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## New Research

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### COVID-19

1. **Misinformation in and about science.** West JD, Bergstrom CT. Proc Natl Acad Sci U S A. 2021 Apr 13;118(15):e1912444117. doi: 10.1073/pnas.1912444117.
   https://www.pnas.org/content/118/15/e1912444117
   Humans learn about the world by collectively acquiring information, filtering it, and sharing what we know. Misinformation undermines this process. The repercussions are extensive. Without reliable and accurate sources of information, we cannot hope to halt climate change, make reasoned democratic decisions, or control a global pandemic. Most analyses of misinformation focus on popular and social media, but the scientific enterprise faces a parallel set of problems-from hype and hyperbole to publication bias and citation misdirection, predatory publishing, and filter bubbles. In this perspective, we highlight these parallels and discuss future research directions and interventions.

2. **Telepsychiatry: a Potential Force Against Climate Change.** Penaskovic KM, Goldenberg MN, Gerkin JS. Acad Psychiatry. 2021 Apr 8:1-2. doi: 10.1007/s40596-021-01452-9. Online ahead of print.
   https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8032316/
   The Covid-19 pandemic has spurred a rapid shift to the use of more telepsychiatry behavioral health services by psychiatrists and other mental health practitioners. Individual, group, and academic settings expedited the delivery of telepsychiatry services in an effort to provide care safely while “flattening the curve.” While the pandemic is likely to subside in the coming months and years, the transformation of psychiatric care delivery by adoption of widespread telepsychiatry may turn out to be long-term and substantive. A recent Academic Psychiatry editorial initiated a call to action to develop initiatives to reduce the carbon footprint of psychiatric interventions [1]. One of the potential positive outcomes of this shift toward telepsychiatry—and perhaps a reason to advocate for its wider use—is an opportunity to positively impact climate change.

3. **Comparative life cycle assessment of emergency disposal scenarios for medical waste during the COVID-19 pandemic in China.** Zhao H, Liu H, Wei G, Wang H, Zhu Y, Zhang R, Yang Y. Waste Manag. 2021 Mar 26;126:388-399. doi: 10.1016/j.wasman.2021.03.034. Online ahead of print. https://www.sciencedirect.com/science/article/pii/S0956053X21001768
   The COVID-19 pandemic attracts concerns globally and leads to an exponential increase in medical waste generation, and disposal of medical waste is an urgent need for preventing the epidemic spread. Emergency disposal scenarios of medical waste generated during the COVID-19 pandemic require a systematic assessment to quantify their potential environmental impacts. The environmental impacts and key factors of three movable disposal scenarios (i.e. incineration disposal vehicle, movable steam and microwave sterilization equipment both followed by co-incineration with municipal solid waste) were quantified via life cycle assessment approach. Furthermore, the environmental impacts of three movable disposal and two co-incineration scenarios were compared via life cycle assessment by expanding system boundaries. The results show that co-incineration with municipal solid waste has the lowest environmental impacts due to environmental benefits produced by power generation, while co-incineration with hazardous waste is the highest due to the high energy consumption. Energy consumption (i.e. kerosene, electricity and diesel) are the key factors for three movable disposal scenarios. For movable steam and microwave sterilization equipment followed by co-incineration with municipal solid waste, power generation from incinerating disinfected medical waste has significant beneficial environmental impacts due to avoided impacts of electricity consumption. The recommendations for improvement of the emergency disposal and management of medical waste during the COVID-19 pandemic globally and other serious epidemic in the future are provided.

4. **UK food and nutrition security during and after the COVID-19 pandemic.** Rivington M, King R, Duckett D, Iannetta P, Benton TG, Burgess PJ, Hawes C, Wellesley L, Polhill JG, Aitkenhead M, Lozada-Ellison LM, Begg G, Williams AG, Newton A, Lorenzo-Arribas A, Neilson R, Watts C, Harris J, Loades K, Stewart D, Wardell-Johnson D, Gandossi G, Udugbezi E, Hannam JA, Keay C. Nutr Bull. 2021 Mar;46(1):88-97. doi: 10.1111/nbu.12485. Epub 2021 Feb 19. https://onlinelibrary.wiley.com/doi/full/10.1111/nbu.12485
   The COVID-19 pandemic is a major shock to society in terms of health and economy that is affecting both UK and global food and nutrition security. It is adding to the 'perfect storm' of threats to society from climate change, biodiversity loss and ecosystem degradation, at a time of considerable change, rising nationalism and breakdown in international collaboration. In the UK, the situation is further complicated due to Brexit. The UK COVID-19 F ood and N utrition S ecurity project, lasting one year, is funded by the Economic and Social Research Council and is assessing the ongoing impact of COVID-19 on the four pillars of food and nutrition security: access, availability, utilisation and stability. It examines the food system, how it is responding, and potential knock on effects on the UK's food and nutrition security, both in terms of the cascading risks from the pandemic and other threats. The study provides an opportunity to place the initial lessons being learnt from the on-going responses to the pandemic in respect of food and nutrition security in the context of other long-term challenges such as climate change and biodiversity loss.

5. **New climate change activism: before and after the Covid-19 pandemic.** Von Storch L, Ley L, Sun J. Soc Anthropol. 2021 Feb;29(1):205-209. doi: 10.1111/1469-8676.13005. Epub 2021 Feb 18.
   https://onlinelibrary.wiley.com/doi/full/10.1111/1469-8676.13005
   The global climatic and ecological crisis becomes more apparent with every passing year. Shocking images of the burning Congo Basin, of bushfires devastating aboriginal land in Australia, of thawing permafrost in Siberia and mass coral bleaching have gone viral. Countless studies from independent scientists have linked these events to climate change and revealed their serious effects on human wellbeing (Oreskes 2004; Watts et al. 2018). These catastrophes killed tens of thousands of people and destroyed the livelihoods of millions. Yet, so far, linking them to climate change has not generated meaningful political action (Swyngedouw 2011; Hornborg 2017) to decrease consumption (Wilk 2009), stop fossil fuel extraction, reduce pollution or halt ecological destruction. Faced with this inaction, a new type of climate activism recently emerged in Europe. Since the first student strikes dating back to August 2018, millions of mainly young people have participated in climate protests, with the Global Climate Strike in September 2019 counting a staggering number of 7.6 million participants. Spurred by public celebrities, such as Swedish Greta Thunberg, various 'for future' movements organised peaceful mass protests and civil disobedient actions in the streets of cities all over the world, which have been regularly covered in media and noticed by politicians of all stripes. This new climate justice movement has accomplished exceptional things in a very short time: it created lasting international protest networks, managed to rally supporters through social media and public performances and, arguably, helped to raise the level of awareness of the climate crisis among youth and other generations.

6. **What medical waste management system may cope With COVID-19 pandemic: Lessons from Wuhan.** Chen C, Chen J, Fang R, Ye F, Yang Z, Wang Z, Shi F, Tan W. Resour Conserv Recycl. 2021 Jul;170:105600. doi: 10.1016/j.resconrec.2021.105600. Epub 2021 Mar 31.
   https://www.sciencedirect.com/science/article/pii/S0921344921002093
   The global pandemic caused by the 2019 coronavirus (COVID-19) has led to a dramatic increase in medical waste worldwide. This tremendous increase in medical waste is an important transmission medium for the virus and thus poses new and serious challenges to urban medical waste management. This study investigates the response of medical waste management to the COVID-19 pandemic and subsequent changes in Wuhan City based on the most detailed data available, including waste generation, storage, transportation, and disposal. The results show that despite a 5-fold increase in the demand for daily medical waste disposal in the peak period, the quick responses in the storage, transportation, and disposal sectors during the pandemic ensured that all medical waste was disposed of within 24 hours of generation. Furthermore, this paper discusses medical waste management during future emergencies in Wuhan. The ability of the medical waste management system in Wuhan to successfully cope with the rapid increase in medical waste caused by major public health emergencies has important implications for other cities suffering from the pandemic and demonstrates the need to establish resilient medical emergency systems in urban areas.

7. **Life cycle assessment of single-use surgical and embedded filtration layer (EFL) reusable face mask.** Lee AWL, Neo ERK, Khoo ZY, Yeo Z, Tan YS, Chng S, Yan W, Lok BK, Low JSC. Resour Conserv Recycl. 2021 Jul;170:105580. doi: 10.1016/j.resconrec.2021.105580. Epub 2021 Mar 31.
https://www.sciencedirect.com/science/article/pii/S0921344921001877
BACKGROUND: The outbreak of the COVID-19 pandemic has led to an unprecedented amount of face mask consumption around the world. The increase in face mask consumption has brought focus to their environmental impact. To keep up with the increased demand for face masks, different variations of reusable face masks such as the embedded filtration layer (EFL) reusable face mask have emerged in the market. This study quantifies the environmental impact of the EFL reusable face mask and the single-use surgical face mask.
METHODS: The life cycle assessment (LCA) study of the entire value chain from cradle-to-grave is applied to each face mask. Both face masks are evaluated over 1 functional unit (FU) of 31 12-h days for a single person. The ReCiPe method with the Hierachist perspective was applied. A total of nine impact categories as well as the generated waste of each face mask are evaluated.
RESULTS: The results show that for 1 functional unit, the use of single-use surgical face mask and EFL reusable face mask will contribute 0.580 kg CO2-eq and 0.338 kg CO2-eq to climate change and generate 0.004 kg and 0.0004 kg of waste respectively.
CONCLUSION: Comparing both face masks, the EFL reusable face mask will have a lower emission of at least 30% in terms of the generated waste and the impact categories considered, except for water depletion, freshwater eutrophication, marine eutrophication, and human toxicity.

## Health Impacts of Climate Change

8. **Potential Impact of Climate Change on Human Trafficking: A Narrative Review.** Sheu JC, Torres MIM, Gordon MR, Nguyen PT, Coverdale JH. J Nerv Ment Dis. 2021 May 1;209(5):324-329. doi: 10.1097/NMD.0000000000001312.
Climate change is a threat to the public health with wide-reaching impacts that are becoming more studied and recognized. An aspect of climate change that has not yet gained adequate scholarly attention is its potential impact on human trafficking. We review the potential impact of climate change on risk factors to human trafficking including poverty, gender inequality, political instability, migration or forced displacement, and weather disasters. We conclude that climate change is a crucially important consideration in understanding the complex and multifactorial risks for human trafficking. These findings add to the priority for health professionals to embrace efforts to prevent and to mitigate the effects of climate change and to take account of these risk factors in screening and identifying trafficked persons.

9. **Soaring seas, forest fires and deadly drought: climate change conspiracies and mental health.** Jack A, Panchal R. BJPsych Bull. 2021 Apr 7:1-6. doi: 10.1192/bjb.2021.7. Online ahead of print.
https://www.cambridge.org/core/journals/bjpsych-bulletin/article/soaring-seas-forest-fires-and-deadly-drought-climate-change-conspiracies-and-mental-health/24806B9CDAF6EE18C6C4F30DDE320B1D

There is scientific consensus that anthropogenic climate change is real and that it provides an existential threat to humanity and the planet. In this article, we focus on climate change conspiracy theories and the impact of such beliefs on mental health. We discuss the psychiatric disorders that might be relevant to conspiracy belief endorsement and we present the underlying psychological mechanisms. We note that there is little to no literature to associate beliefs about climate change with serious mental health conditions. However, we anticipate that such beliefs may manifest pathologically in psychiatric presentations as climate change becomes increasingly at the forefront of the global agenda.

10. **Extreme temperature and out-of-hospital-cardiac-arrest. Nationwide study in a hot climate country.** Kranc H, Novack V, Shtein A, Sherman R, Novack L. Environ Health. 2021 Apr 5;20(1):38. doi: 10.1186/s12940-021-00722-1.
https://ehjournal.biomedcentral.com/articles/10.1186/s12940-021-00722-1
BACKGROUND: Out-of-hospital-cardiac arrest (OHCA) is frequently linked to environmental exposures. Climate change and global warming phenomenon have been found related to cardiovascular morbidity, however there is no agreement on their impact on OHCA occurrence. In this nationwide analysis, we aimed to assess the incidence of the OHCA events attended by emergency medical services (EMS), in relation to meteorological conditions: temperature, humidity, heat index and solar radiation.
METHODS: We analyzed all adult cases of OHCA in Israel attended by EMS during 2016-2017. In the case-crossover design, we compared ambient exposure within 72 h prior to the OHCA event with exposure prior to the four control times using conditional logistic regression in a lag-distributed non-linear model.
RESULTS: There were 12,401 OHCA cases (68.3% were pronounced dead-on-scene). The patients were on average 75.5 ± 16.2 years old and 55.8% of them were males. Exposure to 90th and 10th percentile of temperature adjusted to humidity were positively associated with the OHCA with borderline significance (Odds Ratio (OR) =1.20, 95%CI 0.97; 1.49 and OR 1.16, 95%CI 0.95; 1.41, respectively). Relative humidity below the 10th percentile was a risk factor for OHCA, independent of temperature, with borderline significance (OR = 1.16, 95%CI 0.96; 1.38). Analysis stratified by seasons revealed an adverse effect of exposure to 90th percentile of temperature when estimated in summer (OR = 3.34, 95%CI 1.90; 3.5.86) and exposure to temperatures below 10th percentile in winter (OR = 1.75, 95%CI 1.23; 2.49). Low temperatures during a warm season and high temperatures during a cold season had a protective effect on OHCA. The heat index followed a similar pattern, where an adverse effect was demonstrated for extreme levels of exposure.
CONCLUSIONS: Evolving climate conditions characterized by excessive heat and low humidity represent risk factors for OHCA. As these conditions are easily avoided, by air conditioning and behavioral restrictions, necessary prevention measures are warranted.

11. **Rift Valley Fever - a Growing Threat To Humans and Animals.** Kwaśnik M, Rożek W, Rola J. J Vet Res. 2021 Jan 26;65(1):7-14. doi: 10.2478/jvetres-2021-0009. eCollection 2021 Mar.
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8009587/
Rift Valley fever (RVF) is a zoonotic, vector-borne infectious disease of ruminants and camels transmitted mainly by the Aedes and Culex mosquito species. Contact with the blood or organs

of infected animals may infect humans. Its etiological factor is the Rift Valley fever virus (RVFV) of the Phlebovirus genus and Bunyaviridae family. Sheep and goats are most susceptible to infection and newborns and young individuals endure the most severe disease course. High abortion rates and infant mortality are typical for RVF; its clinical signs are high fever, lymphadenitis, nasal and ocular secretions and vomiting. Conventional diagnosis is done by the detection of specific IgM or IgG antibodies and RVFV nucleic acids and by virus isolation. Inactivated and live-attenuated vaccines obtained from virulent RVFV isolates are available for livestock. RVF is endemic in sub-Saharan Africa and the Arabian Peninsula, but in the last two decades, it was also reported in other African regions. Seropositive animals were detected in Turkey, Tunisia and Libya. The wide distribution of competent vectors in non-endemic areas coupled with global climate change threaten to spread RVF transboundarily. The EFSA considers the movement of infected animals and vectors to be other plausible pathways of RVF introduction into Europe. A very low risk both of introduction of the virus through an infected animal or vector and of establishment of the virus, and a moderate risk of its transmission through these means was estimated for Poland. The risk of these specific modes of disease introduction into Europe is rated as very low, but surveillance and response capabilities and cooperation with the proximal endemic regions are recommended.

12. **Effect of seasonality in hospitalizations and deaths from acute myocardial infarction in southern Brazil from 2009 to 2018.** da Silva GAP, Kock KS. Am J Cardiovasc Dis. 2021 Feb 15;11(1):148-154. eCollection 2021.
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8012281/
INTRODUCTION: Acute myocardial infarction (AMI) is one of the main causes of morbidity and mortality in Brazil and worldwide. Seasonality and climate change seem to be associated with hospitalization for AMI.
OBJECTIVE: to analyze the effect that seasonality and temperature have on the number of hospitalizations and deaths due to AMI, stratified by gender and age group, from 2009 to 2018 in a region of southern Brazil.
METHODS: An Ecological study, composed of cases of hospitalizations and deaths by AMI in the Association of Municipalities of the Laguna Region (AMUREL), SC, Brazil. Data on AMI were collected by the Department of Informatics of the Unified Health System (DATASUS) and data on average monthly temperature (degrees Celsius) of the Laguna region (SC, Brazil) were provided by the National Institute of Meteorology (INMET). The data analysis was performed through linear regression and ANOVA test with Tukey post-hoc.
RESULTS: 2947 hospitalizations were analyzed. The monthly average hospitalization per AMI was 24.6±8.1 cases (7.0±2.2/100,000 inhabitants) with a lethality of 14.4±6.8%. The results showed that there is no difference in AMI hospitalization between the months of the year, but showed a significant negative correlation between temperature and AMI hospitalizations ($r=-0.219$; $P=0.022$; $\beta=-0.165$). It was also shown that men and elderly had more cases of AMI hospitalization, but women and elderly had more lethality. When the lethality rate was analyzed during the study period, there was a significant negative correlation, indicating the reduction of AMI deaths with time.
CONCLUSION: There was an association between temperature reduction and AMI hospitalization, where each 6°C reduction in temperature was related to an increase of 1

hospitalization per AMI/100,000 inhabitants. It is hoped that the results may assist in the formulation of public environmental policies for the prevention of risk factors for AMI.

**WE ACT**

13. **Views of health professionals on climate change and health: a multinational survey study.** Kotcher J, Maibach E, Miller J, Campbell E, Alqodmani L, Maiero M, Wyns A. Lancet Planet Health. 2021 Apr 7:S2542-5196(21)00053-X. doi: 10.1016/S2542-5196(21)00053-X. Online ahead of print.
https://www.thelancet.com/journals/lanplh/article/PIIS2542-5196(21)00053-X/fulltext
Climate change arguably represents one of the greatest global health threats of our time. Health professionals can advocate for global efforts to reduce emissions and protect people from climate change; however, evidence of their willingness to do so remains scarce. In this Viewpoint, we report findings from a large, multinational survey of health professionals (n=4654) that examined their views of climate change as a human health issue. Consistent with previous research, participants in this survey largely understood that climate change is happening and is caused by humans, viewed climate change as an important and growing cause of health harm in their country, and felt a responsibility to educate the public and policymakers about the problem. Despite their high levels of commitment to engaging in education and advocacy on the issue, many survey participants indicated that a range of personal, professional, and societal barriers impede them from doing so, with time constraints being the most widely reported barrier. However, participants say various resources-continuing professional education, communication training, patient education materials, policy statements, action alerts, and guidance on how to make health-care workplaces sustainable-can help to address those barriers. We offer recommendations on how to strengthen and support health professional education and advocacy activities to address the human health challenges of climate change.

14. **Climate impacts of anaesthesia.** Slingo ME, Slingo JM. Br J Anaesth. 2021 Apr 6:S0007-0912(21)00160-4. doi: 10.1016/j.bja.2021.03.004. Online ahead of print.
We wish to place the discussion of volatile anaesthetic agents within the science of climate change, and argue that a move away from the use of these agents cannot be justified based solely on their global warming potential (GWP).

15. **Global Health Education in Pathology Residency.** Volaric AK, Zadeh SL, Dusenbery AC, Coppock JD, Dibbern ME, Jenkins TM, González JO, Rodríguez D, Burt DR, Frierson HF, Rodas B. Am J Clin Pathol. 2021 Apr 9:aqaa262. doi: 10.1093/ajcp/aqaa262. Online ahead of print.
OBJECTIVES: Pathology and laboratory medicine (PALM) services in low- and middle-income countries are essential to combat the increasing prevalence of cancer in addition to providing documentation of cancer types and trends for future allocation of public health resources. There are many ways PALM as a whole can engage on the global health front. This study summarizes the efforts and results of a global health educational and clinical elective for pathology residents in Quetzaltenango, Guatemala.

METHODS: Pathology residents led and implemented the project, working alongside an in-country pathologist and project collaborator to instill project sustainability and allow for future capacity building.
RESULTS: An educational elective was established between the pathology departments of the University of Virginia and Hospital Regional de Occidente in Quetzaltenango, Guatemala. Two residents at a time engaged in a month-long educational elective assisting and learning from the in-country pathologist in anatomic pathology clinical work.
CONCLUSIONS: The project is an example of a global health initiative centering on the enhancement of PALM services in a low-resource environment via a bidirectional, sustainable educational exchange.

16. **Explaining how long $CO_2$ stays in the atmosphere: Does it change attitudes toward climate change?** Joslyn S, Demnitz R. J Exp Psychol Appl. 2021 Apr 8. doi: 10.1037/xap0000347. Online ahead of print.
Despite overwhelming scientific consensus about climate change, the majority of Americans are not very worried about it. This may be due in part to insufficient understanding of the urgency and seriousness, which may be related among some, to distrust of the scientific community. We test these hypotheses in an experimental study using a broadly nationally representative sample. An explanation of the delay between the reduction of greenhouse gas emissions and cessation of global warming was compared to two control groups, one with basic climate change information and another with no information. Participants also received climate predictions that either included or excluded uncertainty estimates for a 3 × 2 complete factorial design. Results suggest that the delay explanation increased participants understanding of this issue and reduced their agreement with a wait-and-see strategy, especially among conservatives. Moreover, uncertainty estimates increased trust in climate predictions and ratings of climate scientists' expertise and understanding. Uncertainty estimates also increased concern about climate change and the perception of scientific consensus. Although in some cases small, these positive effects were seen across political ideology groups. (PsycInfo Database Record (c) 2021 APA, all rights reserved).

17. **Life Cycle Greenhouse Gas Emissions of Gastrointestinal Biopsies in a Surgical Pathology Laboratory.** Gordon IO, Sherman JD, Leapman M, Overcash M, Thiel CL. Am J Clin Pathol. 2021 Apr 5:aqab021. doi: 10.1093/ajcp/aqab021. Online ahead of print.
https://academic.oup.com/ajcp/advance-article/doi/10.1093/ajcp/aqab021/6210450
OBJECTIVES: Given adverse health effects of climate change and contributions of the US health care sector to greenhouse gas (GHG) emissions, environmentally sustainable delivery of care is needed. We applied life cycle assessment to quantify GHGs associated with processing a gastrointestinal biopsy in order to identify emissions hotspots and guide mitigation strategies.
METHODS: The biopsy process at a large academic pathology laboratory was grouped into steps. Each supply and reagent was catalogued and postuse treatment noted. Energy consumption was estimated for capital equipment. Two common scenarios were considered: 1 case with 1 specimen jar (scenario 1) and 1 case with 3 specimen jars (scenario 2).
RESULTS: Scenario 1 generated 0.29 kg of carbon dioxide equivalents (kg CO2e), whereas scenario 2 resulted in 0.79 kg CO2e-equivalent to 0.7 and 2.0 miles driven, respectively. The

largest proportion of GHGs (36%) in either scenario came from the tissue processor step. The second largest contributor (19%) was case accessioning, mostly attributable to production of single-use disposable jars.
CONCLUSIONS: Applied to more than 20 million biopsies performed in the US annually, emissions from biopsy processing is equivalent to yearly GHG emissions from 1,200 passenger cars. Mitigation strategies may include modification of surveillance guidelines to include the number of specimen jars.

18. **Can positive and self-transcendent emotions promote pro-environmental behavior?** Zelenski JM, Desrochers JE. Curr Opin Psychol. 2021 Mar 4;42:31-35. doi: 10.1016/j.copsyc.2021.02.009. Online ahead of print.
https://www.sciencedirect.com/science/article/pii/S2352250X21000269
Many scholars have suggested that people could improve their well-being by developing closer connections with nature and that this would also promote the sustainable behaviors needed to address climate change. Research generally corroborates this idea, but few studies have examined the more specific hypothesis that positive emotions (caused by nature or otherwise) can directly influence pro-environmental behaviors. In particular, self-transcendent emotions such as awe, compassion, and gratitude can be prompted by nature, and they seem to foster prosocial behaviors. Most pro-environmental behaviors are also prosocial; they require cooperation and they benefit others. Some recent studies suggest that self-transcendent emotions can cause pro-environmental behavior, although results are mixed overall. We identify strategies for future research to resolve these inconclusive suggestions.

19. **Applying a One Health Approach in Global Health and Medicine: Enhancing Involvement of Medical Schools and Global Health Centers.** Machalaba C, Raufman J, Anyamba A, Berrian AM, Berthe FCJ, Gray GC, Jonas O, Karesh WB, Larsen MH, Laxminarayan R, Madoff LC, Martin K, Mazet JAK, Mumford E, Parker T, Pintea L, Rostal MK, de Castañeda RR, Vora NM, Wannous C, Weiss LM. Ann Glob Health. 2021 Mar 26;87(1):30. doi: 10.5334/aogh.2647.
https://annalsofglobalhealth.org/articles/10.5334/aogh.2647/
BACKGROUND: Multidisciplinary and multisectoral approaches such as One Health and related concepts (e.g., Planetary Health, EcoHealth) offer opportunities for synergistic expertise to address complex health threats. The connections between humans, animals, and the environment necessitate collaboration among sectors to comprehensively understand and reduce risks and consequences on health and wellbeing. One Health approaches are increasingly emphasized for national and international plans and strategies related to zoonotic diseases, food safety, antimicrobial resistance, and climate change, but to date, the possible applications in clinical practice and benefits impacting human health are largely missing.
METHODS: In 2018 the "Application of the One Health Approach to Global Health Centers" conference held at the Albert Einstein College of Medicine convened experts involved in One Health policy and practice. The conference examined issues relevant to One Health approaches, sharing examples of challenges and successes to guide application to medical school curricula and clinical practice for human health. This paper presents a synthesis of conference proceedings, framed around objectives identified from presentations and audience feedback.

FINDINGS AND RECOMMENDATIONS: The following objectives provide opportunities for One Health involvement and benefits for medical schools and global health centers by: 1) Improving One Health resource sharing in global health and medical education; 2) Creating pathways for information flow in clinical medicine and global health practice; 3) Developing innovative partnerships for improved health sector outcomes; and 4) Informing and empowering health through public outreach. These objectives can leverage existing resources to deliver value to additional settings and stakeholders through resource efficiency, more holistic and effective service delivery, and greater ability to manage determinants of poor health status. We encourage medical and global health educators, practitioners, and students to explore entry points where One Health can add value to their work from local to global scale.

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