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POLICY BRIEF

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CHRONIC DISEASE AND AGING IN THE EASTERN MEDITERRANEAN REGION: FROM RESEARCH TO POLICY AND PRACTICE

POLICY BRIEF

CHRONIC DISEASE AND AGING IN THE EASTERN MEDITERRANEAN REGION:
From Research to Policy and Practice

The Eastern Mediterranean countries represent a region which is now facing a fast rate of development and urbanization and an aging population, with rates of non-communicable diseases (NCDs) increasing at an alarming rate and exceeding at times those of developed countries. The two major inextricably related issues, aging and chronic disease, create challenges for public health and clinical care in settings already faced with scarce recourses. This policy brief highlights the burden of NCDs and their risk factors among older adults in the region and aims to provide a forum for action to stem the rapid increases in NCDs, emphasizing the need for multi-sectoral programs for prevention and control, primary intervention and a system of integrated care.

INTRODUCTION

Over the past few decades, many countries in the Eastern Mediterranean Region (EMR) have experienced rapid and unplanned urbanization, economic growth and technological advances accompanied with changes in lifestyles including unhealthy nutrition, reduced physical activity and tobacco consumption. The once dominant infectious diseases are now being replaced by chronic NCDs and their associated common modifiable risk factors such as hypertension, diabetes mellitus, dyslipidaemia, smoking and obesity. Trends in the demography of aging, increased life expectancy and the changing age structure of the population in several countries of the region are additional important drivers of increases in the total burden of NCDs. It is estimated that, overall, 47% of the region's burden of disease is due to NCDs, and by 2020 this is anticipated to rise to 60% [Khatib, 2004], yielding one of the world's greatest increases in the absolute burden of NCDs and their risk factors

[Motlagh et al., 2009]. In particular, cardiovascular diseases (CVDs) and stroke are rapidly growing problems and represent the main underlying causes of morbidity and mortality, notably among older adults. In Lebanon, for example, CVDs account for around 60% of all-cause mortality in persons aged 50 years and older [Sibai et al., 2001], and in Syria and Jordan, they contribute to 45.0% and 35.0% of total mortality in all age groups, respectively [Maziak et al., 2007; Zindah et al., 2008]. In Egypt, reported deaths from CVD have risen steadily between 1961 and 2000, from 4.0% to around 43% [CAPMAS 2004]. In Oman and the West Bank, circulatory diseases contribute to the highest mortality rates for both men and women [Ganguly et al., 2009; Abu-Rmeileh et al., 2008].

The cumulative effect of chronic disease throughout the life course and the age-related decline in physiological reserves in old age contribute to the onset of frailty, disability and dependency in the aging population, all of which has become the leading driver of healthcare resource utilization. With the aging of Arab countries' population over the coming decades, maintaining health and independence in old age will become increasingly challenging. Changes will be required in the systems and health care resources and in the type and direction of health-care services delivered.

DEFINITIONS

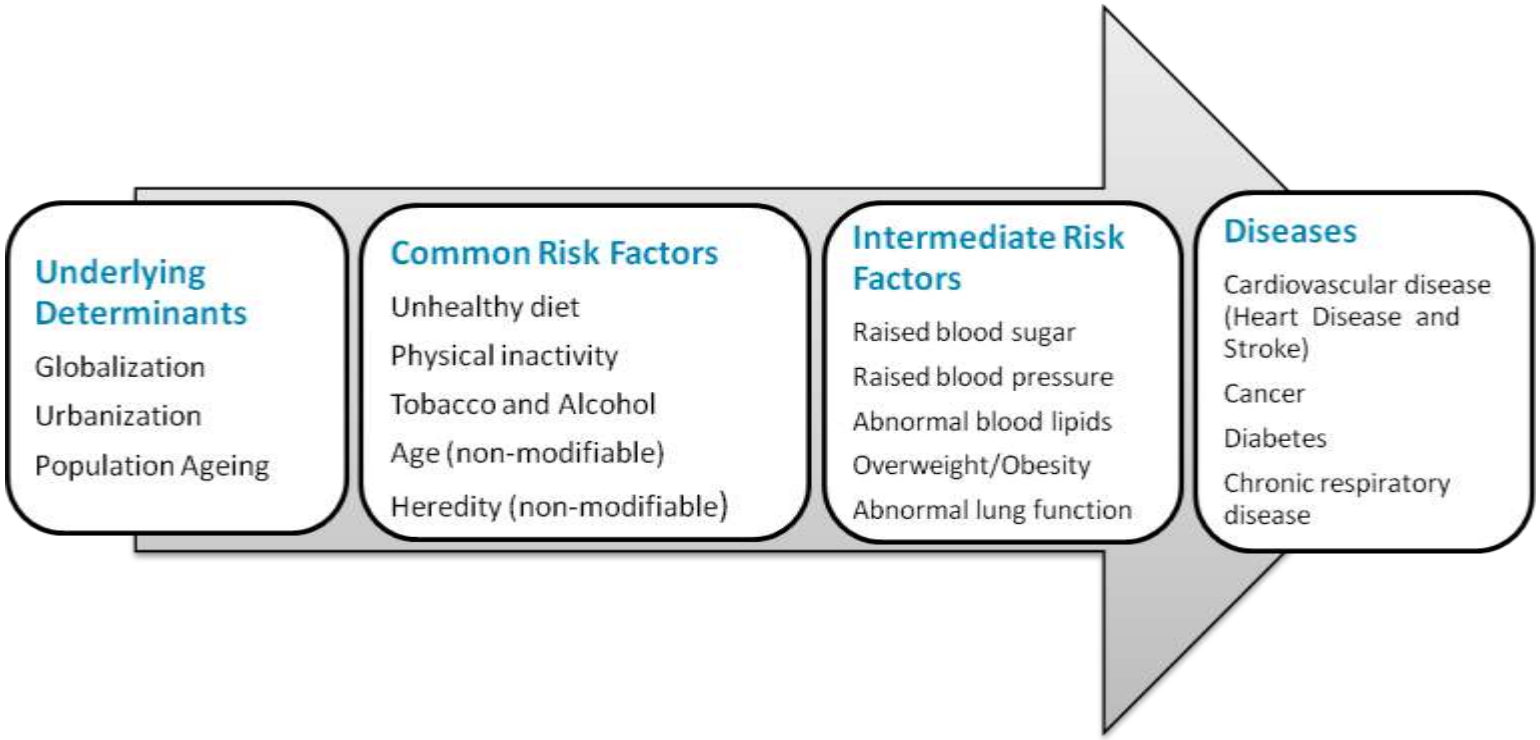
Chronic conditions are defined by the World Health Organization (WHO) as those conditions requiring "ongoing management over a period of years or decades". The conventional definition of chronic illness includes heart disease, diabetes, hypertension, chronic obstructive pulmonary disease, asthma and cancer. This definition can be further expanded to include some communicable diseases such as HIV/AIDS as well as mental disorders, vision and hearing impairment, genetic disorders and musculoskeletal disorders. The common theme that unites all diseases included under this definition is that these conditions require a complex and

comprehensive response over an extended time period with coordinated input from a wide range of health professionals and access to essential medicines and monitoring systems.

Chronic diseases share important features:

- They take decades to become fully established.
- They have their origins at young ages.
- Many share common risk behaviors that are modifiable and amenable to intervention (e.g. smoking, physical inactivity, obesity and unhealthy diet).
- Given their long duration and commonality of risk factors, there are many opportunities for early prevention.
- They require a long-term and systematic approach to treatment and follow up.

Causes of Chronic Diseases



Adapted from: WHO and PHAC, 2005

THE CHALLENGES

Chronic diseases and associated risk factors among older Arabs

Epidemiologic research already reveals high levels of chronic, NCDs and disabilities among the current population of the EMR, notably the older age groups. Based on a recently conducted survey in nine Arab countries by the League of Arab States (PAPFAM, 2008), the percentage of older adults suffering from at least one chronic disease ranged between 13.1 per cent in Djibouti and 63.8 per cent in Lebanon, with the majority of the countries having rates above 45 per cent (Fig 1a). Hypertension, heart diseases, diabetes, arthritis, chronic back pain, glaucoma and cholesterol are, in the majority of the countries, the leading causes of morbidity. Worldwide, three of the five countries with the highest prevalence rates of diabetes are from the region (UAE, Qatar and Bahrain). Diabetic individuals often suffer from severe disabling conditions, such as vision impairment, leg amputation and liver failure. Rates of cancer vary in the region; nevertheless, elevated rates of lung and bladder cancer are noted among men in Tunisia, Algeria, Jordan, Egypt and Lebanon, and of breast cancer among women in Lebanon (Lakkis et al., 2010; Fig 2). Furthermore, high prevalence rates of functional disability in performing Activities of Daily Living (ADL) are noted in Djibouti, Tunisia, Lebanon, and Yemen (PAPFAM 2008, Fig 1b).

Substantial differences in the health profiles of women and men exist, with rates of cardiovascular diseases higher in men, and rates of diabetes, obesity, musculoskeletal disorders, osteoporosis hip fractures and depression higher in women (Yount and Sibai, 2009). Overall, older women report higher mean number of chronic conditions and higher prevalence rates of disability across all items of ADL than men.

Of significance are the alarming levels of obesity (around 40 per cent), most notably among older women in the oil-rich countries such as Kuwait, Bahrain, and the UAE and in Tunisia (Sibai et al., forthcoming). Since 1980, obesity rates have tripled or more in some parts of the Middle East (Shara, 2010), and WHO reports have identified obesity as the most pressing health concern in the region. Modernization, a shift from agricultural to non-agricultural economy and an increased consumption of food rich in fat have been reported as important factors affecting nutritional habits, physical activity, and levels of obesity among populations in high-income Arab countries. Social barriers, the overall lack of public parks and walking lines, and additionally, the hot climate and restricted employment opportunities for women in certain affluent countries of the region are among the factors that contribute to a sedentary lifestyle in the region.

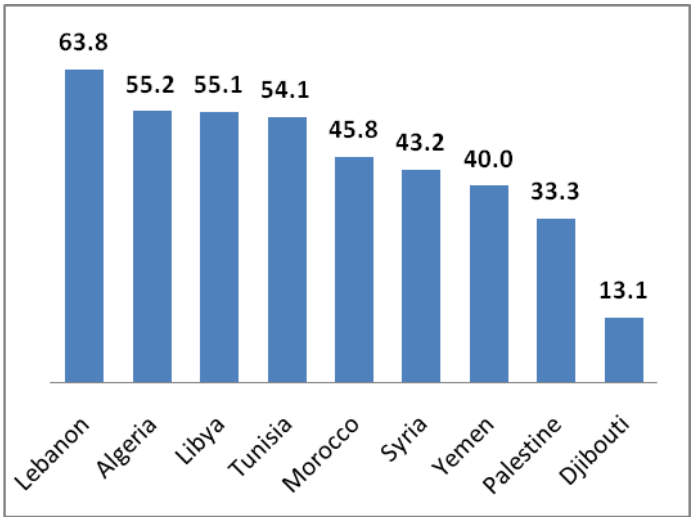


Fig 1a. Proportion of older adults suffeing from at least one chronic disease (PAPFAM, 2008).

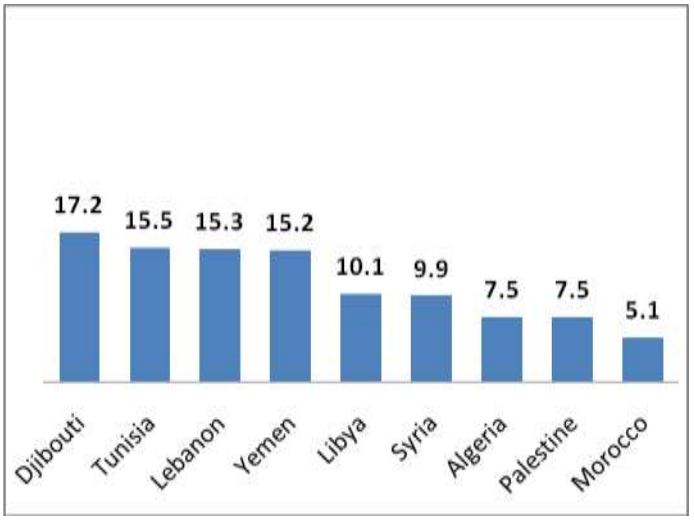


Fig 1b. Prevalence of disability among older adults (PAPFAM, 2008).

Behavioural risk factors also play an important role in the health and epidemiological transition. The missed opportunity to prevent or deal with risk factors earlier in life leads to increases in the incidence and prevalence of NCDs and complications in old age. Wide variations have been reported in the prevalence rates of cigarette smoking across Arab countries. While older men in Bahrain, Egypt, Jordan, Lebanon, Morocco, and Tunisia appear to show relatively high prevalence rates of smoking, ranging between 30 and 50 per cent, contemporary rates in Oman and the UAE are much lower (7-15 per cent) (Yount and Sibai, 2009). Among older women, smoking prevalence is, to date, notably low, and except for a few countries Bahrain (24.8 per cent) and Lebanon (17.3 per cent), the consumption of cigarettes among women does not exceed 5 per cent in the remaining Arab countries. Furthermore, waterpipes (shisha or narghile) are increasingly becoming widespread in the Arab world and are widely available in cafes with available data suggesting a prevalence rate of around 11 per cent among older adults (Chaaya et al., 2006). Tobacco use is the number one cause of preventable premature death, and intervention efforts addressing cigarette smoking provide the highest return on investments.

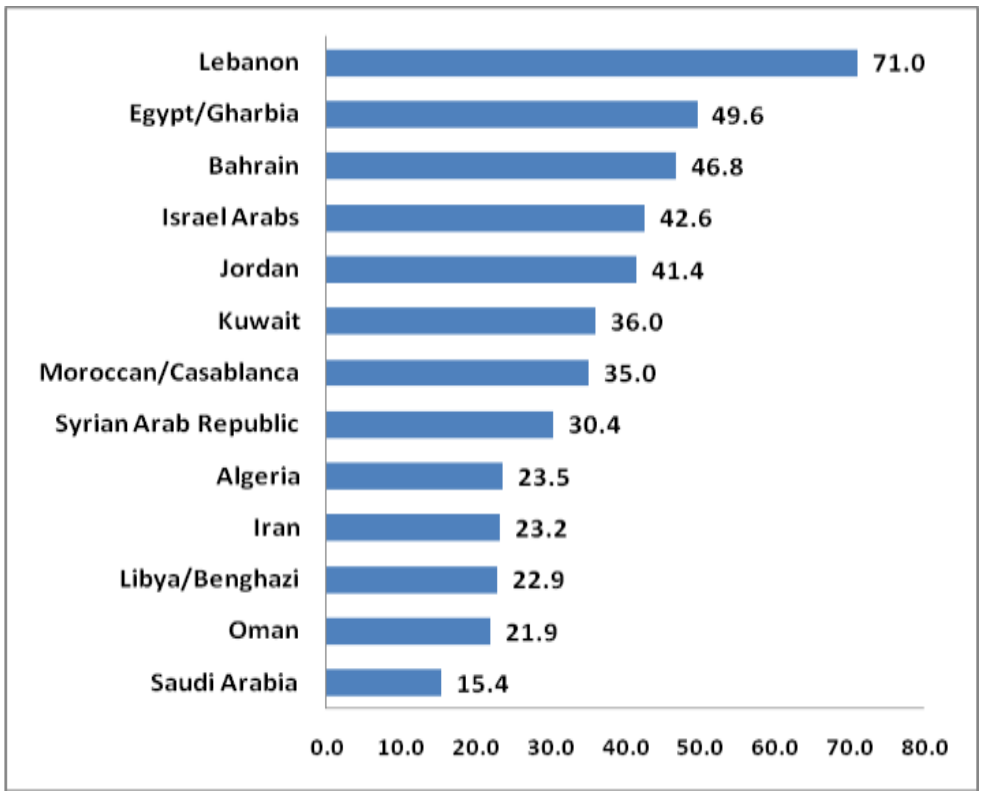


Fig 2. Age-standardized Incidence rate (per 100,000) for female breast cancer in selected countries of the region (adapted from Lakkis et al., 2010)

Health care resources for older Arabs

Resources, coverage and benefits provided to older persons vary considerably amongst and within Arab countries. While free health services are provided in the oil-rich GCC countries, Syria and Jordan, out-of-pocket health expenditures represent often the most important source of financing care. The poorer the country, the larger the share of out-of-pocket expenses (Yount & Sibai, 2009). Overall, civil servants enjoy better coverage and higher benefits compared to those employed in the private sector, and older persons who have worked in the informal sector often do not qualify for old-age coverage. This also means that Arab women, often engaged in unpaid work in family income or in caring for grandchildren, are often denied access to health benefits as they age.

Civil society organizations, charity and religious associations have assumed, in several countries of the region, a prominent role in caring for the older people, filling a vacuum created by the weak states. However, their role has traditionally focused on the institutionalized older people despite a culture that is unreceptive and intolerant to placing older parents in nursing homes and care centers. The majority of vulnerable frail, severely ill or disabled older people remain in their own homes. Given current trends toward increased participation of women in the work force, youth migration and the likely increase in the proportion of older people with long-standing disabilities, demands for home-based care may increase substantially in the near future. Home-based formal and informal services have been underdeveloped and are rarely recognized by either the state or the civil society in the region.

HEALTH CARE DELIVERY AND CHRONIC DISEASES

Health care delivery in the EMR is largely built around treatment rather than prevention and around acute, episodic models of care that is ill-equipped to meet the requirements of those with chronic health problems. Chronic conditions frequently go undiagnosed or are poorly controlled until more serious complications arise. Co-morbidity among older persons is attended by a number of different health care specialists within a fragmented vertical disease-centred health care system. Additionally, the use of hi-tech interventions for prolongation of life, sometimes pushed beyond reasonable limits, is unmatched with a parallel provision of palliative care services and long-term facilities.

Governments have not yet resonated with the need for prevention of chronic diseases mainly for the following reasons:

- Governments' main preoccupation is to treat illness and provide medical care, as demanded by the people.
- Vested interests oppose many government prevention programs. The tobacco industry is the strongest case in point.
- Many chronic conditions are related to lifestyle; hence Government interference with personal choices is not welcome.
- Prevention programs need to be multi-sectoral and so require leadership and coordination at all levels of the government.

Interventions for chronic disease prevention and control are complex and multifocal. The approach to chronic care management is better addressed through both 1) better screening and other primary preventative measures that depend in part on the patients, their willingness as well as their ability to comply, and in another, on systems with strong primary healthcare and skilled and motivated health professionals, willing to dedicate time for education and continuity of care; and 2) treating chronic diseases on a long term basis. The goal of chronic treatment is not to cure but to enhance functional status, minimize distressing symptoms, prolong life through secondary prevention and enhance quality of life (Grumbach, 2003).

An improved model of a holistic polyvalent integrated patient-centred health care provided at primary health care centres, supported by a good referral to specialized care and effective follow up is required. The operational and administrative integration of the organizational structure in such a system increases its efficiency and fight against unneeded escalation of disease

burden and health care cost. Additionally, greater emphasis need to be placed on home-based care services (e.g. mobile units and family welfare programs) as another pillar of continuity of care. Home health care replaces expensive hospital stays, avoids the risk of nosocomial infections and decreases financial burden, making a net saving of 13 per cent in hospital costs. Home support services need to expand to embrace informal caregivers as a resource to older persons and as themselves beneficiaries of care.

CRITICAL OPPORTUNITIES

Chronic disease and an aging population challenge the health care system in most countries and raises the importance of health reforms; this challenge, however, is not insurmountable. A "life-course" perspective that focuses on health promotion, health literacy, early disease prevention, integrated care and equitable access to health care is needed. Public health interventions exist to to promote healthy aging and help translate research into sustainable public policies and community-based programs (CDC, 2010; Daar et al., 2007; Sibai et al., forthcoming).

Raise public awareness and the political priority of non-communicable disease: Develop compelling and valid information to improve awareness of the economic, social and public health benefit of community-based interventions that reduce the burden of chronic diseases.

Promote healthy lifestyle behaviors to reduce chronic disease burden and improve the health of older adults: Effective education, public engagement and policy approaches that help older adults make healthy choices such as increase the availability and consumption of healthy food, promote lifelong physical activity and develop policies and trade agreements to discourage the consumption of tobacco.

Endorse the use of preventive services: Enhance preventive health services and community-based strategies that increase the number of places where older adults can receive preventive services. Governments and civic organizations need to provide free or low cost screening programs.

Re-orientate health systems to accommodate the increase in the number of persons with chronic diseases and disabilities: Emphasize a holistic geriatric philosophy to the care of older adults, including a central role for the primary care physician in teaching, training and practice, and provide opportunities for the integration of older adult care in primary health care services. Also, work towards improved models of integrated patient-centred care with comprehensive multidisciplinary assessment of medical, functional, and psychological needs and ongoing follow up of patients and communication among providers. Encourage the establishment of units catering for long-term and palliative care within hospitals and nursing homes.

Espouse family-centred care: Governments need to invest in policies and home-based care services that build on intergenerational solidarity, support caregivers and empower them with financial and non-financial benefits.

A CALL FOR ACTION

A serious and sustained effort, in the context of strengthening of health systems, is needed by the WHO, the World Bank and development agencies, foundations, national governments, the civil society, non-governmental organizations and the private sector including the pharmaceutical industry and academics (adapted from Beaglehole et al., 2005).

The **WHO** to provide stronger global leadership and support to national chronic disease prevention and control efforts.

The World **Bank, development agencies, and foundations** to increase their financial support for chronic disease prevention and control programmes.

The **EMR Countries** to integrate the prevention and control of chronic disease programmes within primary health care, to ratify and implement the provisions of the "Framework Convention on Tobacco Control" and implement the "Global Strategy on Diet, Physical, Activity, and Health", to strengthen data collection and surveillance of major risk factors, and to ensure the availability of suitably trained professionals for the development, implementation, and assessment of programs for the prevention and control of chronic diseases.

The **National and International NGOs** to work closely together to promote integrated models for the prevention and control of chronic diseases and to support national authorities in their planning, implementation, and assessment of national efforts.

The **Food and Drinks Industry to** produce healthier and less energy-dense products and to bring their advertising, marketing, and promotional forces to support healthy habits.

The **Pharmaceutical Industry** to ensure the availability, affordability, and accessibility of low-cost generic drugs for the management of people at high risk of chronic diseases, especially cardiovascular diseases.

The **Academia** to focus their research on implementation research questions that are relevant to the context of the respective countries and to fully participate in the development, implementation, and assessment of programs and progress for chronic disease prevention and control.

"The lives of far too many people in the world are being blighted and cut short by chronic diseases such as heart disease, stroke, cancer, chronic respiratory diseases and diabetes. This is a very serious situation, both for public health and for the societies and economies affected. The means of preventing and controlling most chronic diseases are already well-established…The cost of inaction is clear and unacceptable."

Jong-wook Lee (WHO and PHAC , 2005)

CONCLUSION

EMR countries are at different stages in their demographic and epidemiologic transition and concerns related to chronic diseases in old age may vary in priority and significance from one country to another. However, sustainability remains the most important dimension facing practice, notably in resource scarce settings. Increases in life expectancy and the concomitant challenge of non-communicable diseases and disabilities among older people, compounded with scarcity in health professionals specialized in geriatrics and gerontology and a growing need for family-based care, require a larger and more adapted net of health care, new skills from healthcare workers, and innovative culture-specific modalities of interventions. Improvements to the health and social services of older cohorts can be made

possible with a combination of changes in risk behaviors, enhanced primary and secondary preventive health services, increased health literacy, coordinated healthcare systems with follow-up of chronically ill patients, reinforcement of family role and policy integration across a number of governmental and non-governmental agencies.

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About the CSA

The CSA was established in 2008 in Lebanon by a group of professionals committed to the promotion of evidence-based policy and practice in support of the older population. The mission of the CSA is to create a hub for research, education, policy formulation, and training on aging in Lebanon and the Arab region. Its motto is 'Translating Research into Policy and Practice' (TRIPP).

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