

Celebrating Ten Years of Success in the Eastern Mediterranean Region



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2010

2020

FOREWORD

Ten years ago, a public health network by the name of EMPHNET was launched as A Driving Force for Change in the heart of one of the most troubled regions in the world to become today, as GHD|EMPHNET, a leading organization in the Eastern Mediterranean Region (EMR) that is Working Together for Better Health. This year marks ten years of GHD|EMPHNET making a difference in the public health scene in EMR countries, building workforce capacities, strengthening programs, supporting research for informed decision-making, and enhancing networking through strategic collaborations with ministries of health and organizations with similar missions to ours.



Our tenth anniversary comes during unprecedented times. While GHD|EMPHNET has worked effortlessly under challenging circumstances since its establishment, it is this year that our team incredibly seized opportunities, innovated, and responded rapidly to the changes that have no record of precedents in the region and the world. The implications of the COVID-19 pandemic serve as a culmination of an extraordinary past and shapes our outlook for the future.

In this context, the theme Ten Years of Change, that was chosen for this celebratory year, fits this report that reflects the contribution that GHD|EMPHNET offered to the EMR in many aspects of public health: expanding Field Epidemiology Training Programs (FETPs), responding to major public health emergencies, supporting Polio eradication and enhanced routine immunization, strengthening biorisk management, and supporting prevention and control of zoonotic diseases, among many other achievements. These are contributions that were made possible thanks to our strategic partnerships with EMR countries that believed in us and trusted our capabilities.

Every year, I thank all our dedicated team members and acknowledge the realities faced by our remote team members and the challenges they encounter when delivering and implementing interventions. This year special thanks should go to those who worked in the field away from their families risking their lives. Despite all challenges and difficulties, this year was a great triumph for applied epidemiology, a critical area that we look forward to enhancing and advancing.

I would like to thank our partners, stakeholders, and of course the countries. Without their support and trust we would not be able to make such a contribution to public health.

Dr. Mohannad Al Nsour
Executive Director, GHD|EMPHNET

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INTRODUCTION

This report was developed to celebrate the tenth anniversary of the establishment of GHD|EMPHNET. Here, we share highlights of major achievements made by GHD|EMPHNET over the last ten years by focusing on its contribution to national health systems in the region through four working areas: Capacity Building, Research and Policy, Public Health Programs, and Communication

and Networking. The report details GHD|EMPHNET's contribution to priority public health matters in the region in public health workforce development, promotion of public health research, prevention and control of infectious diseases, polio eradication, enhancing routine immunization, response to emergencies, and improving knowledge exchange and networking.

Ten years ago, GHD|EMPHNET was established to realize a clear vision: see people in the EMR lead healthy lives and well-being. We look back at the last decade to see that we took important steps towards realizing this vision. We take the time to celebrate this success.

Our Vision

Enable people in the Eastern Mediterranean Region Lead Healthy Lives and Wellbeing

Our Mission

Prevent and control diseases, to conduct and support operational research for priority public health domains and to strengthen public health programs while working jointly with similar institutions associations, networks and organizations.

OUR STORY

When we look back at how we started and where we are now, we look at a Story of Change. Over a decade ago, a network for Field Epidemiology Training Programs (FETPs) in the EMR did not exist. The need was recognized to create a regional FETP network to enhance existing FETPs and to support the establishment of new programs thus empowering public health professionals with knowledge in public health surveillance, biostatistics, and epidemiology of priority diseases: knowledge that they can apply to strengthen national health systems. In 2008, representatives from the US Centers for Disease Control and Prevention, the Training Programs in Epidemiology and Public Health Interventions Network (TEPHINET), and FETP Directors from the region met to explore the possibility of creating such a network. Parties got into an agreement for the need to support establishing the Eastern Mediterranean Public Health Network (EMPHNET), which was officially established and registered in 2009.

Within a short period of time, EMPHNET's establishment as a regional FETP network proved a success. EMPHNET soon became a strong supporter for existing FETPs by creating learning opportunities for residents and graduates in epidemiologic competencies and related public health subjects including biorisk management, rapid response, scientific writing, and more. In less than a year of its establishment, EMPHNET launched its biennial regional conference which has been an important networking and knowledge sharing opportunity for FETPs and public health in the EMR ever since. Afghanistan, Iraq, Morocco, Sudan, Tunisia, and Yemen were added to the existing FETPs in the region at the time of EMPHNET's establishment in 2009, namely Egypt, Jordan, Pakistan, and Saudi Arabia. Over the years, EMPHNET also supported the establishment of various FETP modalities in EMR countries to respond to national needs to expand and enrich field epidemiology workforce in the region.

While EMPHNET was established to become a regional FETP network that will work to advance the capacities of FETPs in the EMR, EMPHNET was also founded as a public health organization to contribute to improving population health status in the region by working with ministries of health as well as regional and international partners and collaborators from the public health and related sectors. EMPHNET initially adopted the slogan **EMPHNET: A Driving Force in Public Health** to express its intent to become a dynamic force for instigating change in the region. Guided by this slogan, EMPHNET has been able to become a prominent player in public health in the region by contributing to regional and national efforts towards addressing public health needs.

In response to the increasing public health needs within the EMR, EMPHNET established the Global Health Development (GHD) in 2015, almost half a decade after the founding of

EMPHNET. GHD was established as an implementing initiative to maximize EMPHNET's support for EMR countries towards creating positive change by addressing public health needs and supporting countries' efforts in meeting progress towards the Sustainable Development Goals (SDGs). This expansion brought about change and drove GHD|EMPHNET to adopt the slogan **GHD|EMPHNET: Working Together for Better Health** and work with ministries of health, regional and international organizations, and other institutions to enhance capacities of the public health workforce, use data to influence public health action, support and develop public health programs, and create opportunities for enhancing knowledge exchange and information sharing.

THE EASTERN MEDITERRANEAN REGION

Measured against health-related SDG targets, the EMR's health profile is a complex one. Comprising a diversity of countries from low to middle and high-income economies, the region is one of the world's most affected regions by emergencies, war, and conflict. With two countries being Polio endemic, the EMR also suffers from the



high burden of communicable and non-communicable diseases, shortages in physical and human resources, diverse and complex challenges in terms of health systems strengthening, and dominant health determinants such as poverty and socio-economic factors that make the scene dense.

The COVID-19 pandemic made these challenges more immense. Facing an unprecedented pandemic, the region has reported over 5,000,000 cases and over 100,000 deaths since the start of the pandemic as of January 7, 2021. Response to the pandemic was not without its challenges in many measures: surveillance, infection prevention and control, contact tracing, diagnostics, risk communication and community engagement, and others. COVID-19 has disrupted delivery of essential health services such as routine immunization and family planning services, which to a certain extent was more pronounced among refugees and other vulnerable communities. Now, there is also the pressing need to secure the COVID-19 vaccine to low- and middle-income countries in the region.



TEN YEARS OF CHANGE



A DRIVING FORCE IN PUBLIC HEALTH

With a focus on assisting EMR countries in addressing diverse health needs in emergency and non-emergency situations to realize its vision of enabling people in the Eastern Mediterranean Region lead healthy lives and well-being, GHD|EMPHNET has witnessed rapid growth over the last ten years. When it was established in 2009, GHD|EMPHNET started working with only four EMR countries. Today, GHD|EMPHNET works with twelve countries in the region and takes part in collaborations beyond the EMR. While it began working primarily to advance field epidemiology in the region, it soon started new programs in support of priority health needs in the region, mainly public health emergencies, polio eradication, challenges in routine immunization, the high burden of communicable and non-communicable diseases, biorisk threats, among others. Throughout its journey, creating strong relations with ministries of health across the region and fostering international and regional partnerships and collaborations have been instrumental to its success.

Capitalizing on its accomplishments and experience as a regional network, GHD|EMPHNET established the Center of Excellence for Applied Epidemiology in 2015 to further empower the public health workforce of EMR countries with skills in field epidemiology which is key in responding to public health threats. Over a period of four years, the center grew by supporting the establishment of more FETPs of various modalities, conducting applied and operational research that addresses EMR priorities, and developing digital solutions for public health.

Understanding early on the urgency of public health emergency response during humanitarian crises that afflict the region, GHD|EMPHNET took an active role in assisting EMR countries in emergency preparedness and response. In 2012, GHD|EMPHNET launched its Rapid Response Teams (RRT) Initiative that yielded more than 700 RRT members from different

EMR countries as respondents to disease outbreak such as Cholera, Measles, and Yellow Fever, among others. As the region continued to suffer additional crises, coordinated response had to be scaled up. In view of this, GHD|EMPHNET established its Public Health Emergency Management Center (PHEMC) in 2017 to enhance coordination mechanisms among stakeholders to better prevent, detect, and respond to public health threats.

Building on its legacy of working with ministries of health towards building adequate emergency management capacities, GHD|EMPHNET has been able to contribute to regional response to the unprecedented COVID-19 pandemic. The region's FETP residents and graduates played a crucial role at the front lines in surveillance, contact tracing, screening at Points of Entry, diagnostics, samples collection, infection control, and risk communication. Our long-standing investment in RRTs has proved significant when RRTs in the region were deployed to the field during COVID-19 response.

In line with its focus to address gaps and needs at the regional level, GHD|EMPHNET also joined partners from the region and the globe to support joint efforts to achieve and sustain Polio eradication in a region where the world's two polio-endemic countries are in the EMR: Afghanistan and Pakistan. In 2014, GHD|EMPHNET began a collaborative initiative to strengthen sustainable public health capacity in the EMR for Polio eradication and routine immunization.

In its commitment to addressing regional health needs, GHD|EMPHNET also made an important contribution to promoting the One Health approach in preventing and controlling of zoonotic diseases endemic to the region, combatting antimicrobial resistance, and preventing biological threats.



Sixth EMPHNET Regional Conference 2016

OUR SUCCESS FACTORS

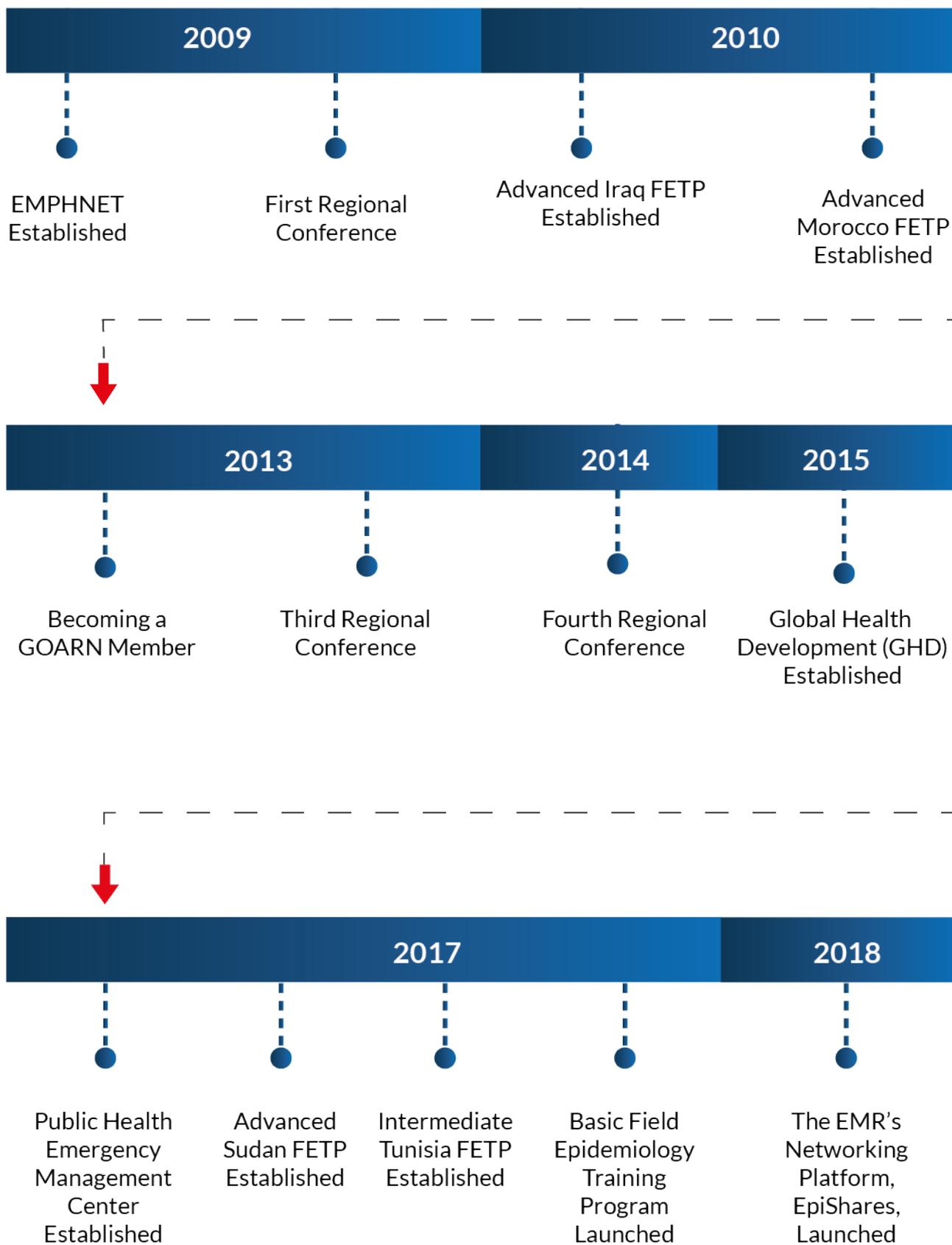
Our success is attributed to our belief in the need to grow as a dynamic force for change in public health in the EMR- a belief that motivated us to broaden our scope and network.

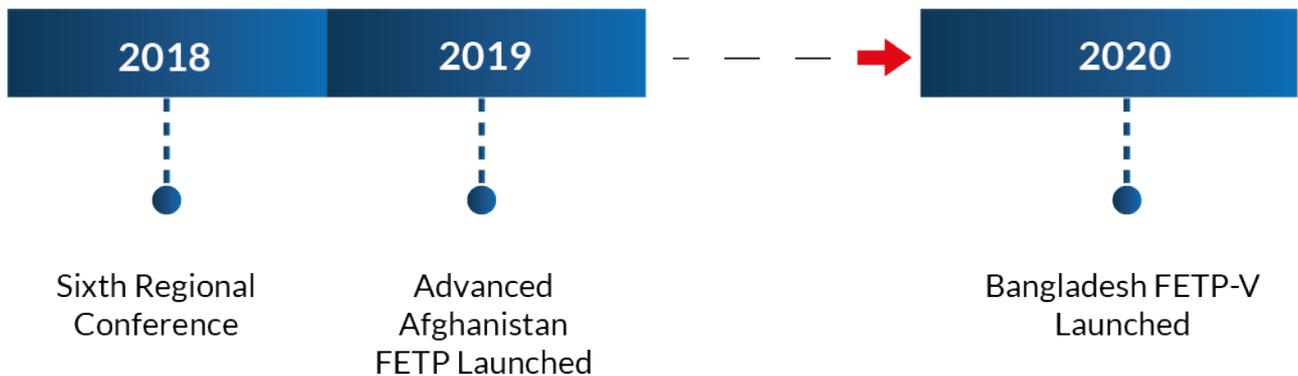
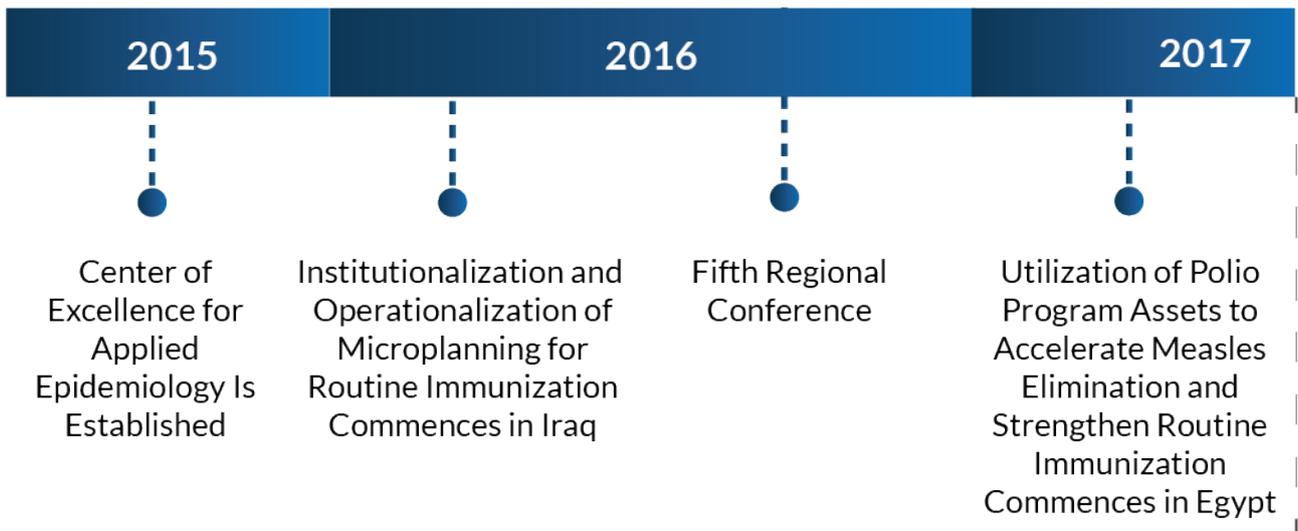
Since our establishment in 2009, we progressed to gain expertise in specific areas which have become the foundation for expanding our work in contribution to achieving better health outcomes in the EMR. We continue to work at empowering public health workforce with knowledge and skills; using data to influence public health policy and action; enhancing countries' monitoring and evaluation of public health programs, interventions, projects, and surveillance systems as well as planning and managing programs; using information and communications technology in developing solutions; enhancing knowledge transfer through professional translation; and providing logistic and operation support when needed.

Over the years, we forged partnerships and collaborations with ministries of Health, international development partners, academia, and private sector. We demonstrated a strong commitment to improving public health in the region, especially by working directly with ministries of health and with support and assistance from international and regional partners and collaborators with a particular focus on the grassroot level. The direct connection with ministries of health, gave us the advantage of gaining access to hard-to-reach areas in conflict-affected areas. Acting as the only public health network in the EMR, we focused on supporting the FETPs in their response to public health problems and developed different platforms for exchanging knowledge and sharing information from the field.



TIMELINE OF MAJOR ACHIEVEMENTS





EMBRACING CHANGE

1. INVESTING IN WORKFORCE DEVELOPMENT

Understanding that investment in health workforce development is key to strengthening health systems, GHD|EMPHNET's contributed to this notion by building capacities with the aim to fill existing public health gaps and needs in the EMR. Workforce development has been one of GHD|EMPHNET's first working areas, where soon after establishment, it began to design and implement capacity building activities for FETP residents and graduates. In 2015, GHD|EMPHNET institutionalized capacity building activities by establishing the Center of Excellence for Applied Epidemiology (CEAE), which became the Workforce Development hub responsible for designing and implementing high quality, standardized capacity building activities to increase the number of trained public health workforces across the region; support the establishment of FETPs in the region, while also provide the needed support to the already established ones.

As of 2018, the CEAE integrated the online training approach into its capacity building activities, which led to the establishment of GHD|EMPHNET's Learning



In a decade, GHD|EMPHNET supported the establishment of **5 advanced, two-year FETPs**: Afghanistan, Iraq, Morocco, Sudan, and Yemen



GHD|EMPHNET introduced the **intermediate, one-year FETP modality in the region**, in Afghanistan and Tunisia. The modality is in high demand because it is efficient in graduating higher numbers of field epidemiologists over a shorter period.



GHD|EMPHNET has customized the **standard basic FETP to the context of the region and implemented it in six countries** under the name Public Health Empowerment Program-Basic Field Epidemiology (PHEP-BFE).



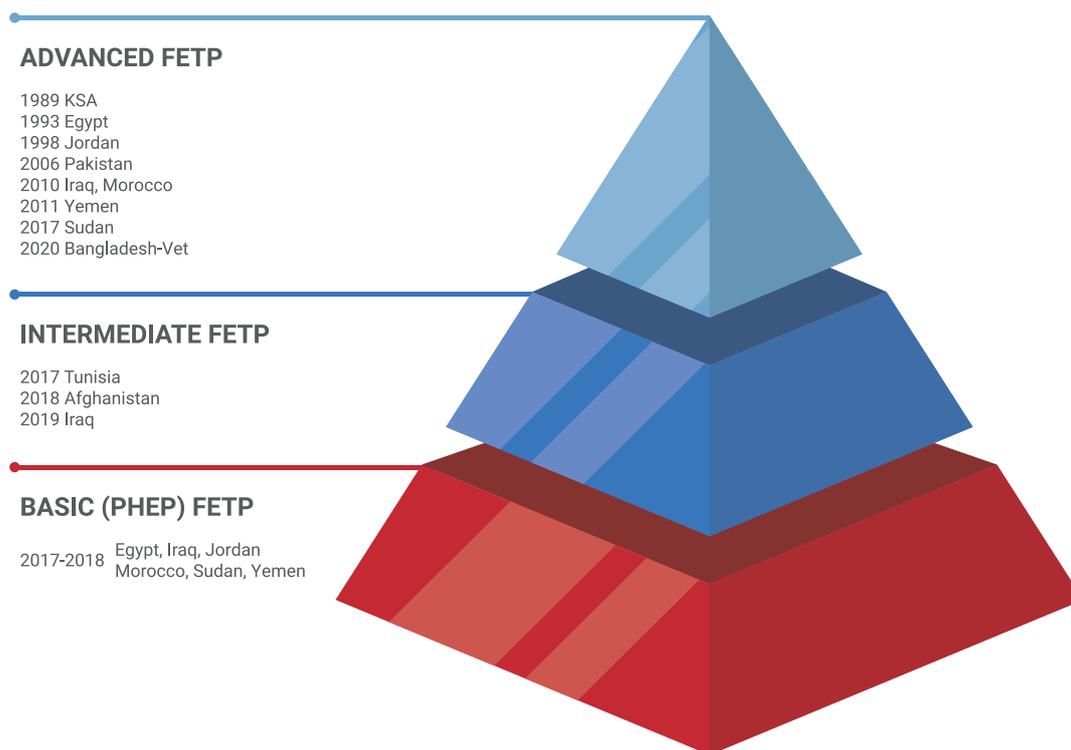
GHD|EMPHNET developed the **basic and intermediate FETPs as online programs**.



In 2019, GHD|EMPHNET supported establishment of FETP beyond the EMR by **supporting Bangladesh establish an Advanced FETP for Veterinarians**.

Management System (LMS) in 2020 as a free open-source platform that would host its online programs and courses. GHD|EMPHNET's LMS is enabled with features needed to deliver educational courses and training programs from instructor-student interactions to assessments, tests, assignments, and more. During the COVID-19 pandemic, the LMS proved highly beneficial as it offered courses needed to build public health professionals' capacity in response to COVID-19.

Modalities of Existing FETPs in the EMR



Number of FETP Cohorts in the EMR

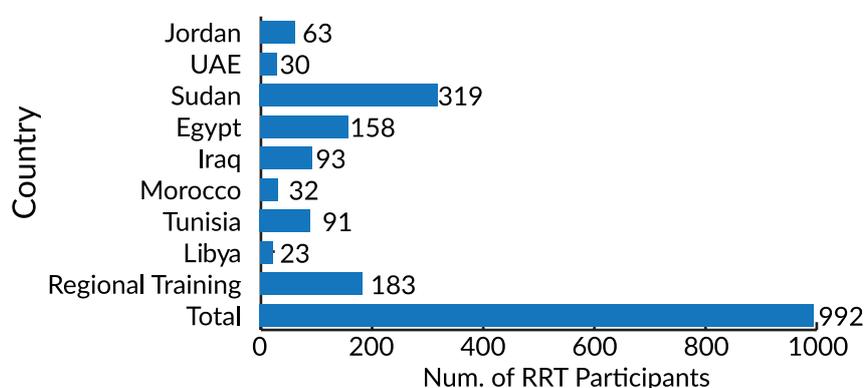
32 Cohorts in KSA	09 Cohorts in Iraq
20 Cohorts in Egypt	06 Cohorts in Morocco
16 Cohorts in Jordan	02 Cohorts in Tunisia
11 Cohorts in Pakistan	01 Cohort in each of
05 Cohorts in Yemen	Afghanistan Bangladesh
	and Sudan

2. INFLUENCING EMERGENCY PREPAREDNESS AND RESPONSE

LAUNCHING THE RAPID RESPONSE TEAMS INITIATIVE

GHD|EMPHNET made considerable investment in building the capacities of the public health workforce in the area of emergency preparedness and response. In a decade, GHD|EMPHNET trained almost 1000 emergency rapid responders from several countries across the region. These responders contributed to strengthening public health emergency response efforts in their countries and beyond to many outbreaks such as Acute Diarrhea, Brucella, Cholera, Ebola, H5N1, MERS-CoV, Salmonella, Yellow Fever, and most recently, COVID-19. They also served as a major cornerstone in rolling out rapid response capacity building in their respective countries to the sub-national level. Rapid Response Teams Training (RRT) remains GHD|EMPHNET's focus within its work in emergency preparedness and response

Number of RRT Participants Trained by GHD|EMPHNET



ESTABLISHING THE PUBLIC HEALTH EMERGENCY MANAGEMENT CENTER

To support coordinated and streamlined rapid response strengthening initiatives and activities in the EMR, GHD|EMPHNET established its Public Health Emergency Management Center (PHEMC) in 2017 as a coordination hub to regional public health emergency management and response efforts. Through the center's operational procedures and technical inputs, GHD|EMPHNET worked with the countries towards supporting coordinated efforts among collaborators - in alignment with the national governments' policies and strategic directions - to ensure optimal, comprehensive, and timely response tailored to countries' priorities. PHEMC also supported building the capacities of many EMR countries in surveillance and alert systems, risk communication, incident management, data and information management, and intersectoral coordination management mechanisms.

JOINING GLOBAL RESPONSE TO MAJOR EMERGENCIES IN THE EASTERN MEDITERRANEAN REGION

As a member of the Global Outbreak Alert and Response Network (GOARN) Steering Committee since 2013, GHD|EMPHNET was able to deploy public health professionals from its network into seven different countries in support of disease outbreaks and other public health emergencies.

Since 2014, GHD|EMPHNET has been supporting public health humanitarian emergency efforts for Syrian refugees in the Azraq and Zaatari Camps in Jordan through several activities such as contributing to vaccination services. In 2019, GHD|EMPHNET established the Zaatari Camp Outreach Post which has been serving as a training hub for the camps, especially for RRTs. With the COVID-19 threatening refugees, GHD|EMPHNET leveled up its support for the camps by supporting training for health workers and deploying additional needed RRTs to protect this vulnerable community from the pandemic.

3. FOCUSING ON DISEASE CONTROL AND PREVENTION

EMBRACING THE ONE HEALTH APPROACH

As a collaborative, multisectoral, and transdisciplinary approach – working at the local, national, regional, and global levels - the One Health Approach aims to achieve optimal health outcomes recognizing the interconnection between people, animals, plants, and their shared environment. The One Health Approach can be harnessed to address Global Health Security (GHS) issues such as emerging and re-emerging diseases, especially of zoonotic nature, and thus promote the prevention and rapid detection of novel biological threats, as well as assist in contextualized solutions for the response to these disease threats.

Aiming to reduce the impact of zoonotic diseases by enhancing their detection and control, GHD|EMPHNET, in collaboration with the ministries of health and agriculture within several EMR countries, got engaged and provided support through several projects to promote the One Health Approach by building the capacities of laboratories and strengthening surveillance systems in support of reliable diagnosis and effective control.

In adopting the One Health Approach, GHD|EMPHNET worked on a project that focused on Strengthening Brucellosis Surveillance, Diagnostics, and Control in Iraq, Jordan, and Pakistan. GHD|EMPHNET also completed a project on Improving Diagnosis and Safe Handling of Anthrax in Jordan. Such projects aim to strengthen surveillance and diagnostic capabilities for detecting these diseases with electronic notification as well as serological and molecular testing techniques.



GHD|EMPHNET trained around **200** physicians, nurses, public health professionals, veterinarians, and laboratory technicians.



Regionally, GHD|EMPHNET equipped **6 central public health laboratories** with tools for detecting and controlling circulating zoonotic disease causative agents.

BUILDING WORKFORCE CAPACITIES IN BIORISK MANAGEMENT



With a focus on improving biorisk management practices, GHD|EMPHNET implemented several projects and activities targeting over **200 laboratory professionals in Afghanistan, Iraq, Jordan, Libya, Pakistan, Tunisia, and Yemen.**

With the goal to lead and synchronize efforts to instigate biosafety and biosecurity best practices among laboratory and healthcare professionals in contribution to infectious disease control, GHD|EMPHNET contributed to a series of communication, workforce development, and capacity building efforts at the national and regional levels. In the last ten years, the areas covered were basic principles of biosafety and biosecurity, sample management, infectious waste management, and chemical safety.

GHD|EMPHNET developed a biorisk management training curriculum; designed and implemented training workshops; and provided access to online educational resources. GHD|EMPHNET also shared relevant resources among partners and developed a follow-up mechanism to ensure the implementation and sustainability of gained knowledge at facility level.

SUPPORTING ENHANCED ANTIMICROBIAL RESISTANCE SURVEILLANCE

Antimicrobial resistance (AMR) causes antimicrobial drugs to become ineffective in treating infections, resulting in lengthened disease duration and increased risk of disease transmission. AMR affects humans, animals, and the environment. A health threat which also poses economic burdens, AMR is estimated to be predominant in low and middle-income countries (LMIC) where misuse of antibiotics is prevalent due to poverty and weakened health systems.

To support controlling AMR in LMICs, GHD|EMPHNET is conducting activities under the project “Partnership for AMR Surveillance Excellence” in South Asia: Afghanistan, Pakistan, Bhutan, and Nepal, as highly and densely populated countries which are hotspots for emerging infectious diseases, and AMR. Specifically, GHD|EMPHNET is coordinating with Pakistan One Health Alliance and South Asia One Health Disease Surveillance Network to map needs, current practices, and existing protocols in the afore-mentioned countries in relation to AMR surveillance in the human, animal, and environmental health sectors.

4. JOINING GLOBAL EFFORTS IN POLIO ERADICATION AND STRENGTHENING ROUTINE IMMUNIZATION

GHD|EMPHNET AS A PIONEER IN SUPPORTING KEY PRIORITY AREAS

Institutionalization and Operationalization of Routine Immunization Microplanning in Iraq and Jordan

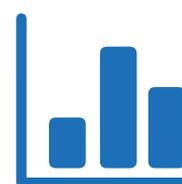
To improve equity through reaching and vaccinating every child everywhere, GHD|EMPHNET has initiated a project to institutionalize and operationalize routine immunization (RI) microplanning in Iraq and Jordan since 2016.



In Iraq, targeted health directorates of high priority and covered **50% of the population**



Routine Immunization Microplanning in Iraq 2019



Micro plans and monitoring charts were developed in around **500 health centers**, and **100% of targeted health centers updated their micro plans for RI**



In Egypt, the second phase of the Polio Program Assets Transitioning Project covered more than **30% of the population**. In Iraq, the Project covered **40% of the population**.

Initiating Polio Program Assets Transitioning in Egypt and Iraq

In 2017, GHD|EMPHNET initiated a Polio Program Assets Transitioning Project to utilize domestic Polio assets in strengthening RI and to reach the measles elimination targets in Egypt in three high priority frontiers governorates: Aswan, Matrouh, and Red Sea. GHD|EMPHNET supported the Ministry of Health and Population in establishing the project's structures at different levels of the national health system, in training health staff on detecting and reporting Acute Flaccid Paralysis (AFP) and measles as well as reporting unimmunized children while highlighting the roles and responsibilities of health staff and community volunteers to reach the objective of this project, and in supporting conduction of micro surveys around AFP and fever and rash cases, and in monitoring the project's activities.

Supporting Community-based Initiatives in Iraq, Sudan, and Yemen

GHD|EMPHNET realizes the community's role in improving immunization coverage and works to influence community behavior to effect positive outcomes in this regard. Between 2017 and 2018, GHD|EMPHNET piloted an Appreciative Inquiry (AI) initiative in two high-risk districts in Iraq. The purpose of the AI was to mobilize local communities and resources and build ownership to increase vaccination coverage to 100% in the selected areas of the intervention. Verification of collected data concluded that the AI succeeded in reaching all targeted children for BCG and Hexa1 vaccines.

THE ENGAGEMENT OF LOCAL COMMUNITIES IN THE AI CONTRIBUTED TO REACHING FULL IMMUNIZATION IN THE TWO TARGETED DISTRICTS.

Between 2018 and 2019, GHD|EMPHNET supported ministries of health to establish and strengthen and/or strengthen community-based surveillance in Iraq, Sudan, and Yemen. In Yemen, GHD|EMPHNET trained volunteers from all over the country, under the Polio Village Volunteers Project which expanded community engagement toward strengthening surveillance and improving RI.

An independent evaluation showed that **Non-Polio AFP rate in children ≤ 15 years and the Adequacy Rate have increased in Yemeni districts** where the Polio Village Volunteers were trained.

BOOSTING NATIONAL EFFORTS

Strengthening Surveillance Systems

Acute Flaccid Paralysis and Vaccine Preventable Diseases in Iraq and Morocco

Based on identified needs, GHD|EMPHNET contributed to strengthening (Acute Flaccid Paralysis (AFP) and Vaccine Preventable Diseases (VPDs) surveillance systems in different countries of the EMR to strengthen national surveillance systems. In Iraq and Morocco, GHD|EMPHNET supported national efforts in this regard and contributed to the improvement of AFP surveillance indicators by implementing different interventions.

In the high-risk provinces of Iraq, **203 AFP and VPD** surveillance officers and hospital focal points were trained on AFP surveillance.

GHD|EMPHNET supported Morocco Ministry of Health to significantly **improve AFP surveillance indicators**, where the Non-Polio AFP rate (NPAFP) per 100000 population below the age of 15 years reached the regional standard of 2.1 in 2019 in comparison with 1.3 and 0.73 in 2017 and 2015, respectively.

In Morocco, GHD|EMPHNET supported a **nation-wide training of 263 AFP/ VPD** surveillance focal points.

Congenital Rubella Syndrome Surveillance in Afghanistan and Egypt

Rubella infections can result in serious effects when occurring during pregnancy, particularly during the first trimester. Miscarriages, stillbirths, congenital rubella infection (CRI) without birth defects, and Congenital Rubella Syndrome (CRS) are the major complications of this infection.

With support from GHD|EMPHNET, Afghanistan and Egypt established a CRS surveillance system that obtains standardized data on CRS incidence and creates a basis for documentation and verification of rubella virus elimination, detection and isolation of CRS-affected infants. Availability of the system insures early provision of appropriate care of the disease and hence rapid mitigation of it.

BOLSTERING THE EXPANDED PROGRAM ON IMMUNIZATION IN THE EASTERN MEDITERRANEAN REGION

Workforce Development

While GHD|EMPHNET integrates capacity building in most of its activities in the countries at all levels of the national health system, GHD|EMPHNET places specific focus on building capacities of staff of the Expanded Program on Immunization (EPI) at the peripheral and frontline levels.



Training 10,120 EPI staff at all levels in Egypt on the implementation of RI activities.



Training over 300 vaccinators in low-coverage districts in Yemen on providing high-quality immunization services.



Training around 2,000 vaccinators as part of supporting Immunization in Practice in Iraq



Regional training workshop to build a pool of potential consultants for strengthening RI attended by participants Afghanistan, Egypt, Iraq, Jordan, Lebanon, Pakistan, Sudan, and Yemen

Communication Strategy and Implementation Plans

Between 2017 and 2018, GHD|EMPHNET supported the development of EPI Communication Strategies in Iraq and Yemen through an intensified consultative approach that engaged relevant governmental sectors, international partners, and different stakeholders. Endorsed by high public health authorities, these communication strategies were disseminated nationally. GHD|EMPHNET's role did not stop at the level of the development and dissemination of the strategy but encompassed training for relevant staff and holding advocacy meetings.

Routine Immunization Supportive Supervision and Monitoring

GHD|EMPHNET adopted a holistic approach in supporting immunization supportive supervision and monitoring in Afghanistan and Iraq, starting from reviewing of the current system and tools; then onto developing of strategy documents and improvement plans; updating, revising, and testing supervision tools; and finally training relevant personnel at different levels of the national health system.



In Afghanistan in the past five years, **500 EPI health staff in 34 provinces** were trained on supportive supervision, **8,640 supportive supervision visits** were supported, and **120 supportive supervision sessions** were conducted.



In Iraq, with more than **200 provincial and district focal points, supervisory checklists** and plans were developed and updated at provincial and district levels.

EXPANDING WORKFORCE DEVELOPMENT

In 2017, GHD|EMPHNET developed the Public Health Empowerment Program- Surveillance for Polio Officers (PHEP-SPO) to equip polio officers, surveillance officers, immunization officers, and nutrition officers at central, provincial and district levels, with the skills needed to sustain Polio eradication activities and strengthen RI.

Public Health Empowerment Program- Surveillance for Polio Officers (PHEP-SPO)

Sudan

*120 EPI/ Polio officers trained from 16 states
30 nutrition officers trained*

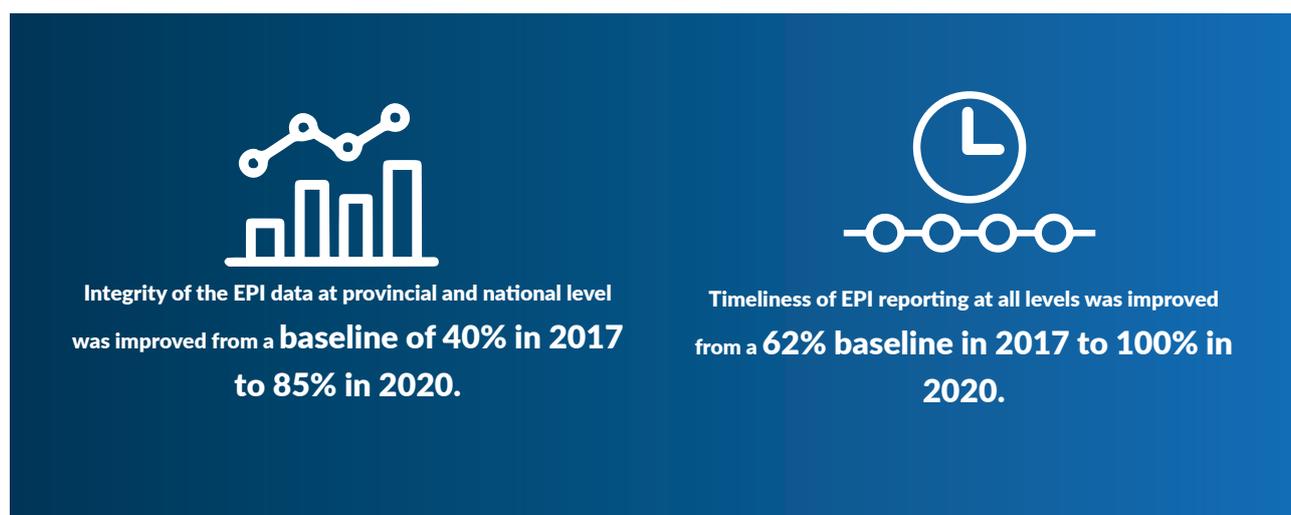
Yemen

75 polio and surveillance officers trained

IMPROVING IMMUNIZATION DATA QUALITY IN AFGHANISTAN

In 2017, GHD|EMPHNET and Afghanistan EPI established a data software to improve the EPI data quality at the national level. On this software, 350 health staff were trained on data quality and were provided with technical support to upgrade and improve the EPI database to

aid in health facility, district, provincial and national level analysis which significantly improved the EPI data use at all levels.



INCREASING DEMAND FOR IMMUNIZATION SERVICES IN AFGHANISTAN

Since 2016, GHD|EMPHNET has been working with Afghanistan Ministry of Public Health to increase demand for immunization in using appropriate communication intervention for improving knowledge and attitudes regarding immunization services. Five Polio endemic and high-risk provinces were targeted: Helmand, Kandahar, Kunar, Laghman, and Nangarhar. In a study conducted to determine the effect of the interventions, results indicated a significant improvement among the intervention group in all components of knowledge, attitudes and practice regarding child immunization compared to the control group.

In a KAP study in Afghanistan, the knowledge of respondents about vaccine protection was increased from 24% to 74%.

STRENGTHENING THE FUNCTIONALITY OF THE NATIONAL IMMUNIZATION TECHNICAL ADVISORY GROUPS

GHD|EMPHNET provided technical support to Afghanistan, Iraq, Jordan, Libya, Morocco, Oman, Saudi Arabia, and Tunisia to operationalize their National Immunization Technical Advisory Groups (NITAGs) according to the global standards. GHD|EMPHNET supported these countries in developing NITAG improvement plans and continues to provide needed support for the implementation of these plans.

Country	Number of Participants
Afghanistan	1350
Egypt	10588
Iraq	2362
Jordan	272
Morocco	314
Sudan	150
Yemen	551

Trainings Conducted to Build Capacities in Polio Eradication and Routine Immunization

5. EXPANDING TO PROTECT AND PROMOTE HEALTH AND WELL-BEING IN EMR COUNTRIES

Under the leadership of the Jordan Ministry of Health, GHD|EMPHNET implemented Jordan's Maternal Mortality Surveillance Response (JMMSR) system (2016-2020), a national surveillance system designed to eliminate preventable maternal mortalities by obtaining and using information on each maternal death to guide public health actions. The JMMSR system provides data for decision makers to develop national and subnational responses for reducing maternal morbidity and mortality and improving access to quality care that women receive during pregnancy, delivery, and the postpartum period. This project contributes to protecting and promoting the health of women whose health and well-being directly impact the lives of their families and communities.

GHD|EMPHNET has been conducting neonatal death audits in Azraq and Zaatari camps since 2016, and stillbirth audits since 2018. These audits aim to decrease neonatal mortality and stillbirths among Syrian refugees by conducting periodic review meetings with stakeholders about the findings and recommendations and investigating possible causes of death and factors affecting the coverage and quality of care. This project contributed to improving the quality of neonatal care in Zaatari and Azraq camps and provided the evidence to prioritize the actions needed to save the lives of neonates



Training Workshop under JMMSR Project 2019

Jordan Ministry of Health and GHD|EMPHNET continue to work together in twenty-five primary health care centers to improve hypertension and diabetes management in Northern Jordan. This program adapts, implements, and evaluates the World Health Organization's HEARTS technical package to improve the management and control of hypertension in two governorates with high population densities: Irbid and Mafraq. This collaboration will help the health system in Jordan implement best practices to control blood pressure and provide evidence for policy makers to scale-up and institutionalize the intervention at the primary health care level in the public sector in Jordan.

GHD|EMPHNET remains dedicated to contributing to the global effort to reduce the burden of non-communicable diseases, especially within the escalating prevalence of these diseases in the EMR. Within this context and in 2014, GHD|EMPHNET collaborated with the

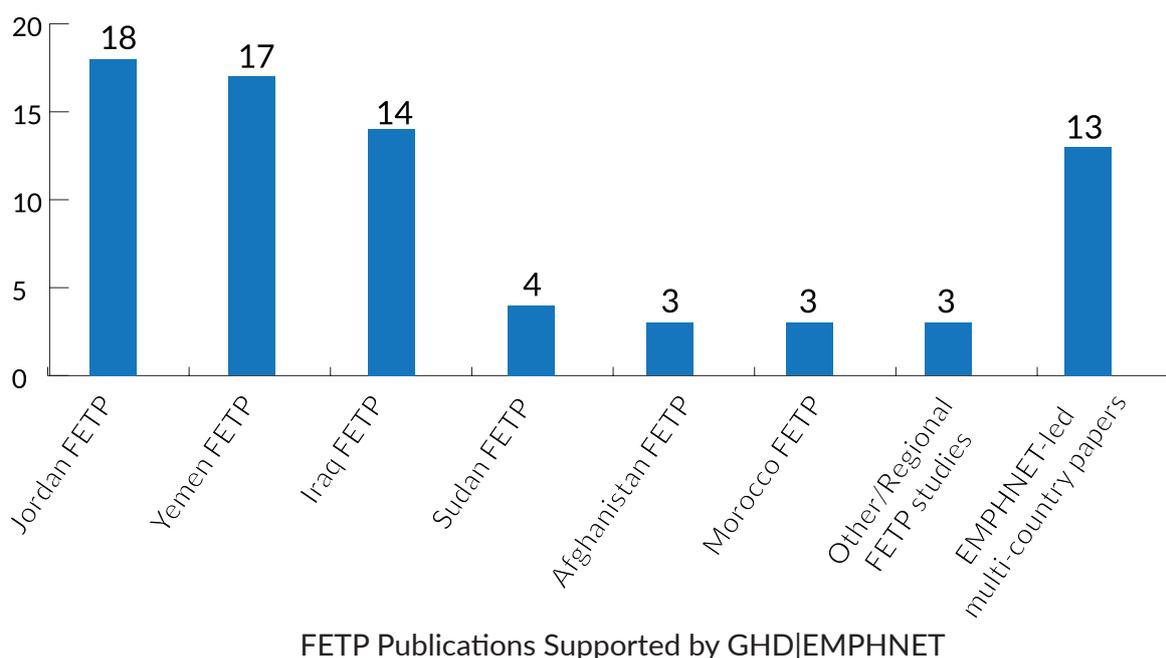
WHO Eastern Mediterranean Regional Office under the NCD Program in developing NCD surveillance training material adapted to the EMR context.



6. SUPPORTING RESEARCH AND EVIDENCE-BASED PUBLIC HEALTH

As early as its establishment, GHD|EMPHNET invested in the use of research and scientific writing to generate evidence that can inform public health action and policy and thereby contribute to better health outcomes. GHD|EMPHNET focused on operational research in areas where entities engaged in the implementation of public health programs, from academic institutions to humanitarian agencies and governments, face many challenges. This focus on operational and applied research can help ensure more accountability in the utilization of funds and a tangible impact of implemented programs on people's lives.

With funding from various institutions and collaboration with multi-sectoral partners, GHD|EMPHNET works to meet a pressing need- the creation of high-quality operational research in applied epidemiology and other relevant public health areas. GHD|EMPHNET builds the capacity of the health workforce to conduct operational research, while also



providing technical assistance and support to public health entities to conduct operational research. Ensuring to integrate information technology tools in conducting operational research, GHD|EMPHNET conducts operational research to cover priority areas in applied epidemiology.



GHD|EMPHNET was involved in over **45 research** projects with various timelines spanning from months to years. Research covered sexual and reproductive health, refugee health, public health in mass gatherings, and zoonotic diseases.



GHD|EMPHNET produced over **60 publications** in areas of field epidemiology, reproductive health, non-communicable diseases, polio and routine immunization, infectious diseases, emerging and re-emerging infections, surveillance, and more.



GHD|EMPHNET builds the capacity of the region's FETPs in developing case studies in public health. Over **40 case studies** were developed and published with support from GHD|EMPHNET.

7. INVESTING IN KNOWLEDGE EXCHANGE

Building on its unique position as the network for FETPs in the EMR and its ability to bring together experts from all realms of public health, GHD|EMPHNET has been playing a pivotal role in fostering knowledge exchange among public health professionals in the region and beyond. It has been using innovative solutions, online and offline, to enable public health professionals' engagement in discussions, information sharing, and proposition of solutions for overcoming challenges, problems, and concerns.

OUR INTERNSHIP PROGRAM

GHD|EMPHNET provides learning opportunities for students interested in pursuing a career in public health. Between the years 2014 and 2019, recruitment of interns was provided on an on-demand basis whereby students reached out to GHD|EMPHNET in pursuit of internship placement. In 2019, GHD|EMPHNET institutionalized the internship process by establishing an internship program under the title "Engage" that serves students at the graduate and undergraduate levels. Since then, Engage Program has been offering interns with experience in several areas to help them shape their career path.



“The most interesting part was working on outbreak investigations for projects focused on Brucellosis and Anthrax surveillance. Learning how to link between Epidemiology with rapid response during diseases outbreak was valuable.”

– Mohammad Alyousfi – Intern at the Center of Excellence for Applied Epidemiology



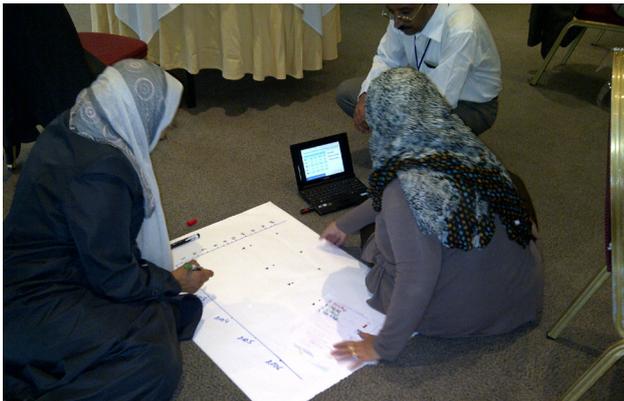
BREAKING DOWN GEOGRAPHICAL BORDERS WITH INNOVATIVE TECHNOLOGY

Building on the popularity of networking platforms, GHD|EMPHNET launched its own online exchange platform, EpiShares, on the sidelines of its Sixth Regional Conference in 2018. EpiShares is designed to bring together the public health community from the region and the globe in a virtual space where they can exchange views on a range of public health issues and topics. The platform has been playing a pivotal role in offering its members information and resources, especially in response to the information surge during the COVID-19 pandemic. EpiShares offers its users the opportunity to grow their networks and to become a member in particular expert groups such as “FETP,” “Rapid Response Teams” and others.

OUR REGIONAL CONFERENCE

Since its establishment in 2009, GHD|EMPHNET has been conducting its biennial regional conference serving as a prime regional space where FETP residents and graduates from the EMR showcase their epidemiology work and contribution to public health. The conference’s significance has increased with each new edition and its scope has grown. To date, GHD|EMPHNET has held six regional conferences which evolved over time to become a permanent fixture in the organization’s agenda for fostering networking and knowledge exchange.

OUR REGIONAL CONFERENCES



The First EMPHNET Regional Conference

Year: 2009

Location: Amman, Jordan

Highlights

- It was a joint event alongside TEPHINET's Fourth Regional Scientific Conference and the Seventh Conference of the Jordan Public Health Association.
- Participation was from over 17 countries in the region



The Second EMPHNET Regional Conference

Year: 2011

Location: Sharm el Sheikh, Egypt

Highlights

- Over 150 FETP residents, graduates, and public health professionals participated in the conference.
- It was held as a joint event with TEPHINET's 5th Scientific Regional Conference



The Third EMPHNET Regional Conference

Year: 2013

Location: Marrakech, Morocco

Highlights

- A total of 147 abstracts were submitted and 118 abstracts were accepted for oral and poster presentations.



The Fourth EMPHNET Regional Conference
Year: 2015
Location: Aqaba, Jordan

Highlights

- Scale of participation significantly grew as the conference received 205 abstracts from 12 countries from the region. 131 abstracts were accepted for oral and poster presentations.



The Fifth EMPHNET Regional Conference
Year: 2016
Location: Marrakech, Morocco

Highlights

- Over 200 oral and poster abstracts were presented by FETPs across 10 countries.



The Sixth EMPHNET Regional Conference
Year: 2018
Location: Amman, Jordan

Highlights

- 250 public health experts participated and over 140 oral and poster abstracts presented
- The Conference saw the launch of two initiatives: the FETP Alumni Association and GHD|EMPHNET's networking platform, EpiShares.

LAUNCHING JORDAN PUBLIC HEALTH FORUM

The Jordan Public Health Forum (JPHF) was launched in 2019 to serve as a national, non-profit initiative for fostering dialogue among stakeholders across Jordan who represent public health institutions, academia, international organizations, non-governmental entities, and the private sector. The JPHF offers a space where members engage in discussions to offer recommendations for public health policy for strengthening the health system in Jordan.

In less than a year after its establishment, the JPHF was able to collaborate with other national entities in supporting evidence-based dialogue and advocacy. During COVID-19 pandemic, the forum focused on collating and disseminating latest news on the pandemic.

LAUNCHING EMPHNET WEBI SERIES

EMPHNET WEBi Series was launched at the height of the COVID-19 infodemic, at a time where abundant misinformation needed to be countered. EMPHNET WEBi Series is an online space where experts from the region and the globe bring to the forefront public health issues and challenges affecting the EMR, focusing initially on topics related to COVID-19. Aiming to discuss other priority public health issues in the long run, GHD|EMPHNET launched the series to make available innovative knowledge exchange and networking mechanisms.

With nine sessions conducted to date, EMPHNET WEBi Series has been providing an opportunity for the ongoing exchange and provision of knowledge, in addition to enhancing networking between stakeholders in the field.

8. USING DIGITAL TECHNOLOGY FOR PUBLIC HEALTH

GHD|EMPHNET's technological know-how has enabled it to collaborate with different partners in the region and the globe towards increasing the efficiency of operations in various areas of public health and contributing to core public health functions. GHD|EMPHNET provided support to countries in using technology to solve public health challenges; enhance disease surveillance, field epidemiology, notification systems, and outbreak investigation and response; improve operational research; empower public health professionals; and promote knowledge exchange and networking.



Data Collection During Arbaeenia Mass Gathering in Iraq 2019

Notable Examples from Our Contribution to Improving Public Health Through Technology

- We developed our online **Learning Management System** in response to the training needs of the FETP and public health community in a region where several factors make face-to-face training a challenge.
- We supported Morocco Ministry of Health in digitalizing its current manual **AFP notification system**, allowing for the provision of timely alerts of AFP cases reported in both private and public hospitals across the country.
- We collaborated with UNICEF and Iraq Ministry of Health to conduct a **Cold-Chain Equipment Inventory Assessment** throughout the country, using a web-based, mobile data collection tool.
- We supported Jordan Ministry of Health in establishing a **harmonized Reproductive Health Registry** to create personalized care information on women throughout pregnancy and childbirth that can be easily accessed during antenatal visits, labor, delivery, and postnatal visits.

9. STRENGTHENING OPERATIONS AND LOGISTICS

Established in Amman, Jordan, GHD|EMPHNET worked to advance field epidemiology in the EMR. However, perhaps sooner than expected, the organization's scope of work grew rapidly to encompass projects targeting other areas in several EMR countries in response to their respective public health needs. A physical presence for GHD|EMPHNET became a must in these countries so that operations could be facilitated more efficiently internally rather than remotely from the headquarters. So, regional offices were established. As of 2020, GHD|EMPHNET has registered offices in five countries: Jordan, Afghanistan, Iraq, Sudan, and Yemen. Needed paperwork is being finalized to establish offices in two other countries: Bangladesh and Pakistan. In countries where GHD|EMPHNET still does not have an office, such as Egypt and Tunisia, it has a team of consultants operating from inside the countries to facilitate operational as well as technical matters.

While its offices made its work more efficient in the countries, they also enabled GHD|EMPHNET to carry out services in logistics and operations in support of public health. Relying on its strong physical presence in the countries, GHD|EMPHNET began to manage events such as conferences, training workshops, and meetings. GHD|EMPHNET also facilitated timely and adequate delivery of commodities and equipment in countries affected by various limitations.

10. RESPONDING TO THE COVID-19 PANDEMIC

Building on its extensive experience and connection with the countries and international partners, GHD|EMPHNET worked intensely at supporting EMR countries to strengthen their preparedness and response to the COVID-19 pandemic. This support was particularly targeted to countries that have FETPs as these programs constitute a core component of the network and construct the backbone for conducting outbreak investigations and containment. GHD|EMPHNET through its Public Health Programs and Center of Excellence for Applied Epidemiology has been providing support to the countries mainly through its Headquarter Office in Amman, Jordan, and through its offices and teams in countries of the EMR. The support included technical and logistical support to countries to strengthen the response to COVID-19.



Assisting in Maintaining Routine Immunization Services in Iraq



Joining Africa CDC in Accelerating Testing, Tracing, and Treatment



Ensuring Infection Prevention and Control Practices among Immunization Workers in Afghanistan



Supporting Contact Tracing Throughout Jordan

FETPs at the Frontline: COVID-19 Response



Afghanistan



Egypt



Iraq



Jordan



Morocco



Pakistan



Saudi Arabia



Tunisia

GLIMPSE AT OUR FUTURE

We have progressed heavily over the past ten years, yielding a broader scope and range of services. Despite the different challenges and difficulties that face our region, we were able to instigate change that was driven by our strong relations with the countries, the forceful nature of our dedicated team, and the exceptional collaboration with our partners. In the coming years, we will build upon what we accomplished and move with a determined mindset to influence the future of public health in the EMR, through continued engagement with the countries and collaboration with our partners.

LEARNING FROM OUR EXPERIENCE

Our ten-year journey offered us experience of multiple levels which we will use and integrate into our future. Our experience with the countries allowed us to build significant relationships with authorities, decision-makers, subject matter experts as well as frontline public health workers.

We believe that we have established the core premises that are necessary for achieving effective program implementation with our strong counterparts at the ministries of health. Our experience over the last ten years will guide our strategic approach, as we have learned that the best programs to implement are those that we plan together with countries where we can blend strengths and expertise of the countries and maximize collaboration to turn challenges into opportunities.

BUILDING ON OUR SUCCESSES

Although our region is unstable, with many countries having fragile public health systems, we were able to empower professionals and strengthen their capacities to best meet the ever-growing challenges. Over the years, we worked closely with a vast number of professionals and experts in several public health areas. This approach allowed us to bring on board a diverse range of expertise, thus harnessing greater success and achieving more. We are proud of what we have achieved amidst the dire circumstances that continue to prevail, which unfortunately have accelerated due to the recent COVID-19 pandemic. The powerful growth

In the coming years, we will work at fostering these relationships and grow into a more concentrated technical resource that will offer a more intense support to countries.

that we gained in our network of experts and supporters provided us with confidence and allowed us to adopt an approach that is well grounded. With this notion, we adopted the slogan of “together we achieve more” as we believe that togetherness has a powerful course of action in directing change and in adopting a transformative mindset.

We will intensify our efforts to continue enabling and empowering public health professionals, focusing on applied epidemiology as a fundamental domain that is essential for tackling both communicable and non-communicable diseases. Our contribution to the global Polio eradication efforts will continue along with support to further strengthen routine immunization programs in targeted countries. In addition, we will keep our focus on helping countries build their rapid response capacity as well as strengthen disease control domain of public health to better prevent, detect and respond to public health threats.

EXPANDING COOPERATION AND PARTNERSHIPS

In facing the many challenges in the EMR such as migration, displacement, scarcity in supplies, war and conflict, and fragile health systems, we will broaden our cooperation with the EMR countries most in need like Iraq, Libya, Syria, and Yemen. In addition, we will establish partnerships with Gulf countries like Qatar and Oman in an attempt to expand field epidemiology enterprise.

Our ten years' experience with the countries and professional experts in our network will guide us through further success in the years to come.

STRATEGIC GOALS AND OBJECTIVES

Goal 1: Lead and advance applied epidemiology in the EMR

SO1.1 Enhance workforce capacity in applied epidemiology in the EMR
SO1.2 Lead and advance high-quality operational research in support of innovative solutions and use of information and communication technology to improve public health in the EMR

Goal 2: Strengthen public health programs and response to public health needs in the EMR

SO2.1 Strengthen capacities of EMR countries in emergency preparedness, response, and recovery
SO2.2 Enhance infectious disease prevention, detection and control in the EMR
SO2.3 Ensure delivery and sustainability of high-quality vaccination services and immunization program in the EMR
SO2.4 Protect health and well-being in EMR countries by applying a multi-sectoral approach, high impact evidence-based and right-based strategies
SO2.5 Support EMR countries in implementing essential interventions to decrease morbidities and mortalities resulting from environmental exposures

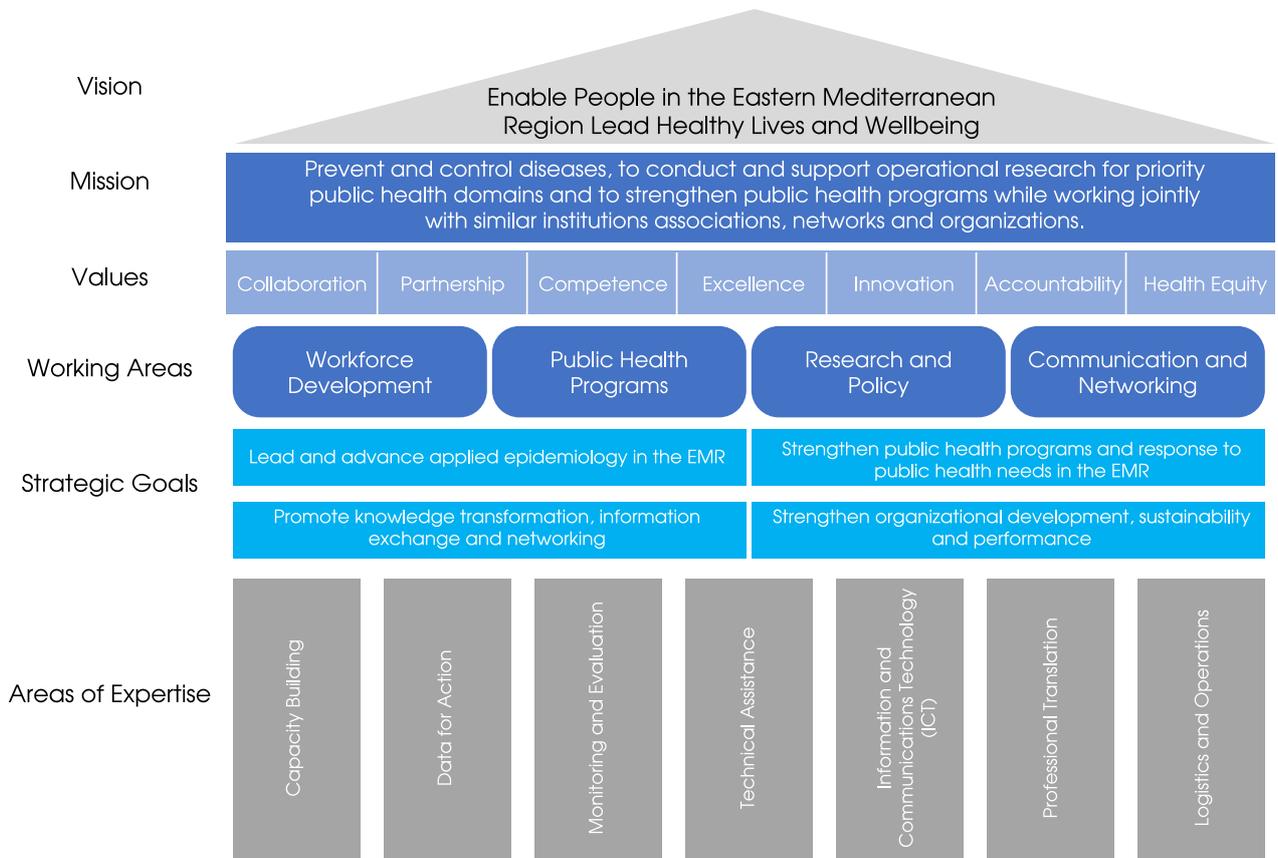
Goal 3: Promote knowledge transformation, information Exchange and networking

SO3.1 Develop and expand knowledge exchange and networking mechanisms and opportunities to facilitate the uptake of knowledge in public health policy and practice

Goal 4: Strengthen organizational development, sustainability and performance

SO4.1 Optimize and align resources to increase financial stability and support GHD/EMPHNET mission
SO4.2 Strengthen organization's effectiveness to sustain its work in the region

STRATEGIC FRAMEWORK





Global Health
Development

▶ GHD : EMPHNET: working
together for better health



EMPHNET

The Eastern Mediterranean
Public Health Network



GHD and EMPHNET: Working together for better health

Global Health Development (GHD) is a regional initiative created to support countries in the Eastern Mediterranean Region (EMR) and to strengthen their health systems to respond to public health challenges and threats. GHD was initiated to advance the work of the Eastern Mediterranean Public Health Network (EMPHNET) by building coordinating mechanisms with Ministries of Health, International Organizations and other institutions to improve population health outcomes. As an implementing arm to EMPHNET, GHD aligns its strategies with national policies and directions. Serving as a collaborative platform, GHD/EMPHNET is dedicated to serve the region by supporting national efforts to promote public health policies, strategic planning, sustainable financing, resource mobilization, public health programs, and other related services.

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