

role of the Audit Committee to ensure that an appropriate DOI and an Ethical Conduct policy are implemented by the Board, and to oversee the procedures for determining compliance therewith. The role of the Ethics Committee is to discuss and define the underlying general principles.

Ethical issues are much broader than a conflict of interest policy. Integrity of research is of major concern for the ESC. Accordingly, the Ethics Committee has started to address the issue of integrity of research. Two sessions proposed by the Ethics Committee will take place at the ESC Congress 2019 in Paris, jointly with the ESC Journals Ethics Committee, as well as with the Cardiologists and the Scientists of Tomorrow. In the first session, entitled 'Towards Integrity in Research. A continuing Challenge', a definition of integrity in research will be given, followed by a report on the experiences from the ESC Journals Ethics Committee, and the implications of detrimental research practices. The second session prepared by the Cardiologists and Scientists of Tomorrow will be based on interactive case presentations.

Conclusion

The Ethics Committee is a necessary addition to the governance structure of the ESC. Its specific tasks and its role will change over time

depending on challenges and opportunities to come. It is open to recommendations and requests from the constituent bodies of the ESC and its members.



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References

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Peace and Epidemiologic Transitions in Patterns of Health and Disease

In 1971, Omran proposed the theory of epidemiologic transition, which focuses on the complex changes in patterns of health and disease as a result of social, economic, and industrial development in a country or region. During this transition, age-related, degenerative, and man-made diseases displace infections as the primary cause of both morbidity and mortality.¹ Epidemiologic transitions have paralleled the demographic and technologic evolution in developed countries and are still underway in many societies.

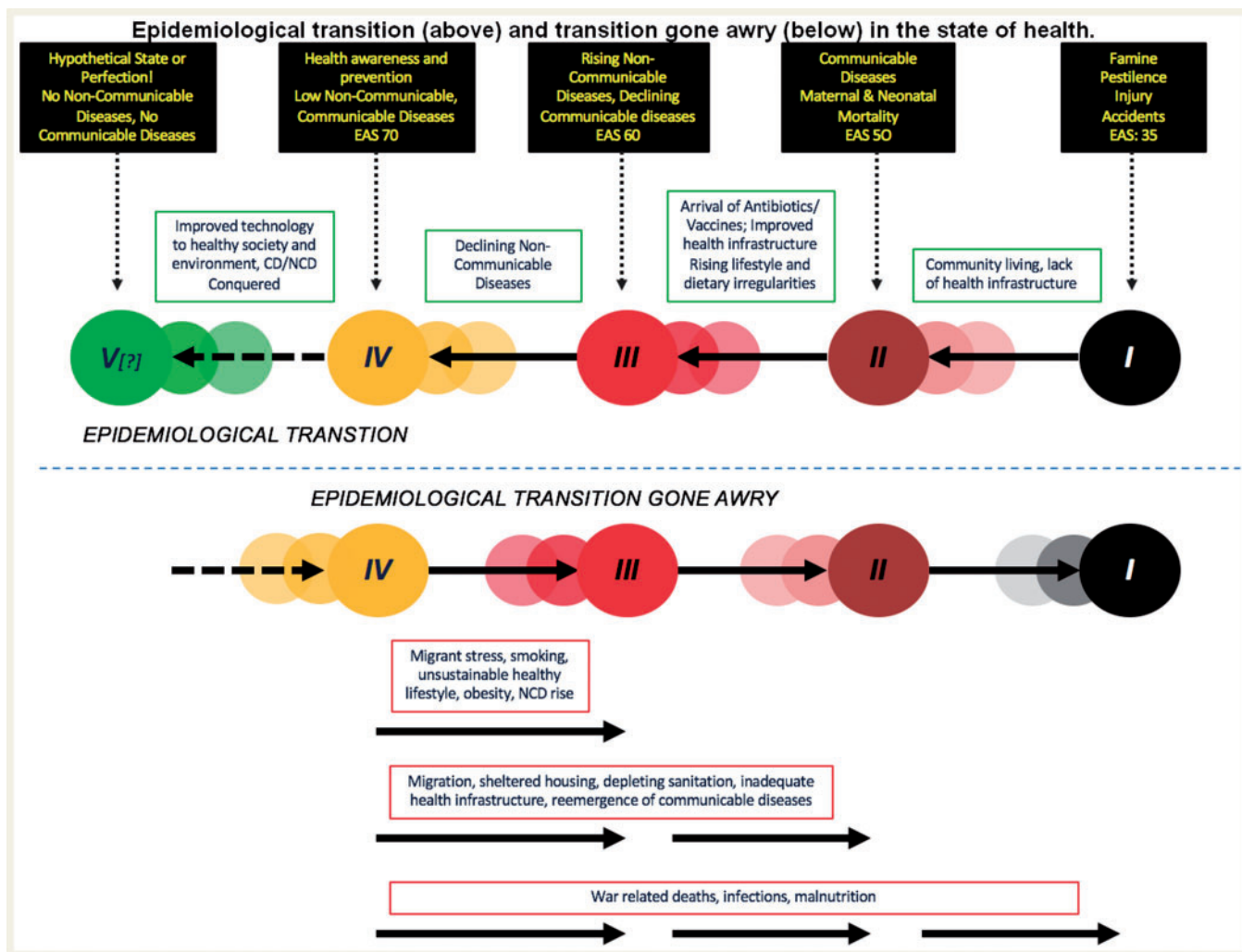
Epidemiologic transition: The original theory of epidemiologic transition is represented by four stages.

- In Stage I, humans die from famine, pestilence, and injury; life expectancy is about 35 years.
- In Stage II, communicable diseases, and maternal and foetal morbidity increase with poor housing, sanitation, person-to-person contact, and a general lack of health infrastructure; life expectancy is about 50 years.
- Stage III with improved living conditions and increased availability of medical facilities, including antibiotics and vaccines, sees a measurable decline in contagious diseases. However, populations in Stage III experience a greater burden from non-communicable diseases as a result of substantial lifestyle changes and behavioural modifications and the emergence of associated risk factors. Although deaths from non-communicable diseases increase, the overall life expectancy rises to 60 years.

- Quality of life improves in transition to Stage IV with strides in health awareness and education, allowing preventive strategies to reduce the burden of both non-communicable and communicable diseases; the expected age of survival exceeds 70 years.
- A health utopia may occupy an unexplored Stage V, wherein a substantial increase in the technology and an unravelling of the genetic basis of diseases could allow for the eradication of virtually all illnesses. It would eventually be possible, in theory, to predict infirmity and coordinate timely interception.

Epidemiological transition gone awry

While the advancement of global health has been undeniable, this improvement manifests unevenly. The spread of conflict in various parts of the world has threatened to disrupt the systematic pattern of improvement in health. It is especially true for many regions of the Middle East. From a global health standpoint, many countries have had their epidemiological transition slowed, if not reversed entirely. This altered transition can be attributed directly to the casualties of violent conflict, and indirectly to a lack of access to or availability of medical facilities. A lack of education, rampant corruption, and forced unhealthy lifestyle choices in these regions have added to the woes of peace gone



awry. Due to alternative settlements, the contribution of stress of migration to the increase in degenerative diseases cannot be underestimated.

Conflict, we would argue, emerges as a dominant risk factor against global health, above and beyond the direct impact of violent death and battle-related casualties. From the start of the Syrian conflict in March 2011, the country's life expectancy has reduced by 20 years.² On the regional basis, conflict, apart from resulting in immediate death and destruction, produces greater effects. It disrupts both private and public sector utilities, which increase the likelihood of adverse health consequences.

Infrastructure, including power grids, running water, and waste sanitation, often face prolonged downtime and inoperability during periods of conflict. These could contribute to the spread of disease. The lack of running potable water forces a pivot to unhygienic hydration, the lack of adequate sanitation increases the risk of infections, and the loss of power prevents the preservation of perishable food. The intangible public sector facilities, including emergency medical services, firefighting capabilities, and refuse removal also often suffer cutbacks and service loss during conflict.

Deprivation of these vital services worsens the health within a population by decreasing the medical care response to emergencies. For instance, 60% of public hospitals, 38% of primary healthcare centres, and 90% of the ambulances active in Syria can no longer provide life-saving support.^{3,4} This is the result of the direct targeting of medical

personnel and facilities, and the limiting of access to medical care to vulnerable populations.¹

Conflict also increases population displacement, creating millions of refugees and internally displaced people. In addition, during pre-, current-, and post-war conflict, civilians are either forced or expected to relocate to safety; to a neighbouring town, country, or continent. The road to safety carries with it overcrowding, makeshift living, and lack of sanitation, only worsening the state of health. There are currently 68.5 million people worldwide who have been forced from their homes. Of those, 25.4 million are refugees, and more than half are under the age of 18.⁵ In addition to unsanitary and unsafe conditions, these refugees are likely to fall prey to unhealthy eating and lifestyle habits, especially smoking and the use of tobacco.

Countries embroiled in conflict are showing signs of healthcare regression. Middle Eastern and North African countries lie along a wide spectrum of development status—from Stage I to Stage IV—and have variable health infrastructure. Some countries have developed and complex healthcare systems, while others struggle to provide even basic care to their populations. For instance, the decreasing rates of polio vaccinations has contributed to its re-emergence. In 2012, vaccinations across Syria reduced to 60%; 35 polio cases were reported in 2013 in conflict-embroiled areas after years without any case reports.⁶ The current epicentre of global polio is the conflict-affected border area between Afghanistan and Pakistan.²

The war in Yemen has had a devastating impact on the health of women and children. The Global Burden of Disease study reviewed 12 relevant maternal and paediatric health indicators between 2013 and 2016 based on change in gross domestic product, burden of airstrikes per 1000 population, change in access to treated water sources and hygienic toilets, and rise in wheat flour prices.⁷ Vaccine coverage significantly reduced, with a 36.4% decrease for the first-dose measles vaccine in Aden. The prevalence of moderate and severe anaemia in children ranged from 50.9% to 97.8%, and the national prevalence of underweight women of reproductive age was 24.6% (18.7–31.5).

When conflict intensifies, stress becomes a considerable burden and is a critical risk factor for developing non-communicable diseases.^{7,8} Mental health is impacted by poor access to adequate health-care, instability, and a lack of safety. Populations affected by war and conflict are at high risk for emotional trauma and increased stress, especially among younger civilians. The incidence of acute clinical depression and post-traumatic stress disorder in refugee populations is estimated to be as high as 70%.⁹ The INTERHEART study systematically evaluated the role of stress in subjects who sustained heart attacks compared to subjects without coronary disease, and recent study of amygdala imaging reported evidence of an association of stress with increased systemic inflammatory milieu and atherosclerotic plaque inflammation.^{10,11} How conflict would actually contribute to prolonged stress is currently being planned for investigation (E.S., J.N.).

Double jeopardy in the Middle East

Populations in the Middle East face a double jeopardy from increases in diseases of affluence and poverty, and violent deaths from war and crime. Between 1990 and 2015, war- and terror-related deaths grew by more than 1000%.^{7,8} Furthermore, war, conflict, and violence aggravate poverty and poverty-related diseases. The economic instability, worsened healthcare, psychological stress, and trauma that accompany prolonged conflict have long-lasting societal repercussions. The increase in communicable and non-communicable diseases and overall mortality slowed the Middle Eastern outlook with regards to having achieved the Millennium Development Goals by 2015.¹² The more-ambitious Sustainable Development Goal (SDG) for 2030 will no doubt remain a challenge for member states in the region.

The regressed epidemiological transition highlights the importance of stability with respect to the regional health. The rise of conflict has not only interrupted region-wide progress but has reverted countries in higher transition stages (III and IV) back. While the populations in low-income countries have borne the brunt of war-related health problems, the populations in higher-income countries in the vicinity of or involved with conflict have suffered adverse health consequences. Countries that have suffered economically as a result of conflict have witnessed increases in mortality and crime, depleted access to health care, psychological trauma, malnutrition, and unsanitary living conditions. Given that this litany of problems stems directly from the conflict, the promotion of peace is essential to improving the quality of life. Furthermore, it stands to reason that promoting peace and

stability within a country experiencing a conflict-derived reverse epidemiologic transition ought to be a concern of public health.

Giving peace a chance

The international community must collaborate on promoting peace within conflict-ridden regions and bolstering a prolonged commitment to upholding stability. As a matter of public health, reducing conflict cannot be seen as a separate endeavour. The intrinsic relationship between peace and health is irrefutable. The promotion of peaceful and inclusive societies is included as the 16th SDG.¹³ Based upon the history of prior conflicts, the other SDGs—such as good health and wellbeing, availability of clean water and sanitation, elimination of poverty and hunger, and economic growth—require peace as a fundamental prerequisite. The United Nations member states have declared that ‘there can be no sustainable development without peace and no peace without sustainable development’.¹⁴ For instance, a world without poverty and hunger, a minimum level of infrastructure, education, and healthcare must require stability, making peace the *a priori* issue. Since 1998, The World Health Organization has specifically called for promoting peace-building in war-torn zones as an effort to better health.¹⁵

Peace is a requirement for healthy development in societies and nations. Everyone has a right to life, liberty, and security in person, as described in the Universal Declaration of Human Rights. That is to say, everyone has a right to live in peace. As we just celebrated the 70th anniversary of the Universal Declaration of Human Rights (2018), it is incumbent upon us to consider how best to uphold that right, as it relates to global public health.

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