SUMMARY

The World Health Assembly’s Eastern Mediterranean Regional Office (EMRO) serves 22 countries and territories in the Middle East, the North Africa, the Horn of Africa and Central Asia. The region contains some of the most diverse cultures, environments, political landscapes, and economies, and faces unique challenges that have arisen due to rapid urbanization, demographic shifts, and growing health inequities. Even amidst a backdrop of political instability, wars, and natural disasters, the region has undergone a range of demographic transitions and a general population increase in the past quarter century. With respect to nutrition, the EMRO region faces many challenges. It faces a double burden of malnutrition, as prevalences of undernutrition and overnutrition incidences increase across different countries. The regional prevalence of low birth weight is at 19.31%, which is higher than the global average of 16%, with only about four countries in the region currently on track to meeting the the global nutrition targets. Furthermore, there is a decreasing trend in exclusive breastfeeding. This is concerning because there is strong evidence supporting that proper infant nutrition is key to prevent non-communicable diseases in the long run. Other health indicators like high rates of anemia, food insecurity and obesity suggest that the region has much to do to improve overall health. All of these markers are not only affected by the healthcare system, but also by underlying economic, social, and cultural determinants.
Nutrition is defined as the “intake of food, considered in relation to the body’s dietary needs.” The WHO EMRO Regional Office has defined four groups of nutritionary situational analysis. The first group are countries in emergency and humanitarian crisis with severe child and maternal undernutrition and widespread micronutrient deficiencies, such as Afghanistan, Somalia and Sudan; the second group are those with significant undernutrition, particularly high levels of acute and chronic child malnutrition, such as Djibouti, Iraq, Pakistan, occupied Palestinian territory and Yemen; the third group of countries are in an early nutritional transition stage with moderate levels of obesity and undernutrition, and widespread micronutrient deficiencies such as Egypt, Jordan, Lebanon, Libya, Morocco and the Syrian Arab Republic; the fourth group are countries in an advanced nutritional transition stage, with high levels of overweight and obesity, and moderate undernutrition and micronutrient deficiencies such as the countries of the Gulf Cooperation Council, the Islamic Republic of Iran and Tunisia. In response to the problems faced by all four of these nutritionary groups, various efforts have been put forth by international and regional entities to improve nutrition in the region. The EMRO Regional Office itself has released several guides and working documents such as the Regional Strategy On Nutrition 2010-2019 and Plan of Action. The premise of these documents have been to encourage member states to encourage nutrition as a main focus of their development agenda by placing emphasis on the most prevalent health problems in the region such as undernutrition, obesity and noncommunicable diseases, and micronutrient deficiencies. However in achieving these goals, more sustained efforts must be made on both the national and international level in the EMRO region to promote regional diets and reduce the negatives of the globalization of food, reduce foodborne illnesses, and improve food security.
The process of globalization has diminished the idea of local or regional autonomy, especially in regards to food consumption and systems. With respect to the EMRO region specifically, estimates suggest that less than 10% of traditional local crop varieties are still cultivated today due to increasing urbanization, the creation of a monocultural agricultural system, and the importing of various products. This has caused a transition away from the historical diet in the region, thus leading to increased incidence of various diseases.

Countries of the EMRO region share many traditions with regard to patterns of food consumption. Categorized more generally, these nutritionary patterns are known as the Mediterranean diet. The Mediterranean diet is a combination of dietary lifestyles and patterns that have culminated over the past 5000 years from regions in the Fertile Crescent and beyond. Though there is not one clear definition of the Mediterranean diet, as it is heavily varied based on specific countries, the essential core of this diet revolves around high quantities of vegetable oils such as olive oil, cereals, vegetables, pulses, olives, legumes, and most importantly, low quantities of dairy and meat products. This diet has immense nutritional benefits, as many studies have displayed that adhering to a Mediterranean diet is the shortest way to achieve dietary guidelines such as lowering total fat intake, thus boosting metabolism and decreasing incidence of cardiovascular disease. Additionally, the Mediterranean diet is well regarded for its sustainability, as its primary plant-based focus results in smaller carbon footprint and overall water intake.

However, in the past 10 years, adherence to the Mediterranean diet has gone through a nutritional transition. Citizens of countries in the EMRO region have shifted toward more sedentary lifestyles and unhealthy diets. Due to globalization and urbanization of food, rather than the historic vegetable focus, there has been an increase in the amount of meat and dairy consumption in the region. This has been correlated with an increase in obesity rates and chronic diseases in many countries in the EMRO region. With increasing rates of overnutrition, as well as continued undernutrition and malnutrition in the southern Mediterranean, a phenomenon known as the double burden of malnutrition plagues the region. Thus, when drafting health policy, the interaction of global effects on various food systems must be evaluated.

In response to this shift, the Food and Agricultural Organization and the International Centre for Advanced Mediterranean Agronomic Studies issued a document called the Med Diet Expo Call to Action which asks national governments and policy makers to consider methods to promote sustainability and preservation with EMRO’s traditional agricultural and dietary systems. However, little has been done to ensure accountability and legitimacy on the national scale.
Food security is defined as the availability and access to adequate, safe, nutritious food necessary to live a healthy life. In the EMRO region, food insecurity is a serious issue that has come to prominence over the last few decades. According to the Eastern Mediterranean Health Journal, food security of the population is threatened by factors such as scarce water, high dependence on food imports, income inequalities and unemployment rates, among others. Social and economic determinants of health greatly impact the food security of this region. For instance, 5% of EMRO’s population is below the US$1.25-a-day poverty line, which creates an access barrier to healthy food and exacerbates undernutrition. In order to address food insecurity, not only should accessibility and availability be improved at the ground level, but also an emphasis should be placed on improving the economic conditions and reducing the poverty rate. These reforms are included in the UN’s 2030 Agenda for the Sustainable Development Goals (SDGs).

High levels of political unrest also significantly contribute to the levels of malnutrition in this region particularly. Iraq has seen thirty years of almost continuous war, and this has consequently affected food security negatively. From 1980 to 2011, Iraq has faced the Iran-Iraq War, the Gulf Far, the United Nations Sanctions, and Operation Iraqi Freedom, all leading to political, social, and economic instability. As a result of instability, Iraq has seen major changes in cultivated land, and availabilities of food supplies. Back in the 1930s, the boom in the oil industry resulted in the shift of many farmers in the agricultural sector to urban areas in search of more lucrative jobs. The 1960s saw a substantial population growth, decrease in cultivated land and insufficient agricultural productivity, which led to increased reliance on imports. In addition to the gradual decline in food availability, the reign of Saddam Hussein further increased the country’s dependency on food imports and decimated the domestic market. Iraq’s political conflicts have also resulted in displacement of their population to such countries as Jordan and Syria, thereby threatening their food security as well. Considering the far-reaching effects of a single country’s political instability, the interrelations between nations must also be taken into consideration when developing effective food security policy.

The World Food Programme (WFP), a branch of the UN, has made significant efforts to reduce food insecurity in Iraq. The WFP provides rations of basic food essentials including rice, beans, flour and oil, or provides cash
Food-related illnesses are those that result from the ingestion of food contaminated by microbes or toxins.\textsuperscript{17} EMRO has the third highest burden of food-related illnesses out of the five WHO regions, with over 100 million people getting sick annually, 32 million of which are children under the age of five.\textsuperscript{15} The most common foodborne illnesses are diarrheal diseases, accounting for 70\% of these diseases. This can be attributed to the prevalence of the rotavirus, as shown by the regional rotavirus gastroenteritis surveillance network.\textsuperscript{13} Approximately 37,000 people die from unsafe foods containing bugs from diarrheal diseases, typhoid fever, hepatitis A, and brucellosis.

The prevalence of these illnesses cannot be understated. The EMRO region is especially affected in the regard because of the inequitable distribution of global resources.\textsuperscript{19} Although a few countries in the region are progressing to improve the foodborne illness outlook, the “lack of robust surveillance systems of foodborne diseases, capacity for disease risk assessments and intersectoral collaboration,” severely undermines the ability of other countries to tackle foodborne illnesses. For instance, the implementation of food safety regulations under the International Health Regulations is unfinished, with only 5 EMRO Member States reporting 100\% implementation, and a regional average of 75\%.\textsuperscript{19} Without effective collaboration between the different stakeholders involved in the production, packaging and distribution of food, EMRO is facing a substantial challenge in enforcing food safety.

One specific case study on foodborne illnesses in the EMRO region is toxoplasmosis is a disease that affects a variety of animals, including small ruminants such as sheep and goats. It can be transmitted to humans through the consumption of these animals. Their meat is estimated to cause over 40\% of foodborne toxoplasmosis in the Eastern Mediterranean Region.\textsuperscript{5} T. gondii is widely prevalent in Egyptian sheep and goats, which highlights the importance of small ruminants in the transmission of human toxoplasmosis in Egypt, especially considering the Egyptian habit of eating undercooked goat meat.\textsuperscript{5,12} Many people do not realize they are infected with toxoplasmosis, as it many times displays no initial symptoms. However, toxoplasmosis more readily effects those with a weakened immune system, such as children and pregnant women. Additionally, severe toxoplasmosis can cause long term damage to the brain, eyes, and other organs.\textsuperscript{16} Thus, considering the EMRO region’s large, fastly growing young population, the prevalence of the effects of diseases such as toxoplasmosis could see a sharp increase, and should be acknowledged when drafting global health policy.

There are no known vaccines for toxoplasmosis. However, there are other ways to decrease the prevalence of this condition. For instance, regular screening for T. gondii antibodies can be done in order to identify the infection in its early stages.\textsuperscript{11} There is still an unmet need for health education programs targeting prevention.\textsuperscript{19} Pamphlets, classes and public service announcements can do much to reduce the prevalence of this preventable disease.
REFERENCES


