

Environmental Stewardship Resource Desk

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COVID-19

- 1. Trends in Waste Production at a Community Hospital during the COVID-19 Pandemic.** Martin KD, Chen JJ, Thorndike J, McCormick W, Rota J, Berg B, Dulski A. *R I Med J* (2013). 2021 Nov 1;104(9):38-42.
<http://rimed.org/rimedicaljournal/2021/11/2021-11-38-climate-martin.pdf>
RESULTS: Regulated Medical Waste (RMW) by total weight was lowest in April 2020, when the hospital census and adjusted patient days (APD) were at their lowest. In contrast, linen use remained largely consistent with pre-pandemic levels during the initial months of the pandemic despite a decrease in hospital census. The highest linen weight/APD value (23.32 lbs/APD) was in April 2020. Both RMW and linen use (weight/APD) decreased during the study period. Linen use was highest during months with increased COVID-19 cases and hospitalizations.
CONCLUSIONS: This study examined trends in waste production at a community hospital during the COVID-19 pandemic. Linen use was highest during months of increased COVID-19 cases and hospitalizations, while RMW production decreased. There was a particular increase in linen use in April 2020, when the pandemic was in its initial phases.
- 2. Long-term air pollution and COVID-19 mortality rates in California: Findings from the Spring/Summer and Winter surges of COVID-19.** Garcia E, Marian B, Chen Z, Li K, Lurmann F, Gilliland F, Eckel SP. *Environ Pollut.* 2021 Oct 21;292(Pt B):118396. doi: 10.1016/j.envpol.2021.118396. Online ahead of print.
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8529382/>
A growing number of studies report associations between air pollution and COVID-19 mortality. Most were ecological studies at the county or regional level which disregard important local variability and relied on data from only the first few months of the pandemic. Using COVID-19 deaths identified from death certificates in California, we evaluated whether long-term ambient air pollution was related to weekly COVID-19 mortality at the census tract-level during the first ~12 months of the pandemic. Weekly COVID-19 mortality for each census tract was calculated

based on geocoded death certificate data. Annual average concentrations of ambient particulate matter <2.5 µm (PM2.5) and <10 µm (PM10), nitrogen dioxide (NO2), and ozone (O3) over 2014-2019 were assessed for all census tracts using inverse distance-squared weighting based on data from the ambient air quality monitoring system. Negative binomial mixed models related weekly census tract COVID-19 mortality counts to a natural cubic spline for calendar week. We included adjustments for potential confounders (census tract demographic and socioeconomic factors), random effects for census tract and county, and an offset for census tract population. Data were analyzed as two study periods: Spring/Summer (March 16-October 18, 2020) and Winter (October 19, 2020-March 7, 2021). Mean (standard deviation) concentrations were 10.3 (2.1) µg/m³ for PM2.5, 25.5 (7.1) µg/m³ for PM10, 11.3 (4.0) ppb for NO2, and 42.8 (6.9) ppb for O3. For Spring/Summer, adjusted rate ratios per standard deviation increase were 1.13 (95% confidence interval: 1.09, 1.17) for PM2.5, 1.16 (1.11, 1.21) for PM10, 1.06 (1.02, 1.10) for NO2, and 1.09 (1.04, 1.14) for O3. Associations were replicated in Winter, although they were attenuated for PM2.5 and PM10. Study findings support a relation between long-term ambient air pollution exposure and COVID-19 mortality. Communities with historically high pollution levels might be at higher risk of COVID-19 mortality.

3. **Long-term exposure to PM(10) above WHO guidelines exacerbates COVID-19 severity and mortality.** Marquès M et al. *Environ Int.* 2021 Oct 16;158:106930. doi:

10.1016/j.envint.2021.106930. Online ahead of print.

<https://www.sciencedirect.com/science/article/pii/S0160412021005559>

DISCUSSION: These results demonstrate that long-term PM10 burdens above WHO guidelines exacerbate COVID-19 health outcomes. Hence, WHO guidelines, the air quality standard established by the Directive 2008/50/EU, and that of the US-EPA should be updated accordingly to protect human health.

Health Impacts of Climate Change

4. **Health impacts of climate change on gender diverse populations: A scoping review.** Simmonds

KE, Jenkins J, White B, Nicholas PK, Bell J. *J Nurs Scholarsh.* 2021 Oct 24. doi:

10.1111/jnu.12701. Online ahead of print.

<https://sigmapubs.onlinelibrary.wiley.com/doi/full/10.1111/jnu.12701>

CONCLUSIONS: There are major gaps in knowledge about health implications of climate change for GD populations. Gender-sensitive data must be collected in order to better understand these threats and detect disparities. Currently most practice and policy recommendations focus on disaster relief. More research on the broad effects of climate change on GD populations is urgently needed to inform practice and policy.

CLINICAL RELEVANCE: Climate change amplifies existing risks of adverse health outcomes. Because of discrimination, stigma, and violence, gender diverse individuals are particularly vulnerable.

5. **Role of pollution on the selection of antibiotic resistance and bacterial pathogens in the environment.** Buelow E, Ploy MC, Dagot C. *Curr Opin Microbiol.* 2021 Oct 23;64:117-124. doi: 10.1016/j.mib.2021.10.005. Online ahead of print.
<https://www.clinicalkey.com/#!/content/playContent/1-s2.0-S1369527421001417>
There is evidence that human activity causes pollution that contributes to an enhanced selection of bacterial pathogens in the environment. In this review, we consider how environmental pollution can favour the selection of bacterial pathogens in the environment. We specifically discuss pollutants released into the environment by human activities (mainly human waste) that are associated with the selection for genetic features in environmental bacterial populations that lead to the emergence of bacterial pathogens. Finally, we also identify key pollutants that are associated with antibiotic resistance and discuss possibilities of how to prevent their release into the environment.

6. **Effects of traffic-related air pollution on exercise endurance, dyspnea and cardiorespiratory physiology in health and COPD - A randomized, placebo-controlled crossover trial.** Syed N, Ryu MH, Dhillon S, Schaeffer MR, Ramsook AH, Leung JM, Ryerson CJ, Carlsten C, Guenette JA; Canadian Respiratory Research Network. *Chest.* 2021 Oct 23:S0012-3692(21)04207-0. doi: 10.1016/j.chest.2021.10.020. Online ahead of print.
<https://www.sciencedirect.com/science/article/pii/S0012369221042070>
INTERPRETATION: Contrary to our hypothesis, it was the healthy controls rather than the ex-smokers with and without COPD that were negatively impacted by TRAP during exercise.

7. **Climate Change and Global Issues in Allergy and Immunology.** Pacheco SE et al. *J Allergy Clin Immunol.* 2021 Oct 21:S0091-6749(21)01622-5. doi: 10.1016/j.jaci.2021.10.011. Online ahead of print.
<https://www.clinicalkey.com/#!/content/playContent/1-s2.0-S0091674921016225>
The steady increase in global temperatures, resulting from the combustion of fossil fuels and the accumulation of greenhouse gases (GHG), continues to destabilize all ecosystems worldwide. Although annual emissions must halve by 2030 and reach net-zero by 2050 to limit some of the most catastrophic impacts associated with a warming planet, the world's efforts to curb GHG emissions fall short of the commitments made in the 2015 Paris Agreement (1). To this effect, July 2021 was recently declared the hottest month ever recorded in 142 years (2). The ramifications of these changes on global temperatures are complex and further promote outdoor air pollution, pollen exposure, and extreme weather events. Besides worsening respiratory health, air pollution, promotes atopy and susceptibility to infections. The GHG effects on pollen affect the frequency and severity of asthma and allergic rhinitis. Changes in temperature, air pollution, and extreme weather events exert adverse multisystemic health effects and disproportionately affect disadvantaged and vulnerable populations. This article is an update for allergists and immunologists about the health impacts of climate change, already evident in our daily practices. It is also a call to action and advocacy, including integrating climate change-related mitigation, education, and adaptation measures to protect our patients and avert further injury to our planet.

8. **Climate Change and Child Health Inequality: A Review of Reviews.** Arpin E, Gauffin K, Kerr M, Hjern A, Mashford-Pringle A, Barros A, Rajmil L, Choonara I, Spencer N. *Int J Environ Res Public Health*. 2021 Oct 17;18(20):10896. doi: 10.3390/ijerph182010896.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8535343/>

There is growing evidence on the observed and expected consequences of climate change on population health worldwide. There is limited understanding of its consequences for child health inequalities, between and within countries. To examine these consequences and categorize the state of knowledge in this area, we conducted a review of reviews indexed in five databases (Medline, Embase, Web of Science, PsycInfo, Sociological Abstracts). Reviews that reported the effect of climate change on child health inequalities between low- and high-income children, within or between countries (high- vs low-middle-income countries; HICs and LMICs), were included. Twenty-three reviews, published between 2007 and January 2021, were included for full-text analyses. Using thematic synthesis, we identified strong descriptive, but limited quantitative, evidence that climate change exacerbates child health inequalities. Explanatory mechanisms relating climate change to child health inequalities were proposed in some reviews; for example, children in LMICs are more susceptible to the consequences of climate change than children in HICs due to limited structural and economic resources. Geographic and intergenerational inequalities emerged as additional themes from the review. Further research with an equity focus should address the effects of climate change on adolescents/youth, mental health and inequalities within countries.

9. **Impact of Heat Waves on Hospitalisation and Mortality in Nursing Homes: A Case-Crossover Study.** Van den Wyngaert I, De Troeyer K, Vaes B, Alsaïqali M, Van Schaeybroeck B, Hamdi R, Casas Ruiz L, Van Pottelbergh G. *Int J Environ Res Public Health*. 2021 Oct 12;18(20):10697. doi: 10.3390/ijerph182010697.

<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8536121/>

A time-stratified case-crossover study about the impact of heat waves on mortality and hospitalisations between 1 January 2013 and 31 December 2017 was conducted in 10 nursing homes over 5 years in Flanders, Belgium. In this study, the events were deaths and hospitalisations. We selected our control days during the same month as the events and matched them by day of the week. Heat waves were the exposure. Conditional logistic regression models were applied. The associations were reported as odds ratios at lag 0, 1, 2, and 3 and their 95% confidence intervals. In the investigated time period, 3048 hospitalisations took place and 1888 residents died. The conditional logistic regression showed that odds ratios of mortality and hospitalisations during heat waves were 1.61 (95% confidence interval 1.10-2.37) and 0.96 (95% confidence interval 0.67-1.36), respectively, at lag 0. Therefore, the increase in mortality during heat waves was statistically significant, but no significant changes in hospitalisations were obtained. Our result suggests that heat waves have an adverse effect on mortality in Flemish nursing homes but have no significant effect on the number of hospitalisations.

10. **Short-term Exposure to Air pollution and Attributable Risk of Kidney Diseases: A Nationwide Time-series Study.** Lee W, Prifti K, Kim H, Kim E, Yang J, Min J, Park JY, Kim YC, Lee JP, Bell ML. *Epidemiology*. 2021 Oct 4. doi: 10.1097/EDE.0000000000001430. Online ahead of print.

https://journals.lww.com/epidem/Abstract/9000/Short_term_Exposure_to_Air_pollution_and_98216.aspx

RESULTS: For all kidney and urinary disease (902,043 cases), excess ER visits attributable to air pollution existed for all pollutants studied. For AKI (76,330 cases), we estimated the highest impact on excess ER visits from O₃, while for CKD (210,929 cases), the impacts of CO and SO₂ were the highest. The associations between air pollution and kidney ER visits existed for days with air pollution concentrations below current World Health Organization guidelines.

CONCLUSIONS: This study provides quantitative estimates of ER burdens attributable to air pollution. Results are consistent with the hypothesis that stricter air quality standards benefit kidney patients.

WE ACT

11. **Project Earthrise: Proceedings of the Ninth Annual Conference of inVIVO Planetary Health.**

Prescott SL et al. Int J Environ Res Public Health. 2021 Oct 12;18(20):10654. doi: 10.3390/ijerph182010654.

<https://www.mdpi.com/1660-4601/18/20/10654>

The "Earthrise" photograph, taken on the 1968 Apollo 8 mission, became one of the most significant images of the 20th Century. It triggered a profound shift in environmental awareness and the potential for human unity-inspiring the first Earth Day in 1970. Taking inspiration from these events 50 years later, we initiated Project Earthrise at our 2020 annual conference of inVIVO Planetary Health. This builds on the emergent concept of planetary health, which provides a shared narrative to integrate rich and diverse approaches from all aspects of society towards shared solutions to global challenges. The acute catastrophe of the COVID-19 pandemic has drawn greater attention to many other interconnected global health, environmental, social, spiritual, and economic problems that have been underappreciated or neglected for decades. This is accelerating opportunities for greater collaborative action, as many groups now focus on the necessity of a "Great Transition". While ambitious integrative efforts have never been more important, it is imperative to apply these with mutualistic value systems as a compass, as we seek to make wiser choices. Project Earthrise is our contribution to this important process. This underscores the imperative for creative ecological solutions to challenges in all systems, on all scales with advancing global urbanization in the digital age-for personal, environmental, economic and societal health alike. At the same time, our agenda seeks to equally consider our social and spiritual ecology as it does natural ecology. Revisiting the inspiration of "Earthrise", we welcome diverse perspectives from across all dimensions of the arts and the sciences, to explore novel solutions and new normative values. Building on academic rigor, we seek to place greater value on imagination, kindness and mutualism as we address our greatest challenges, for the health of people, places and planet.

12. **Climate change, women's health, and the role of obstetricians and gynecologists in leadership.**

Giudice LC, Llamas-Clark EF, DeNicola N, Pandipati S, Zlatnik MG, Decena DCD, Woodruff TJ, Conry JA; FIGO Committee on Climate Change and Toxic Environmental Exposures. Int J Gynaecol Obstet. 2021 Dec;155(3):345-356. doi: 10.1002/ijgo.13958. Epub 2021 Oct 25.

<https://obgyn.onlinelibrary.wiley.com/doi/10.1002/ijgo.13958>

Climate change is one of the major global health threats to the world's population. It is brought on by global warming due in large part to increasing levels of greenhouse gases resulting from human activity, including burning fossil fuels (carbon dioxide), animal husbandry (methane from manure), industry emissions (ozone, nitrogen oxides, sulfur dioxide), vehicle/factory exhaust, and chlorofluorocarbon aerosols that trap extra heat in the earth's atmosphere. Resulting extremes of weather give rise to wildfires, air pollution, changes in ecology, and floods. These in turn result in displacement of populations, family disruption, violence, and major impacts on water quality and availability, food security, public health and economic infrastructures, and limited abilities for civil society to maintain citizen safety. Climate change also has direct impacts on human health and well-being. Particularly vulnerable populations are affected, including women, pregnant women, children, the disabled, and the elderly, who comprise the majority of the poor globally. Additionally, the effects of climate change disproportionately affect disadvantaged communities, including low income and communities of color, and lower-income countries that are at highest risk of adverse impacts when disasters occur due to inequitable distribution of resources and their socioeconomic status. The climate crisis is tilting the risk balance unfavorably for women's sexual and reproductive health and rights as well as newborn and child health. Obstetrician/gynecologists have the unique opportunity to raise awareness, educate, and advocate for mitigation strategies to reverse climate change affecting our patients and their families. This article puts climate change in the context of women's reproductive health as a public health issue, a social justice issue, a human rights issue, an economic issue, a political issue, and a gender issue that needs our attention now for the health and well-being of this and future generations. FIGO joins a broad coalition of international researchers and the medical community in stating that the current climate crisis presents an imminent health risk to pregnant people, developing fetuses, and reproductive health, and recognizing that we need society-wide solutions, government policies, and global cooperation to address and reduce contributors, including fossil fuel production, to climate change.

13. Beyond the Hazard Vulnerability Analysis: Preparing Health Systems for Climate Change.

Baugh J, Kemen K, Messervy J, Biddinger P. R I Med J (2013). 2021 Nov 1;104(9):55-59.

<http://rimed.org/rimedicaljournal/2021/11/2021-11-55-climate-baugh.pdf>

DISCUSSION: While the specific risks and vulnerabilities for each facility will differ according to its location and structural features, the approach we describe is broadly applicable. By forecasting specific risks, diagnosing vulnerabilities, developing potential solutions, and using a risk/benefit approach to decision making, hospitals can work toward protecting facilities and patients in the face of potential climate related natural disasters in an economically sound manner.

14. Trash Talk in the ED: Takeaways from Waste Audits at New England Hospitals.

Martin KD, McCormick W, Capacci J, Moretti K. R I Med J (2013). 2021 Nov 1;104(9):43-44.

<http://rimed.org/rimedicaljournal/2021/11/2021-11-43-climate-commentary-martin.pdf>

Only 15% of waste disposed in RMW containers at MGH met criteria for RMW. Eighty-five percent of material in RMW containers could have been transported to a landfill but, instead, was processed using the energy-intensive disposal methods reserved for RMW. Behavioral

characteristics are partly responsible for inappropriate use of the RMW containers. Improvements in ED staff knowledge regarding RMW criteria and ED design simplifying RMW bin location could lead to more appropriate disposal.

15. How can health promotion contribute to pulling humans back from the brink of disaster?

Baum F. *Glob Health Promot.* 2021 Oct 28:17579759211044074. doi: 10.1177/17579759211044074. Online ahead of print.

<https://journals.sagepub.com/doi/full/10.1177/17579759211044074>

Health promotion has evolved over the last decades from a primary focus on behaviour change to establishing an ambitious goal of creating healthy, fair and sustainable environments in a manner which realises the rights of all people to health and well-being while protecting the health of our planet and its ecosystems. This paper argues that in order to contribute to this ambitious goal, health promotion must address three key tasks. The first is the need to take planetary health more seriously and move away from reductionist thinking to an approach that sees the planet as a complex system and values more harmony with nature, protects biodiversity and prevents global warming. The second task is to advocate and support governments to govern for health. The key to doing this is putting health and equity before profit, creating healthy urban environments, encouraging participatory decision-making, advocating for healthy economic models and assessing the ways in which corporate determinants of health operate. The third task is to ensure that moves to professionalise health promotion do not come at the expense of health promotion advocacy to powerful people and organisations. Health promotion is well placed to support civil society movements arguing for social and economic change that will benefit health such as the Black Lives Matter and environment movements.

16. High value health care is low carbon health care. Barratt AL, Bell KJ, Charlesworth K, McGain F. *Med J Aust.* 2021 Oct 26. doi: 10.5694/mja2.51331. Online ahead of print.

We are in a health emergency precipitated by climate change.¹ As well as physical health threats, climate change and its effects are adversely affecting Australians' mental health,² and worsening the health inequities suffered by vulnerable populations. In response, the Australian health care community must both adapt to increased demand and to deteriorating environmental conditions, and mitigate the carbon footprint of health care, currently 7% of our national carbon emissions.³ Using economic data from 360 sectors, Malik and colleagues³ estimated carbon emissions by Australian Institute of Health and Welfare categories of health care expenditure, finding that the hospital and pharmaceutical sectors had the largest footprints, together accounting for 63% of health care emissions.

17. People-Planet-Health: promoting grassroots movements through participatory co-production.

Meier Magistretti C, Sallaway-Costello J, Fatima S, Hartnoll R. *Glob Health Promot.* 2021 Oct 25:17579759211044073. doi: 10.1177/17579759211044073. Online ahead of print.

<https://journals.sagepub.com/doi/full/10.1177/17579759211044073>

The threat of anthropogenic climate change demands immediate action to prevent further damage to human health and fragile natural ecosystems. This process of change might locally have already begun, led by grassroots organisations around the world. Conceiving their actions

as a form of salutogenesis, these organisations build a Sense of Coherence to empower communities to participate in the potentially overwhelming challenge of planetary health. People-Planet-Health aims at giving voice and visibility to those groups and their actions. Contributors will further be invited to co-create a position paper, to inform the revised WHO Global Strategy for Health Promotion.

- 18. Nursing students' attitudes towards climate change and sustainability: A cross-sectional multisite study.** Álvarez-Nieto C, Richardson J, Navarro-Perán MÁ, Tutticci N, Huss N, Elf M, Anåker A, Aronsson J, Baid H, López-Medina IM. *Nurse Educ Today*. 2021 Oct 23;108:105185. doi: 10.1016/j.nedt.2021.105185. Online ahead of print.
<https://www.sciencedirect.com/science/article/pii/S0260691721004421>
CONCLUSIONS: Nursing students have increasingly positive attitudes towards the inclusion of sustainability and climate change in their nursing curriculum. They also recognise the importance of education regarding sustainability and the impact of climate change on health, supporting formal preparation for environmental literacy. It is time to act on this positive trend in nursing students' attitudes by integrating these competencies into nursing curricula.
- 19. Co-benefits from sustainable dietary shifts for population and environmental health: an assessment from a large European cohort study.** Laine JE et al. *Lancet Planet Health*. 2021 Oct 21:S2542-5196(21)00250-3. doi: 10.1016/S2542-5196(21)00250-3. Online ahead of print.
[https://www.thelancet.com/journals/lanplh/article/PIIS2542-5196\(21\)00250-3/fulltext](https://www.thelancet.com/journals/lanplh/article/PIIS2542-5196(21)00250-3/fulltext)
INTERPRETATION: Our results indicate that shifts towards universally sustainable diets could lead to co-benefits, such as minimising diet-related greenhouse gas emissions and land use, reducing the environmental footprint, aiding in climate change mitigation, and improving population health.
- 20. The Emergence of Planetary Pediatrics.** Oberg C. *Children (Basel)*. 2021 Oct 19;8(10):939. doi: 10.3390/children8100939.
<https://www.mdpi.com/2227-9067/8/10/939>
Pediatrics has witnessed an evolution from primary care, family-centered care, community pediatrics, social pediatrics and global pediatrics, which has shifted our attention beyond the clinic setting to an appreciation of children in their lived environment. We are witnessing the emergence of planetary pediatrics that further broadens the focus of children's health to include the continued importance of clinical care, but also the impacts of climate change, environmental degradation, child migration, unrelenting war and conflict, social injustice, pandemics and violence against children. If we do not acknowledge the present and ever-increasing adverse planetary changes of what children are experiencing now and in the future, we will have failed to adequately protect them from impending catastrophes. The hope of pediatrics for the future is to improve the health and well-being of all children. This hope remains as relevant today as it was for our predecessors and serves as a beacon for the voyage through the remainder of the twenty-first century.
- 21. Meeting the Green Health Challenge.** Reynolds P. *IEEE Pulse*. 2021 Sep-Oct;12(5):15-18. doi: 10.1109/MPULS.2021.3115872.

Given the urgency of our climate change problem, a trip to the hospital can be more than just a bit disconcerting for what it reveals about waste. From disposable blood pressure cuffs and one-use plastic medical gowns to powerful air filtration systems that consume immense quantities of energy, waste seems rife. Hospitals might argue that many of these measures are necessary to tamp down hospital-acquired infections, and indeed the U.S. Occupational Safety and Health Administration (OSHA) has required that hospitals dial up their air purification systems to battle COVID-19.

22. **Climate change research and the search for solutions: rethinking interdisciplinarity.** Schipper ELF, Dubash NK, Mulugetta Y. *Clim Change*. 2021;168(3-4):18. doi: 10.1007/s10584-021-03237-3. Epub 2021 Oct 18.

<https://link.springer.com/article/10.1007/s10584-021-03237-3>

Growing political pressure to find solutions to climate change is leading to increasing calls for multiple disciplines, in particular those that are not traditionally part of climate change research, to contribute new knowledge systems that can offer deeper and broader insights to address the problem. Recognition of the complexity of climate change compels researchers to draw on interdisciplinary knowledge that marries natural sciences with social sciences and humanities. Yet most interdisciplinary approaches fail to adequately merge the framings of the disparate disciplines, resulting in reductionist messages that are largely devoid of context, and hence provide incomplete and misleading analysis for decision-making. For different knowledge systems to work better together toward climate solutions, we need to reframe the way questions are asked and research pursued, in order to inform action without slipping into reductionism. We suggest that interdisciplinarity needs to be rethought. This will require accepting a plurality of narratives, embracing multiple disciplinary perspectives, and shifting expectations of public messaging, and above all looking to integrate the appropriate disciplines that can help understand human systems in order to better mediate action.

[Lancet Planetary Health](#) – open-access, interdisciplinary journal focused on sustainability

News & Commentary

[The 2021 report of the Lancet Countdown on health and climate change: code red for a healthy future.](#)

Romanello M et al. *Lancet*. 2021 Oct 20:S0140-6736(21)01787-6. doi: 10.1016/S0140-6736(21)01787-6. Online ahead of print.

[Climate Change and Environmental Health Must Be Integrated Into Medical Education.](#) Pillai P, Patz JA, Seibert CS. *Acad Med*. 2021 Nov 1;96(11):1501-1502. doi: 10.1097/ACM.0000000000004238.

[The doctors getting arrested for climate change: a professional duty?](#) Wise J. *BMJ*. 2021 Oct 28;375:n2565. doi: 10.1136/bmj.n2565.

[Plastic pollution: why is it a public health problem?](#) Daltry A, Merone L, Tait P. *Aust N Z J Public Health*. 2021 Oct 28. doi: 10.1111/1753-6405.13149. Online ahead of print.

[Medics get on their bikes to fight air pollution.](#) Shepherd A. BMJ. 2021 Oct 26;375:n2601. doi: 10.1136/bmj.n2601.

[COP26 climate summit: A scientists' guide to a momentous meeting.](#) Tollefson J. Nature. 2021 Oct 25. doi: 10.1038/d41586-021-02815-w. Online ahead of print.

[How climate change will make the hottest tropical days even more extreme.](#) Nature. 2021 Oct 25. doi: 10.1038/d41586-021-02869-w. Online ahead of print.

[COP26: set a minimum global carbon price for emissions.](#) Carattini S. Nature. 2021 Oct;598(7882):566. doi: 10.1038/d41586-021-02881-0.

[Air quality: WHO guidelines could deepen inequities.](#) Lacey F, Kumar R, Pfister G, Lamarque JF, O'Lenick C, Brasseur G. Nature. 2021 Oct;598(7882):566. doi: 10.1038/d41586-021-02883-y.

[Climate change: Nature readers say their fears are growing.](#) Schiermeier Q. Nature. 2021 Oct;598(7882):551. doi: 10.1038/d41586-021-02862-3.

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