Smoking in the Gulf Cooperation Council (GCC) Countries

Randah R Hamadeh, DPhil (Oxon)*

Review of available documents on smoking shows variation in the number and nature of studies in the Gulf Cooperation Council (GCC) countries. The majority of the studies done were smoking prevalence studies while few were on tobacco consumption, smoking related diseases, and mortality attributed to smoking.

The prevalence of smoking among males in the Arabian Gulf is higher than that of their female counterparts. The prevalence of smoking among males is higher in Kuwait and Saudi Arabia than Bahrain and Oman while that of females is highest in Kuwait. Smoking among physicians is high in the GCC countries compared to Western countries. Comparing smoking among physicians in GCC countries, Kuwait and UAE are on the top for male physicians, and Saudi Arabia and Kuwait for female physicians. However, there are differences in the type of physicians sampled. The prevalence of smoking among male and female medical and non-medical university students as well as male secondary school students is high in the region. The prevalence data however lack uniformity in definition of a smoker and do not separate the data by nationals and expatriates.

The adult cigarette per capita consumption has generally declined in the early 90s compared to that of the late 80s. All the GCC countries seem to have similar health warnings and statements of content and control of tar and nicotine. The recent decrees on smoking control in Bahrain and Kuwait have put these countries ahead in other aspects of control.

Bahrain Med Bull 1998;20(3): 91-4.

The exact date of tobacco introduction to the Gulf Cooperation Council (GCC) countries; Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the United Arab Emirates (UAE) is unknown but it is assumed that smoking became popular at the beginning of the 18th century[1,2]. The major forms of tobacco products that are in use in the GCC countries are cigarettes and the waterpipe, whereas the extent of the cigar and pipe smoking is less prevalent. Tobacco cultivation is practised in Oman and the UAE but cigarette manufacturing is not practised in any of these countries[3].

Review of the available documents on smoking shows variation in the number and nature of studies in the GCC countries. The majority of the studies done were smoking prevalence studies which considered the adult population or population subgroups[4-32]. Studies on tobacco consumption[33], smoking related diseases (not reviewed in this paper)[34-40], and mortality attributed to smoking[13,40] are few.

PREVALENCE OF SMOKING

1.Prevalence of Smoking in the Adult Population (Table 1).

Men – The prevalence of daily smoking among adult (≥15

Table 1. **Prevalence of smoking among men and women in GCC countries**

Country	Date of survey	Prevalence M	Prevalence F	Source
Bahrain				CSO, 1993[a]
Bahraini	1991	21.9	6.9	
Non-Bahraini		24.9	2.9	
Total		23.5	5.7	
Bahraini	1982	30.6	9.5	Hamadeh,
Non-Bahraini		40.4	7.9	1992[b]
Total		33.1	9.2	
Kuwait	1991	52.0	12.0	WHO, 1996[a]
	1989	34.0	6.0	WHO/EMR[d]
Kuwaiti	1980	42.7	7.5	Al-Naqeeb,
Non-Kuwaiti		55.0	14.6	1981[c]
Oman	1990's	23.5	1.6	Hasab, 1996[c]
Saudi Arabia				
Al-Baha		52.7	--	Al-Bedah, 1989[a]
Riyadh (Saudi)	1994	40.0	8.2	Saeed et al., 1996[a]
Riyadh	1993	--	4.8	Al-Faris et al.,1995[e]

a Smoker = current daily smoker
b Smoker = current occasional and daily smoker
c Smoker = current cigarette smoker
d Smoker = not specified
e Smoker = Current smoker

* Assistant Professor
Department of Family & Community Medicine
College of Medicine & Medical Sciences
Arabin Gulf University
State of Bahrain

years) males is highest in Kuwait[4], and Saudi Arabia[5,6]. A higher prevalence is noted among Saudi adult males[6] compared to their Bahraini[7] counterparts. Current cigarette smoking among Omani men is 23.5%[8].

Women – The prevalence of smoking among adult females ranges between 1.6% and 12% in the GCC countries, the highest being in Kuwait[4-10]. Cigarette smoking has gained popularity among women in the Arabian Gulf[11] but waterpipe smoking is still considered a more socially acceptable behavior than any other type of smoking among women.

Trends – Both Kuwait and Bahrain have data on the prevalence of adult smoking in the 80s and 90s[11-13]. However, the definition used for a smoker varied in the studies of the two periods. Comparing regular smoking in Bahrain in the two periods has shown that there was a significant increase in the prevalence of regular smoking among women while the rates in men remained unchanged[14]. Moreover, the Kuwait data are suggestive of a rise in smoking in both men and women[4,12,13].

2. Smoking Among Population Subgroups

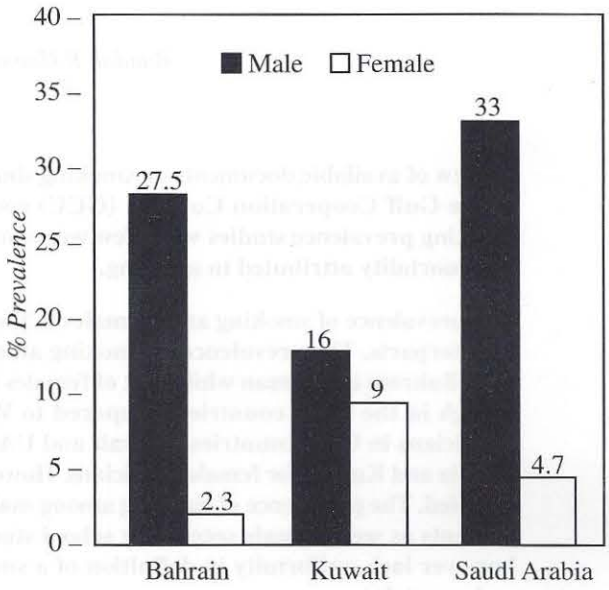
Physicians (Table 2) – Male physicians in Kuwait (45.3%) and the UAE (43.9%) have a higher prevalence of smoking than their counterparts in Saudi Arabia (38.5%) and Bahrain (26.6%)[15-17]. Female physicians in Kuwait (16.0%) and Saudi Arabia (15.8%) had higher rates than their colleagues in Bahrain (6.9%) and UAE (8.2%). However, there was a variation in the physician population in each study and the definition of smoker used.

Table 2. **Smoking among physicians in GCC countries**

Country	Study period	Physicians' population	Prevalence M	Prevalence F	Source
Bahrain	1994	Primary Health Care			Hamadeh, 1997[a]
Bahraini			22.7	6.3	
Non-Bahraini			28.6	7.7	
Total			26.6	6.9	
Kuwait	1990	Not Specified	45.3	16.0	Bener et al., 1993[b]
Saudi Arabia					
Riyadh	1987-1988	General Civil Health Facilities	38.0	16.0	Saeed et al., 1989[a]
UAE	1991-1992	Not Specified	43.9	8.2	Bener et al., 1993[b]

a Smoker: Current daily and occasional smoker
b Smoker: Daily cigarette smoker.

Medical Students (Figure 1) – Smoking among male medical students in GCC countries is higher than that of the females. One third of male medical students in Riyadh, Saudi Arabia[18] are smokers, 27.5% in Bahrain[19] and 16.0% in Kuwait[20]. The highest prevalence of smoking among female future physicians is in Kuwait[20] (9.0%) followed by Saudi Arabia[21] (4.7%) and Bahrain[19] (2.3%). The definition of a smoker included occasional and daily smokers in all of the studies except that of Saudi male medical students, which included daily smokers only.



Daily and occasional smoking except for males in Saudi Arabia which included daily smoking only

Figure 1. Prevalence of smoking among medical students in GCC countries

Allied Medical Sciences Students – In King Saud University, the prevalence of smoking among male allied medical students is 46.8% compared to 12.4% in females. One third of the Saudi male students and 14.3% of the Saudi female students smoke[22]. Of the male students in the Secondary Health Institutes in Riyadh City, 17.5% are smokers compared to 8% of their female counterparts[23].

Non-Medical Students – Daily smoking among King Saud University male non-medical students[24] (37.0%) is slightly higher than that of their Kuwaiti counterparts in Kuwait[25] University (30.3%). However, the latter study included cigarette smoking only. Five percent of female non-medical students in King Saud University are daily smokers and 3.3% occasional[21].

School Students – The prevalence of smoking among male secondary students appears to be on the increase in Bahrain and Kuwait. The prevalence of smoking increased from 14.8% in 1982 to 21.4% in 1989 and to 25.8% in 1996 in Bahrain[26-28]. Smoking prevalence rose from 24% in 1990 to 50% in 1991 among high school children aged 14-18 years in Kuwait[3]. In Riyadh, Saudi Arabia, 12.1% of male secondary students aged 12-18 years were occasional and daily cigarette smokers in 1984[29]. Ten years later, Felimban and Jarrallah, and Jarallah et al reported similar percentages (12.0%, 13.2%) in smoking of any kind of tobacco among intermediate and secondary male students in the same city[30,31]. However, the first study included occasional and daily smokers and the latter daily smokers only. The percent of Saudi nationals was probably higher in the earlier study, as 95% of the students had fathers working in the Saudi Armed Forces and were selected from one school[29] while 80% of the students in the latter studies were Saudi and the study populations were not selected from one school[30,31]. These factors might affect the conclusions that can be drawn in

that no change has occurred in the prevalence of smoking in that age group.

In Oman, 6.5% of secondary male students and 0.9% of their female counterparts are smokers. However, 6.7% and 1.2% of intermediate school male and female students are smokers[32]. The study fails to indicate the mode of administration of the questionnaire as in-person interviewing would have affected the prevalence of smoking by underestimating it in this age group.

Among current smokers, nearly twenty percent of the Omani[32] secondary male students smoked before the age of 13 years compared to half of their Saudi[31] and 37.6% of their Bahraini[26] counterparts.

CIGARETTE CONSUMPTION

Annual adult cigarette per capita consumption is high in GCC countries. The UAE occupies the 7th rank with respect to annual cigarette consumption when compared with 127 other countries in 1990[42]. However, a 43% decline has been reported between 1986 and 1990 reaching 3218[41].

Annual adult cigarette per capita consumption increased until the mid 80s in Bahrain and Kuwait and started to decline reaching 2017 in Bahrain[42] and 2280 in Kuwait[3] in the early 1990s. In contrast, annual adult cigarette consumption in Saudi Arabia has risen significantly since the early 70s, averaging to 2130 in 1990-1992[3].

MORTALITY FROM TOBACCO USE

Age-standardized death rates for lung cancers are relatively high in Kuwait[3] (35 for males and 15.3 for females per 100,000 during the period 1985-1989) and in Bahrain among nationals (26.7 for males and 9.4 for females per 100,000 during the period 1978-1982). The truncated standardized death rates (35-64 years) during the same period were 45.8 and 15.6 per 100,000 among the Bahrainis[40].

TOBACCO CONTROL MEASURES

Countries in the GCC collaborate in tobacco control measures. A series of resolutions has been adopted on smoking and health by the Secretariat General for the Council of Health Ministers since 1979 to date[40,43]. Both Bahrain (1994) and Kuwait (1995) have comprehensive tobacco control policies supported by an Antismoking law issued by the Amir of the country. Qatar has an Amiri decree concerning tobacco control in the Ministry of Health and its establishments while Saudi Arabia has a prime ministerial decree in this respect. Oman, however, has a voluntary law on sales of tobacco and tobacco products.

Both Bahrain and Oman have a national Antismoking Committee that has representatives from all ministries and other sectors. The Antismoking Committee helps in policy development and coordination of tobacco control measures. Moreover, Bahrain, Saudi Arabia and Kuwait have Anti-smoking Societies.

Imported tobacco and tobacco products to GCC countries should satisfy several conditions like maximum tar and nicotine content, carrying a health warning and production date. Countries vary in their policies concerning tobacco advertising, sponsoring of social events and distribution of gifts promoting cigarette sales and restrictions on sales to minors. In the efforts to protect non-smokers, GCC countries vary in the number of places that smoking is prohibited[3].

CONCLUSION

Review of available documents on smoking shows variation in GCC countries by number and nature of studies done. Statistics on smoking are lacking in some of the countries. The majority of the studies are on the prevalence of smoking and few on tobacco consumption, smoking related diseases and mortality attributed to smoking.

It can be concluded that smoking is a problem in the GCC countries. The prevalence of smoking is high among adult Kuwaiti and Saudi males, male physicians, male medical and non-medical students and secondary male students. The prevalence of smoking among females is relatively low in the region with the exception of Kuwait. However, the indications that it is increasing among women and secondary male students implies that school students and women should be targetted in tobacco control efforts. Adult cigarette consumption is high in the region but has started to decline in some of the countries.

Commendable efforts have been made by the GCC countries in smoking control. Adoption of unified measures and passing of laws by the rulers of some of the countries reflect the importance of tobacco control to these governments.

Future studies in the region should include a uniform definition of a smoker to allow trend comparison and comparison between countries. Moreover, due to the transient and heterogonous nature of the expatriates in the different countries, analysis by nationality should be a must.

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