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Dear Rosalind,

**Re: Air quality- wood smoke**

Thank you for your recent emails and telephone calls.

Back in 2008 I was in discussion with Dr. Roscoe Taylor and Dr Martin Bicevskis re our air quality in Tasmania and in particular wood smoke. Dr Fay Johnston was mentioned in those discussions.

Since then many peer reviewed articles have been released showing harm caused by both long and short-time exposure to particulate matter. These are readily available by searching the internet.

Therefore, I feel it is time to revisit this matter and to make some changes to our health information/advice.

It is also important now to note the World Health Organisation’s stance, “*Particulate pollution has health impacts even at very low concentrations –* ***indeed no threshold has been identified below which no damage to health is observed****.*”

It is encouraging to see our ambient air quality (AAQ) rolling average on the DHHS website has been set to 1 hour for particulate matter. It is also encouraging to note we do not use air quality index calculations (AQI) to alter our raw data measurements.

I note [AirRater](https://airrater.org/what-do-air-quality-categories-mean-for-your-health/) also uses 1 hour averaging but the health based categories differ.

1. Is it possible to bring these into line?

It is encouraging to see the lowest air quality health category Tasmania Department of Health has adopted, ie. ‘**Good**: 0 to 9 micrograms per cubic metre.’ However, this does still not fit the WHO’s latest findings and when it is recognised that below 5ug/m3 is clean air.

1. Is it possible now for this health category to be lowered to 5ug/m3?

The five Health categories (**Fairly Good, Fairly Poor, Poor, Very Poor** and **Extremely Poor)** extending beyond clean air serve no purpose as the good health category has been exceeded.

1. Is there any reason why we cannot adopt binary health categories to better match the WHO’s findings? – see attached.

Turning to the DHHS document at <https://www.health.tas.gov.au/health-topics/environmental-health/air-quality> and the Guide ‘What to do if you can see or smell smoke.’

*“During bushfires, and in winter in some areas, it can get very smoky outside.”*

Planned burns and wood heaters are a deliberate cause of high levels of smoke.

1. Can these be named along with bushfires?

*“Smoke reduces the quality of the air you breathe, and it also affects your health.”*

1. Everybody’s health. Can this be added?

2. Decide if you are at higher risk

*“If you are at lower risk, it is unlikely you will be at risk of serious health harms from breathing smoky air. Smoke is irritating and you may get symptoms such as burning eyes, a sore throat, runny nose or a cough. These should clear up quickly once the smoke goes.”*

1. Everybody is at risk. Especially in Tasmania where we have the oldest, sickest population This does not take into account delayed health problems caused by particulates and toxins crossing over into the blood stream and travelling to every organ in the body.- See the studies.
2. This needs to be added?

3. Manage your health

It is almost impossible to manage health conditions when deliberate burning takes place.

4. Reduce the smoke you breathe

*“Stay indoors with your windows and doors closed.”*

This is not a healthy way to live especially when it is smoke from deliberate burning and when air quality inside has been determined to be 5 times worse than clean outdoors anyway.

*“…consider visiting a friend’s place, or a nearby library, shopping centre or sports centre if they have air-conditioning…”*

There is every chance these places do not have high efficiency (HEPA) filtration. This advice could prove to be harmful.

*“Specialised ‘P2’ masks are available from most hardware stores.*

*They will filter smoke particles.”*

A P2 mask is a particulate mask, it will only filter out the particulates it will not filter out the harmful smoke gasses. A P2 mask that has additional activated charcoal (carbon) is necessary to get protection from wood smoke.

1. Corrections/additions need to be made?

5. Keep track of smoke

*“…keeping safe from immediate fire danger is your highest priority.”*

Studies show more people are killed by the smoke than are burnt to death in the flames.

1. This needs to be added?

How to read the map:

“Poor air quality for several days has a greater health impact than a brief episode lasting a few hours.”

This is not true anymore. Brief episodes lasting less than a few hours can have great health impacts:

[“Air pollution exposure may cause heart attack within an hour”](https://www.mrt.com/news/article/Air-pollution-exposure-may-cause-heart-attack-17119862.php?fbclid=IwAR3BIIjNIxcXs0r5YcMuelItOXp5VOyui_nQ6zaf79aCDuMxKGUgMcVuPvs)

Smoke must not be portrayed simply as an “irritation” as in 2 above.

1. This information needs correcting to cover the more serious side effects of smoke inhalation?

Too often I hear, "Most healthy adults and children will recover quickly from smoke exposures and will not suffer long-term consequences."

Of course this information is not true.

Thank you.

Kind regards

Clive Stott

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