Academy of Professors Malaysia (APM) Press Statement

APM's Concern on the Statement by the Minister of Tourism, Arts and Culture (MTAC) on "the direct proof smoking causes cancer"

On 16th November 2023, media reported on the statement by the Minister of Tourism, Arts and Culture who "demands direct proof that smoking causes cancer". Following the media report, various parties that include Malaysian Medical Association (MMA) and former deputy health minister Dr Lee Boon Chye had voiced opinions on the established scientific evidences on the hazards of cigarette smoking.

The fact that smoking causes at least 15 different types of cancer, and tobacco is the biggest cause of cancer in the world has been well established. Research findings on cancer cases associated with cigarette or tobacco smoking in Malaysia and globally had been extensively recorded and were supported by significant evidence, discussed and shared at international and local conferences and, published in renowned international and local journals.

APM would like the Minister and interested parties to view the available facts and information on tobacco or cigarette smoking and its association with cancers globally and in Malaysia.

Tobacco Smoking and Cancer

The link between tobacco smoking and lung cancer was first established in 1950. The International Agency for Research on Cancer (IARC) reported over 70 cancer causing chemicals (carcinogens) in tobacco smoke that have sufficient evidence for carcinogenicity in either laboratory animals or humans. The different chemical classes of carcinogens and representatives of each are presented in Table 1.2. Some of these chemicals, including benzo[a]pyrene (BaP), 4-(methylnitrosamino)-1-(3-pyridyl)-1- butanone (NNK) and N′-nitrosonornicotine (NNN), 2-naphthylamine, 4-aminobiphenyl, formaldehyde, 1,3-butadiene, benzene, vinyl chloride, ethylene oxide, arsenic, beryllium, nickel compounds, chromium VI, cadmium, and polonium-210 are classified as carcinogenic to humans (Group 1).

Table 1.2 Tobacco smoke carcinogens evaluated in the *IARC Monographs*

Chemical Class	Number of Carcinogens	Representative Carcinogens
Polycyclic aromatic hydrocarbons (PAHs) and their heterocyclic analogues	15	Benzo[*a*]pyrene (BaP) Dibenz[*a*,*h*]anthracene
N-Nitrosamines	8	4-(Methylnitrosamino)-1-(3-pyridyl)-1-butanone (NNK) *N*′-Nitrosonornicotine (NNN)
Aromatic amines	12	4-Aminobiphenyl 2-Naphthylamine
Aldehydes	2	Formaldehyde Acetaldehyde
Phenols	2	Catechol Caffeic acid
Volatile hydrocarbons	3	Benzene 1,3-Butadiene Isoprene
Other organics	12	Ethylene oxide Acrylonitrile
Inorganic compounds	8	Cadmium Polonium-210

There are many other carcinogens in cigarette smoke that have not been evaluated in an *IARC Monograph*.
From IARC (2004a)

According to the World Health Organisation (WHO), cancer is a leading cause of death worldwide, accounting for nearly 10 million deaths in 2020. The most common new cases of cancer in 2020 were breast (2.26 million cases), lung (2.21 million cases) and colon and rectum (1.93 million cases). Alarmingly, the most common causes of cancer death in 2020 were lung (1.80 million deaths) followed by colon and rectum (916 000 deaths). A recent population-based study involving 7 countries found a total of 1.3 million (1.1 million–1.6 million) cancer deaths in 2020, with a massive 20.8 million (17.0 million– 24.6 million) years of life lost (YLLs) were attributable to tobacco smoking alone.

Based on the report published by Pathmanathan Rajadurai et al (2020), the prevalence of smoking is high in Malaysia; nearly 50% of all adult males are smokers, and more than 90% of male lung cancer patients have a significant smoking history.

In Malaysia, lung cancer is the third most common cancer followed by breast and colorectal cancer. Each year there are about 3,000 newly detected lung cancers in Malaysia. More than 90% of lung cancer were diagnosed at a very late stage (III and IV) in both sexes. In addition, the three main types of cancer in Malaysia for men include colorectal or colon cancer (16.9%), lung cancer (14.8%) and prostate cancer (8.1%), while women are more prone to breast cancer (33.9%), colorectal cancer (10.7%) and cervical cancer (6.2%). According to the MOH, the relative survival rates for cancer patients (after five years) is 11% for lung cancer, 51.1% for colorectal cancer, 51.6% for cervical cancer, 66.8% and 73.0% for breast cancer. The MOH estimated a cost of RM132.7 million to treat lung cancer due to smoking. The 2022 report on cost of NCD estimated total health-care cost for cancer was RM 1.34 billion (13.89%).

Tobacco use especially combustible cigarette smoking consumption in Malaysia has been reported as the primary risk factor for the occurrence of cancer and accounted for 22% of cancer deaths. Nearly nine out of ten lung cancer deaths are caused by smoking tobacco or

second-hand smoke exposure. The Ministry of Health (MOH) reported an 11% (115,238) increase in cases from 2012 to 2016, compared to 103,507 cases from 2007 to 2011. Cancer is the primary cause of death in Malaysian private hospitals with 34.95% and is the fourth top cause of death in government hospitals with 11.56%. It is also the top ten (10) main reasons for hospital admission in both government (5.17%) and private hospitals (5.37%).

Kuang Hock Lim et al (2022) reported in Malaysia, it is estimated that 20000 deaths attributed to smoking occur each year. Smoking-related diseases have been identified as a significant contributor to disability-adjusted life years and years of life lost among the Malaysian population. In addition, 2.9 billion MYR (100 Malaysian Ringgit about 23 US$) were spent on treating chronic obstructive pulmonary disease (COPD), lung cancer and ischemic heart disease (IHD), three diseases related to smoking; this is equivalent to 0.6% of the country's GDP or 16.5% of the national health expenditure. More than one-fifth of Malaysian adults are current smokers, and this prevalence has plateaued for the past three decades.

In a report published by A.A Rashid et al (2020) exposure to second-hand smoke (smoke exhaled from lungs of the smoker and smoke that drifts from burning tobacco), predicts breast cancer occurrence among Malaysian Women. As cancer incidence in Malaysia is expected to double by 2040, tobacco related-cancer incidences also are on the rise and the economic costs of tobacco are high due to more money spent on healthcare to treat patients; its impact not only affect the patients' survival, but involves cost of living, social-financial to the families and government's spending on medication and treatment. Many countries are now focusing on primary prevention that is to reduce the number of new smokers and advocate stop smoking to people who smoke. New strategies such as Generational Endgame (GEG) can be implemented urgently to control the epidemic of tobacco abuse and totally eliminate the risk of smoking in Malaysia.

Clearly, the evidence regarding risk of cancers, especially lung cancer from tobacco smoking is undisputable and the burden extends beyond the devastating health and economic impact. Hence, APM wishes to clarify the statement regarding evidences of cancer and smoking, which is proven to cause not only lung but other types of cancers as well. It is also imperative to send a clear message to the policy makers and the public so that more effective strategies can be implemented urgently to thwart the tobacco epidemic in Malaysia.

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