



## LEGISLATIVE COUNCIL ENVIRONMENT AND PLANNING COMMITTEE

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Inquiry: Inquiry into the Health Impacts of Air Pollution in Victoria

Hearing Date: 28 June 2021

### Questions taken on notice

Directed to: Dr Roderick McRae, Australian Medical Association

#### 1. Ms Taylor Page no. 25

##### Question asked.

You mentioned about cigarette smoke - you were principally focusing on people's responsibility with the damage they cause to themselves, but is there also an aspect of it also causing pollution?

##### Response:

The composition of environmental tobacco smoke is similar to other fossil fuel combustion products that contribute to air pollution, and has been shown to be responsible for indoor particulate matter levels far exceeding official outdoor limits (Invernizzi G, Ruprecht A, Mazza R, Rossetti E, Sasco A, Nardini S, Boffi R: Particulate matter from tobacco versus diesel car exhaust: an educational perspective. *Tob Control* 2004, 13: 219–221).

Furthermore, tobacco agriculture generates greenhouse gases, in the form of CO<sub>2</sub> from the diesel used in farm machinery and NO<sub>2</sub> from fertiliser – in addition to the CO<sub>2</sub> attributed to packaging, distribution and advertising. The sector's total annual contribution to climate change at 84 Mt CO<sub>2</sub> equiv, makes up about 0.2% of the world's total greenhouse gas (GHG) emissions. That is nearly as much as entire countries' GHG emissions such as Peru and Israel (Zafeiridou, M., Hopkinson, N., and Voulvoulis. N. Cigarette Smoking: An Assessment of Tobacco's Global Environmental Footprint Across Its Entire Supply Chain. *Environmental Science & Technology* 2018 52 (15), 8087-8094).

Additionally, emissions from electronic cigarettes remains an emerging area of research, though it is clear that e-cigarettes used under real-conditions emit toxicants, including PM<sub>2.5</sub> (Fernández, E., Ballbè, M., Sureda, X. et al. Particulate Matter from Electronic Cigarettes and Conventional Cigarettes: a Systematic Review and Observational Study. *Curr Envir Health Rpt* (2015) 2, 423–429).

#### 2. Dr Cumming Page no. 27

##### Question asked.



If both of you—both doctors—would be able to actually provide this inquiry with more research data that you are aware of that might inform us, that might actually help look at the collection of data.

**Response:**

Please refer to the reference list and slides kindly provided by Dr Lai Heng Foong, Chair, Public Health and Disaster Committee, Australasian College for Emergency Medicine.

**3. Dr Cumming Page no. 28**

**Question asked.**

Any other research around air quality and health issues.

**Response:**

As above.

