

## **WMA STATEMENT ON ELECTRONIC CIGARETTES AND OTHER ELECTRONIC NICOTINE DELIVERY SYSTEMS**

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### **INTRODUCTION**

Electronic cigarettes (e-cigarettes) are products designed to deliver nicotine to a user in the form of a vapor. They are usually composed of a rechargeable battery-operated heating element, a replaceable cartridge that contains nicotine and/or other chemicals, and an atomizer that, when heated, turns the contents of the cartridge into a vapor (not smoke). This vapor is then inhaled by the user. These products are often made to look like other tobacco-derived products like cigarettes, cigars, and pipes. They can also be made to look like everyday items such as pens and USB memory sticks.

No standard definition of e-cigarettes exists and different manufacturers use different designs and different ingredients. Quality control processes used to manufacture these products are substandard or non-existent. Few studies have been done to analyze the level of nicotine delivered to the user and the composition of the vapor produced.

Manufacturers and marketers of e-cigarettes often claim that use of their products is a safe alternative to smoking, particularly since they do not produce carcinogenic smoke. However, no studies have been conducted to determine that the vapor is not carcinogenic, and there are other potential risks associated with these devices: Appeal to children, especially when flavors like strawberry or chocolate are added to the cartridges. E-cigarettes can increase nicotine addiction among young people and their use may lead to experimenting with other tobacco products.

Manufacturers and distributors mislead people into believing these devices are acceptable alternatives to scientifically proven cessation techniques, thus delaying actual smoking cessation. E-cigarettes are not comparable to scientifically-proven methods of smoking cessation. Their dosage, manufacture, and ingredients are not consistent or clearly labelled. Brand stretching by using known cigarette logos is to be deplored.

Unknown amounts of nicotine are delivered to the user, and the level of absorption is unclear, leading to potentially toxic levels of nicotine in the system. These products may also contain other ingredients toxic to humans.

High potential of toxic exposure to nicotine by children, either by ingestion or dermal absorption, because the nicotine cartridges and refill liquid are readily available over the Internet and are not sold in child resistant packaging.

Due to the lack of rigorous chemical and animal studies, as well as clinical trials on commercially available e-cigarettes, neither their value as therapeutic aids for smoking cessation nor their safety as cigarette replacements is established. Lack of product testing does not permit the conclusion that e-cigarettes do not produce any harmful products even if they produce fewer dangerous substances than conventional cigarettes.

Clinical testing, large population studies and full analyses of e-cigarette ingredients and manufacturing processes need to be conducted before their safety, viability and impacts can be determined as either clinical tools or as widely available effective alternatives to tobacco use.

### RECOMMENDATIONS

That the manufacture and sale of e-cigarettes and other electronic nicotine delivery systems be subject to national regulatory bodies prior approval based on testing and research as either a new form of tobacco product or as a drug delivery device.

That the marketing of e-cigarettes and other electronic nicotine delivery systems as a valid method for smoking cessation must be based on evidence and must be approved by appropriate regulatory bodies based on safety and efficacy data.

That e-cigarettes and other electronic nicotine delivery systems be included in smoke free laws.

Physicians should inform their patients of the risks of using e-cigarettes even if regulatory authorities have not taken a position on the efficacy and safety of these products.