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MESSAGE FROM THE EDITOR-IN-CHIEF

Climate Projections Indicate Catastrophic Consequences in the Middle East and North Africa Region

Why healthcare workers are conspicuously absent in climate change discourse

Samir Al-Adawi

"This century is a special one, where we as humans destroy ourselves."

Martin Rees

As the Gregorian calendar reaches the end of 2022, the Middle East and North Africa (MENA) or Eastern Mediterranean region has been lauded for hosting the 2022 United Nations Climate Change Conference (UNFCCC), widely dubbed as COP27 (Conference of the Parties of the UNFCCC). The meeting has been held at a critical junction for projected climate change: the MENA region has been documented to be the region most vulnerable to experiencing the vagaries of the climate crisis, which means long-term changes in temperatures and weather patterns.[1] Historically, variations in the solar cycle contribute to natural changes in temperature and weather. More recently, however, the Intergovernmental Panel on Climate Change (IPCC) of the United Nations has identified human activities as the "primary driver" for climate change.[2]

According to a recent article, the MENA region will continue to experience climatic changes 'two times faster than the global average' in climatic changes.[2] The region has already been dubbed as being part of the 'global climate change hot spots'.[2] Due to these factors, Vohra has suggested that the MENA region will be "uninhabitable" before the end of the century.[3] The situation is already more critical as the scorching sun in the summer dwells longer in the sky and the weather is becoming hotter and hotter. As a result of the lack of precipitation, rivers are dying, devastating wildfires are becoming common and the once-tranquil Arabian Sea is now more frequented by more devastating winds with rougher waves and clouds.[4,5] The MENA region has experienced increasing population growth, resulting in rapid urbanisation. Studies have suggested that the growth of these cities has the potential to trigger the 'urban heat island effect' defined as the "phenomenon where roads and buildings in urban areas absorb and re-emit heat, resulting in warmer temperatures than surrounding nonurban areas by upward of 10° C".[6,7]

For the MENA region, possessing the 'superpower' of fossil fuels, climate projections are a cause for concern. Although it is essential, if not paramount, for the MENA region to kickstart decarbonisation strategies, in some of the countries in the MENA region, fiscal policies strongly hinge on the exploitation of hydrocarbons. Despite such a caveat, there is evidence to suggest that concerted efforts are underway in some of the oil producing countries to find alternative sources of energy. However, these efforts appear to have stalled due to geopolitical instability, the tribulations of COVID-19 and the fact that the region itself is beset by many conflicts. But the issue of climate change should not only be gleaned from the 'ism and schism' of global politics; healthcare workers (HCWs) have a stake in the climate discourse.

Rising temperatures and meteorological conditions should alert HCWs to 'think globally, act locally'. Extensive empirical evidence suggests that the effect of climate change, directly and indirectly, affects the health and well-being of the world's population. Extreme shifts in temperature and weather patterns have the potential to precipitate injuries and illnesses as well as disrupt the functioning of healthcare facilities.[8] According to the Centers for Disease Control and Prevention of USA, adverse temperatures and weather conditions exacerbate the magnitude and pattern of ill-health and diseases.[9] Exposure to untimely floods, sandstorms, rising seas and wildfires has the potential to prompt poor coping, which, in turn, adversely impacts the integrity of the biopsychological system setting off cascades of pathological processes in the body and mind.[10] Depending on the organ of inferiority, the development of a spectrum of medical, psychological and neurological problems is likely to ensue. Hence, such a scenario would increase the utilisation of healthcare services as well as spike morbidity and mortality.[4] Some of the evidence for the link between climate change and the pattern of diseases is becoming increasingly obvious. First, human activities burning fossil fuels such as coal, oil and gas tend to increase ground-level ozone and pollute the air, which, in turn, spikes the incidence of respiratory

Editor-in-Chief, Sultan Qaboos University Medical Journal, Muscat, Oman
Author's e-mail: adawi@squ.edu.om

disorders.[4] Related to this, living in a polluted setting has been documented to be critically associated with diminution of efficiency of higher human faculty, namely cognition with all the consequences this may entail.[11] Second, climate changes increase pollen concentrations in the atmosphere, which exacerbates the conditions that are associated with pollen and allergens. Third, numerous vector-borne diseases and zoonotic phenomena are linked to climate change.[4] The re-emergence of non-communicable diseases such as cholera and other killer diseases have recently been documented in Lebanon and Pakistan and climate change appears to be a strong suspect in this. This unfortunate occurrence is due to the fact that the MENA region is still struggling with the 'double-edged sword' of communicable diseases amid non-communicable diseases. The prevalent poverty rate, food insecurity and inequality in the MENA region imply that the region will have little recourse to mitigate the seismic effect of changes in temperatures and weather patterns.

It is not clear whether the legal agreement reached at the COP27 at Sharm el-Sheikh, Egypt, or for that matter, the previous meeting in the MENA region (COP22 in 2016 held in Bab Ighli, Marrakech, Morocco) would recoup the tangible result to come to grips with the catastrophic consequences of projected and already prevailing climate change in the region. This implies that HCWs in the region cannot stand on the sidelines when the world is experiencing these menacing temperatures and weather patterns. On the one hand, a study has examined awareness of the health implications of climate change among the general population and HCWs. The data suggests that HCWs tend to have suboptimal awareness of the health implications of climate change.[12] According to Kotcher *et al*., "health professionals have an extraordinary opportunity to become trusted voices in support of global efforts to reduce emissions and protect people from the threat of climate change".[13] Such dormant power needs to be resuscitated and accompanied by the building of an evidence-based database of the health implications of climate change. According to the Working Group to Advance Action on Climate Change and Health, all spheres of HCWs should be able to "identify, prevent, and respond to the health impacts of climate change and environmental degradation".[14] Part of this initiative is to incorporate the health implications of climate change into curriculum and research.[13] Intuitively, some healthy human activities (e.g. walking, less gluttony) reduce the carbon footprint. This means all cadres of the caring profession should not be bystanders of simply 'treating the symptoms' but be critically involved in thwarting the growing threat of a climate apocalypse. To echo a Jamaican reggae singer, "How can you be sitting there, telling me that you care, that you care? When every time I look around, the people suffer in the suffering, in every way, in everywhere".

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