



ARAB INTERNATIONAL
WOMEN'S FORUM
المنتدى العربي الدولي للمرأة



University of
Massachusetts
UMASS Medical School



1866
AUB
American University of Beirut
الجامعة الأمريكية في بيروت

**Under the Patronage of His Excellency Mr Saad Hariri
President of the Council Of Ministers, Lebanon**

High-level Conference of the
Arab International Women's Forum in collaboration
with the **University of Massachusetts Medical School**
and the **American University of Beirut**

Women Leaders & Health

Empowering women leaders in innovation, medical
education and healthcare delivery

CONFERENCE REPORT & RECOMMENDATIONS

American University of Beirut, Lebanon | 16 - 17 April 2019

With the valued support of



Table of Contents

1. Conference Partner Messages	4
1.1 Message from the Arab International Women's Forum	
1.2 Message from the University of Massachusetts Medical School	
1.3 Messages from the American University of Beirut	
2. Conference Background, Concept & Objectives	10
3. Conference Programme	15
4. List of Guest Speakers & Report Contributors	20
5. Report of Conference Discussions	24
5.1 Opening Session	
5.2 Panel Discussions	
6. Recommendations from Women Leaders & Health	56

1. Conference Partner Messages

1.1 Message from the Arab International Women's Forum



**Message from Haifa
Fahoum Al Kaylani**
*Founder & Chairman,
Arab International
Women's Forum Fellow,
Harvard Advanced
Leadership Initiative 2017
Commissioner, ILO Global
Commission on the Future
of Work*

As Founder & Chairman and on behalf of the Board of the Arab International Women's Forum (AIWF), it was my great privilege and pleasure to hold the AIWF conference on *Women Leaders & Health: Empowering women leaders in innovation, medical education and healthcare delivery*, in Beirut, Lebanon. The conference was held under the esteemed Patronage of His Excellency Mr. Saad Hariri, President of the Council of Ministers, with the valued support and partnership of the University of Massachusetts Medical School and the American University of Beirut.

It was indeed a great honour and a pleasure for me personally to be back at AUB on this special occasion not only as a proud alumna of AUB but also to welcome so many other AUB alumni who are here with us today as members, supporters and speakers for the *Women Leaders & Health initiative*. Our conference successfully brought into focus key challenges and opportunities for women's leadership in medical education, healthcare delivery, STEM, research, innovation, sustainability and international development.

The conference drew the Arab public and private sectors, international development organisations and institutes, civil society, women and youth together to examine opportunities and barriers to entry for women leaders in medicine and the healthcare sciences. We aimed to promote an inclusive and empowering environment for women-led innovation, research and discovery through regional and international best practices; and to advance capacity building through technology, training, entrepreneurship, executive leadership and social enterprise.

We are proud that the conference has delivered actionable recommendations for empowering women in these critical sectors towards fulfilment of the SDGs on gender diversity and maternal and children's health.

The themes of this conference lay at the heart of what AIWF has been leading with at the Arab and international levels for over 18 years as a development organisation invested in creating a better future for women and young leaders in the MENA region and internationally. Since inception in 2001 AIWF has been at the forefront of action in the region addressing women's leadership barriers and challenges, especially in public service and in the critical STEM sectors.

Taking forward the momentum that we have created through recent and highly successful STEM-focused initiatives in Amman and London, we were exceptionally proud to have the opportunity to partner with UMMS and AUB for our conference in Beirut which we saw from the outset as a timely and much-needed initiative for women's empowerment in medical education, entrepreneurship, innovation, research and healthcare delivery.

Together with UMMS and AUB, AIWF developed a rich and timely programme designed to bring multiple stakeholders together to examine opportunities and barriers to entry for women leaders in medicine and the healthcare sciences. *Women Leaders & Health* succeeded in providing a powerful platform for women leaders to voice and examine critical issues of empowerment in the critical STEM sectors and an opportunity for us all to collectively conceptualise innovative solutions to empowerment challenges whilst promoting women's economic participation and the importance of female leadership in STEM and indeed in all sectors and spheres.

Our Guest Speakers (and valued Contributors to this Special Report) were all prominent and accomplished thought leaders, change agents and key actors coming from the medical education, entrepreneurship and healthcare delivery sectors, spanning non-profit organisations, international development agencies, academic institutions and private sector corporations. Apart from our distinguished partners at the University of Massachusetts Medical School and the American University of Beirut, these included St Marks Hospital in London, Pfizer Innovative Health and King Faisal Specialist Hospital and Research Centre, Kingdom of Saudi Arabia, among others.

The Arab International Women's Forum was also proud to hold on the second day of the conference an interactive and highly specialised half-day workshop as part of the *Women Leaders & Health* programme, titled *Addressing maternal and child health in conflict/vulnerable settings in the MENA region*. The workshop welcomed distinguished speakers representing the Ministry of Public Health in Lebanon, the International Committee of the Red Cross, and *Medicins sans Frontieres*, among other leading organisations. The workshop themes and discussions brought into focus the critical challenge of refugee maternal mortality and engaged key stakeholders in the international development community, the public and private sectors and civil society to find actionable solutions to critical health and humanitarian issues that disproportionately impact refugee women and children.

We were delighted to welcome a distinguished and exceptional calibre of delegates and participants to *Women Leaders & Health* who brought our conference objectives to life by sharing their knowledge, learnings and expertise. This Special Report encapsulates the key recommendations and impact-driven action points to emerge from the two days of conference and workshop deliberations, which AIWF shall follow up on in future programmes and initiatives in collaboration with our Conference Partners and all AIWF Global and Institutional Partners.

1.2 Message from the University of Massachusetts Medical School



**Message from Dr
Michael F Collins MD
Chancellor, University of
Massachusetts Medical
School**

Located in Worcester, Massachusetts, New England's second largest city, the University of Massachusetts Medical School (UMMS) serves proudly as the commonwealth's first and only public medical school.

Our medical school benefits from and contributes to Massachusetts' rich cluster of universities, teaching hospitals, research institutes and biopharmaceutical companies that, collectively, position the commonwealth as a global leader in education, health care, and the life sciences.

While Massachusetts' renowned innovation ecosystem includes some of the world's best academic and health care entities, we have been able to forge a path that has taken our institution to soaring new heights alongside our state's most esteemed institutions.

Similar to our peers, excellence is our benchmark. Yet our hallmark has been— and will always be—a friendly and collaborative culture that distinguishes UMass Medical School from all others. A dynamic and spirited combination of smart minds, superb educators, groundbreaking science and genuine collegiality set us apart and set us up for continued success.

Students, scientists and physicians from across the globe are attracted to our open and collaborative culture as they keenly appreciate the environment that has taken root at our institution is conducive to tackling some of the biggest mysteries in medicine and contributing to major advancements in science and learning in classrooms and clinical settings.

Working together defines how UMMS advances medical education, biomedical research, and human health. Indeed, UMMS's unique culture catalyzes surprising and seminal achievements, including a Nobel Prize and a Breakthrough Prize; the highest medical student satisfaction among American medical schools; and innovative partnerships that are positively impacting health and wellness around the world.

Our multidisciplinary research teams eschew conventional boundaries and collaborate willingly to address some of today's most vexing public health challenges. With nearly \$300 million in annual research funding, UMass Medical School has emerged as an

international hub for impactful, dynamic, and pioneering research that seeks to change the course of history of disease.

Each year, however, the broader environment in which we operate is marked by increased competition for the best and brightest minds. To continue to achieve our standard of excellence and realize our bold future ambitions, we must draw upon a truly global talent pool. The Commonwealth of Massachusetts and the University of Massachusetts have long realized this reality and, as a result, have welcomed promising students and prominent physicians, scientists and educators from anywhere and everywhere. By so doing, we are made stronger; and we are made better.

A vital and growing component of this talent pool are women scientists and physicians. In the United States, women constitute the majority of the health care workforce. With that said, there is still much room for improvement in ensuring that our women colleagues, who contribute so much to science, education and health care, continue to advance to the senior-most leadership positions in academic medicine, health care, and industry.

At UMMS, we take seriously our responsibility to promote and protect equity and inclusiveness among faculty and learners, alike. This commitment manifests itself in many ways, including, for example, in our student body, where women comprise the majority of learners in our three graduate schools. They are fortunate to have countless faculty role models to learn from and emulate, including two of whom that were featured at this conference. We were so pleased that **Dr Luanne Thorndyke** and **Dr Janet Hale**, two of our best colleagues, represented UMass Medical School at this conference.

Our students and faculty begin each day with a sense of purpose and possibility. We are united by a common calling, bold in our ambitions, confident in our abilities and serious in our purpose. And we understand that engaging globally is essential to our success.

Developing meaningful international partnerships with highly impactful and respected organizations such as the Arab International Women's Forum (AIWF) supports and advances our global vision. We, therefore, were thrilled when **Mrs Haifa Al Kaylani**, Founder and Chair of the AIWF, invited our medical school to serve as a conference partner. We enthusiastically signed on, and we feel fortunate to be part of AIWF's most timely conference.

On behalf of UMass Medical School, please accept my thanks for all that you do to elevate the human condition around the world.

1.3 Messages from the American University of Beirut



**Message from
Dr Fadlo Khuri**
*President, American
University of Beirut*

In two years time, the American University of Beirut will mark the centenary of its decision in 1921 to become a coeducational establishment. This momentous step came more than 50 years after the college opened its doors to male students, although the vision of President Bayard Dodge put this institution many years ahead of many of its illustrious counterparts in the US and Europe.

While the single-sex School of Nursing had been graduating women since 1908, it was not until 1931 when the first woman physician, Dr Adma Abu Shadid, received her medical degree. So began the long march towards gender parity in medical education that we see in our graduating classes today. However, while the gender imbalance among our medical graduates has levelled off, we remain—not just in Lebanon, but in advanced countries in the world—some distance short of parity in the profession, and the disparity grows as you move up through the hierarchies of health and medical leadership. Gender bias and inequality are everywhere, and it is with gatherings like this conference on *Women Leaders & Health: Empowering women leaders in innovation, medical education and healthcare delivery* that we must explicitly tackle the normalization of these negative phenomena to enable women to overcome the challenges that prevent them from playing their full role. The new generation of AUB academicians, physicians, nurses, and students are at the forefront of the push for gender equality in this region in medicine, health, and other spheres. Partnership with our outstanding colleagues from the University of Massachusetts Medical School and the Arab International Women's Forum, amplifies these efforts.

There are no doubts that gender equality, like all diversity, increases the pool of talent, enhances teamwork and collaboration, and allows different perspectives to be considered. So we must redouble our efforts to empower more women, not only to become leaders in health and medicine for the benefit of our professions, but more importantly for the benefit of our patients and for the health of communities.



**Message from Dr
Mohamed H Sayegh
Executive Vice President
& Dean of the Faculty of
Medicine, Professor of
Medicine and Immunology,
American University of
Beirut**

Joining the Arab International Women's Forum reflected our conviction in this much-needed and timely initiative which brought into focus key challenges and opportunities for women's leadership in medical education, innovation, and healthcare delivery. Promoting an inclusive and empowering environment for women-led innovation, research and discovery through regional and international best practices is at the core of what we do at AUBMC.

Basically, our aim is to advance capacity building through medical advancement, training, professional practice, and executive leadership and the role of women as engines of economic growth cannot but be at the essence of our endeavor.

AUB has a longstanding history of promoting the role of women in society, and specifically in education and healthcare. Through engaging in platforms similar to AIWF, we prioritize the involvement of women and youth towards finding innovative and actionable solutions to the multi-faceted and complex environmental, economic security, gender and developmental challenges the MENA region faces.

When the current Medical Center was established and built in 1970, it transformed the delivery of healthcare in Lebanon and the Middle East, the results of which we still feel today, over 40 years later. To continue to maintain our leadership position in Lebanon and the region, we have to be committed to an ever evolving, ambitious, and futuristic vision which understands the vital role women can play in society. Transformation of the delivery of healthcare in Lebanon and the region for the next 100 years cannot happen overnight, it needs perseverance and collaboration with organizations similar to AIWF.

At AUBMC, we believe that "Our Lives are Dedicated to Yours". As such, continuous effort towards a sustainable human development continues to strengthen our focus on the importance of education, leadership training, and self-development for women and youth in all sectors and particularly in education, research, and patient care.

2. Conference Background, Concept & Objectives

The Arab International Women's Forum (AIWF) was proud to host a high-level conference in valued partnership with the University of Massachusetts Medical School and the American University of Beirut in Lebanon on 16-17 April 2019. The conference was held under the esteemed Patronage of His Excellency Mr Saad Hariri, President of the Council of Ministers, Lebanon, who delivered the Guest of Honour Keynote Address in the Opening Session.

Based in London, AIWF is a non-profit development organisation focused on women's development and youth empowerment. AIWF works closely with a global network of corporate and institutional partners to promote and prioritise the engagement of women and youth towards finding innovative and actionable solutions to the multi-faceted and complex environmental, economic security, sustainability and developmental challenges the MENA region faces.

AIWF's Annual Programmes have featured high-level international conferences held over the past 18 years in London, Berlin, Paris, Dubai, Doha, Damascus, Washington DC, Madrid, Brussels, Sharjah, Cairo, Amman, Beirut, Palestine, Kuwait and Morocco. These initiatives covered a broad range of women's and youth issues and strategies for job creation, inclusive sustainable development, the role of women as engines of economic growth, economic competitiveness, early stage entrepreneurship in the MENA region, women-led innovation in STEM, and important challenges related to women's peace and security and the impact of water scarcity and food insecurity on women and refugees in the MENA region.

AIWF works closely with a global network of corporate and institutional partners to promote and prioritise the engagement of women and youth towards finding innovative and actionable solutions to the multi-faceted and complex environmental, economic security, gender and developmental challenges the MENA region faces. AIWF and all AIWF Global Partners are committed to giving women across all sectors and spheres a powerful platform to voice and examine critical issues of global and regional concern that deeply impact women's lives, their livelihoods and their security, wellbeing and prosperity.

Women Leaders & Health was a milestone in AIWF's 18-year advocacy for sustainable empowerment, economic opportunity, education, mobility and prosperity for women and young people aspiring to medical and STEM careers from the Arab world and beyond. The conference objectives and programme were designed in collaboration with world leading subject matter specialists at the University of Massachusetts Medical School and the American University of Beirut and were significantly strengthened by all Conference Partners' world-leading expertise in the medical education and healthcare delivery.

The conference drew the Arab public and private sectors, international development organisations and institutes, civil society, women and youth together to examine opportunities and barriers to entry for women leaders in medicine and the healthcare sciences and delivered actionable recommendations for empowering women in these critical sectors towards fulfilment of the SDGs on gender diversity and maternal and children's health.

Conference sessions on Day 1 (16 April 2019) explored the fostering of an inclusive and empowering environment for women-led innovation, research and discovery through regional and international best practices; building capacity for women in medicine in the Arab world and globally, through technology, training, entrepreneurship, executive leadership and social enterprise; and bringing Arab and international women leaders together to reflect on the region's most critical health challenges head on, through cross-border collaboration, capacity building, medical education and gender diversity in medicine and the health sciences.

The interactive and highly specialised half-day workshop on Day 2 (17 April 2019), titled *Addressing maternal and child health in conflict and / or vulnerable settings*, will bring into focus the critical challenge of refugee maternal mortality and will engage key stakeholders in the international development community as well as the public and private sectors and civil society to find actionable solutions to this critical humanitarian issue that disproportionately impacts refugee women and children.

The Arab International Women's Forum, the University of Massachusetts Medical School and the American University of Beirut look forward to working with all partners and participants to deliver a highly interactive, impact-driven conference that will advance women's leadership and women-led innovation in medical education and healthcare delivery in the MENA region and internationally and will carry forward the recommendations of the Cairo Declaration on Women's Health (February 2017) towards fulfilment of the Sustainable Development Goals.

Conference Themes 16 April 2019

Panel sessions of the conference were aligned with the core priority policy areas of AIWF, UMMS and AUB, and included:

- 1 Transforming medical education for the next generation of women in medicine and health sciences**
Fostering an inclusive and empowering environment for women-led innovation, research and discovery through regional and international best practices
- 2 Advancing women's leadership and intra/entrepreneurship in medical and healthcare sciences**
Building capacity for women in medicine in the Arab world and globally, through technology, training, intra/entrepreneurship, executive leadership and social enterprise
- 3 Reflections of women leaders in healthcare and medical education: Mentoring next generation, women-led innovation, discovery and leadership in medicine and health sciences**
Arab and international women leaders reflect on meeting the region's most critical health challenges through cross-border collaboration, capacity building, education and gender diversity in medicine and the healthcare sciences

Second Day Workshop 17 April 2019

- 4 Addressing maternal and child health in conflict/vulnerable settings in the MENA region**
Examining refugee maternal mortality and engaging key stakeholders to find actionable solutions to this critical humanitarian issue impacting refugee women and children

Conference & Workshop Concept

Women Leaders & Health delivered a unique opportunity for key stakeholders in the international medical, academic and development communities to come together to examine emerging opportunities and barriers to entry for women leaders and innovators in medical education and healthcare delivery. The conference programme was driven by the following key objectives and concluded with a timely and impactful workshop on the unprecedented refugee maternal mortality crisis which is presenting a significant humanitarian challenge to receiving countries in the region such as Lebanon and Jordan. The conference set out to:

- Examine the important role of women in addressing critical health and development challenges such as the unprecedented refugee maternal mortality crisis and other region-specific public health priorities (including breast cancer, obesity, depression and maternal and infant health)
- Call for recognition at all levels of the unique position of women to lead on and deliver innovative and transformative new solutions towards fulfilment not only of global and regional humanitarian obligations but also towards key SDGs related to women's and children's health and empowerment
- Advocate for multi-stakeholder support for women to enter into medical education and progress in medical careers, innovation and healthcare discovery from the public and private sectors, international development organisations, education providers and crucially, at societal level to combat barriers to entry for high-achieving young women to enter medical and healthcare delivery careers

The MENA region is notable for the rising number of universities and world class institutes of higher learning that have been preparing female public health professionals to take up leadership positions in the healthcare sciences either by launching or reviving innovative, cutting-edge medical programmes. The Faculty of Medicine at the American University of Beirut was the region's first medical school and today remains among the most prominent, with a distinct focus on nurturing female health practitioners of the future to address the relatively low representation of Arab women as health practitioners in the region.

Although conclusive data on the number of female doctors and medical students in the region is not readily available, figures from Sultan Qaboos University in Oman point to there being a 'reverse gender gap' in medical studies in the Arab world similar to that witnessed in STEM studies across the region and indeed globally, where the number of women graduating from Arab universities with STEM degrees is not translating into higher representation of women in the STEM workforce.

Despite the numbers of women studying medicine at university and successfully completing residency, women across the region face considerable barriers to engaging in medical education and the healthcare sciences because of the long years of studying, residency commitments that may conflict with family life, and the requirement to work long or night shift hours and in proximity with unrelated males. Getting more young and high achieving Arab women into medical education requires a societal shift to channel female school leavers into world-class medical programmes, preparing them fully for the rigour of medical studies, and raising awareness of the importance of their role in cultivating a gender diverse medical workforce in the region.

As much, the first session of the day highlighted innovative and transformative approaches to education for the next generation of women in medicine and health sciences, drawing from best practices of leading international and regional medical schools to formulate strategies that empower young, high-achieving female students and foster an inclusive and positive environment for women-led innovation, career progression and leadership in the medical sciences.

This session naturally led into further nuanced examination of women's post-educational opportunities to advance in intra/entrepreneurship in medical and healthcare sciences through technology, training, intra/entrepreneurship, executive leadership and social enterprise. Accordingly, the second session of the day examined capacity building for women in these areas, highlighting the unique position of women educators and practitioners to make a game-changing impact on specific healthcare challenges that directly and disproportionately affect women and children, many of which are prevalent and endemic in the MENA region (including breast and other cancers, obesity, depression, maternal mortality, infant health and others).

The third session brought Arab and international women leaders together for deeply insightful and impactful reflection on meeting the region's most critical health challenges through cross-border collaboration, capacity building, medical education and gender diversity in medicine and the health sciences.

The valuable reflections and shared experiences of women leaders in medicine and the healthcare sciences informed and inspired discussions for the interactive half-day workshop that followed on 17 April 2019, titled Addressing maternal and child health in conflict and / or vulnerable settings. The invitation-only workshop brought into focus the critical challenge of refugee maternal mortality and will engage key stakeholders in the international development community as well as the public and private sectors and civil society to find actionable solutions to this critical humanitarian issue impacting refugee women and children.

The highly interactive conference sessions were delivered in a relaxed, inclusive and supportive environment with the aim of nurturing connectivity and develop the next generation of women leaders and innovators in medical education and healthcare delivery. Fundamentally, the conference delivered actionable, concise and concrete recommendations within the context of women's leadership and how women can be empowered to lead on and take forward the key recommendations of the Cairo Declaration on Arab Women's Health signed in February 2017 on the sidelines of the Conference of Arab Ministers of Health.

The SDGs identified as most pertinent to the conference session themes are:

SDG 1

End poverty in all its forms everywhere

SDG 3

Ensure healthy lives and promote well-being for all at all ages

SDG 4

Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

SDG 5

Achieve gender equality and empower all women and girls

SDG 8

Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

SDG 9

Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

Conference Speakers, Participants & Format

The programme for *Women Leaders & Health* was developed by the Arab International Women's Forum, the University of Massachusetts Medical School and the American University of Beirut.

Women Leaders & Health engaged 150 delegates and stakeholders from various backgrounds including global and public health, academia, the public sector, policy makers, industry, civil society and NGOs, medical students, PhD researchers and others. AIWF, UMMS and AUB welcomed prominent speakers and guests from Lebanon, the wider MENA region, the United States, EU and internationally who engaged with the conference key themes and tracks in frank discussion in a supportive and inclusive environment, ultimately contributing actionable insights and concrete recommendations that support women's leadership and women-led innovation to directly address public health, economic development, and humanitarian challenges that are prevalent in the MENA region.

Valued delegates attending represented the Lebanese Council of Women, European Bank for Reconstruction & Development, UN Global Compact, National Commission for Lebanese Women, International Labour Organization, The World Bank, Lebanese Republic Economic and Social Council, World Vision Lebanon, Mercy Corps, Arab Thought Foundation, Palestinian Medical Relief Society, Palestinian National Institute of Public Health, University of Colorado, University of Chester, the American University of Beirut, Pfizer, UN Women Fund for Gender Equality Arab States, Lebanese American University, PwC Academy Middle East, and the St John Eye Hospital, among others.

The valuable insights and recommendations to emerge from the Conference are documented in this Special Report for action and future follow up by the Arab International Women's Forum, the University of Massachusetts Medical School, the American University of Beirut, Conference Supporting Partners Pfizer and PwC, and all key institutional partners in AIWF's regional and international advocacy networks.

3. Conference Programme

16 APRIL 2019 CONFERENCE

0730 - 0900 Registration & Coffee Networking

0900 - 1045

PANEL 1

Transforming medical education for the next generation of women in medicine and health sciences

Fostering an inclusive and empowering environment for women-led innovation, research and discovery through regional and international best practices

The first key session of the conference is dedicated to exploring exciting opportunities for the next generation of women in medicine and the healthcare sciences to engage with world class medical education towards greater inclusion for women in the medical profession in the Arab world and globally. Both the Arab region and the United States are home to some of the world's leading medical programmes, and the session will draw from regional and international best practices in medical education to explore how the public and private sectors can work closely with universities to collaborate both within the region and with international partners to foster an inclusive and empowering environment for women-led innovation, research and healthcare delivery.

Panel Moderator

Dr Zeina Kanafani, Associate Professor of Medicine in the Division of Infectious Diseases, Hospital Epidemiologist, American University of Beirut Medical Center, Lebanon

Guest Speakers

Dr Naila Arebi, Consultant Gastroenterologist St Mark's Hospital and The London Clinic; Chairman of Medicine and Director IBD Service, St Mark's Hospital, United Kingdom

Dr Zakia Dimassi, Research Associate at the Office of the Associate Dean for Medical Education at the Faculty of Medicine, American University of Beirut, Lebanon

Dr Rana Sharara-Chami, Associate Professor of Pediatrics and Pediatric Critical Care; Director, Pediatric Residency Program; Director, Simulation Program, American University of Beirut, Lebanon

Dr Luanne Thorndyke, Professor of Medicine, Vice Provost for Faculty Affairs, University of Massachusetts Medical School, United States

1045 - 1130

Opening Session | Conference Partners & Guest of Honour Keynotes

AIWF Chairman's Keynote

Haifa Fahoum Al Kaylani Founder & Chairman, Arab International Women's Forum; Fellow, Harvard Advanced Leadership Initiative; Commissioner, ILO Global Commission on the Future of Work

AUB President's Keynote

Dr Fadlo Khuri President, American University of Beirut, Lebanon

AUB Keynote

Dr Mohamed Sayegh MD Executive Vice President & Dean of the Faculty of Medicine, Professor of Medicine and Immunology, American University of Beirut, Lebanon

Guest of Honour Keynote

1130 - 1215

Networking & Refreshments

1215 - 1400

PANEL 2

Advancing women's leadership and entrepreneurship in healthcare and the sciences

Building capacity for women in medicine through technology, training, intra/entrepreneurship, executive leadership and social enterprise

The second session of *Women Leaders & Health* will explore strategies for empowering, supporting and building the capacity of women in medicine through training, leadership development, and support for entrepreneurship, intrapreneurship and social enterprise. The session will examine the barriers that limit women's leadership and inclusion in the medical field and will also call for the remarkable momentum that is compelling growth in MENA entrepreneurship and SME development to be further expanded to offer better support digital startups that are revolutionising healthcare delivery in the MENA region and globally.

Panel Moderator

Dr Oualae Al Alami, AIWF Board Member & Vice President for Egypt, Levant, Iraq and Iran, Pfizer Biopharmaceutical Group, United Arab Emirates

Guest Speakers

Dr Aceel Alanizi, Founder & Director, Luxury Healthstyle & Founder of Wisal, United Kingdom

Lina Nabulsi, Technical Director, Jordanian Pharmaceutical Manufacturing Co, Jordan

Mais Najib, Former Director, Global Head of Health Economics, Stallergenes, France

Dr Rihab Nasr, Associate Professor in the Department of Anatomy, Cell Biology and Physiology, Faculty of Medicine, American University of Beirut, Lebanon

Dr Lina Oueidat, Advisor to the Prime Minister & National ICT Coordinator, Lebanon

1400 – 1530

Buffet Lunch & Networking

1530 – 1715

PANEL 3

Reflections of women leaders in healthcare and medical education: Mentoring next generation, women-led innovation, discovery and leadership in medicine and health sciences

Arab and international women leaders on meeting the region's most critical health challenges through cross-border collaboration, capacity building, medical education and initiatives to improve gender diversity in medicine and the health sciences

The final session will invite leading Arab and international women in public health, medicine and the health sciences to share proposals for medical education reform and recommend innovative, women-led solutions to the region's most critical health challenges that impact women and children. Mentorship, role modelling and experience exchange are key to creating a women-led culture of cross-border collaboration, innovation, research and discovery in the medical world; to supporting capacity building for women leaders in the medical and sciences sectors; and developing an inclusive, gender diverse workforce of health practitioners who will be able to meet future healthcare and humanitarian challenges head on.

Panel Moderator

Dr Samia Khoury, Director, Abu Haidar Neuroscience Institute; Associate Dean for Clinical and Translational Research; Director, Nehme and Therese Tohme Multiple Sclerosis Center; Professor of Neurology and Immunology, American University of Beirut, Lebanon

Guest Speakers

Nancy Sunna, Senior Medical Manager, Pfizer Biopharmaceuticals, Lebanon

Dr Maha Al Mozaini, Immunocompromised Host Research, King Faisal Specialist Hospital and Research Centre, Member of the Arab Women Council Board of Trustees, Kingdom of Saudi Arabia

Dr Muntaha Gharaibeh, Former Member of the Board of Directors of the Healthcare Accreditation Council Jordan, Professor and former Secretary General of the Jordanian Nursing Council, Jordan

Dr Janet Hale, Professor of Nursing, Associate Dean of Interprofessional and Community Partnerships, Graduate School of Nursing, University of Massachusetts Medical School, United States

1715 – 1720 Closing Remarks

17 APRIL 2019 WORKSHOP

- 0800 - 0900 Registration & Coffee Networking
- 0900 - 0930 **Workshop Opening Session**
Welcome & Workshop Introduction
WORKSHOP CHAIR Dr Faysal El-Kak, Vice President of the International Federation of Gynecology and Obstetrics (FIGO), Senior Lecturer at the Faculty of Health Sciences, American University of Beirut (AUB), Lebanon, Clinical Associate of Obstetrics and Gynecology, AUB Medical Center, Advocate for Women's Health, Lebanon
- Haifa Fahoum Al Kaylani**, Founder & Chairman, Arab International Women's Forum, United Kingdom
- Manar Zaitar**, Lead Consultant and Project Manager for Women Refugees in the Arab Region, ESCWA Centre for Women, Lebanon
- Nadwa Rafeh**, Senior Health Specialist in the Health, Nutrition, and Population Global Practice, Team Leader for Lebanon Health Resilience Project and the Emergency Primary Healthcare Restoration project, The World Bank, Lebanon
- 0930 - 1300 **Half-Day Workshop With Coffee & Refreshment Break**
Addressing maternal health in conflict/vulnerable settings in the MENA region
The half-day workshop on the second day of the *Women Leaders & Health* conference programme will bring into focus the unprecedented challenges of refugee maternal mortality, especially in receiving countries such as Lebanon and Jordan, and will engage key stakeholders in the international development and humanitarian aid communities as well as the public and private sectors and civil society to find actionable solutions to this critical humanitarian issue impacting refugee women and children.
- 10:00 - 10:30 **Challenges to women's health and family planning under conflict**
- 10:30 - 11:00 **Dying by displacement: Vulnerability, maternal mortality and the making of maternal ill health**
- 11:00 - 11:30 **Networking and refreshments break**
- 11:30 - 12:00 **Interventions that work: Maintaining services at times of donor fatigue**
- 12:00 - 13:00 **Concluding Discussion: Towards models of maternal health support (all panels and specialists with interactive Q&A from audience)**

Workshop Guest Speakers

Dr Sawsan Abdul Rahim, Associate Professor, Health Promotion and Community Health (HPCH), American University of Beirut

Daad Ali Akoum, President of the Lebanese Order of Midwives, Lebanon

Sarine Daouk, Treasurer, Order of Midwives, Lebanon

Dr Janet Hale, Professor of Nursing, Associate Dean of Interprofessional and Community Partnerships, Graduate School of Nursing University of Massachusetts Medical School, United States

Dr Randa S Hamadeh, Head, Social Health Services & PHC Department; Manager, Immunization and Essential Drugs Program; Universal Health Coverage Project Coordinator (MoPH/WB), Lebanese Ministry of Public Health, Lebanon

Dr Saad Itani, Professor of Clinical Obstetrics and Gynaecology, Beirut Arab University; President, Lebanese Society of Obstetrics & Gynaecology, Lebanon

Tamar Kabakian, Associate Professor, Health Promotion and Community Health (HPCH), American University of Beirut, Lebanon

Asaad Kadhum, Senior Public Health Officer – Health Unit, United Nations High Commissioner for Refugees, Lebanon

Dr Fadi Mirza, Associate Professor of Obstetrics and Gynecology; Director, Obstetrics and Gynecology Residency Program, American University of Beirut

Dr Martine Najem Kteily, Instructor of Public Health Practice at the Center for Public Health Practice (CPHP) and the Department of Health Promotion and Community Health at the Faculty of Health Sciences, American University of Beirut

Dr Carla Zmeter, Primary Health Care Assistant Program Manager, International Committee of the Red Cross (ICRC), Lebanon

Micheline Sarkis, Coordination Advisor, Medecins Sans Frontieres, Lebanon

4. List of Guest Speakers & Report Contributors

The Arab International Women's Forum, the University of Massachusetts Medical School and the American University of Beirut were especially proud to bring world class specialists in the areas of medical education, research and innovation, and healthcare delivery, refugee support, and women and youth empowerment together with representatives of leading international organisations from the humanitarian, medical and development communities, NGOs, academia, research institutes and the private sector.

His Excellency Mr Saad Hariri, President of the Council of Ministers, Lebanon delivered the Guest of Honour Keynote Address in the Opening Ceremony. Opening session speakers included **Haifa Fahoum Al Kaylani**, Founder and Chairman of the Arab International Women's Forum; **Dr Fadlo Khuri**, President of the American University of Beirut; **Dr Mohamed Sayegh**, Executive Vice President & Dean of the Faculty of Medicine at the American University of Beirut.

Over the two days of conference and workshop proceedings, Women Leaders & Health was proud to welcome Distinguished Guest Speakers representing the University of Massachusetts Medical School, the American University of Beirut, St Marks Hospital in London, Pfizer Biopharmaceuticals and King Faisal Specialist Hospital and Research Centre, Kingdom of Saudi Arabia, among many others, as well as conference and workshop participants drawn from Lebanon, Jordan, Egypt, Saudi Arabia, across the MENA region, the United States and Europe. The high-level specialist speakers who contributed to the compilation of this report include:

16 APRIL 2019 CONFERENCE

OPENING SESSION CONFERENCE PARTNERS

Mrs Haifa Fahoum Al Kaylani

Founder and Chairman, Arab International Women's Forum, United Kingdom

Dr Fadlo Khuri

President, American University of Beirut, Lebanon

Dr Mohamed H Sayegh

Executive Vice President & Dean of the Faculty of Medicine, Professor of Medicine and Immunology, American University of Beirut, Lebanon

DISTINGUISHED GUEST SPEAKERS

(In alphabetical order)

Dr Oualae Al Alami

AIWF Board Member & Vice President for Egypt, Levant, Iraq and Iran, Pfizer Biopharmaceutical Group, United Arab Emirates

Dr Aceel Alanizi

Founder & Director, Luxury Healthstyle & Founder of Wisal, United Kingdom

Dr Maha Al Mozaini

Immunocompromised Host Research, King Faisal Specialist Hospital and Research Centre, Member of the Arab Women Council Board of Trustees, Kingdom of Saudi Arabia

Dr Naila Arebi

Consultant Gastroenterologist St Mark's Hospital and The London Clinic; Chairman of Medicine and Director IBD Service, St Mark's Hospital, United Kingdom

Dr Zakia Dimassi

Research Associate at the Office of the Associate Dean for Medical Education at the Faculty of Medicine, American University of Beirut, Lebanon

Dr Muntaha Gharaibeh

Former Member of the Board of Directors of the Healthcare Accreditation Council Jordan, Professor and former Secretary General of the Jordanian Nursing Council, Jordan

Dr Janet Hale

Professor of Nursing, Associate Dean of Interprofessional and Community Partnerships, Graduate School of Nursing, University of Massachusetts Medical School, United States

Dr Zeina Kanafani

Associate Professor of Medicine in the Division of Infectious Diseases, Hospital Epidemiologist, American University of Beirut Medical Center, Lebanon

Dr Samia Khoury

Director, Abu Haidar Neuroscience Institute; Associate Dean for Clinical and Translational Research; Director, Nehme and Therese Tohme Multiple Sclerosis Center; Professor of Neurology and Immunology, American University of Beirut, Lebanon

Lina Nabulsi

Technical Director, Jordanian Pharmaceutical Manufacturing Co, Jordan

Mais Najib

Former Director, Global Head of Health Economics, Stallergenes, France

Dr Rihab Nasr

Associate Professor in the Department of Anatomy, Cell Biology and Physiology, Faculty of Medicine, American University of Beirut, Lebanon

Dr Lina Oueidat

Advisor to the Prime Minister & National ICT Coordinator, Lebanon

Dr Rana Sharara-Chami

Associate Professor of Pediatrics and Pediatric Critical Care; Director, Pediatric Residency Program; Director, Simulation Program, American University of Beirut, Lebanon

Nancy Sunna

Senior Medical Manager, Pfizer Biopharmaceuticals, Lebanon

Dr Luanne Thorndyke

Professor of Medicine, Vice Provost for Faculty Affairs, University of Massachusetts Medical School, United States

17 APRIL 2019 WORKSHOP

WORKSHOP CHAIR

Dr Faysal El Kak

Vice President of the International Federation of Gynecology and Obstetrics (FIGO), Senior Lecturer at the Faculty of Health Sciences, American University of Beirut (AUB), Lebanon, Clinical Associate of Obstetrics and Gynecology, AUB Medical Center, Advocate for Women's Health, Lebanon

WORKSHOP OPENING SESSION SPEAKERS

Mrs Haifa Fahoum Al Kaylani

Founder and Chairman, Arab International Women's Forum, United Kingdom

Manar Zaitar

Lead Consultant and Project Manager for Women Refugees in the Arab Region, ESCWA Centre for Women, Lebanon

Nadwa Rafeh

Senior Health Specialist in the Health, Nutrition, and Population Global Practice, Team Leader for Lebanon Health Resilience Project and the Emergency Primary Healthcare Restoration project, The World Bank, Lebanon

DISTINGUISHED WORKSHOP GUEST SPEAKERS

(In alphabetical order)

Dr Sawsan Abdul Rahim

Associate Professor, Health Promotion and Community Health (HPCH), American University of Beirut

Daad Ali Akoum

President of the Lebanese Order of Midwives, Lebanon

Sarine Daouk

Treasurer, Order of Midwives, Lebanon

Dr Janet Hale

Professor of Nursing, Associate Dean of Interprofessional and Community Partnerships, Graduate School of Nursing University of Massachusetts Medical School, United States

Dr Randa S Hamadeh

Head, Social Health Services & PHC Department; Manager, Immunization and Essential Drugs Program; Universal Health Coverage Project Coordinator (MoPH/WB), Lebanese Ministry of Public Health, Lebanon

Dr Saad Itani

Professor of Clinical Obstetrics and Gynaecology, Beirut Arab University; President, Lebanese Society of Obstetrics & Gynaecology, Lebanon

Tamar Kabakian

Associate Professor, Health Promotion and Community Health (HPCH), American University of Beirut, Lebanon

Asaad Kadhum

Senior Public Health Officer - Health Unit, United Nations High Commissioner for Refugees, Lebanon

Dr Fadi Mirza

Associate Professor of Obstetrics and Gynecology; Director, Obstetrics and Gynecology Residency Program, American University of Beirut

Dr Martine Najem Kteily

Instructor of Public Health Practice at the Center for Public Health Practice (CPHP) and the Department of Health Promotion and Community Health at the Faculty of Health Sciences, American University of Beirut

Dr Carla Zmeter

Primary Health Care Assistant Program Manager, International Committee of the Red Cross (ICRC), Lebanon

Micheline Sarkis

Coordination Advisor, Medecins Sans Frontieres, Lebanon

5. Report Of Conference & Workshop Proceedings

5.1 OPENING SESSION

Haifa Fahoum Al Kaylani

Founder and Chairman, Arab International Women's Forum, United Kingdom

In opening the conference Opening Ceremony, AIWF Founder & Chairman **Haifa Al Kaylani** thanked His Excellency **Mr Saad Hariri**, President of the Council of Ministers, Lebanon for his esteemed Patronage and valued presence at the AIWF *Women Leaders & Health* conference held in partnership with the University of Massachusetts Medical School and the American University of Beirut. Mrs Al Kaylani commended the leadership of UMMS in global health and wellbeing through pioneering education, research and healthcare delivery, and AUB's globally recognised approach to innovative medical education for the next generation of medical practitioners and healthcare in the Arab world and beyond.

Getting more young and high achieving Arab women into medical education will require a societal shift to channel female school leavers into world-class medical programmes, preparing them fully for the rigour of medical studies, and raising awareness of the importance of their role in cultivating a gender diverse medical workforce in the region.

Post-education, women face similar barriers to career progression due to limited opportunities to advance in their fields. Here, technology and especially AI platforms, continuous professional training, entrepreneurship, social enterprise and ongoing leadership development may provide the key to building capacity for women in medicine and other STEM sectors.

Women educators, entrepreneurs and practitioners must have a levelled playing field to improve overall engagement and progression of women in medicine and healthcare delivery, but also so that they are empowered to make a game-changing impact on specific healthcare challenges that directly and disproportionately affect women and children, many of which are prevalent and endemic in the MENA region (including cancers, obesity, depression, maternal mortality, infant health and others).

Mrs Al Kaylani shared that AIWF was honoured to be holding this conference in Lebanon and especially at this moment in time in which Lebanese women in all sectors were rising to unprecedented levels of success. She especially commended the enlightened leadership of Lebanon in appointing a historic four women Cabinet ministers, and more Lebanese women than ever before leading senior roles in government departments, the private sector, and academia.

She said: "Strong women's voices are making us all proud, playing key roles in shaping a better future for all Lebanese women and young people and are fully engaged with the inspired economic reform plans being implemented through the CEDRE agreement. Women and youth are at the heart of it and they are ready for to play their rightful role in taking Lebanon forward into a peaceful, prosperous future. There are tremendous opportunities now open to Lebanese women and young people. Women and young people should not only be empowered to participate fully in the development of a new economic future for Lebanon but must be the prime beneficiaries of enhanced economic and social prosperity to result from much-needed reform and investment initiatives. There is clear support in Lebanon at the highest levels for modernising and digitising the public sector, supporting tech and STEM entrepreneurship and innovation to create platforms that can transform and digitise the Lebanese economy, creating jobs and efficient use of public resources whilst addressing the impact of gender-violence and the under-representation of women in public and political life and in business."

In concluding, Mrs Al Kaylani noted that in all sectors and spheres and all regions, empowering women is instrumental to achieving more inclusive institutions, sound policies and effective development outcomes - and Lebanon is truly leading the way forward in this regard. She

closed by sharing the inspired words of one of her Professors at Harvard where she completed the Advanced Leadership Initiative Programme as a Fellow in 2017. **Dr Howard Koh**, Professor Harvard School of Public Health and Member of the International Advisory Board at AUB: "Health starts where people love, labour, play, learn and pray."

Dr Fadlo Khuri President, American University of Beirut

In two years' time, the American University of Beirut will mark the centenary of its decision in 1921 to become a coeducational establishment. This momentous step came more than 50 years after the college opened its doors to male students, although the vision of President Bayard Dodge put this institution many years ahead of many of its illustrious counterparts in the US and Europe.

While the single-sex School of Nursing had been graduating women since 1908, it was not until 1931 when the first woman physician, Dr. Adma Abu Shadid, received her medical degree. So began the long march towards gender parity in medical education that we see in our graduating classes today. However, while the gender imbalance among our medical graduates has levelled off, we remain—not just in Lebanon, but in advanced countries in the world—some distance short of parity in the profession, and the disparity grows as you move up through the hierarchies of health and medical leadership. Gender bias and inequality are everywhere, and it is with gatherings like this conference on Women Leaders & Health: Empowering women leaders in innovation, medical education and healthcare delivery that we must explicitly tackle the normalization of these negative phenomena to enable women to overcome the challenges that prevent them from playing their full role. The new generation of AUB academicians, physicians, nurses, and students are at the forefront of the push for gender equality in this region in medicine, health, and other spheres. Partnership with our outstanding colleagues from the University of Massachusetts Medical School and the Arab International Women's Forum, amplifies these efforts.

There are no doubts that gender equality, like all diversity, increases the pool of talent, enhances teamwork and collaboration, and allows different perspectives to be considered. So we must redouble our efforts to empower more women, not only to become leaders in health and medicine for the benefit of our professions, but more importantly for the benefit of our patients and for the health of communities.

Dr Mohamed H Sayegh Executive Vice President & Dean of the Faculty of Medicine, Professor of Medicine and Immunology, American University of Beirut, Lebanon

Dr Mohamed H Sayegh paid tribute to the President of the Council of Ministers His Excellency **Mr Saad Hariri** as "a fierce advocate and a true believer in women playing an effective role in leading a big change in our world." Dr Sayegh thanked **Haifa Al Kaylani**, Founder & Chairman of the Arab International Women's Forum, for her "significant role in leaving a high impact change for women's leadership and youth empowerment."

AUB's participation in this high-level conference, Dr Sayegh said, reflected AUB's conviction in bringing into focus key challenges and opportunities to promote women's leadership in all fields and particularly in education, research and innovation, and healthcare delivery and reiterated AUB's bold commitment for achieving gender equality. Dr Sayegh said: "Empowering women leaders has an intrinsic value and is instrumental to achieving more inclusive institutions and effective development outcomes. In fact, with women accounting for more than half of our society, we should get used to seeing them occupy leading roles across all fields. Women are no longer interested in contributing solely to their own families, but also to their communities. However, to do that they need their countries and their environment to invest in them and this is what we do here."

5.2 PANEL DISCUSSIONS

Panel 1: Transforming medical education for the next generation of women in medicine and health sciences

Fostering an inclusive and empowering environment for women-led innovation, research and discovery through regional and international best practices

Panel Chair, Dr Zeina Kanafani, Associate Professor of Medicine in the Division of Infectious Diseases, Hospital Epidemiologist, American University of Beirut Medical Center, Lebanon

Dr Naila Arebi, Consultant Gastroenterologist St Mark's Hospital and The London Clinic; Chairman of Medicine and Director IBD Service, St Mark's Hospital, United Kingdom

Dr Zakia Dimassi, Research Associate at the Office of the Associate Dean for Medical Education at the Faculty of Medicine, American University of Beirut, Lebanon

Dr Rana Sharara-Chami, Associate Professor of Pediatrics and Pediatric Critical Care; Director, Pediatric Residency Program; Director, Simulation Program, American University of Beirut, Lebanon

Dr Luanne Thorndyke, Professor of Medicine, Vice Provost for Faculty Affairs, University of Massachusetts Medical School, United States

The first key session of the conference was dedicated to exploring exciting opportunities for the next generation of women in medicine and the healthcare sciences to engage with world class medical education towards greater inclusion for women in the medical profession in the Arab world and globally. Both the Arab region and the United States are home to some of the world's leading medical programmes, and the session will draw from regional and international best practices in medical education to explore how the public and private sectors can work closely with universities to collaborate both within the region and with international partners to foster an inclusive and empowering environment for women-led innovation, research and healthcare delivery.

Dr Zeina Kanafani, Associate Professor of Medicine in the Division of Infectious Diseases, Hospital Epidemiologist, American University of Beirut Medical Center, Lebanon, chaired the first panel of the day. Dr Kanafani opened with Amy Morin's "Mentally Strong Women Refuse to Do These 13 Things" and linked these with her own experiences as a woman leader in the medical field. These included not comparing oneself to other people; not insisting on perfection; not allowing self-doubt to stop one from reaching their goals; not overthinking everything; not shying away from tough challenges; not putting others down to lift themselves up; not allowing others to limit one's own potential; not hesitating to reinvent themselves ("reinventing yourself is key to personal growth"); and moving past fear of owning their success.

Dr Naila Arebi, Consultant Gastroenterologist St Mark's Hospital and The London Clinic; Chairman of Medicine and Director IBD Service, St Mark's Hospital, United Kingdom, shared that her career started relatively late and that she had emigrated to the UK for post-graduate training in her late 20s, but opportunities were hard to come by and offers for specialities she

was not interested in were abundant. Dr Naila noted that she could have been successful in other areas of medicine at a much earlier stage, but she had a motto to follow: choose the right path instead of the easy one.

Today, as well as being a specialist doctor at the coal face delivering clinical care, Dr Naila leads a research team and a specialist clinical team of five Gastroenterologists, 11 specialist nurses, dietician, two pharmacists as well two clinical Fellows in her field of IBD. She also leads the whole team of 26 Gastroenterologists employed within her organisation. "Looking back," she said, "my journey was slow paced. I watched colleagues younger than I, pass me by in terms of promotions and leadership – male and female. I used the slow pace to develop personally and professionally, I watched and I learnt – you can learn principles of leadership in books but nothing prepares you for the real-life challenges. Experience involves exposure to different situations and evolving as a result – it is something that mentors cannot give you."

Dr Naila pointed out women's career development paths differ from men's in that "women's career trajectories do not occur in a straight line; women are deterred by other priorities. Family responsibilities as well as more importance given to work life balance are key factors (Rochon, 2016). The issue was captured very well in an article that pointed out that moving up the academic ladder as quickly as possible may not be the goal for many in academic medicine (Hamel, 2006).

Dr Naila talked about resilience, defined as "the capacity to recover quickly from difficulties; toughness", and noted that the word "implies the ability to stand up time and time again after failing and trying again and again learning and adjusting along the way until an aim is achieved before moving to the next challenge." Other attributes for leadership, she said, included good judgement, make difficult decisions on your own part of which involves taking a risk (leadership can be a lonely place), authenticity and generosity.

In terms of overcoming challenges, Dr Naila shared that her biggest challenge was confidence and that she now recognises that women doubt themselves more than men, consider themselves "not good enough" for a role, are afraid to ask for a pay rise, and are reluctant to put themselves forward for grants and awards. Dr Arebi noted that she sees this in the younger doctors when at committees and reviewing grant applications – very few are from women. Her other challenge, she shared, was in harnessing the value of networking. Dr Arebi said, "I failed to appreciate the importance of networking. It is extremely important to connect to likeminded people and be aware of development in your field. Social media now forms an important part of networking."

Dr Arebi remarked that several initiatives have been developed at the institutional and national levels to promote the advancement of women to senior leadership positions. For example, the editors of Nature decided that before commissioning an invited article they would ask themselves, "Who are the five women I could ask?" This strategy did not mean that a woman was necessarily invited to write the article; it meant that women were considered and encouraged to contribute.

Another initiative highlighted by Dr Arebi is the Athena SWAN awards in UK universities - three levels (bronze, silver and gold) depending on fulfilment of charter. This process enables departments and universities to develop an action plan aimed at improving recruitment, retention and promotion of female academic and research staff. The awards also have important financial implications for research institutions, whereby the National Institute for Health Research will only shortlist applications for Biomedical Research Centre status from institutions holding an Athena SWAN Silver Award.

Dr Zakia Dimassi, Research Associate at the Office of the Associate Dean for Medical Education at the Faculty of Medicine, American University of Beirut, Lebanon, shared that she had not always wanted to be a doctor but, as a little girl, wanted to be a banker because her

grandmother used to tell her that this was the ideal job for a woman: “you finish by 2 pm and go home to your family. I used to sit behind my improvised desk, and role play what my idea of a banker was: signing paychecks!”

However, through her schooling, Dr Dimassi became fascinated by the human biology/physiology, and the science of the human body is what prompted her to consider a career in medicine. In those days, there was little emphasis on career guiding and mentorship, matters that Dr Dimassi always felt were needed. She noted: “We were not encouraged to “go to the field” and experience the real world of clinical practice – advice that I iterate and reiterate to anyone who asks me if medicine is the right career choice for them.”

In one of her undergraduate years, Dr Dimassi registered in a class of special education to secure a spot in a CS course (a pre-med requirement). She recalled: “The professor who taught that class, of German origin, strongly advocated that we ought to go into teaching instead of medicine, because “we need teachers, not doctors.” I remember thinking to myself back then “No way! I’d never be a teacher!” Fast forward 11 years, I found myself serendipitously joining the post-doc fellowship program in medical education. Working in curricular reform, I realized how much these innovations would fulfil what I found missing in my classical education – a more personalized learning experience, with the just right amounts of positive challenge and support.”

After pursuing her Masters in Health Professions Education, she continued her work in undergraduate clinical skills teaching, including standardized patient training. She also discovered a keen interest in mentoring. Other roles Dr Dimassi has undertaken include a capacity-development project in Lebanon, aiming to improve the physical and mental health status of Syrian refugees in Lebanon.

Dr Dimassi elaborated on two key points: the first of which was women’s unique qualities in medicine. She discussed ‘clinical accuwomen’ (the emerging appreciation of how more gender balanced teams may have the potential to improve patient outcomes) and ‘hystereotyping’ (the preconceived bias that women are accommodating and emotional and thus lack the desire or temperament for leadership. Female medical students/physicians are touted to be more empathic and be better communicators than their male counterparts. Some also say that women and men adopt different leadership styles.

Based on women’s unique qualities, women bring several characteristics to medicine that men may not bring. Among these is firstly, communication and empathy (“women tend to be more open to communication, listening and empathizing. These qualities, listed by the AAMC as attitudes and behaviors expected from physicians, translate into a more robust and more enduring physician-patient relationship, and ultimately patient outcomes”). Secondly, Dr Dimassi noted, was leadership style: “While male leaders are generally more transactional and derive their power from their position on the formal organizational structure, women tend to be more transformational and derive their power from personal characteristics.” Thirdly, teamwork: “recent evidence strongly suggests that group collaboration, as indexed by collective intelligence, is greatly improved by the presence of women in the group. It was found that the effects were imparted, in part, by women’s higher levels of social sensitivity, which stems from their greater ability to interpret nonverbal cues and make accurate inferences about what others are feeling or thinking. Groups with more women also exhibited greater equality in conversational turn-taking, further enabling the group members to be responsive to one another and to make the best use of the knowledge and skills of members.”

On mentorship, Dr Dimassi talked about the trend towards ‘mantoring’ (referring to men who only mentor other men). She said, “The transition from undergraduate to graduate medical education is a bottle-neck in the path of a career in medicine, fraught with challenges. Evidence from the literature highlights a significant performance gap that students experience when

moving to actual practice, including struggling with increased responsibilities, such as time management, reporting risks to patient safety, coping in emergency situations, resilience, professionalism and complex communication tasks. While there are numerous mentorship programs in place in medical education, mentoring of groups underrepresented in academic medicine (e.g., women) remains short of meeting the demands of the workforce.”

Dr Dimassi stated: “Mentorship programs are one important way to support women in leadership roles in medicine. Peer mentoring for junior female faculty improved academic satisfaction and skills. Early in their career, women are in need of female role models to help them navigate their paths and benefit from the senior’s expertise and experiences. Skills such as work-life balance, how to get promoted, management skills, communication and presentation skills, and how to obtain grants are some of the matters that mentees can learn from their mentors, particularly when seeking larger leadership roles. Additionally, personal insights offered by female colleagues are unique, related to managing family and work, and issues faced by women in the workplace and how to deal with them. From my own experience, I would urge female physician trainees to empower and be empowered by female nurses and learn from their experiences.”

Dr Kanafani as Panel Chair asked: “Finding and fostering meaningful mentorship is key in managing the unique challenges a young female physician pursuing academic practice grapples with. How is this best achieved in departments that are still largely comprised of male colleagues and/or leadership?” Dr Dimassi responded: “Mentorship can come from various mentors, and for various purposes. You can select someone to mentor you for your career path, another for research, and a third for personal advice. Of course, it does not have to be very clear-cut as such, but you need to identify who can efficiently help you with what. Also remember that a male mentor is someone to resort to for career building and research. Finally, seek connections with women in regional and international organizations/bodies where you can find opportunities for collaboration, and ultimately gain someone’s mentorship.” Dr Dimassi noted that sponsorship is another function that may be more important than mentorship, especially when coming from people in key leadership positions, to help you advance your career. A sponsor runs the extra mile by recommending you for job posts, sometimes at the expense of their own reputation if they are truly impressed with your achievements. Winning leaders’ sponsorship thus requires that your accomplishments are known to them.

Dr Dimassi also talked about amplification: “a technique where you would restate important points made by other women and give them appropriate credit. Over time, people in leadership will consider more women for key positions. Amplification not only challenges gender bias but has the potential to undermine the gender bias altogether.”

In concluding, Dr Dimassi urged greater inclusion of female medical students in initiatives and urged male healthcare professional to have more significant participation in initiatives so that their perspectives can be reflected and have an open floor for healthy discussions between men and women. Dr Dimassi supported suggestions that more data needed to be collected about existing women in the healthcare sector workforce, and stressed the need to highlight their skills, talents, expertise through AIWF as a platform for local, regional and international connection and collaboration among all these women and aspiring younger generations of women in the healthcare field. Dr Dimassi suggested that the conference partners work on establishing an Arab Healthcare Women’s Association chapter under AIWF, something similar to the American Medical Women’s Association (<https://www.amwa-doc.org/>), which has an online platform where women in the healthcare field share resources, experiences, and support each other.

Dr Rana Sharara-Chami, Associate Professor of Pediatrics and Pediatric Critical Care; Director, Pediatric Residency Program; and Director, Simulation Program, American University of Beirut, Lebanon, shared that she was advised by many family members and friends not to go into medicine as it did not “offer the best lifestyle for a woman. Of course”, she said, “I didn’t listen. I don’t know why I was in such a hurry when I was finishing up medical school. I graduated top of my class, finished my USMLE’s, and got married all in the last three months of medical school. I was determined that nothing was going to slow me down. I was advised again to choose a somewhat stress-free specialty (if such thing exists) but of course, I didn’t listen.”

Dr Sharara-Chami went straight from medical school to North Carolina where she completed her residency in Pediatrics. Then again, she recalls, “I was advised to choose a “chill” fellowship and, of course, I didn’t listen and moved to Boston where I completed my fellowship at Boston Children’s Hospital in Pediatric Critical Care.” Dr Sharara-Chami had her first daughter during her third year of residency and her second daughter during her third year of fellowship.

Dr Sharara-Chami shared that she is “clinically busy, in addition to the residency program that I am directing, the simulation program that I’m establishing, my community advocacy projects, my passion for teaching and for medical education research. “Managing a work life balance is not easy but is feasible. Since the people around us determine where we invest our energy, find yourself a supportive partner and that will give you enough piece of mind to focus on important matters. That said, my real secret is efficient time management. I don’t have a minute wasted during the day. It is important to take care of one’s self: exercise, eat clean, get enough sleep. To note is that 94% of women in executive positions play organized sports and I can’t stress enough the importance of exercise. What I also find helpful is that I don’t set long “to do lists”. I rather set daily calendar items. I give myself daily deadlines and I find that that works well. Simon Sinek said: “In our modern world, advancing our careers and trying to find happiness and fulfillment are the definition of success”.

Asked how she thinks institutions can foster an inclusive and empowering environment for women-led innovation, research and discovery, Dr Sharara-Chami shared that UN Women is hoping for a 50-50 planet by 2030 and in order to do that the change will have to be incremental. She said: “Yes, more women are now in the pipeline on all levels and in medical specialties but they are still not anywhere near 50-50 in executive positions, not even 60-40, not even 70-30. Sustainable development goal 5 calls for gender equality and in order to do that, micro-inequities have to be addressed at the workplace. Most importantly, I believe that women should mentor each other. Strong women lift each other and women need to claim their place in medical education, not wait until it’s provided to them. Women are constantly facing challenges from cultural forces- being channeled towards “less demanding” careers, gender bias and sexual harassment as well as the stalling effect of having children.”

Dr Sharara-Chami said: “Women are well represented in pediatrics, primary care and psychiatry, likely because they all involve more human connections but they are not well represented among these same specialties leaderships. We don’t just want more talented women in medicine, we want them in leadership positions leading the field forward. Women need to be more represented in technology and innovation as well. Medicine has more and more technology and innovation, and my involvement in medical simulation has provided me with the opportunity to learn some of these technologies and hence has provided me with a special edge. Institutions should encourage women to rise up to these positions so that they could add their “communal” skills to men’s “agency” skills.”

Dr Luanne Thorndyke, Professor of Medicine, Vice Provost for Faculty Affairs, University of Massachusetts Medical School, United States, shared her professional and personal journey as a first-generation physician who had had a rural upbringing. Following medical training, Dr Thorndyke started a community-based, general medical practice in inner city Philadelphia in

an area with significant health disparities. The practice still exists today, 30 years later, as part of Penn Health (University of Pennsylvania).

For Dr Thorndyke, a family move created an opportunity to contribute as a member of the “professoriate” as part of academic medicine. She traveled the faculty journey from assistant / associate / to full professor; discovered a passion for education, faculty development, and the advancement of women in medicine and science. Dr Thorndyke started a junior faculty development program that incorporated mentoring which continues today and is a national model utilized by five academic medical centers across the US. Dr Thorndyke devoted 15 years in various leadership roles to implementing policies, programs and strategies designed to equip and empower faculty – with a focus on women – to achieve success; to be the best that they can be...and to transform the cultures at our institutions to welcome and embrace women leaders for the benefit that they bring to their roles and institutions. Dr Thorndyke noted that she has many roles: “wife, mother, sister, daughter, friend, mentor, educator, leader.”

As a woman leader, she shared that she had been able to overcome challenges through resilience, optimism, teamwork, networks of other women, a strong and effective mentor during a pivotal time in her leadership development, and opportunities to grow from challenges. Dr Thorndyke noted: “Women physicians and scientists bring unique perspectives, strengths, and opportunities to academic health centers. To address challenges, and grasp opportunities available to innovate and promote excellence in healthcare delivery, biomedical sciences, and educating the next generation of physicians and scientists, we need women engaged in robust numbers and at the leadership level. Although the pipeline for women in medicine has been ‘primed’ with equal numbers of women and men (in the US) entering medical school, the pipeline is ‘leaky’ – and the numbers of women advancing up the ranks of the professoriate and to leadership positions dwindles with each step up the ladder of advancement.”

Asked what organizational strategies can be implemented that will enable women to advance and contribute at leadership level, Dr Thorndyke suggested that there needed to be availability and opportunity of pathways for academic advancement and leadership advancement. She gave UMass’ example of revising organizational policies and criteria for promotion and tenure, which has allowed women faculty to be promoted at rates equivalent to their male counterparts. She also recommended providing environments that value female faculty, that have female leaders and role models and that recognize the contributions of women through awards and honours. She cited UMass filling multiple leadership positions (Associate Deans, etc) with women leaders in those roles, as well as the recognition of women who receive the highest level of awards (the Chancellor’s Medals and Awards) in numbers similar to male faculty. Thirdly, Dr Thorndyke suggested providing access for women to faculty development and leadership development, including mentorship programs and professional development programs. UMass examples of multiple programs provided through the Office of Faculty Affairs included the Junior Faculty Development Program and the EMPOWER Summit for women.

Dr Thorndyke said: “There is an increased recognition of the benefits that women bring to the workplace and especially to leadership. Women and men have somewhat different leadership styles and strengths. Great women leaders demonstrate several important leadership skills: Teambuilding skills (collaborative; inclusive; cross-disciplinary); Determination (resilience, persistence, commitment); Conscientiousness (disciplined; dutiful; dependable); Empathy (Listening; Caring; Connecting); Listening and Communication; and of course the ability to JUGGLE many items at one time...at home, work, and community; and emotional intelligence (self-awareness; self-regulation; social skills). We, as women, need to recognize our strengths as women leaders, and lead with authenticity and integrity.”

Asked about strategies and best practices for fostering an inclusive and empowering environment for women in medicine and the biomedical health sciences, Dr Thorndyke recommended the implementation of strategies to promote Gender Equity (“assess and monitor the numbers of women in medicine, faculty salaries; promotions; leadership positions”); raise awareness about, and work to mitigate, the impact of implicit (unconscious and conscious) bias in our environments and cultures; seek to promote a safe environment (“work to eliminate sexual harassment, sexual violence and bullying”); and provide professional development and leadership development opportunities, including both mentoring and sponsorship for women.

Dr Thorndyke concluded that she was very optimistic about the future for women in medicine and science. “Women now have broader and deeper access to education and training to prepare them to be outstanding contributors and leaders. We need to continue to expand this access. There is increased focus on the benefits that women bring to the workplace and especially to leadership. We need to continue to celebrate the contributions of women and increase our visibility in our organizations.” She said, “Women are breaking through the glass ceiling: there are more women leaders who are role models, mentors and sponsors, and we as women leaders need to bring our sisters and daughters along with us.” She also reminded the audience, “Men are joining the movement for equity, inclusivity, and empowerment of women. Men also increasingly seek ‘work-life’ balance; some men are choosing to stay home with the kids. Men, who hold many/most of the leadership positions, are beginning to understand the need for, and acting as sponsors – as well as mentors – of women. Additionally, many men are strongly supportive of the ambitions and aspirations of their wives and daughters.”

Panel 2: Advancing women's leadership and entrepreneurship in healthcare and the sciences

Building capacity for women in medicine through technology, training, intra/entrepreneurship, executive leadership and social enterprise

Panel Chair, Dr Oualae Al Alami, AIWF Board Member & Vice President for Egypt, Levant, Iraq and Iran, Pfizer Biopharmaceutical Group, United Arab Emirates

Dr Aceel Alanizi, Founder & Director, Luxury Healthstyle & Founder of Wisal, United Kingdom

Lina Nabulsi, Technical Director, Jordanian Pharmaceutical Manufacturing Co, Jordan

Mais Najib, Former Director, Global Head of Health Economics, Stallergenes, France

Dr Rihab Nasr, Associate Professor in the Department of Anatomy, Cell Biology and Physiology, Faculty of Medicine, American University of Beirut, Lebanon

The second session of *Women Leaders & Health* explored strategies for empowering, supporting and building the capacity of women in medicine through training, leadership development, and support for entrepreneurship, intrapreneurship and social enterprise. The session will examine the barriers that limit women's leadership and inclusion in the medical field and will also call for the remarkable momentum that is compelling growth in MENA entrepreneurship and SME development to be further expanded to offer better support digital startups that are revolutionising healthcare delivery in the MENA region and globally.

Dr Oualae Al Alami, AIWF Board Member & Vice President for Egypt, Levant, Iraq and Iran, Pfizer Biopharmaceutical Group, United Arab Emirates, chaired the second panel session of the day. She opened by stating that women have made significant contributions to science from the earliest times. The first known woman to earn a university chair in a scientific field of studies was eighteenth-century Italian scientist, Laura Bassi. Since then, many women have had a pioneering role in advancing science and health. In 2019, women are still only a third of researchers worldwide and struggle to rise up the ranks in both the healthcare and science fields. Female healthcare workers comprise of 70% of the health workforce worldwide, yet women occupy only 25% of leadership positions in the healthcare industry and make up just 12% of the membership of national science academies around the world.

In the Arab world, Dr Al Alami said, more efforts are needed to enable gender diversity and inclusion (D&I). PwC highlighted in their latest report on Diversity in the MENA Region that the region is collectively losing an estimated \$575 billion a year due to the legal and social barriers that exist for women in joining the workforce. Some social norms need to be challenged and appropriate frameworks need to be introduced and developed (legal, policy, developmental, etc) that enable women to progress in their professional journey to out-innovate, out-educate and outperform and contribute in all fields at a leadership level.

Dr Al Alami shared: "I was born in Morocco and raised by working parents who taught me that gender was not a barrier to success. I grew up thinking I could do anything. I was educated in France, where I also started my career, and ever since joining Pfizer in 2004, I enjoyed roles that embrace many rich and varied cultures. My passion for diversity and inclusion (D&I) really began on the day I moved to Dubai to lead Pfizer Oncology in the Africa Middle East region.

My name in Arabic (Walaa) is a unisex name, but I was still surprised to see how many people assumed I was a man. I kept getting emails and letters which began with 'Dear Sir'. At first, it made me laugh, but eventually I felt I had no choice but to add 'Mrs' in front of my name. I was seeing unconscious bias here: people assumed that a leader had to be male. That is when I decided to act as a role model and to actively encourage diversity in the workplace. I was also elected chair of the Africa and Middle East Women's Council – a group of women and men from across the region who are committed to advancing diversity at Pfizer."

"At Pfizer," Dr Al Alami continued, "we believe that our culture gives us a distinct competitive advantage. Our culture encourages us to value diversity and treat each other with respect. At Pfizer, we believe in a workforce that reflects the diversity of the patients we serve and the communities we live in, and innovation stems from collaboration and the sharing of unique ideas and different perspectives. We have different initiatives in place to support our D&I culture. To highlight only a couple: The Global, Regional and Local Women's Council which are empowered groups comprising of senior-level males and females from various business units and operating functions across Pfizer. They derive their strength from the extensive knowledge, expertise, and the diverse backgrounds of its members. Combining internal resources such as Pfizer's Talent Management and the Executive Leadership Team with external research, professional networks and organizations, allows us to fuel the innovative and creative thinking necessary for our organization's continued success in today's hypercompetitive global business environment. Success Circles is another initiative led by senior leaders and managers where they help participants from both genders address obstacles to success. The methodology of Success Circles enables each member to give and receive effective coaching on the issues that most concern them. As a result, members develop leadership skills while helping one another achieve powerful outcomes." Dr Alami concluded, "We want to show how diversity can really move the needle in Africa and the Middle East. I passionately believe that D&I is at the heart of any successful business. It's not an option anymore, it is a must."

Dr Aceel Alanizi, Founder & Director, Luxury Healthstyle & Founder of Wisal, United Kingdom, shared her background as a Saudi Arabian woman leader who has lived almost half her life in Saudi Arabia and the other half in the UK where she pursued her postgraduate studies. She said, "Since a very young age I've had an affinity towards problem solving and analysing, something which possibly came from being the eldest of five children. I was drawn to studying science and technology and whilst choosing my PhD topic, I picked the genetic analysis of a certain disease which stuck a sad cord within me, because it affects young women. For those of you who don't know MS: it is an autoimmune disease that affects the nerve system. And very often patients require a wheelchair or walking aid. I was fortunate to have worked with an amazing medical crew of doctors and nurses whereby together, we not only sought to analyse the onset or cause of disease, but we meticulously analysed ways we could manage disease progression and increase the quality of life and the quality of care of those patients during their most vulnerable states. This experience had a huge impact on shaping the person I am today and starting off my career path."

The knowledge and analytical skills Dr Alanizi developed from a scientific background, coupled with the fact that that she came from a family of doctors who owned a health management firm gave her the confidence to establish her medical startup Luxury Healthstyle in London. She said, "Many of my family and friends back home would ask for my help and advice when searching for an appropriate doctor in London. Being a natural caregiver myself, I saw an opportunity to help those members find solutions to their healthcare problems. This formed the basis of my business strategy and kick-started my entrepreneurial journey. Luxury Healthstyle is my take on a medical concierge service which helps link international patients to doctors and healthcare professionals, facilitating the referral process and helping patients navigate their way through the UK healthcare world."

Shortly after another problem presented itself; Dr Alanizi explains: "Many doctors and healthcare providers could not bridge a cultural and communication gap between them and their international patients. This formed an obstacle to achieving informed medical decisions and patient compliance. As women we are natural born communicators, and hence sought to bridge this gap of trust and understanding. I founded WISAL with my sister, who is also a doctor and has supported me throughout my journey. As the name suggests we offer an educational platform to doctors and nurses about how to better care for their international patients."

Recently, Dr Alanizi shared, she had been called to join the Executive Board of Directors for a specific hospital project run by the family business. She said: "I seized this opportunity to give something back and gain hands on experience and knowledge of the healthcare system and grow as a person. All the while keeping true to myself and my missions of increasing the quality of care, and quality of life of any client I have."

Asked about her view on the challenges that women face while pursuing healthcare leadership roles, Dr Alanizi stated: "The healthcare sector itself is very unique and different that other industries. Healthcare economics are extremely complicated - they are not a clear-cut provider-buyer relationship. There are many factors that shape the numbers behind this including input from insurance companies, the complexity of the equipment involved, their services leasing and requirements, the fact that the patient requires input from Third parties (a doctor, a lab technician, etc) who can also act as buyers in this instance to be able to decide which course of medical action to take. There is no cookie-cut formula that can be applied to everyone. And there is no limit to how healthy you can be. In today's day and age: many people have different definitions of health: awareness for preventative care is rising now and then you have patients who just want to get through one particular health difficulty. The fact that a hospital is open 24/7- you will never know when you might need medical attention. Not to mention the complexity of the forefront staff: who vary from brain surgeons to administrators."

She continued, "All these elements need to be taken into account when addressing a health care organization. And so the number one challenge of women integrating into C-suite roles of this industry is the industry itself. Women comprise the majority of workforce and clients yet are poorly represented. Which is actually surprising when you think of it, because here is an industry that relays on one mission and one message alone: and that is to increase the quality of care of its clients. Qualities like empathy, building trust, communication are paramount. Women have an innate ability to be caregivers, we are highly empathic and these qualities are the core of this service. Yet we have trouble achieving leadership."

Dr Alanizi shared that she believed healthcare itself didn't have a problem in terms of women in healthcare roles; it has a problem with women in senior leadership roles. Dr Alanizi recommended that further and more adequate training and mentorship be provided for women on all the different dimensions of the healthcare system in order to arm them with the knowledge they need to drive such an organization. Because we don't lack the essentials, we just need to learn how to channel them."

Dr Alanizi elaborated on a second challenge for women's leadership which is the lack of women mentors. She said: "This is a Catch 22 situation because in order to get women to the top, you need women in more senior positions who are more likely to promote other women and are more likely to be patient and empathic mentors for both men and women in this case. Having a woman mentor is irreplaceable. Whom better to train a female employee into how to harness her feminine energy and apply her unique innate skills than another fellow woman? To help her see ways she can fine-tune her biological thinking cap from being solely analytical and problem-solving into having a more strategical, managerial approach. Or helping her find an alignment between what she is doing and achieving her personal fulfilment as a woman and also as an individual. Since what drives men and women is different, there must be a training process that would be equally unique."

Many women are content having a secondary or more caregiving role, because it is in alignment with their instinct or personal fulfilment. Some women especially in the Arab world, Dr Alanizi noted, may feel reserved or shy or have certain family or social values they adhere to, and so would hesitate to take risks, or promote themselves or speak openly. Dr Alanizi shared: "Stereotypical and gender gap challenges have been heavily documented so I won't delve deeply into that but the communication gap truly becomes apparent especially when seeking leadership roles. Being promoted implies playing a role to which you've never played before. A role which comes with many different responsibilities, handling varying members of staff and difficult situations all the while in keeping with a business strategy throughout."

A further challenge that Dr Alanizi wished to highlight was staff management: "Trust, empathy and emotional intelligence go a very long way not just for clients but also when dealing with members of staff. Add to that a quality that all leaders should exhibit, and that is confidence: when dealing with the medical staff, you must be aware that are dealing with a highly intelligent workforce. In some countries you would have to be amongst the top 1% of your class to get into medical school. And this can be intimidating. Your forefront staff are intellectual, intelligent bright people and who are also extremely busy saving peoples' lives. Reaching out and connecting with them must be done and managed in an emotionally intelligent way, because not only are they smart, their psychology is set at a different level too. Their values revolve around good ethics, honesty, trust and understanding of a person who is presented to them at their most vulnerable state. It's an up close and personal relationship. They aren't there solely for the money; they are there to fulfil a divine mission and great cause and so connecting with them must be achieved in a non-commercial and effective way."

In terms of strategies to overcome these challenges, Dr Alanizi recommends starting from within as a starting point. She advised: "Invest in your training because knowledge is power. Build your credibility and earn the trust the respect of people around you. Surround yourself with successful people and exude an air of leadership and authority. Work on your mindset; your thinking as a leader must reflect that of a strategic-managerial way and not only analytical. We as women must be very critical and think twice about stereotypical stories that have been fed to us - we can succeed and we can perform and all the while being true to ourselves and embracing our feminine energy. We can harness the qualities we have into creating positive change: yes, we are caregivers, but let's break free of supportive roles and go for the lead role. Yes, we are emotional, but let's use this emotional intelligence to read the boardroom, understand and present our ideas at the most affective time. And yes, we are good listeners so let's bring all that into listening to staff, patients, colleagues and create a fertile environment such as conferences like this to find ideas and solutions and be more creative."

Furthermore, Dr Alanizi advised: "Find an alignment between everything you do and achieving your personal fulfilment. Support other women and form a sisterhood to break these stereotypes. Let go of your ego and any negative emotions." Lastly, identify a business strategy and stick to it. "Know how to reach out to different members of staff. Being a leader doesn't mean that you have to be the smartest, but to surround yourself with the right people and identify who your assets are. Never lose sight of your mission."

Lina Nabulsi, Technical Director, Jordanian Pharmaceutical Manufacturing Co, Jordan, shared her views on successful strategies to innovate and leverage gender diversity in the sector. She said: "The pharmaceutical industry has no problem in securing gender diversity. Almost all companies related to this activity have around 50% women in their workforce. The nature of pharmacy studies, as well as the profession, attracts more females than males. The challenge remains in keeping this diversity as we go the scale up to the C-level. At JPM and at some other companies in the field we succeeded in this and in fact, the C-level in the technical area is dominated by women."

She continued, "The most important resource in innovation remains the development of human capital. That we have abundance of but training this human capital to become innovative is the challenge." In Ms Nabulsi's view, the basic strategies required to encourage innovation are: inspiration and passion ("employees have to feel passionate about what they are doing in order to go the one step further"); learning from failure ("the pharmaceutical industry is highly regulated and employees have systems and procedures for all what they do that were put down as per the international regulations that govern the industry. We train the employees to understand the system and not only follow it. Why? Because deviations are bound to happen on daily basis, due to personal mistakes, or machinery, or local environment, etc. It is important that employees master solving problems, by extending the spirit of the regulations and the systems to capture the situation they are trying to solve while remaining compliant. Such mastery creates thinkers, and thinking out of the box, is always needed. Since necessity is the mother of invention, such innovative thinkers are always bound to come up with innovative solutions").

Ms Nabulsi advises against letting bureaucracy remain an obstacle against the easy flow of ideas between staff who share the same work. She said: "Ideas are the first block in innovation and securing easy democratic discussion of ideas is a must to secure an environment of innovation." She concluded: "The pharmaceutical Industry is a very good example of an effective gender diversity at all levels of work. Innovation is a culture and a way of life. There are many actions and strategies that, if followed, can help an institution create the right environment to nourish its employees to become innovative."

Mais Najib, Former Director, Global Head of Health Economics, Stallergenes, France, stated: "We need to seize the MENA region's high growth potential by addressing women's key economic challenges. Women in the Middle East and North Africa (MENA) are better educated and better skilled than ever before, and yet legal and social barriers mean that the share of them in work is still the lowest in the world. Bringing family and labour laws in line with gender goals would enable more women to enter employment and would make MENA economies more competitive and inclusive."

She continued: "Remarkable achievement has been made in women's education, in ratifying international conventions promoting human rights, and in incorporating gender equality into national constitutions. But not enough has been done to bring legislation and social norms in line with these advances. A mere 24% of women in MENA countries are in employment – relative to 60% in OECD countries – and gender-based discrimination in laws and social norms costs the region USD 575 billion a year. Failing to harness the talent of working-age women means lost economic potential and less inclusive growth."

In Ms Najib's view, gender equality is not only good for women and societies; it is a vital opportunity to make economic growth stronger and more inclusive. The MENA region has made real progress enshrining gender equality into constitutions, but women will only be able to properly access jobs and entrepreneurship if these principles are embedded in legal systems and enforced by giving women better access to justice. "Among other things", Ms Najib explained, "women often do not share the same rights as men to make decisions, pursue a profession, travel, marry or divorce, head a family, receive an inheritance or access wealth. For example, in Egypt, Jordan and Libya, women must still obtain authorisation from their husbands or fathers if they wish to work."

She said: "It's important for us to better understand the full range of challenges facing women in the region and identify the right policy measures to empower them to contribute fully to MENA economies and societies. Discriminatory social institutions prevent the achievement of gender equality and also matter for economic growth."

Across the globe, every single day, women and girls experience some form of discrimination solely because they were born female. Throughout the course of their lives, they will encounter different types of discrimination that will affect their ability to access justice, to pursue their life choices, and to fully benefit from opportunities for empowerment.”

Ms Najib continued: “Discriminatory social institutions are the formal and informal laws, social norms and practices that restrict or exclude women and consequently curtail their access to rights, justice, resources and empowerment opportunities. They affect the whole female life-cycle; for example, by ascribing greater social value to sons over daughters, by preventing women from owning land, or by restricting a widow’s inheritance rights. Discrimination against women and girls carries a high development cost: indeed, higher levels of discrimination in social institutions translate into poorer development performance and lower levels of gender equality.”

The high level of gender-based discrimination in the MENA significantly compromises the economic and political empowerment of women. Sidelining women holds economies back from growing and prospering: gender equality is the first step towards building more inclusive and prosperous societies, for the economy is unable to achieve its full potential if half of its population is marginalized and disempowered.

Ms Najib explained: “Despite their catalytic impact on achieving GE and women’s rights, discriminatory social institutions have been overlooked in development policies and programmes. Education, labour and health outcomes attract most donor and political interests. However, by only focusing on certain dimensions of women’s rights and empowerment, international and national commitments fail to address the root causes of the issue holistically and, as a result, do not produce sustainable social changes required to “leave no one behind.”

Hence, Ms Najib continued, “the first step to fully benefit from gender parity is to tackle discriminatory social institutions, the root causes of gender inequality: For example, promoting girls’ access to secondary education requires first to delay the age of marriage and support married girls through a combination of legal frameworks promoting girls’ rights to education, community awareness-raising, and financial support for girls to remain in school.” Tackling discriminatory social institutions should be integrated into national growth and development strategies and mainstreamed in global development approaches. Non-discriminatory and gender-sensitive laws are the first step to challenge discriminatory social institutions: The introduction of laws has seen positive impacts for decreasing early marriage (e.g. South Africa), and increasing women’s access to land ownership (e.g. Uganda). However, laws are insufficient to challenge entrenched acceptance of discriminatory social norms by communities that undermine gender equality.

Fostering inclusive economies and societies requires a mix of policy responses that can address these deep-rooted biases: recognizing, reducing and redistributing unpaid care work, encouraging girls and women to enter traditionally “male” domains (e.g. STEM subjects), offering incentives to families to discourage early marriage of girls, and working with boys and men to combat negative stereotypes regarding working mothers.

“For the global community to implement the SDGs,” Ms Najib stated, “addressing gender-based discrimination in social institutions will be paramount for progress. DSIs feature high up the priority scale in SDG Goal 5: ‘end all forms of discrimination against all women and girls everywhere.’ The proposed indicator to track progress on this is ‘whether or not legal frameworks are in place to promote, enforce and monitor equality and non-discrimination on the basis of sex.’ This greater inclusion of discriminatory social institutions reflects the international community’s commitments to transformative change.” However, “enforcing and monitoring” these commitments would be crucial for catalysing real and long-lasting empowerment for girls and women and providing economic gains.

In Ms Najib's view, a wide range of legal social barriers still exist and are holding back women's empowerment in the MENA Region. "A wide range of barriers, which often stem from traditional gender norms and discriminatory social institutions, continue to compromise women's full participation in economic and public life and in decision-making. Various legal provisions still differentiate between men and women's roles, and gender-biased obligations persistently affect women's job opportunities and career prospects. Personal status codes generally impact on family decision-making, women's wealth, and their ability to pursue a profession, engage in travel, or head a family. Most labour laws in the MENA are set out in frameworks that prohibit discrimination in recruitment, remuneration, promotion and the termination of contracts. However, some rules distinguish between men and women, with certain provisions claiming to "protect" women. For example, they bar women from certain types of work, such as those that entail night-shifts, and from certain industries. Laws also state that men and women don't have the same entitlements to non-wage benefits. Indeed, social benefits are paid almost exclusively to men as, by law, they are generally the heads of household."

She continued: "Other regulations make it more costly to recruit women. For example, in the private sector, employers alone bear the costs of maternity leave, child nursing or the setting up of child-care facilities, which may deter them from hiring female workers. Some sectors still remain outside the realm of labour laws, and many women working in these sectors (e.g. agriculture or domestic services) are usually unable to access employment-related benefits. Employers tend to recruit and invest in male workers, particularly when a job requires travel. Social expectations that women will stop working when they start a family restrict their employment and career development opportunities. In the event of staff redundancies, employers prefer laying off female employees on the grounds that men are heads of households. Hence, women's high unemployment rates may be the result of employers' preference for recruiting and promoting men rather than women."

Meanwhile, women's high levels of employment in the public sector are attributable to the fact that jobs in the public service are more socially acceptable to them (or "more suitable to the socially constructed female gender role, such as teaching"). The public service also provides greater job security, a safer and less demanding work environment, a better work-life balance, and, in some cases, higher pay and more benefits than the private sector.

Women's under-representation in senior positions of responsibility in both public and private sectors may be linked to the significant female drop-out rates from the labour force. Many top positions only become accessible with considerable work experience. Yet, that begs the question as to whether (and to what extent) the great difficulty of making it to the higher echelons may dissuade women from entering or staying in the labour market. With the exception of the UAE, Ms Najib noted, no country has introduced regulations or adopted a voluntary quota policy designed to create opportunities for women to become corporate leaders and reduce the gender-related promotion gap.

In terms of entrepreneurship, Ms Najib pointed out that women struggle to set up and run businesses due to a lack of work experience, limited integration in business networks, and poor access to finance. Underlying factors include social and cultural norms which constrain women's overall economic independence and assertiveness, reduce their wealth (regulated by their status in the family and inheritance succession), and affect self-assessments of their capacities and needs in developing a business. Other factors include the high and increasing degrees of violence to which they are exposed in public spaces and in the workplace. MENA countries afford very little protection against gender-based violence and sexual harassment, with only a few having introduced provisions to curb sexual harassment by the employer (but not by other employees) or in public spaces.

"As for access to justice", Ms Najib continued, "women are often unaware of their rights. Even

when they are aware of their rights, social norms and economic inequality may discourage them from addressing the courts. In addition, even when equitable legal provisions are in place, courts are not always able to fully enforce their rulings.”

Ms Najib concluded with a set of recommendations for addressing social and legal barriers in the MENA Region, which included: updating labour laws to combat discrimination against women in all types of work and throughout their working lives; reinforcing monitoring and sanctions to bridge gaps between labour laws and practices; reviewing maternity leave and childcare provisions; provide incentives for employers to support PT employment, remote working and flexible hours; guaranteeing women a safe environment AT and ON their way to work by ensuring strict enforcement of sexual harassment regulations and punishing offenders, penalising harassment in public places, and improving public transport; reducing barriers to women’s entrepreneurship through policies that support equal access to finance, prohibit discrimination based on sex or marital status, encourage credit registries and credit bureaux and increase women’s financial education; supporting the application of community property between spouses and allow women equal rights to assets acquired during marriage in the event of a divorce; and reinforcing awareness of women’s rights among judges and legal professionals to improve women’s access to justice systems.

Ms Najib also reiterated the importance of harmonizing personal status codes with the principles of gender equality and non-discrimination in line with national conventions and international commitments. She supported the idea of gathering data, “to better understand the impact that family laws and resulting gender stereotypes have on women’s ability to make decisions and fully engage in the economy and society and develop policies to help women fulfil their full potential.” Bringing in legal frameworks in line with gender goals enshrined in national constitutions, she said, would “enable more women to enter employment and make MENA countries more competitive and inclusive. There is no shortage of solutions. What is currently lacking is political will to put these initiatives into action.”

Dr Rihab Nasr, Associate Professor in the Department of Anatomy, Cell Biology and Physiology, Faculty of Medicine, American University of Beirut, Lebanon, introduced herself as a cancer researcher with her major research interests focused on the development of combinations of targeted therapies for human leukemias. The outcome of this work has helped in the discovery of several combinations of targeted therapies and to the elucidation of the mechanisms of action of other existing therapies. Dr Nasr is also interested in studying biomarkers for early detection of cancer. Her lab is investigating circulating microRNA as non-invasive biomarkers to predict this early onset breast cancer.

Dr Nasr also directs the Basic Research Core Facilities where she interacts on a daily basis with researchers from all basic science departments and is directing the cancer prevention and control program at NKBCI, a platform which feeds her passion for community engagement. As a passionate cancer prevention advocate, Dr Nasr believes that more efforts should be invested in cancer education, prevention and research and so she founded AMALOUNA which means “Our Hope” in Arabic, an American University of Beirut affiliated educational organization whose main mission is to fight cancer through spreading awareness, enabling prevention and supporting research. This is achieved through various activities including a series of cancer awareness lectures at local venues throughout Lebanon, including schools and municipalities. The organization encourages young students from both genders to join the STEM field and introduces them to research as a career through its “Students as Researchers” Initiative, which offers the opportunity for students from public and private high schools to get an insight to what scientists do in the real world. During her career, Dr Nasr shared, she has been very fortunate to publish several articles, secure several grants, and receive several awards. “Most importantly,” she said, “I had the privilege of working with some of the brightest students and inspiring colleagues and friends at my previous institution and at AUB.” She shared: “I am a wife and mother of three beautiful daughters. My girls are dispersed through

all the stages of my journey. I have a 'Research Assistant' daughter, a 'PhD' daughter, and an 'Assistant Professor' daughter who span over 15 years. As a woman, having a career while building a family seemed at most times impossible. And yet, I was able to keep the most precious things in life: an education, a successful career and a great family."

Asked what the obstacles were of working in a male dominated field and how advocates have been helpful in her development, Dr Nasr stated: "Women have always faced countless obstacles when trying to pursue careers traditionally dominated by men. Science and healthcare fields are not an exception. However, over the last decades, women have made tremendous gains in many professions including these fields. Less than one third of researchers worldwide are women! Although women have gained broad access to higher education (53% of postgraduate students), they continue to be a minority as they advance in their careers. Women physicians were a rarity in the 60s. Today about 35% of physicians are women (L'Oréal 2018) and this representation is increasing as women who constitute over half of the new medical students proceed through the career pipeline. This is reflected at AUB Medical School as well where the % of females increased from 21% in 1998-1999 to 50% in 2017-2018."

However, despite this promising representation, women become more and more of a minority among university professors and leaders of research and medical institutions and therefore they are a minority in strategy and decision makers processes. Why does this gap persist? Dr Nasr explained: "Unfortunately, many of these challenges that I faced throughout my education and professional career are still present for women today. The most important inhibitors of women's advancement to leadership positions are cultural issues (beliefs and stereotypes) that create biased perceptions about women's ability to lead effectively. One of these challenges is the stereotype mindset that a woman cannot do what a man does. Throughout my higher education and the early beginnings of my career, I had to continuously fight these stereotypes: I was one of the few girls who left the village to continue my education, and as a married woman with a baby continuing my PhD, I had to travel. This was not culturally acceptable and therefore not easy either on myself nor on my husband and family."

Dr Nasr stated: "Another major obstacle that many women share is trying to balance their career with their family. Women's careers sometimes are slowed down or disrupted by managing both work and family commitments. Women may be less able to move freely or travel for further education and training due to family commitments. This is a challenge that I have struggled with for a long time. This is where the presence of advocates in my life was instrumental. Family, who always supported me while I pursued my education and when I needed to travel for training or for conference. Most importantly, I have been extremely lucky to have a husband who has been tremendously supportive of my plan and my career, and many times at the expense of his own. He has always told me, 'Don't say no to the opportunity. We will always figure out how to manage our family obligations'."

The lack of mentorship, support and role models is another challenge that women face. Dr Nasr shared: "While pursuing my career, I continuously searched for female role models in my field. Needless to say, that successful female role models are few. This is why male advocates are also important and I had few male advocates in my career that participated in my success. Personally, my family and I have had to cross many hurdles and struggled hard to get where I am family-wise, work-wise, and culturally. But I was lucky to be raised in a family that praised education of girls. Growing up in a rural area, there was never a question of whether any of us, three daughters would go to university, it was just a question of where to go? This was a key for me to establish a successful journey. I am aware that most of the females who would like to join me are stuck where they are due to a lack of resources, and most importantly lack of support. I believe that male and female advocates, that we all can be, are a necessary part of alleviating these obstacles."

As women, Dr Nasr stated, “we have a big role and responsibility in empowering other women and we have many outlets to do so. First and most importantly, we can empower women through education. Providing education to all women is one of the greatest gifts we can give. I truly believe that education is power, and it teaches women skills necessary for their careers and it instills the confidence that they can achieve anything. Advocating for women’s education through mentorship programs and policy change is crucial for us to change the culture and pave the road for future generations of women.”

Many women miss out on great opportunities because they mistakenly believe they are under qualified. Dr Nasr elaborated on this key point: “In addition to education, providing support and mentorship is crucial for confidence-building. Praising the work, focus, determination and persistence of other women, recognizing the importance of failures and encouraging them to continue in their careers are all examples of support that can make a big difference in the career of another woman. I urge every woman here to be a great mentor and a positive source of support to another woman starting her academic or professional career.”

Building women’s confidence and advocating for their education are critical but they must also be empowered through employment. When recruiting employees, organizations must pay attention to the gender distribution of employees and try to balance then number of female and male recruits. Additionally, Dr Nasr stated, “we need to create the supporting environment for them to succeed. Creating a women’s leadership program, a support group of peers, which provides a platform for formal and informal networks and discussions are all examples of empowering spaces for women.”

In conclusion, Dr Nasr said: “If you take away one thing from what I said today, I would hope it would be this: every single woman here can play a role in empowering women. You can choose to be a mentor, you can choose to advocate for policies that benefit women, or you can fight gender stereotypes in your community. Whatever you choose, do not be passive.”

Dr Lina Oueidat, ICT Advisor to the Prime Minister of Lebanon & National Cybersecurity Focal Point, Lebanon, elaborated on the link between two independent disciplines, biomedicine and telecommunications, and explained how they interconnect when it comes to humanity and people’s wellbeing. Dr Oueidat shared that during her first contact with the medical field in 1981 at the age of 23, she encountered radiotherapy machines for women detecting uterine sarcoma that held multiple mechanical and control problems. “As a Computer and Telecommunication engineer, I had to think of a solution to overcome the technical and mechanical risks of the machine associated to its function. That first contact in biomedical engineering and daily witnessing of women suffering from this old and dangerous mechanism with radio-active sources at Villejuif Hospital led me to find a solution and a tested patent within three months. It was a very difficult and beautiful experience at the same time. I decided from that time on to continue in both fields in parallel, and this is the reason why I am still in the two fields and ended up with a double major PHD.” Dr Oueidat started a family after achieving her PhD and expressed her admiration for women who are able to start and care for families in parallel to PhD research.

For Dr Oueidat, philosophy was her next station followed by public administration. She was retained as a consultant to more than ten ministries, and was active in the health, water, energy, social, and administrative reform ministries, as well as the Ministry of Interior and Municipalities and Ministry of Education before becoming an Advisor to the Prime Minister. Commending her fellow panelists and the distinguished delegates attending the conference and participating actively in the panel discussions, Dr Oueidat stated: “I am confident that health science is entrusted at the heart and soul of these hard working and human women.

Panel 3: Reflections of women leaders in healthcare and medical education: Mentoring next generation, women-led innovation, discovery and leadership in medicine and health sciences

Arab and international women leaders on meeting the region's most critical health challenges through cross-border collaboration, capacity building, medical education and initiatives to improve gender diversity in medicine and the health sciences

Panel Chair, Dr Samia Khoury, Director, Abu Haidar Neuroscience Institute; Associate Dean for Clinical and Translational Research; Director, Nehme and Therese Tohme Multiple Sclerosis Center; Professor of Neurology and Immunology, American University of Beirut, Lebanon

Nancy Sunna, Senior Medical Manager, Pfizer Biopharmaceuticals, Lebanon

Dr Maha Al Mozaini, Immunocompromised Host Research, King Faisal Specialist Hospital and Research Centre, Member of the Arab Women Council Board of Trustees, Kingdom of Saudi Arabia

Dr Muntaha Gharaibeh, Former Member of the Board of Directors of the Healthcare Accreditation Council Jordan, Professor and former Secretary General of the Jordanian Nursing Council, Jordan

Dr Janet Hale, Professor of Nursing, Associate Dean of Interprofessional and Community Partnerships, Graduate School of Nursing, University of Massachusetts Medical School, United States

The final conference session invited leading Arab and international women in public health, medicine and the health sciences to share proposals for medical education reform and recommend innovative, women-led solutions to the region's most critical health challenges that impact women and children. Mentorship, role modelling and experience exchange are key to creating a women-led culture of cross-border collaboration, innovation, research and discovery in the medical world; to supporting capacity building for women leaders in the medical and sciences sectors; and developing an inclusive, gender diverse workforce of health practitioners who will be able to meet future healthcare and humanitarian challenges head on.

Dr Samia Khoury, Director, Abu Haidar Neuroscience Institute; Associate Dean for Clinical and Translational Research; Director, Nehme and Therese Tohme Multiple Sclerosis Center; Professor of Neurology and Immunology, American University of Beirut, Lebanon, chaired the final panel session. She opened by introducing **Nancy Sunna**, Senior Medical Manager, Pfizer Biopharmaceuticals, Lebanon, who reiterated the importance of bringing challenges of women in STEM to the forefront of discussion as critical and very much needed to improve business operations across the board and not just in medicine or healthcare delivery. Ms Sunna said: "The inclusion of women's perspectives in all areas of life is crucial to having a positive impact and capturing a 'win-win' situation for women. Mentoring is key. Successful women need to be out there mentoring their younger selves. Mentoring inspires, pushes and enhances growth and optimism. It pushes one outside of their comfort zone and opens new horizons for one to become more creative and provide solutions that no other person may have thought of. Mentoring also addresses the gap that business face between recruitment and retention."

Muntaha Gharaibeh, Former Member of the Board of Directors of the Healthcare Accreditation Council Jordan, Professor and former Secretary General of the Jordanian Nursing Council, Jordan, discussed issues and challenges facing senior and junior women leaders in academic and practice settings such as research, promotion and tenure. She reflected on her unique personal experiences as a women leader, researcher and policy maker and how they shaped her abilities to be a leader. She highlighted the importance of structured mentorship programs for young women leaders and of collaboration within professions mainly on research and innovation between countries and institutions. Dr Gharaibeh gave examples of her own experiences as a mentor mainly in developing research teams to enhance the faculty ranking at university level.

She recommended strengthening mentorship programs and building the capacities of health workforce in the region and reiterated that Arab female medical students and practitioners would benefit greatly from international mentorship programs between their universities and (to give one example) the University of Massachusetts Medical School and other international institutes of medical education. Dr Gharaibeh also advocated strongly for creating collaborative models between countries to support women in healthcare, especially in research.

Dr Janet Hale, Professor of Nursing, Associate Dean of Interprofessional and Community Partnerships, Graduate School of Nursing, University of Massachusetts Medical School, United States, shared the beginnings of her career in the US Military as an officer in the Army Nurse Corps. Her first leadership position was at the age of 23 as the Head Nurse of a Critical Care Unit first in a US Army Hospital in Frankfurt, Germany and later of a 22-bed ICU in a mobile field hospital during the First Gulf War. Dr Hale said: "While one's designated rank in the military gives many responsibilities, to be successful, one must earn the trust from those who work for, with and above. My last military position was as the Chief Nursing Officer of a Medical Command with responsibility for the nursing staff of five military hospitals in four states in the southwestern part of the United States."

Dr Hale continued: As a civilian, I worked clinically as a critical care nurse initially and then after completing master's degree in management and subsequently an MS in nursing as a family nurse practitioner, I began teaching at the Associates Degree level, then baccalaureate, I went back for a PhD and then began to teach in graduate nursing education and currently teach in interprofessional graduate nursing and medical school courses. In the military, assignments / positions only last for 1-3 years and then you move on. I quickly learned to identify and mentor women and men with potential to take over my positions. I felt a strong allegiance to my staff and my patients and always wanted to ensure a smooth transition upon my departure.

In my academic jobs, I mentored my new faculty and developed them for promotion in academic rank and leadership positions, for example, Coordinator of Specialty Programs, Director Positions, and Associate Dean positions. I also mentored my medical and graduate nursing students to reach their potential and to prepare them for leadership opportunities as their education, clinical and administrative careers progressed."

Asked what she had learned about mentoring and leadership, Dr Hale stated that trust must be earned, and that one should never accept responsibility without authority. Provide context for your vision, set a climate for questioning and innovation, and encourage team members to both question and arrive at creative solutions. Ensure transparent communication and show concern for and interest in your colleagues and subordinates. Be as genuine and generous with praise as you are with constructive feedback. Admit mistakes, gain strength and learn from them. Try to bring the concepts of caring and authenticity into leadership, mentoring and teaching frameworks. Define the expectations and "rules" upfront. Make sure subordinates and/or learners understand what is expected. Stick to the rules and be consistent with your

application/enforcement. Continually seek feedback, request comment on one's strengths as well as areas for improvement, and for each critique, provide a constructive suggestion. The synergy of a group can come up with the best creativity on problems that arise.

Dr Hale said: "Healthcare organizations and medical schools are increasingly complex and undergoing major shifts requiring transformation to meet the needs of patients and students. In this high-stake environment current leaders must think innovatively to grow, expand and solve problems amid other reforms. Creativity and innovation are critical elements to this transformation." To meet the needs of the future, Dr Hale stated, we need to move past traditional notions of leadership, which are grounded in command and control and linear assumptions. Autocratic leadership stifles innovation. To advance the work of an innovative organization, create a context in which critical thinking is valued; a culture of optimism and positive thinking; environments in which improvements are rewarded, individuals feel safe in recommending or initiating innovative ways of working and producing outcomes, and where agility, flexibility, risk taking are valued and the ability to adapt quickly to rapidly developing trends, treatments, regulations and changing market conditions is encouraged.

"Innovative leaders," Dr Hale continued, "create environments that embrace innovation and a workplace that values and supports quality, creativity, new thinking, a willingness to challenge long standing rituals and assumptions and the means to transition between current to a future focused state."

Dr Hale cited the University of Massachusetts Medical School as an example of innovation in an academic environment. "The academic environment can be a barrier to innovation. At UMMS our health professions students seek independent learning along with synthesis and application of knowledge in the real world. Interprofessional team-based care to improve patient outcomes is the goal. Learners engage best with case-based, problem based, and debates about a topic. When needed, short recorded lectures are supported by small group application. Our learners request more interprofessional and debate opportunities. Most learners engage well with simulation and standardized patients. The shortage of physicians, especially primary care, has created increases in class sizes, which in turn creates more challenges with the increased demand for faculty for small group work. Our first- and second-year faculty and small group courses emphasize Patient-Centered Collaborative care and communication skills and for application, they have a Standardized Patient (SP) for the students to interview. The interviewer receives feedback from the SP, their peers and faculty facilitating the small group." Selected topics can include medical interviewing, conveying empathy, communicating bad news and conducting sensitive conversations, motivational interviewing to promote healthy behaviors, and mindfulness to ensure presence with patients as well as for "wellness and balance" for them as students and clinicians. In fact, Dr Hale noted, mindfulness is now integrated into every year of the curriculum.

Dr Hale shared that at UMMS, "there is a heavy focus on the caring aspects of patient care, body language to convey empathy and compassion (historically a domain of nursing) which as a nurse teaching medical students is very exciting. We also work to develop leaders who will intentionally guide, assess, integrate and synthesize technology into the human work of patient care. To increase their understanding of the impact of the social determinants of health, in the second year, they participate a 2-week interprofessional clerkship immersed in a medically underserved or vulnerable community or population. In the third year, they continue to integrate the skills gained in the first two years in 1-day special topics including meeting in Faculty facilitated interprofessional small groups to interview special populations of patients (Domestic Violence, Patients who are physically or mentally challenged, Veterans and the incarcerated) along with topics and simulations related to Patient Safety and Quality, Health Policy and Emergency and Disaster Preparedness, for example." UMMS is currently in the throes of Strategic Planning for 2020-2025 encouraging innovation and creativity in envisioning the university and medical school of the future.

WORKSHOP (17 April 2019): Addressing maternal health in conflict/ vulnerable settings in the MENA region

Workshop Chair, Dr Faysal El-Kak, Vice President of the International Federation of Gynecology and Obstetrics (FIGO), Senior Lecturer at the Faculty of Health Sciences, American University of Beirut (AUB), Lebanon, Clinical Associate of Obstetrics and Gynecology, AUB Medical Center, Advocate for Women's Health, Lebanon

Haifa Fahoum Al Kaylani, Founder & Chairman, Arab International Women's Forum, United Kingdom

Manar Zaitar, Lead Consultant and Project Manager for Women Refugees in the Arab Region, ESCWA Centre for Women, Lebanon

Nadwa Rafeh, Senior Health Specialist in the Health, Nutrition, and Population Global Practice, Team Leader for Lebanon Health Resilience Project and the Emergency Primary Healthcare Restoration project, The World Bank, Lebanon

Dr Randa S Hamadeh, Head, Social Health Services & PHC Department; Manager, Immunization and Essential Drugs Program; Universal Health Coverage Project Coordinator (MoPH/WB), Lebanese Ministry of Public Health, Lebanon

Dr Sawsan Abdul Rahim, Lebanon Associate Professor, Health Promotion and Community Health (HPCH), American University of Beirut

Daad Ali Akoum, President of the Lebanese Order of Midwives, Lebanon Sirine Daouk, Treasurer, Order of Midwives, Lebanon

Dr Janet Hale, Professor of Nursing, Associate Dean of Interprofessional and Community Partnerships, Graduate School of Nursing University of Massachusetts Medical School, United States

Dr Saad Itani, Professor of Clinical Obstetrics and Gynaecology, Beirut Arab University; President, Lebanese Society of Obstetrics & Gynaecology, Lebanon

Tamar Kabakian, Associate Professor, Health Promotion and Community Health (HPCH), American University of Beirut, Lebanon

Asaad Kadhum, Senior Public Health Officer – Health Unit, United Nations High Commissioner for Refugees, Lebanon

Dr Fadi Mirza, Lebanon Associate Professor of Obstetrics and Gynecology; Director, Obstetrics and Gynecology Residency Program, American University of Beirut

Martine Najem Kteily, Lebanon Instructor of Public Health Practice at the Center for Public Health Practice (CPHP) and the Department of Health Promotion and Community Health at the Faculty of Health Sciences, American University of Beirut

Dr Carla Zmeter, Primary Health Care Assistant Program Manager, ICRC, Lebanon

Micheline Sarkis, Coordination Advisor, Medecins Sans Frontieres, Lebanon

The half-day workshop on the second day of the *Women Leaders & Health* conference programme brought into focus the unprecedented challenges of refugee maternal mortality, especially in receiving countries such as Lebanon and Jordan, and will engage key stakeholders in the international development and humanitarian aid communities as well as the public and private sectors and civil society to find actionable solutions to this critical humanitarian issue impacting refugee women and children.

Dr Faysal El-Kak, Vice President of the International Federation of Gynecology and Obstetrics (FIGO), Senior Lecturer at the Faculty of Health Sciences, American University of Beirut (AUB), Lebanon, Clinical Associate of Obstetrics and Gynecology, AUB Medical Center, Advocate for Women's Health, Lebanon, chaired the workshop and elaborated on the key themes being discussed in the panels.

Maternal health, he said, is under crisis and remains a critical challenge to women's health overall. Through the course of the day and through the AIWF workshop, panellists would be discussing the following key interventions: how to ensure the engagement of women in the refugee community in awareness and activities that improve access and utilization of health services; how to ensure financial protection of women refugees to secure their proper and adequate access of health care (securing wide stakeholders negotiation to secure more funds and prioritize service support); how to ensure implementation of emergency response plans to build skills of healthcare providers around medical emergencies as well as cultural sensitivities in relation to women refugees clients and patients; how to ensure universal health coverage not to leave any pregnant or child behind which help reduce maternal and neonatal morbidity and mortality; working with health policy makers, donors, and providers to ensure integrated health care to cover health of women across lifespan; how to ensure an available essential drug list for life caring situations; and how best to work with international and local agencies on developing standards of practice and service packages with outreach component to ensure adequate health care and preventive coverage.

Haifa Fahoum Al Kaylani, Founder & Chairman, Arab International Women's Forum, United Kingdom, welcomed participants and panellists and elaborated on the three key themes of the day on refugee maternal health in conflict and in vulnerable situations, and reiterated how much she and all stakeholders were looking forward to hearing the diverse reflections, following the previous day's excellent deliberations at the *Women Leaders & Health* conference, on challenges to women's health and family planning under conflict; vulnerability, maternal mortality and the making of maternal ill health; and strategies to maintain services and support when faced with donor fatigue. Through the workshop, AIWF aimed to collectively arrive at viable new models and an actionable set of recommendations for refugee maternal health support.

Mrs Al Kaylani said: "As we all know, unrest in the region and the resulting refugee and internal displacement crises have created unprecedented strain on public resources in many Arab States, as well as on the infrastructure and resources of receiving countries such as Lebanon. Over 5 million people have fled Syria since 2011, seeking safety in Lebanon, Turkey, Jordan and beyond. Today, more than one million Syrian refugees are in Lebanon, giving it the highest per capita proportion of refugees in the world, and placing enormous pressure on the country and its people."

She continued: "The World Health Organisation finds that awareness is one of the pertinent issues faced by organizations on the ground in Lebanon when it comes to refugee maternal and women's health and organisations such as the WHO and UNHCR are working hard to improve knowledge and awareness of these issues. Mobile clinics are now reaching women in more remote areas, marking a shift from emergency, short-term solutions to more long-term, integrative solutions and to reach women in more remote areas. Affordable healthcare for refugee women remains a key priority for NGOs on the ground."

The workshop, she said, aimed to help host countries like Lebanon and the NGOs operating within them to navigate the shift from emergency short-term solutions to more long-term solutions and sustainability, through collaborative action between civil society, government-led organisations and the private sector. The workshop had brought together leaders in public service, international development and global advocacy to discuss the impact that the refugee crisis in the MENA has had on women in vulnerable and conflict situations in the region, and would provide key insights into how these challenges can be overcome or mitigated through multi-level engagement, concerted action and dialogue.

The workshop would also elaborate on the importance of addressing refugee issues because they are intrinsic to solving broader and equally critical sustainability challenges in the Middle East. She said: "Taking forward our discussions from yesterday's conference, we will highlight the importance of empowering and supporting women refugees in regards to their health, their wellbeing, economic participation and opportunities to improve their situations whilst playing active roles in protecting their communities post-conflict when women and children are at their most vulnerable."

Manar Zaitar, Lead Consultant and Project Manager for Women Refugees in the Arab Region, ESCWA Centre for Women, Lebanon, stated at the outset that while ESCWA does not have a particular work track on the topic of 'health' as such, she would be highlighting the challenges faced by women during conflict, especially the intersection with gender based violence in times of conflict. She said: "For us, the right of health is the human right of everyone to the enjoyment of others' rights and of the highest standards of physical and mental health. It is simply an inclusive right including sexual and reproductive health. The right to health contains both freedoms and entitlements. This right is addressing by many violations in time of conflict. Availability and accessibility of quality health facilities and services are critical during conflict. Conflicts pose challenges to the realization of the right to health, due to the destruction or diversion of resources. Conflicts often reduce the availability of resources, which may restrict the enjoyment of the right to health, especially for people affected by and/or involved in conflict, and we know that conflict may aggravate women's vulnerability to ill health, discrimination and gender-based violence."

Ms Zaitar cited the higher incidence of women who experience poor health outcomes in conflict owing to their physical and reproductive needs during pregnancy and childbirth. She said: "Most maternal deaths in conflict occur due to lack of availability of quality reproductive and maternal care, such as family planning, emergency limited services. Women during conflict are facing a big number of health problems: poor ability to buy medicines, weak information on available services, lack of equal access of medical services, and the expensive cost of childbirth."

"On the other side," she said, "the stories of women refugees reflect obvious manifestations of women during conflict. Endless stories that are full of tragedy and injustice. It is true that these stories differ in detail, but they are one in their complex manifestations and dimensions. Limited choices, mass displacement, and the breakdown of institutional, community and family networks, may create a vacuum in which women and young girls are vulnerable to sexual violence. They face a huge risk of sexual exploitation and trafficking, as well as increased domestic violence and abuse from family members." There is, therefore, a strong and direct link between health problems and gender-based violence. For ESCWA, the violations of health rights for women affect the enjoyment of others' rights, and health rights violations are in themselves a kind of gender-based violence.

The questions we needed to be asking, Ms Zaitar said, were: 1) why health facilities and referral mechanisms are unable to identify and respond to these forms of conflict-related sexual violence; 2) how health services can address the stigma associated with sexual violence;

and 3) how we can promote the presence of adequate protection mechanisms, which may contribute to positive physical and mental health outcomes.

The World Health Organization has a definition for gender-based violence and considers that a very high number of women's health problems are a result of gender-based violence. However, despite this clarity and their annual reports on the impact of gender-based violence, we still have this gap. A major weakness is the lack of understanding of the social and cultural realities for women refugees; the slow response to developing a national response plan for gender-based violence, bringing all relevant sectors and stakeholders to the table (healthcare, education, media, etc). Further, the preventative health system is weak and mental health interventional programs, often linked with the public health systems, require vast improvement.

Finally, women refugees are often too intimidated to mention their health problems and not aware of the link between gender-based violence and health issues. Culturally they simply feel that they cannot talk about sexual violence or childbirth. For these reasons, Ms Zaitar stated, "we have to discuss the right mechanisms to engage women directly, and to design our interventions according to the real context."

The question, said Ms Zaitar, what not 'what we should do?' but rather, 'how can we do it?' Advancing health rights for female refugees, in her view, has four main elements: availability, real access, without discrimination, and good quality. It is essential to start mainstreaming women refugees' issues within national health strategies, and to move to strategic planning instead of individual and temporary solutions. Localizing interventions and building capacity of health services on gender-based violence is also key. Reforming key laws on discrimination, health and maternity as well as mainstreaming gender equality in the implementation of the SDGs 2030 are also critical, as is innovating new tools to raise awareness through the whole refugee community and not just women. Building trust between the health sector, gender-based violence specialists and the refugee community, as well as developing quality indicators to measure to progress of the health sector's work with women refugees, would strengthen synergies between all relevant stakeholders working with women refugees.

In her opening statement, **Nadwa Rafeh**, Senior Health Specialist in the Health, Nutrition, and Population Global Practice, Team Leader for Lebanon Health Resilience Project and the Emergency Primary Healthcare Restoration project, The World Bank, Lebanon, thanked AIWF, UMASS and AUB for organising this important conference which she stated was "not only critical but timely considering the great needs of women in the MENA region, especially during this delicate time of fragility and conflict." Ms Rafeh said: "Empowering women and ensuring gender equality in access to services, including health, is at the core of the World Bank agenda through mobilizing technical and financial resources that will assist with the implementation of women-empowerment business models."

Ms Rafeh outlined the World Bank's holistic approach to women empowerment, and gender equality in access to services including health which was necessary, she said, to "break the cycle of persistent challenges facing women." World Bank projects have to identify and address the gender dimension, she explained, whether in health, education, agriculture, transportation projects. "No project," she explained, "is left without clear indicators to monitor progress towards women equality." These include skills building and capacity building focused on women, and the creation of jobs programs to help young people into work with 50% targeting women. Health, she noted, is a major employment sector for women. Ms Rafeh also elaborated on the Mashreq Gender Facility (Lebanon, Jordan, and Iraq) which was announced in Beirut in January 2019, which mobilizes financing from different donors and technical support to governments to enhance women exponent programs and help find economic opportunities.

During the panel discussions, Ms Rafeh elaborated on key interventions that work in order to maintain services at times of donor fatigue. Women need different services and this, she explained, is why when we talk about refugees we need to distinguish the needs of refugee women from men. Ms Rafeh highlighted the importance of service delivery and the need for enhanced segmentation and targeting. She said: "Defining target women groups; i.e.; youth, girl's early marriage, elderly women, women of reproductive age, can help to define the services that will be provided based on their needs (including reproductive health, and gender-based violence)." She elaborated on the unprecedented scope and longevity of the conflict and resulting refugee crisis, stating that the number of refugees continues to increase and the conflict is ongoing, so there is a distinct need to go beyond humanitarian assistance towards development assistance. She discussed the need to work with local governments to build the resilience of the health sector. She said: "Sometimes the best time to introduce reforms is during conflict as there are already systemic changes and improvements in efficiency. Interventions must be in line with the government health strategy, and there is a need for a more coordinated and stream lined approach between governments and donors. Partnering with UN agencies for implementation, for example, by working with UNICEF and WHO in Yemen or UNOPS in Iraq, can expedite the procurement process and help to avoid delays with procurement."

In terms of financing, Ms Rafeh called for improved donor coordination and pooling of resources to avoid duplication and improve efficiency of spending, for example in concessional financing, which the World Bank has helped to manage. Ms Rafeh also called for more direct engagement with the private sector, noting that the scope of the problem can often go beyond the capacity of the government to deliver services, thus developing partnerships with the private sector and civil society (in Lebanon, the Ministry of Health and NGOs for example) becomes especially important to avoid overlap, conflict or competition between donors and stakeholders.

Daad Ali Akoum, President of the Lebanese Order of Midwives, Lebanon & Sarine Daouk, Treasurer, Order of Midwives, Lebanon, briefed the workshop participants on the work of the Lebanese Order of Midwives (LOM), the professional national body that represents the profession of midwifery and the midwives in Lebanon. Its function is to regulate and manage issues related to the profession at the administrative, legal, ethical, scientific and clinical level. LOM supports the midwives in ensuring optimal sexual and reproductive healthcare and in responding to the needs of the mother and newborn as well as the menopausal women in a family-centred and community-oriented approach. LOM is committed to promote the profession at the level of education, practice, leadership and research and to advocate for the midwives, women, infants and families. LOM shares governance and participates in policy making at the level of the national healthcare system. It envisions achieving midwifery excellence through the provision of high quality reproductive and sexual health services that are available, accessible and acceptable.

Mrs Ali Akoum elaborated on delivery of women-centred care: "The LOM is committed to ensure individualised care for women throughout their life span and for their newborns. Its role is focused on health promotion and restoration and disease prevention, anticipating high risk pregnancies and labour complications. The midwife helps women have normal pregnancy and childbirth; she encourages breastfeeding and empowers women to make informed decisions. She also provides family planning counselling and supports menopausal women's needs." Reaching excellency in midwifery care, she said, "is driven by a high quality of education, practice and research. The role of the midwife is to provide safe practice that is evidence-based and culturally sensitive, in respect to professionalism. The midwife values the use of quality indicator, innovation and development of knowledge, skills and clinical judgment in an attempt to uphold the profession, enhance the autonomous role, broaden the scope of practice and optimise the healthcare services outcomes."

She said: "Honesty, accountability, commitment and respect of ethical principles are key elements of the profession. The midwife is responsible for her self-development, decisions, behaviours and risk management. She is committed to deliver care with sympathy and attentiveness to the individuals' specific needs considering their dignity respecting their diversities and protecting their rights. LOM values the interdisciplinary healthcare work environment and acknowledges the contribution of the different professionals in ensuring high quality and satisfying midwifery care. The midwife builds a therapeutic relationship with women and their families that is characterised by attentive listening and interaction, appropriate counselling and shared decision making based on education and empowerment. She also assists peers in building their capacities, thus, positively impacting the midwifery workforce." Central to the work of the LOM is its belief in shared governance and the contribution to policy making within the healthcare system, which is key to the development and implementation of healthcare strategies that aim at improving reproductive and sexual healthcare and ensuring the wellbeing of the family and community.

Mrs Al Akoum also elaborated on LOM's important advocacy role on behalf of the woman, the foetus, infant and family, and the role of midwives in protecting them from hyper-medicalization and overuse of technology. LOM has been working with many international agencies achieving health promotional projects on breastfeeding and mental health focusing on after delivery (post- partum phase), awareness campaign and screening projects on cervical and breast cancer (in partnership with UNICEF) and implementing capacity building training on Family Planning (in partnership with UNFPA), integrating GBV screening in midwifery practice (in partnership with ABAAD). Mrs Ali Akoum said: "The major aim of these projects was to stimulate and sensitize women through midwives toward implementing best practice, allowing them to be self-engaged in their health improvement which may directly affect the government health strategies in lowering disease occurrence via a preventive approach. Besides empowering women's health behavior and decreasing child's health risk, the program helped in giving midwives a continuous medical education and update on latest recommended practice."

Qualitative evidence synthesized from a wide variety of settings and contexts indicates that women welcome the opportunity to build supportive, caring relationships with a midwife during the maternity phase (high confidence in the evidence) and appreciate a consistent, unhurried, woman-centred approach during ANC visits with high confidence in the evidence (WHO 2016).

In its capacity as a non-profit organization, LOM is working on midwives' capacity building in partnership with INGO, still an advocacy with all partners is in demand knowing that this profession is linked to multidisciplinary professions such as OBGYN, social worker and others. The outcome of the initiation and establishment of a tracking system to midwives' birth certificates in 2018 revealed that more than 1000 deliveries are done by midwives each year, of them 80 % are Syrian displaced women. The number is unreported to MOPH for further analysis. We seek MOPH support to fully accept the integration of midwives in its health system, as regulations regarding home and clinic birth deliveries have been set by LOM to maintain a proper system.

It is critical for health NGOs and institutions to be seen as main partners besides OBGYN in order to provide care to pregnant women and this is one of LOM's target areas. Midwives must be given a major role to play as complementary to the OBGYN and pediatricians' roles. Further, it is recommended by LOM that integrating Lebanese midwives with other Arab midwifery networks and associations will result in shared expertise, data, and improved practice overall.

Tamar Kabakian, Associate Professor, Health Promotion and Community Health (HPCH), American University of Beirut, Lebanon, shared that the humanitarian crisis has not only created extreme challenges to the country's infrastructure and health system, but also further

highlighted the needs and service gaps in host communities. These challenges have been more or less well documented in different settings including Lebanon while facing the Syrian crisis.

There are also other dimensions that are not always well documented in conflict situations. These are embedded in expectations of behaviour from the displaced population that guide primarily the development of service packages during humanitarian crisis. One such important example is the interpretations attached to displaced /refugee populations reproductive behavior and the assumptions that guide family planning programs addressing these populations.

Refugee health needs are complex and although service packages such as the MISIP address these needs including provision of contraception, their use has been observed to be minimal and largely dependent on the suitability of those services to the cultural norms, contextual factors and the supply of contraceptives which is often found to be unreliable. Ms Kabakian said: "There is a complex process that influences women's reproductive behaviour under conditions of displacement. There is a continuous interplay of contextual factors that on one hand encourage the maintenance of high fertility and the continuation of norms defining reproductive behaviour that are dominant prior to conflict and on the other hand there are factors that are conducive to lowering fertility in the sample population subjected to displacement."

Ms Kabakian continued: "We learned through our research at FHS that Syrian refugee women in Lebanon are challenged by the contradictions between their social norms and their adverse current situation when making decisions about their fertility. The maintenance of high fertility levels is encouraged by women's preference for a large family, for male children, their wish to replace children lost to war and their fear from the practice of polygamy exacerbated by their living conditions in Lebanon. On the other hand, adverse changes in their lives brought about the war and displacement, the challenges faced in the legal system for registering marriages and births as well as the difficulties in children's schooling are discouraging women from achieving their desired large family size."

Ms Kabakian explained that the continuous tension created by these factors will eventually determine the use of refugee health service packages offered to these women. Offered services, although available and accessible, are not necessarily affordable and acceptable. There are some unidentified hidden costs associated with the use of refugee health service packages, such as the cost of a physician's visit for the insertion of an IUD despite the fact that the IUD is offered for free. There are also issues related to discrimination experienced in health care systems. The large demand on providers and health care centers with limited capacity has undesirable implications on the quality of care provided.

Ms Kabakian concluded: "There is therefore a misfit between provided refugee health services through emergency health care provision programs and displaced women's needs. A thorough understanding of perceived contextual factors and cultural norms and the influence of displacement on these norms is necessary in guiding the planning and the implementation of these services. These considerations should be made also in planning of monitoring and evaluation of refugee health programs."

Asaad Kadhum, Senior Public Health Officer Health Unit, United Nations High Commissioner for Refugees, Lebanon, shared a definition for maternal mortality as "the death of a woman while pregnant or within 42 days of the end of pregnancy, irrespective of the duration and the site of the pregnancy, from any cause related to or aggravated by the pregnancy or its management, but not from accidental or incidental causes". Under its secondary health care programme, Mr Kadhum explained, UNHCR covers life-saving, emergency and obstetric care for refugees at a network of contracted hospitals (currently 40) covering all major Lebanese areas. He estimated that 100,000 hospital admissions are needed each year, for an annual

budget of more than USD 55.5 million. Based on 2018 expenditures on referral care for refugees, more than half of the admissions were for deliveries. At an average cost of USD 280 per delivery, UNHCR paid close to USD 13,412,000 to support some 47,900 deliveries. Deliveries are supported across the country, at 35 of the 40 UNHCR-contracted hospitals.

Other interventions that require a large budget are perinatal cases, including congenital malformations and premature babies, among others. In 2018, UNHCR supported some 5,240 such cases at an average cost of USD 1,800 per admission, i.e. an annual budget of some USD 9,432,000. Care for such cases is provided in a specialized ward called Neo-natal Intensive Care Unit (NICU) which is available in 28 UNHCR network hospitals distributed across all Lebanese governorates.

Conflict can negatively impact all aspects of refugee health, directly through damage to services, gender-based violence (GBV), and forced displacement of populations, and indirectly through reductions in the availability of basic health care and breakdown of normal social institutions. Within the framework of WHO's definition of health as a state of complete physical, mental and social well-being, and not merely the absence of disease or infirmity, reproductive health addresses the reproductive processes, functions and system at all stages of life.

UNHCR uses the MISP as guidance when designing its health program in Lebanon, Minimum Initial Service Package (MISP) for Reproductive Health in Crisis Situations: Good quality MISP services must be based on the needs of the population and abide by human rights and humanitarian standards with respect for the religious, ethnic and cultural backgrounds of the affected communities. When implemented in a crisis, the MISP saves lives and prevents illness, especially among women and girls.

Neglecting refugee health in emergencies has serious consequences: preventable maternal and infant deaths; sexual violence; unwanted pregnancies and unsafe abortions; and the spread of HIV and other STIs. It is a coordinated set of priority activities designed to: prevent and manage the consequences of sexual violence; prevent excess maternal and newborn morbidity and mortality; reduce HIV transmission; and plan for comprehensive refugee health services beginning in the early days and weeks of an emergency.

The world is undergoing a rapid global urbanization process, and it is predicted that an estimated 60 percent of the global population will be living in urban areas by 2030. Statistics (UNHCR) have shown that, currently, more than half of the world's refugee populations are living in cities and towns, and this is likely to continue to increase over the next years for refugees and IDPs alike. In urban settings, health systems are often already stretched and an influx of displaced persons compounds the situation. Further, providing health care to refugees and IDPs is often difficult in urban settings. Transport to health facilities is often a challenge, and displaced people may have cultural, social and economic barriers for accessing health care and other services.

Conflict may increase the risk of rape and other forms of sexual violence. The use of rape as a strategy of war has been documented in several conflicts as an effective means of controlling, degrading and humiliating a community. It is critical to prevent sexual violence because it is a human rights violation.

According to the VASyR (Vulnerability assessment for Syrian Refugees) 69% of Syrian refugee families are living below the poverty line. Data analysis shows that, female-headed households remain more vulnerable than male-headed households, Unemployment is a particular challenge for women overall, and female-headed households continued to resort to more negative coping strategies than male-headed household (such as restricted food consumption by female members, borrowed food, reduced number of meals per day and withdrawing children from schools, school-aged children involved in income generation).

According to HAUS (Health Access and Utilization Survey) 2018, 72% (123) of the women who had delivered had received antenatal care (ANC) services. Out of which, 72% went for 4 visits or more. The most common reasons for not accessing ANC services were clinic fees (38%) and thinking that ANC was not necessary (26%). 19% reported to not know where to go for ANC. 30% of women had received ANC at more than one facility, an important factor for Continuity of Care. Only 26% (42) of the 163 women who had delivered and answered the question, had sought post-natal care (PNC) services, and reasons given for not seeking PNC were thinking that the services were not necessary (56%), and inability to afford the clinic fees (35%). Reasons for not using family planning include, planning for pregnancy (35%), not affording the cost (10%), worries about side-effects (7%), and that contraceptives are culturally unacceptable (5%). Uptake of post-natal care services continue to be low, although no significant change since 2017. As before, the most reported reason for not going for PNC is that it is believed not to be necessary.

Martine Najem Kteily, Lebanon Instructor of Public Health Practice at the Center for Public Health Practice (CPHP) and the Department of Health Promotion and Community Health at the Faculty of Health Sciences, American University of Beirut, shared her view on challenges to women's health and family planning under conflict. Globally, contraceptive prevalence rates are generally lower among the poorest 20% of the population and highest among the richest 20%. On 'Access, Affordability, Availability and Quality', she said, agencies spend time, energy and funds on the three As but much less on quality. They have a hard time ensuring availability, access and affordability and it is much more difficult to think of quality and intervene to improve it under contexts of emergencies. Further, quality of family planning care is comprised of six elements from the perspective of the family planning client: 1) choice of methods; 2) information given to clients; 3) technical competence; 4) interpersonal relations; 5) follow up and continuity mechanisms; and 6) constellation of services.

Ms Kteily discussed the rights of patients versus providers' needs, explaining the need for training, backup, feedback, supplies, respect, self-expression, guidance, and engagement, as limitations on quality of care can have significant implications for maternal health. Speaking on the 'Dying by Displacement' panel, Ms Kteily explained that 40 million women alive today in the region were married as children. Every day more than 500 women and girls in countries of emergency settings die during pregnancy and childbirth. In her experience, interventions that work include monitoring services at times of donor fatigue. Home visitation, she explained, is an important component for the awareness and health-seeking behaviour of women before, during and after pregnancy. In addition, mosques / churches and public spaces in the municipalities can serve as a family planning training center where physicians do awareness raising sessions. Mobile clinics can also be a solution, as are Social Development Centers with shifts and opening hours allowing for both refugee and host community populations to be served.

Dr Carla Zmeter, Primary Health Care Assistant Program Manager, ICRC, Lebanon cited a 2017 study conducted by the ICRC in collaboration with the FXB Center of Harvard University, to evaluate the ICRC Primary Health Care program in Lebanon. The study is now published in the Journal of Conflict and Health under the name 'Utilization of primary health care services among Syrian refugee and Lebanese women targeted by the ICRC program in Lebanon: a cross-sectional study'. Dr Zmeter explained: "The three main objectives of this study were: to evaluate whether the ICRC program is reaching the most vulnerable populations in the catchment areas of the clinics targeted, to determine the key perceived health needs among women of reproductive age and caretakers of children below 18 years of age and to identify barriers to utilization of health care services among this population.

The main results found in this study were that the Lebanese host population in the areas targeted by the program are as vulnerable as the Syrian refugee population, and the key

health needs were mainly related to non-communicable diseases especially musculoskeletal complaints. Around a third of women did not seek any medical consultation in their last pregnancy (no antenatal consultation done), there was low uptake of family planning services, and barriers were mainly lack of awareness and cost of services.

One of the biggest challenges faced by the communities in the areas most affected by the crisis was the lack of integration between the different services available. Dr Zmeter said: "We often tend to work in silos in the different programs." The importance of this study was that it resulted in a change in the ICRC approach towards provision of PHC services mainly by a better integration of the different programs (NCDs, SRH, MHPSS) and to change from a facility based support to patient-centered approach.

Micheline Sarkis, Coordination Advisor, Medecins Sans Frontieres, Lebanon, shared MSF's experience in the humanitarian world which is unique as MSF is a very patient-centered organization which provides sexual reproductive health services as part of its package in clinics initiated and run independently by MSF. Ms Sarkis shared that MSF's experience in Family Planning was documented through two studies conducted on 'The effects of long-term displacement on mental health, gender roles and violence among Syrian refugees in Shatila, Lebanon' and on male involvement through family planning.

Ms Sarkis explained that Syrian refugees describe a lack of social support, discrimination and harassment within the host community, as well as limited social support networks within their own Syrian refugee community. Family dynamics were affected by the increased responsibilities on men, women and children; with additional demands on men, women assuming the roles of 'mother and father', and children having to work and contribute to the household. Participants discussed several types of violence, including parental violence against children and violence at the community level. Violence against women was also reported, but not as much as expected. Mental health issues included depression, anxiety, sadness, frustration, hopelessness, self-neglect and a loss of sense of self and self-worth. Some participants reported wishing they could die.

Two major drivers causing early marriage were insecurity and poor financial situation, with parents believing that marriage protects their daughters. The majority of Syrian women believed that the appropriate number of children for couples living in Lebanon should be less than the usual number they had in Syria and they also believed that it was their right, regardless of their current situation, to have children and they were annoyed by the pressure they are subjected to by society or the healthcare system. Additionally, women have to ask and have their husband's consent to use contraceptives, plus the husband is the one who choose the method with choices often heavily influenced by lack of information/misinformation. Although male-decision making was most common for supportive, protective and superiority reasons, couple-decision making was described as most desirable by men and women.

Ms Sarkis shared the following recommendations: that empowerment should be focused on couples rather than on women only for Family Planning uptake and choices, that services should become more male-inclusive, and emphasis needed to be put on changing the lack of information/misinformation. Importantly, regarding mental health, programs needed to consider the effects of long-term displacement when providing family support, psychosocial and awareness services and activities, with systemic screening for parental and spousal violence within mental health programs all highly recommended.

6. Recommendations From 'Women Leaders & Health'

These are the recommendations to emerge from the valued contributions of all distinguished Guest Speakers who participated at the *Women Leaders & Health* conference in Lebanon in April 2019 at the American University of Beirut.

Recommendation 1 | The importance of role modelling and inspiring the interest of girls in medicine and STEM subjects at an early age is key to getting more young and high achieving Arab women into medical education. This will require a societal shift to channel female school leavers into world-class medical programmes, preparing them fully for the rigour of medical studies, and raising awareness of the importance of their role in cultivating a gender diverse medical workforce in the region. Continuous professional training, entrepreneurship, social enterprise and ongoing leadership development may provide the key to building capacity for women in medicine and other STEM sectors.

Recommendation 2 | Women educators, entrepreneurs and practitioners must have a levelled playing field to improve overall engagement and progression of women in medicine and healthcare delivery, but also so that they are empowered to make a game-changing impact on specific healthcare challenges that directly and disproportionately affect women and children. Investing in young women so that they are nurtured and mentored to participate in medical innovation and healthcare delivery careers requires mentorship and institutional support from the earliest stages of career and study selection through to continued professional development. Support for lifelong learning is essential to empower women to remain competitive in their skills and training at every stage of their professional journeys.

Recommendation 3 | To strategise empowerment for women in medical education, more inter-disciplinary initiatives and conferences are required, as well as panels, working groups, task forces, and action. Together we must try to understand the problems facing women in the school-to-work transition in the medical field and then work on implementing cultural change, institution by institution.

Recommendation 4 | It must be recognised that women's career development paths differ from men's, career trajectories do not occur in a straight line, and many women are deterred by other priorities (such as family responsibilities). More importance should be given to work/life balance and mindfulness, starting at medical school.

Recommendation 5 | Emulating the UK Athena SWAN Awards programme in MENA universities would enable departments and universities to develop an action plan aimed at improving recruitment, retention and promotion of female academic and research staff.

Recommendation 6 | The transition from undergraduate to graduate medical education is a bottle-neck in the path of a career in medicine, fraught with challenges. Medical schools must address the significant performance gap that students experience when moving to actual practice, including struggling with increased responsibilities, such as time management, reporting risks to patient safety, coping in emergency situations, resilience, professionalism and complex communication tasks. While there are numerous mentorship programs in place in medical education, mentoring of groups underrepresented in academic medicine (e.g., women) remains short of meeting the demands of the workforce and it is recommended that mentorship programmes be designed to specifically support women's leadership in medicine and in academic medicine.

Recommendation 7 | The technique of ‘amplification’ can help promote women’s leadership in the medical and academic workplaces (restating important points made by other women and giving them appropriate credit). Adopting this technique in our working lives will naturally guide organizational leaders towards considering more women for key positions as the technique not only challenges gender bias and can also undermine the bias entirely.

Recommendation 8 | Research data in Arabic in many sectors is lacking in the MENA region, and figures that can inform research on women’s participation and challenges in medical education and healthcare delivery do not sufficiently exist. Collecting and tracking data and statistics is vital as the current situation for women in medicine and STEM must be measured as a baseline in order to chart progress and outcomes of various initiatives. More data needs to be collected about existing women in the healthcare sector workforce. Promoting and valuing research based on the data. Linking academia more deeply with industry will help research data remain contemporary with the needs of the time.

Recommendation 9 | An Arab Healthcare Women’s Association chapter, similar to the American Medical Women’s Association (<https://www.amwa-doc.org/>), should be set up as an online platform where women in the healthcare field can share resources, experiences, and support each other.

Recommendation 10 | Women need to be more represented in technology and innovation as well as these sectors are heavily linked with medical research, discovery and simulation. The need for women in technology-based medicine could open up new windows of opportunity for cross-disciplinary women’s leadership in both medical education and healthcare delivery.

Recommendation 11 | Although the pipeline for women in medicine has been ‘primed’ with equal numbers of women and men (in the US) entering medical school, the pipeline is ‘leaky’ – and the numbers of women advancing up the ranks of the professoriate and to leadership positions dwindle with each step up the ladder of advancement. Organizational strategies can help to stem the leaking pipeline of female talent by revising internal policies and criteria for promotion and tenure, ensuring working environments that value female leadership, whether faculty or practitioners, and recognizing the contributions of women through awards and honours.

Recommendation 12 | Bringing family and labour laws in line with gender goals would enable more women to enter employment and would make MENA economies more competitive and inclusive. Remarkable achievement has been made in women’s education, in ratifying international conventions promoting human rights, and in incorporating gender equality into national constitutions. But not enough has been done to bring legislation and social norms in line with these advances and identifying the right policy measures to empower women and advance reform should be a top priority for MENA policy makers.

Recommendation 13 | When recruiting employees, organizations must pay attention to the gender distribution of employees and try to balance the number of female and male recruits. Creating a women’s leadership program, a support group of peers, which provides a platform for formal and informal networks and discussions are all examples of empowering spaces for women, organization by organization, institution by institution.

Recommendation 14 | Healthcare organizations and medical schools are increasingly complex and undergoing major shifts requiring transformation to meet the needs of patients and students. In this high-stake environment current leaders must think innovatively to grow, expand and solve problems amid other reforms. Creativity and innovation are critical elements to this transformation. Autocratic leadership stifles innovation. To advance the work of an innovative organization, create a context in which critical thinking, optimism, participation, positive thinking, agility, flexibility, risk taking are all valued.

Recommendation 15 | Ensure the engagement of women in the refugee community in awareness and activities that improve access and utilization of health services; ensure financial protection of women refugees to secure their proper and adequate access of health care (securing wide stakeholders negotiation to secure more funds and prioritize service support); ensure implementation of emergency response plans to build skills of healthcare providers around medical emergencies as well as cultural sensitivities in relation to women refugees clients and patients; and ensure universal health coverage not to leave any pregnant or child behind which help reduce maternal and neonatal morbidity and mortality.

Recommendation 16 | Refugee support organisations should work more closely with health policy makers, donors, and providers to ensure integrated health care to cover health of women across lifespan, and to work with international and local agencies on developing standards of practice and service packages with outreach component to ensure adequate health care and preventive coverage.

Recommendation 17 | It is essential to start mainstreaming women refugees' issues within national health strategies, and to move to strategic planning instead of individual and temporary solutions. Localizing interventions and building capacity of health services on gender-based violence is also key. Building trust between the health sector, gender-based violence specialists and the refugee community, as well as developing quality indicators to measure to progress of the health sector's work with women refugees, would strengthen synergies between all relevant stakeholders working with women refugees.

Recommendation 18 | It is critical for health NGOs and institutions to be seen as main partners besides OBGYN whilst integrating midwives in Jordan and Lebanon with other Arab midwifery networks and associations, which will result in shared expertise, data, and improved practice overall.

Recommendation 19 | Projects should always address the gender dimension and have clear indicators to monitor progress for women. It is imperative that we move beyond humanitarian assistance to development assistance, which includes capacity building for refugees and creating economic opportunities including jobs programs to help young people and refugees into work.

Recommendation 20 | It is vital to engage in partnerships between governments, the private sector, and civil society to adopt a more coherent and streamlined approach between governments and donors. It must be recognised that the scope of the problem goes beyond the capacity of the government to deliver services, thus developing partnerships with the private sector and civil society becomes especially important to avoid overlap, conflict or competition between donors and stakeholders.

