. Preventive services, including immunization, were suspended in many areas, and surveillance systems were disrupted. Despite these challenges, community solidarity and coordination with national and international partners helped sustain partial service delivery.

Dr. Abdullah highlighted the strain on curative services, particularly in secondary and tertiary care. A significant proportion of hospitals were located in conflict-affected areas, many experiencing destruction, occupation, or inaccessibility. Severe funding shortages impacted all pillars of the health system, including service delivery, workforce stability, information systems, and access to

medical supplies. Only about 20% of health facilities remained fully operational, reflecting the scale of disruption.

Dr. Raja provided an epidemiological overview, noting that Sudan was already facing multiple disease outbreaks prior to the conflict. The escalation increased risks due to displacement, disrupted surveillance, and halted control programs. Within two months, over 1,000 deaths and 11,000 injuries were reported. More than one-third of the population required humanitarian assistance, while funding remained critically insufficient.

The session concluded with an interactive discussion on operational challenges, funding gaps, and protection of health workers. A total of 161 participants attended, reflecting strong regional engagement during an evolving humanitarian emergency.

Speakers



Dr. Dalya Eltayeb

Director of Primary Health Care Directorate, Federal Ministry of Health, Sudan



Dr. El-Mughira Abdullah

Director of Curative Medicine, Federal Ministry of Health, Sudan



Dr. Ali Raja

Team Lead Epidemiology, WHO Health Emergencies, Sudan

Moderator



Ms. Asma Qannas

Senior Technical Officer at EMPHNET



Key Takeaways

- The Sudan conflict triggered a severe public health emergency marked by infrastructure destruction, service disruption, and large-scale displacement.
- Only a limited proportion of health facilities remained fully operational, severely constraining national capacity.
- Preventive services, including immunization and vector control programs, were disrupted, increasing outbreak risks.
- Workforce displacement, supply chain interruptions, and funding shortages weakened all pillars of the health system.
- Community solidarity, local coordination, and international support played a critical role in sustaining partial service continuity.
- Urgent international assistance and structured recovery planning are essential to prevent further deterioration.



Policy and Knowledge Outputs

- [Webinar recording](#)
- [Webinar news article](#)
- [Policy Brief: Addressing the Health Crisis in Sudan: Urgent Actions and Policy Recommendations](#)

¹⁷² <https://news.un.org/en/story/2023/06/1166738>

¹⁷³ <https://pmc.ncbi.nlm.nih.gov/articles/PMC12378227/>

¹⁷⁴ <https://pmc.ncbi.nlm.nih.gov/articles/PMC12378227/>

Global Prioritization Exercise: Humanitarian Research and Innovation in the West Asia and North Africa Region

 28 November 2023  Attendees: 120

Humanitarian crises in the West Asia and North Africa (WANA) region are shaped by protracted conflict, displacement, climate stressors, and socioeconomic instability.¹⁷⁵ The region hosts millions of displaced populations and faces increasing pressure on health systems, livelihoods, and essential service.¹⁷⁶

In this context, Humanitarian Research and Innovation (R&I) plays a critical role in informing effective, context-specific responses.¹⁷⁷ To advance regional dialogue, EMPHNET, in collaboration with Deakin University and Elrha, convened its thirty-sixth WEBi session to present findings from the Global Prioritization Exercise (GPE) and explore ways to strengthen humanitarian R&I systems in the region.

Discussions highlighted that WANA faces some of the most complex and prolonged humanitarian emergencies globally, with high levels of morbidity, displacement, and vulnerability. The GPE findings emphasized that humanitarian R&I priorities in the region span health, climate and environmental challenges, education, livelihoods, food and water security, and gender-related issues. Within health, key focus areas include communicable diseases, health service access, and mental health.

A major cross-cutting challenge is the presence of structural barriers that limit the production and use of research. These include limited capacity, funding constraints, political influence on priorities, and weak dissemination and uptake mechanisms. Participants also noted that research agendas are often donor-driven, reducing alignment with local needs.

The webinar emphasized the need for stronger governance and coordination of humanitarian R&I through:

- National strategies and coordinating bodies
- Regional collaboration platforms and knowledge-sharing mechanisms
- Strengthened capacity-building and workforce development
- More flexible and needs-based donor funding
- Development of ethical frameworks for research in crisis settings

The session concluded with a discussion on embedding research and innovation within humanitarian programming and ensuring greater inclusion of affected communities in priority-setting processes. A total of 120 participants attended from across the region and beyond.

Key Takeaways

- Humanitarian R&I is critical for contextually appropriate crisis response in WANA.
- The region faces overlapping crises including conflict, displacement, and climate stressors.
- Health, climate, livelihoods, and food security emerged as priority R&I areas.
- Structural barriers limit research production, uptake, and utilization.
- National coordination bodies and regional platforms are essential to strengthen governance of R&I.
- Ethical frameworks and donor alignment with regional needs are key to equitable humanitarian innovation.

Policy and Knowledge Outputs

- [Webinar recording](#)
- [Webinar news article](#)
- [Policy Brief: Prioritization of Humanitarian Research and Innovation in West Asia and North Africa](#)

Speakers



Prof. Shahram Akbarzadeh

Deputy Director (International), Alfred Deakin Institute for Citizenship and Globalization, Deakin University



Prof. Abla Mohio

Professor of Epidemiology and Dean, Faculty of Health Sciences, AUB, Lebanon



Dr. Yousef Khader

Director, Center of Excellence for Applied Epidemiology, EMPHNET



Prof. Habiba Ben Romdhane

Professor of Epidemiology, University of Tunis El Manar



Ms. Muna Abbas

Professor of Epidemiology, University of Tunis El Manar

Moderator



Ms. Jess Camburn

CEO of Elrha



Ms. Lara Kufoof


Senior Project Manager at EMPHNET


¹⁷⁵ https://wanainstitute.org/sites/default/files/publications/ARegionInMotion_EnglishOnline_HighRes_0.pdf

¹⁷⁶ <https://crisisresponse.iom.int/sites/g/files/tmzbd11481/files/uploaded-files/A-Region-on-the-Move-Mobility-Trends-in-WCA-2022-2023.pdf>

¹⁷⁷ https://www.elrha.org/docs/document/elrha-global-insights-the-humanitarian-research-and-innovation-landscape-2024report.pdf?file_url=document/qrcj41tth7i57qimudhl6j956/5g4ifqcx-suoyhqtz4yqdtndng/original?content-type=application%2Fpdf&name=elrha-global-insights-the-humanitarian-research-and-innovation-landscape-2024report.pdf

Navigating Challenges in Humanitarian Action – The Example of the Eastern Mediterranean Region

 16 January 2024

 Attendees: 166

The Eastern Mediterranean Region (EMR) continues to face escalating humanitarian crises driven by armed conflict, political instability, and complex emergencies.¹⁷⁸ In recent years, situations in Sudan, Gaza, and other parts of the region have exposed the fragility of health systems and the operational constraints faced by humanitarian actors. Attacks on health facilities, restricted humanitarian access, displacement of populations, and ethical and legal violations have compounded the region's public health challenges.¹⁷⁹

¹⁸⁰

Within this context, EMPHNET convened the thirty-seventh session of its WEBi Series titled “*Navigating Challenges in Humanitarian Action: The Example of the Eastern Mediterranean Region.*” Held on 16 January 2024, the webinar created a platform for regional and global experts to reflect on the political, ethical, and operational complexities shaping humanitarian response in the EMR.

The webinar focused on the intersection between politics, media narratives, and humanitarian action. Speakers examined how political interests, geopolitical dynamics, and biased information environments can influence the delivery of aid and shape public perception of crises.

Speakers discussed the ethical and operational consequences of these dynamics, including restricted humanitarian access, destruction of health infrastructure, attacks on healthcare workers, and delays in aid flow. These constraints were framed not only as logistical challenges but also as structural barriers that affect the neutrality and effectiveness of humanitarian response.

Dr. Al Nsour emphasized that the EMR is currently experiencing multiple overlapping crises. He referred to recent developments in Sudan and Gaza as examples of how political considerations and media bias can influence humanitarian operations. He stressed the importance of creating spaces where public health professionals can reflect critically, share experiences, and reinforce their commitment to humanitarian principles.

Across the session, panelists explored strategies to navigate these complexities while maintaining focus on affected populations. The discussion centered on:

- Upholding humanitarian principles amid political tension
- Strengthening coordination between international, regional, and national actors
- Enhancing preparedness and response mechanisms in fragile settings
- Protecting health facilities and personnel
- Reinforcing professional integrity in crisis environments

A consensus emerged that public health professionals must remain focused on protecting vulnerable populations, even when political pressures complicate operational work. Speakers highlighted that maintaining neutrality, transparency, and evidence-based decision-making is central to preserving trust and sustaining humanitarian access.

Dr. Al Nsour underscored that while access to resources remains a persistent challenge, the mandate of public health professionals requires continued engagement with communities in need. The session reinforced the importance of resilience, professional solidarity, and commitment to humanitarian values.

This webinar marked the first installment in a three-part series addressing humanitarian action in the EMR. The series was designed to examine different dimensions of humanitarian response, from political constraints to operational strategies and recovery planning.

By situating humanitarian action within broader regional realities, the session expanded the WEBi Series' engagement with conflict-affected settings and governance challenges. It reinforced EMPHNET's role as a platform for structured dialogue on complex public health emergencies.

The session attracted over 166 public health professionals from the region and beyond.



Key Takeaways

- Humanitarian action in the EMR operates within complex political and geopolitical environments.
- Attacks on health facilities and restricted access undermine service continuity and public trust.
- Political bias and media narratives can influence aid flow and humanitarian priorities.
- Upholding neutrality, transparency, and evidence-based practice is essential in conflict settings.
- Public health professionals must sustain engagement with affected populations despite operational constraints.
- Structured dialogue strengthens resilience and regional coordination in humanitarian response.



Policy and Knowledge Outputs

- [Webinar recording](#)

Speakers



Prof. Mokbul Morshed Ahmad

Professor and Head of the Development and Sustainability Department, Asian Institute of Technology, Bangkok



Dr. Andreas Jansen

Head of the Information Center for International Health Protection, Robert Koch Institute, Germany



Dr. Thomas Hofmann

Head of Emergency Preparedness and Response Surveillance and Response Support, ECDC



Dr. Richard Brennan

Regional Emergency Director, WHO EMRO

Moderator



Dr. Mohannad Al Nsour

EMPHNET's Executive Director and Deputy Chair of the Global Outbreak Alert and Response Network (GOARN) Steering Committee



Dr. Haitham Bashier


Team Leader of EMPHNET's Public Health Emergency Management Center

¹⁷⁸ <https://www.emro.who.int/media/news/humanitarian-health-needs-in-whos-eastern-mediterranean-region-remain-highest-globally-in-2026.html>

¹⁷⁹ <https://www.emro.who.int/emergencies/in-focus/attacks-on-health-care-in-eastern-mediterranean-region.html>

¹⁸⁰ <https://www.unfpa.org/sites/default/files/pub-pdf/UNFPA%20HAO%20Report%202025%20F1%20%28Dec%204%202024%29.pdf>

Eastern Mediterranean Region: From Crisis to Solutions

 27 February 2024

 Attendees: 107

The Eastern Mediterranean Region (EMR) experiences protracted conflicts and political instability that have reshaped health systems and community resilience. Displacement, disease outbreaks, infrastructure destruction, and reduced access to essential services remain defining characteristics of the region's humanitarian landscape.^{181 182} Building on the discussion initiated in January 2024 on navigating humanitarian challenges, EMPHNET convened the second installment of this thematic series to move the dialogue from identifying constraints toward outlining solutions.

Held on 27 February 2024, the thirty-eighth session of the WEBi Series, titled “*Eastern Mediterranean Region: From Crisis to Solutions*,” focused on operational barriers, enforcement of international humanitarian law, and practical recovery pathways in conflict-affected settings, particularly Gaza and Sudan.

In his presentation, titled “*The First International Conference to Rebuild Health Sector in Gaza*,” Prof. Lattouf outlined a structured roadmap for repairing, rebuilding, and modernizing Gaza's health system. The conference he described brought together medical professionals, government leaders, private sector actors, and civil society representatives to develop a comprehensive reconstruction framework.

He proposed a four-phase rebuilding model:

Phase 1: Emergency Response

- Focus on immediate life-saving interventions, including wound care, emergency medicine, and field medicine. This phase prioritizes reducing morbidity and mortality by managing infections, malnutrition, and disease spread.

Phase 2: Transition

- Expand capacity through field hospitals, mobile clinics, and workforce reinforcement.

Phase 3: Reconstruction

- Rebuild infrastructure with an emphasis on stronger and more intelligent systems, including primary healthcare facilities and consultation spaces designed for long-term preparedness.

Phase 4: Sustainability

- Adopt a flexible, adaptive post-conflict reconstruction approach that ensures long-term resilience rather than temporary restoration.

This framework emphasized not only rebuilding physical infrastructure but also strengthening governance, preparedness, and system intelligence.

Dr. El Sanousi focused on Sudan's evolving humanitarian crisis. He reported that approximately 65% of the population lacks access to healthcare, and between 70% and 80% of hospitals in conflict-affected areas are no longer functional. As of 17 February 2024, over 10,700 suspected cholera cases had been reported, including 292 associated deaths.

He emphasized that delivering humanitarian assistance in active conflict environments presents major security and logistical challenges. The scale of Sudan's crisis has outpaced the international humanitarian response. He described Save the Children's interventions, which included 35 emergency response programs, cholera response operations in several states, and the operation of 80 health facilities across 10 states. Despite these efforts, he stressed that sustainable recovery ultimately depends on achieving peace, as ongoing conflict undermines financial, logistical, and communication systems required for effective health service delivery.

Dr. Qosa emphasized that humanitarian access involves more than security guarantees. It also depends on community acceptability and depoliticization of aid. He warned that politicizing humanitarian response further constrains operations and undermines trust.

He advocated for:

- Localization and strengthening local capacity
- Flexible short-term planning that prioritizes preparedness
- Investment in new technologies and green energy
- Building health system resilience beyond emergency response

His intervention reinforced the need to transition from reactive humanitarian models toward adaptive, locally anchored systems.

The session advanced the humanitarian dialogue by shifting focus from documenting crisis impacts toward outlining phased reconstruction strategies and operational solutions. With a total of 107 public health professionals attended the webinar, reflecting strong regional engagement in identifying pathways forward.

Key Takeaways

- Health system rebuilding in conflict settings requires phased emergency, transition, reconstruction, and sustainability planning.
- In Sudan, access to healthcare remains severely constrained, with widespread facility disruption and cholera outbreaks.
- Humanitarian assistance in active conflict faces security, funding, and logistical barriers.
- Localization and strengthening local capacity are central to resilient recovery.
- Preparedness-focused and flexible planning models are essential for sustainable post-conflict health systems.
- Depoliticizing humanitarian access and reinforcing community trust improve operational effectiveness.

Speakers



Prof. Omar Lattouf

Professor of Surgery, Director of the NAAMA Foundation Trustee, and President of Hebron University



Dr. Bashir Kamal Eldin Hamid El Sanousi

Consultant Physician, Assistant Professor of Internal Medicine, and Health and Nutrition Director at Save the Children, Sudan



Dr. Haytham Qosa

Thematic Lead of Health and Care, IFRC-MENA Regional Office, Health, Disasters, Climate, and Crises (HDCC) Unit

Moderator



Dr. Haitham Bashier

Team Leader of EMPHNET's Public Health Emergency Management Center



Dr. Faris Lami

Professor of Community and Family Medicine at University of Baghdad, Iraq



Policy and Knowledge Outputs

- [Webinar recording](#)
- [Webinar news article](#)

¹⁸¹ <https://applications.emro.who.int/docs/Health-systems-recovery-eng.pdf>

¹⁸² <https://pmc.ncbi.nlm.nih.gov/articles/PMC9795408/>

Marking One Year of War in Sudan

 21 May 2024

 Attendees: 240

One year after the escalation of conflict in Sudan in April 2023, the country continued to face profound humanitarian and public health consequences. Protracted violence, displacement, and infrastructure destruction have reshaped the national health landscape, placing immense strain on service delivery, workforce capacity, and coordination mechanisms.^{183 184 185} Within the broader humanitarian series on navigating crises in the Eastern Mediterranean Region (EMR), EMPHNET convened the third and final installment to assess the evolving situation in Sudan and examine pathways forward.

Held on 21 May 2024, the fortieth session of the WEBi Series, titled “Marking One Year of War in Sudan,” provided an overview of the humanitarian situation, health system challenges, and interventions led by the Sudan Federal Ministry of Health and partners. The session also reflected on the short- and long-term implications of the conflict on healthcare delivery and public health outcomes.

In his presentation titled “Health System in Sudan: After a Nightmare Challenging Year, What Is Next?” H.E. Dr. Awadalla emphasized that Sudan’s health system was already fragile prior to the war, affected by political instability, COVID-19, flooding, epidemics, and suspension of global support projects. The conflict intensified these vulnerabilities.

Immediate impacts included:

- Partial or complete destruction of health infrastructure
- Destruction and looting of cold chain systems
- Inaccessibility of approximately 50% of the country’s territory
- Disruptions in essential health programs

Dr. Awadalla highlighted anticipated long-term consequences, including under coverage of vaccination and nutrition services, worsening complications among patients with chronic diseases, and significant outmigration of trained health professionals.

He identified four priority areas requiring urgent attention:

1. Ensuring availability of essential medical equipment
2. Maintaining continuity of basic health services
3. Protecting maternity and child health programs
4. Strengthening coordinated response across UN agencies and NGOs

Despite severe constraints, he noted that community solidarity and institutional resilience enabled parts of the health system to continue functioning.

Prof. Rawaf reflected on the broader implications of conflict on health systems. Drawing on lessons from Iraq, he warned that recovery after prolonged conflict can take decades, particularly when displacement leads to the loss of experienced health professionals and academic leadership.

He emphasized that while resilience is visible, sustainable recovery requires an end to hostilities. In the interim, emergency response systems must be strengthened, and training in emergency preparedness should continue to ensure system functionality under crisis conditions.

Dr. Sahban provided updated data on displacement and service disruption. He stated that one in six Sudanese has been displaced either internally or across borders. Since the onset of conflict, Sudan recorded approximately 27,000 injuries and 6,000 fatalities.

He further noted:

- 15 million people require healthcare services
- Only 5 million are currently targeted
- Only 40% of health facilities are functional in five states
- Malnutrition and noncommunicable diseases continue to burden affected populations

He outlined three central pillars of response: Service delivery, Coordination, and Advocacy, including maintaining Sudan’s visibility on the global agenda.

The session reinforced the urgent need for coordinated international advocacy and resource mobilization. Dr. Bashier emphasized closing funding and service gaps, while announcing EMPHNET’s collaboration with the Sudan Federal Ministry of Health to organize a forum supporting the health sector.

Across the dialogue, a central message crystallized: sustaining emergency response while planning for structured recovery is essential to prevent long-term system collapse.

The webinar attracted over 240 public health professionals, reflecting strong engagement across the region and internationally.

Key Takeaways

- Sudan’s health system entered the conflict in a fragile state and has experienced extensive infrastructure damage.
- One in six Sudanese has been displaced, and service coverage remains critically limited.
- Vaccination, nutrition, and chronic disease management face long-term setbacks.
- Workforce displacement and brain drain threaten sustained recovery.
- Response must integrate service delivery, coordination, and sustained advocacy.
- Emergency response capacity must be maintained while planning for structured reconstruction.

Policy and Knowledge Outputs

- [Webinar recording](#)
- [Webinar news article](#)

Speakers



H.E. Dr. Heitham Awadalla

Federal Minister of Health in Sudan



Prof. Salman Rawaf

Professor of Public Health at Imperial College London, Director of a WHO Collaborating Centre, and President of the Arab Public Health Association



Dr. Shible Sahban

WHO Representative in Sudan

Moderator



Dr. Haitham Bashier

Team Leader of EMPHNET’s Public Health Emergency Management Center

¹⁸³ <https://www.unocha.org/publications/report/sudan/sudan-one-year-conflict-key-facts-and-figures-15-april-2024>

¹⁸⁴ <https://news.un.org/en/story/2026/01/1166738>

¹⁸⁵ <https://pubmed.ncbi.nlm.nih.gov/40496780/>

Public Health Emergency and Humanitarian Needs in Sudan: From Survival to Recovery

 25 November 2025  Attendees: 250

More than two years after the escalation of conflict in April 2023, Sudan continues to face one of the most complex and severe public health emergencies in recent history.^{186,187} Over 31 months of sustained violence have devastated infrastructure, displaced millions, disrupted essential services, and weakened national governance mechanisms.¹⁸⁸ Against this backdrop, EMPHNET convened the forty-ninth session of its WEBi Series titled “Public Health Emergency and Humanitarian Needs in Sudan: From Survival to Recovery.”

Dr. Osman presented a structured assessment of the health system, highlighting extensive infrastructure damage, large-scale workforce displacement, and millions in need of care. He also outlined a 10-year recovery vision (2025–2035) spanning response, reconstruction, and long-term development, aiming to transition from emergency response to system strengthening.

Dr. Homeida described the burden on communities, including malnutrition, outbreaks, trauma, and chronic disease disruptions. In many areas, local communities and volunteer networks continue to sustain primary healthcare services where formal systems have collapsed, supported by coordination with diaspora initiatives and humanitarian partners.

Dr. Al-Qasseer highlighted governance challenges, including fragmented authority and limited institutional capacity. She emphasized the need for nationally led recovery, strengthened local leadership, and approaches that rebuild trust and ensure sustainable implementation.

Dr. Elbukhari addressed health system resilience, noting both direct and indirect impacts of the conflict. She emphasized that resilient systems depend on effective leadership, preparedness for recurrent shocks, strong coordination, and governance grounded in public trust.

Dr. Nour focused on operationalizing the Humanitarian–Development–Peace (HDPx) Nexus, highlighting the importance of cross-border coordination, community-based service delivery, strengthened surveillance, and flexible financing to ensure continuity of care for displaced populations.

The discussion underscored the need to balance immediate humanitarian response with long-term institutional recovery. Priorities included decentralization, community engagement, coordinated national planning, and sustainable financing. Peace and governance remain essential to enabling recovery.

In closing, EMPHNET reaffirmed its commitment to supporting Sudan through technical assistance, capacity building, and regional collaboration. The session drew more than 250 participants, reflecting strong engagement in addressing the crisis.

Key Takeaways

- Sudan’s health system continues to operate under severe strain after more than two years of conflict.
- Infrastructure damage and workforce displacement remain major barriers to service delivery.
- Recovery requires phased planning from emergency response to long-term development.
- Community leadership and decentralized governance are essential to sustaining essential services.
- Resilience depends on trusted leadership, coordination, preparedness, and legitimacy.
- Cross-border mechanisms and application of the HDPx Nexus strengthen continuity of care for displaced populations.
- Peace and inclusive governance are foundational to meaningful and sustained recovery.

Policy and Knowledge Outputs

- [Webinar recording](#)
- [Webinar news article](#)

Speakers



Dr. Muntasir Mohammed Osman
Director General of Health Emergencies and Epidemics Control, Sudan Federal Ministry of Health; Director, Sudan Field Epidemiology Training Program (FETP)



Dr. Anmar Homeida
Executive Director, Sudanese American Physicians Association (SAPA)



Dr. Naeema Al-Qasseer
Global Health and Sustainable Development Expert, Former WHO and UN Official and Diplomat



Dr. Maisoon Elbukhari
Senior Health Expert, University of Geneva



Dr. Salim Mohamed Nour
Public Health Physician and Independent Expert in epidemic response and health systems strengthening

Moderator



Dr. Haitham Bashier
Team Leader of EMPHNET’s Public Health Emergency Management Center

¹⁸⁶ https://cdn.who.int/media/docs/default-source/2021-dha-docs/20250310_phsa_sudan-conflict.pdf?sfvrsn=d1b69fc1_3&download=true
¹⁸⁷ <https://news.un.org/en/audio/2025/12/1166661>
¹⁸⁸ <https://www.internal-displacement.org/news/conflicts-drive-new-record-of-759-million-people-living-in-internal-displacement/>

Related Webinars Addressing Health Systems Under Crisis

Several WEBi sessions examined health system fragility, equity, and service continuity within the broader context of public health emergencies. Documented in other chapters, these discussions show how crises expose structural vulnerabilities and test health system resilience.

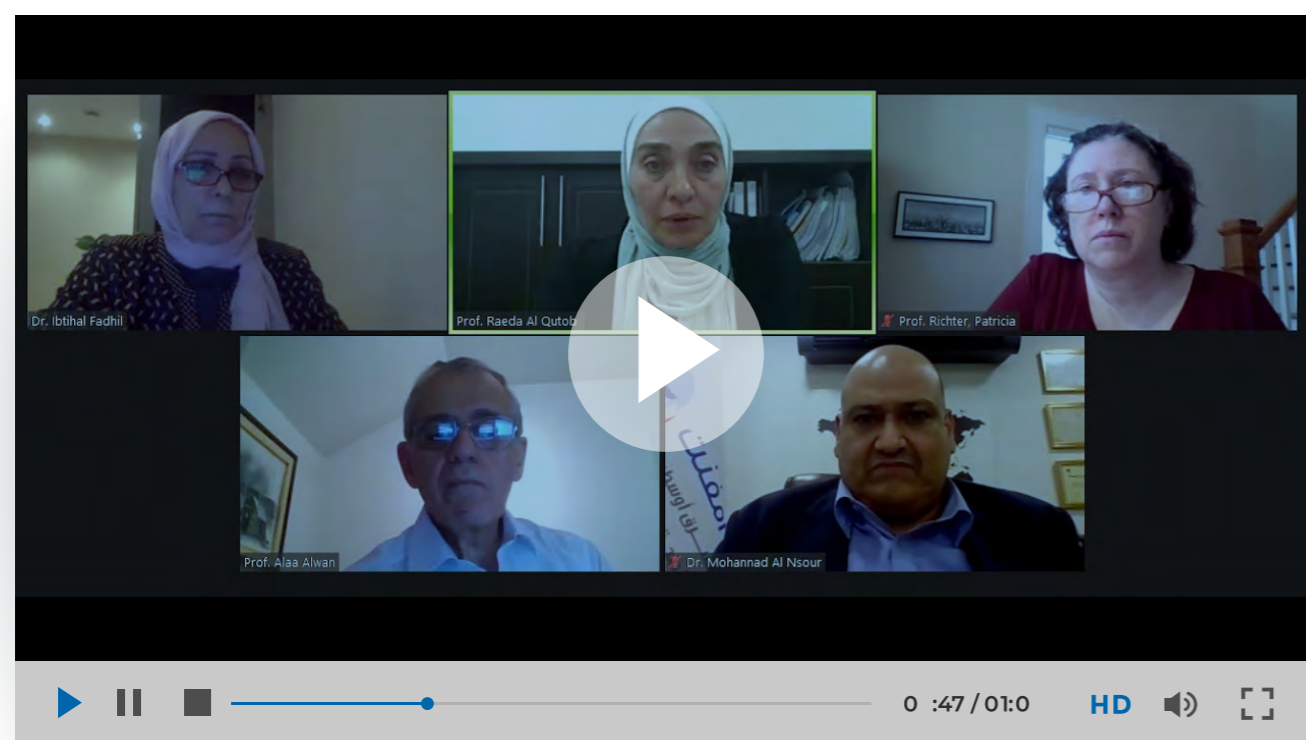
- [COVID-19: An Opportunity for More Equitable Health Systems](#)
- [A New Lens for NCDs in the Context of COVID-19](#)
- [Cross-Border Preparedness: Optimizing Pre-Pandemic and Early Pandemic Communication and Data Sharing Across Borders](#)

Together, these sessions complement chapter 6 public health area by illustrating how shocks, whether pandemic or conflict-related, disrupt essential services and require coordinated national and regional action.

The Humanitarian Crises, Conflict, and Recovery public health area documents sustained regional dialogue on how conflict, displacement, and protracted emergencies reshape health systems across the EMR.¹⁸⁹

Across sessions delivered between 2020 and 2025, the WEBi Series evolved from examining service continuity under pandemic stress to documenting conflict-driven system disruption and advancing structured recovery pathways.

Together, these webinars trace a shift from emergency response toward phased reconstruction grounded in governance reform, community leadership, accountability, and long-term resilience.



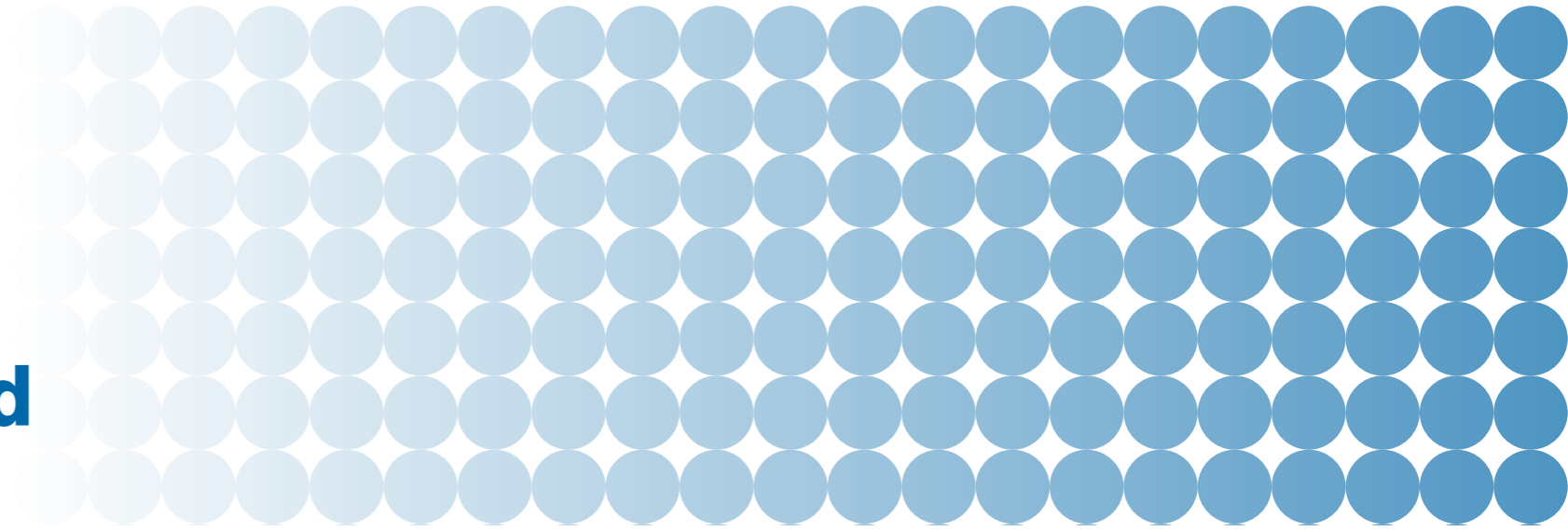
¹⁸⁹ <https://pmc.ncbi.nlm.nih.gov/articles/PMC7124814/>

Chapter

7.



One Health, Environment, and Climate Change



One Health, environmental public health, and climate-related risks have become central to public health practice in the Eastern Mediterranean Region (EMR), particularly in contexts shaped by recurrent outbreaks, displacement, urbanization, and environmental stress.¹⁹⁰ Many emerging health threats originate at the interface of human, animal, and environmental systems. These risks often transcend borders and sectors, requiring coordinated surveillance, integrated data systems, and multisectoral governance mechanisms.¹⁹¹

Between 2022 and 2025, the EMPHNET WEBi Series provided a structured platform to examine these interconnected risks through a One Health lens. Discussions linked zoonotic disease emergence and global health security with the operational realities of multisectoral collaboration, highlighting the need for coordination between human health, animal health, and environmental sectors.¹⁹²

Across these dialogues, a consistent message emerged: One Health is an operational approach that depends on enabling institutional conditions. Breaking sectoral silos, formalizing coordination mechanisms, strengthening legal and regulatory frameworks, and investing in integrated surveillance systems were repeatedly emphasized as prerequisites for effective preparedness and response.

Over time, discussions expanded beyond zoonotic disease preparedness to include climate change as a growing risk multiplier affecting migration, food security, environmental stability, and health equity. The sessions captured in this chapter trace a progression from zoonotic outbreak preparedness toward broader resilience-building across climate, environmental health, surveillance, and cross-border coordination.

These discussions also emphasized the importance of strengthening surveillance systems, early detection, and timely response as part of integrated approaches to managing health threats at the human–animal–environment interface.

Approach of the WEBi Series to One Health and Environmental Health Dialogue

Through this public health area, the WEBi Series created a regional platform for knowledge exchange and practical reflection on emerging environmental and zoonotic health risks.

The webinars provided a space to:

- Share technical insights on zoonotic diseases and their implications for global and regional health security
- Highlight country experiences in establishing multisectoral One Health platforms and coordination mechanisms
- Examine environmental health initiatives implemented through a One Health approach
- Explore the relationship between climate change, migration, and emerging public health risks
- Reinforce the importance of cross-border collaboration and data sharing for preparedness and response

These discussions supported policymakers, researchers, environmental health professionals, and public health leaders in strengthening coordinated approaches to complex health threats.

Public Health Areas Addressed

Webinars in this chapter examined interconnected priorities, including:

- Zoonotic disease emergence and risk mitigation strategies
- Strengthening multisectoral collaboration under the One Health framework
- Addressing institutional barriers between human, animal, and environmental sectors
- Implementing environmental health initiatives that reduce health risks
- Understanding the impact of climate change on migration and public health in the EMR

- Enhancing cross-border coordination and information sharing for health threats that transcend national boundaries
- Integrating environmental surveillance into broader public health preparedness systems
- Timeliness metrics and performance frameworks for outbreak detection and response

Over time, discussions moved from outbreak-specific concerns toward broader environmental and climate-related determinants of health.

Webinars Included in This Chapter

This chapter includes WEBi sessions focused on One Health, environmental public health, and climate-related risks. Numbering reflects the chronological order of delivery within the overall WEBi Series (2020–2025).

1. [Monkeypox and its Implications on Global Health Security](#)
2. [Sustaining Meaningful Multisectoral Collaboration for One Health: Conditions for Success](#)
3. [Championing Global Environmental Public Health: Safeguarding Wellness for All, Every Day](#)
4. [One Health in Action: Navigating Challenges and Opportunities in the Eastern Mediterranean](#)
5. [Climate Change, Migration, and Public Health: A One Health Approach to Building Resilience to Emerging Health Threats in the EMR](#)
6. [Environmental Surveillance: Enhancing Public Health Resilience in the EMR and Beyond through One Health](#)
7. [Accelerating Outbreak Detection, Notification, and Response in the EMR: Advocating for the 7-1-7 Approach](#)

Detailed summaries of each webinar are presented in the following pages.

Outcomes for Regional Learning

Across this public health area, the WEBi Series contributed to:

- Elevating One Health as a strategic framework for regional preparedness
- Promoting multisectoral coordination across health, agriculture, and environmental sectors
- Strengthening dialogue on environmental health challenges and climate-related risks
- Encouraging integrated surveillance approaches linking environmental and public health data
- Advancing regional awareness of climate change as a driver of emerging health threats
- Reinforcing the importance of timely detection and response as part of integrated preparedness strategies

The central outcome was strengthened regional understanding of how environmental, climate, zoonotic risks, and outbreak dynamics intersect with public health systems and preparedness strategies.

Related Webinars in Other Chapters

Several WEBi sessions in other chapters addressed cross-border preparedness and coordination mechanisms that intersect with the One Health framework.

- [Cross-Border Preparedness: Optimizing Pre-Pandemic and Early Pandemic Communication and Data Sharing Across Borders](#)

¹⁹⁰ <https://pmc.ncbi.nlm.nih.gov/articles/PMC10204136/>

¹⁹¹ <https://www.who.int/news-room/fact-sheets/detail/one-health>

¹⁹² https://www.who.int/health-topics/one-health#tab=tab_1 and <https://www.who.int/news-room/fact-sheets/detail/one-health>

Monkeypox and its Implications on Global Health Security

 9 August 2022

 Attendees: 155

In July 2022, the World Health Organization declared the escalating Monkeypox outbreak a Public Health Emergency of International Concern (PHEIC).^{193 194} The rapid increase in cases across multiple WHO regions, including countries with no prior history of the disease, signaled a shift from localized outbreaks to a broader global health security concern. With tens of thousands of reported cases and expanding geographic spread, the outbreak raised urgent questions about zoonotic transmission, cross-border preparedness, surveillance capacity, and risk communication.¹⁹⁵

Against this backdrop, EMPHNET convened the twenty-second session of the WEBi Series titled “*Monkeypox and its Implications on Global Health Security*.” The webinar examined the epidemiological evolution of the outbreak, its transmission dynamics, and the implications for global and regional preparedness. It also addressed stigma, misinformation, and the relevance of the One Health approach in responding to zoonotic threats.

Dr. Hailat opened the session by situating Monkeypox within the broader category of zoonotic diseases. She described its animal origins and outlined the pathways through which spillover events occur. Her presentation emphasized the role of wildlife exposure and unregulated animal trade in facilitating cross-border spread. She reviewed transmission routes, laboratory diagnostics, and surveillance considerations, reinforcing the importance of early detection and coordinated reporting.

Dr. El Khatib provided a global epidemiological update, tracing the evolution of Monkeypox from its identification in the late 1950s through the 2022 multi-country outbreak. He examined demographic patterns, geographic distribution, and case trends. He addressed misconceptions related to transmission, clarifying that although many reported cases occurred among men who have sex with men, transmission occurs through

close physical contact and bodily fluids rather than being confined to a specific population. He also highlighted the relevance of travel history and global mobility in accelerating spread.

Dr. Islam Saeed focused on prevention and control strategies. He reviewed case fatality patterns and identified higher-risk groups, including children and immunocompromised individuals. He outlined recommended countermeasures, vaccination considerations, and alignment with International Health Regulations (IHR) guidance. His presentation underscored the importance of preparedness frameworks that integrate surveillance, vaccination policy, and risk communication.

The discussion explored questions related to vaccination strategies, the role of previous smallpox immunization, stigma reduction, and the operationalization of the One Health approach in outbreak response. Participants emphasized that managing emerging zoonotic threats requires coordinated action across sectors and proactive communication to prevent misinformation and delayed care-seeking.

The session drew more than 155 participants from the region and beyond, contributing to regional understanding of zoonotic outbreak dynamics and reinforcing the importance of multisectoral collaboration in safeguarding global health security.

Speakers



Dr. Ekhlas Hailat
Public Health Specialist, EMPHNET



Dr. Ziad El Khatib
Associate Professor in Global Health, Karolinska Institute



Dr. Khwaja Mir Islam Saeed
FETP Alumni and Technical Advisor, Afghanistan

Moderator



Dr. Tarek Al-Sanouri
Disease Control and Prevention Team Leader at EMPHNET



Key Takeaways

- The 2022 Monkeypox outbreak highlighted the continued risk of zoonotic spillover and international spread.
- Early detection, laboratory capacity, and coordinated reporting are essential for outbreak containment.
- Addressing stigma and misinformation is critical to effective risk communication.
- The One Health approach strengthens preparedness by integrating human, animal, and environmental perspectives.
- Global mobility and interconnected systems require cross-border vigilance and cooperation.



Policy and Knowledge Outputs


- [Webinar recording](#)
- [Webinar news article](#)

¹⁹³ <https://www.who.int/europe/news/item/23-07-2022-who-director-general-declares-the-ongoing-monkeypox-outbreak-a-public-health-event-of-international-concern>

¹⁹⁴ <https://news.un.org/en/story/2022/07/1123152>

¹⁹⁵ <https://pmc.ncbi.nlm.nih.gov/articles/PMC9631123/>

Sustaining Meaningful Multisectoral Collaboration for One Health: Conditions for Success

 25 July 2023

 Attendees: 167

Health threats emerging at the human–animal–environment interface continue to challenge countries across the Eastern Mediterranean Region (EMR).¹⁹⁶ Rapid urbanization, environmental disruption, antimicrobial resistance (AMR), and recurrent zoonotic outbreaks demand coordinated responses that move beyond sector-specific action. Within this context, the One Health approach has gained renewed momentum as a framework for integrated, multisectoral collaboration.^{197 198}

On 25 July 2023, EMPHNET convened the thirty-second session of the WEBi Series titled “Sustaining Meaningful Multisectoral Collaboration for One Health: Conditions for Success.” The webinar examined operational barriers to collaboration and explored practical conditions required to institutionalize One Health at national and regional levels.

Drawing from the Global One Health Joint Action Plan, speakers emphasized that One Health requires more than technical alignment. It requires political commitment, legal frameworks, financing Research Triangle Institute (RTI) International mechanisms, and institutional coordination. They highlighted that despite broad recognition of One Health’s importance, implementation in the EMR remains constrained by governance gaps, sectoral silos, limited funding, and communication barriers. These structural challenges prevent sustained collaboration across ministries and agencies. The webinar also featured country experiences from Bangladesh, Qatar and Ethiopia.

From Bangladesh, Dr. Rahman traced Bangladesh’s One Health journey to the 2008 Nipah virus outbreak. The crisis catalyzed the creation of a national One Health platform that formalized collaboration between human health, animal health, and environmental sectors. Over time, Bangladesh established committees, launched a One Health Civil Society Platform, and developed a National One Health Strategic Framework and Action Plan. Practical outcomes included coordinated outbreak investigations and a Mass Dog Vaccination Program for rabies control. Political leadership was identified as a decisive factor in sustaining collaboration.

From Qatar, Dr. Farag described how Qatar’s response to MERS-CoV in 2012 operationalized One Health in real time. Coordinated investigation across sectors led to the identification of camels as a reservoir, positioning Qatar as the first country to report zoonotic transmission from camels to humans.

He stressed that breaking down institutional silos enabled rapid surveillance, laboratory confirmation, and risk communication. Continued efforts are required to address stigma, asymptomatic transmission gaps, and long-term preparedness planning.

From Ethiopia, Dr. Getachew presented Ethiopia’s National One Health Steering Committee as a model for structured multisectoral governance. Representation from health, agriculture, and wildlife authorities enabled coordinated strategic planning and disease-specific frameworks. He emphasized that collaboration must be institutionalized through strategic documents, coordinated surveillance systems, and joint capacity-building efforts to ensure sustainability.

The discussion reinforced that multisectoral collaboration does not occur spontaneously. It must be structured, financed, and monitored.

Speakers emphasized that One Health strengthens preparedness for emerging infectious diseases, AMR, food safety risks, and climate-sensitive health threats. Institutionalizing collaboration before crises occur improves speed, coordination, and accountability during emergencies.

With a total of 167 participants attending the webinar, the session concluded with a moderated discussion highlighting the importance of sustained advocacy, measurable indicators, and national ownership.

Speakers



Dr. Aninda Rahman

Deputy Program Manager of Antimicrobial Resistance, Viral Hepatitis, and Diarrheal Diseases Control, Bangladesh



Dr. Elmoubasher Farag

Head of Communicable Diseases Control Programs, Ministry of Public Health, Qatar



Dr. Sisay Getachew

Chairperson of the One Health Steering Committee and Director of Veterinary Public Health Directorate, Ministry of Agriculture, Ethiopia

Moderator



Dr. Donal Bisanzio

Senior Epidemiologist for Global Health Security at the Research Triangle Institute (RTI) International



Key Takeaways

- One Health implementation requires formal governance frameworks and political backing.
- Institutional silos, financing gaps, and legal complexities remain major barriers in the EMR.
- National platforms and steering committees strengthen coordination and accountability.
- Outbreaks such as Nipah and MERS-CoV demonstrate the operational value of integrated surveillance.
- Sustainable collaboration depends on financing, policy integration, and community engagement.
- Alignment with global action plans enhances coherence and regional cooperation.



Policy and Knowledge Outputs

- [Webinar recording](#)
- [Webinar news article](#)
- [Policy brief: Sustaining Meaningful Multisectoral Collaboration for One Health: Conditions for Success](#)

¹⁹⁶ <https://academic.oup.com/trstmh/article/120/3/192/8306658?login=false&guestAccessKey=>

¹⁹⁷ <https://www.frontiersin.org/journals/public-health/articles/10.3389/fpubh.2025.1652846/full>

¹⁹⁸ <https://www.sciencedirect.com/science/article/pii/S235277142500093X>

Championing Global Environmental Public Health: Safeguarding Wellness for All, Every Day

 26 September 2023  Attendees: 66

Environmental degradation, climate change, and ecosystem disruption are increasingly recognized as drivers of health risk. Heatwaves, vector-borne diseases, food insecurity, air pollution, and water scarcity illustrate how environmental pressures translate into measurable public health consequences.^{199 200} Addressing these risks requires coordinated action that bridges health, environment, agriculture, urban planning, and climate governance.²⁰¹

In recognition of World Environmental Health Day in 2023, EMPHNET convened the thirty-fifth session of the WEBi Series titled “Championing Global Environmental Public Health: Safeguarding Wellness for All, Every Day.”

Organized in collaboration with Research Triangle International (RTI) and the World Federation of Public Health Associations (WFPHA) Environmental Health Working Group (EHWG), this session built on the previous One Health webinar and expanded the dialogue toward environmental health action within the One Health framework.

Opening remarks underscored that the One Health approach seeks to sustainably balance and optimize the health of people, animals, and ecosystems. Speakers emphasized that environmental health must be embedded within broader health governance and development planning.

Dr. Wannous positioned One Health as a mechanism to address upstream drivers of health threats. She introduced the One Health Joint Plan of Action (OH JPA), a five-year global roadmap to operationalize multisectoral collaboration. She also described the “Nature for Health” (N4H) initiative, which focuses on preventing pandemics by addressing ecological degradation and climate change. Examples included vector-borne disease monitoring initiatives in North Africa and ecosystem-focused surveillance models.

Dr. Ebi emphasized the systems-based nature of climate-related health risks. She highlighted research demonstrating how urban tree coverage reduces heat-related morbidity, particularly in low-income communities. Her intervention reinforced the need for cross-sector collaboration with meteorologists, urban planners, and climate scientists to

design resilient cities.

Both speakers stressed that sustainable financing and political commitment are prerequisites for translating climate-health evidence into policy action.

Mr. Ikwara provided a civil society perspective from Kenya. He emphasized indigenous knowledge systems, community-led conservation efforts, and youth engagement in environmental protection. He highlighted that effective environmental health initiatives require locally adapted financing models and grassroots participation. Building awareness at community level strengthens ownership and sustainability.

Speakers agreed that environmental health interventions must integrate local knowledge, gender equity, and youth participation to achieve durable outcomes. They also identified structural enablers for advancing environmental public health:

- Integration of climate and health responsibilities into institutional mandates
- Alignment with international climate financing mechanisms
- Development of early warning systems for heatwaves and vector-borne diseases
- Cross-sectoral data sharing and surveillance coordination
- Long-term political backing and policy coherence

Early warning systems supported by institutions such as the World Meteorological Organization were cited as critical tools for anticipating climate-sensitive disease outbreaks.

Across discussions, a shared conclusion emerged: environmental health cannot be treated as an isolated technical issue. It must be integrated into national preparedness frameworks, urban planning strategies, and climate adaptation policies.

This session reinforced that One Health provides a practical structure for connecting environmental stewardship with disease prevention, food security, and health equity. The discussion also highlighted EMPHNET’s contribution to advancing One Health operationalization in the Eastern Mediterranean Region (EMR), including the development of practical operational guides on One Health and climate change.



Key Takeaways

- Environmental degradation and climate change are major drivers of emerging health threats.
- One Health operationalizes collaboration across human, animal, and environmental sectors.
- Climate-resilient urban planning reduces heat-related morbidity and inequities.
- Sustainable financing and political commitment are essential for implementation.
- Early warning systems strengthen preparedness for climate-sensitive diseases.
- Community engagement and indigenous knowledge enhance environmental health outcomes.
- Alignment with global climate and development agendas strengthens policy coherence.



Policy and Knowledge Outputs

- [Webinar recording](#)
- [Webinar news article](#)

Speakers



Dr. Kristie L. Ebi
Professor, University of Washington Center for Health and the Global Environment



Dr. Chadia Wannous
One Health Global Coordinator and Senior Specialist, World Organization for Animal Health (WOAH)



Mr. Patrick Ikwara
Founder, Linda Mazingira Initiative Kenya, Forest Conservation Committee Member representing Civil Society Organizations

Moderator




Ms. Hannah Marcus
Co-Chair, WFPHA Environmental Health Working Group


¹⁹⁹ <https://www.who.int/news-room/fact-sheets/detail/climate-change-and-health>

²⁰⁰ <https://www.sciencedirect.com/science/article/pii/S2949720524000286>

²⁰¹ https://www.researchgate.net/publication/355889576_The_Impact_of_Climate_Change_on_Health_Reducing_Risks_and_Increasing_Resilience_in_the_Era_of_COVID-19

One Health in Action: Navigating Challenges and Opportunities in the Eastern Mediterranean

 30 April 2024

 Attendees: 201

As global momentum behind the One Health approach continues to grow, attention has shifted from conceptual endorsement toward practical implementation.²⁰² Countries across the Eastern Mediterranean Region (EMR) are working to translate multisectoral principles into functioning governance mechanisms, integrated surveillance systems, and strengthened workforce models. Progress is visible, yet implementation remains uneven and shaped by political, financial, and institutional realities.^{202 204}

In April 2024, EMPHNET convened the thirty-ninth session of the WEBi Series titled “*One Health in Action: Navigating Challenges and Opportunities in the Eastern Mediterranean.*” Organized in collaboration with RTI and WHO EMRO, the webinar examined country experiences, operational tools, and regional progress under the Quadripartite collaboration.

During the webinar, speakers emphasized that while One Health is widely endorsed, implementation remains constrained by limited cross-sector coordination, fragmented surveillance systems, weak legal frameworks, political instability, and under-resourced health systems. These challenges often result in siloed efforts rather than integrated national strategies.

A central focus of the webinar was the One Health Joint Plan of Action (2022–2026), developed by the Quadripartite alliance of FAO, UNEP, WHO, and WOA. The plan provides a structured global framework built around six action tracks:

- Enhancing One Health capacities
- Reducing risks from zoonotic epidemics and pandemics
- Controlling endemic zoonotic, neglected tropical, and vector-borne diseases
- Strengthening food safety systems
- Curbing antimicrobial resistance (AMR)
- Integrating environmental considerations into health governance

Speakers highlighted that the OH JPA supports countries in setting national targets, developing legislation, and aligning sectoral priorities, while promoting governance reform, collaboration, and integrated approaches.

The webinar also served as a platform to present country experiences in operationalization, featuring Jordan, Egypt, and Pakistan.

From Jordan, Dr. Khashan described advances in multisectoral surveillance integration through a national One Health data hub combining human, animal, and environmental data, strengthening analysis and coordinated response.

From Egypt, Dr. Eldesouki outlined governance reform through a national One Health Strategic Framework, supported by ministerial and technical coordination structures addressing zoonotic diseases, AMR, food safety, and environmental integration.

From Pakistan, Dr. Mursalin highlighted event-based surveillance systems supported by ICT tools, improving cross-sector coordination despite challenges in data harmonization.

Across countries, joint risk assessments, workforce development initiatives, zoonotic disease prioritization, and use of the Tripartite Zoonoses Guide were identified as key implementation tools.

Speakers underscored the need to adapt the One Health framework to national contexts and strengthen institutionalization through governance, capacity building, and integrated surveillance systems.

The webinar emphasized sustained political engagement, stronger legal frameworks, dedicated financing, continuous evidence generation, and support to the Quadripartite Secretariat, positioning One Health as a systems-level approach linking surveillance, preparedness, AMR, food safety, and environmental health.

A total of 201 participants attended the session, reflecting strong regional engagement in advancing One Health implementation.



Key Takeaways

- One Health implementation in the EMR faces coordination, governance, and financing challenges.
- The One Health Joint Plan of Action provides a structured roadmap for national adaptation.
- Multisectoral committees and data integration platforms strengthen operational coordination.
- Workforce development and surveillance integration are critical to sustainability.
- Political engagement and legal frameworks are necessary to institutionalize progress.
- Regional collaboration under the Quadripartite enhances coherence and shared learning.

Speakers



Dr. Amina Benyahia
One Health Initiative, WHO



Dr. Heba Mahrous
One Health Focal Point, WHO EMRO



Dr. Mohammad Khashan
Epidemiological Surveillance Directorate, Jordan CDC



Dr. Baher B. Eldesouki
Ministry of Health and Population, Egypt



Dr. S. M. Mursalin
CEO, Pak One Health Alliance, Pakistan

Moderator



Dr. Said Abukhattab
Infectious Disease Epidemiologist, Birzeit University, Palestine



Policy and Knowledge Outputs

- [Webinar recording](#)
- [Policy brief: One Health in Action: Navigating Challenges and Opportunities in the Eastern Mediterranean](#)

²⁰² <https://www.sciencedirect.com/science/article/pii/S2352771425000448>

²⁰³ <https://applications.emro.who.int/docs/One-Health-EMR-eng.pdf>

²⁰⁴ <https://www.frontiersin.org/journals/public-health/articles/10.3389/fpubh.2025.1652846/full>

Climate Change, Migration, and Public Health: A One Health Approach to Building Resilience to Emerging Health Threats in the EMR

 17 December 2024  Attendees: 340

Climate change is increasingly reshaping migration patterns across the Eastern Mediterranean Region (EMR). Rising temperatures, water scarcity, desertification, extreme weather events, and environmental degradation are intensifying displacement pressures in a region already affected by conflict and protracted crises. These environmental stressors affect ecological stability and generate direct and indirect public health risks.²⁰⁵

Against this backdrop, EMPHNET and RTI International convened the forty-fourth session of the WEBi Series titled “Climate Change, Migration, and Public Health: A One Health Approach to Building Resilience to Emerging Health Threats in the EMR.” The session examined the intersection between climate change, displacement, and health through a One Health lens, emphasizing resilience, systems reform, and research priorities.

Dr. Hovil described the Middle East as one of the world’s most climate-vulnerable regions. Communities face extreme heat, water scarcity, degraded ecosystems, desertification, and high levels of air pollution. These environmental pressures intersect with ongoing conflict, creating layered vulnerabilities. She noted that the region hosts approximately 11 million registered refugees and 12 million internally displaced persons. Many displaced populations reside in informal settlements exposed to flooding, heat stress, and poor environmental conditions. Climate change compounds these risks and intensifies fragility. Her intervention reinforced the structural link between climate stress, migration, and health outcomes.

Dr. Marcus framed climate change as a risk multiplier that exacerbates poor migrant health. In the EMR, climate-sensitive health outcomes include:

- Vector-borne diseases
- Waterborne diseases
- Heat-related morbidity and mortality
- Psychosocial trauma and mental health burdens

Indirect impacts include limited access to healthcare, inadequate sanitation, food insecurity, and unstable shelter conditions. She emphasized that climate-resilient, migrant-inclusive health systems are urgently needed. She highlighted substantial research gaps in the region and called for stronger policy alignment, improved surveillance systems, and pilot climate adaptation initiatives in displacement settings.

Ms. Halaseh focused on Amman as an example of how rapid urbanization, population growth, refugee influx, infrastructure strain, weak public transportation, air pollution, drought, and flash floods interact to affect population health. Her intervention illustrated how climate stress intersects with urban planning and social determinants of health. She emphasized the need for integrated urban resilience strategies that connect environmental management, infrastructure planning, and health system preparedness.

The discussion highlighted that addressing climate-driven migration requires collaboration across public health, urban planning, environmental governance, humanitarian response, and migration policy.

Speakers stressed the need to build climate-resilient and migrant-inclusive health systems that can respond effectively to emerging environmental risks. They highlighted the importance of strengthening cross-border coordination mechanisms, particularly in regions where displacement frequently transcends national boundaries. Enhancing early warning and integrated surveillance systems was identified as essential for timely detection and response to climate-sensitive health threats. Participants also emphasized investing in research to generate the evidence needed for informed adaptation strategies, while aligning climate policy with health and migration frameworks to ensure coherent, multisectoral action.

The session concluded with a shared recognition that multidisciplinary innovation is essential to safeguard migrant health under changing environmental conditions. Participants emphasized that robust research, sustained dialogue, and policy reform are needed to translate discussion into action.

Over 340 public health professionals attended the webinar, reflecting strong regional and global engagement in advancing dialogue at the intersection of climate change, migration, and public health.

Speakers



Dr. Hannah Marcus
Co-Chair, WFPHA
Environmental Health
Working Group



Dr. Lucy Hovil
Partner at Expectation
State and Senior Research
Associate, Refugee Law
Initiative, University of
London



Ms. Reem Halaseh
Climate, Environment,
Energy, and Disaster Risk
Reduction Specialist, World
Vision Syria Response
Program

Moderator



Mr. Mohammad Asfour
Global Green Strategist



Key Takeaways

- Climate change is a growing driver of displacement in the EMR.
- Environmental stressors increase infectious disease risk, heat-related illness, and mental health burdens.
- Migrant populations face layered vulnerabilities due to limited access to services and infrastructure.
- Climate change acts as a risk multiplier for poor migrant health outcomes.
- Urban resilience planning is central to protecting public health in climate-affected cities.
- Multisectoral collaboration under a One Health framework strengthens preparedness and response.
- Research and policy alignment are critical to building climate-resilient, inclusive health systems.




Policy and Knowledge Outputs

- [Webinar recording](#)
- [Webinar news article](#)

²⁰⁵ <https://pmc.ncbi.nlm.nih.gov/articles/PMC9729515/>

Environmental Surveillance: Enhancing Public Health Resilience in the EMR and Beyond through One Health

 28 January 2025

 Attendees: 319

Environmental surveillance has emerged as a critical pillar of public health preparedness, particularly in the Eastern Mediterranean Region (EMR), where rapid urbanization, water scarcity, climate change, and population mobility intensify health risks.^{206 207} Systematic sampling of wastewater, soil, air, and water enables early detection of pathogens and complements traditional clinical surveillance systems. These tools strengthen early warning mechanisms and provide population-level insights that support timely public health action.²⁰⁸

Against this backdrop, EMPHNET and RTI International convened the forty-fifth session of the WEBi Series titled “Environmental Surveillance: Enhancing Public Health Resilience in the EMR and Beyond through One Health.” The session examined how environmental data enhances disease detection, informs preparedness strategies, and strengthens One Health coordination across sectors.

Prof. Rahman opened the session by highlighting the importance of environmental sampling in detecting emerging infectious threats, including melioidosis. He emphasized that soil and water surveillance can uncover underdiagnosed pathogens and provide critical data for strengthening national surveillance systems. His intervention underscored the value of integrating environmental data into routine public health monitoring to improve early detection and outbreak response.

Dr. Mahmoud presented on wastewater-based epidemiology as an effective tool for monitoring emerging diseases. He shared Qatar’s experience in detecting SARS-CoV-2 RNA across major wastewater treatment plants and demonstrated strong correlations between wastewater viral load and reported clinical cases. He showed how wastewater surveillance provided early signals during periods of high transmission and major public events, and how variant detection in wastewater mirrored clinical findings. His presentation emphasized that investment in national wastewater surveillance systems strengthens preparedness for emerging infectious diseases and supports scalable One Health applications.

Dr. Ochai focused on antimicrobial resistance (AMR) and its intersection with climate change. He described AMR as a growing global health threat with significant environmental dimensions. Antibiotic residues and resistant pathogens spread through water systems, agriculture, and waste streams, amplifying risks in low- and middle-income countries. He presented implementation research initiatives aimed at mitigating AMR transmission through wastewater treatment, manure management, and nature-based solutions. His intervention reinforced the need for political commitment, cross-sector coordination, and context-specific research under a One Health framework.

The discussion highlighted that environmental surveillance strengthens preparedness by linking laboratory science, epidemiology, environmental management, and policy. Participants emphasized the need to institutionalize wastewater surveillance, expand laboratory capacity, integrate AMR monitoring into environmental systems, and align environmental data with national health decision-making processes.

The session concluded with a shared recognition that environmental surveillance is central to resilient health systems. Coordinated One Health approaches, sustained investment, and evidence-based implementation are essential to translate surveillance data into effective prevention and response strategies.

With a total of 319 people attending the webinar, the session attracted strong regional and global engagement from public health professionals, researchers, and policymakers, reinforcing the WEBi Series as a platform for advancing applied public health dialogue.



Key Takeaways

- Environmental surveillance strengthens early warning systems and complements clinical data.
- Wastewater-based epidemiology enables early detection of emerging pathogens.
- Variant tracking and viral load trends in wastewater align with clinical surveillance findings.
- Environmental pathways play a critical role in the spread of antimicrobial resistance.
- Climate change amplifies environmental health risks and requires integrated response strategies.
- Institutionalizing One Health approaches enhances preparedness and resilience.
- Sustained investment and implementation research are essential for scalable surveillance systems.



Policy and Knowledge Outputs

- [Webinar recording](#)

Speakers



Prof. Mahmudur Rahman

EMPHNET’s Country Director in Bangladesh



Dr. Khaled Mahmoud

Research Program Director, Qatar Environment and Energy Research Institute, Hamad Bin Khalifa University



Dr. Sunday Ochai

Science Advisor for Climate Change and AMR, ICARS

Moderator



Dr. Sayed Himatt

Public Health Specialist at EMPHNET

²⁰⁶ https://link.springer.com/article/10.1186/s41043-025-01171-z?utm_source=researchgate.net&utm_medium=article

²⁰⁷ <https://www.who.int/teams/environment-climate-change-and-health/water-sanitation-and-health/sanitation-safety/wastewater>

²⁰⁸ <https://www.sciencedirect.com/science/article/pii/S2405844024099043>

Accelerating Outbreak Detection, Notification, and Response in the EMR: Advocating for the 7-1-7 Approach

 16 September 2025 |  Attendees: 250

Delays in detecting, reporting, and responding to outbreaks remain one of the most persistent governance and performance challenges across the Eastern Mediterranean Region (EMR). Timeliness gaps weaken compliance with the International Health Regulations (IHR 2005), delay containment, and increase the health, social, and economic consequences of public health events. Strengthening outbreak detection and response systems therefore requires not only technical capacity, but also performance measurement frameworks that enable accountability and continuous improvement.^{161 162}

The [7-1-7 approach](#)—detect within 7 days, notify within 1 day, and complete an early response within 7 days—offers a simple, scalable, and evidence-based performance target for strengthening outbreak response systems. Already adopted or explored across multiple WHO regions, 7-1-7 provides countries with practical metrics to measure timeliness, identify bottlenecks, and improve systems through real-time learning.^{163 164}

Against this backdrop, EMPHNET convened its forty-seventh WEBi session on 16 September 2025 titled “Accelerating Outbreak Detection, Notification, and Response in EMR: Advocating for the 7-1-7 Approach.” The session examined the technical foundations of 7-1-7, its alignment with IHR monitoring and evaluation tools, country experiences, and pathways for adoption across EMR.

Dr. Elkholy opened with a regional perspective, linking 7-1-7 to IHR (2005) core capacities and global preparedness frameworks. He highlighted the complex risk landscape of the EMR, including protracted conflicts, fragile systems, mass displacement, and recurrent outbreaks. He emphasized that translating preparedness frameworks into measurable performance targets is essential to close implementation gaps and protect lives.

Dr. Samhouri described how the Pandemic Fund incorporates IHR monitoring tools such as the Joint External Evaluation (JEE) and State Party Self-Assessment Annual Reporting (SPAR), and how 7-1-7 complements these instruments

by offering a practical, real-time performance framework. She noted that standardized timeliness metrics support investment prioritization, accountability, and cross-country learning, while also revealing data gaps that require strengthening.

Dr. Porth outlined the technical rationale behind the 7-1-7 target, emphasizing that every outbreak provides an opportunity for structured learning. He explained how the three-timeliness metrics support performance improvement, advocacy, and accountability. By identifying bottlenecks during real events, countries can implement corrective actions rapidly, often with minimal additional cost. He also highlighted global uptake of the approach, with dozens of countries engaged and an expanding community of practice.

From Pakistan, Dr. Tahir shared national experience in adapting 7-1-7 beginning in 2025. Following national consultations, the approach was piloted in Khyber Pakhtunkhwa province, supported by standardized outbreak investigation tools integrated into DHIS-2. He described challenges related to financing, competing priorities, and concerns about duplication with existing systems. Strong advocacy by the National Institute of Health, Field Epidemiology Training Program (FETP) alumni, and partners facilitated adoption. He underscored the importance of domestic financing and sustained capacity building for long-term institutionalization.

The session convened more than 250 participants from across the region and beyond. The discussion explored integration of 7-1-7 within existing surveillance systems, alignment with IHR monitoring tools, opportunities to link implementation with FETPs, and the role of international partners in supporting adoption.

Within this chapter, the webinar illustrates how governance and performance measurement frameworks strengthen health systems resilience. It demonstrates that outbreak preparedness is reinforced when timeliness metrics are embedded within national systems, enabling transparency, accountability, and continuous improvement rather than episodic crisis response.

Speakers



Dr. Amgad Elkholy
Team Lead, IHR Assessment, Monitoring and Evaluation, WHO EMRO



Dr. Dalia Samhouri
Lead Health Specialist, Pandemic Fund



Dr. Tyler Porth
Principal Technical Advisor, 7-1-7 Alliance



Dr. Majid Ali Tahir
Health Education Officer, Center for Disease Control, National Institutes of Health (NIH), Pakistan

Moderator



Maj. Gen. Prof. Aamer Ikram
Vice-President of the International Association of National Public Health Institutes (IANPHI) and Chair of the TEPHINET Advisory Board



Key Takeaways

- The 7-1-7 approach provides a simple, real-time framework to assess outbreak detection, notification, and early response performance.
- Embedding timeliness metrics strengthens IHR implementation and health security governance.
- Standardized performance measurement enhances transparency, advocacy, and accountability.
- Country experience demonstrates that adoption is feasible when supported by national leadership and structured advocacy.
- Integration with existing surveillance platforms and FETPs supports sustainability and institutionalization.



Policy and Knowledge Outputs

- [Webinar recording](#)
- [Webinar news article](#)

¹⁶¹ <https://www.frontiersin.org/journals/public-health/articles/10.3389/fpubh.2025.1745722/full>

¹⁶² <https://www.emro.who.int/media/news/strengthening-disease-surveillance-in-the-eastern-mediterranean-region.html>

¹⁶³ <https://resolvetosavelives.org/epidemic-prevention/7-1-7/>

¹⁶⁴ <https://wellcomeopenresearch.org/articles/11-113>

The One Health, Environment, and Climate Change public health area documents regional dialogue on how environmental change, zoonotic threats, antimicrobial resistance, climate-related risks, and the importance of timely outbreak detection and response intersect with health system resilience in the EMR.

Across sessions delivered between 2022 and 2025, the WEBi Series evolved from outbreak-focused discussions toward applied implementation, including environmental surveillance systems, wastewater-based epidemiology, AMR mitigation strategies, and climate-informed preparedness planning.

Together, these webinars consolidate regional knowledge exchange and provide a structured reference for advancing integrated One Health action across human, animal, and environmental systems.

Continuing the Conversation: The Future of the WEBi Series

Over the past five years, the EMPHNET WEBi Series has evolved into a trusted regional platform for public health dialogue, knowledge exchange, and professional collaboration. Through more than fifty sessions conducted between 2020 and 2025, the Series created a space where public health professionals, policymakers, researchers, and practitioners could reflect on emerging challenges, share experiences, and translate evidence into practice.

The discussions documented throughout this booklet demonstrate the breadth of issues addressed through the WEBi Series – from pandemic response and immunization systems to field epidemiology, governance, humanitarian crises, and One Health. While each session explored a specific technical topic, together they reflect a broader commitment to strengthening public health systems across the Eastern Mediterranean Region and beyond.

A central contribution of the WEBi Series has been its ability to connect diverse perspectives. Experts from ministries of health, academic institutions, international organizations, and frontline public health programs have engaged in dialogue that bridges policy, research, and implementation. This exchange has helped illuminate regional experiences, highlight innovative practices, and support evidence-informed decision-making.

As public health challenges continue to evolve, sustained dialogue remains essential. Emerging health threats, climate and environmental pressures, protracted humanitarian crises, and the growing burden of noncommunicable diseases require collaborative approaches that extend across borders and sectors. Platforms that enable continuous learning and exchange will remain critical for strengthening preparedness and resilience.

Looking ahead, the WEBi Series will continue to serve as a forum for regional engagement and knowledge sharing. EMPHNET remains committed to supporting this dialogue by convening experts, documenting lessons learned, and amplifying regional voices in global public health discussions. The success of the WEBi Series reflects the contributions of many partners and participants across the region. Public health professionals, institutions, and organizations are encouraged to continue engaging with the platform by sharing experiences, presenting research, and contributing to future discussions on emerging priorities.

Through sustained collaboration and knowledge exchange, the WEBi Series will continue to support stronger public health systems and a more connected professional community across the region.

For updates on future sessions and opportunities for engagement, please visit www.emphnet.net or contact comm@emphnet.net.

ADVANCING PUBLIC HEALTH DIALOGUE IN THE EASTERN MEDITERRANEAN REGION



EMPHNET

The Eastern Mediterranean
Public Health Network

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GHD|EMPHNET: Working Together for Better Health

The Eastern Mediterranean Public Health Network (EMPHNET) is a regional network that focuses on strengthening public health systems in the Eastern Mediterranean Region (EMR) and beyond. EMPHNET works in partnership with ministries of health, non-government organizations, international agencies, private sector, and relevant institutions from the region and the globe to promote public health and applied epidemiology. To advance the work of EMPHNET, Global Health Development (GHD) was initiated to build coordination mechanisms with partners and collaborators. Together, GHD|EMPHNET is dedicated to serving the region by supporting efforts to promote public health policies, strategic planning, sustainable financing, resource mobilization, public health programs, and other related areas.

▶ Shmeisani, Abdallah Ben Abbas Street, Building No 42,
P.O.Box: 963709, Postal Code: 11196 Amman, Jordan

▶ Tel: +962-6-5519962
Fax: +962-6-5519963

▶ www.emphnet.net
info@emphnet.net