



Global Health
Development

▶ GHD : EMPHNET: working
together for better health



EMPHNET
The Eastern Mediterranean
Public Health Network



Center of Excellence for Applied Epidemiology (CEAE)

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for Applied Epidemiology
(CEAE)**

2021

Introduction

Applied epidemiology is a branch of epidemiology that utilizes the findings from epidemiologic studies to define and track disease for informed decisions, develop effective interventions, evaluate public health services and health care, communicate data to health professionals, stakeholders, and the public, and highlight epidemiologic methods necessary for creating health policy.

Since its inception, Global Health Development|Eastern Mediterranean Public Health Network (GHD|EMPHNET) worked closely with countries in the Eastern Mediterranean Region (EMR) to strengthen field epidemiology in support of promoting public health practices and policies for better health and wellbeing in the region. In 2015, GHD|EMPHNET established the Center of Excellence for Applied Epidemiology (CEAE) with the focus on building capacity in applied epidemiology and commitment to support Field Epidemiology Training Programs (FETPs) in EMR countries.

These programs aim at applying scientific methods in the field, such as using epidemiologic methods to investigate public health problems or outbreaks, as well as run analysis on data gathered through surveillance or other methods to generate evidence for decision makers.

Core competencies gained by FETP training add value to meeting International Health Regulations (IHR) by building surveillance capacity and improving efficiency in monitoring disease incidence, prevalence, determinants, coverage, program evaluation, and expenditure data.

In addition, FETP training plays a crucial role in strengthening the response to unexpected health problems or events, thus containing, and preventing their spread. Today, GHD|EMPHNET works on integrating applied epidemiology concepts in strengthening a range of services as skilled field epidemiologists are core to a robust public health system.

Over a period of five years, the center grew to support the conduct of applied and operational research, build capacity in field epidemiology by using different modalities, develop technological solutions to promote high quality and real time data collection, as well as expand knowledge exchange and strengthen networking.

Our vision at the CEAE is to be a pioneer in advancing applied epidemiology to promote public health policies and practices.

We strive to achieve this vision by collaborating with government agencies and partners, to conduct and support operational research, build workforce in applied epidemiology, promote knowledge exchange and networking, and develop innovative solutions to improve public health outcomes.

Dr. Yousef Khader, CEAE Director

Our Values

Represent our guiding principles



Excellence

“We pursue and support innovative operational research that is scientifically rigorous and relevant. We are committed to providing a high-quality learning experience and the tools to enable trainees to meet future challenges”



Innovation

“We encourage and adopt new ideas, methods, processes and practices to improve health”



Professionalism

“We strive for improving performance and competence with a focus on achieving excellence in research and training”



Collaboration

“We work together with our stakeholders and partners to achieve the common goal of improving people’s health and wellbeing”

Strategic Focus

Strategic Goal:
Lead and advance applied epidemiology in the Eastern Mediterranean Region

The CEAE works towards achieving its vision by strategically working to advance its mission and streamlining its efforts through three main areas of work:

1. Workforce Capacity
2. Research and Policy
3. Knowledge Exchange and Networking



1. Workforce Capacity

In alignment with GHD|EMPHNET's goals, the CEAE focuses on developing workforce capacity to enhance surveillance and outbreak investigation in response to public health threats. The center works to build capacities through strengthening field epidemiology to prevent, detect, and respond effectively and rapidly to public health threats, thus contributing to global health security.



Establish new FETPs with its different modalities in the region



Provide material and state-of-the-art learning opportunities to the FETP community



Design and implement training modules to enrich the FETPs



Establish internship, fellowship, and exchange programs

Considering the strategic approaches identified under the workforce capacity, the CEAE works with EMR countries to advance applied epidemiology by focusing on the following:



- **Supporting FETPs in the Region**

GHD|EMPHNET provides technical assistance to FETPs by supporting program evaluation and review, mini-grants, and field activities. In addition, GHD|EMPHNET plays a pivotal role in supporting surveillance and epidemiologic activities conducted by FETP residents and graduates and in assisting the regional collaboration of FETPs in prevention, detection, and response to epidemics and emerging infections.

- **Developing Online FETP Modalities**

The world is moving at an accelerating pace towards digital transformation, and GHD|EMPHNET copes with the latest trends by implementing the e-learning approach, which is less costly when reaching a wider audience and as effective as traditional learning. The aim is to provide all FETP modalities as distance programs.

For the Public Health Empowerment Program-Basic Field Epidemiology (PHEP-BFE), 90% of the training management is online while 10% includes an interactive activity. It is a blended learning model where the fieldwork will be managed online. The work is ongoing to transform the intermediate FETP training as well as other short, specialized courses into an online format.



- **Building FETP Residents' and Graduates' Capacity in Scientific Writing**

GHD|EMPHNET supports scientific writing activities and provides technical support to FETP residents and graduates in the EMR to build their scientific writing capacities. This leads to an increase in the generation of case studies, abstracts, manuscripts, and scientific papers. From another angle, GHD|EMPHNET supports disseminating publications from the EMR. These publications contribute to generating and sharing knowledge that can benefit decision makers in their quest to improve health outcomes and achieve health reform.

GHD|EMPHNET builds FETP residents' and graduates' capacity in scientific report writing for

publication through the following:

- Reviewing reports and writings from the FETP residents/graduates in the region to:
 - Support FETPs in publication
 - Training of FETPs on scientific writing
- A technical advisor from GHD|EMPHNET provides technical support for the FETP residents to build their scientific writing skills

As GHD|EMPHNET always seeks to achieve sustainable outcomes and results; it hosts scientific writing workshops to enhance scientific writing skills of participants and encourages the publication of scientific papers and supports the use of various tools and technologies such as Calibrated Peer Review (CPR).

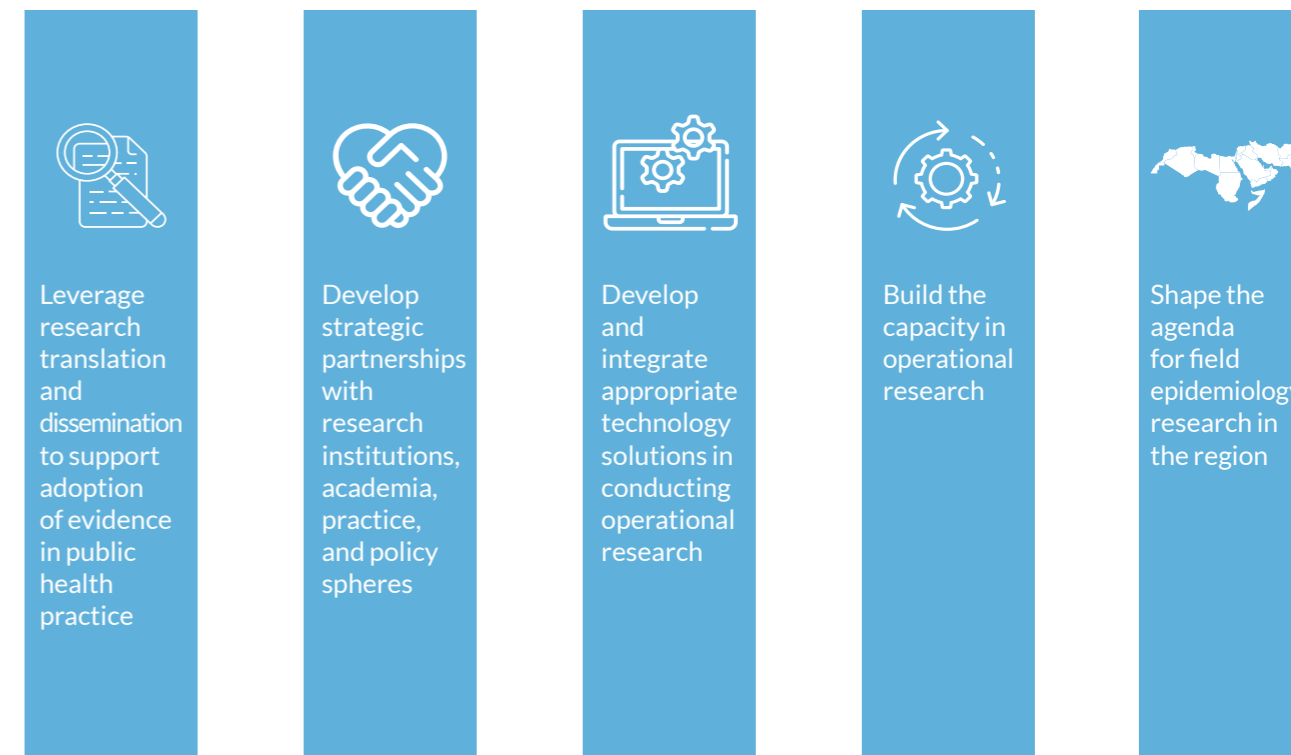


GHD|EMPHNET holds regional workshops to build the capacity of FETPs residents and graduates in scientific writing

2. Research and Policy

In line with GHD|EMPHNET's strategic goal, the CEAE supports EMR countries in generating reliable evidence-based data to support translating information into policies. The center works with a range of academic and medical institutions to build the research experience of field epidemiologists, public health practitioners, and young researchers while identifying data collection challenges and providing appropriate digital solutions.

The CEAE utilizes the below strategic approaches to 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



While keeping focus on helping countries maintain performance to ensure progress towards the UN Sustainable Development Goals (SDGs), the CEAE conducts activities and implements projects within the strategic approaches identified under the research and policy area, including the following:

- Supporting Operational Research in the EMR
- Using Technology and Digital Solutions
- Enhancing Scientific Writing and Publications
- Contributing to Field Epidemiology Research
- Building Partnerships



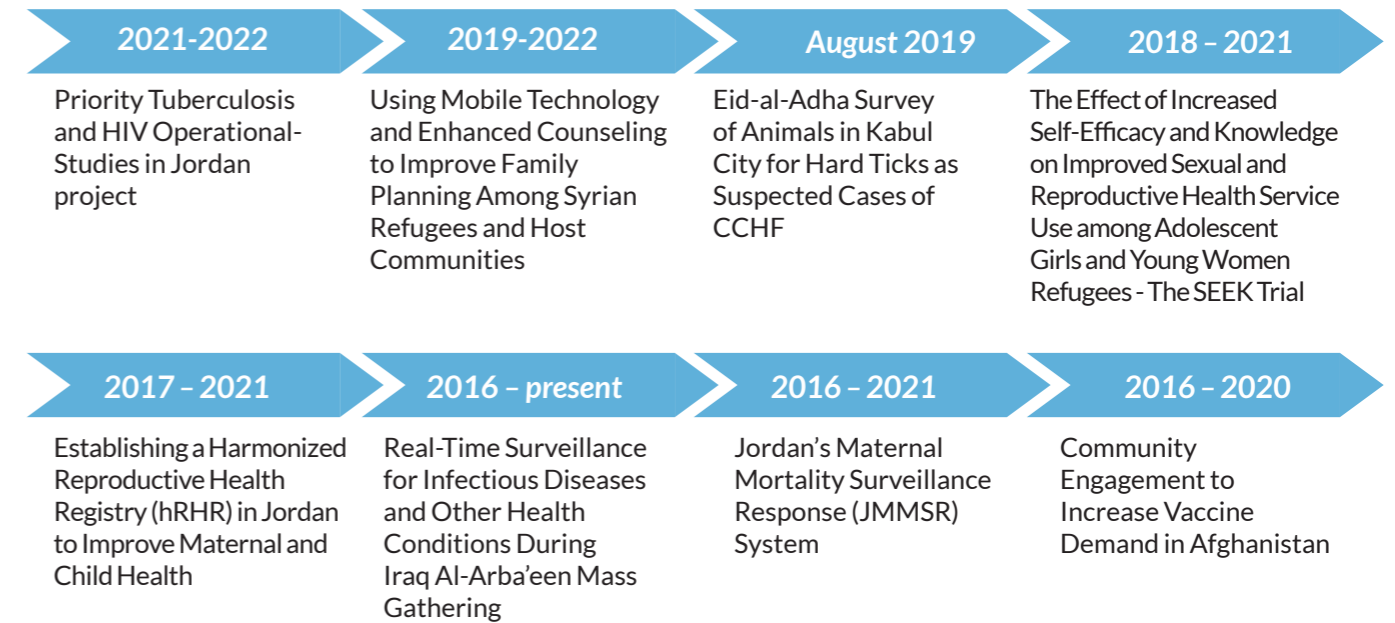
• Supporting Operational Research in the EMR

The CEAE supports a variety of operational research and research mini-grants to enhance public health programs and support evidence-based decision making. The center concentrates on conducting the following types of research:

Types of Operational Research Supported by CEAE:

- Epidemiological studies and surveys
- Assessment and evaluation of public health programs and interventions
- Monitoring and evaluation of surveillance programs
- Real-time surveillance of infectious diseases and/or conditions

The following projects are examples of projects conducted under research and policy:





- **Using Technology and Digital Solutions**

GHD|EMPHNET supports the development and use of Information and Communications Technology (ICT) when conducting operational research. In addition, GHD|EMPHNET supports countries in identifying and using innovative ICT solutions and applications when addressing public health challenges and needs.

Examples of this include using mobile data collection tools for Real-Time Surveillance for Infectious Diseases and Other Health Conditions during Iraq Al-Arba'een Mass Gathering; and using mobile technology and enhanced counseling to improve family planning among Syrian refugees and host communities in Lebanon and Jordan (conducted jointly with the American University of Beirut).



- **Contributing to Field Epidemiology Research**

Within the research and policy efforts, GHD|EMPHNET has made significant contribution in shaping the agenda for field epidemiology research in the EMR and continues doing so as illustrated by the following:

- A core referencing and citation system that is consistently used by all FETPs and researchers in the region.
- Capacity building opportunities to FETPs and researchers in the region to make use of research assistive tools.
- Mendeley training courses in-house and outside the organization.
- Training sessions on conducting literature reviews

• Enhancing Scientific Writing and Publications

The CEAE holds scientific writing workshops in respect to important public health issues such as mass gathering, and outbreak investigations. In addition, it includes teaching case studies in public health that are tailored to countries' contexts. Scientific writing and publications activities at the center include the following:

- Holding regional workshops to build capacity of FETP residents and graduates in scientific writing.
- Developing teaching case studies in public health.
- Supporting FETP residents and graduates to publish their scientific papers and manuscripts.
- Publishing special issues and supplements on important public health issues.

Enriching Scientific Literature in the EMR:

11 case studies were published in May 2019

18 case studies were published in April 2021

85 scientific papers were published between 2017 and 2019

E-collection of more than 100 EMPHNET Regional Conference abstracts

A supplement of 20 COVID-19 research articles from the EMR



• Building Partnerships

In conducting research, GHD|EMPHNET seeks to work in partnership with academic institutions, humanitarian agencies and other organizations that share interest in promoting information generation and translation of data to evidence in support of program planning and decision making. Currently, GHD|EMPHNET is conducting operational research on a range of topics with the following entities:

- World Health Organization (WHO), Geneva, Switzerland
- American University of Beirut (AUB), Beirut, Lebanon
- Hubert Department of Global Health/ Rollins School of Public Health, Georgia, US
- Jordan University of Science and Technology (JUST)
- Electronic Health Systems (EHS/Hakeem), Jordan.



3. Knowledge Exchange and Networking

Building on its unique position as the only network in the region that focuses on field epidemiology, and its ability over the years to bring together experts from all realms of public health, GHD|EMPHNET adopts innovative solutions, both online and offline, to enable public health experts to meet, discuss, and share concerns and solutions relevant to public health priorities in the region.

With emphasis on growing a public health support network, GHD|EMPHNET promotes mechanisms to enhance exchange of knowledge and experience

between FETP graduates, public health experts, and different partners and stakeholders.

GHD|EMPHNET works towards leveraging knowledge transformation and facilitating information exchange and transfer by integrating technology to match needed networking expansion.

The CEAE utilizes the below strategic approaches to develop and expand knowledge exchange and networking mechanisms and opportunities to facilitate the uptake of knowledge in public health policy and practice



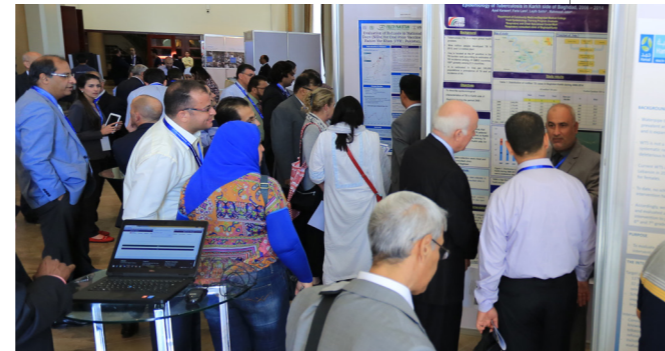
Create new innovative knowledge expansion mechanisms and tools and update existing



Expand knowledge sharing and transformation

The knowledge exchange and networking working area at the CEAE has a mission to create spaces and opportunities for the exchange of experience and know-how. It is founded based on GHD|EMPHNET's belief in the importance of fruitful discourse for the purpose of elevating public health status in the region. Efforts under this area are undertaken with the belief that FETP graduates have overcoming challenges typical to the region, therefore it also works to maintain strong ties with FETP Alumni in order to allow the region to benefit from their expertise when shared.

In this regard, the CEAE developed several networking platforms to leverage discussions, dialogue, and knowledge exchange, including the following:



- **GHD|EMPHNET's Bi-Annual Regional Conference**

Over the years, GHD|EMPHNET's bi-annual conferences served as a space for FETP residents and graduates, as well as other public health professionals, to showcase their latest achievements and their work. This initiative has proven to offer opportunities for networking, and experience sharing for participants.

- **Jordan Public Health Forum**

The forum serves as a platform to facilitate open discussions and dialogue on issues, challenges, concerns, and priorities that play a role in elevating public health status in Jordan. The forum is set to bring together experts from all areas in public health, within a space where they can find solutions that could in the long run contribute to policy enhancement and change.

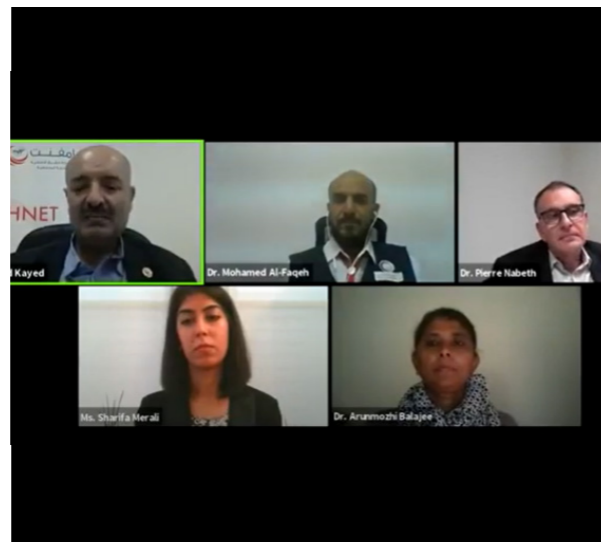


• EpiShares

Using advancements in technology, the CEAE is also managing EpiShares, a Social Networking Platform powered by GHD|EMPHNET. This networking platform uses the best developments in social media technology in order to breakdown geographical borders and allow people with shared interests in public health to ponder into a common space.

• EMPHNET WEBi Series

“EMPHNET WEBi Series” is a series of webinars developed to serve as a virtual dialogue opportunity that engages a broad range of audience in an online discussion space. Set to bring to the forefront public health issues and challenges affecting the EMR, GHD|EMPHNET anticipates filling a knowledge gap in the region by providing an opportunity for the ongoing exchange and provision of knowledge, in addition to enhancing coordination and networking between stakeholders, health professional, and the community.



• Voices from the Field Writing Contest

As a means to encourage FETP residents and graduates from the region to document their unique experiences in the field, and to increase visibility for the work they do, the CEAE hosts an annual writing contest titled “Voices from the Field”. Through this contest, the center encourages FETPs to write first-person testimonials of their work and it publishes them in a special edition newsletter that is widely disseminated.

• ENGAGE Internship Program

This program serves to contribute to the exchange of knowledge amongst students from across the globe, thus creating opportunities for them to gain hands-on experience in working in the Public Health field. It allows students to explore what is out there and in turn enhance their future careers.



Looking Ahead

The CEAE has been providing support to EMR countries in building their capacity in applied epidemiology and operational research. While playing a pivotal role in advancing the research agenda for applied epidemiology in the region, the center worked with FETP residents and graduates from more than 11 countries to promote their scientific writing capacity while supporting the publication of their work, thus increasing the contribution to scientific information and evidence from different EMR countries in a variety of topics and fields. Growing as a network over the last years, allowed GHD|EMPHNET to nurture excellence in applied epidemiology in the EMR through the support and attention given to FETPs and the work of the graduates and residents of these programs, all of which led to the establishment of new programs in the region.

With the CEAE acting as the hub for fostering and strengthening field epidemiology in the EMR, GHD|EMPHNET will continue to provide support to FETPs and will expand advocacy of these programs and their important role in preventing and controlling diseases. The CEAE will continue supporting FETPs in using data to generate evidence for decision makers, thus influencing a robust public health system capable of developing and sustaining effective public health programs.



“We will forge more partnerships with concerned health institutions to continue the works that started at the CEAE to advance applied epidemiology in the EMR region. Recently, this FETPs proved to be core and essential when responding to major outbreaks/pandemics and in monitoring the performance of public health programs, all of which ultimately serve countries in reaching better health outcomes and progress towards SDG targets.”

*Dr. Mohannad Al Nsour,
Executive Director of GHD|EMPHNET.*

GHD|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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