



Your details

Mr

Title

First name

Mark

Last name

Cepak

Submission details

I am making this submission as

A member of the general public

Submission type

I am making a personal submission

Consent to make submission public

I give my consent for this submission to be made public

Share your experience or tell your story

Your story

I was a futsal referee. The air quality that bushfires brought did not stop individual sport centers, tennis or cricket games from continuing when the air quality was hazardous. During the 19 weeks we had impaired players getting frustrated because they could not play as well as normal. We had collapse, Asthmatic attacks, Smoke inhalation recovery, watery eyes and dry throat. Some centers had only 50% retention December 2019 to Feb 2020. if NSW government do not step in the players will self select out because the proprietors do not want to face player welfare unless it becomes very public then they will try to have a policy to bend

Terms of Reference (optional)

The Inquiry welcomes submissions that address the particular matters identified in its [Terms of Reference](#).

1.3 Response to bushfires

The areas of the Terms of reference of the NSW Independent Bushfire Inquiry –
Responses to bushfires, particularly measures to protect life, health and the environment, including:
1) immediate management, including the issuing of public warnings/ prohibitions (PINS)
2) resourcing, coordination and deployment (Police and Council)
3) equipment and communication systems. (Monitoring devices for air quality)
4) Appropriate action to adapt to future bushfire risks to communities and ecosystems. (Stop playing exertive sport when air quality is hazardous in all affected communities)
5) Coordination and collaboration by the NSW Government EPA , Police with local governments and Sporting and Schools Community .
7) Public communication and advice systems and strategies for warning about air quality so that exertive sport does not make participants sick or die.

1.4 Any other matters

The social /financial pressure during poor air quality due to bushfire to have a game or competition is too great for a physician / referee / umpire to take. Personal cost occurs when that decision eats into the profit of a sole trader or corporation. Turnover of officials will occur at such a rate that lower grade officials with no insight into the issues will be favored over advocates and the resultant death and hospitalization will increase. With 10.7% NSW Asthmatics of total population being co-erced into playing during poor air quality because they are part of a team and team dynamics overwhelm personal safety. I saw the blue puffers (Ventolin) most nights during my exposure to the 2019-2020 bushfires . Sometimes 5 times a night . This indicated to me that players were struggling to breathe.

Supporting documents or images

Attach files

- The economics of breathing the cost of advocacy _ final v2.docx
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The economics of breathing – costs of advocacy

Submission to NSW bushfire enquiry because of smoke inhalation leading to respiratory, cardiovascular, emergency illness and death - Mark Cepak 22th May 2020.

I believe that we need a new way of thinking about the economics of breathing and its advocacy.

What exactly have we been breathing in during the NSW bushfires?

The article in the Medical Journal of Australia entitled “Unprecedented smoke-related health burden associated with the 2019–20 bushfires in eastern Australia (Borchers Arriagada et al., 2020) “plots the average PM 2.5 concentrations we inhaled outside for the 3 easterly states and ACT for the period 1st of October 2019 to 20th Feb 2020. (Graph below).

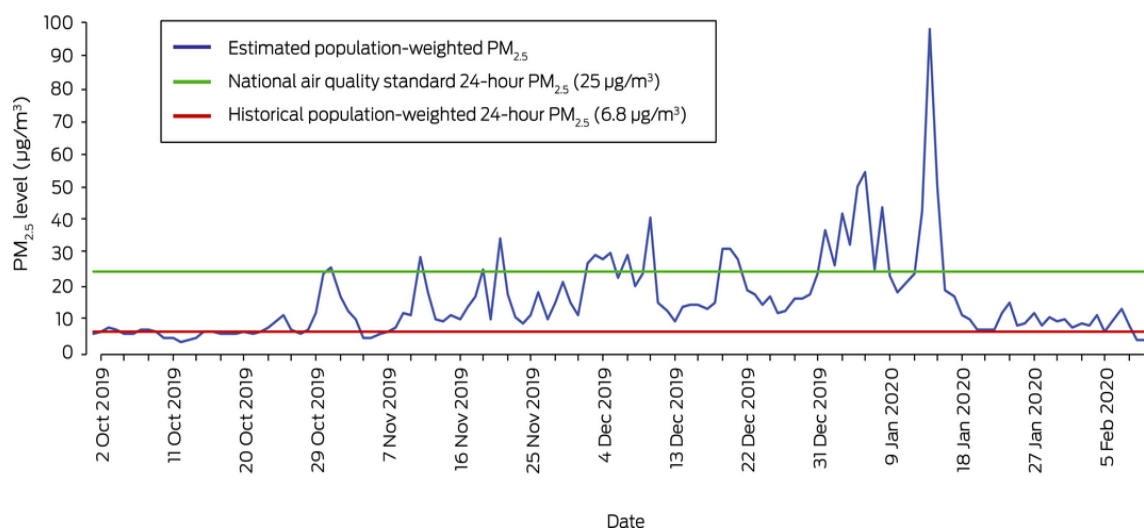


Figure 1 What we breathed:small particles Oct 2019 to Feb 2020 eastern states.

The article determines that “During the study period, PM_{2.5} concentrations exceeding the 95th percentile of historical daily mean values were recorded by at least one monitoring station in the study area on 125 of 133 days. National air quality standard for a 24 hour period was exceed may times from late October 2019 to early January 2020” .(Borchers Arriagada et al., 2020)

Box 2 – Estimated health burden attributable to bushfire smoke, Queensland, New South Wales, the Australian Capital Territory and Victoria, 1 October 2019 – 10 February 2020

Outcome	Estimated number of cases (95% confidence intervals)				
	Queensland	New South Wales	Australian Capital Territory	Victoria	Total
Excess deaths (any cause)	47 (17–77)	219 (81–357)	31 (12–51)	120 (44–195)	417 (153–680)
Hospital admissions, cardiovascular	135 (25–246)	577 (108–1050)	82 (15–149)	331 (62–602)	1124 (211–2047)
Hospital admissions, respiratory	245 (0–513)	1050 (0–2204)	147 (0–308)	585 (0–1227)	2027 (0–4252)
Emergency department attendances, asthma	113 (61–165)	702 (379–1026)	89 (48–131)	401 (217–586)	1305 (705–1908)

Figure 2 What was the estimated health burden Oct 2019 to Feb 2020 eastern states.

Figure 2 Shows the “smoke-related health impact was substantial. Smoke is just one of many problems that will intensify with the increasing frequency and severity of major bushfires associated with climate change. Expanded and diversified approaches to bushfire mitigation and adaptation to living in an increasingly hot and fire-prone country are urgently needed.” (Borchers Arriagada et al., 2020) . Given an estimate in NSW of 219 deaths, 577 Cardiovascular admissions, 1050 respiratory admissions and 702 Asthma emergency admissions tallied in this study, Fay Johnston has been asked to estimate the NSW sports-induced cohort to provide greater clarity with respect to sports induced health burden. I will report this back later. Appendix 1 outlines air quality response and economics of sports

Recommendations:

- 1) Prohibit exertive, individual & team sports like Futsal (Barbero-Álvarez et al., 2008), cricket or tennis in NSW during the periods of hazardous air quality.
- 2) Prohibit pregnant women from officiating or participating in exertive team sports in NSW during the periods of hazardous air quality due to the risk to the foetus.
- 3) Rural Fire Service to give warning to councils of prescribed burning a week from the event with timeframe to pass to the sports community to allow referees, umpires and teams to adjust their match schedules
- 4) Police and/or Councils should be able to supply penalty infringement notices (pin)s similar to that imposed for Covid-19 (Wave FM 96.5, 2020)
- 5) Use NCAA scale to prevent play at > 200 AQI Appendix 2

Why?

The umpires/referees/ players /pregnant women/ elderly are under social financial pressure to officiating or playing in exertive sports after paying for an entire season. No one wants a forfeiture Their heart rates are high when playing.(Helmets, 2019). .NSW Minister for sport says referee is empowered to stop the game. Appendix 3 If you advocate for air quality. Repercussions follow.as exclusion and denial of next next contract Advocate Steve O’Keefe when critical of the SCG on the 10th of December 2019 (“Air quality in Sydney was far worse than in India,” 2019) had his NSW cricket contract not renewed in April 2020 .(Wikipedia, 2020) This was despite First class Ranji trophy matches being cancelled in November 2016 for poor air (ESPN, 2016). Asthmatics comprise 10.7% of the NSW population.(Asthma Australia, n.d.). Therefore, statistically asthmatics are present in team games like futsal with a total of ten players from two sides.

Tennis Players are not immune either, as demonstrated in the Australian Open (AAP, 2020) (Lee, n.d.) (“Bad Air Doesn’t Stop Qualifying for Australian Open,” n.d.) Pregnant women are a special case as indicated by Professor Stephen Holgate “we have established that asthma is primarily a disease of the lung epithelium that originates during foetal lung development.” (University of Southampton, n.d.)

Additional clarifications

The case of what do you do when indoor air pollution equals outdoor or worse is not covered in health messages (NSW Dept of Planning, 2020)

The case of shopping centres/ Indoor sports centres having variable large openings to the ambient outside conditions offering little difference from hazardous air quality

Appendix 1 – Observations where businesses do not want to acknowledge air quality issues due to economic benefits of playing

Facility	Action	Outcome / Profit per night to play estimated
Indoor / outdoor Futsal facility in Sydney CBD	1) 31/10/2019 7:34 am hazardous air quality. Too hazardous to referee. Business as usual (BAU) – referee replaced 2) 21 November 2019 11:21 am hazardous air quality BAU. - Indoors Cancelled-outdoors. 3) 2/12/2019 6 pm too Smokey. Indoor referee stopped working after 20 minutes. 7 months pregnant woman referees Netball in smoky indoor situation for 3 hours 6 pm to 9 pm . BAU referee replaced Supervisor decides at 5 pm if night play will start at six then leaves the facility 4) 19/12/2019 2:40 air quality 441 at nearby monitoring at 2.30. Six teenagers playing at one hoop for basketball	Organisation has not recognised the problem in writing) (questioned indoor out door ambiance due to leaks never received an answer) Verbal Advice is the hazardous threshold is 150 AQI on 19 th of December . Profit per night to play ..\$2010 to \$1340 with 3 courts
Outdoor Futsal facility in Northern Beaches	Played on in bad air on 30/11 and other Wednesday competition reduced from 200 players in November 2019 to 100 players in Feb 2020	Not interested in replying to possible cause of no-shows being bush firesmoke.related. \$1000 a night on 4 courts
SCG Cricket game	Tuesday 10/12/2019 1100 AQI is 5.5 times the hazardous level. First class game concludes. Steve O’Keefe advocates for air quality	Asthmatic. Steve Okeefe contract not renewed after complaining. Estimate 10 k per day
	21/12/2019 Manuka 5556 ACT crowd at risk and Peter Siddle and another asthmatic treatment. During match AQI > 500	Umpires decide to call of game. Peter Siddle retires from International cricket
Australian Open Tennis	International players collapse and do not want to play on in January 2020	Tennis issues policy on 18 th Jan (Colangelo, 2020)
Indoor Facility Futsal	Thursday 21/11/2019. 6pm soupy air quality	Open the facility to ambient to allow cooling. \$200 per night .

Appendix 2

The National Collegiate Athletic Association (NCAA) is a cartel organization that regulates student athletes from 1,268 North American institutions and conferences. [Wikipedia](https://en.wikipedia.org/wiki/National_Collegiate_Athletic_Association)

<http://www.ncaa.org/sport-science-institute/air-quality>

It has a 5 scale stepwise response to Air Pollution that prevents play during unhealthy air quality of > 200 .

Appendix 3.



Geoff Lee Response
18_12_2019.pdf

Bibliography

- AAP, S.E.+, 2020. Australian Open player collapses on court as bushfire smoke covers Melbourne – video [WWW Document]. the Guardian. URL <http://www.theguardian.com/global/video/2020/jan/14/australian-open-player-collapses-on-court-as-bushfire-smoke-covers-melbourne-video> (accessed 1.15.20).
- Air quality in Sydney was far worse than in India: NSW spinner Steve O’Keefe [WWW Document], 2019. . New Indian Express. URL <https://www.newindianexpress.com/sport/cricket/2019/dec/11/air-quality-in-sydney-was-far-worse-than-in-india-nsw-spinner-steve-okeefe-2074305.html> (accessed 5.22.20).
- Asthma Australia, n.d. Understanding Asthma Statistics & Facts. Asthma Aust. URL <https://asthma.org.au/about-asthma/understanding-asthma/statistics/> (accessed 5.22.20).
- Bad Air Doesn’t Stop Qualifying for Australian Open [WWW Document], n.d. URL <https://www.nytimes.com/aponline/2020/01/14/sports/tennis/ap-ten-australian-open-breathing-badly.html> (accessed 1.15.20).
- Barbero-Álvarez, J., Soto Hermoso, V.M., Barbero-Alvarez, V., Granda, J., 2008. Match analysis and heart rate of futsal players during competition. *J. Sports Sci.* 26, 63–73. <https://doi.org/10.1080/02640410701287289>
- Borchers Arriagada, N., Palmer, A.J., Bowman, D.M., Morgan, G.G., Jalaludin, B.B., Johnston, F.H., 2020. Unprecedented smoke-related health burden associated with the 2019–20 bushfires in eastern Australia. *Med. J. Aust.* 213, n/a-n/a. <https://doi.org/10.5694/mja2.50545>
- Colangelo, P.R., Anthony, 2020. Tennis Australia releases air quality policy on eve of Australian Open [WWW Document]. The Age. URL <https://www.theage.com.au/sport/tennis/tennis-australia-releases-air-quality-policy-on-eve-of-australian-open-20200118-p53sli.html> (accessed 5.22.20).
- ESPN, C., 2016. Delhi smog forces cancellation of Ranji Trophy matches | ESPNcricinfo.com [WWW Document]. ESPN Cricinfo. URL https://www.espncricinfo.com/story/_/id/17981650/delhi-smog-forces-cancellation-ranji-trophy-matches (accessed 5.22.20).
- Helmets, C., 2019. Smoke haze forces early end to BBL at Manuka [WWW Document]. Canberra Times. URL <https://www.canberratimes.com.au/story/6554776/smoke-haze-forces-early-end-to-bbl-at-manuka/> (accessed 5.22.20).
- Lee, B.Y., n.d. Australian Open Player Quits, Here Is How Bad Bushfire Air Pollution Has Gotten [WWW Document]. Forbes. URL <https://www.forbes.com/sites/brucelee/2020/01/14/australian-open-player-quits-here-is-how-bad-bushfire-air-pollution-has-gotten/> (accessed 1.15.20).
- NSW Dept of Planning, I. and E., 2020. Current and forecast air quality [WWW Document]. NSW Dept Plan. Ind. Environ. URL <https://www.dpie.nsw.gov.au/air-quality> (accessed 5.22.20).
- University of Southampton, n.d. Professor Stephen Holgate | Medicine | University of Southampton [WWW Document]. URL <https://www.southampton.ac.uk/medicine/about/staff/sth.page> (accessed 5.22.20).
- Wave FM 96.5, 2020. COVID-19: latest Public Health Act Penalty Infringement Notices [WWW Document]. Wave FM 96.5. URL <https://www.wavefm.com.au/news/illawarra-newsroom/152155-covid-19-latest-public-health-act-penalty-infringement-notices> (accessed 5.22.20).
- Wikipedia, 2020. Steve O’Keefe. Wikipedia.