Non-Communicable Diseases Prevention & Control in Lebanon

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Acknowledgments

This paper is largely based on the National Non-Communicable Disease Prevention and Control Plan, a document in which the author collaborated with Dr. Alissar Radi, Medical Officer for the WHO Office in Lebanon, under supervision of the Director-General of the Ministry of Public Health, Dr. Walid Ammar.

NO CONFLICTS OF INTEREST ARE TO BE DECLARED FOR THIS PAPER

Introduction

Lebanon has completed its epidemiological transition in the early 1990s, and its morbidity profile today resembles that of more developed, increasingly ageing nations. Non-Communicable Diseases (NCDs) as a group currently constitute the first health priority in Lebanon, as well as worldwide, in view of their increasingly heavier epidemiological, social and economic burdens. NCD entities such as cardiovascular diseases (CVDs), cancers, respiratory conditions and diabetes constitute now the main bulk of morbidity and health care costs in Lebanon (Ammar 2003; Elias et al. 2018). Mental health disorders, still not well recognized in the Arab world, are also expected to add to the NCD cost, based on burden of disease projections for 2020 (Whiteford et al. 2013).

NCD-centered activities are conducted in Lebanon by various public agencies and organizations from the civil society, in the health as well as non-health sector, with a clear predominance of curative activities over preventive ones. A 5-year "NCD Prevention and Control Plan (NCD-PCP) 2016-2020" has been adopted by the Ministry of Public Health (MOPH) (MOPH, 2015). The "Plan" established a set of strategic objectives specifically tailored for Lebanon, constructed on three basic concepts:

1. NCD Prevention and Control is a multisectoral responsibility in which the roles of non-health stakeholders have to be defined and activated.
2. For the health sector, NCD Prevention and Control will enhance the integration of the concept of case-management including both curative AND preventive care as a standard of practice at the PHC level, and a re-orientation of PHC practitioners to community-based primary prevention.
3. This plan should contribute to the overarching goal of providing adequate universal health coverage to the entire population of Lebanon.

Since being adopted, the NCD-PCP has served as an overall umbrella linking several pre-existing activities, and a road map for activities needed ahead.

Epidemiological Background

In 2002, 77% of death certificates carrying a clear cause-of-death were already related to chronic conditions, with four large NCD entities carrying the largest relative proportions: cardiovascular disease (45%), cancers (10%), chronic respiratory diseases (5%) and diabetes (2%) (WHO 2005). The proportion of in-hospital recorded deaths caused by NCDs was 74% in 2017 (MOPH, 2018). The proportion of premature deaths (below 70) from NCDs was about 45% in men and 38.7% in women (WHO 2011). In a national survey conducted in 2004, almost 75% of those above 70 years reported having at least one chronic disease (PAPFAM-Lebanon 2006). The predominance of NCDs in the epidemiology of Lebanon has also been recorded in the WHO global reports "NCD Country Profiles" in 2011 and 2014 (WHO, 2011; WHO 2014). MOPH spends a major part of its budget on NCDs. Almost 65% of all in-patient admissions subsidized in the private sector in 2017 were caused by diseases classified in the "Burden of Disease" Group 2 (MOPH 2017). This group "comprises non-communicable diseases, including malignant neoplasms, cardiovascular diseases, chronic respiratory diseases, digestive, musculoskeletal and genitourinary conditions, as well as mental disorders and neurological conditions" (NIH 2006). An additional cost is directly caused by hospitalizations for NCDs in the public sector. NCD treatments available at the PHC centers accredited in MOPH network or at the Drug Dispensing Centers, are distributed either free or for a nominal fee to eligible patients.

The major contributor to the emergence of NCDs as the first Public Health (PH) concern in Lebanon and elsewhere is the globalization of behaviors and lifestyles, including hyper-caloric diets and decreasing physical activity. The concomitant demographic transition of the Lebanese population, characterized by a longer life-expectancy (79,58 years in 2016) and steady ageing of the population is also contributing to the NCD increasing burden. The most comprehensive, recent and valid prevalence assessment of NCD risk factors remains the STEPwise Approach to Surveillance (STEPS) conducted in 2009. Some revealing results can be seen below in Table 1 (STEPS 2010). They show that prevalence rates of potentially preventable NCD determinants have already reached unacceptable levels.

Risk factors (%)	Males	Females	Both
Current tobacco smoking	46.8	31.6	38.5
Current narguileh smoking	23.3	21.6	22.4
Low level of physical activity	52.4	40.3	45.8
No vigorous physical activity	76.9	90.6	84.5
Never measured blood pressure	20.4	12.6	16.1
Never measured blood sugar	36.2	24.2	29.6
Overweight	44.2	32.9	38.0
Obese	28.7	26.5	27.4
Overweight or obese	72.9	59.4	65.4

Table 1. Risk factors for NCDs in Lebanon (STEPS 2010)

Response to the NCD Rising Epidemic in Lebanon

Faced with changing epidemiological trends, MOPH has launched at various times several actions to control and prevent NCDs. The most comprehensive action was the establishment of a National NCD Program (NCDP) between 1997 and 2007. The Program was supposed to be eventually integrated in the MOPH organizational chart, but political upheavals made this re-organization impossible, and the Program was discontinued. The National NCDP was replaced after 2007 by a number of morbidity-specific "National Committees" with members nominated by Ministerial Decree. While a few committee members are paid MOPH staff members, the majority are volunteers from the non-governmental sectors concerned with that specific morbid issue. The performance of those committees has ranged from total inaction to attendance of a few international conferences on behalf of the Republic of Lebanon. Some have at times provided technical counseling to the MOPH Director-General. None has been able to propose a comprehensive plan leading to programmatic action for prevention and control of a given morbid entity.

Meanwhile, effective activities outside the area of hospitalization and drug provision, have traditionally been piloted by militant stakeholders in the civil under the umbrella and ultimate control of MOPH, and their objectives are slowly being aligned with the strategic vision of the Ministry. MOPH has provided partial financial support for specialized training sessions of healthcare professionals directly involved in non-medical diabetes care, organized by the Diabetes National Committee. Several hundreds of nurses have thusly been trained to provide self-care education to diabetic patients. The actual capacity of these series of trainings to impact positively on patients remains largely unmeasured. In 2012, MOPH started piloting a new CVD screening/prevention package in some of the accredited PHC centers. Several hundreds have already been tested for metabolic problems and blood pressure and referred for treatment. Test results are built into a risk score for CV accidents, which can help motivate clients to persevere in behavioral change leading to better projections (Yamout et al. 2014). MOPH continued its support of tobacco control under the Tobacco Control Law (174/2011), but the implementation of this law remains notoriously lacking.

Issues in the Implementation of an NCD-PCP

Several obstacles impede the rapid implementation of a unifying Plan in Lebanon today:

1. While goodwill exists across all sectors in support of NCD prevention and control, a planned comprehensive approach cannot be started without a dedicated governance structure, empowered to coordinate various activities and stakeholders. Such a structure does not exist at present.
2. The political and economic situation in Lebanon remains murky. MOPH focus shifts based on the whims of the current minister, without much reference to epidemiological priorities or evidence of efficiency.
3. The influx of Syrian refugees since 2011 has further increased the burden of public authorities and created a diversion from long-term planning. Recently, international interest in NCD needs of refugees may be providing a window of opportunity for the activation of the NCD plan in PHC centers all over Lebanon.

Conclusions

The open, daily multisectoral cooperation engaged since the early 1990s by MOPH has created a supportive coalition from the civil society of medically and non-medically skilled workers, public health experts, grass-root community activists. Several stakeholders have been collaborating with MOPH for long years, thus creating a common language and operational patterns to facilitate the implementation of common projects. Often times, stakeholders such as national and international NGO and pharmaceutical companies have even contributed operational funds as well as working time and conceptual frames. However, capacities currently available, often times on a voluntary basis, within and outside MOPH, are pre-retirement seniors already stretched thin over a large array of activities. Younger colleagues could be trained to take over the next shift, but financial resources are insufficient to attract and retain them. The profile of tasks they will be requested to complete is not perceived as prestigious enough to compensate for financial restrictions.