



ISSN: 2198-4093 www.bmrat.org

Letter to Editor



Cigarette: The Silent Killer in the World

Hamidreza Sadeghi Gandomani^{1,2}, Abed Asgari Tarazoj³, Hamid Salehiniya^{1,4,*}

¹Zabol University of Medical Sciences, Zabol, Iran ²Trauma Nursing Research Center, School of nursing and midwifery, Kashan University of Medical Sciences, Kashan, Iran ³Department Of Nursing, Naragh Branch, Islamic Azad University, Naragh, Iran ⁴Department of Epidemiology and Biostatistics, Tehran University of Medical Sciences, Tehran, Iran

One of the main challenges of the 21st century is tobacco consumption, and in particular cigarette smoking (Control and Prevention, 2012). Cigarette smoking is a leading cause of death worldwide (Control and Prevention, 2011).

About 1 billion people around the world (800 million men and 200 million women) are addicted to cigarette (WHO, 2015). The prevalence of smoking varies across different parts of the world; this variation is due to economic development and income levels. More than 80% of adult male smokers and half of adult female smokers live in low or middle-income countries (Ng et al., 2014).

Tobacco use kills more than 7 million people every year worldwide, and nearly 80% of these deaths occur in low-income countries (WHO, 2017). It is estimated that this figure will increase in 2030 (WHO, 2011). Tobacco use caused 100 million deaths in the 20th worldwide, if this trend continues, this figure will reach 1 billion by the end of the 21st century (Thun et al., 2013).

About 35% of men and 22% of women in developed countries smoke. These figures in developing countries are 50% and 9%, respectively in men and women (Meysamie et al., 2012). About 84% of the world's smokers live in developing countries, nearly 1.3 billion people in the world (Ng et al., 2014). According to the European Health Interview Survey (EHIS) in 2015, the lowest daily smoking rates for men was found in Sweden (7.2%) and the highest rates was found in Cyprus (37.3%), while in women the lowest rates was observed in Romania (8.3%) and the highest rates was observed in Astriua (General, 2014). Among 26 European Union (EU) countries in this survey, men's smoking prevalence rates was currently higher than women's (McCartney et al., 2011; Oh et al., 2010; statistics, 2017; WHO, 2015).

*For correspondence:

alesaleh70@yahoo.com

Competing interests: The authors declare that no competing interests exist.

Received: 07 September 2017 Accepted: 13 September 2017 Published: 20 September 2017

Copyright The Author(s) 2017. This article is published with open access by **BioMedPress**.

This article is distributed under the terms of the Creative Commons Attribution License (CC-BY 4.0) which permits any use, distribution, and reproduction in any medium, provided the original author(s) and the source are credited.



The study findings for 187 countries between 1980 and 2012 showed that the age-standardized prevalence rate of tobacco use in people over 15 years old in 1980 decreased from 41.2% to 31.1% in men and from 10.6% in 2.6% in women. However, during this period, the number of smokers increased from 721 million in 1980 to 967 million in 2012 per day (Moosazadeh et al., 2013).

The pattern of cigarette smoking is dependent on several factors such as age, sex, and socioeconomic status of individuals (Ebadi et al., 2011). According to studies, the prevalence of cigarette smoking in men is five times higher than in women (Moosazadeh et al., 2014).

Numerous studies indicate that smokers and nonsmokers who are exposed to secondhand smoke are inhaling many of the causes of the cigarette smoking (Allender et al., 2009). The results of a 50-year study showed that the life expectancy for non-smokers is 10 years longer than smokers (Thun et al., 2013).

Tobacco use is associated with increased risk of developing various cancers, including lung, Laryngeal, esophagus, oral cavity, bladder, pancreatic, kidney, liver, stomach, Intestinal, cervical, Leukemia, and ovarian cancers (Agudo et al., 2012; McCormack et al., 2010; Shiels et al., 2014). However, due to the decrease in the prevalence of cigarette smoking, the incidence of certain smoking-related cancers is significantly decreasing; these cancers include lung cancer (decreased in men), esophageal cancer (decreased in women), and laryngeal cancer (decreased in both sexes) (Jha and Peto, 2014). Cigarette smoking harms almost all organs of the body and causes several diseases, including: coronary artery disease (CAD), stroke, chronic obstructive pulmonary disease (COPD), high blood pressure, Fertility problems, preterm labor, stillbirth, Low birth weight (LBW), Sudden infant death syndrome (SIDS), and ectopic pregnancy (Forey et al., 2011; General, 2014; Joubert et al., 2012; Mostafa, 2010). Smoking cessation also reduces the risk of developing lung, oral, throat, esophagus and Laryngeal cancers (King et al., 2012). so that, after five years of smoking cessation, the risk of developing oral, throat, esophagus, and bladder cancers decreased by 50% (Jha et al., 2013).

It can be concluded that smoking, especially cigarette smoking, is one of the health problems in most societies, especially in developing countries. Therefore, tackling this problem requires intensified tobacco control measures, especially in countries that have more smokers. It is possible to significantly reduce the number of smokers by providing accurate planning and comprehensive training programs on smoking cessation and tobacco use outcomes.

Abbreviations

WHO: World Health Organization



ISSN: 2198-4093 www.bmrat.org

Author contribution

All authors contributed in manuscript preparation. All authors drafted the first version and approve the final draft.





References

Agudo, A., Bonet, C., Travier, N., González, C.A., Vineis, P., Bueno-de-Mesquita, H.B., Trichopoulos, D., Boffetta, P., Clavel-Chapelon, F., and Boutron-Ruault, M.-C. (2012). Impact of cigarette smoking on cancer risk in the European prospective investigation into cancer and nutrition study. *Journal of Clinical Oncology* 30, 4550-4557. https://doi.org/10.1200/JCO.2011.41.0183

Allender, S., Balakrishnan, R., Scarborough, P., Webster, P., and Rayner, M. (2009). The burden of smoking-related ill health in the UK. *Tobacco control* 18, 262-267. https://doi.org/10.1136/tc.2008.026294

Control, C.f.D., and Prevention (2011). Vital signs: current cigarette smoking among adults aged≥ 18 years--United States, 2005-2010. *MMWR Morbidity and mortality weekly report* 60, 1207.

Control, C.f.D., and Prevention (2012). Current cigarette smoking among adults-United States, 2011. *MMWR Morbidity and mortality weekly report* 61, 889.

Ebadi, M., Vahdanineya, M., Azin, A., Aeeinparast, A., Omidvari, S., and Jahangiri, K. (2011). Prevalence of smoking: Health study of people's view of Iran. *Payesh* 10, 365-372.

Forey, B.A., Thornton, A.J., and Lee, P.N. (2011). Systematic review with meta-analysis of the epidemiological evidence relating smoking to COPD, chronic bronchitis and emphysema. *BMC pulmonary medicine* 11, 36. https://doi.org/10.1186/1471-2466-11-36

General, S. (2014). The health consequences of smoking–50 years of progress: a report of the surgeon general. Paper presented at: US Department of Health and Human Services (Citeseer).

Jha, P., and Peto, R. (2014). Global effects of smoking, of quitting, and of taxing tobacco. *New England Journal of Medicine* 370, 60-68. https://doi.org/10.1056/ NEJMra1308383

Jha, P., Ramasundarahettige, C., Landsman, V., Rostron, B., Thun, M., Anderson, R.N., McAfee, T., and Peto, R. (2013). 21st-century hazards of smoking and benefits of cessation in the United States. *New England Journal of Medicine* 368, 341-350. https://doi.org/10.1056/NEJMsa1211128

Joubert, B.R., Håberg, S.E., Nilsen, R.M., Wang, X., Vollset, S.E., Murphy, S.K., Huang, Z., Hoyo, C., Midttun, Ø., and Cupul-Uicab, L.A. (2012). 450K epigenome-wide scan identifies differential DNA methylation in newborns related to maternal smoking during pregnancy. *Environmental health perspectives* 120, 1425. https://doi.org/10.1289/ehp. 1205412

King, B.A., Dube, S.R., and Tynan, M.A. (2012). Current tobacco use among adults in the United States: findings from the National Adult Tobacco Survey. *American journal of public health* 102, e93-e100. https://doi.org/10.2105/AJPH.2012.301002

McCartney, G., Mahmood, L., Leyland, A.H., Batty, G.D., and Hunt, K. (2011). Contribution of smoking-related and alcohol-related deaths to the gender gap in mortality: evidence from 30 European countries. *Tobacco control* 20, 166-168. https://doi.org/10.1136/tc.2010.037929



McCormack, V.A., Agudo, A., Dahm, C.C., Overvad, K., Olsen, A., Tjonneland, A., Kaaks, R., Boeing, H., Manjer, J., and Almquist, M. (2010). Cigar and pipe smoking and cancer risk in the European Prospective Investigation into Cancer and Nutrition (EPIC). *International Journal of Cancer* 127, 2402-2411.https://doi.org/10.1002/ijc.25252

Meysamie, A., Ghaletaki, R., Zhand, N., and Abbasi, M. (2012). Cigarette smoking in Iran. *Iranian journal of public health* 41, 1.

Moosazadeh, M., Salami, F., Movahednia, M., Amiri, M.M., and Afshari, M. (2014). Prevalence of smoking in northwest Iran: a meta-analysis. *Electronic physician* 6, 734.

Moosazadeh, M., Ziaaddini, H., Mirzazadeh, A., Ashrafi-Asgarabad, A., and Haghdoost, A.A. (2013). Meta-analysis of smoking prevalence in Iran. *Addiction & health* 5, 140.

Mostafa, T. (2010). Cigarette smoking and male infertility. *Journal of Advanced Research* 1, 179-186. https://doi.org/10.1016/j.jare.2010.05.002

Ng, M., Freeman, M.K., Fleming, T.D., Robinson, M., Dwyer-Lindgren, L., Thomson, B., Wollum, A., Sanman, E., Wulf, S., and Lopez, A.D. (2014). Smoking prevalence and cigarette consumption in 187 countries, 1980-2012. *Jama* 311, 183-192. https://doi.org/10.1001/jama.2013.284692

Oh, D.L., Heck, J.E., Dresler, C., Allwright, S., Haglund, M., Del Mazo, S.S., Kralikova, E., Stucker, I., Tamang, E., and Gritz, E.R. (2010). Determinants of smoking initiation among women in five European countries: a cross-sectional survey. *BMC Public Health* 10, 74. https://doi.org/10.1186/1471-2458-10-74

Shiels, M.S., Gibson, T., Sampson, J., Albanes, D., Andreotti, G., Beane Freeman, L., Berrington de Gonzalez, A., Caporaso, N., Curtis, R.E., and Elena, J. (2014). Cigarette smoking prior to first cancer and risk of second smoking-associated cancers among survivors of bladder, kidney, head and neck, and stage I lung cancers. *Journal of Clinical Oncology* 32, 3989-3995. https://doi.org/10.1200/JCO.2014.56.8220

Thun, M.J., Carter, B.D., Feskanich, D., Freedman, N.D., Prentice, R., Lopez, A.D., Hartge, P., and Gapstur, S.M. (2013). 50-year trends in smoking-related mortality in the United States. *New England Journal of Medicine* 368, 351-364. https://doi.org/10.1056/NEJMsa1211127

WHO, W.H.O. (2011). WHO Report on the Global Tobacco Epidemic (Geneva).

WHO, W.H.O. (2015). WHO global report on trends in prevalence of tobacco smoking 2015 (World Health Organization).

WHO, W.H.O. (2017). WHO report on the global tobacco epidemic 2015.