Family Physician Corner

Smoking Cessation in Bahrain, the Evolving Strategy - Part 1

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"The fact that people get addicted to smoking does not mean it is impossible to quit. It is difficult for some, but that does not mean the company is legally responsible for their decision to smoke" - Bill Ohlemeyer, Philip Morris Tobacco Company lawyer, 2007[1].

Smoking is one of the preventable risk factors for many long term conditions. It is therefore targeted worldwide as modifiable risk for ischemic heart disease and cancer. The harmful effects of smoking are immediately reduced and can be eliminated after quitting even after long term smoking. The mortality attributable to smoking worldwide is expected to increase due to an increasing rate of smoking. Smoking is declining in the developed countries but increasing at an alarming rate in the developing countries[1], see Figure 1.

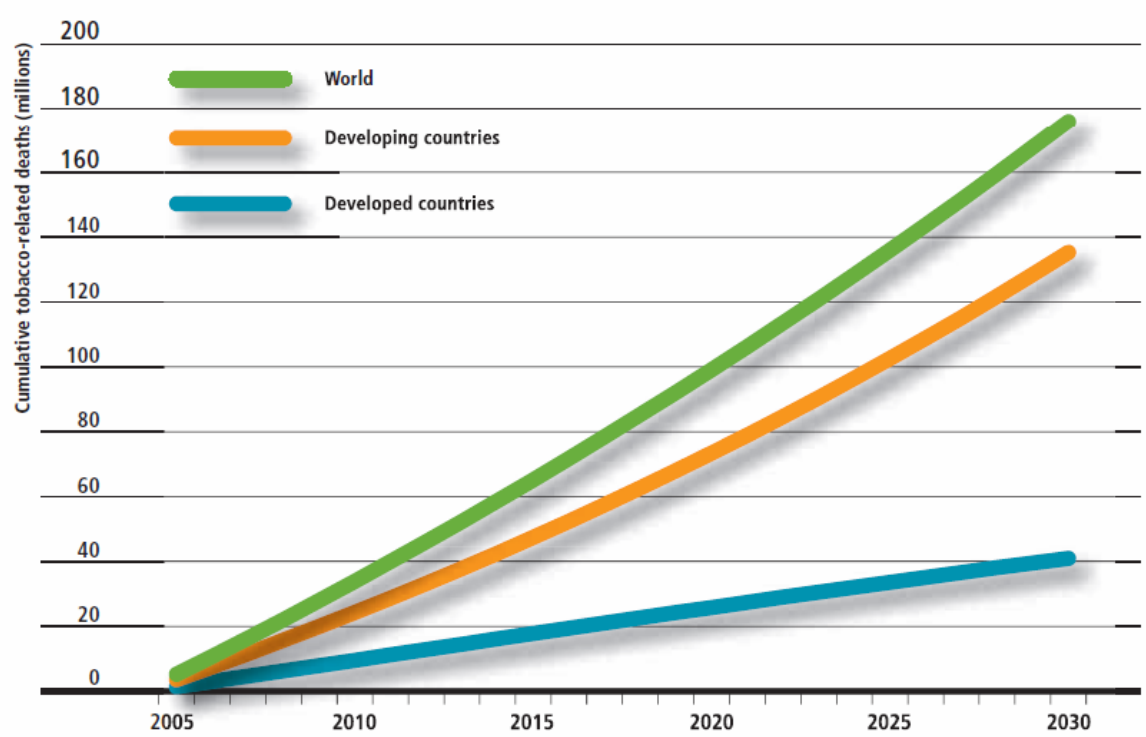

Figure 1: Cumulative Tobacoo-related Deaths 2005-2030[2]

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If current trends continue, tobacco use might lead to the death of more than eight million per year by 2030. By the end of this century, tobacco use might lead to the death of a billion people. It is projected that more than three quarters of these deaths will be in low and middle income countries[2].

Tobacco use is a risk factor for six of the eight leading causes of death in the world. Smoking tobacco causes cancer of the lung, larynx, kidney, bladder, stomach, colon, oral cavity and esophagus as well as leukemia, chronic bronchitis, chronic obstructive pulmonary disease, ischemic heart disease, stroke, miscarriage and premature birth, birth defects and infertility, among other diseases, see figure 2. Tobacco use imposes economic burden on families and countries due to lost working hours, reduced productivity and increased healthcare costs[3].

All of types of smoking are available in Bahrain, each type needs thorough examination. Though it is a taboo in certain age groups and certain genders, it is socially accepted and practiced. The purpose of this report is to evaluate the epidemiology of smoking in Bahrain, compare it to neighboring countries, the psychology and behavior of smoking, the existing anti smoking strategies and a prospective possible strategy.

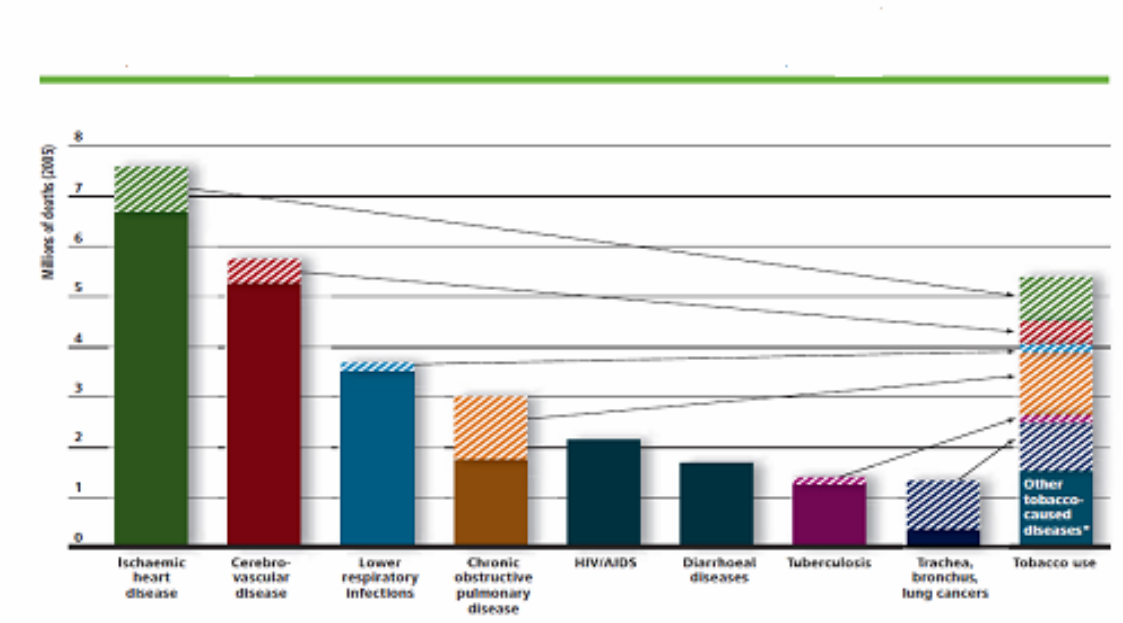

Figure 2: Tobacoo Use Is a Risk Factor for Six of the Eight Leading Causes of Death in the World[2]

Epidemiology of Smoking in Bahrain:

Smoking is a social habit that is embedded in the Arabic culture and does not only include cigarettes smoking but traditionally the water pipe or hubble-bubble “Shisha” smoking. Studies about the prevalence of smoking in Bahrain could be tracked back to the 80's of the last century only. Not much is documented and known prior to this time[4,5,6,7,8,9].

Bahraini population has grown during the last few years. It has doubled over a period of 10 years. This is due mainly to the increased immigration to the island. The immigrants

were mainly young low-skilled workers. Immigrant residential areas have the highest smoking rates as shown in the survey of national non communicable disease (NCD) performed in Bahrain 2007; it involved more than 2000 households from all areas in Bahrain. The trend of smoking is shown in Figures 3 and 4; it is derived from many references and plotted over time. Surprisingly, the overall prevalence did not change much over time. This may be due to the fact that the studies had been done prior to the sudden surge of immigration over the last five years. Stratification of the prevalent areas in Bahrain may demonstrate the point[4,5,6,7,8,9].

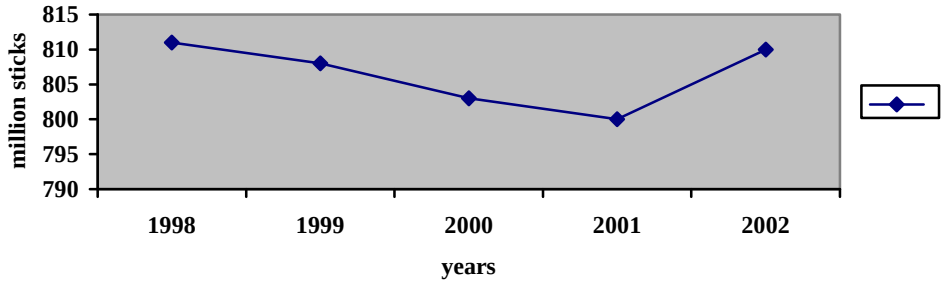

Figure 3: Consumption Trend in Bahrain

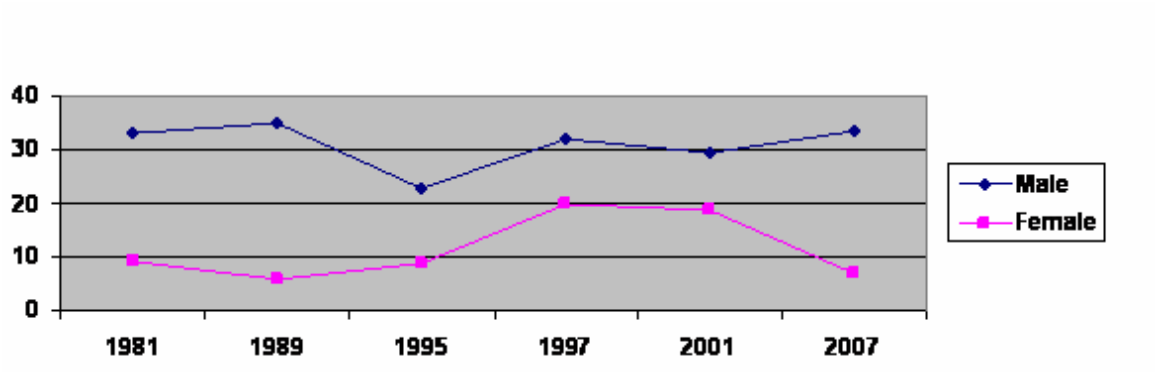

Figure 4: Prevalenc of Smoking in Bahrain 1981-2007 By Gender

The non communicable disease (NCD) survey held in Bahrain in 2007 showed that the total prevalence of smoking to be 19%, in males 33% and 8% in females.

Smoking has claimed 30000 lives in the Gulf Cooperation Council GCC countries in 2006 as reported by Gulf Daily News (GDN)[9].

Prevalence of smoking in Teens and Youth:

The trend of smoking in the Global Youth Tobacco Survey illustrates the increasing water pipe smoking “Shisha” especially among girls, it is socially accepted habit among girls[9,10].

The Global Youth Tobacco Survey showed that young girls are smoking almost as much as young boys[10]. The survey showed that both young females and males are using water pipes "Shisha" at similar rates. These findings alarm the decision makers that future projection of death-related causes attributable to smoking may have been underestimated as they are based on current patterns of tobacco use among adults in which women are only about one third of the population of smokers[11].

The prevalence of smoking among medical students was 26.6%, 25.5% and 25.4% among first-year, second-year and third-year students respectively. Twenty-percent use cigarettes, 13.0% use water-pipes and 1.6% use cigars[1].

Smoking and Occupation

Some studies have linked education and skill of the occupation to smoking habits, others have negated that.

In the national nutritional survey, 88% of the male smokers were either illiterate or had less than high school education compared to 99.5% in the females[8].

On the other hand, smoking among primary care physicians was as high (33%) in males and low in female doctors[12].

According to the family health survey, prevalence among physicians, journalists and teachers was 60%, 77% and 81%, respectively. Fifty-three percent of respondents smoked 10-19 cigarettes per day and 36% smoked more than 20 per day[7].

Smoking in Women

The trend of smoking in women is increasing, and the most popular tobacco used in females is the water pipe "Shisha"; 72.1% of the males reported to smoke cigarettes and 96% of the female reported to smoke Shisha. Women usually start smoking later in life. Nevertheless, smoking in child bearing age is noticeably increasing endangering the new born[4,5,9].

Burden of Smoking

The burden of smoking ranges from financial, economical, physical and environmental. It is difficult to establish the burden of smoking in Bahrain because it is a multidimensional.

One of the parameters used was the "average length of stay" (ALS). The ALS in the main hospital of Bahrain in 2007 due to chronic obstructive pulmonary disease (COPD) has ranked first among all other causes for admission and averaged 14 days[9].

Lung cancer in Bahrain, in 2006 registered 151 cases in males and 53 cases in females, a ratio of 2.8:1; it is considered 20% and 6.8% of cancer cases in males and females respectively[13].

The incidence of lung cancer in Bahraini males was greater than the African and most of the Asian populations. The incidence cancer in Bahraini females was greater than African, Asian (except China) and most of the European countries[13].

Table 1 is adapted from WHO report, it shows the mortality rate of some of the smoking-related diseases in Bahrain in the year of 2000[2].

Table 1: Mortality from Cancer and Circulatory Disease in Bahrain 2000[2]

Disease	Male 35+	Female 35+
Trachea, lung and Bronchus cancer	27	13
Lip, oral cavity and pharynx cancer	4	3
Respiratory diseases	8	6
Ischemic heart disease	121	47
Stroke	48	35
Other diseases of the circulatory system	55	33

Tobacco Control Activity in Bahrain:

Bahrain has recently started to realize the impact of smoking on the population. Bahrain has joined neighboring countries in having well structured goal-oriented researches monitored by the WHO. The history of tobacco control in Bahrain dates back to 1978; decisions were taken including raising taxes on cigarettes to 70%, regulating the tar and nicotine content of the cigarette and restricting cigarette advertising. Bahrain Anti-smoking Society was established in 1979. The society coordinates its preventive activities with the ministry of health and demands regular review of laws and their enforcement[14].

The Royal declaration issued in 1994 has clearly stated that tobacco is a health hazard that should be dealt with cautiously, it included the following regulations[14]:

1. Control of tobacco products: Advertising of cigarettes smoking is banned in public places and in the media. Points of sale displays must display a warning that smoking is a major cause of lung cancer and lung diseases, as well as diseases of the heart and the blood vessels. The sale of cigarettes to children under the age of 18 is prohibited, as well as vending machine sales, and sales of chewing tobacco. Taxes constitute 70% of the retail price of cigarettes.
2. Protection of non-smokers: Smoking is not permitted in health establishments or schools, and is restricted in government institutions and in public transport. Food handlers are banned from smoking in the workplace. Smoking has also been banned on regional air flights.
3. Health Education: Students begin to receive anti-smoking education in the elementary school (after the age of 10 years). The danger of smoking is addressed in the curricula. Public information programs about the danger of smoking should be addressed in the media and community activities. Smoking cessation programs should be organized. The Bahrain Anti-smoking Society (funded by the government) and other NGOs continue to work with the government ministries toward tobacco control.
4. Formulating a national committee for tobacco control.

In 2005, the ministry of health has initiated an antismoking clinic serving targeted population who are referred from local primary care facilities or self referred.

In 2008, the antismoking Bahraini society pleaded to the Parliament to activate the Royal decree and implement rigorous fines on the law violators[14].

Smoking Behavior in GCC Countries:

There is an increasing water pipe (Shisha) use in neighboring countries, affecting both males and females. Tobacco used in water pipes has a wide variation in nicotine content; one head of unflavored tobacco has the nicotine equivalent of 70 cigarettes while flavored tobacco is lower in nicotine content. It is widely believed by smokers that the smoke is purified when passing through the water. Compared to cigarette smokers, water pipe users display a lower interest in quitting or appreciation of the addictive nature of this habit[3].

The health dangers of water pipe usage, as opposed to cigarette smoking are little understood by the public.

In the Arabic culture, males are faced with greater social pressure than females to adapt the behavior of being strong and robust. Such behavior enforces males to be adventurous more risk taking. In many GCC countries, smoking is viewed as a sign of maturity and adulthood[4].

The prevalence of smoking among the GCC countries is ranging from 15-37% in males, females at a lower rate. The studies do not differentiate between local GCC citizens and expatriate, see figure 5[15].

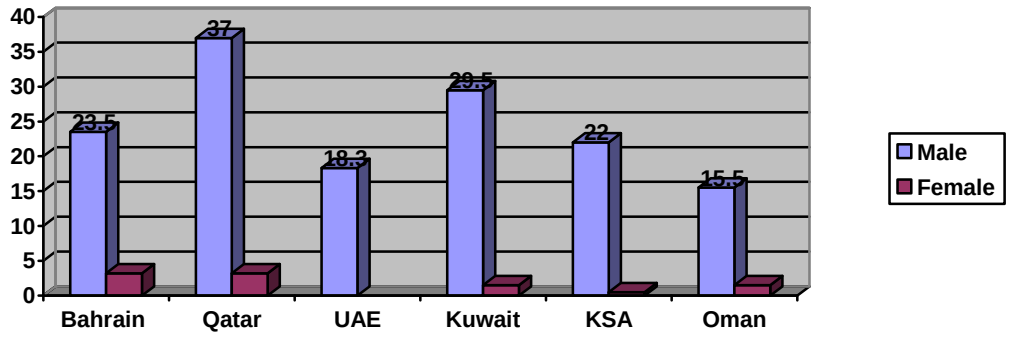

Figure 5: Prevalence of Smoking by Gender in GCC Countries[14]

REFERENCES

1. The Health Benefits of Smoking Cessation: A Report of the Surgeon General 1990.http://www.philipmorrisinternational.com/global/downloads/SH/Surgeon_General_1990.pdf. Accessed on 10.11.2009.
2. World Health Organization. WHO Report on the Global Tobacco Epidemic, 2008: The MPOWER Package. Geneva, World Health Organization, 2008. http://www.who.int/tobacco/mpower/en/index.html. Accessed on 21.03.2009.
3. Maziak W, Ward KD, Rastam S, et al. Extent of Exposure to Environmental Tobacco Smoke (ETS) and Its Dose-response Relation to Respiratory Health among Adults. Respiratory Research 2005; 6(1): 13.
4. Hamadeh R, McPherson K, Doll R. Prevalence of Smoking in Bahrain. Tobacco Control 1992; 1: 102-6.
5. Hamadeh RR. Smoking Habits in Bahrain, 1981-1991. Journal of the Bahrain Medical Society 1998; 10: 24-30.

6. Mosaiger AO, AlRomi KA. Prevalence of Risk Factors for Cardiovascular Diseases among Men and Women in Arab Gulf Community. Nut Health 1997; 11: 149-57.
7. Naseeb T, Farid S, Hafadh N, et al. Bahrain Family Health Survey 1995. Council of Health Ministers of GCC States, Riyadh (KSA) 2000.
8. Moosa K, Ghareeb N, Al Sairafi M, et al. National Nutrition Survey for Adults Bahrainis aged 19 years and Above. Ministry of Health, Bahrain, Nutriton Section, 1998.
9. Ministry of Health. Health Statistics 2000. Health Information Directorate, Arabian Printing Press, Kingdom of Bahrain.
10. Hamadeh RR. Smoking Habits of Medical Students in Bahrain. Journal of Smoking-related Disorders 1994; 5: 189-95.
11. Al-Haddad N, Hamadeh R. Smoking among Secondary-school Boys in Bahrain: Prevalence and Risk Factors. Eastern Mediterranean Health Journal 2003; 9: 1-2.
12. Hamadeh R. Smoking Habits of Primary Health Care Physicians in Bahrain. The Journal of the Royal Society for the Promotion of Health 1999; 119(1): 36-9.
13. Al-Hamdan N, Al-Jarallah M, Ravichandran K, et al. The Incidence of Lung Cancer in the Gulf Cooperation Council countries. Ann Saudi Med 2006; 26(6): 433-8.
14. Hamadeh RR. Smoking in the Gulf Cooperation Council (GCC) Countries. Bahrain Medical Bulletin 1998; 20: 91-4.
15. Bahrain Anti-Smoking Society 2005. www.antismokingbh.org. Accessed on 19.04.2008.