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Editorial

In this 6th INWAT Europe newsletter, we describe the threat of non-cigarette tobacco use mainly water-pipe smoking for women. Women of the low-income countries did not take up the cigarette smoking habit like men, as previously postulated. However, the tobacco industry targeted them through a more culturally-acceptable tobacco product, water-pipe. The issue remained unnoticed until recently, as the mainstream research were mostly focused on cigarette smoking. Now the water-pipe epidemic is extending beyond developing countries and endangering tobacco control laws.



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The invisible epidemic among women: Non-cigarette tobacco

Women of the developing countries did not smoke like men.

A model of cigarette epidemic in developed countries was described in 1994 by Lopez AD et al (1). This four-stage model of cigarette consumption proposed that women lagged males by one or two decades but then increased rapidly. Lopez et al. warned the countries with low rates of female smoking prevalence to take preemptive measures. A similar study was not carried out in low/middle-income countries, as the prevalence of cigarette consumption was very low at that time.

Currently, 83 % of the global population live in developing regions and that share is increasing. Developed regions are home to only 17 % of world's population (2). While in developed regions, women smoke almost as much as men; in South-Eastern and Eastern Asia, smoking is widespread among men but uncommon among women. Two decades has passed and women still have not followed the male cigarette smoking rates in these countries. What protected these women? Did their governments listen to Lopez's advice or enforce Framework Convention on Tobacco Control very strictly? WHO 2017 Tobacco report shows that tobacco control is underfunded and MPOWER strategies are not implemented fully in low income countries (3). If it is not tobacco control policies that prevent women from smoking cigarettes, we may be missing the big picture by just looking at cigarette smoking.

Water-pipe: non-cigarette tobacco product of the developing world.

Cigarette smoking has been considered socially and religiously unacceptable for women in developing countries. Women have had less spending power and tended towards traditional methods of smoking (4). Tobacco use among women emerged in the form of water-pipe (hookah, narghile, shisha) smoking (5). Water-pipe

started India in the 15th century and spread to Iran, Egypt, and Ottoman Empire. Forgotten for centuries, suddenly reappeared in 1990s together with aromatic tobacco. The water-pipe device uses coals to heat tobacco. The smoke that passes through water is inhaled through a pipe. Once a traditional tobacco product, has now turned into a fashionable socializing tool for women. A study in Iran, showed that initiation of hookah smoking among women was due to its social and cultural acceptance. Public agreed more with hookah than cigarette for women (6). While cigarette smoking was accepted disrespectful, hookah could be used before older family members.

Why is water-pipe use increasing? Availability of the water-pipe in cafes and restaurants contributed to the increase (7). A study carried out in Istanbul, showed that the establishments usually are in the vicinity of schools, have children's menus, playgrounds, praying rooms and accommodate special women's events. Blending water-pipe in with usual family activities has normalized its use among women.

Water-pipe is an affordable tobacco product for women. Illegal tobacco used in the preparation of the mixture reduces the cost. Based on internet search, a study estimated that illicit products constitute 99% of total water-pipe consumption in Turkey (8).

Interesting designs of the water-pipe devices and tobacco flavors make the product appealing for women and the youth. On the basis of flavor, the market is segmented into fruit, confectionery, spices, beverages. All types of alcoholic drinks are used as flavors.

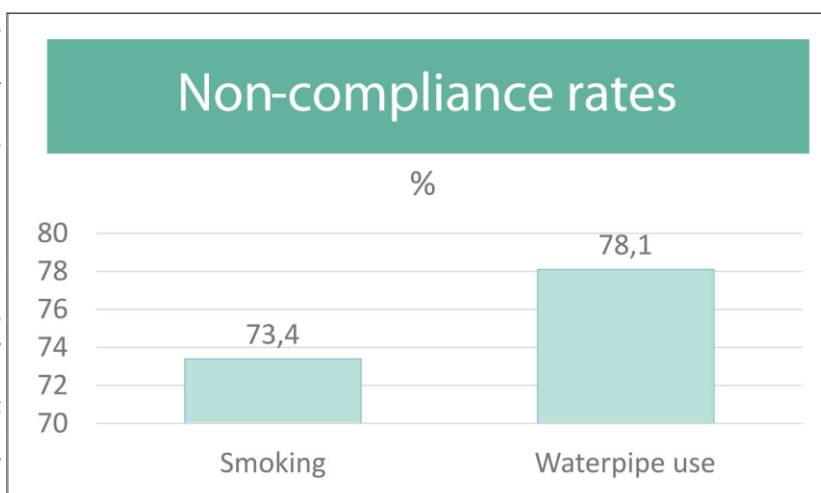
Misconceptions about health hazards is another reason for the increase in use. There is perception that water filters the toxins of the tobacco smoke and renders it less risky (6-7).



Transnational tobacco industry is involved in water-pipe sector. In 2012, Japan Tobacco International purchased Al Nakhla, then the world's largest water pipe tobacco manufacturer (5). The orchestrated activities in different countries resemble to the strategies of transnational cigarette companies.

Future threats. The epidemic will not be limited to the developing countries. The consumption is increasing in many developed countries among adolescents and young adults even among people who explicitly refuse to smoke cigarettes (5). A study carried out among Florida University students in 2012 showed that 11.5 % of female students were current hookah users, and 49.4 % were lifetime hookah users (9). In South Africa, 63% of Western Cape university students ever smoked waterpipe (10).

Water-pipe tradition has been used as a cultural excuse to violate and bypass the smoke-free legislation. A survey in Turkey has shown that in closed spaces of water-pipe serving establishments both cigarette smoking (73.4 %) and water-pipe smoking (78.1 %) took place violating the smoke-free legislation. Some countries in Europe and North America specific exemptions allowing the smoking of waterpipes in cafes.



Governments should regulate water pipes and their use in the same ways as all other combustible tobacco products, and the use of water pipe in public places should not be exempted from smoke-free laws.

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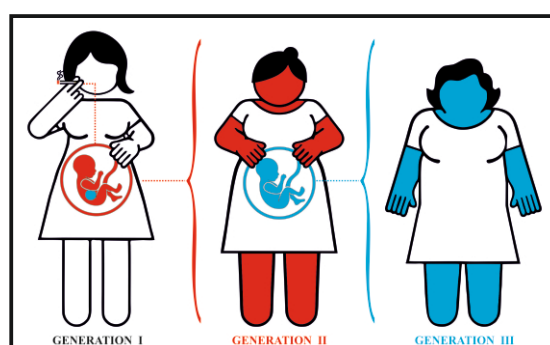
Tobacco use in women effects the health of many generations

Smoker grandmothers can cause asthma in their grandchildren

Tobacco exposure during pregnancy causes reduced birth weight, poor developmental and psychological outcomes, and increased risk for diseases such as asthma in the baby. Recent research is showing that maternal cigarette smoking alters DNA and gene expression. The effects of tobacco may not be skin deep and definitely not short-term.

Epigenetics is scientific field that deals with effects of the environment on human genes. Epigenetic changes caused by maternal cigarette smoking during pregnancy is a new and exciting field of research.

Asthma is more common in children whose maternal grandmothers smoked during pregnancy, even if their own mothers did not smoke. This effect was not seen when paternal grandmothers smoked.



It was discovered that tobacco smoke adds a methyl chain to the DNA without changing its base sequence. This epigenetic change causes the gene to behave differently and can be transferred to the third generation. Experimental studies are investigating whether this effect can last for four generations.

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