



## Annual Report: 2020-2021

**WHO Collaborating Centre**



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## ***Strengthening primary health care is a priority in Eastern Mediterranean Region, and WHO is working actively on improving primary health care services and primary health care workforce in line with WHO's recommendations and GPW13***

Our WHO CC has extensive experience in health system development, both in research and practice. This year was extremely busy with the Covid-19 Pandemic, and a very high percentage of our work was related to this global shock to the health systems around the world. The WHO CC undertook many research projects on Covid-19 in relation to the role of Primary Care during the Pandemic, supported WHO and many member states and ran educational programmes for the public health workforce and others.

### **WHO CC worked closely with WHO EMRO in initiating and developing an "Interim Guidance Note on the Role of Primary Health Care in COVID-19 Pandemic in EMR".**

The focus of attention was to improve health system situations, which seem to be mainly concentrating on hospital settings, with less awareness of the key role played by PHC. This was mutually endorsed in the Astana Declaration and Political Declaration of the High-level Meeting on Universal Health Coverage as the foundation for "health for all" and the health-related SDGs, including the target for Universal Health Coverage (UHC). The three components of PHC – empowered people and communities, multi-sectoral policy and action, primary care services and essential public health functions – can each play an important role in infection prevention, early detection, and management of mild COVID-19 cases and maintaining essential health services. The outcome was Interim Guidance Notes to support the Member States in strengthening and enhancing the role of primary care during this Pandemic.

### **Health Leadership and Management Training Course (one week)**

We felt that the role of health leaders was so essential during the Pandemic that there was an urgent need to increase the capacity of leadership and enhance the role of existing one with an appropriately targeted training programme on Leadership and Health Management during Crisis (shock to the system). The WHO CC developed and delivered targeted courses with participants from many countries, and the courses were well attended.

### **Collaboration with Primary Care**

CEO Julia Beart, Primary Care International, visited the WHOCC, Department of Primary Care and Public Health, Imperial College London. A discussion ensued on collaboration. The entities will work jointly to support countries across Europe, the Middle East and Africa through WHO Offices. There are many positive initiatives and innovations that countries could adopt. The discussion has already started with WHO EMRO and WHO Europe on the best approaches to strengthen primary care, following the Covid-19 Pandemic. This will be reported in the next year's Annual Report.

## **Integrating Public Health into Primary Care**

Work on this project continues following the well-documented collaboration led by WHO Europe and WHO Geneva, which culminated with the production of the WHO Policy Document "Closing the gap between public health and primary healthcare through integration". The document was published in October 2018, distributed and presented at Astana Conference on Primary Care. Our research continues to explore the level of competencies needed for public health in primary care settings. We classified the public health workforce into three groups according to the qualifications in public health and related subjects and the training achieved. These groups are Public Health Consultants, Public Health Practitioners, and the Wider Public Health Workforce. We used, as a guide, the WHO / ASHPER document of Public Health competencies published in 2019. The WHO CC published a paper on training the public health workforce in the competencies needed.

## **Person-centred care for PHC**

WHOCC has been working closely with the International College of Person-Centred Medicine (New York) to run a three-day conference (virtual) on person-centred primary care. WHOCC also contributed a prevention chapter to the International College of Person-Centred Medicine's new book "Seeking the person at the centre of medicine", highlighting the role of public health in primary care and how prevention can focus the service on the person's health. We expect publication of the book at the end of 2021/ early 2022.

## **New medical curriculum based on teaching in PC settings**

The WHO CC worked very closely with the International Association of Medical Colleges (USA) to define the ways medical schools' curricula should be shaped around primary health care. The work is designed to set the criteria for medical school's international accreditation by 2024. The expectation is that at least 40 to 50% of teaching through the integrated curriculum must be based in primary care settings.

A joint report is expected to be published at the end of 2021.

## **Country Strategies and Mechanisms for Maintaining Essential Primary Health Services: EMR Experiences during COVID-19**

This collaborative work with many countries in the Region was aimed to shape policies that strengthen the role of primary care during the Pandemic. Many countries did not capitalise on the potential part of primary care and focused on more hospital beds (makeshift hospitals) and equipment.

The work has concluded with the publication of a scientific paper in a peer-reviewed journal:

Khoja TAM, Qidwai W, Rawaf S, Alnaser FA, Nanji K, Khoja A, Kurashi NYA, Saad NES, Halasa W, Farahat TM, Al Shafae M, Al Shetti M, Bashir M, Alsharief W, AlWotayan R, Alimky S, Al-duwaisan Het al., 2021, Primary health care in pandemics: barriers, challenges and opportunities, *World Family Medicine Journal incorporating the Middle East Journal of Family Medicine*, Vol: 19, Pages: 6-11, ISSN: 1839-0188

## **Collaboration on strengthening the role of Primary Care across Europe during the Pandemic**

The WHO CC worked closely with many European colleagues to review and evaluate primary care services' responses during the pandemic. Many lessons for primary care health professionals were drawn and cascaded across Europe through professional and social networks.

The work was marked with publishing two papers on the topic: one with European colleagues and the other with EMR. These are:

Rawaf S, Allen L, Stigler FL, Kringos D, Quezada Yamamoto H, van Weel C et al., 2020, Lessons on the COVID-19 pandemic, for and by primary care professionals worldwide, *European Journal of General Practice*, Vol: 26, Pages: 129-133, ISSN: 1381-4788

The report and the paper set clear policy and directions on how primary care services should be designed in the future for better resilience to meet the needs of the entire population they serve without disruption due to any shock to the system at the local or global level.

## **Collaboration with the Institute of Health Metric and Evaluation, Faculty of Medicine, University of Washington, Seattle, USA**

The collaboration continues through bilateral meetings, collaborative publications as well as leading on research topics. We are currently working on Maternal Mortality in the Eastern Mediterranean Region of the WHO, looking at recent trends in 22 countries supported by systematic reviews. This work will help member states address the unacceptable high level of maternal deaths in their countries. Early results show some increases in MMR in countries with excellent records of low mortality among mothers.

## **WHO CC /ICL School of Public Health Collaboration with WHO Geneva (July 2019 – ongoing)**

In discussions with Professors Paul Aylin and Helen Ward the WHO CC explored the possible collaboration between the School of Public Health and WHO Geneva. The SPH is keen to work closely with WHO. We discussed one of the projects (the health emergencies training programme) to develop an online programme considering our experience in the Global MPH Project. Indeed, the Collaborative Project with WHO started in November 2019, with the first meeting held in London. This work is in support of the newly developed WHO Academy.

## **The MENA Health Policy Forum – Cairo, Egypt (Ongoing)**

MENA's mission is to contribute to effective, efficient, equitable and sustainable policies that improve health for the most disadvantaged in the MENA. Strong collaboration is in place to address common interests between WHOCC and The Forum. A joint paper was published on sexual health services in primary care settings in the Regions. This paper was based on a comprehensive study conducted across 14 countries in the MENA region.

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and reproductive health services in the provision of primary health care in the Arab States: status and a way forward Sex Reprod Health Matters. 2020 Dec;28(2):1773693. DOI: 10.1080/26410397.2020.1773693

### **The Future Hospital: Hospital Presidents from Zhejiang China – a training course in London, UK (23 Oct 2021)**

The training was attended by 30 senior executives/chairs of large hospitals across Zhejiang, China. This bespoke, 1-week course was organised by ICL with WHO CC participation and explored many elements of strengthening today's health systems to meet the ever-changing and increasing population demands on health care. Strong primary care will support the role of hospitals in focusing on more complex cases(over 80% are dealt with at the PHC level).

The Director of the WHO CC gave two talks: Evaluating quality in primary care and Measuring patient experience and the role of health leadership

## Our WHO CC and Covid-19 Pandemic



Since the start of the Pandemic, the WHO CC took a very active role in research, service, training, media appearances, and Webinars and supporting member states in facing the pandemic and protecting the population's health. We have published many original research papers, delivered training courses on emergency preparedness and emergency responses, and were invited to be members of WHO EMRO Technical Advisory Group on Covid-19; Supreme Advisory Committee on Covid -19, Iraq; Abu Dhabi Scientific and Technical Advisory Group for Emergencies (STAGE), and Imperial College Advisory Group of Covid-19. We delivered more than 30 weekly Webinars on Covid-19, over 100 media appearances, and seven training courses delivered virtually. The covid-19 Pandemic has dominated the entire team's work since March 2020 and is ongoing. We expect the work will continue for some time to come with the emergence of variances of SAR-Cov-2. While Webinars and

courses are described in other parts of this report, selected publications are given below:

Rawaf S, Quezada Yamamoto H, Rawaf D, 2020, Unlocking towns and cities: COVID-19 exit strategy, *Eastern Mediterranean Health Journal*, Vol: 26, Pages: 499-502, ISSN: 1020-3397

Rawaf S, Al-Saffar M, Quezada Yamamoto H, Alshaikh M, Pelly M, Rawaf D, Dubois E, Majeed A et al., 2020, Chloroquine and hydroxychloroquine effectiveness in human subjects during coronavirus: a systematic review, Publisher: medRxiv

Khoja TAM, Qidwai W, Rawaf S, Alnaser FA, Nanji K, Khoja A, Kurashi NYA, Saad NES, Halasa W, Farahat TM, Al Shafae M, Al Shetti M, Bashir M, Alsharief W, AlWotayan R, Alimky S, Al-duwaisan H et al., 2021, Primary health care in pandemics: barriers, challenges and opportunities, *World Family Medicine Journal incorporating the Middle East Journal of Family Medicine*, Vol: 19, Pages: 6-11, ISSN: 1839-0188

Rawaf S, Allen L, Stigler FL, Kringos D, Quezada Yamamoto H, van Weel C et al., 2020, Lessons on the COVID-19 pandemic, for and by primary care professionals worldwide, *European Journal of General Practice*, Vol: 26, Pages: 129-133, ISSN: 1381-4788

### **Series of Joint Webinar on Covid-19 and its impact on health, systems, economy, and social life (March 2020 +)**

The WHOCC team actively engages and reaches out to the world in educational and learning activities. Many of our courses, which are designed based on face-to-face learning and skills, were changed to online learning. The WHO CC also developed new innovative learning and skills courses taking into account the emerging public health challenges and the needs of the public. More than 30 webinars were carefully planned and delivered in association with WHO (EMRO and Geneva), and the work continues (ongoing).

In addition, the WHO CC team attended a large number of conferences globally on the topic since the WHO declared the Pandemic, through virtual links and took an active part in radio and television interviews through many media outlets.

### **WHO CC Imperial College Training Crash Courses (1<sup>st</sup> June 2020 – February 2022)**

During the lockdown period, the WHO CC team put an extraordinary effort into developing new courses to prepare the public health workforce and equip them with the skills needed to deal with the Pandemic. Among these courses are:

- Epidemiological surveillance for infectious diseases
- Acute event management
- Public Health Practical Conversion Course
- Advanced Leadership and Health Management Course (Modifying existing and popular course run by the WHO CC for years)
- Emergency Planning and Preparedness
- Public Health Analysis

- Disease Burden and Health Planning
- Outbreak exit strategy

The main aim of these is to support the response to life changes imposed by the COVID-19 pandemic and enhance the public health workforce's skills.

***In support of WHO, conduct a review and evaluation of the impact of public health services to strengthen health systems for UHC.***

Description: This activity is one of the priority areas in WHO; the work on UHC monitoring and the GPW13 impact framework is ongoing.

The WHO CC works closely with WHO EMRO and member states on 'health system resilience', which involves projects evaluating health systems, primary care, and public health functions. In preparation for and during the assessment and redesign process, we have conducted quantitative research (systematic reviews), analysed data, and projected service needs. We also calculated the number of physicians, and other health professionals needed. We also assessed the risk of doing nothing compared with advancing change. We believe the post-Covid-19 Pandemic will trigger a radical change in our health systems at a global level. The lessons drawn from the Pandemic will guide the change in design, organisation, structure, delivery, and workforce training.

**Health System Resilience WHO EMRO (June 2020 – ongoing)**

Following the Covid Pandemic, most of the health systems around the world were either overwhelmed, did not cope, or did not show any resilience. WHO EMRO approached us to collaborate on work to assess how health system resilience could be improved. The result is participation and collaboration with colleagues from WHO EMRO, WHO Geneva, Oman, Egypt, and the WHO CC. We are submitting a funding proposal. Moreover, a health systems resilience project in collaboration with the Arab Public Health Association (ArPHA) was initiated in the last few months. Since the onset of the COVID-19 crisis on public health, managing the ever-increasing number of patients admitted to hospitals and ICU units while maintaining health services regularly proved challenging in many parts of the world. The first stage of this collaborative research aims to develop and validate an assessment tool for health system resilience. This tool will be valuable for measuring health system resilience in countries, help identify and find ways to minimise critical gaps in health systems and improve their performance during and after any kind of a shock to the health system.

**Strengthening health systems through better data collection, analysis, and interpretation to shape policy**

During the Pandemic and the lockdown, we have strengthened our collaboration with the Institute of Health Metric and Evaluation to use estimated data in shaping health policies, especially when health systems stress, such as during a Pandemic. Collaborative works have been published widely during the reporting period of 20/21 (see publications).



## **Strengthening the Iraqi health system during the Pandemic**

We held several virtual meetings during the lockdown with the ministry of health and the WHO Iraq Office on strengthening the health system during the Pandemic. These include: strengthening the public health capacity across the country, improving reporting of Covid-19 cases; public compliance with public health measures; closures of some public and private places (schools, universities, public utilities etc.); strengthening primary care for continuity, including essential services and protect public and patients; the role of the private sector; enhance ICU facilities in hospital; reaching patients receiving treatment at home; and access to covid-19 testing facilities.

## ***At the request of WHO, conduct needs assessment on training and evaluation on continuing professional development programmes.***

**Description:** Health workforce capacity is critically important in achieving targets of GP13, especially in achieving 1 million to access services. Thus, strengthening continuous professional development in countries in maintaining and upgrading the competencies of health workers is very important.



## **General**

The WHO CC members provide world-class educational and training programmes in public health and primary care. They are leading on innovative approaches and creativity in these courses. This year, we have focused on educational development to support member States in increasing their capacities in human resource supply. Our emphasis was re-focused on Covid-19 once WHO declared the Pandemic.



Many of the courses were transformed into virtual learning. In doing so, the WHO CC team invented many techniques to ensure that participants are fully engaged and play their roles in the learning process. We were creating small groups discussion virtually, increasing the number of exercises, spreading the interactive training/learning programme over several weeks (one day every week) and adding self-study assignments. These interactive, competency-based courses lead to certificates, diplomas, or master's degrees. We also worked on enhancing postgraduate medical training through structured programmes based on competencies. Some of these courses were listed and described in other parts of this report.

### **WHO Educational Trip (MPH, MSc, Fellows) 23-24 June 2021**

This is an essential educational activity in the Faculty of Medicine calendar for our MPH, MSc Students and WHO Fellows. The education trip aims to give the students, PH trainees and Fellows an insight into the work of international organisations. It will also provide them with the opportunity to explore job opportunities and shape their career if they are interested in international work. This is a very popular activity and most loved by our students. This year, due to the ongoing pandemic, the trip took its virtual form.

Students experienced informative and engaging talks by experts in the field of public health, including immunisations and equitable access to vaccinations; current (and historical) international health and humanitarian efforts in areas of conflict and epidemics; aiding victims of violence or disaster; health advocacy of displaced and excluded persons; safeguard individuals against sexual exploitation, abuse and harassment; evidence-informed policy; health-related environment/disaster/climate change; emergency preparedness; adolescent and at-risk populations; health systems and universal coverage; leadership and innovation. Students were also given insight into employment, international job profiles and the internship process, particularly popular with regard to the WHO

### **Research Fellowship: WHO Fellow Dr Gunyoung Lee – South Korea (July 2019-October 2020 ).**

WHO Collaborating Centre Postgraduate Medical Research Training Programme is aimed at public health and family medicine specialists or other qualified healthcare professionals. The training comprises training sessions on research skills, mentoring sessions tracking progress in the research project and guidance in the research project aimed at publication. It is also enriched with access to carefully tailored sessions on the British NHS and how it encourages

Gunyoung Lee is a senior scientist within the South Korean Ministry of Food and Drug Safety. She joined WHOCC on a Postgraduate Fellowship to expand her experience and knowledge of Chemical hazards, and her Fellowship concluded with research papers on the topic area.

### **WHOCC Research Training**

The WHO team supervise a number of PhDs with a wide range of research topics in public health for the reporting year. This year five candidates completed their PhDs successfully. Topics covered include: the UK NHS Health Check, Health System

Performance; Women Health; the Care of Elderly Population; and the Quality of University Hospitals.

Three PhD candidates joined the WHO in 2020.

### **Kingdom of Saudi Arabia Healthcare Leadership Academy (July 2019 – April 2022)**

Discussions were held with the Business School at Imperial College on the project and the role of WHOCC. The Leadership Academy in Saudi Arabia proposes working with the business school to develop a practical clinical leadership and health management training course. The school is keen that the project is delivered jointly with WHO CC with their track record in health leadership training over many years. Professor Rawaf is the Clinical Director of the Project. In February 2020, The WHO CC Director visited the Academy in Riyadh, and specific action points were agreed upon to enhance the role of the Academy and give opportunities, through the WHO CC, for trainees to have the chance to explore the leadership role in high-performing systems such as the UK.

### **Draft framework for WHO Human Resources for Health (HRH) course and sample modules (WHO Geneva: October 2019+)**

WHO CC is contributing to the development of the HRH Course for Leadership and Management (both short Executive Course and MSc), This is a major collaborative work across the globe led by colleagues at WHO Geneva. It is envisaged that these courses will be either commissioned by WHO, adopted by national universities, or both. WHO CC shared its extensive experience in the development of such courses. It is envisaged that the course will be live in early 2022.

### **School of Public Health Imperial (SPH) and WHOCC collaboration with WHO Geneva (July – August 2019 - on-going)**

The collaboration on this project continues despite the early delay due to the lockdown caused by the Covid-19 Pandemic. We are planning a course on health emergencies with WHO Geneva that will be the basis for other courses to support the WHO Academy in Lyon.

### **Medical Practitioners Annual Appraisal System and Statutory Regulation of Medical Practitioners Iraq (January 2020 – ongoing)**

At the request of His Excellency Dr Jaffar Allawi, Iraqi Minister of Health, and Environment, and in conjunction with the Iraqi WHO Office Representative Dr Adham Ismail, a proposal was commissioned for Imperial WHOCC to review and address two interlinked projects:

1. An annual appraisal system to ensure the highest standards of practice and probity for all registered medical practitioners (all grades); and
2. The creation of an Iraqi General Medical Council (IGMC) with the needed statutory guidelines to protect patients and regulate doctors.

The first step in this project was to contact the relevant professional bodies, written concept papers and benchmark other countries' experiences. These were shared with the Minister both in writing and through two virtual meetings. These projects are

on hold at the present time due to changes in priorities imposed by the Covid-19 Pandemic.

### **The Development of the Public Health Academy: Kingdom of Saudi Arabia (February 2020 – on-going).**

Following Professor Rawaf visit to Riyadh in February 2020, the WHO CC was commissioned by the Centres for Disease Control (CDC) of the Kingdom of Saudi Arabia to develop a new Public Health Academy. The institution will take a full role in public health transformation in the Kingdom based on their national 2030 Vision. Its aim will be to raise the standards of practice among public health practitioners and the wider public health workforce (below specialists' level).

This project benchmarked through a review of five countries' approaches to developing public health workforce; setting the competencies level needed for each level of practitioners and the wider public health workforce; assessing the current needs for training in the Kingdom; reaching to and interviewing all stakeholders, including public health service providers (many ministries), academic institutions, health council, health commission, and potential trainees. The work included the development of strategic directions, financial plan, marketing plan, training strategy, governance, and operational plan, among many other works, to ensure sustainable development of the new academy. This is a pioneering work in the Region, and it will greatly impact the action and transformation of public health professionals in the Kingdom and the Region.

### **WHO consultation: the future of learning for public health (6 June 2020)**

The WHO CC contributed to this one of a series of meetings organised by the Human Resource Development Department at WHO Geneva. Part of the work is to develop a WHO Global Learning Strategy. This will align with the WHO's institution, its values, and the organisation that implements the collective vision for global public health in all 194 Member States. The WHO CC has many innovative approaches to learning and skill development in public health to a wide spectrum of public health professionals to address current gaps and emerging issues.

### **Global Public Health Panel on Omnia Health Live (OHL) – invited panellist: Primary Care recovery post-pandemic (22-26 June 2020)**

Since the start of the Pandemic, the WHO CC approach to Covid was to deal with the immediate impact and project the future post-Covid-19 Pandemic. We had the chance to discuss and hold meetings with WHO EMRO, WONCA Europe and Academia on the shape of primary care, and we have published two papers on the topic. The consultation aimed to explore the best approaches to provide free CME access to our global community of 5 million healthcare professionals worldwide through OHL.

One session focused on key and pressing issues around Public Health and COVID-19. Professor Rawaf engaged in a live talk on Primary Care recovery post-pandemic and beyond, by Informal Markets, who hosted a mega virtual healthcare event

titled Omnia Health Live. The presentation was an interview-style led by Dr Atiya Mosam from South Africa.

<https://live.omnia-health.com/en/home.html>

### **COVID-19 Technical Advisory Committee (TAC) (30 March 2020 – On-going)**

WHO EMRO invited the Director of the WHO CC to join the membership of the Technical Advisory Committee for Covid-19. There are 11 other additional members from and outside the Region. The first meeting was held on 30 March 2020. The TAC received a report on the global and regional situation of COVID-19. An overview of the containment and mitigation methods being used in the region and identified the special considerations and constraints in fragile, conflict and vulnerable settings. EMRO adapted the global response plan to the region and is working with countries to develop country-specific plans. Given the evolving situation, this plan is currently being revised. The extensive support WHO has provided to countries (40+ technical documents), online training, missions and virtual technical advice and guidance, is more than welcome. The communication team is monitoring rumours and misinformation and adapting messages accordingly. We were also informed about the extensive efforts being done by the Dubai Hub that has shipped supplies to the region and beyond; and reported that WHO is working on ways to address market failures in PPEs. The TAC Members discussed the details of these and what is projected in the Region, and how to address some of the associated issues, such as services for non-Covid patients, imposing more stringent measures to prevent transmission, looking at the social impacts, and protecting the economy.

### **Family Physicians and the Covid Pandemic: The Way forward (4<sup>th</sup> June 2020)**

The WHOCC participated in this Joint meeting of WHO Europe and WONCA Europe (International Organisation of Family Physicians). The virtual meeting covered the key areas of managing primary care during the Covid-19 Pandemic. While many countries decided to exclude covid patients and focus on routine / essential services through virtual and telephone consultation, others accepted these patients without taking the proper measures to protect staff and other patients. The discussions were vital to clarify the way forward and set the right guidelines.

### **Meeting Dr Maryam Matar Ref Genetic Training Course (16 June 2020)**

The WHO CC was approached by countries in EMR about possible support in gene sequencing for SARS-Cov-2 variants detected during the Covid-19 Pandemic. The virtual meeting was about exploring the 22 WHO EMRO countries' ability to carry out WGS (Whole Genome Sequencing) research to detect new Variants of the SARS-Cov-2 virus. It seems that the only country with a capacity for such research is the UAE within the private sector. This led to a project to support the development of such services with advice from Academic Virology Department at University College London, UK.

## Public Health Education through Public Health Conferences

The WHOCC has led organising and management, contributed to the organisation, and participated in many public health and other health conferences during the reporting year. Just naming a few: Future of Iraq Health System (London); WONCA Regional Meeting (Kuwait); Integrating Public Health into Primary Care.

## Colaboration with WHO

This year we have strengthened further our collaboration with WHO HQs Geneva, WHO EURO and WHO EMRO. We attended many of their meetings (all listed under the activities), we held many virtual and telephone meetings and conferences; worked closely with colleagues on projects; commissioned by WHO to do a specific piece of work; appointed adviser(s) to two advisory groups (on primary care with EURO and EMRO); and we were asked to review documents produced by WHO Expert groups. We also joined, at the request of WHO EMRO Regional Director, the EMR Technical Advisory Group on Covid-19 (TAC). We did not encounter any difficulties and are more than grateful for the support WHO gave us. Since March 2020, Covid 19 took the lion's share of our work; Member: WHO Technical Advisory Committee on Covid-19 (WHO EMRO); Member: Supreme Advisory Committee on Covid-19 – Iraq (an order by the Prime Minister created the committee); Member: Specialist Technical Advisory Group of Experts (STAGE) on Covid-19.

### Other Covid-19 Related Activities:

1. Published many papers on Covid-19 (see publications)
2. Covid-19 Webinars: The WHOCC, in collaboration with the Arab Public Health Association and WHO EMRO, WHO Geneva, organised 25 global Webinars on Covid-19 topical issues, including the virus, public health measures, clinical aspects, treatment, long-term, vaccination, social impacts, mental health, workforce etc. These proved to be extremely successful Webinars and attended regularly by a wide range of professionals CPD certificate is awarded for attendance. Different dates, on-going
3. The WHO CC members were invited to present in many seminars and international conferences ranging from public health measures to health service responses in all settings. We also contributed to many non-Covid-related international conferences.
4. Members of the WHO CC were invited on a regular basis on TV and Radio programs (news, dedicated programs etc.) on many channels around the world
5. The WHO CC website is updated with the latest news and important collaborative works on Covid-19.
6. Supported countries in their efforts in the development and implementation of the Covid-19 plan (public health measures); developed treatment and



management guidelines, and supported countries in their efforts to obtain vaccines

### **Interactions or collaborations with other WHO collaborating centres in the context of the implementation of the above activities (if any).**

1. Collaboration with WHO CC on Primary Care Toronto
2. Collaboration with WHO CC on Primary care in Gent
3. Worked closely with many WHO CC in EMR of the WHO and advised others on the application for designation
4. We are part of the coordinating work of all WHOCCs across Europe.

### **Support received from WHO during the past 12 months for the implementation of the agreed activities listed above (if any).**

1. Over the last year, we have received a lot of support from WHO EURO Centre for Primary Care, WHO EURO Health System Division (Public Health Service), WHO EMRO Health System Development Division, and WHO HQs Geneva for the project we are undertaking (Quality Governance; Integration of public health and primary care; public health professionals training, etc.). We met with Director General Dr Tedros on two occasions, and we are grateful for his kind support and advice.
2. Many colleagues in WHO HQs, WHO EURO and WHO EMRO were either involved in our research and publication or kindly reviewed our work before submission for publication.
3. We were commissioned by WHO to undertake specific works in member states.
4. The WHO CC received generous support from WHO in serving at various advisory groups and Committees

## **Publications 2020-2021**

### **General**

The WHO CC members undertake wide range of research activities in many areas of public health, primary care, health policy, health management, medical education, and clinical effectiveness. Team members published many papers (see the list at the end of the report) during the reporting year and presented their original research findings, its impact on health systems and practice, and shaping health policy in many international conferences.

1. Kocarnik J, Compton K, Dean F et al. Cancer Incidence, Mortality, Years of Life Lost, Years Lived with Disability, and Disability-Adjusted Life Years for 29 Cancer Groups From 2010 to 2019. *JAMA Oncol.* 2022;8(3):420. doi:10.1001/jamaoncol.2021.6987
2. Paz S, Majeed A, Christophides GK, 2021, Climate change impacts on infectious diseases in the Eastern Mediterranean and the Middle East (EMME)-risks and recommendations, *Climatic Change: an interdisciplinary, international journal devoted to the description, causes and implications of climatic change*, Vol: 169, Pages: 1-17, ISSN: 0165-0009
3. Osama T, Hodes S, Razai MS, Majeed A et al., 2021, Boosting the nation against covid-19: are the vaccination targets feasible?, *BMJ: British Medical Journal*, Vol: 375, Pages: 1-2, ISSN: 0959-535X
4. Majeed A, 2021, Why I don't support GPs taking industrial action, *BMJ: British Medical Journal*, Vol: 375, Pages: n2937-n2937, ISSN: 0959-535X
5. Ali R, Raleigh V, Majeed A, et al., 2021, Life expectancy by ethnic group in England., *BMJ*, Vol: 375, Pages: 1-2, ISSN: 1759-2151
6. El-Osta A, Hennessey C, Pilot C, et al., 2021, A digital solution to streamline access to smoking cessation interventions in England; findings from a primary care pilot (STOPNOW study), *Public Health in Practice*, Vol: 2, ISSN: 2666-5352
7. Greenfield G, Okoli O, Quezada Yamamoto H, et al., 2021, Characteristics of frequently attending children in hospital emergency departments: a systematic review, *BMJ Open*, Vol: 11, Pages: 1-7, ISSN: 2044-6055
8. Palladino R, Marrie RA, Majeed A, et al., 2021, Management of vascular risk in people with multiple sclerosis in England: a population-based matched cohort study, MS Conference, Publisher: SAGE PUBLICATIONS LTD, Pages: 219-219, ISSN: 1352-4585
9. Majeed A, Hodes S, Marks S, 2021, Consent for covid-19 vaccination in children., *BMJ*, Vol: 374, Pages: 1-2, ISSN: 1759-2151
10. Majeed A, 2021, Longitudinal data on covid-19 immunity could be collected from medical records, *BMJ: British Medical Journal*, Vol: 374, Pages: 1-1, ISSN: 0959-535X
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