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Heart health in Lebanon and considerations for addressing the burden of cardiovascular disease

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KEYWORDS
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Summary
Introduction: Lebanon is a small country located at the western boundary of the Middle East. Approximately 40% of health care in Lebanon is financed by the public sector. Cardiovascular diseases in Lebanon are scarcely addressed in the literature raising the need for baseline data on these health condition to be better treated.

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Aim: To (1) aggregate and define the burden of cardiovascular disease in Lebanon and (2) describe implications for policy, practice and research to improve health outcomes in Lebanon.
Method: An integrative review was conducted of both peer-reviewed papers and unpublished reports. CINAHL, Medline, Google Scholar and Academic Search Complete were searched along with the websites of The World Health Organization, Ministry of Public Health Lebanon and Central Intelligence Agency of Lebanon. No year limit was applied to our search.
Results: The search yielded 28 peer-reviewed articles and 15 reports. Cardiovascular diseases are the leading cause of morbidity and mortality in Lebanon and is also the primary cause of hospital admission. A range of social, political, economic and cultural factors explain the burden of cardiovascular diseases, some of these risks are culture specific such as the arghile smoking and the high rates of familial hypercholesterolemia. Workforce shortage produced by high rates of migrating nurses also has an implication on the patients' outcomes.
Conclusion: Much of the presented data are sourced from the gray literature; more research, using systematic and prospective data collection methods, are needed to inform health services planning, delivery and evaluation. Primary care needs to be enhanced to produce better outcomes for a population with high profile of cardiovascular risk factors.

Introduction

Cardiovascular diseases are major causes of morbidity globally and Lebanon is no exception (Dumit, 2008; Noureddine, Froelicher, Sibai, & Dakik, 2010). Lebanon is a small country located at the western boundaries of the Middle East bordered by the Mediterranean Sea on one side and by Syria and Israel on the other. The capital city of Lebanon is Beirut and the estimated country area is 10,452 m^2 with an approximate population of 4.2 million (The World Factbook, 2011) and a male to female ratio of 0.96 (Lebanon Sex Ratio, 2013). Lebanon has been subjected to social and political upheavals, which have influenced the epidemiological and population profile, and accordingly health service delivery and planning (Abyad, 2001).

There are many reasons behind the deterioration in the Lebanese health context, the main three are the civil war (1975—1990), migration patterns and regional issues. Prior to the civil war, Lebanon, ''the Pearl of the Middle East'', was celebrated annually for the peace and beauty it held. The civil war destroyed much of its beauty and the accompanying peace for which it was known (Abyad, 2001). The war has also destroyed the country's economic health after it was considered ''the banking centre of The Middle East'' (Kronfol, 2006). The long years of war have caused an increase in the migration patterns from and inside Lebanon where the latter has caused crowded living conditions in the capital city Beirut and the surrounding regions. Further, it is now reported that the number of Lebanese outside Lebanon are equal to those residing inside (Abyad, 2001).

Political unrest damaged services and planning across the public and private sectors, including the health care system. Over the last two decades social, political and economic changes have taken place in Lebanon, increasing the need for understanding of the burden of cardiovascular diseases and specifically data to inform health services delivery and planning (Kronfol, 2006). Regional issues affecting the health sector are addressed below.

Health care in Lebanon

Health coverage in Lebanon is divided between the Ministry of Public Health (MOPH), National Social Security Fund (NSSF), the Army, private insurance companies and self-payers. MOPH covers those who are not insured by any other party regardless of their income and health status. This group accounts for almost 42% of the Lebanese population (Ammar, Wakim, & Hajj, 2007). The rest are covered by other parties as follows: (NSSF) National Social Security Fund (30%), private insurance (12%), Army (11%), and civil servants (5%) (Kronfol, 2006). These groups have no emergency department funding unless it is followed by hospitalization (Bayram, 2007). However, these numbers are not accurate when political matters are concerned, evidence suggests that health care availability is significantly linked to the dominant political group at the time of health care need (Chen & Cammett, 2012). These unique findings in Lebanon propose difficulties in seeking health care when needed, knowing that conflicts within its people and surrounding regions are common and require medical and nursing attention regularly.

There are 150 hospitals across Lebanon of which 29 are publicly funded (Abou Mrad, 2012). Furthermore, only 10% of the hospital beds in private hospitals accommodate those funded by the MOH, making bed availability extremely difficult for those not able to pay (Ammar et al., 2000). It was reported that there were 2.88 hospital beds for every 1000 population in the year 2000 (Kronfol, 2006) and this increased to 3.45 beds per 1000 population in 2011 (Harb, 2011) making it the highest ratio among countries in the Middle East and North Africa (MENA) region (Kronfol, 2006). This ratio, however, differs across the Lebanese governorates, where hospital beds are less available in the rural regions. Moreover, more than 65% of these beds are located in small hospitals of less than 70 beds in the North and South regions of Lebanon (Ammar et al., 2000; Harb, 2011) where the latter is a place of constant social and political unrest raising concern regarding the quality of care that can be delivered.