

Supplementary material

Supplementary material 1

Appendix 1. Selection criteria for PECO

PECO	Inclusion criteria	Exclusion criteria
<p>Do climate change and air quality modify the expression, prevalence, or nature of different allergens, turning them into more aggressive allergens?</p> <p>Do climate change and air quality have a direct and significant impact on the incidence, prevalence, or severity of allergic diseases?</p> <p>What is the impact of climate change and air quality specifically on air quality specifically on rhinitis, conjunctivitis, asthma, food allergy and atopic dermatitis?"</p>	<ul style="list-style-type: none"> • Publications providing quantitative data on changes in the incidence, prevalence and/or severity of allergic diseases as a consequence of climate change and air quality. • Publications analysing if climate change and air quality have an impact on the expression of proteins in the genes of different allergens, which intensifies their action and makes them more aggressive. • Studies published within the last 5 years (2016-2021). • Publications in English or Spanish. 	<ul style="list-style-type: none"> • Publications that did not provide quantitative data on changes in the incidence, prevalence and/or severity of allergic diseases attributable to climate change and/or air quality. • Publications that provide data on changes in incidence, prevalence and/or severity of allergic diseases over time, but which are not directly attributable to climate change and/or air quality. • Publications that focus their data on allergic pathologies differing from conjunctivitis, asthma, rhinitis, food allergy and/or atopic dermatitis.

Supplementary material 2

Appendix 2. List of included publications after full-text reading for PECO question

Citation	MMAT	Study type
Choi YJ, Lee KS, Oh JW. The Impact of Climate Change on Pollen Season and Allergic Sensitization to Pollens. <i>Immunol Allergy Clin North Am</i> . 2021 Feb;41(1):97-109. doi: 10.1016/j.iac.2020.09.004. Epub 2020 Nov 5. PMID: 33228876. [26]	80	Quantitative descriptive. Review
Huang W, Schinasi LH, Kenyon CC, Moore K, Melly S, Hubbard RA, Zhao Y, Diez Roux AV, Forrest CB, Maltenfort M, De Roos AJ. Effects of ambient air pollution on childhood asthma exacerbation in the Philadelphia metropolitan Region, 2011-2014. <i>Environ Res</i> . 2021 Jun;197:110955. doi: 10.1016/j.envres.2021.110955. Epub 2021 Mar 4. PMID: 33676951.[29]	80	Quantitative non-randomized. Time-stratified case-crossover study
Jung KH, Goodwin KE, Perzanowski MS, Chillrud SN, Perera FP, Miller RL, Lovinsky-Desir S. Personal Exposure to Black Carbon at School and Levels of Fractional Exhaled Nitric Oxide in New York City. <i>Environ Health Perspect</i> . 2021 Sep;129(9):97005. doi: 10.1289/EHP8985. Epub 2021 Sep 8. PMID: 34495741; PMCID: PMC8425518. [31]	40	Quantitative non-randomized. Observational study
Stas M, Aerts R, Hendrickx M, Delcloo A, Dendoncker N, Dujardin S, Linard C, Nawrot T, Van Nieuwenhuyse A, Aerts JM, Van Orshoven J, Somers B. Exposure to green space and pollen allergy symptom severity: A case-crossover study in Belgium. <i>Sci Total Environ</i> . 2021 Aug 10;781:146682. doi: 10.1016/j.scitotenv.2021.146682. Epub 2021 Mar 22. PMID: 33812114.[34]	0	Quantitative non-randomized. Time-stratified case-crossover study
Van Cleemput J, Poelaert KCK, Laval K, Impens F, Van den Broeck W, Gevaert K, Nauwynck HJ. Pollens destroy respiratory epithelial cell anchors and drive alphaherpesvirus infection. <i>Sci Rep</i> . 2019 Mar 18;9(1):4787. doi: 10.1038/s41598-019-41305-y. PMID: 30886217; PMCID: PMC6423322. [33]	100	Quantitative descriptive. Ex vivo and in vitro assay
Neumann JE, Anenberg SC, Weinberger KR, Amend M, Gulati S, Crimmins A, Roman H, Fann N, Kinney PL. Estimates of Present and Future Asthma Emergency Department Visits Associated With Exposure to Oak, Birch, and Grass Pollen in the United States. <i>Geohealth</i> . 2019;3(1):11-27. doi: 10.1029/2018GH000153. PMID: 31106285; PMCID: PMC6516486.[32]	60	Quantitative descriptive. Epidemiological study
Achakulwisut P, Anenberg SC, Neumann JE, Penn SL, Weiss N, Crimmins A, Fann N, Martinich J, Roman H, Mickley LJ. Effects of Increasing Aridity on Ambient Dust and Public Health in the U.S. Southwest Under Climate Change. <i>Geohealth</i> . 2019;3(5):127-144. doi: 10.1029/2019GH000187. PMID: 31276080; PMCID: PMC6605068.[28]	60	Quantitative descriptive. Epidemiological study
Shiraiwa M, Ueda K, Pozzer A, Lammel G, Kampf CJ, Fushimi A, Enami S, Arangio AM, Fröhlich-Nowoisky J, Fujitani Y, Furuyama A, Lakey PSJ, Lelieveld J, Lucas K, Morino Y, Pöschl U, Takahama S, Takami A, Tong H, Weber B, Yoshino A, Sato K. Aerosol Health Effects from Molecular to Global Scales. <i>Environ Sci Technol</i> . 2017 Dec 5;51(23):13545-13567. doi: 10.1021/acs.est.7b04417. Epub 2017 Nov 27. PMID: 29111690. [27]	60	Quantitative descriptive. Review
Tham EH, Lee AJ, Bever HV. Aeroallergen sensitization and allergic disease phenotypes in Asia. <i>Asian Pac J Allergy Immunol</i> . 2016 Sep;34(3):181-189. doi: 10.12932/AP0770. Erratum in: <i>Asian Pac J Allergy Immunol</i> . 2017 Mar;35(1):66. PMID: 27543739. [30]	60	Quantitative descriptive. Review

* Sorted by date (from most current to oldest)

Supplementary material 3

Appendix 3. List of excluded publications after full-text reading for PECO question

Citation	Reason for exclusion
Gioda A, Beringui K, Justo EPS, Ventura LMB, Massone CG, Costa SSL, Oliveira SS, Araujo RGO, Nascimento NM, Severino HGS, Duyck CB, de Souza JR, Saint Pierre TD. A Review on Atmospheric Analysis Focusing on Public Health, Environmental Legislation and Chemical Characterization. <i>Crit Rev Anal Chem</i> . 2021 Jun 7:1-23. doi: 10.1080/10408347.2021.1919985. Epub ahead of print. PMID: 34092145.	Don't include quantitative data related to our stated research objectives
Seth D, Bielory L. Allergenic Pollen Season Variations in the Past Two Decades Under Changing Climate in the United States. <i>Immunol Allergy Clin North Am</i> . 2021 Feb;41(1):17-31. doi: 10.1016/j.iac.2020.09.006. Epub 2020 Nov 5. PMID: 33228870.	Don't include quantitative data related to our stated research objectives
Luschkova D, Zeiser K, Ludwig A, Traidl-Hoffmann C. Atopic eczema is an environmental disease. <i>Allergol Select</i> . 2021 Aug 23;5:244-250. doi: 10.5414/ALX02258E. PMID: 34476334; PMCID: PMC8383845.	Don't include quantitative data related to our stated research objectives
Visez N, de Nadaï P, Choël M, Farah J, Hamzé M, Sénéchal H, Pauwels M, Frérot H, Thibaudon M, Poncet P. Biochemical composition of Phleum pratense pollen grains: A review. <i>Mol Immunol</i> . 2021 Aug;136:98-109. doi: 10.1016/j.molimm.2021.05.014. Epub 2021 Jun 4. PMID: 34098345.	Don't include quantitative data related to our stated research objectives
Katelaris CH. Climate Change and Extreme Weather Events in Australia: Impact on Allergic Diseases. <i>Immunol Allergy Clin North Am</i> . 2021 Feb;41(1):53-62. doi: 10.1016/j.iac.2020.09.003. Epub 2020 Nov 5. PMID: 33228872.	Don't include quantitative data related to our stated research objectives
Pacheco SE, Guidos-Fogelbach G, Annesi-Maesano I, Pawankar R, D' Amato G, Latour-Staffeld P, Urrutia-Pereira M, Kesic MJ, Hernandez ML; American Academy of Allergy, Asthma & Immunology Environmental Exposures and Respiratory Health Committee. Climate change and global issues in allergy and immunology. <i>J Allergy Clin Immunol</i> . 2021 Dec;148(6):1366-1377. doi: 10.1016/j.jaci.2021.10.011. Epub 2021 Oct 21. PMID: 34688774.	Don't include quantitative data related to our stated research objectives
Pawankar R, Wang JY. Climate Change, Air Pollution, and Biodiversity in Asia Pacific and Impact on Respiratory Allergies. <i>Immunol Allergy Clin North Am</i> . 2021 Feb;41(1):63-71. doi: 10.1016/j.iac.2020.09.008. PMID: 33228873.	Don't include quantitative data related to our stated research objectives
Kishikawa R, Koto E. Effect of Climate Change on Allergenic Airborne Pollen in Japan. <i>Immunol Allergy Clin North Am</i> . 2021 Feb;41(1):111-125. doi: 10.1016/j.iac.2020.09.005. PMID: 33228868.	Don't include quantitative data related to our stated research objectives
Rojo J, Oteros J, Picornell A, Maya-Manzano JM, Damialis A, Zink K, Werchan M, Werchan B, Smith M, Menzel A, Timpf S, Traidl-Hoffmann C, Bergmann KC, Schmidt-Weber CB, Buters J. Effects of future climate change on birch abundance and their pollen load. <i>Glob Chang Biol</i> . 2021 Nov;27(22):5934-5949. doi: 10.1111/gcb.15824. Epub 2021 Aug 17. PMID: 34363285.	Don't include quantitative data related to our stated research objectives
Price D, Hughes KM, Thien F, Suphioglu C. Epidemic Thunderstorm Asthma: Lessons Learned from the Storm Down-Under. <i>J Allergy Clin Immunol Pract</i> . 2021 Apr;9(4):1510-1515. doi: 10.1016/j.jaip.2020.10.022. Epub 2020 Oct 22. PMID: 33172604.	Don't include quantitative data related to our stated research objectives
Chen NT, Chen MJ, Wu CD, Guo YL. Emergency room visits for childhood atopic dermatitis are associated with floods? <i>Sci Total Environ</i> . 2021 Jun 15;773:145435. doi: 10.1016/j.scitotenv.2021.145435. Epub 2021 Jan 28. PMID: 33940726.	Don't include quantitative data related to our

	stated research objectives
Federico MJ, Denlinger LC, Corren J, Szeffler SJ, Fuhlbrigge AL. Exacerbation-Prone Asthma: A Biological Phenotype or a Social Construct. <i>J Allergy Clin Immunol Pract.</i> 2021 Jul;9(7):2627-2634. doi: 10.1016/j.jaip.2021.05.011. Epub 2021 May 26. PMID: 34051392.	Don't include quantitative data related to our stated research objectives
Kapwata T, Wright CY, du Preez DJ, Kunene Z, Mathee A, Ikeda T, Landman W, Maharaj R, Sweijid N, Minakawa N, Blesic S. Exploring rural hospital admissions for diarrhoeal disease, malaria, pneumonia, and asthma in relation to temperature, rainfall and air pollution using wavelet transform analysis. <i>Sci Total Environ.</i> 2021 Oct 15;791:148307. doi: 10.1016/j.scitotenv.2021.148307. Epub 2021 Jun 8. PMID: 34139502.	Don't include quantitative data related to our stated research objectives
Murphy VE, Karmaus W, Mattes J, Brew BK, Collison A, Holliday E, Jensen ME, Morgan GG, Zosky GR, McDonald VM, Jegasothy E, Robinson PD, Gibson PG. Exposure to Stress and Air Pollution from Bushfires during Pregnancy: Could Epigenetic Changes Explain Effects on the Offspring? <i>Int J Environ Res Public Health.</i> 2021 Jul 13;18(14):7465. doi: 10.3390/ijerph18147465. PMID: 34299914; PMCID: PMC8305161.	Don't include quantitative data related to our stated research objectives
Davies JM, Berman D, Beggs PJ, Ramón GD, Peter J, Katelaris CH, Ziska LH. Global Climate Change and Pollen Aeroallergens: A Southern Hemisphere Perspective. <i>Immunol Allergy Clin North Am.</i> 2021 Feb;41(1):1-16. doi: 10.1016/j.iac.2020.09.002. Epub 2020 Nov 5. PMID: 33228867.	Conference abstract
Fussell JC, Kelly FJ. Mechanisms underlying the health effects of desert sand dust. <i>Environ Int.</i> 2021 Dec;157:106790. doi: 10.1016/j.envint.2021.106790. Epub 2021 Jul 29. PMID: 34333291; PMCID: PMC8484861.	Don't include quantitative data related to our stated research objectives
Ye T, Guo Y, Chen G, Yue X, Xu R, Coêlho MSZS, Saldiva PHN, Zhao Q, Li S. Risk and burden of hospital admissions associated with wildfire-related PM2.5 in Brazil, 2000-15: a nationwide time-series study. <i>Lancet Planet Health.</i> 2021 Sep;5(9):e599-e607. doi: 10.1016/S2542-5196(21)00173-X. PMID: 34508681.	Don't include quantitative data related to our stated research objectives
Braun M, Klingelhöfer D, Groneberg DA. Sooty bark disease of maples: the risk for hypersensitivity pneumonitis by fungal spores not only for woodman. <i>J Occup Med Toxicol.</i> 2021 Jan 21;16(1):2. doi: 10.1186/s12995-021-00292-5. PMID: 33478566; PMCID: PMC7819180.	Don't include quantitative data related to our stated research objectives
Straub A, Fricke V, Olschewski P, Seubert S, Beck C, Bayr D, Kolek F, Plaza MP, Leier-Wirtz V, Kaschuba S, Traidl-Hoffmann C, Buermann W, Gerstlauer M, Damialis A, Philipp A. The phenomenon of thunderstorm asthma in Bavaria, Southern Germany: a statistical approach. <i>Int J Environ Health Res.</i> 2021 Oct 4:1-17. doi: 10.1080/09603123.2021.1985971. Epub ahead of print. PMID: 34607495.	Don't include quantitative data related to our stated research objectives
Rorie A, Poole JA. The Role of Extreme Weather and Climate-Related Events on Asthma Outcomes. <i>Immunol Allergy Clin North Am.</i> 2021 Feb;41(1):73-84. doi: 10.1016/j.iac.2020.09.009. Epub 2020 Nov 5. PMID: 33228874.	Don't include quantitative data related to our stated research objectives
Santos UP, Arbex MA, Braga ALF, Mizutani RF, Cançado JED, Terra-Filho M, Chatkin JM. Environmental air pollution: respiratory effects. <i>J Bras Pneumol.</i> 2021 Feb 8;47(1):e20200267. doi: 10.36416/1806-3756/e20200267. PMID: 33567063; PMCID: PMC7889311.	Don't include quantitative data related to our stated research objectives
Wu AC, Dahlin A, Wang AL. The Role of Environmental Risk Factors on the Development of Childhood Allergic Rhinitis. <i>Children (Basel).</i> 2021 Aug 17;8(8):708. doi: 10.3390/children8080708. PMID: 34438599; PMCID: PMC8391414.	Don't include quantitative data related to our stated research objectives
Chatelier J, Chan S, Tan JA, Stewart AG, Douglass JA. Managing Exacerbations in Thunderstorm Asthma: Current Insights. <i>J Inflamm Res.</i> 2021 Sep 8;14:4537-4550. doi: 10.2147/JIR.S324282. PMID: 34526800; PMCID: PMC8436255.	Don't include quantitative data related to our stated research objectives

Singh AB, Mathur C. Climate Change and Pollen Allergy in India and South Asia. <i>Immunol Allergy Clin North Am</i> . 2021 Feb;41(1):33-52. doi: 10.1016/j.iac.2020.09.007. PMID: 33228871.	Don't include quantitative data related to our stated research objectives
Deng X, Thurston G, Zhang W, Ryan I, Jiang C, Khwaja H, Romeiko X, Marks T, Ye B, Qu Y, Lin S. Application of data science methods to identify school and home risk factors for asthma and allergy-related symptoms among children in New York. <i>Sci Total Environ</i> . 2021 May 20;770:144746. doi: 10.1016/j.scitotenv.2020.144746. Epub 2021 Jan 23. PMID: 33736384.	Don't include quantitative data related to our stated research objectives
Nassikas NJ, Spangler K, Wellenius GA. Asthma Exacerbations Attributable to Ozone Air Pollution in New England. <i>R I Med J</i> (2013). 2021 Nov 1;104(9):20-23. PMID: 34705902.	Don't include quantitative data related to our stated research objectives
Eloge TJ, Nadine O, Solange D, Telefo PB, Annesi-Maesano I. Clinical Manifestations and Changes of Haematological Markers among Active People Living in Polluted City: The Case of Douala, Cameroon. <i>Int J Environ Res Public Health</i> . 2021 Jan 14;18(2):665. doi: 10.3390/ijerph18020665. PMID: 33466768; PMCID: PMC7830361.	Don't include quantitative data related to our stated research objectives
Bao N, Lu Y, Huang K, Gao X, Gui SY, Hu CY, Jiang ZX. Association between short-term exposure to ambient nitrogen dioxide and the risk of conjunctivitis in Hefei, China: A time-series analysis. <i>Environ Res</i> . 2021 Apr;195:110807. doi: 10.1016/j.envres.2021.110807. Epub 2021 Jan 28. PMID: 33515578.	Don't include quantitative data related to our stated research objectives
Fadadu RP, Grimes B, Jewell NP, Vargo J, Young AT, Abuabara K, Balmes JR, Wei ML. Association of Wildfire Air Pollution and Health Care Use for Atopic Dermatitis and Itch. <i>JAMA Dermatol</i> . 2021 Jun 1;157(6):658-666. doi: 10.1001/jamadermatol.2021.0179. PMID: 33881450; PMCID: PMC8060890.	Don't include quantitative data related to our stated research objectives
Yang H, Yan C, Li M, Zhao L, Long Z, Fan Y, Zhang Z, Chen R, Huang Y, Lu C, Zhang J, Tang J, Liu H, Liu M, Guo W, Yang L, Zhang X. Short term effects of air pollutants on hospital admissions for respiratory diseases among children: A multi-city time-series study in China. <i>Int J Hyg Environ Health</i> . 2021 Jan;231:113638. doi: 10.1016/j.ijheh.2020.113638. Epub 2020 Oct 17. PMID: 33080524.	Don't include quantitative data related to our stated research objectives
Ziska LH. An Overview of Rising CO ₂ and Climatic Change on Aeroallergens and Allergic Diseases. <i>Allergy Asthma Immunol Res</i> . 2020 Sep;12(5):771-782. doi: 10.4168/aaair.2020.12.5.771. PMID: 32638558; PMCID: PMC7346998.	Don't include quantitative data related to our stated research objectives
Wenfang G, Yi L, Wang P, Wang B, Li M. Assessing the effects of meteorological factors on daily children's respiratory disease hospitalizations: A retrospective study. <i>Heliyon</i> . 2020 Aug 11;6(8):e04657. doi: 10.1016/j.heliyon.2020.e04657. PMID: 32817894; PMCID: PMC7424195.	Don't include quantitative data related to our stated research objectives
Joshi M, Goraya H, Joshi A, Bartter T. Climate change and respiratory diseases: a 2020 perspective. <i>Curr Opin Pulm Med</i> . 2020 Mar;26(2):119-127. doi: 10.1097/MCP.0000000000000656. PMID: 31851023.	Don't include quantitative data related to our stated research objectives
Huang C, Shi G. Climate Change to Blame in Severe Oral Corticosteroid-Dependent Asthma? A Case Report. <i>Am J Case Rep</i> . 2020 Apr 18;21:e921120. doi: 10.12659/AJCR.921120. PMID: 32303671; PMCID: PMC7193221.	Don't include quantitative data related to our stated research objectives
Sohail H, Kollanus V, Tiittanen P, Schneider A, Lanki T. Heat, Heatwaves and Cardiorespiratory Hospital Admissions in Helsinki, Finland. <i>Int J Environ Res Public Health</i> . 2020 Oct 28;17(21):7892. doi: 10.3390/ijerph17217892. PMID: 33126485; PMCID: PMC7663418.	Conference abstract
Naclerio R, Ansotegui IJ, Bousquet J, Canonica GW, D'Amato G, Rosario N, Pawankar R, Peden D, Bergmann KC, Bielory L, Caraballo L, Cecchi L, Cepeda SAM, Chong Neto HJ, Galán	Don't include quantitative data

C, Gonzalez Diaz SN, Idriss S, Popov T, Ramon GD, Ridolo E, Rottem M, Songnuan W, Rouadi P. International expert consensus on the management of allergic rhinitis (AR) aggravated by air pollutants: Impact of air pollution on patients with AR: Current knowledge and future strategies. <i>World Allergy Organ J.</i> 2020 Apr 3;13(3):100106. doi: 10.1016/j.waojou.2020.100106. PMID: 32256939; PMCID: PMC7132263.	related to our stated research objectives
D'Amato G, Ortega OPM, Annesi-Maesano I, D'Amato M. Prevention of Allergic Asthma with Allergen Avoidance Measures and the Role of Exposome. <i>Curr Allergy Asthma Rep.</i> 2020 Feb 26;20(3):8. doi: 10.1007/s11882-020-0901-3. PMID: 32103354.	Don't include quantitative data related to our stated research objectives
Coates SJ, Enbiale W, Davis MDP, Andersen LK. The effects of climate change on human health in Africa, a dermatologic perspective: a report from the International Society of Dermatology Climate Change Committee. <i>Int J Dermatol.</i> 2020 Mar;59(3):265-278. doi: 10.1111/ijd.14759. Epub 2020 Jan 22. PMID: 31970754.	Don't include quantitative data related to our stated research objectives
D'Amato G, Chong-Neto HJ, Monge Ortega OP, Vitale C, Ansotegui I, Rosario N, Haahtela T, Galan C, Pawankar R, Murrieta-Aguttes M, Cecchi L, Bergmann C, Ridolo E, Ramon G, Gonzalez Diaz S, D'Amato M, Annesi-Maesano I. The effects of climate change on respiratory allergy and asthma induced by pollen and mold allergens. <i>Allergy.</i> 2020 Sep;75(9):2219-2228. doi: 10.1111/all.14476. Epub 2020 Aug 5. PMID: 32589303.	Don't include quantitative data related to our stated research objectives
Eguiluz-Gracia I, Mathioudakis AG, Bartel S, Vijverberg SJH, Fuertes E, Comberiat P, Cai YS, Tomazic PV, Diamant Z, Vestbo J, Galan C, Hoffmann B. The need for clean air: The way air pollution and climate change affect allergic rhinitis and asthma. <i>Allergy.</i> 2020 Sep;75(9):2170-2184. doi: 10.1111/all.14177. Epub 2020 Jan 30. PMID: 31916265.	Don't include quantitative data related to our stated research objectives
Sneh P, Anat G, Naresh K. The effects of temperature change on allergic conjunctivitis. <i>Invest. Ophthalmol. Vis. Sci.</i> 2020;61(7):2944.	Conference abstract
Deng SZ, Jalaludin BB, Antó JM, Hess JJ, Huang CR. Climate change, air pollution, and allergic respiratory diseases: a call to action for health professionals. <i>Chin Med J (Engl).</i> 2020 Jul 5;133(13):1552-1560. doi: 10.1097/CM9.0000000000000861. PMID: 32590458; PMCID: PMC7386356.	Don't include quantitative data related to our stated research objectives
Biagioni B, Annesi-Maesano I, D'Amato G, Cecchi L. The rising of allergic respiratory diseases in a changing world: from climate change to migration. <i>Expert Rev Respir Med.</i> 2020 Oct;14(10):973-986. doi: 10.1080/17476348.2020.1794829. Epub 2020 Jul 26. PMID: 32662693.	Don't include quantitative data related to our stated research objectives
Di Cicco ME, Ferrante G, Amato D, Capizzi A, De Pieri C, Ferraro VA, Furno M, Tranchino V, La Grutta S. Climate Change and Childhood Respiratory Health: A Call to Action for Paediatricians. <i>Int J Environ Res Public Health.</i> 2020 Jul 24;17(15):5344. doi: 10.3390/ijerph17155344. PMID: 32722291; PMCID: PMC7432234.	Don't include quantitative data related to our stated research objectives
Thien F, Davies JM, Hew M, Douglass JA, O'Hehir RE. Thunderstorm asthma: an overview of mechanisms and management strategies. <i>Expert Rev Clin Immunol.</i> 2020 Oct;16(10):1005-1017. doi: 10.1080/1744666X.2021.1826310. Epub 2020 Oct 12. PMID: 32960102.	Don't include quantitative data related to our stated research objectives
Pan R, Wang X, Yi W, Wei Q, Gao J, Xu Z, Duan J, He Y, Tang C, Liu X, Zhou Y, Son S, Ji Y, Zou Y, Su H. Interactions between climate factors and air quality index for improved childhood asthma self-management. <i>Sci Total Environ.</i> 2020 Jun 25;723:137804. doi: 10.1016/j.scitotenv.2020.137804. Epub 2020 Mar 7. PMID: 32213400	Don't include quantitative data related to our stated research objectives
Mazdiyasi O, AghaKouchak A. Natural Disasters Are Prejudiced Against Disadvantaged and Vulnerable Populations: The Lack of Publicly Available Health-Related Data Hinders Research at the Cusp of the Global Climate Crisis. <i>Geohealth.</i> 2020 Jan 14;4(1):e2019GH000219. doi: 10.1029/2019GH000219. PMID: 34585033; PMCID: PMC8456234.	Don't include quantitative data related to our stated research objectives
Patella V, Florio G, Palmieri M, Bousquet J, Tonacci A, Giuliano A, Gangemi S. Atopic dermatitis severity during exposure to air pollutants and weather changes with an Artificial Neural Network (ANN) analysis. <i>Pediatr Allergy Immunol.</i> 2020 Nov;31(8):938-945. doi: 10.1111/pai.13314. Epub 2020 Aug 20. PMID: 32585042.	Don't include quantitative data related to our

	stated research objectives
Todkill D, de Jesus Colon Gonzalez F, Morbey R, Charlett A, Hajat S, Kovats S, Osborne NJ, McInnes R, Vardoulakis S, Exley K, Edeghere O, Smith G, Elliot AJ. Environmental factors associated with general practitioner consultations for allergic rhinitis in London, England: a retrospective time series analysis. <i>BMJ Open</i> . 2020 Dec 4;10(12):e036724. doi: 10.1136/bmjopen-2019-036724. PMID: 33277274; PMCID: PMC7722376.	Don't include quantitative data related to our stated research objectives
Qiu H, Bai CH, Chuang KJ, Fan YC, Chang TP, Yim SH, Ho KF. Association of ambient non-methane hydrocarbons exposure with respiratory hospitalizations: A time series study in Taipei, Taiwan. <i>Sci Total Environ</i> . 2020 Aug 10;729:139010. doi: 10.1016/j.scitotenv.2020.139010. Epub 2020 Apr 27. PMID: 32361457	Don't include quantitative data related to our stated research objectives
Loftus C, Afsharinejad Z, Sampson P, Vedal S, Torres E, Arias G, Tchong-French M, Karr C. Estimated time-varying exposures to air emissions from animal feeding operations and childhood asthma. <i>Int J Hyg Environ Health</i> . 2020 Jan;223(1):187-198. doi: 10.1016/j.ijheh.2019.09.003. Epub 2019 Sep 19. PMID: 31543304; PMCID: PMC7020853.	Don't include quantitative data related to our stated research objectives
van Zoest V, Hoek G, Osei F, Stein A. Bayesian analysis of the short-term association of NO2 exposure with local burden of asthmatic symptoms in children. <i>Sci Total Environ</i> . 2020 Jun 10;720:137544. doi: 10.1016/j.scitotenv.2020.137544. Epub 2020 Feb 24. PMID: 32145626.	Don't include quantitative data related to our stated research objectives
Demers I, Gosselin P. At-a-glance - Pollens, climate and allergies: Quebec initiatives. <i>Health Promot Chronic Dis Prev Can</i> . 2019 Apr;39(4):136-141. doi: 10.24095/hpcdp.39.4.05. PMID: 31021065; PMCID: PMC6553575.	Don't include quantitative data related to our stated research objectives
Nguyen GH, Andersen LK, Davis MDP. Climate change and atopic dermatitis: is there a link? <i>Int J Dermatol</i> . 2019 Mar;58(3):279-282. doi: 10.1111/ijd.14016. Epub 2018 Jun 5. PMID: 29873062.	Don't include quantitative data related to our stated research objectives
Poole JA, Barnes CS, Demain JG, Bernstein JA, Padukudru MA, Sheehan WJ, Fogelbach GG, Wedner J, Codina R, Levetin E, Cohn JR, Kagen S, Portnoy JM, Nel AE. Impact of weather and climate change with indoor and outdoor air quality in asthma: A Work Group Report of the AAAAI Environmental Exposure and Respiratory Health Committee. <i>J Allergy Clin Immunol</i> . 2019 May;143(5):1702-1710. doi: 10.1016/j.jaci.2019.02.018. Epub 2019 Feb 28. PMID: 30826366.	Don't include quantitative data related to our stated research objectives
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