

## Field Epidemiology Training Programs and the COVID-19 Pandemic

*February 23, 2021*

### Webinar Brief

#### **Introduction**

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Since the announcement of the COVID-19 pandemic, countries around the world have been implementing various prevention and control measures with the aim of reducing morbidity and mortality rates. Field Epidemiology Training Programs' (FETPs) have been playing a key role in responding to and preventing the COVID-19 pandemic. Unfortunately, many FETPs were directly affected by the pandemic with several being forced to pause training and other supportive activities. Coincidentally, the pandemic provided FETP graduates and residents the opportunity to practice knowledge and skills in a real global outbreak situation, thus providing a hands-on experience. Being an integral part of national health systems, FETPs have been deeply involved in COVID-19 response activities pertaining to surveillance, case investigations, points of entry/arrival screening, isolation, transferring cases, infection prevention, and risk communication.

Within this context, a need arose to evolve the existing training modalities to respond to the changing public health context and demand. The developments include the establishment of online training modules, the establishment of more intermediate PHEP programs in the region, the introduction of COVID-19 specific courses, as well as the development of case studies and more research work that highlight the role of FETPs, their expertise and lessons learned.

However, the transition came with some challenges, but as all changes are, they also offered great opportunities for the improvement of the FETPs, and many more lessons learned that could lead to further advancement in the future. This webinar will look at the changes that FETPs encountered, the opportunities obtained to surge the demand, and the challenges they faced. It will also look at how the future of

FETPs will consider the lessons learned from the COVID-19 pandemic.

#### **About EMPHNET**

*EMPHNET is a regional network that was founded in 2009 with the focus on strengthening Public Health Systems in the Eastern Mediterranean Region (EMR). EMPHNET works in partnership with Ministries of Health, non-government organizations, international agencies, the private sector, and other public health institutions in the region and globally to promote public health and applied epidemiology. In 2015, EMPHNET created Global Health Development (GHD) as a regional initiative to advance its work in the EMR and support countries strengthen their health systems to respond to public health challenges and threats.*

#### **Webinar Objectives**

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This Webinar was conducted with the following objectives:

- To discuss the barriers and effects of the COVID-19 pandemic on FETPs at the global, regional, and national levels.
- To highlight the role of FETPs in the management of and response to COVID-19 pandemic.
- To recommend approaches and measures to sustain the FETPs and enhance their resilience.

## **Webinar Speakers**

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The Webinar hosted the following expert speakers:

- **Dr. Seymour Williams,**

The Principal Technical Deputy for the Workforce and Institute Development Branch within the Division of Global Health Protection of the Center for Global Health at the US, CDC.

- **Ms. Samar Abdelnour,**

The Senior Advisor to the Executive Directors' Office at GHD|EMPHNET.

- **Dr. Shahd Osman,**

Technical Advisor at Sudan's FETP and Educational quality specialist/ Epidemiologist at public health institute

**The webinar was facilitated by:**

- **Dr. Mohannad Al Nsour,**

Executive Director, EMPHNET.

- **Dr. Faris Lami,**

Public Health Expert and Associate Professor at Baghdad University

## **Webinar Attendees**

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Registration was open one week before the webinar and was announced through EMPHNET's communication and networking channels. Webinar attendees totaled 241 from 43 different countries. Approximately half of the participants (46%) attended the full webinar. And the average time of attendance was 63 minutes.

## **Overview of Presentations**

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The webinar was conducted in English and included three 15-minute presentations that were built around presentations on the influence of the pandemic on FETPs and the role of FETPs in responding to the pandemic at the global, regional, and national levels. The first presentation discussed the global perspective on how the Field Epidemiology Training Programs contributed to the COVID-19 response. The second presentation highlighted the role of GHD|EMPHNET's Center of Excellence for

Applied Epidemiology (CEAE) in creating opportunities to strengthen and support applied epidemiology regionally through its multiple units and initiatives. The third presentation was about FETPs and the COVID-19 Pandemic in the case of Sudan.

A discussion session followed the presentations centered around important and relevant questions received from the attendees.

Following is a brief of these presentations in the order that they were presented. The webinar started and ended at the scheduled time, with a duration of 1.5 hours.

## **Webinar Introduction**

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In the opening remarks, Dr. Mohannad greeted the webinar audience, followed by a brief biography of himself. He continued by presenting the FETPs' crucial role in preventing and responding to the COVID-19 pandemic and the impact of the pandemic on FETPs. Dr. Al Nsour then presented the second facilitator, Dr. Faris Lami who in turn, also emphasized the role of FETPs in encountering the impact of the COVID 19 pandemic and how the future of FETPs will be in light of the lessons learned from the COVID-19 pandemic. Dr. Lami then presented the participants and handed the floor to the first speaker Dr. Seymour Williams

**“Prepared for the Pandemic Response:  
Field Epidemiology Training Programs  
Support National Responses to COVID-19  
Globally”**

Dr. Seymour Williams

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Dr. Seymour Williams's presentation showed the results of a global survey conducted by the CDC, which was designed to document the contributions of FETPs to the COVID-19 response.

Dr. William began with stating the importance of starting the presentation by illustrating the numbers of cases worldwide and the impact of this pandemic on the world according to the WHO heat map, which showed that the majority of the reported cases were individuals above 50 years. He then added that COVID-19 pandemic has underscored the necessity of the

public health workforce, especially FETPs' capacity to further assure global health security.

Further into the presentation, Dr. Williams explained the aim of the global CDC survey. He stated that the survey was designed to document the contributions of FETPs to the COVID-19 response in their countries using the WHO Pillars of Public Health Preparedness and Response Planning Guidelines.

Dr. Williams pointed out that 65 FETP programs out of 88 worldwide reported engagement. He noted that graduates tend to be more involved in response activities across all activity pillars. For residents and graduates, the key pillar of engagement was surveillance which is the core competency of field epidemiology training. The activity with the least engagement for both FTP residents and graduates was the operational support.

Dr. Williams revealed content analysis results that show the seven findings that identified contributions of FETP to COVID-19 preparedness and response. These include conducting epidemiologic activities, managing logistics and coordination, and leading risk communication efforts.

Dr. Williams concluded that consistent involvement of FETP in all WHO pillars represents strong program integration with public health institutions. Moreover, it was concluded that the response activities conducted by FETP residents and graduates reflect that FETP trains in critical response skills including epidemiological approaches, such as contact tracing, outbreak investigation, surveillance, and risk communication. Besides, he emphasized the importance of the survey findings which offered clear evidence of the type of skills required by field epidemiologists during an epidemic or a pandemic, including, but not limited to, strengthening management and leadership competencies.

Based on the survey findings Dr. Williams proposed some important tips that

would aid in moving forward. Consisting particularly of, following up the process of continuous gathering and updating information, mainly on how FETP contributions have changed during the COVID-19 response globally. And focusing on the frontline and intermediate tiers expansion in countries and regions in need of this capacity. Lastly, he highlighted the important role of the Ministry of Health or National Public Health Institute entity in supporting and advocating the expansion of FETPs programs.

### **“FETPs in the EMR, Regional perspective”**

Ms. Samar Abdelnour

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Ms. Abdelnour's presentation spoke on behalf of GHD|EMPHNET regarding FETPs in the Eastern Mediterranean Region.

Ms. Abdelnour began her presentation with the WHO's Global Strategy on Human Resources that mainly emphasize on the importance of the health workforce, including strengthening and building a resilient health system that can prevent, prepare for, respond to, as well as recover from emergencies and disasters.

Subsequently, she explained how “GHD|EMPHNET's Center of Excellence for Applied Epidemiology (CEAE)” creates opportunities to strengthen and support applied epidemiology regionally through its multiple units and initiatives.

Moreover, Ms. Samar shared how FETP growth has improved over the years, pointing out that over 100 cohorts have graduated from the EMR.

Ms. Samar then discussed the strategies employed by GHD|EMPHNET to strengthen FETPs in the region which include, the engagement of residents and graduates in developing and evaluating FETPs, supporting existing FETPs and establishing new modalities. As well as, developing online public health training programs, and finally supporting the FETPs field missions.

Ms. Abdelnour then discussed the techniques used to enrich FETPs through special webinars for the FETP residents and graduates, the

quarterly newsletters, and Epishares (a networking platform that was developed to ensure a mechanism for sharing information and experience.).

Further into the presentation, Ms. Abdelnour, shed light on the role of GHD|EMPHNET in supporting FETPs during the COVID-19 pandemic by developing the Customized 3-month Public Health Empowerment Program-Basic Field Epidemiology (PHEP-BFE) to address COVID-19, the development of 17 case studies and 75 scientific publications, the development of the Learning Management System (LMS), and the online training courses all of which, help in training Rapid Response teams and supporting FETPs response missions, and finally by supporting and printing promotional material. Furthermore, Ms. Abdelnour provided insight on GHD|EMPHNET's online training platform. The platform targets FETP graduates and residents, health professionals, and other relevant personnel responding to the COVID-19 pandemic.

Lastly, Ms. Abdelnour finalized her presentation by stressing that the FETPs have always been the flagship program of GHD|EMPHNET and that it will continue to support it.

**“Field Epidemiology Training Programs  
and the COVID-19 Pandemic  
“The Case of Sudan”**

Dr. Shahd Osman

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Dr. Shahd Osman addressed FETPs and the COVID-19 Pandemic in Sudan's case. She began by giving a short introduction about Sudan as a country in terms of its economic status, size, geographical location, as well as climate.

Dr. Osman then described the epidemiological situation in Sudan which is mainly affected by frequent outbreaks of communicable diseases. She stated that communicable diseases are the main causes of morbidity and mortality, and that they are exacerbated by drought, floods, malnutrition, geographical dispersion of the population, and armed conflict complicating the situation.

After that, Dr. Osman discussed the establishment of Sudan FETP in 2017, as well as the FETPs' main objectives and the number of cohorts who have graduated to date. The program was established with the support of GHD|EMPHNET which has continued and extended this support to include other related areas like capacity building, system support, management of public health emergencies, and operational research.

To highlight the importance of and the obstacles faced by Sudan's FETPs, Dr. Osman highlighted Sudan's general context including, outbreaks during the period of 2017-2021, the leadership and political support during the same period, the natural disasters, the economic inflation, among others.

Further to discussing the general situation of Sudan during the COVID-19 pandemic, Dr. Osman addressed how COVID-19 has impacted the FETP training, especially regarding commencement of the program, the travel between states, disruption of other FETP projects, and the prioritization of activities.

Dr. Osman then summarized the FETP's activities during the pandemic including participation in the Rapid Response Team training programs, and also FETP conducted the first workshop that targeted frontlines that included many activities such as risk communication, surveillance, and contact tracing. In addition, FETPs residents were involved in managing points of entry as well as the planning and managing committee.

After mentioning the activities of the Sudan FETP during COVID-19, Dr. Osman stated the challenges faced during the conduction of these activities, which included access to training, access to technical support, and access to resources.

Dr. Osman concluded her presentation by stating that the COVID-19 pandemic affected the implementation of the planned activities for 2020. However, FETP graduates participated actively in the various COVID-19 related responses.

## Closing Remarks and Key Messages

Dr. Lami

Dr. Lami thanked the esteemed speakers, facilitator and audience and wrapped up this webinar by the following key messages:

Among the important issues that have been discussed are:

- The importance of maintaining essential health services during this pandemic and of mitigating collateral damage during these incidents.
- The need of building specific competencies through FETPs training to address the gaps that have been highlighted during the pandemic, especially the issues related to public health management and leadership.
- The importance of the residents and graduates exchange between different countries.
- The recognition of the FETPs crucial roles and contribution to the prevention, diagnosis and investigation of outbreaks.

**Below are the main recommendations to further enhance the capacity and sustain our FETPs in the region:**

1. Increasing the number of trained Field Epidemiologists globally to prevent, detect, and respond to public health threats.
2. Expanding the target of FETP trainees and to go beyond medical doctors to include other sectors under the umbrella of the One Health approach.
3. Establishing more intermediate FETPs and PHEP-BFE (basic FTTP) in all countries.
4. Customizing the FETP curriculum to incorporate the needs that are revealed by the COVID-19 pandemic, including the

development of regionally customized case studies and exercises

5. Adopting new training approaches, teaching methods and tools for the FETPs, such as blended programs that combine online and face-to-face training.
6. Investing further in e-learning modalities, making use of the advances in technology and the experience learned from COVID-19.
7. Complementing FETP with developed and provision of specialized training course for public health workforces to ensure greater sustained preparedness for future pandemic.
8. Development of a regional framework and strategy to sustain the FETPs in our countries
9. Empowering the FETP Alumni Associations and promote the long-life learning among graduates.
10. Promoting the exchange program for FETPs for better qualified health workforce
11. Increasing focus on the area of operational research and the use of digital solutions
12. Expanding and strengthening the FETP network in the region through various approaches like Conferences, FETP webinars, and newsletters

At the end of the webinar, Dr. Mohannad thanked all participants for their proactive participation and rich discussion, then he stated that he is looking forward to seeing these recommendations implemented in practice. Finally, he assured the participants that they would continue to convene such seminars and scientific conferences to discuss various topics of interest to our region in various fields.

## Discussion

Dr Mohannad Al Nsour facilitated the Q&A session. Below are the questions that were answered by the relevant speakers:

### Questions Asked During the Webinar:

#### *Dr. Seymour Williams*

**Q1. What methods were employed to measure FETPs graduates' engagement toward activity pillars?**

Self-report at program level (director and resident advisor) to survey questions

**Q2. What kind of support to the expansion of FETPs do you foresee for those programs in terms of their sustainability?**

The support will be funding and technical assistance to prioritized countries, working through network partners. need countries to contribute to building and owning/advocate for their program for the long term (hire epidemiologist and house the program in their ministry)

**Q3. Are there any efforts and resources to bring One Health approach into action?**

great point, how to incorporate Vet, para vets, environmental health officers are beng done at country levels. Integrating the training so that there is an inter/multidisciplinary integration of folks working together will need to be prioritized at the curriculum and proactive level. Need more country examples.

#### *Ms. Samar*

**Q4. What is the protocol for joining the FETPs?**

The FETP is situated and institutionalized at the MOH. So interested applicants apply to the program through the ministry.

**Q5: What lessons have been learned from the pandemic that could be used to enhance FETPs?**

Many lessons in many areas. One of the most prominent is the need to come up with ways to enhance exchange between the FETPs amidst the high demand and work that FETP.

**Q6. Are there any plans to design a modality of FETP program which is completely virtual?**

Yes, partners are seeing/developing virtual/online platforms for learning/training and mentoring. Support for this expansion is being prioritized and supported.

**Q7. What's the difference between a resident and a graduate?**

Residents are students of the program. These become graduates once they complete the program successfully

**Q8. are there any opportunities for a novice epidemiologist to work in Field epidemiology training program?**

If you are working at the MOH and if there is an FEP in your country, then u can apply to the program. THE FETPs are situated at MOH and in general, applicants are MOH employees.

**Q9. Is there any FETP cohorts in Qatar?**

Currently there is no FETP in Qatar.

#### *Dr. Shahd*

**Q10. When speaking of the employee turnover, it is a problem that will have a lasting effect on the program. What can be done about this issue?**


A23: True. Turnover is a challenging issue in any field. But usually, FETP graduates move into mid and high level positions being responsible for epi and data related or surveillance positions that are crucial to MOH function. So turnover among FETP graduates is mostly not high.

**Q11. Why Sudan FETP has very limited cohort? Is it a matter of resources (both Human and Financial), knowing Sudan has the bulk of outbreaks and Disasters in the region?**

Sudan's FETP is very recent. It was established as an advanced program, which is 2 years. It is running its second cohort now.








## Biographies of Guest Speakers and Facilitators



### EMPHNET WEBi Series


#### Field Epidemiology Training Programs and the COVID-19 Pandemic

**Tuesday, February 23, 2021**  
17:00 to 18:30, Jordan Local Time (UTC+2)

| Speakers   | Facilitators   |
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|  <p><b>Dr. Seymour Williams</b><br/>MD, MPH, Principal Technical Deputy for the Workforce and Institute Development Branch within the Division of Global Health Protection of the Center for Global Health at US CDC.</p> |  <p><b>Dr. Faris Lami</b><br/>Public Health Expert and Associate Professor at Baghdad University.</p> |
|  <p><b>Ms. Samar Abdelnour</b><br/>Senior Advisor to the Executive Directors' Office at GHD EMPHNET.</p>  |  <p><b>Dr. Mohannad Al Nsour</b><br/>MD, MPH, Ph.D., Executive Director, GHD EMPHNET.</p>             |
|  <p><b>Dr. Shahd Osman</b><br/>Epidemiologist and Expert in Bioethics and Health Sciences Education, and Technical Advisor for Sudan FETP.</p>  |  |

**The webinar will focus on**

1. Discussing the barriers and effects of the COVID-19 pandemic on FETPs at the global, regional, and national levels.
2. Highlighting the role of FETPs in the management of and response to the COVID-19 pandemic.
3. Recommending approaches and measures to sustain the FETPs and enhance their resilience.



GHD | EMPHNET: with you against COVID-19

### **Speaker: Dr. Seymour Williams,**

*The Principal Technical Deputy for the Workforce and Institute Development Branch within the Division of Global Health Protection of the Center for Global Health at the US, CDC. Dr. Williams has written numerous publications in the field of Applied Epidemiology and Public Health.*

*Dr. Williams is also a Public Health and General Preventive Medicine Specialist in Atlanta with a demonstrated history of working with governments at the state, national, and international levels. He has a Master of Public Health focused on Health Policy and Management from Emory University, Rollins School of Public Health.*

### **Speaker: Ms. Samar Abdelnour**

*The Senior Advisor to the Executive Directors' Office at GHD | EMPHNET. Prior to her current role, she held various positions at GHD | EMPHNET for over eight years as a Program Manager, Deputy Director, and Director of the Center of Excellence for Applied Epidemiology. She also worked with Abt Associates for six years serving as a Technical Specialist for the research component.*

*Ms. Abdelnour holds a Master of Public Health in International Health and Epidemiology, and a Master of Science in Nursing from the Catholic University of America.*

### **Speaker: Dr. Shahd Osman**

*FETP Technical Advisor in Sudan. She also works for the Public Health Institute, Federal Ministry of Health as an Educational Quality Specialist. Dr. Osman is also a lecturer in Public Health Ethics and Epidemiology at Aghad University and Neelien University in Sudan. She has a keen interest in Epidemiology, Communicable and Non-Communicable Diseases, Evidence-Based Medicine, Research Methodology, and Research Ethics.*

*Dr. Osman earned her Bachelor of Medicine, Bachelor of Surgery (MBBS) from Aghad University for Women, followed by a MSc in Epidemiology from the American University of Beirut.*

### **Facilitator: Dr. Mohannad Al-Nsour** Executive Director GHD/EMPHNET

*Dr. Al-Nsour is an internationally recognized expert in field epidemiology, research and public health systems. Dr. Al-Nsour has a PhD from the Glasgow University, Scotland, U.K., where he was a fellow with the International Agency for*

*Research on Cancer (LARC). Dr. Mohannad Al-Nsour holds a Medical Degree from Ukraine and an MSc in Epidemiology from the American University of Beirut (AUB). Since 1999, Dr. Al-Nsour assumed several positions as a researcher, advisor, and director in Jordan. He also served as a consultant on several assignments with the US Centers for Disease Control and Prevention (CDC), the World Health Organization and the AUB. Before becoming EMPHNET's Executive Director, Dr. Al-Nsour was the Director of the Field Epidemiology Training Program (FETP) in Jordan (2006-2009) and the Head of Surveillance Department of Balqa Health Directorate – Jordan. Dr. Al-Nsour also served as a CDC consultant for FETPs in the Eastern Mediterranean Region.*

***Facilitator: Dr. Faris Lami***

*A Public Health Expert working in academia for 30 years. Dr. Lami is currently an Associate Professor at the Department of Community and Family Medicine, at the College of Medicine, Baghdad University in Iraq.*

*He is currently serving as a member of the Advisory Committee of COVID-19 at the Iraq Ministry of Health. He was awarded MBChB from the College of Medicine at Baghdad University in 1985 and attained a PhD in Community Medicine from the College of Medicine at Baghdad University in 1997.*

*He is a Fellow Faculty of Public Health (FFPH), at the Royal College of Physicians UK, 2013. Dr. Lami is also a member of the Scientific Council of Community Medicine, and Family Medicine, Iraqi Board of Medical Specialization, and the Director of the Training Center of Baghdad College of Medicine Training Center since 1998.*