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PERSPECTIVES

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Climate Change Imperils Pediatric Health: Child Advocacy Through Fossil Fuel Divestment

Sandra H. Jee[a,*], Elizabeth Friedman[b], Ruth A. Etzel[c], Vi T. Nguyen[d], Todd L. Sack[e], and Kathi J. Kemper[f]

[a]Division of General Pediatrics and Center for Community Health, Department of Pediatrics, and Finger Lakes Children's Environmental Health Center, University of Rochester Medical Center, Rochester, NY, USA; [b]Children's Mercy, Kansas City, and University of Missouri – Kansas City School of Medicine, Kansas City, MO, USA; [c]Milken Institute School of Public Health, George Washington University, Washington, DC, USA; [d]Southern California Permanente Medical Group, San Diego, CA, USA; [e]My Green Doctor Foundation, Jacksonville Beach, FL, USA; [f]Pediatrics, College of Medicine, The Ohio State University, Columbus, OH, USA

Climate change poses an existential threat to children's health. Divestment of ownership stakes in fossil fuel companies is one tool available to pediatricians to address climate change. Pediatricians are trusted messengers regarding children's health and therefore bear a unique responsibility to advocate for climate and health policies that affect children. Among the impacts of climate change on pediatric patients are allergic rhinitis and asthma; heat-related illnesses; premature birth; injuries from severe storms and fires; vector-borne diseases; and mental illnesses. Children are disproportionately affected as well by climate-related displacement of populations, drought, water shortages, and famine. The human-generated burning of fossil fuels emits greenhouse gases (GHG) such as carbon dioxide, which trap heat in the atmosphere and cause global warming. The US healthcare industry is responsible for 8.5% of the nation's entire greenhouse gases and toxic air pollutants. In this perspectives piece we review the principle of divestment as a strategy for improving childhood health. Healthcare professionals can help combat climate change by embracing divestment in their personal investment portfolios and by their universities, healthcare systems, and professional organizations. We encourage this collaborative organizational effort to reduce greenhouse gas emissions.

*To whom all correspondence should be addressed: Sandra H. Jee, MD, MPH, University of Rochester, Rochester, NY; Email: Sandra_Jee@urmc.rochester.edu; ORCID: 0000-0003-4418-2312.

Abbreviations: GHG, greenhouse gas; CC, climate change; ESG, Environmental, Social and Governance investing; UC, University of California system; AMA, American Medical Association; AAP, American Academy of Pediatrics; APA, Academic Pediatric Association.

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INTRODUCTION

Climate change (CC) poses an existential threat to children's health. *The Lancet* has described CC as "the greatest global health threat facing the world in the 21st century," and also calls it "the greatest opportunity to redefine the social and environmental determinants of health" [1]. Increasingly, pediatricians are caring for patients with illnesses directly and indirectly related to climate and the environment [2], including allergies and asthma [3,4]; heat-related illnesses [5-7]; premature births; injuries from severe storms and wildfires; water-, tick-, and vector-borne diseases [8-10]; and mental health problems [11]. The threat to human lives is here and increasingly visible. For example, in 2021 and 2022, the Pacific Northwest was encased in heat domes in which temperatures soared to 30°F above normal. What was supposed to be a 1 in 10,000 year event happened in two sequential summers. In 2021, 800 people died in the Pacific Northeast from heat waves [12]. In 2022, another heat dome enveloped the Pacific Northwest for 5 days; 11 million people were placed under excessive heat warnings and 12 million under heat advisories. In Oregon, 96 people died, who were mostly home alone without air conditioning [13]. In 2023, what we now understand as climate whiplash, manifested as extreme rain events causing historic flooding in California and Nevada: 200,000 people lost electricity and there were 22 deaths, including a 5-year-old that was swept away in the floodwaters [14,15].

Health effects attributable to climate change disproportionately affect vulnerable populations such as children [16-20] and are magnified by underlying health disparities related to structural racism, immigration status, and intergenerational trauma [21]. The rate at which the most vulnerable are affected is going to continue to increase exponentially. With ever-increasing demand, the climate crisis poses formidable challenges for healthcare professionals and systems.

HEALTHCARE SYSTEM EMISSIONS

The US healthcare system is responsible for approximately 8.5% of national carbon emissions and 25% of global health sector emissions [22]. Globally, the healthcare industry produces 1-5% of world greenhouse gases (GHG) [23]. Hence, healthcare systems, which respond to care for the communities in which they serve, and are responding to managing ever-increasing climate-related illnesses, are among the greatest contributors to GHG emissions. Healthcare system emissions are typically divided into three scopes: scope 1 includes direct emissions from healthcare facilities, scope 2 includes emissions from direct purchases of energy, and scope 3 includes all other supply-chain emissions and investments. Scope 3 emissions compose >75% of healthcare system emissions, and of these, 28% are supported by financial investments.

While hospitals are responsible for the largest share of healthcare's air emissions (approximately one-third) [24,25], the bulk of medical care is provided in hundreds of thousands of medical offices and clinics around the world. Figure 1 shows GHG production in 2013 by the site of care or work [26]. The category "Outpatient Care" groups together the non-hospital services from medical doctors, dentists, home care, public health departments, and other professional services. Outpatient care is responsible for at least 26% of the industry's harmful air pollution and GHG. This means that more than 105,000 years of life are lost in the US alone from the air pollution created by outpatient medicine. Not included here are the non-lethal suffering of children with asthma attacks, people with cancers caused by toxicants in the air from burning fossil fuels, and adult victims of heart attacks and respiratory illness. No one to date has calculated the outpatient care's contributions to scope 3 emissions or the additional costs of the health impacts and the environmental degradation resulting from water pollution, plastics use, and solid wastes from the healthcare industry.

THE ARGUMENT IN FAVOR OF DIVESTMENT

Divestment of ownership stakes in fossil fuel companies is one tool available to pediatricians to address climate change. Divestment is the practice of withdrawing investments from unethical companies that harm the social good. Socially responsible investors believe that divestment will help to correct inequities in financial markets that threaten environmental health and equity as well as fair working conditions. Divestment campaigns targeting tobacco, weapons, and gambling helped to stigmatize these industries, particularly when implemented in combination with advocacy efforts that promote government action. In the early 1980s, divestment strategies were used to apply financial pressure on South Africa to abolish apartheid by raising public consciousness and publicizing social disapproval of stigmatized practices [27].

Divestment of fossil fuels can signal humanitarian values and shift societal norms to disapproval of companies that exploit destructive energy resources for corporate profits [28-33]. With wider public adoption of divestment policies, fewer individual and institutional investors will be comfortable with fossil fuels investments, and fewer individuals may want to work in stigmatized industries, thereby reducing revenues and increasing labor costs. Additionally, divesting communicates to pol-

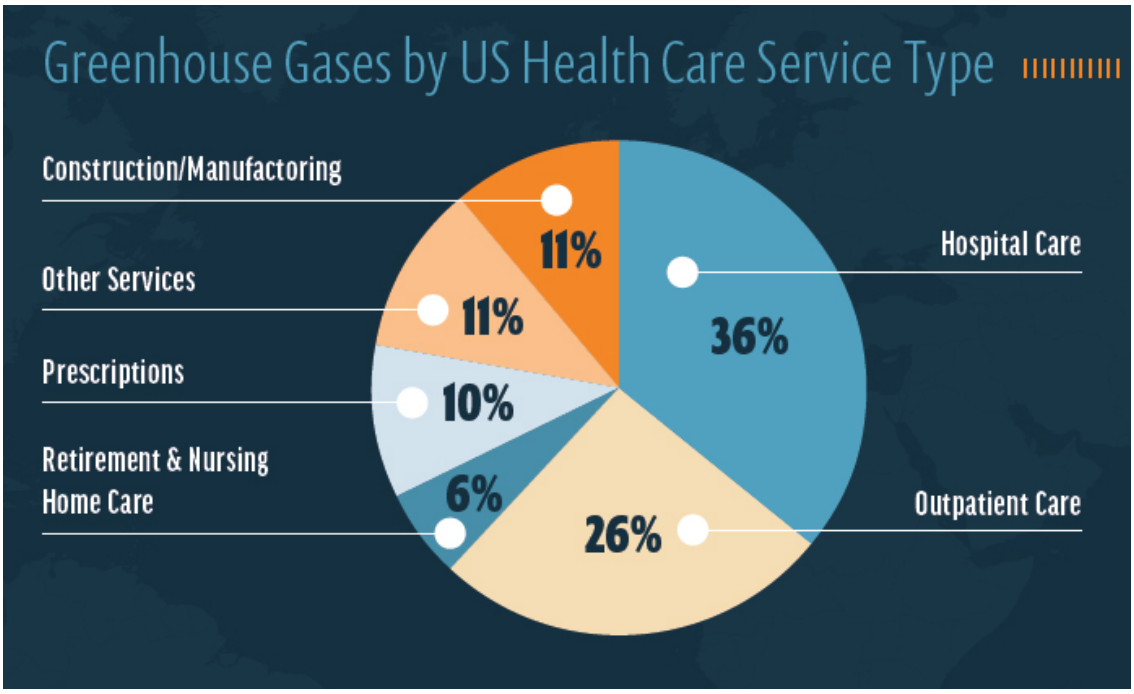

Figure 1. **Greenhouse gases by US healthcare service type**. (2013 data).

iticians that their constituents do not want to subsidize fossil fuel companies with tax dollars and signal to banks and insurance companies that these corporations are risky investments. Such changes can help to drive demand for improved energy practices and climate policies.

THE CHALLENGES AND BENEFITS OF DIVESTMENT

We understand that in some institutions and organizations, fossil fuel divestment will be difficult and sometimes seem daunting. Both professional organizations and health systems have complex structures that control finances. It may be challenging to determine who has influence and responsibility for directing where money is invested. Organizations have complicated structures and historical patterns of who manages retirement plans and who influences how these plans are selected; often it is a handful of individuals on committees or those who hold financial positions who make the decisions despite overwhelming support for divestment/climate safe investments from rank-and-file health care professionals. The word "divestment" and Environmental, Social and Governance (ESG) investing have also become increasingly partisan in the US. Historically, when divestment or climate safe investments have been raised by physician climate and health advocates, the response from organizational leadership has sometimes been founded in fear that climate-safe investment decisions conflict with fiduciary responsibilities. Fund managers and retirement committee members may perceive a threat that they can be sued for violating fiduciary roles, and some organizations and individuals have purchased insurance to cover for this remote possibility. However, the US Department of Labor has recently clarified that ESG investment guidelines are in line with fiduciary roles [34].

Despite the real and perceived challenges to divestment, there are precedents and success stories that can be positive examples. In May 2020, The University of California (UC) system became the largest public university in the country to divest from fossil fuels, and as the flagship system for California, became a bright example of how divestment can occur. With its own complex governance structure, it was a combined effort from multiple groups within the university system, including the UC Green New Deal, UC Academic Senate, and UC Board of Regents that accomplished this. In addition, prominent professors and student leaders represented a ground-swell of support from faculty and students that were displayed in multiple protests throughout the multiple UC campuses. In the end, the UC system was able to accomplish divestment and gained moral authority and greater leadership and security in their academic reputation as a leader in climate science and advocacy. Other prominent US academic institutions that have announced plans to divest include Brown, Columbia, Dartmouth, Georgetown, Harvard, Princeton, and dozens of others [35]. Additionally, faculty from diverse academic institutions are collabo-

rating to encourage the Teachers Insurance and Annuity Association (TIAA) to divest from fossil fuels [36].

MEDICAL PROFESSIONAL COMMITMENT TO DIVESTMENT

Fossil fuel divestment makes a strong social and political statement, especially when implemented by large groups of trusted leaders, and health professionals are among the most trusted professional groups. An increasing number of medical professional organizations in the US and globally are galvanizing clinicians across disciplines to collaborate in advocacy, policy, clinical care, and education about climate change. These include the Medical Society Consortium on Climate and Health, the Planetary Health Alliance, the Global Consortium on Climate and Health Education (GCCHE), Health Care Without Harm, MyGreenDoctor, Physicians for Social Responsibility, and state-wide organizations such as Virginia Clinicians for Climate Action, Ohio Clinicians for Climate Action, and many others. Medical professional organizations in the US and globally have announced their plans to divest from fossil fuels, including the American Medical Association (AMA), the Canadian Medical Association, the UK's Royal College of General Practitioners, the British Medical Association, and the Royal Australasian College of Physicians. The AMA House of Delegates voted unanimously in 2018 to divest from fossil fuels for its own investments, to help inform its members about divestment, and to choose only vendors that "minimize their fossil fuels consumption" (AMA policy H-135.921). The AMA in June 2022 recommended divestment by all health and life insurance companies.

We believe that pediatric institutions and professional associations, including children's hospitals, the American Academy of Pediatrics (AAP), and the Academic Pediatric Association (APA), should join this movement by committing to: divestment from fossil fuels for their investment holdings, investment in energy efficiency and renewable energy industries, and member education about divestment. We have reached out to leadership at both the AAP and the APA to request divestment at the medical professional society level and also as a way to signal support for the youth movement to address climate change. We have urged the APA and AAP leadership to divest, and they are considering how best to support organizational values of protecting children while maintaining investment returns to cover annual operating and programming expenses. Current leaders have expressed concern that eliminating specific industries, such as the coal, oil, and gas industries, might increase investment management costs and reduce institutional programming funds. A divestment strategy requires a clear-eyed examination of institutional values and priorities and an evidence-based approach, informed by changing risk/benefit analyses and with consideration of how other medical professional institutions, such as the AMA, have made the bold move to divest based on a broader perspective on how reliance on fossil fuels impacts human health and existence.

INSTITUTIONAL COMMITMENT TO DIVESTMENT

Worldwide, more than 200 philanthropies and 1,300 institutions have committed to divesting more than 14 trillion dollars [33]. There is a moral argument that it is institutions that "hold the lion's share of the investments in fossil fuel companies, and so it will make the most difference if they divest" [28].

Asset managers direct institutional capital toward diversified investments with the expectation that they will provide returns that will support future costs (eg, administrative costs, projected capital needs, retirement plans). Among these diversified investments, some may include fossil fuel companies based on their historically perceived and effectively marketed better than average returns. However, as pressures mount on governments to reduce corporate subsidies and risk/benefit ratios change with a growing number of lawsuits against fossil fuel companies, the perception of high returns of fossil fuel investments is likely to change. According to Forbes, "Investors and banks are increasingly questioning the long-term viability of the entire sector" [33].

Numerous student and grassroots coalitions have ardently pleaded for institutional divestment from the fossil fuel industry. For example, at Harvard University, Students for a Just and Stable Future (SJSF) demanded fossil fuel divestment by the Harvard Management Company [37]. Initially these demands were rejected in the interests of sound financial stewardship. Then, Harvard Forward, a grassroots alumni effort to vote pro-climate members onto the Harvard Governance Boards, contributed to the momentum for Harvard University to fully divest from fossil fuels by electing three pro-climate alumni onto the Board of Overseers [38]. Now Harvard's Board of Overseers has made a commitment to avoid future investment in exploring or developing fossil fuel reserves [38]. Likewise, Stanford University has committed to divesting $18 billion of direct investments in the coal industry. While the fossil fuel industry has financed studies to say that divestment would adversely affect institutional portfolios, Rockefeller Brothers Fund has divested and reported that this has not adversely affected their returns [39]. Other work has also supported the claim that divestment would not impair portfolio performance [40]. The argument is complex, because even as there are actions to divest from fossil fuel industries, banks and lending institutions con-

tinue to provide investments at record levels [41].

The investment decisions of institutions and professional organizations must fulfill their fiduciary responsibilities, which means that fund selection must be pecuniary and expected to gain investment returns. Socially conscious investment choices by themselves do not satisfy the legal fiduciary requirement of retirement committees and fund managers. A portfolio must be diversified across industries and economies. Proponents of divestment often state that in the long run it is fiduciarily *irresponsible* for managers not to divest as world economies move gradually away from fossil fuels. The energy industry has been one of the poorest performing sectors since 2008, except during 2022 when the invasion of Ukraine created instability in the energy sector, which has resulted in astronomic profits of fossil fuel companies [42].

INDIVIDUAL COMMITMENT TO DIVESTMENT

Pediatricians and other individuals who seek to address GHG from healthcare sector investments must be familiar with not only the health effects from GHGs, but also with how to influence GHG emissions from both personal and professional investments. Many of us have personal or retirement investments in the stock market. We are members of healthcare organizations and institutions that have retirement and investment committees. Some of us are administrators and managers who have influence over investment funds.

The notion of ethical investing is increasingly popular among those who support ESG investing and advocacy. (Equivalent investing, ie, ways to ensure financial gains equivalent to those previously provided by fossil fuel stocks, lies beyond the scope of this paper.) For some new exchange-traded funds, such as Engine No. 1 [43], the fund's adviser focuses not only on the concept of divestment, but also invests in industries that are most in need of decarbonization, such as agriculture, transportation, and energy. Fidelity, TIAA-CREF, Vanguard, and other companies that offer mutual fund investment strategies have developed several "sustainable" investment vehicles that avoid investing in fossil fuel companies. In addition, funds that avoid investing in companies that may harm children's health (alcohol, tobacco, firearms) have also become the choice of those who seek socially responsible investing. There has also been a sharp rise in the number of individual investors dumping fossil fuels stocks [44].

CONCLUSIONS AND OUTLOOK

Divestment is not as simple as making a moral statement in support of child health. It is linked to expectations for professional organizations and institutions to fulfill their fiduciary responsibility. This fiduciary responsibility must be informed by an honest assessment of the changing risk/benefit ratios of investments in fossil fuels, balanced with our moral responsibility to promote children's health. This can make real change that will impact the health of our patients and our planet. We must urge our institutions to divest from fossil fuels as a means of "investing in humanity" and as a message of hope for the next generation [45]. It is incumbent upon us to advocate for the future of our patients and upcoming generations. We have a moral imperative to act responsibly and intentionally, adopting a course of swift and unequivocal action that reflects our commitment to investing in a way that aligns with our duty to protect children [46,47]. By making a strong public statement to divest from fossil fuels, pediatricians can call attention to the climate crisis, proactively addressing it within our personal and professional spheres of influence.

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REFERENCES

1. Watts N, Amann M, Arnell N, Ayeb-Karlsson S, Belesova K, Boykoff M, et al. The 2019 report of The Lancet Countdown on health and climate change: ensuring that the health of a child born today is not defined by a changing climate. Lancet. 2019 Nov;394(10211):1836–78.
2. Nadeau K, Perera F, Salas RN, Solomon CG. Climate, Pollution, and Children's Health. N Engl J Med. 2022 Nov;387(18):e45.
3. Payne-Sturges DC, Marty MA, Perera F, Miller MD, Swanson M, Ellickson K, et al. Healthy Air, Healthy Brains: Advancing Air Pollution Policy to Protect Children's Health. Am J Public Health. 2019 Apr;109(4):550–4.
4. Brumberg HL, Karr CJ, Bole A, Ahdoot S, Balk SJ, Bernstein AS, et al.; American Academy of Pediatrics; Council on Environmental Health. Ambient air pollution: health hazards to children. Pediatrics. 2021 Jun;147(6):e2021051484.
5. Fisher JD, Shah AP, Norozian F. Clinical Spectrum of Pediatric Heat Illness and Heatstroke in a North American Desert Climate. Pediatr Emerg Care, 2022; 38(2): e891-e893. https://doi.org/10.1097/PEC.0000000000002438.
6. Kerr ZY, Casa DJ, Marshall SW, Comstock RD. Epidemiology of exertional heat illness among U.S. high school athletes. Am J Prev Med. 2013 Jan;44(1):8–14.
7. Wald A, Demorest S. Race to Beat the Heat: Climate Change Impacts Physical Activity. TJNP: The Journal for Nurse Practitioners, 2022;18(4):388-394.
8. Levy BS, Patz JA. Climate change, human rights, and social

justice. Ann Glob Health. 2015;81(3):310–22.
9. Cisse. Food-borne and water-borne diseases under climate change in low-and middle-income countries: further efforts needed for reducing environmental health exposure risks. Acta Trop. 2021;194:181–8.
10. Charette M, Berrang-Ford L, Coomes O, Llanos-Cuentas EA, Cárcamo C, Kulkarni M, et al. Dengue Incidence and Sociodemographic Conditions in Pucallpa, Peruvian Amazon: What Role for Modification of the Dengue-Temperature Relationship? Am J Trop Med Hyg. 2020 Jan;102(1):180–90.
11. Kjellstrom T, McMichael AJ. Climate change threats to population health and well-being: the imperative of protective solutions that will last. Glob Health Action. 2013 Apr;6(1):20816.
12. Mulkern AC. Deadly heat wave was a 1-in=10,0000 year event. Scientific American, E&E News. October 3, 2022. Accessed 04/17/23 at https://www.scientificamerican.com/article/deadly-heat-dome-was-a-1-in-10-000-year-event/]
13. Sanayoa M. Pacific Northwest heat wave was a freak, 10,000 year event, study finds. OPB. September 28, 2022. Accessed 04/17/23 at https://www.opb.org/article/2022/09/28/pacific-northwest-heat-wave-2021-oregon-summer-weather-heat-dome-climate-change/]
14. Gershunov A, Shulgina T, Clemesha RE, Guirguis K, Pierce DW, Dettinger MD, et al. Precipitation regime change in Western North America: the role of Atmospheric Rivers. Sci Rep. 2019 Jul;9(1):9944.
15. Olson E, Doubek J. Rescuers search for a 5-year-old swept away by floodwaters in California storms. NPR. January 10, 2023. Accessed 04/17/23 at https://www.npr.org/2023/01/10/1148094527/california-flood-boy-swept-away-montecito-evacuate
16. Paulson JA, Ahdoot S, Baum CR, Bole A, Brumberg HL, Campbell CC, et al.; Council on Environmental Health. Global Climate Change and Children's Health. Pediatrics. 2015 Nov;136(5):992–7.
17. Helldén D, Andersson C, Nilsson M, Ebi KL, Friberg P, Alfvén T. Climate change and child health: a scoping review and an expanded conceptual framework. Lancet Planet Health. 2021 Mar;5(3):e164–75.
18. Arpin E, Gauffin K, Kerr M, Hjern A, Mashford-Pringle A, Barros A, et al. Climate Change and Child Health Inequality: A Review of Reviews. Int J Environ Res Public Health. 2021; 18(20) [Internet]. 2021 Oct 1 [cited 2023 Jan 28];18(20). https://doi.org/10.3390/ijerph182010896.
19. Xu Z, Etzel RA, Su H, Huang C, Guo Y, Tong S. Impact of ambient temperature on children's health: a systematic review. Environ Res. 2012 Aug;117:120–31.
20. Mathiarasan S, Hüls A. Impact of environmental injustice on children's health-interaction between air pollution and socioeconomic status. Int J Environ Res Public Health. 2021 Jan;18(2):19.
21. Gutschow B, Gray B, Ragavan MI, Sheffield PE, Philipsborn RP, Jee SH. The intersection of pediatrics, climate change, and structural racism: ensuring health equity through climate justice. Curr Probl Pediatr Adolesc Health Care. 2021 Jun;51(6):101028.
22. Dzau VJ, Levine R, Barrett G, Witty A. 2117 Decarbonizing the U.S. Health Sector. N Engl J Med. 2021;385:2117–2119.
23. Lenzen M, Malik A, Li M, Fry J, Weisz H, Pichler PP, et al. The environmental footprint of health care: a global assessment. Lancet Planet Health. 2020 Jul;4(7):e271–9.
24. Eckelman MJ, Sherman J. Environmental impacts of the U.S. healthcare system and effects on public health. PLoS One. 2016;11(6). e e0157014. https://doi.org/10.1371/journal.pone.0157014.
25. Eckelman MJ, Huang K, Lagasse R, Senay E, Dubrow R, Sherman JD. Health Care Pollution And Public Health Damage In The United States: an Update. Health Aff (Millwood). 2020 Dec;39(12):2071–9.
26. Sack TL. "Green" Offices are Healthier: New Analysis. My Green Doctor.org. Accessed 4/17/23. Available from: https://mygreendoctor.org/green-offices-are-healthier-new-analysis/
27. Bratman E, Brunette K, Shelly DC, Nicholson S. Justice is the goal: divestment as climate change resistance. J Environ Stud Sci. 2016;6(4):677–90.
28. Moss J. Morality of divestment. Law Policy. 2017;39(4):412–20.
29. Hong Teoh S, Welch I, Wazzan CP. The effect of socially activist investment policies on financial markets. Evidence from the South African boycott. J Bus. 1999;72(1):35–89.
30. Bratman E, Brunette K, Shelly DC, Nicholson S. Justice is the goal: divestment as climate change resistance. J Environ Stud Sci. 2016;6(4):677–90.
31. MacAskill W. Does divestment work? The New Yorker. 2015.
32. Haigh M, Hazelton J. Financial markets: a tool for social responsibility? J Bus Ethics. 2004;52(1):59–71.
33. The Case For Fossil Fuel Divestment [Internet]. Forbes.com. [cited 2023 Jan 28]. Available from: https://www.forbes.com/sites/davidcarlin/2021/02/20/the-case-for-fossil-fuel-divestment/?sh=753206a676d2
34. US Department of Labor. US Department of Labor announces final rule to remove barriers to considering environmental, social, governance factors in plan investments. Nov 22, 2022. Accessed 05/09/2023. Available from: https://www.dol.gov/newsroom/releases/ebsa/ebsa20221122.
35. Castillo E. Why do universities divest from fossil fuels? Best Colleges.org. Accessed 04/17/2023, from https://www.bestcolleges.com/news/why-do-universities-divest-from-fossil-fuels/
36. Campus resolutions calling on TIAA to divest from climate destruction. Tiaa-divest.org. Accessed 04/17/2023 from Tiaa-divest.org
37. Burstein EM, Kurilla MG. Harvard Forward, Fresh Off of Board of Overseers Wins, Sets Sights on 2021 with new Slate of Candidates. The Crimson. 2020.
38. Hartecollis A. Harvard says it will not invest in fossil fuels. New York Times. 2021.
39. Bill M. The powerful new financial argument for fossil-fuel divestment. The New Yorker. 2021.
40. Trinks A, Scholtens B, Mulder M, Dam L. Fossil Fuel Divestment and Portfolio Performance. Ecol Econ. 2018;146:740–8.
41. Gillespie T. Banks keep funneling billions into polluting energy projects. Bloomberg, 2020.

42. Ferris R. Oil companies hit with backlash after bringing in $200 billion in profits last year. CNBC. Accessed 04/17/202. Available from: https://www.cnbc.com/2023/03/03/oil-companies-bring-in-200-billion-in-profits-in-2022.html
43. Engine No. 1. Available from: https://engine1.com/. Accessed 05/09/2023.
44. Nauman B. Sharp rise in number of investors dumping fossil fuel stocks. Financial Times. Accessed 04/17/2023 from https://www.hartenergy.com/exclusives/sharp-rise-number-investors-dumping-fossil-fuel-stocks-182622
45. Abbasi K, Godlee F. Investing in humanity: the BMJ's divestment campaign. BMJ. 2020 Jan;368:m167.
46. Philipsborn RP, Chan K. Climate change and global child health. Pediatrics. 2018 Jun;141(6):e20173774.
47. Seal A, Vasudevan C. Climate change and child health. Arch Dis Child. 2011 Dec;96(12):1162–6.