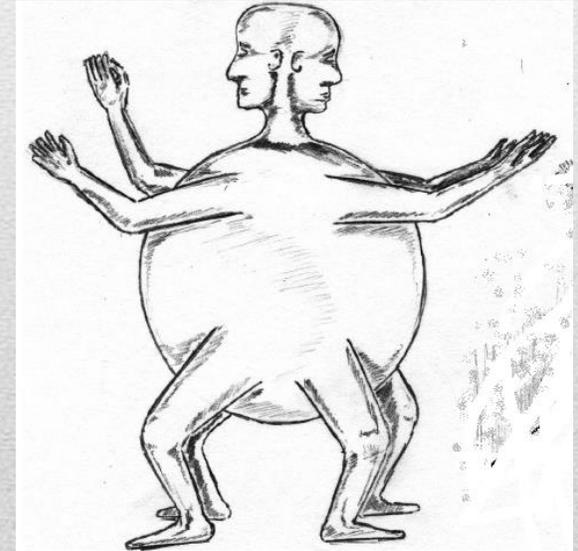


# BETWEEN VAPOTHEOSIS AND VAPOCALYPSIS

MAKING SENSE OF SCARCE EVIDENCE

**Armando Peruga, MD, DrPH**  
**Programme Manager (retired)**  
**WHO Tobacco Free Initiative**

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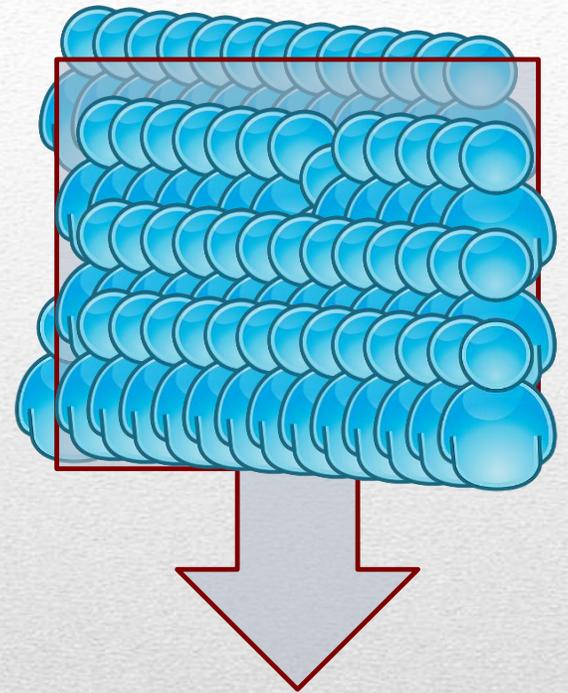
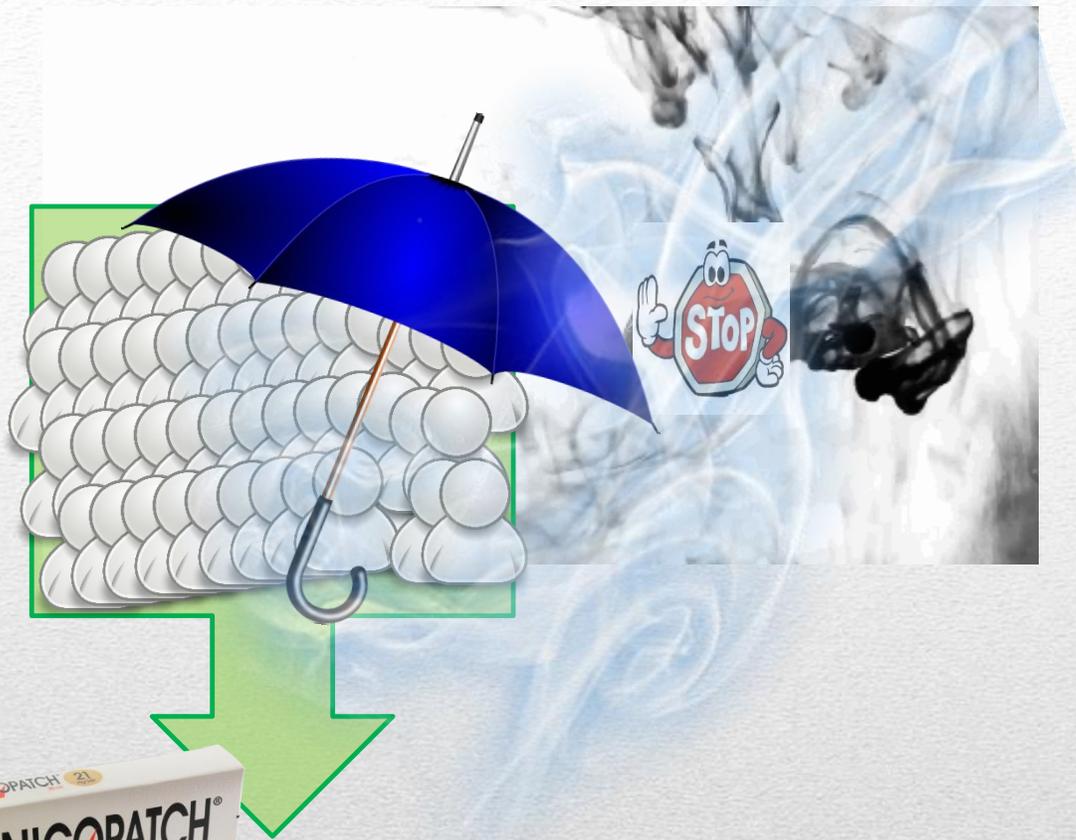
# DECLARATION OF INTERESTS

**I have received no payment or contribution, monetary or in-kind, from any commercial entity or done any unpaid work for them**

**I do not have current investments in a commercial entity with an interest related to the subject of the presentation**

**I do not have any intellectual property rights related to the subject of the presentation**

**I have not provided paid or unpaid expert opinion or testimony, to or on behalf a commercial entity related to the subject of the presentation but ~~did to governmental and parliamentarian policy makers~~**

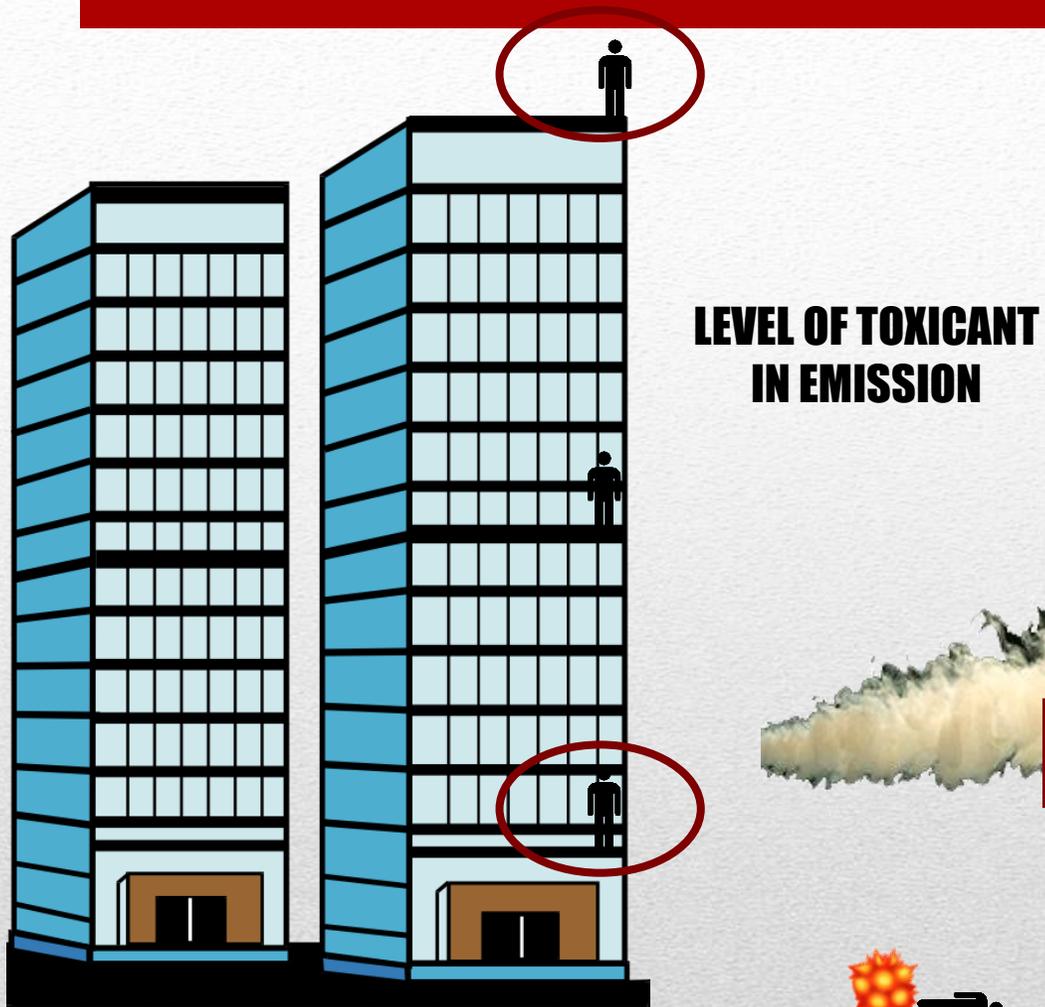


# NICOTINE PRODUCTS' RISK CONTINUUM

**8 000  
FLAVORS**



**HOW MUCH SAFER ARE ECIGS  
THAN SMOKING?**



LEVEL OF TOXICANT  
IN EMISSION



**RELATIVE RISK**

**INDIVIDUAL RISK PER UNIT EXPOSURE**



**95% SAFER  
THAN  
CIGARETTES?**

**HEALTH EFFECTS**

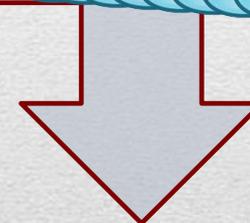
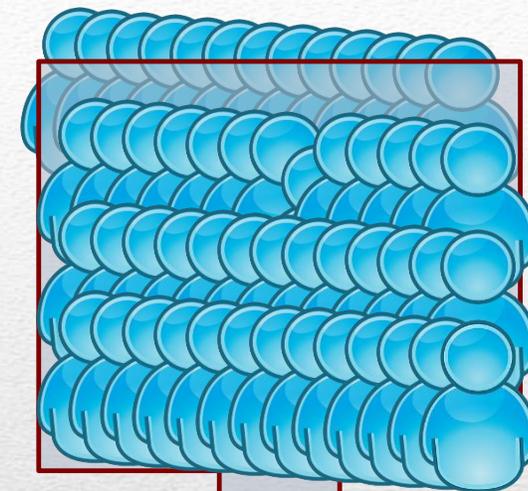
- **The only two RCTs show low efficacy**
- **Most of the few longitudinal studies show that ecig use prevents quitting smoking**
- **DAILY USE OF OPEN SYSTEM ECIGS MAY HELP SOME SMOKERS**

**Ecig established use**



**Most of it dual use**

**Ecig experimentation**



**SWITCHING FROM SMOKING TO ECIGS**

TOXICANT	TIMES OVER BACKGROUND LEVEL
PM 1.0/PM 2.5	14-40 / 6-86
Nicotine	10-115
Formaldehyde	1.2
Acetaldehyde	2-8
Nickel	Above SHS levels

- **SHA from ENDS is a new indoor air contamination source for**
  - **1,2-propanediol,**
  - **PM, ultrafine particles,**
  - **some VOCs, some metals and**
  - **nicotine**
- **Except for metals, at lower concentrations than in SHS**
- **short- and long-term risks to health empirically unknown**

## **PASSIVE EXPOSURE TO AEROSOL FROM ECIGS**



## The interest of the tobacco industry

- is to attract new users to alternative products not reducing their tobacco sales
- promote smoking through advertising and promotion to adults and children.
- allege their potential benefits as an excuse to engage and influence policymakers, scientists and advocates in tobacco control, while at the same time build credibility in corporate social responsibility initiatives.

# COMMERCIAL INTERESTS

# **DO E-CIGARETTES REPRESENT A BARRIER TO EFFECTIVE TOBACCO CONTROL?**

- **LIKELY TO BE SAFER THAN CIGARETTES BUT WE DO NOT KNOW BY HOW MUCH**
- **MOSTLY LEADS TO DUAL USE, PERHAPS WILL HELP QUIT SMOKING**
- **GREATLY INCREASE THE UPTAKE OF NICOTINE IN KIDS IN SOME COUNTRIES**
- **SOME LEVEL OF PASSIVE EXPOSURE TO EXHALED AEROSOL**

**SO FAR NOT THE DISRUPTIVE TECHNOLOGY HOPED FOR BIG PUBLIC HEALTH IMPACT WHILE ALLOWING THE TOBACCO INDUSTRY, WHICH CAUSES 6 M DEATHS ANNUALLY, TO SAY THEY ARE PART OF THE SOLUTION, NOT OF THE PROBLEM**