Mason Model World Health Organization 2019: **Americas Regional Committee**

Chronic Illnesses

Background on Americas Regional Committee and Participants

The Pan American Health Organization (PAHO) is a specialized international agency for the Americas. The committee fights communicable and non-communicable diseases, strengthens regional health systems, and responds to emergencies and disasters. The following countries in the Americas are represented by the committee: Antigua and Barbuda, Argentina, Bahamas, Barbados, Belize, Bolivia, Brazil, Canada, Chile, Colombia, Costa Rica, Cuba, Dominica, Dominican Republic, Ecuador, El Salvador, Grenada, Guatemala, Guyana, Haiti, Honduras, Jamaica, Mexico, Nicaragua, Panama, Paraguay, Peru, Saint Lucia, St. Vincent and the Grenadines, St. Kitts and Nevis, Suriname, Trinidad and Tobago, United States of America, Uruguay, and Venezuela[1]. Besides its member states, the regional committee has non-member participating states, associate members, and observer states.

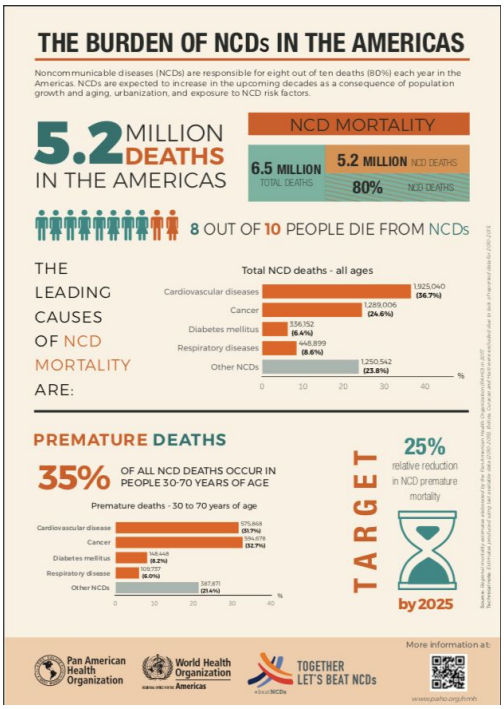
[1] PAHO. PAHO Countries and Centers: Subregion

As the specialized health agency for the Americas, the Pan American Health Organization has its headquarters in Washington, D.C. The agency counts with twenty-seven country offices, as well as three specialized centers in the region[2]. The Pan American Health Organization developed CARMEN, a non-communicable disease prevention concept in 1995[3]. CARMEN is a community-based prevention program active in all American countries. The program aims to achieve health objectives by using a network to share, brainstorm, plan and launch health ventures.

CARMEN was developed because non-communicable diseases are responsible for nearly two thirds of the total number of deaths in the Americas.[4] Furthermore, these non-communicable diseases could be prevented by changes in risk factors or lifestyle. By focusing on prevention, the program aims to reduce risk factors that are directly associated with non-communicable diseases in the region. CARMEN addresses all risk factors associated with non-communicable diseases and unintentional injuries. These are biological conditions, unhealthy consumption behaviors, absence of health protective behaviors, lack of preventive behaviors, and psychosocial factors[5]. CARMEN focuses on situation-based analysis to provide solutions for each country's priority needs.

Introduction/Topical History

Noncommunicable diseases (NCDs), which comprise cardiovascular diseases, diabetes, cancer, and chronic respiratory diseases, are the leading causes of ill health, death, and disability in the Americas.[6] Because of their high cost of care and economic impact, NCDs have a significant impact on development.[7] Thus, tackling the common risk factors of NCDs (tobacco use, harmful use of alcohol, physical inactivity, and unhealthy diet) is an urgent priority.[8] In addition, mental health and substance use disorders are highly prevalent. Together with road traffic injuries and interpersonal violence,



[2] PAHO. About the Pan American Health Organization (PAHO)
[3] PAHO. About the CARMEN network
[4] Pan American Health Organization. Carmen Initiative
[5] Ibid
[6] Pan American Health Organization. Health in the Americas. Chronic Conditions and Diseases due to External Causes.
[7] Ibid
[8] Ibid

they are all major causes of disability.[9] According to the regional health agency, non-communicable diseases are responsible for eight out of ten deaths in the Americas, or eighty percent of all deaths[10]. These are premature deaths, as 35% of all NCD deaths occur in people within 30-70 years of age.[11] These conditions are driven by demographic changes, economic growth, negative effects of globalization, rapid and unplanned urbanization, and the epidemiological transition from infectious diseases to chronic conditions. Populations living in vulnerable conditions are more affected by these changes, and together with structural factors, such as education, occupation, income, gender, and ethnicity, lead to a disproportionate impact of underlying social determinants on this population[12].

The top four factors responsible for mortality in the Americas are cardiovascular diseases (CVDs), cancer, diabetes mellitus, and respiratory diseases[13]. Cardiovascular diseases account for 37% of all NCD deaths, while cancer accounts for 25%, diabetes for 8%, and chronic respiratory diseases for 6%. [14] CVD mortality rates have declined steadily in most countries in the Americas, with an overall reduction of 19% from 2000 to 2010 (20% in women and 18% in men), while cancer mortality rates have remained relatively stable for both men and women over the past 15 years.[15] NCDs are impeding economic growth and development in the Region, as countries face important lost output due to early deaths, disability, and costs of ill health.[16]

NCDs are driven largely by forces that include demographic changes, epidemiological transition, economic development, rapid and unplanned urbanization, and negative effects of globalization, among other factors.[17] These dynamics have had an impact on the four key risk factors that account for the majority of preventable deaths and disability from NCDs: harmful use of alcohol, unhealthy diet, physical inactivity, and tobacco use.[18] Therefore, reducing the risk factors leading to chronic conditions is essential to prevent and treat these conditions.

Unhealthy diet and obesity - Hunger and nutritional deficits coexist with an increase in overweight and obesity; they share common determinants of poverty, inequities, and lack of healthy, nutritious food.[19] Changes in dietary patterns have emerged from globalization,

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[9] Ibid
[10] Pan American Health Organization. The burden of NCDs in the Americas.
[11] Ibid
[12] Pan American Health Organization. Health in the Americas. Chronic Conditions and Diseases due to External Causes.
[13] Pan American Health Organization. The burden of NCDs in the Americas.
[14] Pan American Health Organization. Health in the Americas. Chronic Conditions and Diseases due to External Causes.
[15] Ibid
[16] Ibid
[17] Ibid
[18] Ibid
[19] Ibid

urbanization, the incorporation of more women into the workforce, and increased consumption of food outside the home concomitantly with the increase in marketing and availability of SSBs and UPPs.[20] The fastest increase in UPP sales, and in overweight and obesity, are found in Latin America and the Caribbean.[21] This is the result of food industry mass-marketing campaigns, foreign investments, and the takeover of domestic food companies.[22] Global producers are driving the "nutrition transition" from traditional, simple diets to highly processed foods, and the pace is accelerating.[23]

Tobacco - In the Region, tobacco-related deaths account for 14% of all deaths in adults 30 to 70 years old.[24] Despite decrease in the use of tobacco, research has shown that achieving the target of 30% reduction in tobacco use is fundamental to reaching the overall goal of 25% reduction in premature mortality from NCDs.[25] Despite the progress made in several countries by implementing the WHO Framework Convention on Tobacco Control (FCTC) and the growing engagement of civil society and Member States, a large proportion of the Region's population is still not covered by even a single FCTC measure at the highest level of achievement.[26] Finally, the influence and interference of the tobacco industry has been, and continues to be, a severe obstacle to progress in tobacco control in the Region, as it is in the rest of the world.[27]

Harmful use of alcohol - Alcohol consumption is responsible for a host of often devastating consequences for the drinker, the family, and the community, including but not limited to death and disability.[28] Alcohol is the most common underlying risk factor associated with death in people 15–49 years of age and can cause significant disability throughout the life course.[29] Alcohol use can lead to alcohol dependence, liver cirrhosis, traffic injuries, and over 200 illnesses, including cancers, cardiovascular disease, infectious diseases, and fetal alcohol spectrum disorders.[30] The average per capita consumption among those aged 15 years and older in the Region of the Americas is higher than the global average.[31] The prevalence of heavy episodic drinking in adults and adolescents is also high (redacted) and appears to be increasing, consistent

[20] Ibid
[21] Ibid
[22] Ibid
[23] Ibid
[24] Ibid
[25] Ibid
[26] Ibid
[27] Ibid
[28] Ibid
[29] Ibid
[30] Ibid
[31] Ibid

with initiation of drinking before the age of 14.[32] The prevalence of alcohol-use disorders in women in the Region is the highest in the world, at 3.9%.[33] Globally, alcohol consumption is responsible for 10% of DALYs lost due to NCDs.[34] Alcohol-attributable health conditions strike more men than women in every country, although, for the same amount of alcohol consumed, the risk for negative consequences is higher among women.[35] Acute heavy episodic drinking is related to violence, injuries, and poisoning, while chronic disease is primarily associated with patterns of chronic or repeated episodic heavy consumption.[36]

Physical inactivity - The recommended physical activity levels are at least 60 minutes of moderate or vigorous physical activity every day for children and adolescents, and at least 150 minutes of moderate or 75 minutes of vigorous aerobic activity every week for adults of all ages. [37] Yet in the Americas, 50% of people do not meet this recommendation, raising the mortality risk by 20% to 30%.[38] Physical inactivity leads to excess weight and obesity while physical activity improves muscular and cardiovascular functions, improves bone health, and reduces depression and the overall risk of developing an NCD.[39]

Cardiovascular disease (CVD) - PAHO takes the lead within the Inter-American System in the Region's health sector response to cardiovascular diseases.[40]. The Cardiovascular Diseases Program provides evidence-based, technical support to the countries of the Americas to help them prevent, manage, and monitor to ensure a comprehensive and sustainable response to cardiovascular diseases[41].

In the "Priorities for cardiovascular health in the Americas"[42], several measures are proposed in order to prevent and treat CVDs. With the goal of multisectoral action, it proposes that one of the specific objectives of a plan for the prevention and control of CVDs is to reduce inequalities in the distribution of risks, and the burden of disease.[43].The risk of having a CVD is highly and inversely correlated with socioeconomic status[44]. Reducing inequalities and the burden of CVDs is largely dependent on addressing

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[32]Ibid
[33]Ibid
[34]Ibid
[35]Ibid
[36]Ibid
[37]Ibid
[38]Ibid
[39]Ibid
[40]PAHO. Cardiovascular Diseases Program.
[41]Ibid
[42] Pan American Health Organization. Regional Consultation. Priorities for Cardiovascular Health in the Americas
[43] PAHO. CVD Priorities. Multisectoral action and social determinants
[44] Ibid

the factors associated with widening socioeconomic disparities in the population[45]. CVDs and their risk factors are at once a cause and a consequence of poverty[46]. Under the goal of universal coverage and equitable access to health services, the goal is to ensure the availability and accessibility of medicines and other essential technologies, including laboratory tests, paying particular attention to disadvantaged populations[47]. In some countries of the Region, out-of-pocket expenditures account for up to 78% of spending on medicines, and this can be catastrophic for low-income families and populations[48]. CVDs have the heaviest impact on middle- and low-income populations and countries[49]. They are largely the result of social inequities and at the same time, a powerful perpetuator of such disparities[50]. Their catastrophic consequences undercut poverty reduction efforts[51].

Cancer - Cancer is the second leading cause of death in the Americas, responsible for 1.3 million deaths and 3.7 new cases (21% of the cases globally) in 2018[52]. The number of cancer cases is projected to increase 32%, to more than 5 million million cases by 2030, due to the aging of the population and the epidemiological transition in Latin America and the Caribbean[53]. About 40% of all cancer cases could be prevented by reducing key risk factors, which include tobacco use, harmful use of alcohol, unhealthy diet and physical inactivity[54]. Vaccination and screening programmes are effective interventions to prevent cancers amenable to primary and secondary prevention[55]. About 30% of cancers can be cured if detected early and treated adequately and all cancer patients can benefit from palliative care.[56]

Diabetes - Diabetes Mellitus is a chronic metabolic disease characterized by elevated blood glucose (hyperglycemia)[57]. It is associated with an absolute or relative deficiency in the secretion and/or action of insulin[58]. Raised blood glucose, a common effect of uncontrolled diabetes, may, over time, lead to serious damage to blood vessels, eyes, kidneys, nerves and increases the risk of heart attack and stroke[59]. There are three main forms of diabetes: type 1, type 2, and gestational

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[45]PAHO. CVD Priorities. Multisectoral action and social determinants
[46]Ibid
[47] PAHO. CVD Priorities. Universal coverage and equitable access to health services
[48]Ibid
[49]Ibid
[50]Ibid
[51]Ibid
[52] PAHO. Cancer program
[53]Ibid
[54]Ibid
[55]Ibid
[56]Ibid
[57]Ibid
[58]Ibid
[59]PAHO. About Diabetes

diabetes[60]. Type 2 diabetes is the most common, accounting for approximately 85% to 90% of all cases. It is related to modifiable risk factors such as obesity or overweight, physical inactivity, and high-calorie diets of low nutritional value[61]. Methabolic syndrome is characterized by the presence of prediabetes in conjunction with one other cardiovascular disease (CVD) risk factor (hypertension, upper body obesity or dyslipidemia)[62].

Chronic Obstructive Pulmonary Disease (COPD) - Facts: An estimated 13.2 million people live with COPD (1). COPD caused over 235,000 deaths in 2010, ranking as the sixth leading cause of death (2). In 2012, COPD was responsible for the loss of 8.3 million disability-adjusted life years (DALYs) (3).

In 2010, COPD accounted for over 235,000 deaths in the Americas, ranking as the sixth leading cause of mortality regionally. About 23% of these deaths occurred prematurely, in people aged 30-69 years (2). COPD is a preventable disease: urgent actions are needed to reduce underlying risk factors, especially tobacco use. 7 in 10 COPD deaths are attributable to tobacco (3). COPD is an incurable disease, characterized by persistent airflow limitation that is usually progressive and associated with an enhanced chronic inflammatory response to noxious particles or gases in the airways and the lungs. Common symptoms include breathlessness, abnormal sputum and a chronic cough. Exacerbations and comorbidities – such as cardiovascular diseases, skeletal muscle dysfunction, metabolic syndrome, osteoporosis, depression and lung cancer – contribute to the overall severity of individual patients (4,5).

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An estimated 13.2 million people live with COPD in the region (1). Many people suffer from this disease for years, experiencing disability and major adverse effects on their quality of life (5,6).

In 2012, COPD was responsible for the loss of 8.3 million DALYs, representing the seventh leading cause of disability-adjusted life years lost (DALYs) in the Americas, with one DALY representing the loss of the equivalent of one year of full health (3,6).

COPD is associated with a substantial and increasing economic and social burden (5,6). Economic data from low- and middle-income countries are limited, but in the US the estimated direct costs of COPD are $29.5 billion and the indirect costs $20.4 billion (5).

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[60]https://www.paho.org/hq/index.php?option=com_content&view=article&id=6717:2012-about-diabetes&Itemid=39447&lang=en

[61]https://www.paho.org/hq/index.php?option=com_content&view=article&id=6717:2012-about-diabetes&Itemid=39447&lang=en

[62]https://www.paho.org/hq/index.php?option=com_content&view=article&id=6717:2012-about-diabetes&Itemid=39447&lang=en

Prevention:

COPD deaths are projected to increase in the Americas to over 400,000 in 2030. This rise is mainly due to continued exposure to preventable COPD risk factors – including tobacco use, indoor and outdoor air pollution, occupational exposures and frequent lower respiratory infections during childhood – as well as aging of the population (3,5).

Tobacco, including second-hand smoke, is the main risk factor for this disease worldwide. An estimated 70% of all COPD deaths in the region are attributable to tobacco use (3,4).

In the Americas, there are 145 million smokers, with a regional average adult smoking rate of 22%, and youth (13-15 years) tobacco product use prevalence ranging from 35.1% in Chile to 2.8% in Canada. Thus, actions are urgently needed to step up the adoption and implementation of national laws consistent with the provisions of the WHO Framework Convention on Tobacco Control (WHO FCTC) (7).

Exposure to indoor air pollution is a major COPD risk factor in communities that continue to use biomass fuels for cooking, heating and other household needs, especially among women and children. More than 50% of the populations of Guatemala, Haiti, Honduras, Nicaragua and Paraguay use these fuels as their main energy source (8). Even in some more developed countries, a significant percentage of the population lacks access to clean fuels, including 28 million in Mexico (9).

COPD was previously much more common in men, but because of increased tobacco use among women in high-income countries, and the higher risk of exposure to indoor air pollution in low-income countries, the disease now affects men and women almost equally (4).

COPD is frequently under-diagnosed, particularly in low- and middle-income countries, where many patients are not diagnosed until symptoms are severe enough to prevent normal daily activities (6). Post-bronchodilator spirometry is the gold standard for the diagnosis and assessment of COPD, as it is the most reproducible, standardized and objective means to measure airflow limitation (5, 6,10). Spirometry could be used in primary care, provided that adequate resources, training and quality control are available (6). COPD is incurable, but treatment can slow the progress of the disease. Increased access to timely, adequate treatment and pulmonary rehabilitation can help control its symptoms and increase quality of life for people with the illness (4,5). Smoking cessation is the intervention with the greatest capacity to influence the natural history of COPD (5). COPD exacerbations are a common cause of morbidity and mortality, as they have a negative impact on quality of life, symptoms and lung function, and cause high socioeconomic costs. The most common causes appear to be respiratory tract infections (viral or bacterial). Air pollution can also precipitate exacerbations of COPD (5).

The Pan American Health Organization (PAHO) is working with Member States in the Americas and partners to increase capacity for the prevention and control of noncommunicable diseases (NCD) and their risk factors, including COPD, by: 1. Building and promoting multisectoral policies and partnerships for NCD prevention and control; 2. Reducing the prevalence of the main NCD risk factors and strengthening protective factors, including the ratification and full implementation of the WHO FCTC; 3. Improving the health system response to NCD and risk factors, with a focus on universal health coverage, NCD integrated management and improved access to affordable essential NCD drugs and technologies through the PAHO Strategic Fund; 4. Strengthening country capacity for NCD surveillance and research.

Chronic kidney disease: Chronic kidney disease (chronic kidney failure) describes the gradual loss of kidney function.[63] The kidneys filter waste and excess fluids from the blood, which is then excreted in the urine.[64] When chronic kidney disease reaches an advanced stage, dangerous levels of fluid, electrolytes and wastes can build up in the body.[65] Signs and symptoms of chronic kidney disease develops over time and kidney damage progresses slowly, and may include, nausea, vomiting, loss of appetite, fatigue and weakness, sleep problems, changes in urine output, decreased mental sharpness, muscle twitches and cramps, swelling of feet and ankle and high blood pressure.[66] Signs and symptoms are often nonspecific, meaning they can also be caused by other illnesses.[67] In the last four decades, increasing numbers of young people, in clusters of vulnerable farming communities in several Central American countries, have developed a severe form of kidney failure of uncertain etiology (thus termed chronic kidney disease of nontraditional causes, or CKDnT)[68]. This type of chronic kidney disease, primarily a form of chronic interstitial nephritis, has reached epidemic proportions, devastating entire communities and overwhelming health systems.[69] A recent analysis estimated that more than 60,000 renal failure (a proxy of CKDnT) deaths (41% among those younger than 60 years of age) occurred between 1997 and 2013 in Central America.[70] CKDnT is characterized by progressive renal insufficiency, often diagnosed at a very late stage, in the absence of early symptoms, necessitating renal replacement therapy if the patient is to survive.[71] The Pan American Health Organization (PAHO) Resolution on Chronic Kidney Disease in Agricultural Communities

[63] https://www.paho.org/hq/index.php?option=com_topics&view=article&id=349&Itemid=40937&lang=en
[64] https://www.paho.org/hq/index.php?option=com_topics&view=article&id=349&Itemid=40937&lang=en
[65] https://www.paho.org/hq/index.php?option=com_topics&view=article&id=349&Itemid=40937&lang=en
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[67] https://www.paho.org/hq/index.php?option=com_topics&view=article&id=349&Itemid=40937&lang=en
[68] http://iris.paho.org/xmlui/handle/123456789/34132
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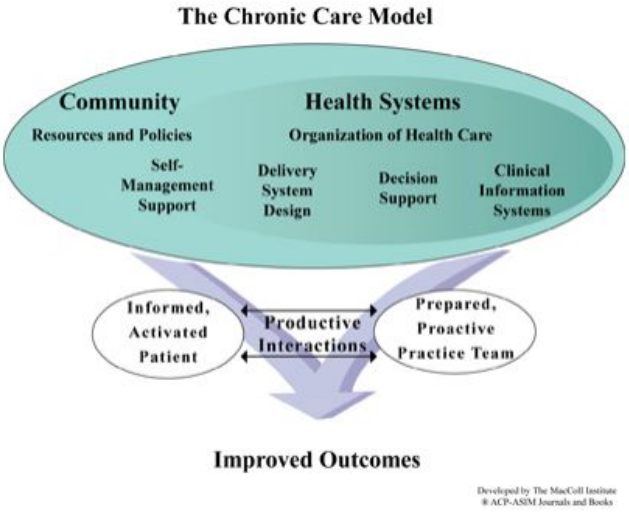
[70] http://iris.paho.org/xmlui/handle/123456789/34132
[71] http://iris.paho.org/xmlui/handle/123456789/34132

in Central America has recommended a set of priorities to address this epidemic; this document specifically addresses the request for a framework for systematic surveillance of CKD and CKDnT to be developed in the region, particularly for affected countries.[72] Some of the factors that may increase the risk of chronic kidney disease include diabetes, high blood pressure, heart disease, smoking, obesity.[73] Depending on the underlying cause, some types of kidney disease can be treated.[74] Chronic kidney disease has no cure, but in general, treatment consists of measures to help control signs and symptoms, reduce complications and slow progression of the disease.[75]

Integrated Disease Management & Surveillance

Comprehensive integrated care, self-care, patient support and education, training for healthcare workers to improve the quality of care: This team works to facilitate and support the strengthening of the capacity and competencies of the health system for the integrated management of chronic noncommunicable diseases (CNCDs) and their risk factors.[76] These functions are among the core elements of the CARMEN Network and the pdfRegional Strategy for Chronic Disease Prevention and Control.[77] The team follows the Chronic Care Model, as described below.[78]



The constructs of the Chronic Care Model are incorporated into the objective for the management of chronic diseases and risk factors, and are aimed at improving outcomes in five main areas: a coherent approach to system improvement, development and adherence to guidelines, self-management support for people with chronic diseases, improved clinical information systems, appropriate skill mix and improved technical competency of the health workforce.[79]

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[73] http://iris.paho.org/xmlui/handle/123456789/34132
[74] http://iris.paho.org/xmlui/handle/123456789/34132
[75] http://iris.paho.org/xmlui/handle/123456789/34132
[76]https://www.paho.org/hq/index.php?option=com_content&view=article&id=1543:2012-integrated-disease-management&Itemid=1353&lang=en
[77]https://www.paho.org/hq/index.php?option=com_content&view=article&id=1543:2012-integrated-disease-management&Itemid=1353&lang=en
[78]https://www.paho.org/hq/index.php?option=com_content&view=article&id=1543:2012-integrated-disease-management&Itemid=1353&lang=en
[79]https://www.paho.org/hq/index.php?option=com_content&view=article&id=1543:2012-integrated-disease-management&Itemid=1353&lang=en

The management of NCDs is important in order to provide primary care services, early diagnosis and timely treatment. According to the World Health Organization, out of 100% people who have a NCD, only 50% are diagnosed, and of those diagnosed, only 50% are treated.[80] Cardiovascular disease (CVD), the leading cause of death, requires intensified and specific health system interventions to reduce risk, control hypertension, manage acute episodic events, and prevent premature death[81] (see table 1). Type 2 diabetes, a common comorbidity of hypertension, is a chronic metabolic disease that also requires specific primary care interventions[82] (see table 1). However, a chronic care approach for integrated management of diabetes, CVD, and other NCDs has been proposed by PAHO.[83] This approach includes organizing health services to reduce barriers and promote prevention; self-management support to empower people to effectively manage their conditions; evidence-based guidelines and support for decision-making; coordinated care among the health team; a clinical information system to monitor patients; and community resources to support patient care[84].

Table 1: NCD management interventions[85]

Primary health care interventions

NCD	**Disease management objectives**	**Counseling, patient education, and prevention**	**Screening and early detection**	**Treatment**
CVDs	Assess risk and reduce risks for developing CVD Diagnose CVD early and accurately	Assess risk for CVD Educate about risk factor reduction	Measure and monitor blood pressure, body mass index (BMI), and blood lipid profile	Drug therapy for those who have had or are at risk for heart attack and stroke Hypertension medication Treatment of new cases of acute myocardial

[80] https://www.paho.org/salud-en-las-americas-2017/?p=51
[81] https://www.paho.org/salud-en-las-americas-2017/?p=51
[82] https://www.paho.org/salud-en-las-americas-2017/?p=51
[83] https://www.paho.org/salud-en-las-americas-2017/?p=51
[84] https://www.paho.org/salud-en-las-americas-2017/?p=51
[85] https://www.paho.org/salud-en-las-americas-2017/?p=51

	Control high blood pressure Prevent acute events and complications Improve self-care for CVD	Educate about healthy lifestyle		infarction with either: acetylsalicylic acid, or acetylsalicylic acid and clopidogrel, or thrombolysis, or primary percutaneous coronary interventions Treatment of congestive cardiac failure with ACE inhibitor, beta-blocker, and diuretic
Diabetes type 2	Prevent diabetes, including gestational diabetes Assess risk for developing diabetes Improve quality of care and outcome in people with type 2 diabetes Reduce and maintain a healthy body weight Control blood sugar levels Reduce complications from poor diabetes management Improve self-care for diabetes	Lifestyle education to prevent type 2 diabetes Prenatal care and intensive glucose management among pregnant women to prevent gestational diabetes Advice to overweight people to reduce weight by reducing food intake and increasing physical activity Education on diabetes self-management, including foot care and eye care	Measure blood sugar Screen for diabetic retinopathy	Drug therapy to control blood sugar Drug therapy to prevent progression of renal disease
Cancer	Prevent cancer Detect cancer at early stages Screen men and women for cancers amenable to early detection (cervix,	Health education on cancer prevention and healthy lifestyles Hepatitis B vaccination for	Examinations for early signs and symptoms of common cancers (lung, prostate, colorectal, breast,	Refer to secondary level care for diagnosis and treatment, including surgery, chemotherapy, and radiotherapy. Provide post treatment follow up care

	breast, colorectal cancers) Ensure prompt diagnosis, treatment, and supportive and palliative care	the prevention of liver cancer HPV vaccination for the prevention of cervical cancer	cervix, stomach, leukemia, etc.) Breast cancer clinical breast exam and/or mammogram, according to national guidelines Cervical cancer – pap test, HPV, DNA test, visual inspection with acetic acid (VIA), cryotherapy for treatment of precancerous lesions, according to national guidelines Oral cancer – screen in high-risk groups such as tobacco smokers Colorectal cancer – fecal occult blood test or colonoscopy, according to national guidelines	Offer supportive care and palliative care
Chronic respiratory diseases	Control asthma and COPD Improve quality of care for persons living with asthma and COPD	Health education on self-management for persons with asthma and COPD	Assess asthma control using severity and frequency of symptoms	Drug therapy to manage stable asthma and COPD, as well as exacerbated asthma and COPD.

Country Capacity Survey (CCS)- Non communicable diseases and their risk factors are the leading causes of morbidity, mortality, and disability in the Americas.[86] They represent a public health challenge and a serious threat to economic and social development. In response, countries of the Americas

[86] http://ais.paho.org/phip/viz/nmh_ccs_resultstool.asp

have made commitments to address NCDs, and monitor progress.[87] The Country Capacity Survey (CCS) carried out by PAHO/WHO is the main instrument used to monitor progress towards the NCDs commitments.[88] It provides information on the status of country NCD policies, guidelines, and programs and identifies the gaps and unmet needs in terms of the national capacity to respond to NCDs.[89]

Background on Chronic Illness in the Region

Cervical cancer - Over 72,000 women were diagnosed with cervical cancer and almost 34,000 died from this disease in the Region of the Americas, in 2018.[90] Cervical cancer mortality rates are 3 times higher in Latin America and the Caribbean than in North America, highlighting inequities in health. [91] Screening women for cervical pre-cancer, followed by treatment, is a cost-effective intervention to prevent cervical cancer.[92] Vaccination against Human Papilloma Virus (HPV) can reduce significatively the risk of cervical cancer.[93] PAHO recommends to vaccinate girls from 9 to 14 years-old, when it is more effective.[94] HPV vaccines are available in 35 countries and territories of the Americas, but coverage rates with the two doses do not reach yet 80% of girls.[95] Along with HPV vaccination, screening and treatment of precancerous lesions can prevent new cases and deaths.[96]

Actors and Stakeholders

The CARMEN network and the Inter-American Task Force on NCDs are partner organizations that work in a cooperative manner to address the needs of the region.[97] CARMEN's mission is to provide a forum for sharing, learning, and collaborating among the countries of the Americas to reduce the burden of chronic diseases, their risk factors, and underlying determinants[98]. The CARMEN Initiative aims to promote and establish comprehensive, integrated NCD prevention and control policies and programs at the national and sub-regional levels in the Americas, in support of the achievement of the Regional

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[87] http://ais.paho.org/phip/viz/nmh_ccs_resultstool.asp
[88] http://ais.paho.org/phip/viz/nmh_ccs_resultstool.asp
[89] http://ais.paho.org/phip/viz/nmh_ccs_resultstool.asp
[90]https://www.paho.org/hq/index.php?option=com_topics&view=article&id=348&Itemid=40936&lang=en
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[93] https://www.paho.org/hq/index.php?option=com_topics&view=article&id=348&Itemid=40936&lang=en
[94] https://www.paho.org/hq/index.php?option=com_topics&view=article&id=348&Itemid=40936&lang=en
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[96] https://www.paho.org/hq/index.php?option=com_topics&view=article&id=348&Itemid=40936&lang=en
[97]https://www.paho.org/hq/index.php?option=com_content&view=article&id=8929:non-communicable-diseases-mental-health&Itemid=852&lang=en
[98] https://www.paho.org/carmen/

Strategy on Chronic Disease Prevention and Control.[99] The CARMEN Initiative utilizes the guiding principles, strategic approaches and four lines of actions contained in the Regional Strategy: health policy and advocacy, health promotion and disease prevention, surveillance, and Integrated management of chronic diseases and risk factors.[100] It also includes: capacity building and training; research; information dissemination; resource mobilization and partnerships; and communications and social marketing.[101]

The Inter-American Task Force on NCDs is a strategic alliance of Inter-American organizations and associated international institutions and agencies led by the Pan American Health Organization, to promote the prevention and control of NCDs in the Americas through collaboration across various sectors of government.[102] The Task Force will facilitate a comprehensive response at the regional, sub-regional, and national levels, and aim to achieve the goals outlined in the regional Plan of Action on the Prevention and Control of NCDs 2013-2019.[103] The members of the task force include the Pan American Health Organization/World Health Organization (PAHO), the Organization of American States (OAS), the Economic Commission for Latin America and the Caribbean (ECLAC), the Inter-American Development Bank (IDB), Inter-American Institute for Cooperation on Agriculture (IICA), and the World Bank Group.[104]

Strategies to Improve

A Plan of Action for the period 2013-2019 was developed to prevent and control NCDs in the Americas. It corresponds to the Pan American Health Organization (PAHO) Strategy for the Prevention and Control of Noncommunicable Diseases for 2012-2025, endorsed in 2012 by the Pan American Sanitary Conference along with a regional framework for prevention and control of noncommunicable diseases (NCDs). [105] It proposes actions on NCDs by the Pan American Sanitary Bureau (PASB) and by Member

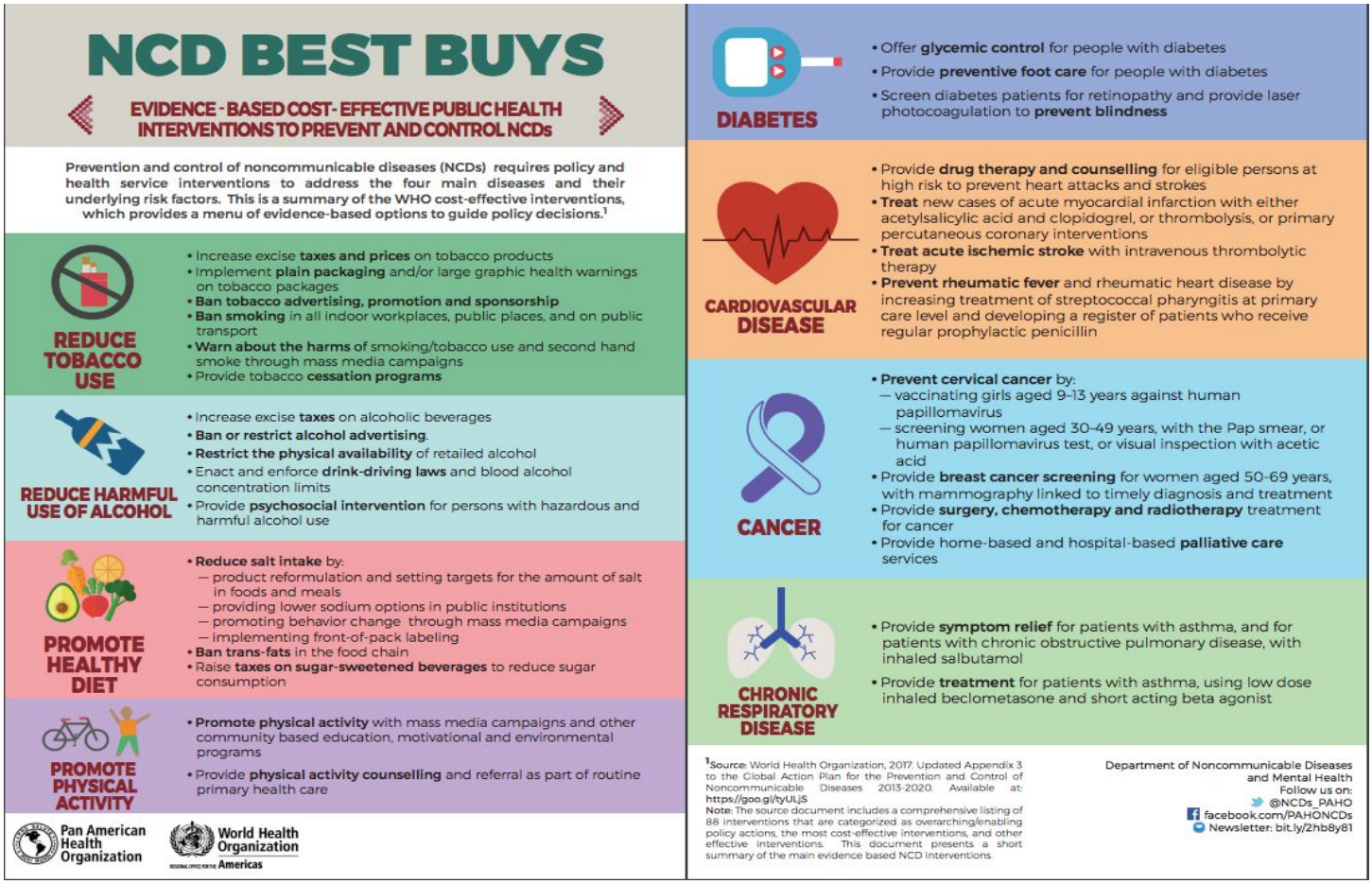
[99] https://www.paho.org/carmen/
[100] https://www.paho.org/carmen/
[101] https://www.paho.org/carmen/
[102]https://www.paho.org/hq/index.php?option=com_conte ask-force-website&Itemid=41579&lang=en
[103]https://www.paho.org/hq/index.php?option=com_conte ask-force-website&Itemid=41579&lang=en
[104]https://www.paho.org/hq/index.php?option=com_content&view=article&id=11134:inter-american-task-force-website&Itemid=41579&lang=en
[105]https://www.paho.org/hq/index.php?option=com_content&view=article&id=11275:plan-action-ncds-americas-2013-2019&Itemid=41590&lang=en

States that take into account regional and subregional initiatives, contexts, and achievements and follow the 2014 2019 timeline of the PAHO Strategic Plan.[106] At the same time it aligns with the World Health Organization (WHO) NCD Global Monitoring Framework and Global Action Plan 2013 2020.[107]

On 27 September 2018, the United Nations General Assembly held the Third High-level Meeting on the prevention and control of noncommunicable diseases (NCDs), which undertook a comprehensive review of the global and national progress achieved in putting measures in place to protect people from dying too young from noncommunicable diseases such as heart and lung diseases, cancers and diabetes, as well as promote mental health and well-being.[108] Heads of state and government committed to 13 new steps to tackle noncommunicable diseases including cancers, heart and lung diseases, stroke, and diabetes, and to promote mental health and well-being.[109] World leaders agreed to take responsibility themselves for their countries' effort to prevent and treat NCDs.[110] They also agreed that these efforts should include robust laws and fiscal measures to protect people from tobacco, unhealthy foods, and other harmful products, for example by restricting alcohol advertising, banning smoking, and taxing sugary drinks[111].

Best Buys For Tackling NCDs[112]

[106]https://www.paho.org/hq/index.php?option=com_content&view=article&id=11275:plan-action-ncds-americas-2013-2019&Itemid=41590&lang=en
[107]https://www.paho.org/hq/index.php?option=com_content&view=article&id=11275:plan-action-ncds-americas-2013-2019&Itemid=41590&lang=en
[108]https://www.paho.org/hq/index.php?option=com_content&view=article&id=14416:un-general-assembly-third-high-level-meeting-ncds-2018&Itemid=1969&lang=en
[109]https://www.paho.org/hq/index.php?option=com_content&view=article&id=14416:un-general-assembly-third-high-level-meeting-ncds-2018&Itemid=1969&lang=en
[110]https://www.paho.org/hq/index.php?option=com_content&view=article&id=14416:un-general-assembly-third-high-level-meeting-ncds-2018&Itemid=1969&lang=en
[111]https://www.paho.org/hq/index.php?option=com_content&view=article&id=14416:un-general-assembly-third-high-level-meeting-ncds-2018&Itemid=1969&lang=en
[112] https://www.paho.org/hq/dmdocuments/2017/ents-best-buys-english.pdf



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https://www.paho.org/hq/index.php?option=com_content&view=article&id=1939:cardiovascular-diseases-program-home&Itemid=1819&lang=en

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http://www1.paho.org/priorities/index.html

PAHO. CVD Priorities. http://www1.paho.org/priorities/pdf-en/1/1_1multisectorial.pdf

PAHO. Universal coverage and equitable access to health services
http://www1.paho.org/priorities/pdf-en/1/1_2coverage_universal.pdf

PAHO. Cancer program
https://www.paho.org/hq/index.php?option=com_content&view=article&id=292:cancer-program&Itemid=3904&lang=en

PAHO. About Diabetes.
https://www.paho.org/hq/index.php?option=com_content&view=article&id=6717:2012-about-diabetes&Itemid=39447&lang=en

Mason Model World Health Organization 2019: **Eastern Mediterranean Regional Committee**
Chronic Illnesses

Background about Eastern Mediterranean Regional Committee

Eastern Mediterranean Region (EMR) consists of 21 countries, Afghanistan, Bahrain, Djibouti, Iran, Iraq, Jordan, Kuwait, Lebanon, Libya, Morocco, Oman, Pakistan, Qatar, Saudi Arabia, Somalia, Sudan, Syria, Tunisia, United Arab Emirates (UAE), and Yemen, including occupied territories of Palestine, Gaza Strip and West Bank.[113]The EMR has a total population of about 650 million people.[114]Originally, EMR also included Ethiopia and Algeria, however, they both joined the African Regional Office in 1977 and 1984, respectively. Also, both Greece and Turkey had left and joined the European Regional Office. Israel was also a part of the EMR but had joined the European Regional Office due to geopolitical tensions in the region in 1985.

[113] World Health Organization (WHO). "Eastern Mediterranean Region" (2019) http://www.emro.who.int/countries.html.
[114] "Regional Committee for the Eastern Mediterranean Office". World Health Organization.
http://applications.emro.who.int/docs/RC_Technical_Papers_2018_4_20534_EN.pdf

Map of Countries in the World Health Organization: Eastern Mediterranean Committee[115]

At the end of October, the EMRO World Health Assembly meets to discuss financial needs, policies, and activities, includes all involved members.[116]The EMR Office focuses on five key priorities including health security and prevention and control of communicable disease; noncommunicable diseases, mental health, violence and injuries, and nutrition; promoting health through the life - course; health system strengthening; and preparedness, surveillance, and response.[117]According to the Sixty-fifth session of the regional committee, one of the top priorities has been to advance and provide Universal Health Coverage (UHC) as only 54% of the regional population has access to healthcare.[118]In addition, WHO has been advocating more involvement from the local governments in the regions as well as increasing its own involvement.[119]

Nonetheless, the countries in this region struggle greatly with the various levels of socioeconomic statuses and the political tensions arising from social unrest.[120]Calculating the socioeconomic indexes of most of the countries has been difficult from lack of accuracy.[121]A research study conducted for Iraq found that the best indicators for socioeconomic status (SES) is the measurements of education, occupation, and wealth.[122]Although it's inconsistent as to how the SES are evaluated, the region is split into high, middle, and low income countries. The political tensions in the region have always been problematic in the region, and one of the oldest

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[115] World Hepatitis Alliance. "Eastern Mediterranean Region" (2018) http://www.worldhepatitisalliance.org/regions/eastern-mediterranean-region

[116] World Health Organization. "Governance". (2019)

[117] World Health Organization. "Eastern Mediterranean Region". (2019) Accessed February 21, 2019.

[118] World Health Organization. "Governance" (2019)

[119] Ibid.

[120] Ibid.

[121] Wali Omer, "Developing a Socioeconomic Index for health research in Iraq", (2017) http://www.emro.who.int/emhj-volume-23-2017/volume-23-issue-10/developing-a-socioeconomic-index-for-health-research-in-iraq.html

[122] Ibid.

was the Palestinian – Israeli Conflict. While Israel has left the EMR, Palestinian occupied territories have many health impacts, including mental health.[123]While Palestine is not the only member, Syria and Yemen are currently struggling a humanitarian crisis with their own federal governments. As a result, the communicable diseases that have been thought to be declining have been remerging in these regions. In Syria, the rates at which these infections are rising is unclear due to lack of surveillance and accuracy from the federal governments.[124]In addition, they require more emergency preparedness strategies.

Chronic illnesses have seen a rise with about 60% of deaths in the region.[125]Factors attributed to the increase of chronic illnesses include but not limited to cultural westernization, socioeconomic status, health behaviors, lack of adequate healthcare, political conflicts, etc.[126]

Introduction / Topical Health

Chronic illnesses have taken a huge toll on the Eastern Mediterranean region and different factors have been the problem. The various chronic illnesses that have been problematic in the region include but not limited to diabetes, cancer (breast, lung, and bladder cancers), cardiovascular diseases (CVD), chronic respiratory diseases (asthma), obesity, mental health, substance abuse, Alzheimer's, etc.[127]The most common risk factors found in these regions include unhealthy diet, physical inactivity, tobacco, and alcohol use. From all NCD deaths, 77% of deaths are from four: diabetes, cancer, CVDs, and respiratory diseases, and globally, NCDs contribute to 71% of all deaths.[128]In addition, the Eastern Mediterranean region contributes to 80% of all deaths in NCDs. The region also struggles with premature deaths, which are deaths before the age of 70. While these are the four most common types of deaths, obesity has been rapidly growing in the region in countries like Egypt, Kuwait, Bahrain, Saudi Arabia, United Arab Emirates (UAE), and Jordan, specifically among children.[129]

Chronic illnesses require lifelong expenses to manage and control. In the Eastern Mediterranean region, the economies vary according to each country, but generally the region is low – and middle – income countries. According to the World Bank, Middle East and North Africa (MENA) has been seeing a rise in their economies from the social and economic reforms in some of these countries.[130]The improvements in financial support from various organizations has helped in some ways. For example, $100 million loan was given to Tunisia for childhood development, while $400 million loan was for Lebanon's labor reforms.[131]Public health resources have been seen to be provided to a majority of refugees in locations, such as Lebanon.[132]The decrease in some of the nations' economies, particularly in the Gulf Cooperation Council

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[123] Samir Quota, "Child development and family mental health in war and military violence" (2008) https://doi.org/10.1177/0165025408090973

[124] Sharif A. Ismail, "Communicable disease surveillance and control in the context of conflict and mass displacement in Syria", (International Journal of Infectious Diseases, 2016) https://core.ac.uk/download/pdf/81626402.pdf

[125] "Regional Committee for the Eastern Mediterranean Office". World Health Organization. http://applications.emro.who.int/docs/RC_Technical_Papers_2018_4_20534_EN.pdf

[126] Ibid.

[127] Ibid.

[128] World Health Organization, "Non Communicable Disease", (WHO, 2019). http://www.emro.who.int/noncommunicable-diseases/causes/index.html

[129] World Health Organization, Obesity, (2019) https://www.worldbank.org/en/region/mena/publication/gep-2018

[130] World Bank, "Middle East and North Africa: Overview", (2018) http://www.worldbank.org/en/region/mena/overview#

[131] Ibid.

[132] Ibid.

(GCC), have been due to the changes in gas – oil productions and revenue.[133]However, it is expected to be rising again, even in other nations, such as Morocco and Iran. The region also is one of the least integrated regions in the world.[134]Nevertheless, in early 2019, Kuwait donated over $300 million to WHO's humanitarian support in Syria.[135]

The Eastern Mediterranean region is a diverse region with different languages, cultures, and religions. As the region develops, it has been adopting similar lifestyle behaviors as the western world. Fast food chains have rapidly increased and a more sedentary lifestyle is common.

Another impact on receiving treatments are access and availability to healthcare resources. In Gaza, Palestine, many patients with cancer do not have medications, chemotherapy, specialized surgeons, or even proper tools to diagnose cancer due to insufficient supplies available.[136]In order to receive adequate treatment, Palestinians would need to go to Israel, which requires an entry visa that can take up to several months. At times, those entry visas are denied, therefore, the Palestinians would need to go elsewhere, such as Egypt.[137] According to the USAID, there has been a shift to focus on ensuring quality treatment and access in the private sectors, such as nurses, doctors, health insurance, pharmaceuticals, etc. to better address the rising concern in the Middle East and North Africa region.[138]Among the wealthiest countries in the region because of its oil industry, Saudi Arabia has "Health for All" (HFA), which is healthcare services provided to all Saudis.[139]Healthcare is available to them all through private and public sectors with the latter being more accessible; moreover, Saudi Arabia is a generally homogenous country, which makes it more convenient to provide healthcare access to all its people.[140]Similarly, Oman has been taking charge to place more regulations on medical devices, and they have been supported alongside with Saudi Arabia.[141] Also, the UAE has high ratios for the amount of doctors to the number of individuals in the area, 2.5 per 1,000.[142] On the other hand, the Libyan healthcare system continues to deteriorate, and the inadequate human resources they are unable to provide assistance with the medical resources available.[143]In addition, Libya required assistance from

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[133] World Bank, "Global Economic Prospects for 2018: Middle East and North Africa", (2018) https://www.worldbank.org/en/region/mena/publication/gep-2018

[134] Ibid.

[135] World Health Organization, "Syrian Arab Republic Crisis", (2019) https://www.who.int/emergencies/crises/syr/en/

[136] World Health Organization, "Occupied Palestinian Territory: Gaza's patients' painful journey to cancer treatment" (2019) http://www.emro.who.int/countries/pse/index.html

[137] Ibid.

[138] USAID, "Health trends in the Middle East and North Africa", (July 2018) https://www.hfgproject.org/health-trends-in-the-middle-east-and-north-africa/

[139] Fahid M. Albejaidi, "Healthcare system in Saudi Arabia", (2010) https://www.researchgate.net/profile/Hana_Alsobayel/publication/273162318_Rehabilitation_Services_in_Saudi_Arabia_An_Overview_of_its_Current_Structure_and_Future_Challenges/links/56a0926f08ae2c638ebb5111/Rehabilitation-Services-in-Saudi-Arabia-An-Overview-of-its-Current-Structure-and-Future-Challenges.pdf

[140] Ibid.

[141] World Health Organization, "Oman" (November 18, 2018) http://www.emro.who.int/omn/oman-news/regulatory-capacity-medical-devices.html

[142] Aetna, "Healthcare quality in the Middle East" (2018) https://www.aetnainternational.com/en/about-us/explore/living-abroad/culture-lifestyle/health-care-quality-in-the-middle-east.html

[143] World Health organization, "2017 Review of Health Sector in Libya", (2017) https://reliefweb.int/sites/reliefweb.int/files/resources/2017_review_of_health_sector_in_libya.pdf

foreign organizations and governments to be able to accommodate health emergency; nonetheless, Libya struggles to supply lifelong medications and care for chronic illnesses.[144]

As majority of the Eastern Mediterranean Regional countries have been provided aid to tackle infectious diseases, chronic illnesses have been rapidly increasing and difficult to control, while it has become evident that the epidemiological transition is not unidirectional.[145] Within this region, some areas (low-economic status) are battling infectious diseases, while in higher economic status communities' chronic illnesses have become dominant. Demographic changes, biological factors, overcrowding, environmental pollutants, drug - resistance, etc.

Background on Chronic Illness in the Region

Over the past two decades, health in the region has enormously changed. Life expectancy has increased, and premature deaths have decreased, rapidly.[146] Between 1990 and 2010, both lower respiratory infections and ischemic heart disease were first and second place, respectively. Depression was also increasing from 8th to 5th from 1990 to 2010, and lower back pain has become a leading cause in health loss.[147]In 2016, the Gulf countries, which are the highest income countries in the region, have the highest rates of diabetes.[148] The Gulf countries include Saudi Arabia, UAE, Bahrain, Qatar, Kuwait, Iraq, and Oman. Although they have the financial resources, they lack population responses and socioeconomic drivers that would reduce the impacts of obesity and diabetes.[149]In addition, they do not have the health workforce to implement strategies and treatments. On the other hand, middle - income countries in the region have the necessary labor for treatment, but they lack funding and policy implementations. Health systems in the region lack appropriate surveillance to monitor and provide adequate services that individuals are able to have to maintain their health from chronic illnesses. [150]

Studies have shown an association between oral hygiene and chronic illnesses.[151]While $70 billion are globally used on health expenditures, 10% of the money has been used in developing nations, the "10-90 gap".[152] Oral infections remains to be in the question of how impactful it is to develop NCD. Other comorbidity factors come in with awareness of an illness, such as tuberculosis (TB) or diabetes. In Pakistan, a study showed that when individuals were more aware about the chronic illnesses' treatments and lifelong control, they were more likely to develop depression and anxiety.[153]Negative perceptions of illnesses require psychological treatment in order to treat the illness. People in Pakistan were less likely to receive and maintain treatment for diabetes.[154] In the Islamic Republic of Iran, the population seems to be rapidly

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[144] Ibid.

[145] M.H. Wahdan, "The epidemiological transition" (Eastern Mediterranean Journal, 1996)

[146] Ali Mokdad, "Arab Countries living longer but battling chronic disease", IHME (January 19, 2014) https://www.hfgproject.org/health-trends-in-the-middle-east-and-north-africa/

[147]

[148] Samer Jabbour, "Preventing NCDs in the Eastern Mediterranean" (April 7, 2016) https://www.wcrf.org/int/blog/articles/2016/04/preventing-ncds-eastern-mediterranean

[149] Ibid.

[150] Ibid.

[151] S.A.H. Bokhari, "Growing burden of noncommunicable diseases: the contributory role of oral diseases", (Eastern Mediterranean Health Journal, 2009)

[152] Ibid.

[153] Mohammad O. Husain, "The relationship between anxiety, depression, and illness perception in TB patients in Pakistan", (Clinical Practice and Epidemiology in Mental Health, 2008)

[154] Ibid.

aging with no data and prevalence rates of chronic illnesses to determine how much effect it is having on the region.[155]Iran has seen an alongside increase in chronic illnesses, and they have been able to tackle some of the concerns that arise with them. However, they do not have a consistent system to monitor and manage the number of cases.[156] The study has also shown that the common risk factors associated with increase include but not limited to physical inactivity, overweight, tobacco use, cholesterol, high blood pressure, etc. The change in dietary habits, which include increase in fat intake, rice, oil, and no increase in vegetables and fruits.[157] This has resulted in rapid obesity in the Arab world.

Actors and Stakeholders

Private health sectors provide various healthcare resources to the people, such as delivering services and financing care.[158]Within the region, private sectors have known to be weak in monitoring and regulating health concerns, while they have only been helpful in developing strategies and policies. [159]Nonetheless, private sectors remain an insufficient resource because of their lack of consistency and dependence. Some countries have been trying to strengthen their private sector. In Jordan, they have been trying to work together between their public and private sectors to advocate for more policies and strategic planning, however, it has been difficult for them to reach to a conclusion because of lack of cooperation.[160] Similarly, Tunisia and Egypt have been expanding their private sectors, but again, lack of communication and cooperation between the public and private sectors have proven to be complicated.

The Framework Convention on Tobacco Control (FCTC) includes 19 of 22 countries from EMR. FCTC is a program working to reduce production, distribution, and usage of tobacco to reduce the amount of chronic illnesses.[161] It has been working to place taxations and increase prices, eliminate advertisements, and place smoking restrictions.[162] FCTC is also helpful to the economy by providing a return on investment phenomena, since the taxations on tobacco have been providing money.

The Eastern Mediterranean Region NCD Alliance (EMR NCDA) is a nongovernmental organization that aims to prevent and control the spread of NCDs in the region.[163]EMR NCDA consists of various countries, and the headquarters is located in Kuwait. It is not, however, taken seriously as it still lacks a significant amount of infrastructure.[164]They work to encourage local community service officers (CSOs) to be stronger workers in regards to preventing and controlling NCDs. Since they consist of numerous countries, they work to foster a "collective response" to the increase in NCDs in the region and raise public awareness.[165]

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[155] World Health Organization, "Chronic Illnesses among older people in Amirkola, northern Islamic Republic of Iran" (Eastern Mediterranean Journal, 2011)
[156] Ibid.
[157] Ala'din Alwan, "Noncommunicable diseases: a major challenge to the public health in the region" (Eastern Mediterranean Journal, 1997)
[158] USAID, "Health trends in the Middle East and North Africa" (July 2018) https://www.hfgproject.org/health-trends-in-the-middle-east-and-north-africa/
[159] Ibid.
[160] Ibid.
[161] World Health Organization. "Tobacco Free Initiative" (2019) http://www.emro.who.int/tfi/who-fctc/index.html
[162] Ibid.
[163]Eastern Mediterranean Region NCD Alliance. "Who We Are / About" (2019) https://www.emrncda.org/about/
[164] Ibid.
[165] Ibid.

Strategies to Improve

WHO STEPwise is an approach used among the various regions that are a part of WHO. STEPwise is one of the methods used in the EMR office to track and monitor the risk factors.[166] It has been one of the few steps to improve surveillance of noncommunicable diseases in the region. It is also useful to compare the region with other countries. [167] It has also been able to consistently monitor premature deaths. Nonetheless, more surveillance and monitoring systems need to be in place.

For years, Yemen continues to suffer through a humanitarian crisis, the Minimum Service Package (MSP) has been one of the few effective strategies to provide access and availability to health resources. Along with other organizations, WHO was able to reach across Yemen in different districts. [168]In addition, it had been aimed to help vulnerable people in remote locations. However, health workers in the region have still be not be provided with necessary medications that are useful for the long-term illnesses, which are the chronic illnesses.[169]

Conclusion

The Eastern Mediterranean region (EMR) requires requires massive improvement in improving its healthcare systems. In addition, chronic illnesses remains rapidly increasing. With some countries still battling communicable diseases, there are higher risks of individuals developing more serious illnesses or comorbidities. WHO and local governments have been trying to implement better strategies and policies to improve overall health. Nonetheless, increasing awareness and educational programs can useful to reduce risky health behaviors, such as smoking. The use of tobacco and alcohol remain unresolved, which are among the greatest risk factors for chronic illnesses. There are no national policies in many of these countries, and inadequate access to treatments.[170] Also, data about tobacco control is not always available in the Eastern Mediterranean Region.[171]More research and regulations need to be placed in the region in order to deescalate the growth of chronic illnesses.

Additional Resources

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2. Health Systems in the EMR Office https://apps.who.int/iris/bitstream/handle/10665/116086/High_Level_Exp_Meet_Rep_2012_EN_14496.pdf?sequence=1
3. Noncommunicable disease in the EMR https://apps.who.int/iris/bitstream/handle/10665/250371/EMROPUB_2016_EN_18977.pdf?sequence=1&isAllowed=y

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[166] World Health Organization. " Noncommunicable Diseases: STEPwise" (2019) http://www.emro.who.int/noncommunicable-diseases/stepwise-surveillance/stepwise-surveillance-steps.html

[167] Ibid.

[168] World Health Organizations. "The Minimum Service Package", (February 19, 2019) http://www.emro.who.int/yem/yemen-news/the-minimum-service-package-a-lifeline-for-the-vulnerable-in-remote-areas.html

[169] Ibid.

[170] Feras Hawari. "Advancing Tobacco Dependence Treatment Services in the Eastern Mediterranean Region" (2014)

[171] Ibid.

4. The burden of mental illness
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SHOPS Plus, Health Financing and Governance Project. “Health Trends in the Middle East.” USAID. (July 2018) Accessed February 18, 2019. https://www.hfgproject.org/health-trends-in-the-middle-east-and-north-africa/

“STEPwise Surveillance.” WHO EMRO | Noncommunicable Diseases | (2019) Accessed February 18, 2019 http://www.emro.who.int/noncommunicable-diseases /stepwise-surveillance/stepwise-surveillance-steps.html

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Yurtoğlu, Nadir. "Regional Committee for the Eastern Mediterranean Office”. *History Studies International Journal of History 10*, no. 7 (2018): 241-64. doi:10.9737/hist.2018.658.

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MWHO 2019 Regional Committee Background

Jana Alghoraibi and Jude Basrawi

Background on WHO Regional Committee (EURO) and Participants

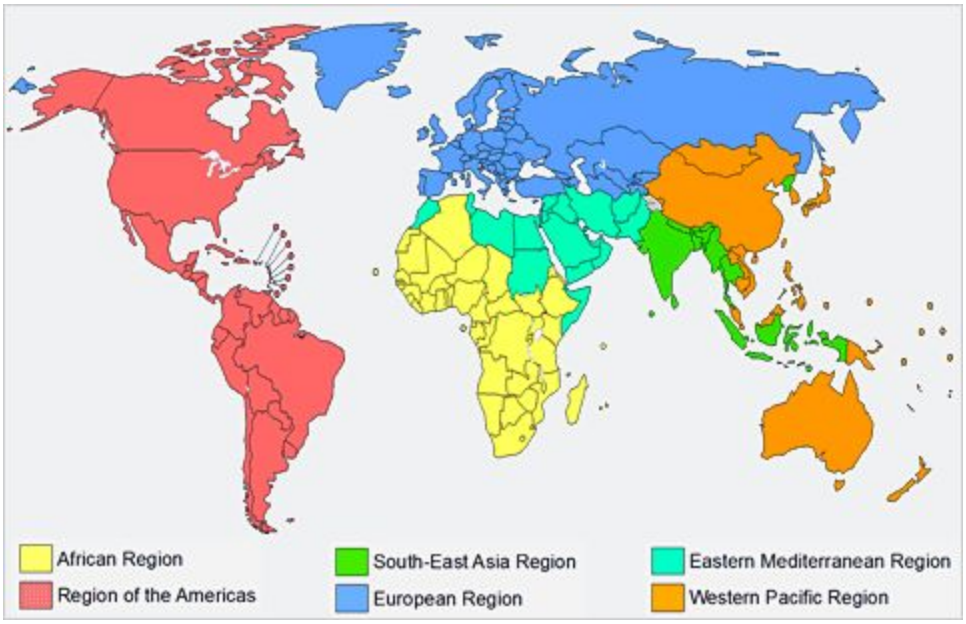

Figure. 1. Map of WHO Regional Offices[172]

The regional committee for Europe is The World Health Organization's (WHO) decision making body in the European region. The European Regional Office (EURO) meet for four days in September each year, where they formulate regional policies, supervise WHO/Europe's activities, and comment on the regional component of WHOs proposed program budget.[173] Shown in the blue shaded area in figure 1, the European region of the WHO organization includes the nations of : Albania, Andorra, Armenia, Austria, Azerbaijan, Belarus, Belgium, Bosnia and Herzegovina, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland,

[172] WHO. 2019. WHO Regional Offices. Accessed from http://www.who.int/about/regions/en/.
[173] WHO.2019. Regional Committee for Europe. Accessed from http://www.euro.who.int/en/about-us/governance/regional-committee-for-europe/regional-committee-for-europe2.

France, Georgia, Germany, Greece, Hungary, Iceland, Ireland, Israel, Italy, Kazakhstan, Kyrgyzstan, Latvia, Lithuania, Luxembourg, Malta, Monaco, Montenegro, Netherlands, Norway, Poland, Portugal, Republic of Moldova, Romania, Russian Federation, San Marino, Serbia, Slovakia, Slovenia, Spain, Sweden, Switzerland, Tajikistan, The former Yugoslav Republic of Macedonia, Turkey, Turkmenistan, Ukraine, United Kingdom and Uzbekistan .[174]

In addition to the 53 countries, The EURO region covers a wide geographical region from the Atlantic to the Pacific Oceans. The WHO staff are public health, scientific and technical experts based in the main office located in Copenhagen, Denmark.[175] The main functions of the EURO region is "providing technical assessment and guidance by conducting health research and disseminating data by preparing recommendations and strategies for addressing major health issues."[176]

Every five years the organization nominates the regional director for EURO and transmits their decision to the WHO Executive Board for endorsement.[177] In addition to the regional committee, the standing committee of the regional committee (SCRC) is a subcommittee of the WHO regional Committee for Europe, and is comprised of representatives from 12 countries, with each member elected by the regional committee to serve for 3 years.[178] The committee meets several times a year where they act for and represent the Regional

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[174] WHO. 2016. The World Health Organization in The European Region. Accessed from http://www.euro.who.int/__data/assets/pdf_file/0006/318489/WHO-Europe-brochure-EN.pdf?ua=1

[175] WHO. (2019). WHO Europe | Countries. Accessed from http://www.euro.who.int/en/countries.

[176] WHO.(2019).WHO/Europe Organization. Accessed from http://www.euro.who.int/en/about-us/organization.

[177] Ibid

[178] WHO. (2019). WHO/Europe | Standing Committee. Acessed From http://www.euro.who.int/en/about-us/governance/standing-committee.

Committee. They also ensure that effect is given to the Committee's decisions and policies; they "advise the Regional Committee on questions referred to it by that body; counsel the WHO Regional Director for Europe as and when appropriate between Regional Committee sessions; and report to the Regional Committee on their work".[179]

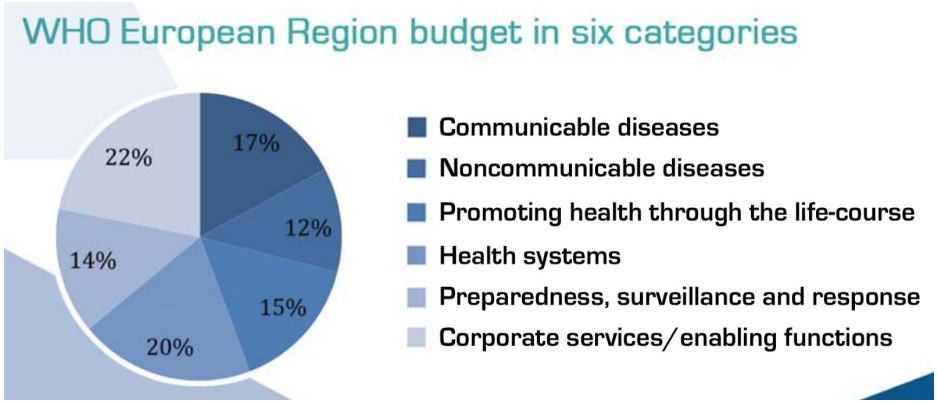

Figure 2. A pie chart showing the EURO budget in six categories[180]

In recent years, the region has seen great progress in several areas of health, with the overall life expectancy increasing by 5 years.[181] However the gains have not benefited everyone equally; thus, the EURO organization have come up with the Health 2020 plan that will "work as a collective effort to achieve the sustainable development goals".[182] The Health 2020 plan, was adopted in 2012, after a 2 year consultation among a wide range of stakeholders, and will introduce "new forms of governance for health, a variety of strategies and interventions to address major health challenges, targets and a monitoring framework to measure progress and ensure accountability"[183]. Health 2020 proposes four priorities for policy action, which form all

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[179] Ibid

[180]

[181] WHO. (2016). The World Health Organization in The European Region. Accessed from http://www.euro.who.int/__data/assets/pdf_file/0006/318489/WHO-Europe-brochure-EN.pdf?ua=1

[182] Ibid

[183] Ibid

activities in the policy framework.[184] These priorities include, "investing in health through a life course approach and empowering citizens, tackling Europe's major disease burdens of non communicable and communicable diseases, strengthening people centered health systems and public health capacity, including preparedness and emergency response, and creating resilient communities and supportive environments".[185]

Introduction/Topical History

Non-communicable (NCD) diseases in the European region are characterized by a few positive trends. There has been a decrease in mortality and an increase in life expectancy in the last 40 years.[186] Nonetheless, the EURO region is still facing major health disparities, especially between Southern Mediterranean Europe , countries of Central Europe and the Baltic region.[187] According to the World Health Organization (WHO), the European region is the most affected region as a result of the the rapid increase of noncommunicable diseases.[188] The five major health conditions that account for 86% of deaths and 77% of the disease burden in the region are the following: diabetes, cardiovascular diseases, cancer, chronic respiratory diseases and mental disorders.[189] Similar risk factors are linked to most of these chronic diseases. High blood

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[184] Ibid
[185] Ibid
[186] Brennan, P., Markus, P., Gert-Jan,V.O., Elio, R. and On behalf of the European Cohort Consortium. (2017). Chronic Disease Research in Europe and the Need for Integrated Population Cohorts. *European Journal of Epidemiology*32, no. 9: 741–49. https://doi.org/10.1007/s10654-017-0315-2.
[187] Ibid
[188] WHO. (2017). WHO/Europe | Noncommunicable Diseases. Accessed from http://www.euro.who.int/en/health-topics/noncommunicable-diseases/noncommunicable-diseases.
[189] Ibid

pressure, tobacco use, alcohol consumption, obesity, and lack of physical activities all contribute to the increased risk of chronic diseases.[190]

It is estimated that by reducing these risk factors, 80% of all heart disease, stroke and diabetes, as well as 40% of cancer cases can be prevented.[191]

Cancer

The European region faces 3 million new cancer cases and 1.7 million deaths per year, making cancer the most important cause of death and morbidity in Europe.[192] Despite having one eighth of the world total population, Europe has one quarter of the global total of cancer cases.[193] Cancer can be preventable in many cases, excessive alcohol and tobacco consumption causes about 40% of the total cancer burden in Europe, with percentages varying depending on the country.[194] Obesity and physical inactivity raises the percentage of cancer due to an unhealthy lifestyle to 60%.[195] The types of cancer that causes the most deaths in the region are: Lung, breast, stomach, liver, and colon cancer.[196] The single most important risk factor associated with cancer is tobacco

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[190] Ibid

[191] WHO. (2017) "Fact sheets on sustainable development goals: health targets". Accessed from http://www.euro.who.int/__data/assets/pdf_file/0007/350278/Fact-sheet-SDG-NCD-FINAL-25-10-17.pdf?ua=1

[192] WHO. (2019). WHO/Europe | Cancer. Accessed from http://www.euro.who.int/en/health-topics/noncommunicable-diseases/cancer/cancer.

[193] WHO. (2019). WHO/Europe | Data and Statistics.Accessed from http://www.euro.who.int/en/health-topics/noncommunicable-diseases/cancer/data-and-statistic.

[194] Ibid

[195] Ibid

[196] Ibid

use;[197] This suggests that prevention programs targeting tobacco use are crucial in reducing cancer cases.

Cardiovascular Disease(CVD)

According to the World Health Organization, half of all deaths across the European region are caused by Cardiovascular Disease(CVD).[198] In 80% of the cases, premature heart disease and stroke are preventable.[199] Genetics and socioeconomic conditions are risk factors contributing to CVD. Mothers from low socioeconomic backgrounds, young mothers, and mothers with low educational backgrounds are more likely to give birth to low-weight babies. Low-birth weight is associated as a risk factor to developing coronary heart disease and high blood pressure.[200] Early life habits, such as exercising and refraining from tobacco use, are learned from parental and peer examples and can reduce the risk of CVD. Furthermore, males age 20 to 64 who work in unskilled manual occupations are found to be three times more likely to die prematurely due to CVD, compared to those in higher positions.[201] Moreover, health disparities are seen when improvements in health only benefit the privileged.[202] Other chronic health conditions can contribute to the development of cardiovascular disease, the conditions include diabetes and mental health issues, such as increased stress.[203]

Diabetes

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[197] Ibid
[198] WHO. (2019). WHO/Europe | Data and Statistics.Accessed from http://www.euro.who.int/en/health-topics/noncommunicable-diseases/cancer/data-and-statistic.
[199] Ibid
[200] Ibid
[201] Ibid
[202] Ibid
[203] Ibid

Diabetes currently affects 60 million people in the European region.[204] Due to the increase in obesity and physical inactivity, diabetes is on the rise among all age groups in Europe.[205] The prevalence of diabetes in the region differs depending on various risk factors. Type 2 diabetes is six times more common in people from South Asian descent and three times more common among those of African origins[206]. It is important to note other confounding variables that might affect these results, such as health disparities occuring based on race and ethnicity. Genetics, diet, and physical activity can all play a role in the increased risk of acquiring diabetes. Age is a risk factor for type 2 diabetes, however, the European region has seen an increase in type 2 diabetes among all age groups including children and adolescents.[207] Furthermore, high rates of diabetes are caused by socioeconomic determinants where lower-income groups in middle and high-income countries are most affected.[208] The consequences of diabetes can be severe. It is estimated that 50% of diabetic people die from cardiovascular disease, and 10-20 people develop kidney failure.[209] The risk of blindness and nerve damage are also associated with diabetes.[210]

Chronic respiratory diseases

[204] WHO. (2019). WHO/Europe | Data and Statistics.Accessed from http://www.euro.who.int/en/health-topics/noncommunicable-diseases/diabetes/data-and-statistics .

[205] Ibid

[206] Ibid

[207] Ibid

[208] Ibid

[209] Ibid

[210] Ibid

Chronic respiratory diseases are one of the major causes of death in the European region.[211] Smoking is a main risk factor for cancer and respiratory disease. Out of the six WHO regions, the EURO region has the highest prevalence of smoking, estimated to be 29% as of 2008.[212] Data collected in 2002-2007 showed that half of the children aged 13-15 years old living in the European countries are exposed to secondhand smoking at home. Second-hand smoking can cause severe respiratory problems such as asthma, which is currently the most common chronic disease among children throughout the region.[213] Latest available data showed that 12% of infants deaths are caused by respiratory disease, with infant death rates being higher in Eastern Europe.[214] Ozone pollution and exposure to particular matters trigger asthma symptoms and causes breathing difficulties.[215] To combat Chronic respiratory diseases, policies have been introduced to eliminate tobacco smoke. Advertising cigarette and tobacco products to minors has been banned in more than 80% of the countries in Europe.[216]

Mental Illness

The prevalence of mental disorders is estimated to be one-fourth of the general European population.[217] Mental disorders can have major effects on individuals productivity. A literature

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[211] WHO. (2019). WHO/Europe | Noncommunicable Diseases. Accessed from http://www.euro.who.int/en/health-topics/noncommunicable-diseases/noncommunicable-diseases.
[212] WHO. (2019). WHO/Europe "Data and Statistics,"Accessed from http://www.euro.who.int/en/health-topics/noncommunicable-diseases/chronic-respiratory-diseases/data-and-statistics.
[213] Ibid
[214] Ibid
[215] Ibid
[216] Ibid
[217] European Union. (2008). The burden of #1 mental disorders in the European Union. Accessed from http://www.eu-wmh.org/PDF/FactSheet_Burden.pdf

review showed that the lifetime prevalence of mental disorder in 10 European countries was estimated to be 25.6%.[218] Depression and specific phobias were the most common disorders at 12.4% and 7.4%, followed by post-traumatic disorders at 3.4%.[219] WHO estimates that 82 million people living in the EURO region are being affected by mental disorders.[220]

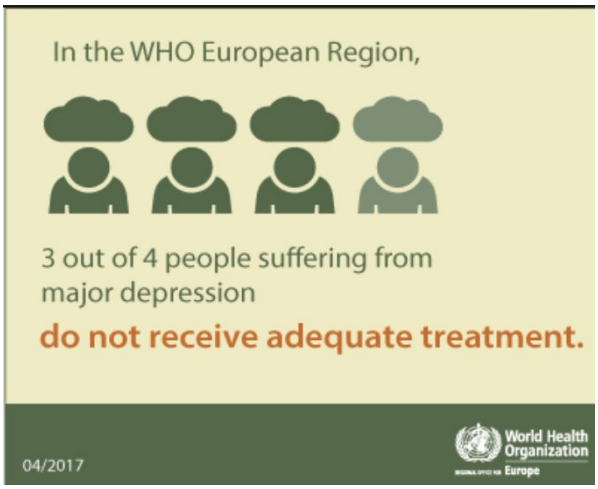

Figure 3. Statistics on Depression.[221]

Six countries in the European region fall in the top 20 countries with the highest suicide rates globally.[222] Suicides are the cause of 17% of all deaths among young adults aged 15-29.[223] According to WHO, 90% of suicides can be attributed to mental disorders in high-income countries, with 22% of them being linked to alcohol use.[224]

Case Study

A literature review titled Behavioral and Dietary Risk Factors for Noncommunicable Diseases in the New England Journal of Medicine, states mortality rates in adults has declined over the past decades except in Eastern Europe and parts of Africa.[225] Alcohol consumption is

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[218] Ibid
[219] Ibid
[220] WHO. (2019). WHO/Europe|Data and Resource. Accessed from http://www.euro.who.int/en/health-topics/noncommunicable-diseases/mental-health/data-and-resources.
[221] Ibid
[222] Ibid
[223] Ibid
[224] Ibid
[225] Ezzati, Majid, and Elio Riboli. (2013). Behavioral and Dietary Risk Factors for Noncommunicable Diseases. *New England Journal of Medicine*369, no. 10: 954–64. https://doi.org/10.1056/NEJMra1203528.

one of the top three risk factors in the cause of the disease burden in Eastern Europe.[226] While harmful alcohol consumption has been contained in some Western countries, it still remains a major public health burden. In Eastern Europe and Latin America harmful alcohol consumption is worsening, and curbing its current harms and preventing its rise should be a priority.[227]

The hazardous effects of smoking on mortality from cancers and cardiovascular and respiratory diseases has been studied and known for many decades.[228] The majority of smokers worldwide live in low- and middle - income countries however the prevalence of smoking has plateaued at high levels among men and women in Central and Eastern Europe.[229] According to the study, "An estimated 60% of men in some countries in Eastern Europe and East Asia smoke. The prevalence of smoking among women is still highest in Western societies, with a prevalence of about 40% in some European countries".[230] Furthermore, the study showed that, "The death toll from smoking is especially large in Eastern Europe, where the prevalence of smoking and the prevalence of other cardiovascular risk factors are concurrently high".[231] The case study showcased the growing need for health interventions targeting tobacco use and excessive alcohol consumption to reduce chronic disease among the European population.

Actors and Stakeholders

UN Agencies

Many actors and stakeholders coordinate with the EURO region to deal with the chronic illness crisis. The United Nations Interagency Task Force (UNIATF) on the Prevention and

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[226] Ibid
[227] Ibid
[228] Ibid
[229] Ibid
[230] Ibid
[231] Ibid

Control of NCDs interrelates the work of UN organizations and other intergovernmental organizations to support governments to meet their commitments to deal with the non communicable disease epidemic worldwide.[232] Their mission includes "supporting UN country teams in their efforts to help countries to build and share solutions for the prevention and control of NCDs, and establishing a UN thematic group on NCDs to serve as platforms for joint support to national efforts to address NCDs".[233]

United Nations Development Programme (UNDP) in Eastern Europe also helps "ensure that economic growth benefits everyone, including those at greater risk of exclusion".[234] While their efforts will not directly affect the incidence of chronic illnesses, socioeconomic conditions can have a major effect on the health of a region, thus their efforts of opening opportunities for participation in development, and protecting natural resources, they support the mission of lowering the occurrence of non communicable diseases.[235]

NGOs and Private Foundations

Private foundations similar to The Global Alliance of Chronic Disease majorly benefit the efforts of preventing and treating NCDs. The GACD "develop and facilitate innovative research collaborations between low- and middle-income and high-income countries in the fight against chronic diseases, working with alliance members across the globe".[236] Since NCDs account for 60% of deaths globally, the alliance greatly supports research activities that address

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[232] WHO. (2019) "NCDs | UN Interagency Task Force on NCDs (UNIATF)." Accessed from https://www.who.int/ncds/un-task-force/en/.
[233] Ibid
[234] United Nations Development Programme. (2019). Sustainable Development. Accessed from http://www.eurasia.undp.org/content/rbec/en/home/sustainable-development.html.
[235] Ibid
[236] Global Alliance for Chronic Diseases.(N.d)."What We Do." Accessed from https://www.gacd.org/about/what-we-do.

the prevention and treatment of chronic non-communicable diseases.[237] Five primary areas of chronic, non-communicable diseases that the GACD focus on include the following : diabetes, lung disease, cancer cardiovascular disease, and mental disorders.[238] All funded research teams make up the GACDResearch Network, which has the "aim to foster collaboration and cross-study learning to strengthen the impact of the research, ultimately leading to improved health outcomes".[239]

The Global Health Workforce Alliance (The Alliance) is a non profit membership organization that was created in 2006 as a platform for action in order to address the chronic shortage of doctors, nurses and midwives.[240] The Alliance is a "partnership of national governments, civil society, international agencies, finance institutions, researchers, educators and professional associations dedicated to identifying, implementing and advocating for solutions".[241] The Alliance is governed by a Board with a broad representation of stakeholders.[242] The Secretariat is administered by the WHO organization and acts a as hosting partner.[243] It has a small core group of professionals who coordinate and facilitate the the implementation of The Alliance Strategic Plan.[244]The Alliance Members are vital to all the work done by the Alliance.[245]

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[237] Ibid
[238] Ibid
[239] Global Alliance for Chronic Diseases .(N.d). Research. Accessed from https://www.gacd.org/research.

[240] "WHO. (2019). Global Health Council|Members and Partners. Accessed from https://www.who.int/workforcealliance/members_partners/member_list/ghc/en/.

[241] Ibid
[242] "WHO. (2019). Global Health Workforce Alliance | Governance of the Alliance." Accessed from http://www.who.int/workforcealliance/about/governance/en/.
[243] Ibid
[244] Ibid

Members of The Alliance include organizations from the regions of Africa, Americas , Eastern Mediterranean, Europe, South-East Asia, and the Western Pacific.[246]

Host Governments

The U.S Government Agency for International Development "promotes and demonstrates democratic values abroad to advance a free peaceful and prosperous world".[247] USAID are partners with the countries of Europe and Eurasia, and they work throughout those regions to end the need for foreign assistance, and help these countries become more self reliant. [248] One of the more important programs the agency focuses on is the health development of their partnered countries. They implement programs that help combat non communicable diseases, primarily HIV/AIDS in Ukraine.[249]

Strategies to Counter Chronic Disease

Non-communicable diseases can be an enormous health and economic burden on the EURO member states. Chronic illnesses can be prevented by effectively addressing their risk factors. The EURO regional committee has proposed to the WHO regional office a plan to develop a flexible evidence-based intervention to combat chronic illnesses.[250] The regional committee's fifty-second session resulted in the creation of the Countrywide Noncommunicable

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245 "WHO. (2019). Global Health Workforce Alliance | Members and Partners." Accessed from http://www.who.int/workforcealliance/members_partners/en/.
246 Ibid
247 U.S. Agency for International Development. (2019). "Europe and Eurasia | Where We Work Accessed from https://www.usaid.gov/where-we-work/europe-and-eurasia.
248 Ibid
249 Ibid
250 WHO. (2017). A Strategy to Prevent Chronic Disease in Europe. Accessed from http://www.euro.who.int/en/health-topics/noncommunicable-diseases/cancer/publications/pre-2009/a-strategy-to-prevent-chronic-disease-in-europe.-a-focus-on-public-health-action.-the-cindi-vision.

Disease Intervention (CINDI).[251] CINDI provides leadership, experience in policy, program development, evaluation and monitoring to support the building of chronic illnesses prevention programs in the member states.[252] Furthermore, preventing chronic disease includes primary, secondary, and tertiary approaches which can vary according to the healthcare systems available. For example, reducing tobacco use, which is a major risk factor for many chronic illnesses, can be done by imposing new taxes, limiting advertisement, imposing bans, and providing behavioral assistance.[253]

Conclusion

Despite the European region seeing a positive trend in the decrease of chronic illnesses, they are still the cause for economic strain. In order to reduce the economical burden, five major non-communicable disease need to be addressed. An increase in cancer, diabetes, cardiovascular disease, chronic respiratory diseases, and mental illness cases are affecting the region's life expectancy and productivity. Smoking and tobacco use are major social determinants for many of these noncommunicable diseases. One of the most impactful methods to reducing these illnesses is developing intervention methods targeted to the reduction in smoking and tobacco use. Health inequity is very evident in the EURO region and NCDs primarily affect people with low income backgrounds. Empowering these people by providing supportive environments to make healthy choices will drastically aid in the decrease of chronic illness rates.

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[251] Ibid
[252] Ibid
[253] European Observatory on Health systems and Policies. (2010). Tackling Chronic Disease in Europe, Strategies, interventions, and challenges. Accessed from http://www.euro.who.int/__data/assets/pdf_file/0008/96632/E93736.pdf

Additional Resources

In Europe, the cancer burden for men and women varies widely by country

http://canceratlas.cancer.org/the-burden/cancer-in-europe/

Cancer
http://www.euro.who.int/en/health-topics/noncommunicable-diseases/cancer

Chronic disease research in Europe and the need for integrated population cohorts
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5662668/

Cost of Non-Communicable Diseases in the EU
https://ec.europa.eu/jrc/en/health-knowledge-gateway/societal-impacts/costs

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WHO. 2016. The World Health Organization in The European Region. Accessed from http://www.euro.who.int/__data/assets/pdf_file/0006/318489/WHO-Europe-brochure-EN.pdf?ua=1

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WHO. (2019). WHO/Europe | Standing Committee. Acessed From http://www.euro.who.int/en/about-us/governance/standing-committee.

WHO. (2016). The World Health Organization in The European Region. Accessed from http://www.euro.who.int/__data/assets/pdf_file/0006/318489/WHO-Europe-brochure-EN.pdf?ua=1

WHO. (2017). WHO/Europe | Noncommunicable Diseases. Accessed from http://www.euro.who.int/en/health-topics/noncommunicable-diseases/noncommunicable-diseases.

WHO. (2017) "Fact sheets on sustainable development goals: health targets". Accessed from http://www.euro.who.int/__data/assets/pdf_file/0007/350278/Fact-sheet-SDG-NCD-FINAL-25-10-17.pdf?ua=1

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WHO. (2019). WHO/Europe | Data and Statistics.Accessed from http://www.euro.who.int/en/health-topics/noncommunicable-diseases/diabetes/data-and-statistics.

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WHO. (2019). WHO/Europe|Data and Resource. Accessed from http://www.euro.who.int/en/health-topics/noncommunicable-diseases/mental-health/data-and-resources.

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WHO. (2019). Global Health Workforce Alliance | Governance of the Alliance." Accessed from http://www.who.int/workforcealliance/about/governance/en/.

WHO. (2019). Global Health Workforce Alliance | Members and Partners." Accessed from http://www.who.int/workforcealliance/members_partners/en/.

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U.S. Agency for International Development. (2019). "Europe and Eurasia | Where We Work Accessed from https://www.usaid.gov/where-we-work/europe-and-eurasia.

WHO. (2017). A Strategy to Prevent Chronic Disease in Europe. Accessed from http://www.euro.who.int/en/health-topics/noncommunicable-diseases/cancer/publications/pre-2009/a-strategy-to-prevent-chronic-disease-in-europe.-a-focus-on-public-health-action.-the-cindi-vision.

Background and Introduction of the World Health Organization Specialized Committee: The Effect of Diet and Nutrition on Chronic Illnesses

Madisyn Galang

The conference of diet, nutrition, and prevention of diseases in Rome of the joint World Health Organization (WHO) and the Food and Agriculture Organization (FAO) took place in December 1992[1]. This conference expressed concerns of the relationships of chronic diseases; obesity, type 2 diabetes, cancer, osteoporosis, and dental disease, with changes in dietary and health patterns[2]. They reviewed the latest scientific evidence of the correlation between diet, nutrition, and diseases and studied gene and nutrient interactions and their implications on developing countries. During the conference, the attendees prepared recommendations for diet and nutrition to help aid the prevention of chronic diseases and started implementing effective evidence-based multisectoral policies and strategies[3].

Noncommunicable diseases now kill more people than any other cause of death[4]. Diet and physical inactivity have been a high-target subject by the WHO/FAO expert consultation. The factors and implications communicated during the joint WHO/FAO conference let representatives from 159 countries, 15 United Nations organizations, and 144 non-governmental organizations participate[5].

Three years leading up to the International Conference on Nutrition (ICN), world-renowned experts prepared papers on their countries food and nutrition situation[6]. The WHO staff prepared a paper on the life course approach and the FAO staff prepared a paper of the global and regional food consumption patterns and trends[7]. State-of-the-art

technical papers about the factors influencing the nutritional status were prepared for the conference.

Topical History

80% of noncommunicable diseases are now located in the developing world, moving from higher to lower socioeconomic groups[8]. These noncommunicable diseases, poor diet, physical inactivity, tobacco and alcohol use, type 2 diabetes, hypertension, and cardiovascular diseases, are strongly contributing to inequities in health[9]. Urbanization, occupation changes and global influences determine these changes in the developing world; these concern children and adults alike. On a population scale, relatively modest behavioral changes affecting several of the risk factors simultaneously can make swift, affordable, and dramatic changes in population health[10].

During the ICN, governments of attending nations pledged to put full effort towards the reduction or elimination of starvation; especially in children, women, and the elderly; nutrient deficiencies like iron, iodine, and vitamin A; diet-related communicable and non-communicable diseases; poor hygiene and unsafe drinking-water; and impediments of breast-feeding[11]. These were said to be eliminated by the next millennium by using the *World Declaration on Nutrition* and *Plan of Action for Nutrition* as guidelines[12]. Following these strategies, many nation's governments, non-governmental organizations, and international agencies maintained a momentum, created by the conference, to carry out the commitments made at the conference and create new initiatives[13].

Successes and Challenges

Australia, Japan, Republic of Korea, and New Zealand all progressed through gathering national data sets regularly, mandating national health regulatory and legislative directives, creating comprehensive long-term health promotion programs, targeting lower/disadvantaged populations, and political organization[14]. Though these countries introduced these new programs, there were multiple challenges being faced. The need for long-term commitments, high prevalence of non-communicable diseases and risk factors increasing, traditional diets being erased, increase of underweight young females (mostly based in Japan)[15]. After encountering these challenges, lessons were learned; development of appropriate industry relations, establishment of creative legislative mandates, producing clear health benefits, and improving and working across governments and with non-governmental organizations through messaging[16].

China, Malaysia, Mongolia, and French Polynesia reported successes in achieving high-level political commitment; intersectoral collaboration with the development of national plans and strategies; promotion of legislation, regulation, and codes; active nongovernmental organizations; and mass organized healthy regulation lifestyle campaigns[17]. Challenges faced included achieving intersectoral collaboration at a national level, insufficient capacity in intervention and social mobilization, monitoring and evaluation, and the perception that noncommunicable diseases are non-urgent matters[18]. Lessons learned were how media can be used very effectively for the change of public policy, the need to promote correct and responsible advertisements, value of partnership with the media, the need for a multi-strategy approach in social marketing, importance of supportive environments for physical activities (for the young and elderly), the need for

continued monitoring and evaluation, and the necessity of the utility of the healthy settings approach[19].

Cook Islands, Fiji, Kiribati, and Tonga had successes in the development of noncommunicable disease prevention and management guidelines, collaboration with a variety of stakeholders, budget allocation for preventive activities, strong national nutrition committees, increased awareness about physical activity and it's promotion in health, increased acceptability in culturally appropriate exercise (mostly in Tonga), strong "Healthy Island" projects, a range of supportive policies and legislation, and in Kiribati, where previously tobacco was given as a present for gift-giving, this has changed to the gifting of sports equipment[20]. Challenges included the lack of human resources, poor natural environment, the high cost of healthy foods, budget and data, and obstructive local cultural beliefs and policies[21]. Lessons learned included the plan to sustain the start of projects and involve the community in planning and implementation, the utility of a proactive work relationship with the food industry, strengthening of surveillance programs, supporting consumer and community voices, and he need to seek higher-level commitment and supportive legislation[22].

Brunei Darussalam, the Philippines, Singapore, and Viet Nam had successes in establishing a form of a national public health development plan and/or a national nutrition plan, setting stages for healthy lifestyle campaigns and providing mechanism for intersectoral collaboration, the surveillance and assessment of high-risk factors, and participation of "healthy choice" programs in schools[23]. Challenges included the need for the global strategy to take into account of the differing levels of development among

countries, the need for trained human resources, the strategies to control a double burden of over nutrition and under nutrition, the difficulties of sustaining awareness and translating it into practice, the issues of conflict of interests, difficulties in enforcement of legislation of codes of practice, and the achievement of balance in the relationship with food producers[24]. General considerations were outlined: despite low awareness, micronutrient fortified foods were consumed, in the Philippines, because of competitive pricing; culture and gender-sensitive programs, in Viet Nam, promote the life of communities; and in Brunei, traditional recipes, dances, and martial arts were adapted[25].

Conclusions

After the first International Conference on Nutrition, there was an increase of awareness among decision makers of high-level regions on the importance of noncommunicable diseases and the motivation to make progress to develop and strategize tools and processes through which to implement change[26]. The promotion, as a whole, of a healthy diet and active lifestyle was accomplished through the interpretation of work and study, and play and socialize; known as the "settings" approach[27]. The vitality of supporting media, the social marketing, and promotion of exercises were soon well planned, executed, and adequately funded[28]. Regions took note of that there is a need to overcome obstacles like inadequate systematic collection of data, lack of food consumption and physical activity data, and lack of regional databases with partners such as FAO[29]. Finally, and most importantly, the planning and implementation of interventions to promote healthy diets and physical activities should be targeted to sectors of the population with the highest risk

of nutrition-related noncommunicable diseases within the young, elderly, poor, and minority groups[30].

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