

Short communication

The need for capacity building to prevent chronic diseases in North Africa and the Middle East

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الحاجة إلى بناء القدرات للوقاية من الأمراض المزمنة (غير السارية) في شمال إفريقيا وإقليم شرق المتوسط حسن غنّام

الخلاصة: تعد الأمراض المزمنة (غير السارية) مثل الأمراض القلبية الوعائية، والسكتة، والسرطان، والسكري، من مشكلات الصحة العمومية العالمية الآخذة في التفاقم ولاسيما في البلدان النامية. وتترى منظمة الصحة العالمية، أن أكبر زيادة في الوفيات الناجمة عن الأمراض غير السارية في المدة من عام 2006 إلى عام 2015، ستكون في الإقليم الإفريقي وإقليم شرق المتوسط. وتبرز هذه المقالة المشكلات التي تواجه هذه الأقاليم في ما يتعلق بالأمراض غير السارية، وتناقش الحاجة الملحة إلى بناء القدرات وإنشاء البرامج المجتمعية من أجل تعزيز القدرات الإقليمية اللازمة للتعامل مع الأمراض غير السارية.

ABSTRACT Chronic (noncommunicable) diseases, such as cardiovascular disease, stroke, cancer and diabetes mellitus, are a global public health problem that is increasing, particularly in developing countries. According to the World Health Organization, over the period 2006–15, the largest increase in deaths from chronic diseases will occur in the regions of Africa and the Middle East. This article outlines the problems facing these regions with regard to chronic diseases, and discusses the urgent need for capacity building and community-based programmes in order to enhance regional capability for tackling chronic diseases.

Nécessité d'un renforcement des capacités pour la prévention des maladies chroniques en Afrique du Nord et au Moyen-Orient

RÉSUMÉ Les maladies chroniques (non transmissibles) telles que les maladies cardio-vasculaires, les accidents vasculaires cérébraux, le cancer et le diabète, représentent un problème mondial de santé publique qui prend de l'ampleur, en particulier dans les pays en développement. Selon l'Organisation mondiale de la Santé, les régions d'Afrique et du Moyen-Orient connaîtront entre 2006 et 2015 la plus forte augmentation du nombre de décès dus à des maladies chroniques. Le présent article décrit les problèmes auxquels sont confrontées ces régions dans ce domaine, et examine l'urgente nécessité de renforcer les capacités et les programmes communautaires afin d'améliorer l'aptitude régionale à s'attaquer aux maladies chroniques.

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Background

The World Health Organization (WHO) projects that over a 10-year period (2006–2015), the largest increase in deaths from chronic diseases (cardiovascular disease, stroke, cancer and diabetes mellitus) will occur in the regions of Africa and the Middle East [1]. The total number of people with diabetes is projected to rise in the Middle East from 20 million in 2000 to nearly 52.8 million in 2030, and this is the greatest relative increase (163%) in the number of people with diabetes worldwide [2]. Furthermore and according to the International Diabetes Federation [3], in 2007, 6 of the 10 countries with the highest prevalence of diabetes in the world were from the Middle East region, mainly from the Gulf countries (in order of decreasing prevalence): United Arab Emirates, Saudi Arabia, Bahrain, Kuwait, Oman and Egypt.

Most North African and Middle Eastern countries, including Tunisia, are now facing the epidemiological transition with a decrease in total mortality, increase in life expectancy and adoption of lifestyles associated with chronic diseases. Indeed, this transition is well documented in Tunisia [4] with a prevalence of diabetes of 10.2% in the region of Sousse, smoking habits reaching 61.4% among adult men, and hypertension and obesity among women of 28.8% and 34.4% respectively [4]. The problem is more serious for these countries because many still face the burden of communicable diseases and their health systems are ill-prepared to provide the costly care required for such chronic diseases. In this context, new opportunities have arisen to help tackle chronic disease worldwide, with significant recent developments of sustainable support for chronic disease prevention and control, particularly for developing countries [5].

This Region has a severe lack of human capacity in many medical and

public health disciplines required to effectively address the increasing rates of chronic diseases. In addition, very few community-based initiatives have been launched in the Region, although there have been projects in the Islamic Republic of Iran such as the Isfahan Healthy Heart Programme [6], which required strong investment to build the capacity to tackle growing problem of chronic disease. However, for most of the countries in the Eastern Mediterranean Region, conditions are not favourable. For example, as regards health workforce capacity, there are 10 physicians per 10 000 population in the WHO Eastern Mediterranean Region compared with 32 in the European Region and 19 in the Americas Region [7]. The density of nursing and midwifery personnel in the WHO Eastern Mediterranean Region is 15 per 10 000 population compared with 79 in Europe and 49 in the Americas. Furthermore, this gap in clinical resources is considerably less than the gap seen in public health needs and research expertise. If we look specifically at the data on the health workforce for some countries in the Region compared to industrialized countries, we see that there is a huge difference between countries in North Africa and Middle East [7]. In fact, the shortage in physicians is more pronounced in Afghanistan, Morocco and Pakistan with respective densities of 2, 5 and 8 physicians per 10 000 population compared to 13 in Tunisia, 14 in Saudi Arabia and 17 in Oman [7]. These figures are still lower than those of some industrialized countries like the United States with 26 physicians per 10 000 population, France 34 and Belgium 42. The same profile of shortage is also found with nursing and midwifery personnel and again there is a huge difference between the countries in the Region with respect to the density of these personnel. For example, Afghanistan, Morocco and Pakistan have 5, 5 and 8 nursing and midwifery personnel per 10 000 population respectively, compared with 29

in Tunisia, 30 in Saudi Arabia and 37 in Oman. In turn, these figures are lower than those of the United States with 94 nursing and midwifery personnel per 10 000 population, France with 80 and Belgium with 142.

Community-based initiatives

A small number of risk factors and conditions are common to major chronic disease including smoking, physical inactivity and unhealthy diet. This means that integrated action against these risk factors could lead to a reduction in major chronic disease [8]. Therefore, an urgent need exists for capacity development to shape feasible and cost-effective intervention programmes directed towards reducing the behavioural and structural risk factors in communities. Chronic disease prevention at the community level is important as it targets the risk factors that are deeply linked to the social and cultural conditions in the society. As a result of long-term promotion of healthy lifestyles in the community, mortality from cardiovascular disease is decreasing in industrialized countries. However, conversely, with ageing populations and rapidly changing lifestyles, the burden of chronic disease is increasing in the developing world [9]. The challenge for these countries is to integrate programmes and policies that effectively tackle the major determinants of chronic disease, mainly through lifestyle and structural changes. The programme in North Karelia, Finland, showed how this can make an important difference [10]. Currently, the project Community Interventions for Health is an example of how to build capacity to fight chronic disease in developing countries and communities [11]. It aims to evaluate how best to reduce the main chronic disease risks through interventions in schools, workplaces, communities and health care centres.

Why do we need these community-based interventions in our Region? Although previous large-scale projects exist in industrialized countries, they may not provide the relevant information to guide decision-making in developing countries. Specifically:

- Few interventions have been undertaken in North African and Middle Eastern countries where the chronic disease burden is currently increasing.
- There have been no systematic process and outcome evaluation studies published that help build the evidence.

In order to tackle chronic disease through development and implementation of community-based intervention programmes in North African and Middle Eastern countries, capacity-building is paramount. Moreover, these community-based intervention programmes should be based on 3 main components:

- *Community coalition-building* – cooperation of key stakeholders' working together to encourage healthy lifestyle change throughout the community, such as advocating for bicycle

paths and smoke-free environments or creating farmers' markets.

- *Health education* – dissemination of health messages, such as the training of health professionals, using mass media, social marketing or peer educators.
- *Structural change* – structural interventions including advocating for and implementing policy change, environmental change (improving opportunities for physical activity in schools and workplaces) and economic change. These components interact to create communities in which the healthy choices are the easy choices.

Conclusions

The challenges that the Region faces in building capacity in public health personnel and in designing and implementing interventional projects are many. The training of health professionals, the multidisciplinary approach to public health, the long-term process of results and the immediate investment are among the major challenges as well as the political commitment. All

these have to be dealt with if we want to seriously address the problem of the increasing burden of chronic disease. These challenges can be grouped into health transition and health systems issues [12]. Currently, most health services in the Region are based on a curative model, which is becoming increasingly expensive to maintain and is also very limited in its ability to address emerging health challenges. At the same time, there is a need to overcome the issues of the limited availability of data (due to weak disease surveillance systems) and the modest research and development capabilities and finally a need to develop a strong public health workforce.

Few programmes and initiatives currently exist in the Region to tackle the epidemic rise of chronic disease and their risk factors; only by expanding our capabilities will we be able to achieve success. Learning by doing will provide a unique opportunity for capacity building and leadership development through implementing, evaluating and disseminating activities for chronic disease prevention and healthy lifestyle promotion in Tunisia, North African and Middle Eastern countries with socioeconomic and cultural similarities.

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