

Response to the WHT and WF Upgrade EIS Vol 2E

Vehicle Exhaust, Air Pollution and Climate Change

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Introduction

As a physician and oncologist I have the deep responsibility to convey the “medical” truth as I see it, based on training, research and experience.

This often comprises “bad news” which must be told gently, with full explanation, providing hope and the promise of a “wise plan”, reviewed regularly and ensuring ongoing support.

In oncological parlance the WHT (aka WTF), WFU and BL represent *malignant* processes i.e. unwanted, serving no beneficial purpose, destructive, self-perpetuating and ultimately lethal (destroying the life once enjoyed).

The EIS is a cold, inhumane and deceptive document, calculated to provide sufficient misinformation to justify a process of social destruction.

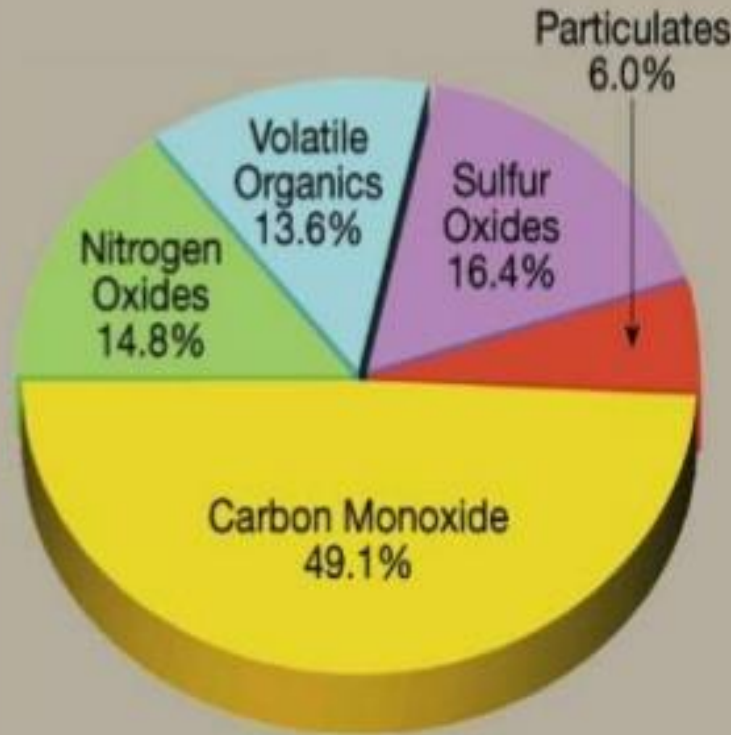
It must be called out for what it truly is.

Truth to power!

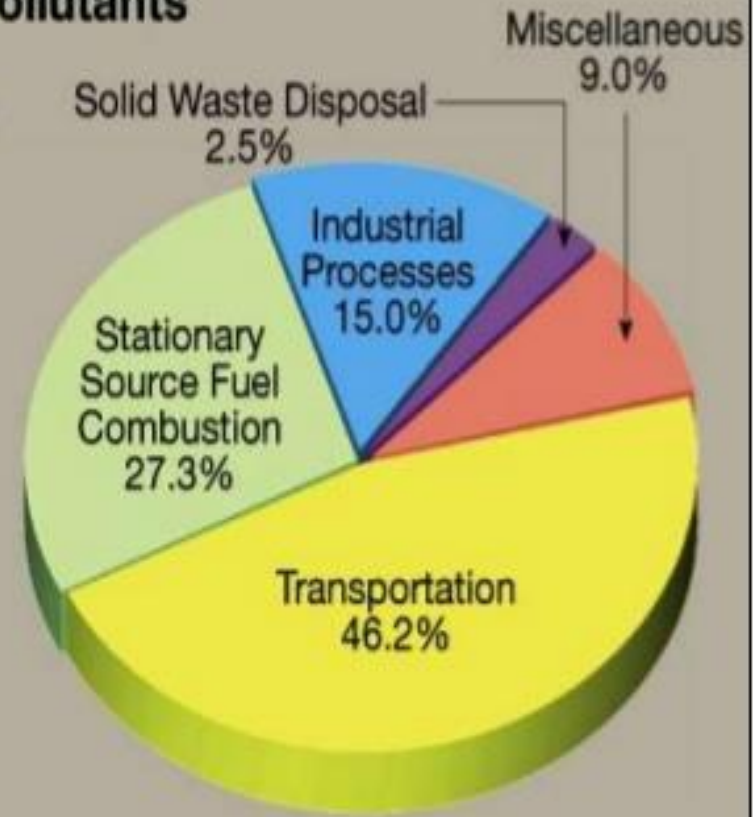
Types of Air Pollution

- Molecules:
 - Sulphur dioxide (SO₂)
 - Nitrogen Dioxide (NO₂)
 - Carbon Monoxide (CO)
 - Carbon Dioxide (CO₂)
 - Benzene, Formaldahyde, Lead, Toluene
- Particles:
 - PM₁₀
 - PM_{2.5}
 - PM_{<1} (Ultrafine)

Primary Pollutants



What They Are



Where They Come From

Detailed Direct Greenhouse Emissions Estimates in Australia (2018)

Table 1. Detailed Direct Greenhouse Gas Emissions Estimates by Economic Classification in Australia

Sector	Emissions (Mt CO ₂ -e)	Share of total emissions (%)	Change in emissions (%)
	2016	2016	1990 to 2016
Agriculture, forestry, fishing	64.3	12.06	-74%
Mining	82.3	15.44	98.3%
Manufacturing	60.0	11.26	-13.5%
Electricity, gas and water	201.2	37.75	47%
Commercial services and construction	34.9	6.55	0.9%
Transport and storage	29.4	5.52	130.9%
Residential	60.9	11.43	49.7%
All Sectors	533	100.00	-8.5%

Source: [4]

'From car to carotid'

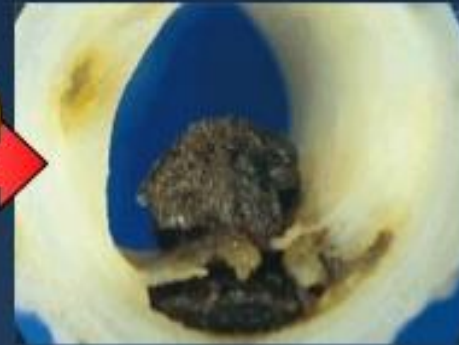
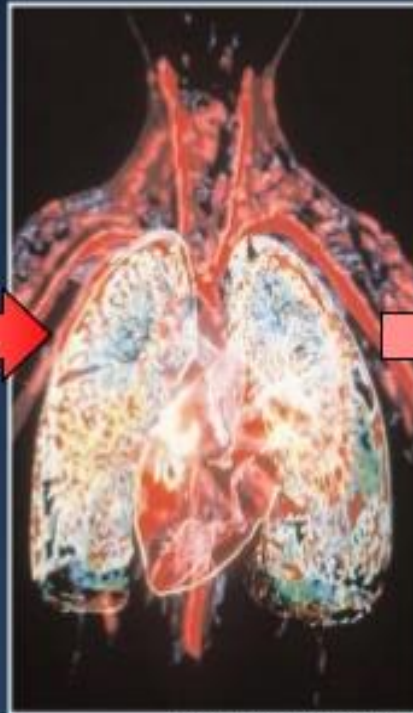
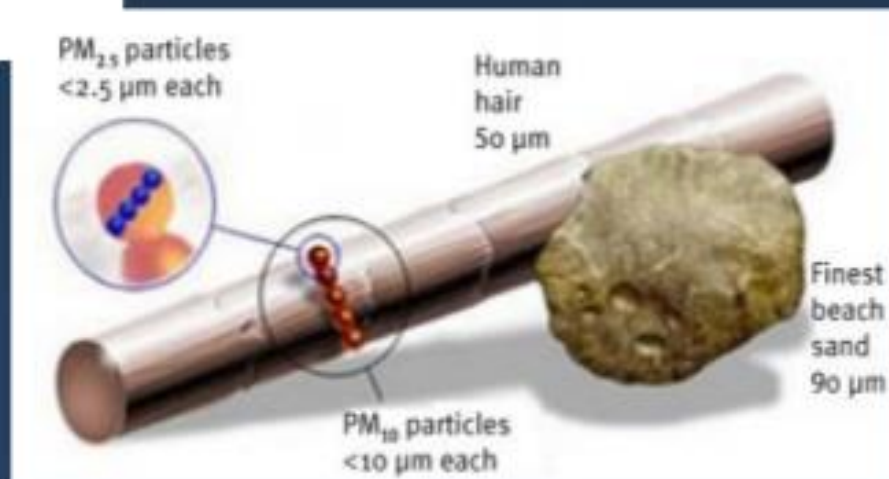
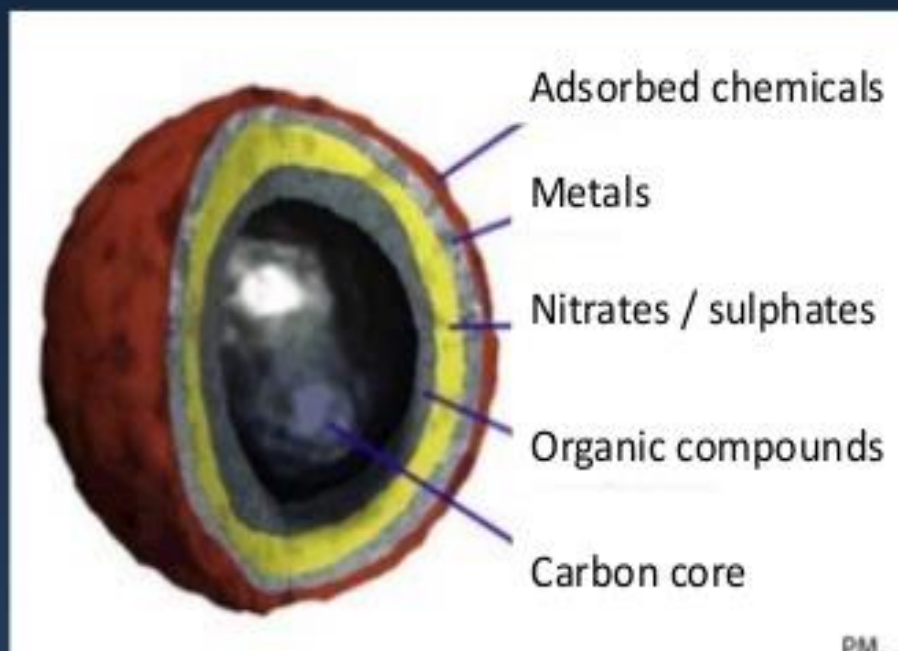


Image by Howard Sochunsk, Corbis

Fine and ultrafine PM



People Most Susceptible to Vehicle Pollution

Not mentioned specifically in the EIS



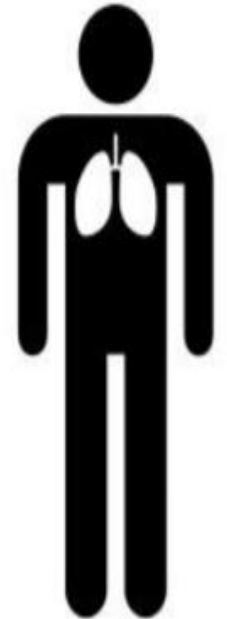
Children



Pregnant women
and unborn children

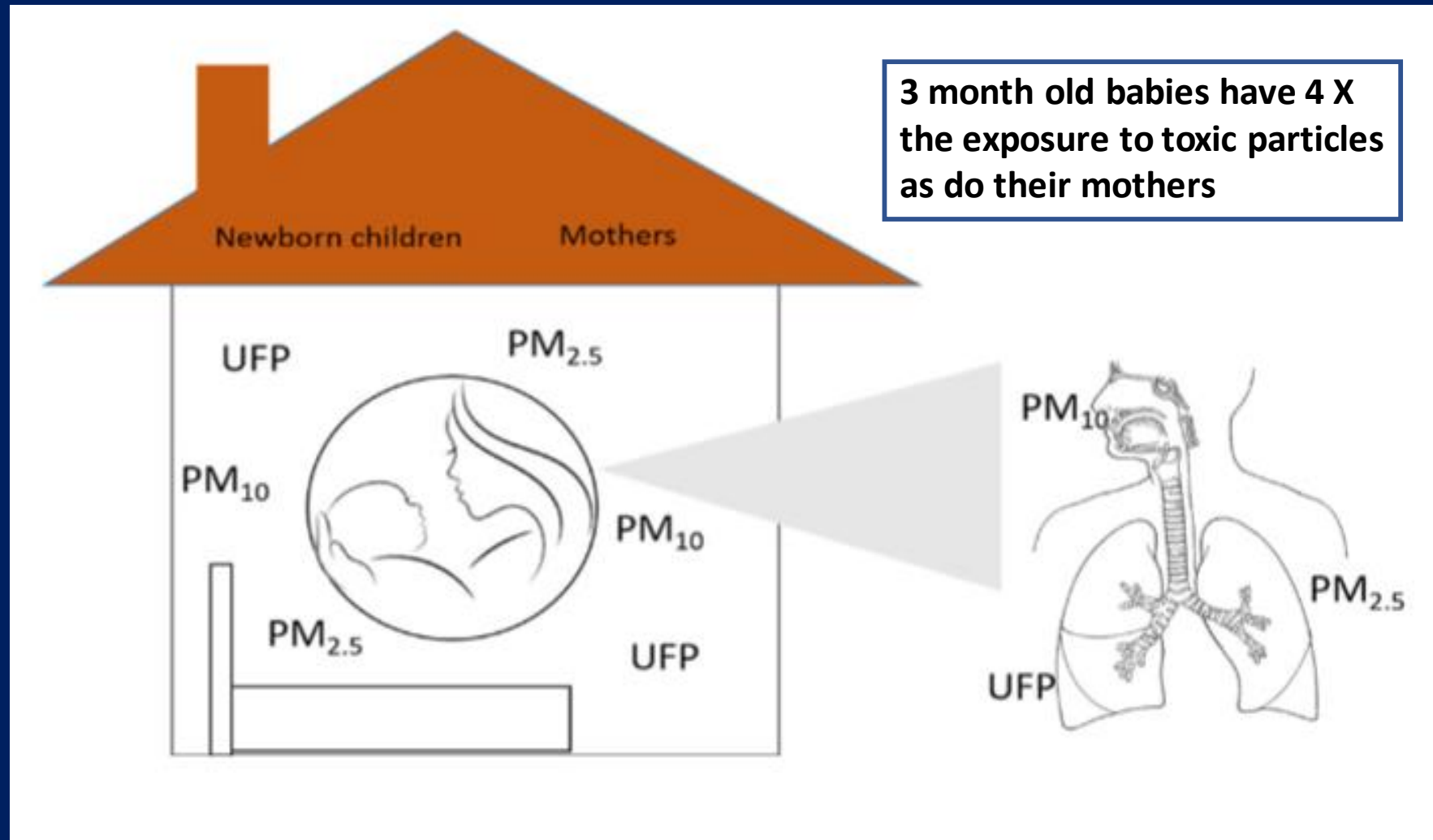


Elderly people



People with
chronic disease

Assessment of indoor air exposure at residential homes: Inhalation dose and lung deposition of PM₁₀, PM_{2.5} and ultrafine particles among newborn children and their mothers



Pollution - Measurement

- Equipment (include ultra-fine particles – EIS: “***UFPs no different to PM2.5s, therefore no specific action***”)
- Location(s) to capture the true dynamic picture 24/7/52
- Portable measurement studies throughout a day (including with ***children***)
- Measurements at the location(s) where the vulnerable spend time
- Indoors – homes, schools, hospitals, public areas near traffic
- In a variety of cars, buses and trucks with “windows up and ventilation on recirculation”.

Vehicular Exhaust, Climate Change and Wildfires

- Vehicular exhaust worsens the nature and health effects of other air pollution.
- Climate Change is not mentioned in the EIS.
- Climate Change markedly worsens the health impact of air pollution.
- Climate Change will contribute to more frequent wildfires → major persistent worsening of toxic air pollution in Sydney

Health Impacts of Vehicular/Air Pollution...1

- More serious than previously thought
- No safe minimum level (as with cigarettes or asbestos)
- Short periods of high level exposure may have long term or permanent effects
- Unborn children (the foetus), infants and older children are at high risk.

Health Impacts of Vehicular/Air Pollution...2

Children

- low birth weight,
- **asthma**,
- impaired lung development,
- impaired intellectual development,
- obesity,
- diabetes,
- psychological effects

Adults

- **cancer** (lung, bladder),
- heart attacks,
- strokes,
- worsening of chronic lung disease,
- pneumonia,
- dementia,
- anxiety,
- other psychological effects.