

Urban Exposome: Defining Deviant Air Quality Down For Pregnant Women



By Hank Campbell — August 16, 2018



Poorer people often live in areas with more pollution and crime, that is no surprise, but pollution is relative in 2018. [American air is incredibly clean](#) [1], (1) so clean epidemiologists and activists have tried to define harmful smog all the way down to 2.5 μ m (microns) in diameter in hopes of showing air quality is still a worry. And they have begun to consider noise the same as smog for harm, along with lots of other things.

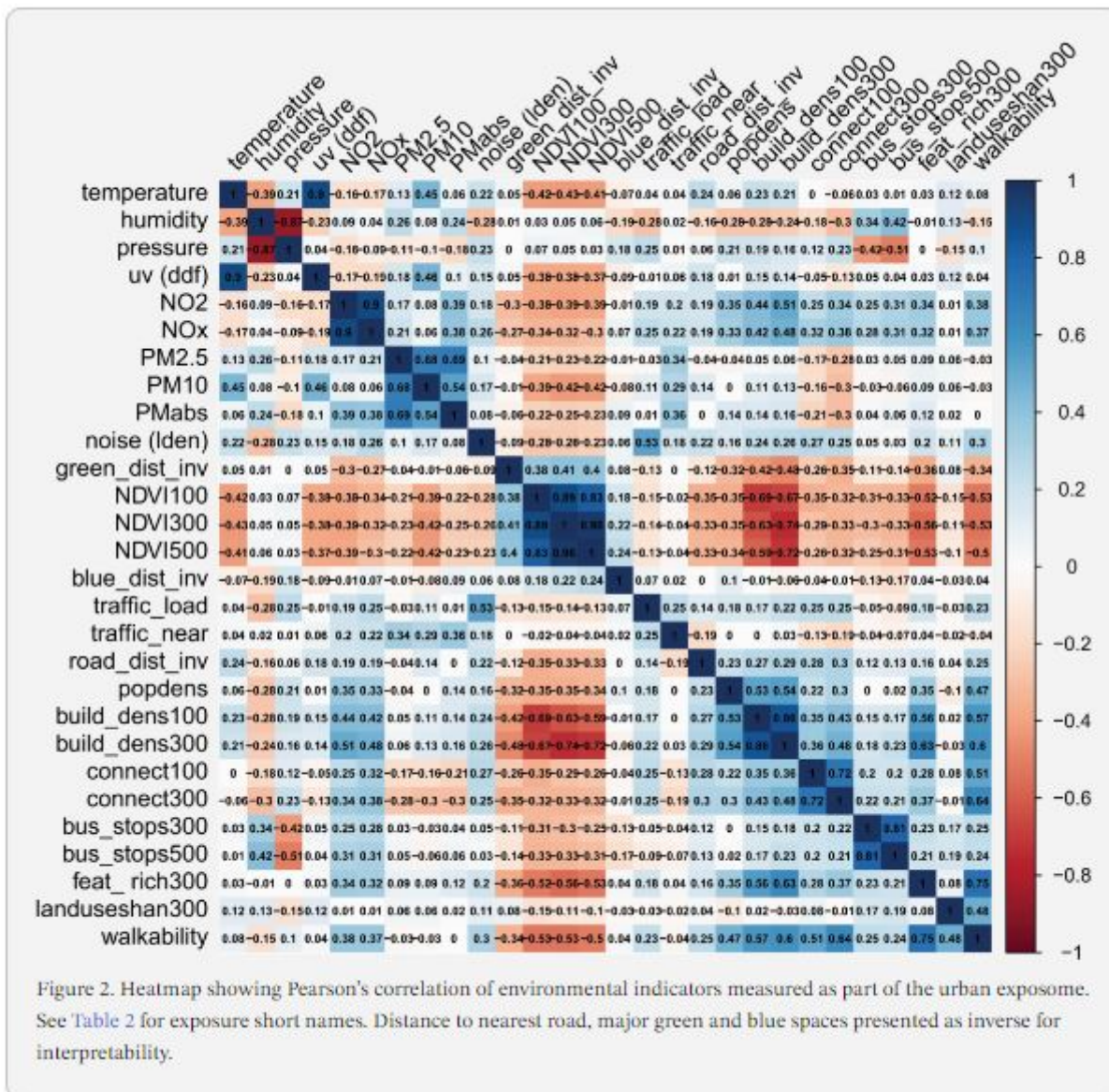
[They call it the urban "exposome"](#) [2], but all we are being exposed to is junk science. Can't afford to live near Central Park? The exposome of your pregnant wife is poor. Live on a busy street? Noise pollution is potentially ruining your kid's exposome. Have too many streetlights? Your meteorological exposome is in peril. Sorry Europeans, your exposome is also terrible even though your air quality is terrific compared to the past 150 years. If you are starting a family and can't afford to move your family [to an apartment inside that Norwegian mountain's Doomsday Vault](#) [3], you are placing your unborn child at risk.

[At least according to *Environmental Health Perspectives*](#) [4], which seems to be the official journal of needless Parent Shaming.

In 1895, writing in *The Rules Of Sociological Method*, Emile Durkheim stated that crime is normal and that we simply create community standards for what crime is acceptable. If we change the standards, someone a criminal one year might not be the next. Senator Daniel Patrick Moynihan popularized the concept for modern Americans in 1993 as "defining deviancy down." In a city of Bishops, venial sins become cardinal ones, whereas in a city of thieves things are a lot more permissive. And that is where we are when it comes to air quality. In America and in Europe we live in an analogous city of bishops but the stockades still exist, so we have to find air quality

reasons to use them.

The authors of the latest paper to insist air quality is deviant even when it is fantastic looked at nine European cities (2) and their levels of "exposome pollution" and then statistically analyzed 30,000 pregnant women to see what they could find. Their environmental indicators included some real real concerns, like actual smog, particulate matter that is 10 ?m in diameter, which has fortunately rapidly declined, and some nonsense, like the amount of noise and PM2.5 noted above. Because they include a whopping 28 environmental indicators (above plus "walkability", "public transportation", and more) they could statistically correlate anything to anything.



[5]

The exposome has so many indicators that even the people who believe Harvard Chan School of Public Health food frequency questionnaire probably think it's excessive. Credit: DOI:10.1289/EHP2862

And they didn't even manage that. They found pregnant women had varying qualities of this exposome but couldn't correlate that to any health outcomes, so they said it might lead to negative health outcomes. The results were so baffling they can't even be called inconclusive, a conclusion would be plain old junk science. In England and one city in Spain, pregnant women with a low

socio-economic status had a worse exposome. In another city in Spain and in Norway it was instead wealthy women exposed to a riskier exposome.

None of the six cohorts in the nine cities had worse outcomes.

That means none of them are really at risk. Some street noise is annoying, but that is not endangering your child and they should not be claiming that unless you go into mountains of debt to move to a place with more walking space your family will be subject to more chronic pediatric events. Obviously there is a socio-economic difference in health, but a whole lot of known confounders, smoking being the big one, are more relevant. In the case of Spain, they drink a lot of alcohol - the highest drinking state in the US consumes less alcohol than the most teetotaling province in Spain - including during pregnancy. Obviously wealthy people can afford more alcohol. And wealthy people tend to not live next to the train, so their exposome is riskier because they don't have easier access to public transportation.

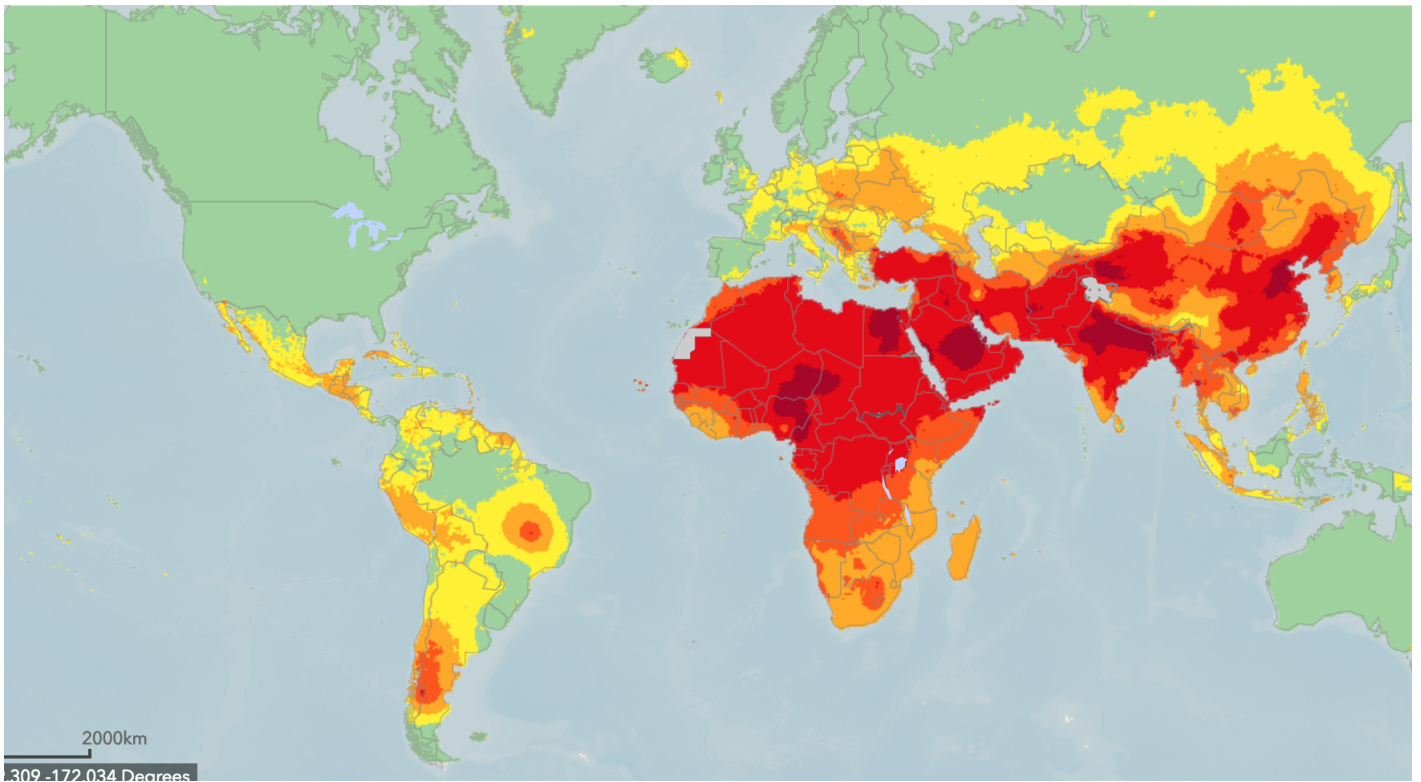
Relax, Europeans, sure your air is not as good as ours, but that is only because we have natural gas and you have put politics ahead of science and shut down nuclear. Even though your air is not American stress from worrying about that is more likely to harm you than your exposome will. And Americans should be completely immune to *Environmental Health Perspectives* by now. There is a reason we lead the world in science output, Nobel prizes, and adult science literacy, and that reason is we are more skeptical of outrageous claims.

Citation: Oliver Robinson, et al., 'The Urban Exposome during Pregnancy and Its Socioeconomic Determinants', *Environmental Health Perspectives*, July 17, 2018, [DOI:10.1289/EHP2862](https://doi.org/10.1289/EHP2862) [6]

NOTES:

(1)

[From the World Health Organisation](#) [7].



(2) The nine are Sabadell, Valencia and Gipuzkoa in Spain, Bradford in England, Poitiers and Nancy in France, Kaunas in Lithuania, Oslo in Norway and Rhea in Greece.

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Links

- [1] <https://www.acsh.org/news/2018/08/14/american-air-clean-and-getting-cleaner-13312>
- [2] <https://www.sciencecodex.com/social-position-determines-pregnant-womens-air-quality-622375>
- [3] https://www.science20.com/science_20/blog/malthusian_dystopian_disaster_fetish-115206
- [4] <http://dx.doi.org/10.1289/EHP2862>
- [5] <https://www.acsh.org/sites/default/files/exposome.JPG>
- [6] <https://ehp.niehs.nih.gov/EHP2862/#tab1>
- [7] <http://maps.who.int/airpollution/>