

NO2 Workshop #2 - Q/A Transcript

#	Question	Asker Name	Asker Email	Answer	Answer Name	Answer Email
1	Can you please provide the citation for the 50,000 cases of childhood asthma?	Katherine Pruitt	katherine.pruitt@lung.org	That is from Katshtan et. al. 2024	Jeff Williams	jeffery.williams@arb.ca.gov
2	What is the NO2 in regular atmosphere usually?	Swarna Agarwal	sagarwal@ptitechnologies.com	Ambient NO2 Levels can vary widely dependent on your location. CARB's AQMIS site can provide this information https://www.arb.ca.gov/aqmis2/aqdslect.php	Pat Wong	pat.wong@arb.ca.gov
3	Thanks for the nice overview. Do you have idea on the effect of operation of rangehoods (mechanical ventilation) on the concentration and exposures of NO2 in homes if used properly?	Anonymous Attendee		live answered	Pat Wong	pat.wong@arb.ca.gov
4	Will Cost Benefit Analysis include health benefits from reduction in space heating with gas stoves, burn and fire hazards, and GHG emissions? Will both portable induction stoves and ranges be considered?	Tom Phillips	tjp835@gmail.com	live answered	Pat Wong	pat.wong@arb.ca.gov
5	Could you show the reference slides again?	Frank Johnson	fjohnson@gti.energy	live answered	Pat Wong	pat.wong@arb.ca.gov
6	I mean NO2 ppm range in regular atmosphere	Swarna Agarwal	sagarwal@ptitechnologies.com	Here are some typical NO2 levels in different cities (source: Arithmetic Mean, May 2023 EPA National Air Quality trends website, ppb) Santa Rosa 4 Yuba City 7 Sacramento 8 SF 13 Bakersfield 22 LA 25	Zoe Zhang	qzhang@arb.ca.gov
7	Since cooking in general - regardless of fuel - generates PM2.5 which requires ventilation, how does CARB plan to address that?	Anonymous Attendee		live answered	Pat Wong	pat.wong@arb.ca.gov
8	Thanks Jeff	Frank Johnson	fjohnson@gti.energy	live answered	Pat Wong	pat.wong@arb.ca.gov

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9	Could you please repeat the reasoning behind showing alternative approaches to guideline development? Which approach is CARB anticipating to take? Thank you	Anonymous Attendee		live answered	Pat Wong	pat.wong@arb.ca.gov
10	Thanks	Swarna Agarwal	sagarwal@ptitechnologies.com			
11	Could u provide link for this information?	Swarna Agarwal	sagarwal@ptitechnologies.com	The levels vary depending on the area and indoor and outdoor sources.	Julia "Ky" Gress (CARB)	julia.gress@arb.ca.gov
12	How will the standard set account for the confounding effects of PM2.5 and other cogenerated byproducts?	Anonymous Attendee		live answered	Pat Wong	pat.wong@arb.ca.gov
13	What do you know about ways that the WHO and Health Canada guidelines have been put to use to affect change in policies and practices?	Katherine Pruitt	katherine.pruitt@lung.org	live answered	Pat Wong	pat.wong@arb.ca.gov
14	What are prime benefits of guidelines? Is regulation not considered because of ethical reasons such as going into homes is difficult to regulate pollutants?	Anonymous Attendee		live answered	Pat Wong	pat.wong@arb.ca.gov
15	May have missed this - how were the guidelines developed for approach 1? Also, will there be any guidelines developed past daily (weekly, monthly, yearly)?	Anonymous Attendee		live answered	Pat Wong	pat.wong@arb.ca.gov
16	How would the guideline be marketed, implemented, and evaluated? The current guideline had limited support for awareness building and implementation. Nonetheless, by setting a risk reduction target, it helped effectively ban unvented gas space heater sales in CA and may have helped adopt CO alarm regulations.	Tom Phillips	tjp835@gmail.com	live answered	Pat Wong	pat.wong@arb.ca.gov
17	Was formaldehyde levels and effects studied and or will it be? (sorry if I missed this earlier...)--and impacts on toddlers or pets low to the ground as it drops from stove levels?	Alice Sung	asung1@gmail.com	live answered	Pat Wong	pat.wong@arb.ca.gov

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18	Have the other NO2 guidelines considered multipollutant health effects? NO2 does not exist in a vacuum and is often thought to be a proxy for the health effects of combustion PM co-pollution. Also, the early Canadian epi study (Dales) found that gas stoves were associated with indoor mold and asthma.	Tom Phillips	tjp835@gmail.com	live answered	Pat Wong	pat.wong@arb.ca.gov
19	Comment on implementation: 1) Focus groups and demonstration projects would help fine tune mitigation efforts and spread the word. 2) The guidelines should be used to design and evaluate state programs for environmental justice, decarbonization, etc., per state mandates for addressing health and other non-energy benefits. Current environmental review of such IEQ impacts is very limited.	Tom Phillips	tjp835@gmail.com	Hi Tom! Please submit comments to the portal for future consideration during the development of the guidelines. You have abundant good ideas and experience to share. Thank you!	Julia "Ky" Gress (CARB)	julia.gress@arb.ca.gov
20	Brett - thanks for the recommendation to use the single induction hob. I've read in the gas stove studies that a gas stove, even when off, emits toxic chemicals. Do you know of a visual reference showing the average leakage level of gas stoves "when off" compared to "when on"? Something that non-scientists can understand. For those of us who haven't gotten rid of our gas stoves.	Tamara Abrams	tamaraabrams1@gmail.com	live answered	Pat Wong	pat.wong@arb.ca.gov
21	Re: health benefits, see modeling studies of weatherization and range hoods in Low Income apartments by Fabian et al at Boston University.	Tom Phillips	tjp835@gmail.com	Thanks Tom	Jeff Williams	jeffery.williams@arb.ca.gov
22	There are now 110 V induction stoves on the market. See Sean Armstrong, Redwood Energy.	Tom Phillips	tjp835@gmail.com	Yes, thanks Tom. There are several programs where people can get them as loaners or long-term to try them out. I will have that info in the slides when we post the presentation.	Jeff Williams	jeffery.williams@arb.ca.gov

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23	Could CARB please save the chat and email us all? There are good links and reminder we can't save, thanks-- especially if you want us to recall for written commenting for the records for you, thanks.	Alice Sung	asung1@gmail.com	live answered	Alice Sung	asung1@gmail.com
24	Risk Reduction: See ROCIS.org Range Hood best practice guide and resources for low emission cooking, source control, ventilation, low noise, etc. Also, I have been looking into how to reduce risks in apartments without a range hood (there is some new research info).	Tom Phillips	tjp835@gmail.com	live answered	Tom Phillips	tjp835@gmail.com
25	Non-polluting heat can be produced from Piezoelectricity, does it was considering for houses' energy/heat?	Lala Agamirov-Nost	lala.agamirov@innovativecrystals.com	live answered	Pat Wong	pat.wong@arb.ca.gov
26	What are the risk reduction benefits of different alternatives, in terms of # of persons potentially affected and the degree of benefit. The data may be limited to support a detailed analysis, but some range or scenario analyses would help frame the discussion.	Tom Phillips	tjp835@gmail.com	live answered	Tom Phillips	tjp835@gmail.com

