Study ID	Full citation	Reason for exclusion at full text assessement	Category of reason for exclusion
Abdullahi IN 2020	Abdullahi IN, Emeribe AU, Mustapha JO, Fasogbon SA, Ofor IB, Opeyemi IS, Obi-George C, Sunday AO, Nwofe J. Exploring the genetics, ecology of SARS-COV-2 and climatic factors as possible control strategies against COVID-19. Infez Med. 2020	No environmental exposure data	No relevant data
Adams 2011	Adams B, McHardy AC. The impact of seasonal and year-round transmission regimes on the evolution of influenza A virus. Proc Biol Sci. 2011 Aug 7;278 (1716):2249-56. doi: 10.1098/rspb.2010.2191.	No relevant data: uses mathematical models to investigate the putative role of punctuated antigenic change	Wrong study design
Albarqouni 2020	Albarqouni, L. et al. Does copper treatment of commonly touched surfaces reduce healthcare-acquired infections? A systematic review and meta-analysis. J. Hosp. Infect. 106, 765–773 (2020).	Review of fomites and surfaces not environmental exposures	No relevant data
Ali 2017	Ali MU, Rashid A, Yousuf B, Kamal A (2017). Health outcomes of road-traffic pollution among exposed roadside-workers in the Rawalpindi City Pakistan. Human and Ecological Risk Assessment: An International Journal, 23(6), 1330–1339. https://doi.org/10.1080/10807039. 2017.1308814.	Self-reported exposure to roadside pollution and health outcomes; but no respiratory disease outcomes collected	No relevant data
Alonso WJ 2013	Alonso WJ, Laranjeira BJ, Pereira SA, Florencio CM, Moreno EC, Miller MA, Giglio R, Schuck-Paim C, Moura FE. Comparative dynamics, morbidity and mortality burden of pediatric viral respiratory infections in an equatorial city. Pediatr Infect Dis J. 2012 Jan;31(1):e9-14. doi: 10.1097/INF. 0b013e31823883be	No environmental exposure data	No relevant data
Arantes 2019	Arantes BL, Mauad T, Da Silva Filho DF. Urban forests, air quality and health: a systematic review.” International Forestry Review 2019; 21 (2): 167–81.	The review groups all respiratory diseases together and we can not extract information on infectious respiratory diseases; none of the papers cited in this review specify infectious respiratory diseases in their titles	No relevant data
Bahauddin 2010	Bahauddin KM, Uddin TS. Status of particulate matter and its impact on roadside population of Dhaka City, Bangladesh: A review study. In Proceeding of international conference on environmental aspects of Bangladesh (ICEAB10) 2010 Japan 2010, pp. 125–128.	Review of roadside pollution and health outcomes; no respiratory disease outcomes collected	No relevant data

Baker 2020	Baker RE, Yang W, Vecchi GA, Metcalf CJE, Grenfell BT. Susceptible supply limits the role of climate in the early SARS-CoV-2 pandemic. Science. 2020 Jul 17;369(6501):315-319. doi: 10.1126/science.abc2535.	Predictive modelling - no observed data	Wrong study design
Baker 2021	Baker RE, Yang W, Vecchi GA, Metcalf CJE, Grenfell BT. Assessing the influence of climate on wintertime SARS-CoV-2 outbreaks. Nat Commun. 2021 Feb 8;12(1):846. doi: 10.1038/s41467-021-20991-1.	No relevant data. modelling using another virus to estimate climate-virus relationships	Wrong study design
Bellei N 2007	Bellei N, Carraro E, Perosa A, Granato C. Patterns of influenza infections among different risk groups in Brazil. Braz J Infect Dis. 2007 Aug;11(4):399-402. doi: 10.1590/s1413-86702007000400005	No environmental exposure data	No relevant data
Ben-Shimol S 2015	Ben-Shimol S, Greenberg D, Hazan G, Shemer-Avni Y, Givon-Lavi N, Dagan R. Seasonality of both bacteremic and nonbacteremic pneumonia coincides with viral lower respiratory tract infections in early childhood, in contrast to nonpneumonia invasive pneumococcal disease, in the pre-pneumococcal conjugate vaccine era. Clin Infect Dis. 2015 May 1;60(9):1384-7. doi: 10.1093/cid/civ023	Outcome is not viral respiratory disease	No relevant data
Bhaganagar K 2020	Bhaganagar K, Bhimireddy S. Local atmospheric factors that enhance air-borne dispersion of coronavirus - High-fidelity numerical simulation of COVID19 case study in real-time. Environ Res. 2020 Dec;191:110170. doi: 10.1016/j.envres.2020.110170	Simulation modelling study	Wrong study design
Boman 2006	Boman C, Forsberg B, Sandström T. (2006). Shedding new light on wood smoke: A risk factor for respiratory health. European Respiratory Journal, 27, 446–447.	Editorial: no data on respiratory outcomes	No relevant data
Borchering 2021	Borchering RK, Gunning CE, Gokhale DV, Weedop KB, Saeidpour A, Brett TS, Rohani P. Anomalous influenza seasonality in the United States and the emergence of novel influenza B viruses. Proc Natl Acad Sci U S A. 2021 Feb 2;118(5):e2012327118. doi: 10.1073/pnas.2012327118.	No environmental exposure data	No relevant data
Buescher 1969	Buescher EL, Smith TJ, Zachary IH. Experience with Hong Kong influenza in tropical areas. Bull World Health Organ. 1969;41(3):387-91. PMID: 5309443; PMCID: PMC2427753.	Review, not focussed on environmental factors	Wrong study design

Butala 2010	Butala NM, VanRooyen MJ, Patel RB. Improved health outcomes in urban slums through infrastructure upgrading. Soc Sci Med. 2010; 71: 935–940	This study aims to show that slum upgrading as carried out in Ahmedabad, India, led to a significant decline in waterborne illness incidence.	No relevant data
Cappi R 2022	Cappi R, Casini L, Tosi D, Roccetti M. Questioning the seasonality of SARS-COV-2: a Fourier spectral analysis. BMJ Open. 2022 Apr 20;12(4):e061602. doi: 10.1136/bmjopen-2022-061602	No environmental exposure data	No relevant data
Carlson 2020	Carlson CJ, Gomez ACR, Bansal S, Ryan SJ. Misconceptions about weather and seasonality must not misguide COVID-19 response. Nat Commun. 2020 Aug 27;11(1):4312. doi: 10.1038/s41467-020-18150-z	Commentary	Wrong study design
Chennakesavulu K 2020	Chennakesavulu K, Reddy GR. The effect of latitude and PM2.5 on spreading of SARS-CoV-2 in tropical and temperate zone countries. Environ Pollut. 2020 Nov;266(Pt 3):115176. doi: 10.1016/j.envpol.2020.115176	Predictive modelling study	Wrong study design
Chin 2020	Chin, A. W. H. et al. Stability of SARS-CoV-2 in different environmental conditions. The Lancet. Microbe 1, e10 (2020).	experimental data on virus stability	Wrong study design
Chlif 2016	Chlif S, Aissi W, Bettaieb J, Kharroubi G, Nouira M, Yazidi R, El Moussi A, Maazaoui L, Slim A, Salah AB; Influenza Surveillance Group in Tunisia. Modelling of seasonal influenza and estimation of the burden in Tunisia. East Mediterr Health J. 2016 Oct 2;22(7):460-467	No environmental exposure data	No relevant data
Choi Y-W 2021	Choi YW, Tuel A, Eltahir EAB. On the Environmental Determinants of COVID-19 Seasonality. Geohealth. 2021 Jun 1;5(6):e2021GH000413. doi: 10.1029/2021GH000413	Mechanism hypothesis	Wrong study design
Choo 2015	Choo CP, Jalaludin J. An overview of indoor air quality and its impact on respiratory health among Malaysian school-aged children. Rev Environ Health. 2015;30(1):9-18. doi: 10.1515/reveh-2014-0065.	Reported on studies reporting data on respiratory symptoms (among other outcomes); however, no data on respiratory infections was reported.	No relevant data

Cilloniz C 2017	Cilloniz C, Ewig S, Gabarrus A, Ferrer M, Puig de la Bella Casa J, Mensa J, Torres A. Seasonality of pathogens causing community-acquired pneumonia. Respirology. 2017 May;22(4):778-785. doi: 10.1111/resp.12978	Outcomes not focussed on respiratory viral infections	No relevant data
Coccia M 2022	Coccia M. COVID-19 pandemic over 2020 (withlockdowns) and 2021 (with vaccinations): similar effects for seasonality and environmental factors. Environ Res. 2022 May 15;208:112711. doi: 10.1016/j.envres.2022.112711	No environmental exposure data	No relevant data
Cummings MJ 2016	Cummings MJ, Bakamutumaho B, Kayiwa J, Byaruhanga T, Owor N, Namagambo B, Wolf A, Wamala JF, Morse SS, Lutwama JJ, O'Donnell MR. Epidemiologic and Spatiotemporal Characterization of Influenza and Severe Acute Respiratory Infection in Uganda, 2010-2015. Ann Am Thorac Soc. 2016 Dec;13(12):2159-2168. doi: 10.1513/AnnalsATS.201607-561OC.	No environmental exposure data	No relevant data
Dang 2011	Dang UJ, Bauch CT. Can interactions between timing of vaccine-altered influenza pandemic waves and seasonality in influenza complications lead to more severe outcomes? PLoS One. 2011;6(8):e23580. doi: 10.1371/journal.pone.0023580.	Predictive modelling only; no relevant data	Wrong study design
Dash 2021	Dash SP, Dipankar P, Burange PS, Rouse BT, Sarangi PP. Climate change: how it impacts the emergence, transmission, resistance and consequences of viral infections in animals and plants. Crit Rev Microbiol. 2021 May;47(3):307-322. doi: 10.1080/1040841X.2021.1879006	Review: outlines consequences of climate change and how they impact the appearance of new viral pathogens, how they may facilitate transmission between usual and novel hosts, and how they may also affect the host's ability to manage the infection	No relevant data
Dockery & Pope 1994	Dockery DW, Pope CA 3rd, Xu X, Spengler JD, Ware JH, Fay ME, Ferris BG Jr, Speizer FE. An association between air pollution and mortality in six U.S. cities. N Engl J Med. 1993 Dec 9;329(24):1753-9. doi: 10.1056/NEJM199312093292401.	bronchitis was found to be more common in children with asthma living in areas with high ambient PM10 (Dockery and Pope 1994)	No relevant data
Dowling 1958	Dowling HF, Jackson GG, Spiesman IG, Inouye T. Transmission of the common cold to volunteers under controlled conditions. III. The effect of chilling of the subjects upon susceptibility. Am J Hyg. 1958 Jul;68(1):59-65. doi: 10.1093/oxfordjournals.aje.a119949.	Human experimental study	Wrong study design
Dushoff 2004	Dushoff J, Plotkin JB, Levin SA, Earn DJ. Dynamical resonance can account for seasonality of influenza epidemics. Proc Natl Acad Sci U S A. 2004 Nov 30;101(48):16915-6. doi: 10.1073/pnas.0407293101.	Examined dynamic resonance of peaks and troughs in influenza (no environmental exposure data)	Wrong study design

Everett 2019	Everett T, Douglas J, May S, Horne S, Marquis P, Cunningham R, Tang JW. Poor transmission of seasonal cold viruses in a British Antarctic Survey base. J Infect. 2019 Jun;78(6):491-503. doi: 10.1016/j.jinf.2019.03.007	Exclude: No data on environmental factors (although set in an arctic research station). Cohort study using gene testing to identify respiratory viruses over time.	No relevant data
Finkelman BS 2007	Global Patterns in Seasonal Activity of Influenza A/H3N2, A/H1N1, and B from 1997 to 2005: Viral Coexistence and Latitudinal Gradients	No environmental exposure data	No relevant data
Friedman N 2018	Friedman N, Alter H, Hindiyeh M, Mendelson E, Shemer Avni Y, Mandelboim M. Human Coronavirus Infections in Israel: Epidemiology, Clinical Symptoms and Summer Seasonality of HCoV-HKU1. Viruses. 2018 Sep 21;10(10):515. doi: 10.3390/v10100515	No environmental exposure data	No relevant data
Gavenčiak T 2022	Gavenčiak T, Monrad JT, Leech G, Sharma M, Mindermann S, Bhatt S, Brauner J, Kulveit J. Seasonal variation in SARS-CoV-2 transmission in temperate climates: A Bayesian modelling study in 143 European regions. PLoS Comput Biol. 2022 Aug 26;18(8):e1010435. doi: 10.1371/journal.pcbi.1010435	No environmental exposure data	No relevant data
Gökçe S 2017	Gökçe Ş, Kurugöl Z, Koturoğlu G, Çiçek C, Aslan A. Etiology, Seasonality, and Clinical Features of Viral Respiratory Tract Infections in Children Hospitalized With Acute Bronchiolitis: A Single-Center Study. Glob Pediatr Health. 2017 Jun 22;4:2333794X17714378. doi: 10.1177/2333794X17714378	No environmental exposure data	No relevant data
Gwaltney 1978	Gwaltney JM Jr, Hendley JO. Rhinovirus transmission: one if by air, two if by hand. Am J Epidemiol. 1978 May;107(5):357-61. doi: 10.1093/oxfordjournals.aje.a112555.	Review, not focussed on environmental factors.	Wrong study design
Hassoun A 2015	Hassoun A, Huff MD, Weisman D, Chahal K, Asis E, Stalons D, Grigorenko E, Green J, Malone LL, Clemmons S, Lu S. Seasonal variation of respiratory pathogen colonization in asymptomatic health care professionals: A single-center, cross-sectional, 2-season observational study. Am J Infect Control. 2015 Aug;43(8):865-70. doi: 10.1016/j.ajic.2015.04.195.	No environmental exposure data	No relevant data
He D 2015	He D, Chiu AP, Lin Q, Cowling BJ. Differences in the seasonality of Middle East respiratory syndrome coronavirus and influenza in the Middle East. Int J Infect Dis. 2015 Nov;40:15-6. doi: 10.1016/j.ijid.2015.09.012	No environmental exposure data	No relevant data

Hoover 1996	Hoover DR. Factors associated with the development of Pneumocystis carinii pneumonia. Clin Infect Dis. 1996 Apr;22(4):738-9. doi: 10.1093/clinids/22.4.738.	Not respiratory virus (fungal infection)	No relevant data
Hsieh 2011	Hsieh YH, Cheng KF, Wu TN, Li TC, Chen CY, Chen JH, Lin MH; Center for Infectious Education and Research Team. Transmissibility and temporal changes of 2009 pH1N1 pandemic during summer and fall/winter waves. BMC Infect Dis. 2011 Dec 2;11:332. doi: 10.1186/1471-2334-11-332.	No data on environmental exposures	No relevant data
Hsieh Y-H 2010	Hsieh YH. Pandemic influenza A (H1N1) during winter influenza season in the southern hemisphere. Influenza Other Respir Viruses. 2010 Jul;4(4):187-97. doi: 10.1111/j.1750-2659.2010.00147.x.	No environmental exposure investigation	No relevant data
Inaida S 2022	Inaida S, Paul RE, Matsuno S. Viral transmissibility of SARS-CoV-2 accelerates in the winter, similarly to influenza epidemics. Am J Infect Control. 2022 Sep;50(9):1070-1076. doi: 10.1016/j.ajic.2022.05.009	Brief report with insufficient data to include	Wrong study design
Ito 2003	Ito K. Association of particulate matter components with daily mortality and morbidity in Detroit, Michigan. In: Health Effects Institute, Special Report. Revised analyses of time-series studies of air pollution and health. 2003; pp 145 - 156.	pollution associated with daily mortaliy and morbidity	No relevant data
Jakeman 1996	Jakeman KJ, Sweet C. Summer outbreaks of influenza. J Infect Dis. 1996 Sep;174(3):674-5. doi: 10.1093/infdis/174.3.674.	Commentary on how flu survives through summer months, using animal experimental data to support hypothesis	Wrong study design
Jeevananthan 2020	Jeevananthan C, Muhamad NA, Jaafar MH, Hod R, Ab Ghani RM, Md Isa Z; Review Team Members. Effects of temperature, humidity, air quality and anthropic activities on the transmission of SARS-CoV-2: a systematic review protocol. BMJ Open. 2020 Nov 4;10(11):e039623. doi: 10.1136/bmjopen-2020-039623.	Review protocol only	Wrong study design
Jones 2020	Jones N. How COVID-19 is changing the cold and flu season. Nature. 2020 Dec;588(7838):388-390. doi: 10.1038/d41586-020-03519-3	News feature	Wrong study design

Joung YH 2022	Joung YH, Jang TS, Kim JK. Association among sentinel surveillance, meteorological factors, and infectious disease in Gwangju, Korea. Environ Sci Pollut Res Int. 2022 Mar;29(12):17561-17569. doi: 10.1007/s11356-021-17085-2	Respiratory disease not the focus	No relevant data
Kang 2021	Hawkes MT, Lee BE, Kanji JN, Zelyas N, Wong K, Barton M, Mukhi S, Robinson JL. Seasonality of Respiratory Viruses at Northern Latitudes. JAMA Netw Open. 2021 Sep 1;4(9):e2124650. doi: 10.1001/jamanetworkopen.2021.24650.	Commentary on theories of transmission.	Wrong study design
Katz MA 2012	Katz MA, Lebo E, Emukule G, Njuguna HN, Aura B, Cosmas L, Audi A, Junghae M, Waiboci LW, Olack B, Bigogo G, Njenga MK, Feikin DR, Breiman RF. Epidemiology, seasonality, and burden of influenza and influenza-like illness in urban and rural Kenya, 2007-2010. J Infect Dis. 2012 Dec 15;206 Suppl 1:S53-60. doi: 10.1093/infdis/jis530	No environmental exposure data	No relevant data
Kifer 2021	Kifer D, Bugada D, Villar-Garcia J, Gudelj I, Menni C, Sudre C, Vučković F, Ugrina I, Lorini LF, Posso M, Bettinelli S, Ughi N, Maloberti A, Epis O, Giannattasio C, Rossetti C, Kalogjera L, Peršec J, Ollivere L, Ollivere BJ, Yan H, Cai T, Aithal GP, Steves CJ, Kantele A, Kajova M, Vapalahti O, Sajantila A, Wojtowicz R, Wierzba W, Krol Z, Zaczynski A, Zycinska K, Postula M, Lukšić I, Čivljak R, Markotić A, Brachmann J, Markl A, Mahnkopf C, Murray B, Ourselin	Not transmission, dissease progression	No relevant data
Kingdon 1960	Kingdon KH. Relative humidity and air-borne infections. Am Rev Respir Dis. 1960 Apr;81:504-12. doi: 10.1164/arrd.1960.81.4.504. PMID: 14409212.	Commentary on theory of transmission in relation to humidity	Wrong study design
Kioutsioukis 2021	Kioutsioukis I, Stilianakis NI. On the Transmission Dynamics of SARS-CoV-2 in a Temperate Climate. Int J Environ Res Public Health. 2021 Feb 9;18(4):1660. doi: 10.3390/ijerph18041660.	No relevant data (modelling, no data reported)	Wrong study design
Kuster 2011	Kuster SP, Tuite AR, Kwong JC, McGeer A; Toronto Invasive Bacterial Diseases Network Investigators; Fisman DN. Evaluation of coseasonality of influenza and invasive pneumococcal disease: results from prospective surveillance. PLoS Med. 2011 Jun;8(6):e1001042	No relevant data - looks at relationship between influenze and invasive pneumococcal disease	No relevant data
Lee 2013	Lee J, Kim J, Kwon HD. Optimal control of an influenza model with seasonal forcing and age-dependent transmission rates. J Theor Biol. 2013 Jan 21;317: 310-20. doi: 10.1016/j.jtbi.2012.10.032.	Predictive modelling - no observed data.	Wrong study design

Levy JW 2013	Levy JW, Cowling BJ, Simmerman JM, Olsen SJ, Fang VJ, Suntarattiwong P, Jarman RG, Klick B, Chotipitayasunondh T. The serial intervals of seasonal and pandemic influenza viruses in households in Bangkok, Thailand. Am J Epidemiol. 2013 Jun 15;177(12):1443-51. doi: 10.1093/aje/kws402.	No environmental exposure data	No relevant data
Li 2021	Li X, Liang Z, Gan J, Lu L. Epidemic situation of the complex seasonality of imported influenza A and B virus transmission in Guangxi ports of China. Turk J Med Sci. 2021 Jun 28;51(3):1021-1026. doi: 10.3906/sag-2008-63.	No relevant data: no data on seatonality, only sequencing of flu types	No relevant data
Li S 2022	Li S, Li Z, Dong Y, Shi T, Zhou S, Chen Y, Wang X, Qin F. Temporal-spatial risk assessment of COVID-19 under the influence of urban spatial environmental parameters: The case of Shenyang city. Build Simul. 2023;16 (5):683-699. doi: 10.1007/s12273-022-0918-8	No environmental exposure data	No relevant data
Li X 2020	Li X, Chan KKY, Xu B, Lu M, Xu B. Spatial, Temporal and Genetic Dynamics Characteristics of Influenza B Viruses in China, 1973-2018. Virol Sin. 2020 Feb;35(1):14-20. doi: 10.1007/s12250-019-00161-w.	Gene lineage study - no data on environmental factors	Wrong study design
Lin Q 2016	Lin Q, Lin Z, Chiu AP, He D. Seasonality of Influenza A(H7N9) Virus in China-Fitting Simple Epidemic Models to Human Cases. PLoS One. 2016 Mar 10;11 (3):e0151333. doi: 10.1371/journal.pone.0151333	Modelling testing; no environmental exposures data	Wrong study design
Lippmann 2000	Lippmann M, Ito K, Nádas A, Burnett RT. Association of particulate matter components with daily mortality and morbidity in urban populations. Res Rep Health Eff Inst. 2000 Aug;(95):5-72, discussion 73-82. PMID: 11246487.	pollution associated with daily mortaliy and morbidity	No relevant data
Liu L 2022	Liu L, Meng Q, Qin K, Xu G, Spatio-Temporal Variations of the COVID-19 Epidemic in Mexico. 2022 29th International Conference on Geoinformatics, Beijing, China, 2022, pp. 1-8, doi: 10.1109/Geoinformatics57846.2022.9963866	No environmental exposure data	No relevant data
Liu Y 2020	Liu Y, Lam TTY, Lai FYL, Krajden M, Drews SJ, Hatchette TF, Fraaij PLA, van Kampen JJA, Badarch D, Nymadawa P, Tee KK, Lee HK, Koay ESC, Jennings L, Koopmans M, Tang JW. Comparative seasonalities of influenza A, B and 'common cold' coronaviruses - setting the scene for SARS-CoV-2 infections and possible unexpected host immune interactions. J Infect. 2020 Aug;81(2): e62-e64. doi: 10.1016/j.jinf.2020.04.032	No environmental exposure data	No relevant data

Lobato-Cordero A 2019	Lobato-Cordero A, Quentin E, Lobato-Cordero G. Spatiotemporal Analysis of Influenza Morbidity and Its Association with Climatic and Housing Conditions in Ecuador. J Environ Public Health. 2019 Nov 23;2019:6741202. doi: 10.1155/2019/6741202	No environmental exposure data	No relevant data
Lofgren ET 2022	Lofgren ET, Naumova EN, Gorski J, Naumov Y, Fefferman NH. How Drivers of Seasonality in Respiratory Infections May Impact Vaccine Strategy: A Case Study in How Coronavirus Disease 2019 (COVID-19) May Help Us Solve One of Influenza's Biggest Challenges. Clin Infect Dis. 2022 Aug 15;75(Suppl 1): S121-S129. doi: 10.1093/cid/ciac400	No environmental exposure data	No relevant data
Lowen A 2007	Lowen AC, Mubareka S, Steel J, Palese P. Influenza virus transmission is dependent on relative humidity and temperature. PLoS Pathog. 2007 Oct 19;3 (10):1470-6. doi: 10.1371/journal.ppat.0030151	Animal experimental study	Wrong study design
Ly S	Ly S, Vong S, Cavailler P, Mumford E, Mey C, Rith S, Van Kerkhove MD, Sorn S, Sok T, Tarantola A, Buchy P. Environmental contamination and risk factors for transmission of highly pathogenic avian influenza A(H5N1) to humans, Cambodia, 2006-2010. BMC Infect Dis. 2016 Nov 4;16(1):631. doi: 10.1186/s12879-016-1950-z.	No relevant environmental exposures (poultry keeping)	No relevant data
Maier HE 2022	Maier HE, Kuan G, Gresh L, Chowell G, Bakker K, Lopez R, Sanchez N, Lopez B, Schiller A, Ojeda S, Harris E, Balmaseda A, Gordon A. The Nicaraguan Pediatric Influenza Cohort Study, 2011-2019: Influenza Incidence, Seasonality, and Transmission. Clin Infect Dis. 2023 Feb 8;76(3):e1094-e1103. doi: 10.1093/cid/ciac420. PMID: 35639580	No environmental exposure data	No relevant data
Marais 2014	Marais L, Cloete J. “Dying to get a house?” The health outcomes of the South African low-income housing programme. Habitat Int. 2014; 43: 48–60	no data on respiratory disease	No relevant data
Marr 2019	Marr, L. C., Tang, J. W., Van Mullekom, J. & Lakdawala, S. S. Mechanistic insights into the effect of humidity on airborne influenza virus survival, transmission and incidence. J. R. Soc. Interface 16, (2019).	mechanisms hypotheses	Wrong study design

McConnell 2003	McConnell R, Berhane K, Gilliland F, Molitor J, Thomas D, Lurmann F, Avol E, Gauderman WJ, Peters JM. Prospective study of air pollution and bronchitic symptoms in children with asthma. Am J Respir Crit Care Med. 2003 Oct 1;168 (7):790-7. doi: 10.1164/rccm.200304-466OC.	a study among asthmatic children showed that exposure to PM10 increased the risk of bronchitis, by 40% (95% CI 10 to 80%) with an increase of 19 lg m-3 of PM10 concentration; and severe asthma symptoms increased 12% (95% CI 2–22%) with 10 lg m-3 increase in PM10	No relevant data
McKiney 2006	McKinney KR, Gong YY, Lewis TG. Environmental transmission of SARS at Amoy Gardens. J Environ Health. 2006 May;68(9):26-30; quiz 51-2	Review of possible routes for transmission of SARS, Amoy Gardens, Hong Kong: "the SARS virus in this case was spread primarily through the air. High concentrations of viral aerosols in building plumbing were drawn into apartment bathrooms through floor drains. The initial exposures occurred in these bathrooms. The virus-laden air was then transported by prevailing winds to adjacent buildings at Amoy Gardens, where additional exposures occurred. "	No relevant data
Meintrup D 2022	Meintrup D, Nowak-Machen M, Borgmann S. A Comparison of Germany and the United Kingdom Indicates That More SARS-CoV-2 Circulation and Less Restrictions in the Warm Season Might Reduce Overall COVID-19 Burden. Life (Basel). 2022 Jun 24;12(7):953. doi: 10.3390/life12070953	No environmental exposure data	No relevant data
Meyerowitz 2021	Meyerowitz EA, Richterman A, Gandhi RT, Sax PE. Transmission of SARS-CoV-2: A Review of Viral, Host, and Environmental Factors. Ann Intern Med. 2021 Jan;174(1):69-79. doi: 10.7326/M20-5008.	No environmental exposure data	No relevant data
Moineddin R 2008	Moineddin R, Nie JX, Domb G et al. Seasonality of primary care utilization for respiratory diseases in Ontario: A time-series analysis. BMC Health Serv Res 8, 160 (2008). https://doi.org/10.1186/1472-6963-8-160	Not possible to separate data for infections	No relevant data
Moore HC 2009	Moore HC, de Klerk N, Richmond P, Keil AD, Lindsay K, Plant A, Lehmann D. Seasonality of respiratory viral identification varies with age and Aboriginality in metropolitan Western Australia. Pediatr Infect Dis J. 2009 Jul;28(7):598-603. doi: 10.1097/INF.0b013e318199cefd	No environmental exposure data	No relevant data

Nakada LYK 2021	Nakada LYK, Urban RC. COVID-19 pandemic: environmental and social factors influencing the spread of SARS-CoV-2 in São Paulo, Brazil. Environ Sci Pollut Res Int. 2021 Aug;28(30):40322-40328. doi: 10.1007/s11356-020-10930-w.	Duplicate data of included study Nakada 2020	Duplicate data of included study
Neher 2020	Neher RA, Dyrdak R, Druelle V, Hodcroft EB, Albert J. Potential impact of seasonal forcing on a SARS-CoV-2 pandemic. Swiss Med Wkly. 2020 Mar 16; 150:w20224. doi: 10.4414/smw.2020.20224	Predictive modelling study only - no data	Wrong study design
Neher RA 2020	Neher RA, Dyrdak R, Druelle V, Hodcroft EB, Albert J. Potential impact of seasonal forcing on a SARS-CoV-2 pandemic. Swiss Med Wkly. 2020 Mar 16; 150:w20224. doi: 10.4414/smw.2020.20224.	Predictive modelling	Wrong study design
Niakan Kalnhori 2020	Niakan Kalhori SR, Ghazisaeedi M, Azizi R, Naserpour A. Studying the influence of mass media and environmental factors on influenza virus transmission in the US Midwest. Public Health. 2019 May;170:17-22. doi: 10.1016/j.puhe.2019.02.006.	Computational simulation study, incorporating socio-enviornmental factors into the SEIR model (susceptible exposed infectious recovered)	Wrong study design
Nielsen 2011	Nielsen J, Mazick A, Glismann S, Mølbak K. Excess mortality related to seasonal influenza and extreme temperatures in Denmark, 1994-2010. BMC Infect Dis. 2011 Dec 16;11:350. doi: 10.1186/1471-2334-11-350.	No data on weather & ILI: association of weekly mortality and influenza activity and/or extreme temperatures	No relevant data
Nkhama 2015	Nkhama E, Ndhlovu M, Dvonch JT, Siziya S, Voyi K. Prevalence and determinants of mucous membrane irritations in a community near a cement factory in Zambia: a cross sectional study. Int J Environ Res Public Health. 2015 Jan 16;12(1):871-87. doi: 10.3390/ijerph120100871.	irritations of mucous membranes reported by workers nearer cement factory (no data on respiratory infection)	No relevant data
O'Reilley 2020	O'Reilly KM, Auzenbergs M, Jafari Y, Liu Y, Flasche S, Lowe R. Effective transmission across the globe: the role of climate in COVID-19 mitigation strategies. Lancet Planet Health. 2020 May;4(5):e172. doi: 10.1016/S2542-5196(20)30106-6.	Commentary - no data.	Wrong study design
Oviedo de la Fuente	Oviedo de la Fuente M, Febrero-Bande M, Muñoz MP, Domínguez À. Predicting seasonal influenza transmission using functional regression models with temporal dependence. PLoS One. 2018 Apr 25;13(4):e0194250. doi: 10.1371/journal.pone.0194250.	Predictive modelling	Wrong study design

Partridge 2021	Partridge E, McCleery E, Cheema R, Nakra N, Lakshminrusimha S, Tancredi DJ, Blumberg DA. Evaluation of Seasonal Respiratory Virus Activity Before and After the Statewide COVID-19 Shelter-in-Place Order in Northern California. JAMA Netw Open. 2021 Jan 4;4(1):e2035281. doi: 10.1001/jamanetworkopen.2020.35281.	No environmental exposure data	No relevant data
Price 2021	Price TRV, Barua SK. Identifying vulnerable populations and transmission pathways by geographic correlation of the environment to human health. Sci Total Environ. 2021 Jul 20;779:146426. doi: 10.1016/j.scitotenv.2021.146426.	Framework proposalfor relating environmental factors to respiratory disease transmission. No data.	No relevant data
Prussin AJ 2018	Prussin AJ 2nd, Schwake DO, Lin K, Gallagher DL, Buttling L, Marr LC. Survival of the Enveloped Virus Phi6 in Droplets as a Function of Relative Humidity, Absolute Humidity, and Temperature. Appl Environ Microbiol. 2018 May 31;84(12):e00551-18. doi: 10.1128/AEM.00551-18.	Laboratory experimental study (no relevant data)	Wrong study design
Ratnesar-Shumate 2020	Ratnesar-Shumate, S. et al. Simulated Sunlight Rapidly Inactivates SARS-CoV-2 on Surfaces. J. Infect. Dis. 222, 214–222 (2020).	experimental data on virus stability	Wrong study design
Reiman 2018	Reiman JM, Das B, Sindberg GM, Urban MD, Hammerlund MEM, Lee HB, Spring KM, Lyman-Gingerich J, Generous AR, Koep TH, Ewing K, Lilja P, Enders FT, Ekker SC, Huskins WC, Fadel HJ, Pierret C. Humidity as a non-pharmaceutical intervention for influenza A. PLoS One. 2018 Sep 25;13(9):e0204337. doi: 10.1371/journal.pone.0204337	No data on transmission (PCR testing of air samples and fomites)	Wrong study design
Rohit A 2020	Rohit A, Rajasekaran S, Karunasagar I, Karunasagar I. Fate of respiratory droplets in tropical vs temperate environments and implications for SARS-CoV-2 transmission. Med Hypotheses. 2020 Nov;144:109958. doi: 10.1016/j.mehy.2020.109958.	Hypothesis on mechanism	No relevant data
Sambaturu 2021	Sambaturu P, Bhattacharya P, Chen J, Lewis B, Marathe M, Venkatramanan S, Vullikanti A. An Automated Approach for Finding Spatio-Temporal Patterns of Seasonal Influenza in the United States: Algorithm Validation Study. JMIR Public Health Surveill. 2020 Sep 4;6(3):e12842. doi: 10.2196/12842.	Modelling testing	Wrong study design
Sánchez-González L 2021	Sánchez-González L, Quandelacy TM, Johansson M, Torres-Velásquez B, Lorenzi O, Tavarez M, Torres S, Alvarado LI, Paz-Bailey G. Viral etiology and seasonal trends of pediatric acute febrile illness in southern Puerto Rico; a seven-year review. PLoS One. 2021 Feb 19;16(2):e0247481. doi: 10.1371/journal.pone.0247481	Not possible to separate data for viral infections	No relevant data

Scarpone 2020	Scarpone C, Brinkmann ST, Große T, Sonnenwald D, Fuchs M, Walker BB. A multimethod approach for county-scale geospatial analysis of emerging infectious diseases: a cross-sectional case study of COVID-19 incidence in Germany. Int J Health Geogr. 2020 Aug 13;19(1):32. doi: 10.1186/s12942-020-00225-1	No relevant data, correlation analysis: features of the built environment.	No relevant data
Shaman J 2011	Shaman J, Jeon CY, Giovannucci E, Lipsitch M. Shortcomings of vitamin D-based model simulations of seasonal influenza. PLoS One. 2011;6(6):e20743. doi: 10.1371/journal.pone.0020743.	Predictive modelling only	Wrong study design
Shaman J 2017	Shaman J, Kandula S, Yang W, Karspeck A. The use of ambient humidity conditions to improve influenza forecast. PLoS Comput Biol. 2017 Nov 16;13 (11):e1005844. doi: 10.1371/journal.pcbi.1005844	Predictive modelling	Wrong study design
Shaw Stewart PD 2016	Shaw Stewart PD. Seasonality and selective trends in viral acute respiratory tract infections. Med Hypotheses. 2016 Jan;86:104-19. doi: 10.1016/j.mehy.2015.11.005.	Hypotheses	Wrong study design
Shen 2020	Shen X, Cai C, Li H. Socioeconomic restrictions slowdown COVID-19 far more effectively than favorable weather-evidence from the satellite. Sci Total Environ. 2020 Dec 15;748:141401. doi: 10.1016/j.scitotenv.2020.141401	No relevant data, looked at lockdowns, weather no data	No relevant data
Steel 2011	Steel J, Palese P, Lowen AC. Transmission of a 2009 pandemic influenza virus shows a sensitivity to temperature and humidity similar to that of an H3N2 seasonal strain. J Virol. 2011 Feb;85(3):1400-2. doi: 10.1128/JVI.02186-10.	Animal experimental study.	Wrong study design
Stockmann C 2014	Stockmann C, Ampofo K, Hersh AL, Carleton ST, Korgenski K, Sheng X, Pavia AT, Byington CL. Seasonality of acute otitis media and the role of respiratory viral activity in children. Pediatr Infect Dis J. 2013 Apr;32(4):314-9. doi: 10.1097/INF.0b013e31827d104e	No environmental exposure data	No relevant data
Strickland 2010	Strickland, M. J., Darrow, L. A., Klein, M., Flanders, W. D., Sarnat, J. A., Waller, L. A., et al. (2010). Short-term associations between ambient air pollutants and pediatric asthma emergency department visits. American Journal of Respiratory and Critical Care Medicine, 182, 307–316. https://doi.org/10.1164/rccm.200908-1201OC	Asthma not respiratory viral infection	No relevant data

Tomaszewski T 2022	Tomaszewski T, Gurtler V, Caetano-Anollés K, Caetano-Anollés G. The emergence of SARS-CoV-2 variants of concern in Australia by haplotype coalescence reveals a continental link to COVID-19 seasonality. Methods in Microbiology. 2022;50:233–68. doi: 10.1016/bs.mim.2022.03.003	No environmental exposure data	No relevant data
Ud-Dean SMM 2010	Minhaz Ud-Dean SM. Structural explanation for the effect of humidity on persistence of airborne virus: seasonality of influenza. J Theor Biol. 2010 Jun 7;264(3):822-9. doi: 10.1016/j.jtbi.2010.03.013.	Theoretical analysis only	Wrong study design
Uzair M 2022	Uzair M, Kaleem I, Arshad M, Ali RS, Zafar A, Iqbal M, Bashir S. Will weather stem the spread of the COVID-19 in Pakistan? Eur Rev Med Pharmacol Sci. 2022 Jan;26(1):305-311. doi: 10.26355/eurrev_202201_27782	Unclear study methods and data inclusion	Wrong study design
Viboud C 2013	Viboud C, Nelson MI, Tan Y, Holmes EC. Contrasting the epidemiological and evolutionary dynamics of influenza spatial transmission. Philos Trans R Soc Lond B Biol Sci. 2013 Feb 4;368(1614):20120199. doi: 10.1098/rstb.2012.0199.	No environmental exposure data	No relevant data
Wallace MG 2021	Wallace MG, Wang Y. Pollen antigens and atmospheric circulation driven seasonal respiratory viral outbreak and its implication to the Covid-19 pandemic. Sci Rep. 2021 Aug 20;11(1):16945. doi: 10.1038/s41598-021-96282-y	Mechanisms study	Wrong study design
Weber & Stilianakis 2008	Weber, T. P. & Stilianakis, N. I. Inactivation of influenza A viruses in the environment and modes of transmission: a critical review. J. Infect. 57, (2008).	Review of mechanisms only	No relevant data
Willem 2012	Willem L, Van Kerckhove K, Chao DL, Hens N, Beutels P. A nice day for an infection? Weather conditions and social contact patterns relevant to influenza transmission. PLoS One. 2012;7(11):e48695. doi: 10.1371/journal.pone.0048695.	No data on ILI; study combined social contact and weather data.	No relevant data
Williams NP 2017	Williams NP, Coombs NA, Johnson MJ, Josephs LK, Rigge LA, Staples KJ, Thomas M, Wilkinson TM. Seasonality, risk factors and burden of community-acquired pneumonia in COPD patients: a population database study using linked health care records. Int J Chron Obstruct Pulmon Dis. 2017 Jan 17;12:313-322. doi: 10.2147/COPD.S121389	No environmental exposure data	No relevant data

Wu J 2015	Wu J, Lau EH, Xing Q, Zou L, Zhang H, Yen HL, Song Y, Zhong H, Lin J, Kang M, Cowling BJ, Huang G, Ke C. Seasonality of avian influenza A(H7N9) activity and risk of human A(H7N9) infections from live poultry markets. J Infect. 2015 Dec;71(6):690-3. doi: 10.1016/j.jinf.2015.08.007.	Outcome not human infection - swabs from site	No relevant data
Yaari R 2013	Yaari R, Katriel G, Huppert A, Axelsen JB, Stone L. Modelling seasonal influenza: the role of weather and punctuated antigenic drift. J R Soc Interface. 2013 May 15;10(84):20130298. doi: 10.1098/rsif.2013.0298.	Modelling frameworks development	No relevant data
Yang W 2011	Yang W, Marr LC. Dynamics of airborne influenza A viruses indoors and dependence on humidity. PLoS One. 2011;6(6):e21481. doi: 10.1371/journal.pone.0021481.	Experimental modelling study of droplets & humidity	Wrong study design
Yip 2007	Yip C, Chang WL, Yeung KH, Yu IT. Possible meteorological influence on the severe acute respiratory syndrome (SARS) community outbreak at Amoy Gardens, Hong Kong. J Environ Health. 2007 Oct;70(3):39-46	Commentary	Wrong study design
Yu H 2013	Yu H, Alonso WJ, Feng L, Tan Y, Shu Y, Yang W, Viboud C. Characterization of regional influenza seasonality patterns in China and implications for vaccination strategies: spatio-temporal modeling of surveillance data. PLoS Med. 2013 Nov;10(11):e1001552. doi: 10.1371/journal.pmed.1001552.	No environmental exposure data	No relevant data
Yuan 2021	Yuan H, Kramer SC, Lau EHY, Cowling BJ, Yang W. Modeling influenza seasonality in the tropics and subtropics. PLoS Comput Biol. 2021 Jun 9;17(6):e1009050. doi: 10.1371/journal.pcbi.1009050.	Modelling study only	Wrong study design
Zaitchik 2020	Zaitchik BF, Sweijd N, Shumake-Guillemot J, Morse A, Gordon C, Marty A, Trtanj J, Luterbacher J, Botai J, Behera S, Lu Y, Olwoch J, Takahashi K, Stowell JD, Rodó X. A framework for research linking weather, climate and COVID-19. Nat Commun. 2020 Nov 12;11(1):5730. doi: 10.1038/s41467-020-19546-7	No data: a framework for future research	Wrong study design
Zhao 2020	Zhao S. To avoid the noncausal association between environmental factor and COVID-19 when using aggregated data: Simulation-based counterexamples for demonstration. Sci Total Environ. 2020 Dec 15;748:141590. doi: 10.1016/j.scitotenv.2020.141590	Mathematical simulation only	Wrong study design

Zheng X 2017	Zheng X, Song Z, Li Y, Zhang J, Wang XL. Possible interference between seasonal epidemics of influenza and other respiratory viruses in Hong Kong, 2014-2017. BMC Infect Dis. 2017 Dec 16;17(1):772. doi: 10.1186/s12879-017-2888-5	No environmental exposure data	No relevant data
Zuk 2009a	Zuk T, Rakowski F, Radomski JP. Probabilistic model of influenza virus transmissibility at various temperature and humidity conditions. Comput Biol Chem. 2009 Aug;33(4):339-43. doi: 10.1016/j.compbiolchem.2009.07.005.	model utilising experimental data	No relevant data
Zuk T 2009b	Zuk T, Rakowski F, Radomski JP. A model of influenza virus spread as a function of temperature and humidity. Comput Biol Chem. 2009 Apr;33(2):176-80. doi: 10.1016/j.compbiolchem.2008.12.001	Model derived from experimental data on guinea pigs	Wrong study design