





### **Editor's Letter**

We are pleased to publish the thirty-fifth issue of GHD/EMPHNET's quarterly newsletter. While the issue covers our activities across the region from July until September 2019, it also comes with interesting pieces under its three sections:

Feature Story, Person of the Issue, and Public Health Issue in Focus.

Under our Feature Story section, we focus on GHD/EMPHNET's ongoing work in Sudan towards strengthening the capacities of the country's public health workforce. We mainly explore our close collaboration with the Sudan Federal Ministry of Health in addressing identified training needs.

We dedicate our Person of the Issue section to highlighting the contributions of Dr. Yousef Khader who boasts commendable support to field epidemiology in Jordan and the region and has an impressive record in scientific publications in the field.

Lastly, in the Public Health Issue in Focus section, we shed the light on cholera, as a disease that poses a public health threat especially in the Eastern Mediterranean Region.

With diverse pieces and topics, we wish you a reading that is of benefit and interest to you. We hope to introduce you more to GHD/EMPHNET's work as well as public health issues of concern for the region and the globe.

The Newsletter Editorial Team.

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#### **EMPHNET Supports National Efforts for Strengthened Public Health Workforce in Sudan**

Since 2017, EMPHNET has been working with the Sudan Federal Ministry of Health (FMoH) towards enhancing the capacity of the national public health workforce. EMPHNET's collaboration with its partners in Sudan comes to serve an essential public health function: enabling a relevant and competent workforce to improve health service delivery. EMPHNET and the FMoH are implementing three training programs customized to address training needs of the national public health workforce.

#### **PHEP-SPO**

As indicated by the FMoH, Sudan has a shortage in trained human resources responsible for public health surveillance and there is a need to empower the management and leadership skills for the workforce at the district levels. For this reason, the FMoH and EMPHNET collaborated in designing the Public Health Empowerment Program – Surveillance for Polio Officers (PHEP-SPO). Launched in 2017, the PHEP-SPO is a three-month, in-service training program targeting Expanded Program on Immunization (EPI) officers at the locality level.

The general purpose of the PHEP-SPO is to enrich participants' knowledge and strengthen their skills in EPI surveillance, outbreak investigation and response, and leadership and management to effectively and efficiently plan and implement public health interventions.

Since graduating four cohorts thus far, this program has shown promising results. The PHEP-SPO has had a significant impact on the local surveillance system as new officers are assigned new roles in running the Integrated Vaccine Preventable Diseases Surveillance (IVPDS) at the locality level.

#### **PHEP-Nutrition**

According to various studies, the nutrition situation in Sudan is of serious concern. The global acute malnutrition (GAM) is above the international emergency level; severe acute malnutrition (SAM) rates are still worryingly high; and high numbers of children suffer from stunting, wasting, micronutrient deficiency.

Seeing this as a priority health issue, EMPHNET and the FMoH saw a promising opportunity within the human resources working in the nutrition program to improve the nutrition interventions in Sudan. Collaborating closely, EMPHNET and the FMoH recognized the need for enhanced human capacity- within the nutrition program-in the areas of disease surveillance, advocacy, planning, leadership, and management. Addressing these needs will result in improved overall capacity of the public health system.





Such needed knowledge was adapted from the PHEP-SPO to launch the Public Health Empowerment Program– Nutrition (PHEP-Nutrition). Launched in 2019, PHEP-Nutrition complements national efforts and builds on the integrated approach that the FMoH is applying: the integration between nutrition and EPI at service delivery, routine information registry, and communication. The program targets nutrition officers and focal points who work for nutrition programs at the subnational level. As an in-service program, PHEP-Nutrition comprises three workshops: (1) Integrated Surveillance and Investigation of Cluster of Malnutrition Cases/ Diseases, (2) Advocacy and Communication, (3) Leadership and Management.

PHEP-Nutrition is expected to strengthen the nutrition program through building the capacity of nutrition focal points to effectively run integrated surveillance systems, efficiently communicate and advocate for nutrition mainstreaming across sectors, and professionally manage local nutrition programs.

#### **FETP Sudan**

Within its role as a regional Field Epidemiology Training Program (FETP) network, EMPHNET has been supporting the establishment of FETPs throughout the region since the organization's inception a decade ago. FETPs are crucial for assuring core epidemiological competencies.

In 2017, EMPHNET and the FMoH established the Sudan FETP, an advanced two-year, in-service program focusing on the detection of and response to diseases and events of public health importance or international concern. The program was designed to equip the public health workforce with the necessary skills to carry out the country's needs, reducing the burden of major public health problems and hence working towards achieving a stronger public health system in Sudan.

In the program's didactic sessions and field work, participants learn and practice the fundamental skills used in surveillance, outbreak investigation and management, management and leadership, as well as research and advanced communication.

The Sudan FETP will help address public health priorities by strengthening epidemiology, surveillance, and outbreak response capacity in Sudan. The Sudan FETP is expected to improve response to outbreaks and will create a long-lasting epidemiologic capacity within the Sudan FMoH. The program will also assist the Government of Sudan in advancing the Global Health Security agenda by developing technical skills and connecting information systems.

The graduation of the first cohort is expected in November 2019. FETP graduates are expected to be able to provide immediate service to Sudan FMoH and will serve a vital role in improving the public health system in Sudan. The FETP graduates will play a role in enhancing the health system, regional standings, and provide more accurate burden of disease estimates that can be used for health planning and interventions.









Dr. Yousef Khader is a recognized expert in Jordan and the region in public health, community medicine, and family medicine. Dr. Yousef Khader is the Regional Adviser for EMPHNET, leading several of the organization's projects which are focused on non-communicable diseases (NCDs).

He co-authored over 300 publications in peer-reviewed journals, including the Lancet; the American Journal of Health Behavior; the International Journal of Food Safety, Nutrition, and Public health; the International Journal of Public Health; and the American Heart Journal. These published studies focused on a range of issues pertaining to NCDs: diabetes, hypertension, heart disease, cancer, child health, mental health, obesity, child health, and maternal health. Dr. Khader serves on the editorial board of several journals and is a regular reviewer for several others.

Dr. Khader is the Technical Adviser for the Jordan Field Epidemiology Training Program (J-FETP) where his contribution to strengthening the program's technical capabilities has been recognized by many.

He has been awarded grants by major international organizations, including the World Health Organization, the International Development Research Center (IDRC), and UNICEF as a principal investigator for multiple projects in Jordan. These projects focused on a range of NCD topics such as mental health, maternal health, reproductive health, perinatal and neonatal mortality, health informatics, among others.

Currently, Dr. Khader is also a professor of epidemiology, medical education, and biostatistics at the Jordan University for Science and Technology. Working in the Department of Public Health, Community Medicine, and Family Medicine where he has supervised over 80 theses. Dr. Khader has previously served as the Dean of the Faculty of Applied Medical Sciences at the same university.

Dr. Khader holds a Doctoral of Science in Epidemiology and Biostatistics from Tulane University in New Orleans, Louisiana and an MSc in Public Health from the same university. He also obtained a Master of Health Professions Education from the University of Maastricht and Suez Canal University. He holds an MSc in Epidemiology from JUST. His Bachelor's degree is in Dentistry.







# GHD/EMPHNET and Libya National Center for Disease Control Conduct RRT Training of Trainers Workshop

Supported by GHD/EMPHNET, the National Center for Disease Control conducted a rapid response team (RRT) training of trainers between July 22 and 26, 2019. Taking place in Tunis, Tunisia, the training targeted twenty-one public health professionals who were from different Libyan regions and professional backgrounds and who had already received previous RRT Training.

The training aimed to build on and enhance the capacity of these professionals in relation to RRT. The training was a refresher on RRT topics, especially in relevance to the Libyan context. Topics covered included the composition of RRT, the International Health Regulations (IHR), surveillance systems, outbreak investigation and control measures, risk assessment and communication, infection control and prevention, biosafety and biosecurity, among other topics. Read more.

## GHD/EMPHNET Supports NIH Pakistan in Incident Command Management Systems Training for Islamabad and Karachi

Supported by GHD/EMPHNET, the National Institute of Health (NIH) Pakistan recently conducted two incident training workshops on command management systems (ICMS) in the provinces of Islamabad and Karachi between July 10 and 17, Each training targeted public professionals, from the afore-mentioned provinces, from various Emergency Response Units (ERU) working as first responders on rapid assessment and response to outbreaks. These participants were applied public health officers, epidemiology professionals, veterinarians, laboratory and personnel. Read more.









# GHD/EMPHNET Conducts Biorisk Management Training Workshop for Public and Animal Health Laboratories for Libya and Tunisia

GHD/EMPHNET is collaborating with Ministry of Environment and Local Affairs Tunisia and the Libya National Center for Disease Control under a project titled "MENA Regional Biorisk Management Symposium to Collaborative Enhance Biosecurity Capacity at High Priority Biological Facilities." Within this project, GHD/EMPHNET prepared biorisk management training curriculum based on an assessment of identified laboratory needs and deficiencies. This curriculum aims to strengthen laboratory biosecurity and biosafety practices within priority Tunisian and Libyan facilities that handle biological materials and toxins.

Employing components of this curriculum, GHD/EMPHNET conducted a biorisk management training workshop in Tunisia between July 22 and 26, 2019, targeting 25 public and animal health laboratory professionals from Libyan and Tunisian governorates. This workshop aimed to enhance the participants' skills to prevent and respond to intentional or natural biological risks. Furthermore, it was also designed to ensure that the participants acquire the professional competency to work safely and securely with biological samples. Read more.

## PCR Unit Opened at Central Veterinary Laboratory

Under the Patronage of His Excellency the Minister of Agriculture and Minister of Environment Eng. Ibrahim Shahahdeh, the Ministry of Agriculture and EMPHNET celebrated the opening of the PCR Unit at Jordan's Central Veterinary Laboratory (CVL) / Animal Wealth Sector. The establishment of this unit comes under a project implemented among EMPHNET, the Ministry of Agriculture, the Ministry of Health, the Royal Medical Services, the Princess Haya Biotechnology Center, and the US Centers for Disease Control and Prevention to evaluate the impact of enhanced laboratory-based surveillance of animal and human brucellosis in three areas of Jordan: East Amman, Karak, and Mafraq. Click the video to learn more.









#### **EMPHNET Holds First Steering Committee Meeting for Brucellosis Surveillance Project in Jordan**

Currently, EMPHNET is supporting adoption of the One Health approach to prevent and control brucellosis in Jordan in collaboration with the Ministry of Health, the Ministry of Agriculture, the Princess Haya Biotechnology Center, and the Royal Medial Services. These collaborative efforts are within a project to enhance laboratory-based surveillance of this disease in humans and animals. The project is now piloted in three governorates of high-endemicity of brucellosis: Amman (Eastern area), Karak, and Al-Mafraq. The project seeks to create a better understanding of the disease through such surveillance as well as to strengthen the culture of biosecurity and biosafety among public health professionals and laboratory workers. Read more.



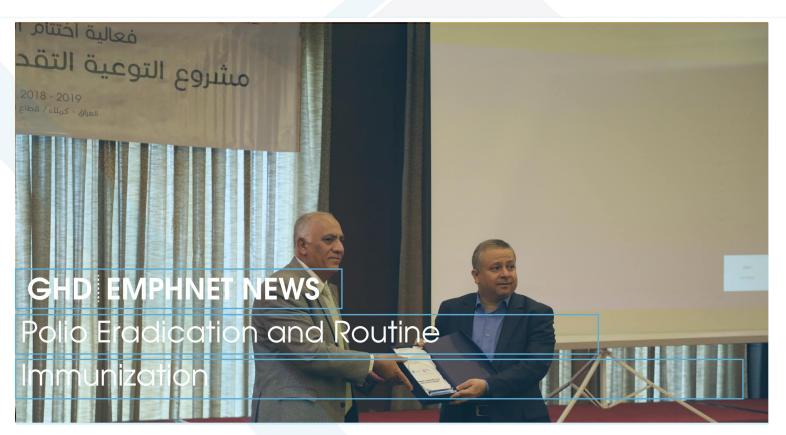
#### **GHD/EMPHNET Participates in First Steering Committee for RRT Knowledge Network**

GHD/EMPHNET participated in the first steering committee meeting of the Rapid Response Teams Knowledge Network (RRT-KN) in Hammamet, Tunisia, between July 9 and 11, 2019. The RRT-KN was created by the World Health Organization in 2015 to facilitate knowledge exchange among national RRT for assessing post-training RRT activities; facilitating peer learning; and promoting discussion on challenges and relevant interests.

The meeting was also attended by the RRT-KN members from the African, South East Asian, and Eastern Mediterranean Regions. Attendance also included the Institute of Public Health in Benin, the Pakistan Field Epidemiology and Laboratory Training Program, Public Health England, the US Centers for Disease Control and Prevention, and TEPHINET. Read more.







Iraq MoH and GHD/EMPHNET Pioneer Appreciative Inquiry (AI) Initiative for Engaging Communities in Enhancing Immunization Coverage

As a community engagement strategy, Appreciative Inquiry (AI) for immunization aims to mobilize local communities towards improving health indicators. All is designed to motivate and empower these communities to take the lead in achieving challenging goals. Before Iraq, AI was only implemented in Nepal where it proved to be successful in increasing vaccination coverage in remote and hard-to-reach areas.

Working closely with GHD/EMPHNET, the Iraq Ministry of Health (MoH) piloted the AI in two districts in Iraq to improve immunization coverage and successfully reach the 100% coverage targets in selected areas. As an innovative approach, AI ideally fits the Iraqi context where children in several security-compromised, underserved areas cannot be tracked for the vaccination schedule.

The initiative was implemented in Mahaweel in Babylon province and Al Hurr in Karbala. While engaging local authorities, NGOs, communities, and the private sector, the Al implementation was guided by the goal of ensuring full immunization for children in the afore-mentioned districts. Read more.









#### GHD/EMPHNET Supports Consensus Meeting on Immunization Barrier Mitigation Strategy for Sudan

Supported by GHD/EMPHNET, the Federal Ministry of Health (FMoH) held a stakeholders meeting with the aim of exploring the various components of the National Immunization Barriers' Mitigation Strategy. Taking place on August 6, 2019, in Khartoum, the meeting served to incorporate input from the FMoH line directorates and international partners into the strategy's finalized format.

Following an extensive discussion on the strategy in question, these participants concluded the meeting with important recommendations. One is replicating studying for the immunization barriers in other states to accommodate diverse demographic, socio-cultural and geographic determinants. Read more.

#### Wrap up of EMPHNET's Activities in Sudan July 2019

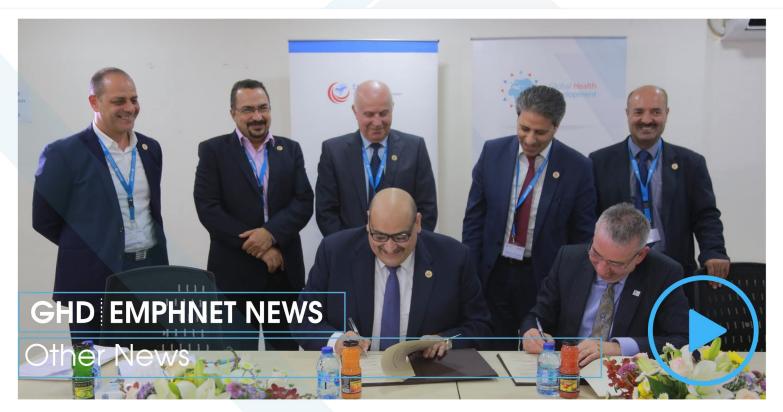
This video provides a brief on EMPHNET's activities in Sudan during July 2019. Three activities are covered:

- Consensus Meeting on Immunization Barrier Mitigation Strategy
- Graduation of Public Health Empowerment Program- Surveillance for Polio Officers (PHEP-SPO)
- Fourth Cohort Launch of the Public Health Empowerment Program for Nutrition Officers (PHEP-Nutrition)









#### **GHD/EMPHNET Signs Memorandum of Understanding with Public Health England**

GHD/EMPHNET and Public Health England (PHE) announced on October 6, 2019, the signing of a memorandum of understanding (MoU) to pursue shared goals of supporting the development of public health capabilities and capacities in the Eastern Mediterranean Region The MoU was signed at GHD/EMPHNET's headquarters by the Executive Director of GHD/EMPHNET Dr. Mohannad Al Nsour and the Chief Executive of PHE Mr. Duncan Selbie.



**EMPHNET Signs Program Cooperation Agreement with Iraq Ministry of Health** 

On September 3, 2019, EMPHNET signed a program cooperation agreement with the Iraq Ministry of Health and Environment. The agreement was signed by EMPHNET's Executive Director Dr. Mohannad Al Nsour and the Director General of the General Directorate of Health Dr. Faris Lami, representing HE the Minister of Health and Environment. In attendance were the Ministry's Undersecretary and directors from the ministry. This signed agreement will institutionalize the collaboration between the two parties in various areas of public health.







#### What is Cholera?

Cholera is an infectious disease that a person can get by drinking water or eating food contaminated with the bacterium Vibrio cholerae. Annually, around 3 to 5 million people are infected with the disease and around 100,000 and 120,000 die of it. Because cholera shows symptoms in a very short period (two hours to five days), it has the potential to result in explosive outbreaks. Symptoms of cholera include large amounts of watery diarrhea, vomiting, and muscle pain.

Several risk factors contribute to spreading the disease. These include compromised health care services, unclean water, population displacement, and complex emergencies. In this part of the world, these risks can be exacerbated because of the region's complex emergencies.

#### **Cholera in the Region**

Cholera in the Eastern Mediterranean Region is considered a threat causing deaths and affecting health. In the past eight years, the region witnessed numerous cholera outbreaks. In Afghanistan (2012 and 2013), Iraq (2012), Somalia (2012, 2016, 2017), and Yemen (2016 and 2017). Afghanistan, Pakistan, and Somalia are the most endemic to the disease.

In recent years, the most explosive outbreak was reported in Yemen. Between 2017 and 2018, over 1.2 million people were infected with cholera and more than 2,500 people died of the disease. This outbreak has been considered by the United Nations as "the worst humanitarian crisis in the world." Recently in Sudan, the Blue Nile state Doctors Committee reported increasing number of cases of acute watery diarrhea and issued a warning about an impending "cholera epidemic."

#### **Cholera Prevention and Response**

To prevent infection with cholera, communities must have access to clean water and suitable sanitation. In addition, there should be a serious investment in health promotion to educate the public about correct hygiene practices as well as the proper handling, preparation, and conservation of food. Moreover, a strong surveillance and early warning system is essential for the detection of early cases and for preventing these cases from turning into an outbreak.

The World Health Organization Regional Office for the Eastern Mediterranean (WHO-EMRO) developed a strategic framework for cholera preparedness and response, aiming to guide countries in developing preparedness and response plans. An important regional effort to control and prevent cholera is the carrying out of the first mass vaccination campaign with oral cholera vaccine in Iraq. This also recently took place in Sudan where a vaccination campaign kicked off in the country to control a cholera outbreak.

#### Sources:

www.emro.who.int www.who.int https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5653925/