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5. Artificial intelligence and the politics of avoidance in global health. Soc Sci Med 2024 ;359:N.PAG. Shipton L, Vitale L. For decades, global health actors have centered technology in their interventions. Today, artificial intelligence (AI) is emerging as the latest technology-based solution in global health. Yet, AI, like other technological interventions, is not a comprehensive solution to the fundamental determinants of global health inequities. This article gathers and critically appraises grey and peer-reviewed literature on AI in global health to explore the question: What is avoided when global health prioritizes technological solutions to problems with deep-seated political, economic, and commercial determinants? Our literature search and selection yielded 34 documents, which we analyzed to develop seven areas where AI both continues and disrupts past legacies of technological interventions in global health, with significant implications for health equity and human rights. By focusing on the power dynamics that underpin Al's expansion in global health, we situate it as the latest in a long line of technological interventions that avoids addressing the fundamental determinants of health inequities, albeit at times differently than its technologybased predecessors. We call this phenomenon the 'politics of avoidance.' We conclude with reflections on how the literature we reviewed engages with and recognizes the politics of avoidance and with suggestions for future research, practice, and advocacy. • Al engages in politics of avoidance' by avoiding root causes of health inequities. • Al continues and disrupts global health legacies of technological intervention. • Al debates often focus on downstream, rather than upstream, determinants of health. • Research and practice should protect health equity and rights in the context of

AI.10.1016/j.socscimed.2024.117274_https://search.ebscohost.com/login.aspx?direct=true &db=rzh&AN=180115679&site=eds-live.

6. Artificial Intelligence in Cardiovascular Care-Part 2: Applications: JACC Review Topic of the Week. J Am Coll Cardiol 2024;8324:2487–2496. Jain SS, Elias P, Poterucha T, et al. Recent artificial intelligence (AI) advancements in cardiovascular care offer potential enhancements in effective diagnosis, treatment, and outcomes. More than 600 U.S. Food and Drug Administration-approved clinical AI algorithms now exist, with 10% focusing on cardiovascular applications, highlighting the growing opportunities for AI to augment care. This review discusses the latest advancements in the field of AI, with a particular focus on the utilization of multimodal inputs and the field of generative AI. Further discussions in this

review involve an approach to understanding the larger context in which Al-augmented care may exist, and include a discussion of the need for rigorous evaluation, appropriate infrastructure for deployment, ethics and equity assessments, regulatory oversight, and viable business cases for deployment. Embracing this rapidly evolving technology while setting an appropriately high evaluation benchmark with careful and patient-centered implementation will be crucial for cardiology to leverage AI to enhance patient care and the provider experience.; Competing Interests: Funding Support and Author Disclosures Dr Jain has consulting relationships with Bristol Myers Squibb, ARTIS Ventures, and Broadview Ventures. Dr Elias has research support provided to his institution from Eidos Therapeutics, Pfizer, Janssen, Edwards Lifesciences, New York Academy of Medicine, and Google. Dr Poterucha owns stock in Abbott Laboratories and Baxter International; and research support is provided to his institution from the Amyloidosis Foundation, American Heart Association (Award #933452 and #23SCISA1077494), Eidos Therapeutics, Pfizer, Janssen, Edwards Lifesciences, and the Glorney-Raisbeck Fellowship Award from the New York Academy of Medicine. Dr Avram is a co-inventor in the patent 63/208,406 (Method and System for Automated Analysis of Coronary Angiograms); and has received speaker fees from Abbott, Boston Scientific, Boehringer Ingelheim, and Novartis. Dr Avari Silva is the co-founder and consultant to and holds equity in SentiAR; the technology has been licensed by Washington University to SentiAR. Dr Maddox has received grant funding from the National Institutes of Health (NHLBI UG3HL165065: The Rhythm Evaluation for Anticoagulation with Continuous Monitoring of Atrial Fibrillation Trial REACT-AF]); has received honoraria and/or expense reimbursement in the past 3 years from the University of Chicago, George Washington University, Baylor College of Medicine, the New York Cardiological Society, and Medscape (Dec 2022); has received compensation and travel expense reimbursement for American College of Cardiology leadership roles and meetings; is currently employed as a cardiologist and Vice President, Digital Products and Innovation at BJC HealthCare/Washington University School of Medicine, and in this capacity, he is advising Myia Labs, for which his employer is receiving equity compensation in the company, he is receiving no individual compensation from the company, and he is a compensated director for a New Mexico-based foundation, the J.F Maddox Foundation. All other authors have reported that they have no relationships relevant to the contents of this paper to disclose. (Copyright © 2024 American College of Cardiology Foundation. Published by Elsevier Inc. All rights reserved.)10.1016/j.jacc.2024.03.401 https://search.ebscohost.com/login.aspx?direct=true

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 Autonomous artificial intelligence for diabetic eye disease increases access and health equity in underserved populations. NPJ Digital Medicine 2024;71:1–6. Huang JJ, Channa R, Wolf RM, et al. 10.1038/s41746-024-01197-

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8. Development and preliminary testing of Health Equity Across the AI Lifecycle (HEAAL): A framework for healthcare delivery organizations to mitigate the risk of AI solutions worsening health inequities. *PLoS Digital Health* 2024;35:1–18. Kim JY, Hasan A, Kellogg KC, et

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9. Empowering US healthcare delivery organizations: Cultivating a community of practice to harness AI and advance health equity. *PLoS Digital Health* 2024;36:1–10. Sendak MP, Kim JY, Hasan A, et

al. 10.1371/journal.pdig.0000513_https://search.ebscohost.com/login.aspx?direct=true&db=rzh&AN=177724637&site=eds-live.

- 10. Equity and AI Governance at Academic Medical Centers. AM J MANAGE CARE 2024 ;30:SP468-SP472. Nong P, Hamasha R, Platt J. OBJECTIVES: To understand whether and how equity is considered in artificial intelligence/machine learning governance processes at academic medical centers. STUDY DESIGN: Qualitative analysis of interview data. METHODS: We created a database of academic medical centers from the full list of Association of American Medical Colleges hospital and health system members in 2022. Stratifying by census region and restricting to nonfederal and nonspecialty centers, we recruited chief medical informatics officers and similarly positioned individuals from academic medical centers across the country. We created and piloted a semistructured interview guide focused on (1) how academic medical centers govern artificial intelligence and prediction and (2) to what extent equity is considered in these processes. A total of 17 individuals representing 13 institutions across 4 census regions of the US were interviewed. RESULTS: A minority of participants reported considering inequity, racism, or bias in governance. Most participants conceptualized these issues as characteristics of a tool, using frameworks such as algorithmic bias or fairness. Fewer participants conceptualized equity beyond the technology itself and asked broader questions about its implications for patients. Disparities in health information technology resources across health systems were repeatedly identified as a threat to health equity. CONCLUSIONS: We found a lack of consistent equity consideration among academic medical centers as they develop their governance processes for predictive technologies despite considerable national attention to the ways these technologies can cause or reproduce inequities. Health systems and policy makers will need to specifically prioritize equity literacy among health system leadership, design oversight policies, and promote critical engagement with these tools and their implications to prevent the further entrenchment of inequities in digital health care.10.37765/ajmc.2024.89555 https://search.ebscohost.com/login.aspx?direct=true&db= rzh&AN=177690814&site=eds-live.
- 11. An Evaluation of Cutting-Edge AI Research Tools Using the REACT Framework. *COMPUT LIBR* 2024 ;448:4–11. Archambault SG, Rincón JJ. https://search.ebscohost.com/login.aspx?direct=true&db=rzh&AN=179801730&site=eds -live.
- 12. Innovations in Diabetes Management for Pregnant Women: Artificial Intelligence and the Internet of Medical Things. Am J Perinatol 2024 Murrin EM, Saad AF, Sullivan S, Millo Y, Miodovnik M. Pregnancies impacted by diabetes face the compounded challenge of strict glycemic control with mounting insulin resistance as the pregnancy progresses. New technological advances, including artificial intelligence (AI) and the Internet of Medical Things (IoMT), are revolutionizing health care delivery by providing innovative solutions for diabetes care during pregnancy. Together, AI and the IoMT are a multibillion-dollar industry that integrates advanced medical devices and sensors into a connected network that enables continuous monitoring of glucose levels. Al-driven clinical decision support systems (CDSSs) can predict glucose trends and provide tailored evidence-based treatments with real-time adjustments as insulin resistance changes with placental growth. Additionally, mobile health (mHealth) applications facilitate patient education and self-management through real-time tracking of diet, physical activity, and glucose levels. Remote monitoring capabilities are particularly beneficial for pregnant persons with diabetes as they extend quality care to underserved populations and reduce the need for frequent in-person visits. This high-resolution monitoring allows physicians and patients access to an unprecedented wealth of data to make more informed decisions based on real-time data, reducing complications for both the mother and fetus. These technologies can potentially improve maternal and fetal outcomes by enabling timely, individualized interventions based on personalized health data. While AI and IoMT offer significant promise in enhancing diabetes care for improved maternal and fetal outcomes, their implementation must address

challenges such as data security, cost-effectiveness, and preserving the essential patientprovider relationship. KEY POINTS: · The IoMT expands how patients interact with their health care.. · AI has widespread application in the care of pregnancies complicated by diabetes.. · A need for validation and black-box methodologies challenges the application of AI-based tools.. · As research in AI grows, considerations for data privacy and ethical dilemmas will be required..; Competing Interests: E.M.M., A.F.S., Y.M., and M.M. report no conflict of interest. S.S. has served on the Board of Directors for the American College of Obstetricians and Gynecologists (ACOG) and March of Dimes. (Thieme. All rights reserved.)10.1055/a-2489-

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13. Mitigating the risk of artificial intelligence bias in cardiovascular care. Lancet Digit Health 2024 Mihan A, Pandey A, Van Spall HG. Digital health technologies can generate data that can be used to train artificial intelligence (AI) algorithms, which have been particularly transformative in cardiovascular health-care delivery. However, digital and health-care data repositories that are used to train AI algorithms can introduce bias when data are homogeneous and health-care processes are inequitable. Al bias can also be introduced during algorithm development, testing, implementation, and post-implementation processes. The consequences of AI algorithmic bias can be considerable, including missed diagnoses. misclassification of disease, incorrect risk prediction, and inappropriate treatment recommendations. This bias can disproportionately affect marginalised demographic groups. In this Series paper, we provide a brief overview of AI applications in cardiovascular health care, discuss stages of algorithm development and associated sources of bias, and provide examples of harm from biased algorithms. We propose strategies that can be applied during the training, testing, and implementation of AI algorithms to mitigate bias so that all those at risk for or living with cardiovascular disease might benefit equally from AI.; Competing Interests: Declaration of interests AP has received research support from the National Institutes of Health; received grant funding from Applied Therapeutics and Gilead Sciences; received consulting fees for Tricog, Novo Nordisk, Bayer, Medtronic, Edward Lifesciences, Cytokinetics, Roche, Sarfez Pharma, Science37, Rivus, Axon Therapies, Alleviant, and Lilly; received non-financial support from Pfizer and Merck; participated on data and safety monitoring boards for Bayer, Cytokinetics, Novo Nordisk, and Medtronic; and is a consultant for Palomarin with stocks compensation. HCGV and AM declare no competing interests. (Copyright © 2024 The Author(s). Published by Elsevier Ltd. This is an Open Access article under the CC BY-NC 4.0 license. Published by Elsevier Ltd.. All rights reserved.)10.1016/S2589-7500(24)00155-

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14. Navigating the doctor-patient-Al relationship - a mixed-methods study of physician attitudes toward artificial intelligence in primary care. *BMC Primary Care* 2024 ;251:1– 12. Allen MR, Webb S, Mandvi A, Frieden M, Tai-Seale M, Kallenberg G. Background: Artificial intelligence (AI) is a rapidly advancing field that is beginning to enter the practice of medicine. Primary care is a cornerstone of medicine and deals with challenges such as physician shortage and burnout which impact patient care. Al and its application via digital health is increasingly presented as a possible solution. However, there is a scarcity of research focusing on primary care physician (PCP) attitudes toward AI. This study examines PCP views on AI in primary care. We explore its potential impact on topics pertinent to primary care such as the doctor-patient relationship and clinical workflow. By doing so, we aim to inform primary care stakeholders to encourage successful, equitable uptake of future AI tools. Our study is the first to our knowledge to explore PCP attitudes using specific primary care AI use cases rather than discussing AI in medicine in general terms. Methods: From June to August 2023, we conducted a survey among 47 primary care physicians affiliated with a large academic health system in Southern California. The survey quantified attitudes toward AI in general as well as concerning two specific AI use cases. Additionally, we conducted interviews with 15 survey respondents. Results: Our findings suggest that PCPs have largely positive views of AI. However, attitudes often hinged on the context of adoption. While some concerns reported by PCPs regarding AI in primary care focused on technology (accuracy, safety, bias), many focused on people-and-process factors (workflow, equity, reimbursement, doctor-patient relationship). Conclusion: Our study offers nuanced insights into PCP attitudes towards AI in primary care and highlights the need for primary care stakeholder alignment on key issues raised by PCPs. AI initiatives that fail to address both the technological and people-and-process concerns raised by PCPs may struggle to make an impact.10.1186/s12875-024-02282-

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- Public Health Legal Protections in an Era of Artificial Intelligence. Am J Public Health 2024 ;1146:559–563. Hodge Jr JG, Piatt JL, White EN, Gostin LO. 10.2105/AJPH.2024.307619_https://search.ebscohost.com/login.aspx?direct=true&db= rzh&AN=177115017&site=eds-live.
- 16. Revolutionizing Maternal Health: The Role of Artificial Intelligence in Enhancing Care and Accessibility. Cureus 2024 ;169:e69555. Mapari SA, Shrivastava D, Dave A, et al. Maternal health remains a critical global health challenge, with disparities in access to care and quality of services contributing to high maternal mortality and morbidity rates. Artificial intelligence (AI) has emerged as a promising tool for addressing these challenges by enhancing diagnostic accuracy, improving patient monitoring, and expanding access to care. This review explores the transformative role of AI in maternal healthcare, focusing on its applications in the early detection of pregnancy complications, personalized care, and remote monitoring through Al-driven technologies. Al tools such as predictive analytics and machine learning can help identify at-risk pregnancies and guide timely interventions, reducing preventable maternal and neonatal complications. Additionally, AI-enabled telemedicine and virtual assistants are bridging healthcare gaps, particularly in underserved and rural areas, improving accessibility for women who might otherwise face barriers to quality maternal care. Despite the potential benefits, challenges such as data privacy, algorithmic bias, and the need for human oversight must be carefully addressed. The review also discusses future research directions, including expanding AI applications in maternal health globally and the need for ethical frameworks to guide its integration. Al holds the potential to revolutionize maternal healthcare by enhancing both care guality and accessibility, offering a pathway to safer, more equitable maternal outcomes.; Competing Interests: Conflicts of interest: In compliance with the ICMJE uniform disclosure form, all authors declare the following: Payment/services info: All authors have declared that no financial support was received from any organization for the submitted work. Financial relationships: All authors have declared that they have no financial relationships at present or within the previous three years with any organizations that might have an interest in the submitted work. Other relationships: All authors have declared that there are no other relationships or activities that could appear to have influenced the submitted work. (Copyright © 2024, Mapari et

al.)10.7759/cureus.69555_https://search.ebscohost.com/login.aspx?direct=true&db=mdc&A N=39421118&site=eds-live.

17. The selective deployment of AI in healthcare: An ethical algorithm for algorithms. *BIOETHICS* 2024 ;385:391–400. Vandersluis R, Savulescu J. Machine-learning algorithms have the potential to revolutionise diagnostic and prognostic tasks in health care, yet algorithmic performance levels can be materially worse for subgroups that have been

underrepresented in algorithmic training data. Given this epistemic deficit, the inclusion of underrepresented groups in algorithmic processes can result in harm. Yet delaying the deployment of algorithmic systems until more equitable results can be achieved would avoidably and foreseeably lead to a significant number of unnecessary deaths in wellrepresented populations. Faced with this dilemma between equity and utility, we draw on two case studies involving breast cancer and melanoma to argue for the selective deployment of diagnostic and prognostic tools for some well-represented groups, even if this results in the temporary exclusion of underrepresented patients from algorithmic approaches. We argue that this approach is justifiable when the inclusion of underrepresented patients would cause them to be harmed. While the context of historic injustice poses a considerable challenge for the ethical acceptability of selective algorithmic deployment strategies, we argue that, at least for the case studies addressed in this article, the issue of historic injustice is better addressed through nonalgorithmic measures, including being transparent with patients about the nature of the current epistemic deficits, providing additional services to algorithmically excluded populations, and through urgent commitments to gather additional algorithmic training data from excluded populations, paving the way for universal algorithmic deployment that is accurate for all patient groups. These commitments should be supported by regulation and, where necessary, government funding to ensure that any delays for excluded groups are kept to the minimum. We offer an ethical algorithm for algorithmsshowing when to ethically delay, expedite, or selectively deploy algorithmic systems in healthcare

settings.10.1111/bioe.13281_https://search.ebscohost.com/login.aspx?direct=true&db=rzh &AN=177082971&site=eds-live.

18. Targeting Machine Learning and Artificial Intelligence Algorithms in Health Care to Reduce Bias and Improve Population Health. *Milbank Q* 2024 ;1023:577–604. HURD TC, COBB PAYTON F, HOOD DB. Policy PointsArtificial intelligence (AI) is disruptively innovating health care and surpassing our ability to define its boundaries and roles in health care and regulate its application in legal and ethical ways. Significant progress has been made in governance in the United States and the European Union.It is incumbent on developers, end users, the public, providers, health care systems, and policymakers to collaboratively ensure that we adopt a national AI health strategy that realizes the Quintuple Aim; minimizes race-based medicine; prioritizes transparency, equity, and algorithmic vigilance; and integrates the patient and community voices throughout all aspects of AI development and deployment.10.1111/1468-

0009.12712_https://search.ebscohost.com/login.aspx?direct=true&db=rzh&AN=180986694 &site=eds-live.

19. Underserved populations and health equity in dermatology: Digital medicine and the role of artificial intelligence. *Clin Dermatol* 2024;425:498–506. Gwillim EC, Azzawi S, Aigen AR. We have reviewed the current literature focused on the role of artificial intelligence (AI) for underserved populations and health equity in dermatology. Studies evaluating the utility and safety of AI model builds, and how they meet predefined benchmarks, as well as the clinical applications of AI, including decision-support systems and operational management, were the focus of this study. The seven studies included in our review provide an approach that assures underserved populations are the focus when developing and testing AI technology. They provide examples that could guide future studies focused on expanding care to underserved dermatology populations through the use of AI.; Competing Interests: Declaration of competing interest The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper. (Copyright © 2024 Elsevier Inc. All rights

reserved.)10.1016/j.clindermatol.2024.06.021_https://search.ebscohost.com/login.aspx?dir ect=true&db=mdc&AN=38944248&site=eds-live. 20. Use of artificial intelligence to address health disparities in low- and middle-income countries: a thematic analysis of ethical issues. PUBLIC HEALTH (ELSEVIER) 2024 ;234:77-83. Yu L, Zhai X. Artificial intelligence (AI) is reshaping health and medicine, especially through its potential to address health disparities in low- and middle-income countries (LMICs). However, there are several issues associated with the use of AI that may reduce its impact and potentially exacerbate global health disparities. This study presents the key issues in AI deployment faced by LMICs. Thematic analysis. PubMed, Scopus, Embase and the Web of Science databases were searched, from the date of their inception until September 2023, using the terms "artificial intelligence", "LMICs", "ethic*" and "global health". Additional searches were conducted by snowballing references before and after the primary search. The final studies were chosen based on their relevance to the topic of this article. After reviewing 378 articles, 14 studies were included in the final analysis. A concept named the 'AI Deployment Paradox' was introduced to focus on the challenges of using AI to address health disparities in LMICs, and the following three categories were identified: (1) data poverty and contextual shifts; (2) cost-effectiveness and health equity; and (3) new technological colonisation and potential exploitation. The relationship between global health, Al and ethical considerations is an area that requires systematic investigation. Relying on health data inherent with structural biases and deploying AI without systematic ethical considerations may exacerbate global health inequalities. Addressing these challenges requires nuanced socio-political comprehension, localised stakeholder engagement, and well-considered ethical and regulatory

frameworks.10.1016/j.puhe.2024.05.029_https://search.ebscohost.com/login.aspx?direct=tr ue&db=rzh&AN=179104885&site=eds-live.

21. Addressing the Challenge of Biomedical Data Inequality: An Artificial Intelligence Perspective. Annu Rev Biomed Data Sci 2023 ;6:153–171. Gao Y, Sharma T, Cui Y. Artificial intelligence (AI) and other data-driven technologies hold great promise to transform healthcare and confer the predictive power essential to precision medicine. However, the existing biomedical data, which are a vital resource and foundation for developing medical AI models, do not reflect the diversity of the human population. The low representation in biomedical data has become a significant health risk for non-European populations, and the growing application of AI opens a new pathway for this health risk to manifest and amplify. Here we review the current status of biomedical data inequality and present a conceptual framework for understanding its impacts on machine learning. We also discuss the recent advances in algorithmic interventions for mitigating health disparities arising from biomedical data inequality. Finally, we briefly discuss the newly identified disparity in data quality among ethnic groups and its potential impacts on machine learning.10.1146/annurev-biodatasci-020722-

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22. Advancing AI in healthcare: A comprehensive review of best practices. Clin Chim Acta 2023 ;548:117519. Polevikov S. Artificial Intelligence (AI) and Machine Learning (ML) are powerful tools shaping the healthcare sector. This review considers twelve key aspects of AI in clinical practice: 1) Ethical AI; 2) Explainable AI; 3) Health Equity and Bias in AI; 4) Sponsorship Bias; 5) Data Privacy; 6) Genomics and Privacy; 7) Insufficient Sample Size and Self-Serving Bias; 8) Bridging the Gap Between Training Datasets and Real-World Scenarios; 9) Open Source and Collaborative Development; 10) Dataset Bias and Synthetic Data; 11) Measurement Bias; 12) Reproducibility in AI Research. These categories represent both the challenges and opportunities of AI implementation in healthcare. While AI holds significant potential for improving patient care, it also presents risks and challenges, such as ensuring privacy, combating bias, and maintaining transparency and ethics. The review underscores the necessity of developing comprehensive best practices for healthcare organizations and fostering a diverse dialogue involving data scientists, clinicians, patient advocates, ethicists, economists, and policymakers. We are at the precipice of significant transformation in healthcare powered by Al. By continuing to reassess and refine our approach, we can ensure that Al is implemented responsibly and ethically, maximizing its benefit to patient care and public health.; Competing Interests: Declaration of Competing Interest The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper. (Copyright © 2023 Elsevier B.V. All rights

reserved.)10.1016/j.cca.2023.117519_https://search.ebscohost.com/login.aspx?direct=true &db=mdc&AN=37595864&site=eds-live.

- 23. An Al Bill of Rights: Implications for Health Care Al and Machine Learning—A Bioethics Lens. AM J BIOETHICS 2023 ;231:4–6. Blumenthal-Barby J. 10.1080/15265161.2022.2135875_https://search.ebscohost.com/login.aspx?direct=true& db=rzh&AN=161131060&site=eds-live.
- AI-Based Medical Solutions Can Threaten Physicians' Ethical Obligations Only If Allowed to Do So. AM J BIOETHICS 2023 ;239:84–86. Gregg
 B. 10.1080/15265161.2023.2237437_https://search.ebscohost.com/login.aspx?direct=true& db=rzh&AN=171310441&site=eds-live.
- 25. Algorithmic bias in artificial intelligence is a problem—And the root issue is power. Nurs Outlook 2023 ;715:N.PAG. Walker R, Dillard-Wright J, Iradukunda F. Artificial intelligence (AI) in health care continues to expand at a rapid rate, impacting both nurses and communities we accompany in care. We argue algorithmic bias is but a symptom of a more systemic and longstanding problem: power imbalances related to the creation, development, and use of health care technologies. This commentary responds to Drs. O'Connor and Booth's 2022 article, "Algorithmic bias in health care: Opportunities for nurses to improve equality in the age of artificial intelligence." Nurses need not 'reinvent the wheel' when it comes to Al policy, curricula, or ethics. We can and should follow the lead of communities already working 'from the margins' who provide ample guidance. Its neither feasible nor just to expect individual nurses to counter systemic injustice in health care through individual actions, more technocentric curricula, or industry partnerships. We need disciplinary supports for collective action to renegotiate power for AI tech. • Technosolutionism and systemic power imbalances related to AI pose urgent threats to health and health equity. • Power must be redistributed from t and industry to those likely to be harmed. • While individual nurses cannot do this on their own, with collective action, community engagement, and disciplinary supports nursing can harness Al's potential and help mitigate its potential harms. • Accountability, ethics and humanities must ground Al-related nursing curricula. • Follow the leadership of organizations leading from the margins like Data for Black Lives.10.1016/j.outlook.2023.102023_https://search.ebscohost.com/login.aspx?direct=true &db=rzh&AN=173370381&site=eds-live.
- 26. Artificial Intelligence and Cancer Control: Toward Prioritizing Justice, Equity, Diversity, and Inclusion (JEDI) in Emerging Decision Support Technologies. *Curr Oncol Rep* 2023 ;255:387–424. Taber P, Armin JS, Orozco G, et al. Purpose for Review: This perspective piece has two goals: first, to describe issues related to artificial intelligencebased applications for cancer control as they may impact health inequities or disparities; and second, to report on a review of systematic reviews and meta-analyses of artificial intelligence-based tools for cancer control to ascertain the extent to which discussions of justice, equity, diversity, inclusion, or health disparities manifest in syntheses of the field's best evidence.; Recent Findings: We found that, while a significant proportion of existing syntheses of research on Al-based tools in cancer control use formal bias assessment tools, the fairness or equitability of models is not yet systematically analyzable across studies. Issues related to real-world use of Al-based tools for cancer control, such as workflow

considerations, measures of usability and acceptance, or tool architecture, are more visible in the literature, but still addressed only in a minority of reviews. Artificial intelligence is poised to bring significant benefits to a wide range of applications in cancer control, but more thorough and standardized evaluations and reporting of model fairness are required to build the evidence base for AI-based tool design for cancer and to ensure that these emerging technologies promote equitable healthcare. (© 2023. The Author(s), under exclusive licence to Springer Science+Business Media, LLC, part of Springer Nature.)10.1007/s11912-023-01376-

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- 28. Artificial intelligence: An eye cast towards the mental health nursing horizon. INT J MENT HEALTH NURS 2023 ;323:938-944. Wilson RL, Higgins O, Atem J, et al. There has been an international surge towards online, digital, and telehealth mental health services, further amplified during COVID-19. Implementation and integration of technological innovations, including artificial intelligence (AI), have increased with the intention to improve clinical, governance, and administrative decision-making. Mental health nurses (MHN) should consider the ramifications of these changes and reflect on their engagement with AI. It is time for mental health nurses to demonstrate leadership in the AI mental health discourse and to meaningfully advocate that safety and inclusion of end users' of mental health service interests are prioritized. To date, very little literature exists about this topic, revealing limited engagement by MHNs overall. The aim of this article is to provide an overview of AI in the mental health context and to stimulate discussion about the rapidity and trustworthiness of Al related to the MHN profession. Despite the pace of progress, and personal life experiences with AI, a lack of MHN leadership about AI exists. MHNs have a professional obligation to advocate for access and equity in health service distribution and provision, and this applies to digital and physical domains. Trustworthiness of AI supports access and equity, and for this reason, it is of concern to MHNs. MHN advocacy and leadership are required to ensure that misogynist, racist, discriminatory biases are not favoured in the development of decisional support systems and training sets that strengthens AI algorithms. The absence of MHNs in designing technological innovation is a risk related to the adequacy of the generation of services that are beneficial for vulnerable people such as tailored. precise, and streamlined mental healthcare provision. Al developers are interested to focus on person-like solutions; however, collaborations with MHNs are required to ensure a personcentred approach for future mental healthcare is not

overlooked.10.1111/inm.13121_https://search.ebscohost.com/login.aspx?direct=true&db=rz h&AN=163604963&site=eds-live.

29. Bias in artificial intelligence algorithms and recommendations for mitigation. *PLOS Digit Health* 2023 ;26:e0000278. Nazer LH, Zatarah R, Waldrip S, et al. The adoption of artificial intelligence (AI) algorithms is rapidly increasing in healthcare. Such algorithms may be shaped by various factors such as social determinants of health that can influence health outcomes. While AI algorithms have been proposed as a tool to expand the reach of quality healthcare to underserved communities and improve health equity, recent literature has raised concerns about the propagation of biases and healthcare disparities through implementation of these algorithms. Thus, it is critical to understand the sources of bias inherent in AI-based algorithms. This review aims to highlight the potential sources of bias within each step of developing AI algorithms in healthcare, starting from framing the

problem, data collection, preprocessing, development, and validation, as well as their full implementation. For each of these steps, we also discuss strategies to mitigate the bias and disparities. A checklist was developed with recommendations for reducing bias during the development and implementation stages. It is important for developers and users of AIbased algorithms to keep these important considerations in mind to advance health equity for all populations.; Competing Interests: I have read the journal's policy and the authors of this manuscript have the following competing interests: Janny Xue Chen Ke: received salary support as Clinical Data Lead, St. Paul's Hospital, Canada, for Project "Reducing Opioid Use for Pain Management" from Canadian Digital Technology Supercluster and Consortium (Careteam Technologies Inc, Thrive Health Inc, Excelar Technologies, Providence Health Care Ventures Inc., and Xerus Inc.). Ashish K Khanna: Founding member of BrainX LLC & BrainX Community LLC. Piyush Mathur: Founder of BrainX LLC. & BrainX Community LLC. (Copyright: © 2023 Nazer et al. This is an open access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.)10.1371/journal.pdig.0000278_https://search.ebscohost.com/login.aspx?direct=tr ue&db=mdc&AN=37347721&site=eds-live.

 Building Diversity, Equity, and Inclusion Within Radiology Artificial Intelligence: Representation Matters, From Data to the Workforce. J AM COLL RADIOL 2023 ;209:852– 856. Doo FX, McGinty

GB. 10.1016/j.jacr.2023.06.014_https://search.ebscohost.com/login.aspx?direct=true&db=rz h&AN=172846683&site=eds-live.

- 31. A Call to Action on Assessing and Mitigating Bias in Artificial Intelligence Applications for Mental Health. PERSPECT PSYCHOL SCI 2023;185:1062–1096. Timmons AC, Duong JB, Simo Fiallo N, et al. Advances in computer science and data-analytic methods are driving a new era in mental health research and application. Artificial intelligence (AI) technologies hold the potential to enhance the assessment, diagnosis, and treatment of people experiencing mental health problems and to increase the reach and impact of mental health care. However, AI applications will not mitigate mental health disparities if they are built from historical data that reflect underlying social biases and inequities. AI models biased against sensitive classes could reinforce and even perpetuate existing inequities if these models create legacies that differentially impact who is diagnosed and treated, and how effectively. The current article reviews the health-equity implications of applying AI to mental health problems, outlines state-of-the-art methods for assessing and mitigating algorithmic bias, and presents a call to action to guide the development of fair-aware AI in psychological science.10.1177/17456916221134490_https://search.ebscohost.com/login.aspx?direct=tru e&db=rzh&AN=171337927&site=eds-live.
- Centering health equity in large language model deployment. *PLoS Digital Health* 2023 ;210:1–5. Singh N, Lawrence K, Richardson S, Mann DM. 10.1371/journal.pdig.0000367_https://search.ebscohost.com/login.aspx?direct=true&d b=rzh&AN=173154039&site=eds-live.
- 33. Considerations for addressing bias in artificial intelligence for health equity. NPJ Digital Medicine 2023;61:1–7. Abràmoff MD, Tarver ME, Loyo-Berrios N, et al. 10.1038/s41746-023-00913-

9_https://search.ebscohost.com/login.aspx?direct=true&db=rzh&AN=171898712&site=eds-live.

34. Demonstrating Trustworthiness to Patients in Data-Driven Health Care. Hastings Cent Rep 2023 ;53:S69–S75. Nong P. Patient data is used to drive an ecosystem of advanced digital tools in health care, like predictive models or artificial intelligence-based decision support. Patients themselves, however, receive little information about these technologies or how they affect their care. This raises important questions about patient trust and continued engagement in a health care system that extracts their data but does not treat them as key stakeholders. This essay explores these tensions and provides steps forward for health systems as they design advanced health information-technology (IT) policies and practices. It centers patients, their concerns, and the ways they perceive trustworthiness to reframe advanced health IT in service of patient

interests.10.1002/hast.1526_https://search.ebscohost.com/login.aspx?direct=true&db=rzh& AN=173605078&site=eds-live.

35. Ethics Education for Healthcare Professionals in the Era of ChatGPT and Other Large Language Models: Do We Still Need It? *AM J BIOETHICS* 2023 ;2310:17–27. Rahimzadeh V, Kostick-Quenet K, Blumenthal Barby J, McGuire AL. In this paper, we contend with whether we still need traditional ethics education as part of healthcare professional training given the abilities of chatGPT (generative pre-trained transformer) and other large language models (LLM). We reflect on common programmatic goals to assess the current strengths and limitations of LLMs in helping to build ethics competencies among future clinicians. Through an actual case analysis, we highlight areas in which chatGPT and other LLMs are conducive to common bioethics education goals. We also comment on where such technologies remain an imperfect substitute for human-led ethics teaching and learning. Finally, we conclude that the relative strengths of chatGPT warrant its consideration as a teaching and learning tool in ethics education in ways that account for current limitations and build in flexibility as the technology

evolves.10.1080/15265161.2023.2233358_https://search.ebscohost.com/login.aspx?direct= true&db=rzh&AN=172995025&site=eds-live.

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Practice. https://search.ebscohost.com/login.aspx?direct=true&db=rzh&AN=173505874&sit e=eds-live.

- Recommendations for the use of pediatric data in artificial intelligence and machine learning ACCEPT-AI. NPJ Digital Medicine 2023;61:1-6. Muralidharan V, Burgart A, Daneshjou R, Rose S. 10.1038/s41746-023-00898-5_https://search.ebscohost.com/login.aspx?direct=true&db=rzh&AN=171581021&site=edslive.
- 38. Strategies to Improve the Impact of Artificial Intelligence on Health Equity: Scoping Review. JMIR AI 2023 ;2:e42936. Berdahl CT, Baker L, Mann S, Osoba O, Girosi F. Background: Emerging artificial intelligence (AI) applications have the potential to improve health, but they may also perpetuate or exacerbate inequities.; Objective: This review aims to provide a comprehensive overview of the health equity issues related to the use of AI applications and identify strategies proposed to address them.; Methods: We searched PubMed. Web of Science, the IEEE (Institute of Electrical and Electronics Engineers) Xplore Digital Library, ProQuest U.S. Newsstream, Academic Search Complete, the Food and Drug Administration (FDA) website, and ClinicalTrials.gov to identify academic and gray literature related to AI and health equity that were published between 2014 and 2021 and additional literature related to AI and health equity during the COVID-19 pandemic from 2020 and 2021. Literature was eligible for inclusion in our review if it identified at least one equity issue and a corresponding strategy to address it. To organize and synthesize equity issues, we adopted a 4-step AI application framework: Background Context, Data Characteristics, Model Design, and Deployment. We then created a many-to-many mapping of the links between issues and strategies.; Results: In 660 documents, we identified 18 equity issues and 15 strategies to address them. Equity issues related to Data Characteristics and Model Design were the most common. The most common strategies recommended to improve equity were improving the quantity and quality of data, evaluating the disparities introduced by an application,

increasing model reporting and transparency, involving the broader community in Al application development, and improving governance.; Conclusions: Stakeholders should review our many-to-many mapping of equity issues and strategies when planning, developing, and implementing Al applications in health care so that they can make appropriate plans to ensure equity for populations affected by their products. Al application developers should consider adopting equity-focused checklists, and regulators such as the FDA should consider requiring them. Given that our review was limited to documents published online, developers may have unpublished knowledge of additional issues and strategies that we were unable to identify. (©Carl Thomas Berdahl, Lawrence Baker, Sean Mann, Osonde Osoba, Federico Girosi. Originally published in JMIR Al (https://ai.jmir.org), 07.02.2023.)10.2196/42936_https://search.ebscohost.com/login.aspx? direct=true&db=mdc&AN=38875587&site=eds-live.

39. Artificial intelligence at the national eye institute. Curr Opin Ophthalmol 2022;336:579-584. Sherif NA, Chew EY, Chiang MF, Hribar M, Gao J, Goetz KE. Purpose Of Review: This review highlights the artificial intelligence, machine learning, and deep learning initiatives supported by the National Institutes of Health (NIH) and the National Eye Institute (NEI) and calls attention to activities and goals defined in the NEI Strategic Plan as well as opportunities for future activities and breakthroughs in ophthalmology. Recent Findings: Ophthalmology is at the forefront of artificial intelligence-based innovations in biomedical research that may lead to improvement in early detection and surveillance of ocular disease, prediction of progression, and improved quality of life. Technological advances have ushered in an era where unprecedented amounts of information can be linked that enable scientific discovery. However, there remains an unmet need to collect, harmonize, and share data in a machine actionable manner. Similarly, there is a need to ensure that efforts promote health and research equity by expanding diversity in the data and workforce.Summary: The NIH/NEI has supported the development artificial intelligence-based innovations to advance biomedical research. The NIH/NEI has defined activities to achieve these goals in the NIH Strategic Plan for Data Science and the NEI Strategic Plan and have spearheaded initiatives to facilitate research in these

areas.10.1097/ICU.0000000000000889_https://search.ebscohost.com/login.aspx?direct=tru e&db=rzh&AN=159552935&site=eds-live.

40. Big Data/Al in Neurocritical Care: Maybe/Summary. Neurocrit Care 2022 ;37:166-169. Suarez JI. Big data (BD) and artificial intelligence (AI) have increasingly been used in neurocritical care. "BD" can be operationally defined as extremely large datasets that are so large and complex that they cannot be analyzed by using traditional statistical modeling. "AI" means the ability of machines to perform tasks similar to those performed by human intelligence. We present a brief overview of the most commonly applied AI techniques to perform BD analytics and discuss some of the recent promising examples in the field of neurocritical care. The latter include the following: cognitive motor dissociation in disorders of consciousness, hypoxic-ischemic injury following cardiac arrest, delayed cerebral ischemia and vasospasm after subarachnoid hemorrhage, and monitoring of intracranial pressure. It is imperative that we develop multicenter collaborations to tackle BD. These collaborations will allow us to share data, combine predictive algorithms, and analyze multiple and cumulative sources of data retrospectively and prospectively. Once AI algorithms are validated at multiple centers, they should be tested in randomized controlled trials investigating their impact on clinical outcome. The neurocritical care community must work to ensure that AI incorporates standards to ensure fairness and health equity rather than reflect our biases present in our collective conscience. (© 2021. Springer Science+Business Media, LLC, part of Springer Nature and Neurocritical Care Society.)10.1007/s12028-021-01422x_https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=34966957&site=eds-live.

41. A Clinician's Guide to Artificial Intelligence (AI): Why and How Primary Care Should Lead the Health Care AI Revolution. J Am Board Fam Med 2022 ;351:175-184. Lin S. Artificial intelligence (AI) in health care is the future that is already here. Despite its potential as a transformational force for primary care, most primary care providers (PCPs) do not know what it is, how it will impact them and their patients, and what its key limitations and ethical pitfalls are. This article is a beginner's guide to health care AI, written for the frontline PCP. Primary care-as the dominant force at the base of the health care pyramid, with its unrivaled interconnectedness to every part of the health system and its deep relationship with patients and communities-is the most uniquely suited specialty to lead the health care AI revolution. PCPs can advance health care AI by partnering with technologists to ensure that AI use cases are relevant and human-centered, applying guality improvement methods to health care AI implementations, and advocating for inclusive and ethical AI that combats, rather than worsens, health inequities.; Competing Interests: Conflict of interest: The author is a principal investigator working with companies and nonprofit organizations through grants and sponsored research agreements administered by Stanford University. Current and previous collaborators include Amazon, American Academy of Family Physicians, American Board of Artificial Intelligence in Medicine, American Board of Family Physicians, Center for Professionalism and Value in Health Care, Codex Health, DeepScribe, Eko Health, Google Health, Quadrant Technologies, Soap Health, Society of Teachers of Family Medicine, University of California, San Francisco, and Verily. Neither the author, nor members of his immediate family, has any financial interest in these organizations. (© Copyright 2022 by the American Board of Family

Medicine.)10.3122/jabfm.2022.01.210226_https://search.ebscohost.com/login.aspx?direct= true&db=mdc&AN=35039425&site=eds-live.

42. Competencies for the Use of Artificial Intelligence in Primary Care. ANN FAM MED 2022 ;206:559-563. Liaw W, Kueper JK, Lin S, Bazemore A, Kakadiaris I. The artificial intelligence (AI) revolution has arrived for the health care sector and is finally penetrating the far-reaching but perpetually underfinanced primary care platform. While AI has the potential to facilitate the achievement of the Quintuple Aim (better patient outcomes, population health, and health equity at lower costs while preserving clinician well-being), inattention to primary care training in the use of Al-based tools risks the opposite effects, imposing harm and exacerbating inequalities. The impact of AI-based tools on these aims will depend heavily on the decisions and skills of primary care clinicians; therefore, appropriate medical education and training will be crucial to maximize potential benefits and minimize harms. To facilitate this training, we propose 6 domains of competency for the effective deployment of Al-based tools in primary care: (1) foundational knowledge (what is this tool?), (2) critical appraisal (should | use this tool?). (3) medical decision making (when should | use this tool?). (4) technical use (how do I use this tool?), (5) patient communication (how should I communicate with patients regarding the use of this tool?), and (6) awareness of unintended consequences (what are the "side effects" of this tool?). Integrating these competencies will not be straightforward because of the breadth of knowledge already incorporated into family medicine training and the constantly changing technological landscape. Nonetheless, even incremental increases in Al-relevant training may be beneficial, and the sooner these challenges are tackled, the sooner the primary care workforce and those served by it will begin to reap the

benefits.10.1370/afm.2887_https://search.ebscohost.com/login.aspx?direct=true&db=rzh& AN=160500401&site=eds-live.

43. Contextual bias, the democratization of healthcare, and medical artificial intelligence in low- and middle-income countries. *BIOETHICS* 2022;362:201–209. Contextual bias, the

democratization of healthcare, and medical artificial intelligence in low- and middle-income countries. Medical artificial intelligence (MAI) creates an opportunity to radically expand access to healthcare across the globe by allowing us to overcome the persistent labor shortages that limit healthcare access. This democratization of healthcare is the greatest moral promise of MAI. Whatever comes of the enthusiastic discourse about the ability of MAI to improve the state-of-the-art in high-income countries (HICs), it will be far less impactful than improving the desperate state-of-the-actual in low- and middle-income countries (LMICs). However, the almost exclusive development of MAI in HICs risks this promise being thwarted by contextual bias, an algorithmic bias that arises when the context of the training data is significantly dissimilar from potential contexts of application, which makes the unreflective application of HIC-based MAI in LMIC contexts dangerous. The use of MAI in LMICs demands careful attention to context. In this paper, I aim to provide that attention. First, I illustrate the dire state of healthcare in LMICs and the hope that MAI may help us to improve this state. Next, I show that the radical differences between the health contexts of HICs and those of LMICs create an extraordinary risk of contextual bias. Then, I explore ethical challenges raised by this risk, and propose policies that will help to overcome those challenges. Finally, I sketch a wide range of related issues that need to be addressed to ensure that MAI has a positive impact on LMICs-and is able to improve, rather than worsen, global health

equity.10.1111/bioe.12927_https://search.ebscohost.com/login.aspx?direct=true&db=rzh&A N=154715839&site=eds-live.

- 44. Equity Challenges for Artificial Intelligence Algorithms in Health Care. Chest 2022 ;1615:1343–1346. Makhni S, Chin MH, Fahrenbach J, Rojas JC. 10.1016/j.chest.2022.01.009_https://search.ebscohost.com/login.aspx?direct=true&db= rzh&AN=156520650&site=eds-live.
- 45. The Impact of Artificial Intelligence on Health Equity in Oncology: Scoping Review. J Med Internet Res 2022 ;2411:e39748. Istasy P, Lee WS, lansavichene A, et al. Background: The field of oncology is at the forefront of advances in artificial intelligence (AI) in health care, providing an opportunity to examine the early integration of these technologies in clinical research and patient care. Hope that AI will revolutionize health care delivery and improve clinical outcomes has been accompanied by concerns about the impact of these technologies on health equity.; Objective: We aimed to conduct a scoping review of the literature to address the question, "What are the current and potential impacts of AI technologies on health equity in oncology?"; Methods: Following PRISMA-ScR (Preferred Reporting Items for Systematic Reviews and Meta-Analyses extension for Scoping Reviews) guidelines for scoping reviews, we systematically searched MEDLINE and Embase electronic databases from January 2000 to August 2021 for records engaging with key concepts of AI, health equity, and oncology. We included all English-language articles that engaged with the 3 key concepts. Articles were analyzed gualitatively for themes pertaining to the influence of Al on health equity in oncology.; Results: Of the 14,011 records, 133 (0.95%) identified from our review were included. We identified 3 general themes in the literature: the use of AI to reduce health care disparities (58/133, 43.6%), concerns surrounding AI technologies and bias (16/133, 12.1%), and the use of AI to examine biological and social determinants of health (55/133, 41.4%). A total of 3% (4/133) of articles focused on many of these themes.; Conclusions: Our scoping review revealed 3 main themes on the impact of AI on health equity in oncology, which relate to Al's ability to help address health disparities, its potential to mitigate or exacerbate bias, and its capability to help elucidate determinants of health. Gaps in the literature included a lack of discussion of ethical challenges with the application of AI technologies in low- and middle-income countries, lack of discussion of problems of bias in AI algorithms, and a lack of justification for the use of AI technologies over traditional statistical methods to address specific research questions in oncology. Our review highlights

a need to address these gaps to ensure a more equitable integration of AI in cancer research and clinical practice. The limitations of our study include its exploratory nature, its focus on oncology as opposed to all health care sectors, and its analysis of solely English-language articles. (©Paul Istasy, Wen Shen Lee, Alla Iansavichene, Ross Upshur, Bishal Gyawali, Jacquelyn Burkell, Bekim Sadikovic, Alejandro Lazo-Langner, Benjamin Chin-Yee. Originally published in the Journal of Medical Internet Research

(https://www.jmir.org), 01.11.2022.)10.2196/39748_https://search.ebscohost.com/login.asp x?direct=true&db=mdc&AN=36005841&site=eds-live.

46. The medical and societal impact of big data analytics and artificial intelligence applications in combating pandemics: A review focused on Covid-19. Soc Sci

Med 2022 ;301:N.PAG. Galetsi P, Katsaliaki K, Kumar S. With Covid-19 impacting communities in different ways, research has increasingly turned to big data analytics (BDA) and artificial intelligence (AI) tools to track and monitor the virus's spread and its effect on humanity and the global economy. The purpose of this study is to conduct an in-depth literature review to identify how BDA and AI were involved in the management of Covid-19 (while considering diversity, equity, and inclusion (DEI)). The rigorous search resulted in a portfolio of 607 articles, retrieved from the Web of Science database, where content analysis has been conducted. This study identifies the BDA and AI applications developed to deal with the initial Covid-19 outbreak and the containment of the pandemic, along with their benefits for the social good. Moreover, this study reveals the DEI challenges related to these applications, ways to mitigate the concerns, and how to develop viable techniques to deal with similar crises in the future. The article pool recognized the high presence of machine learning (ML) and the role of mobile technology, social media and telemedicine in the use of BDA and AI during Covid-19. This study offers a collective insight into many of the key issues and underlying complexities affecting public health and society from Covid-19, and the solutions offered from information systems and technological perspectives. • Literature review addressing health/social outcomes from Covid19 BDA applications. • BDA applications and capabilities for public health, individuals and society. • Leveraging BDA to facilitate diversity, equity and inclusion. • Data privacy & spread of false information as a main challenge from Covid19

BDA.10.1016/j.socscimed.2022.114973_https://search.ebscohost.com/login.aspx?direct=tr ue&db=rzh&AN=157076643&site=eds-live.

- 47. Picture a data scientist: a call to action for increasing diversity, equity, and inclusion in the age of AI. J Am Med Inform Assoc 2022 ;2912:2178–2181. Hond AAHd, Buchem MMv, Hernandez-Boussard T, de Hond A,A.H., van Buchem M,M. The lack of diversity, equity, and inclusion continues to hamper the artificial intelligence (AI) field and is especially problematic for healthcare applications. In this article, we expand on the need for diversity, equity, and inclusion, specifically focusing on the composition of AI teams. We call to action leaders at all levels to make team inclusivity and diversity the centerpieces of AI development, not the afterthought. These recommendations take into consideration mitigation at several levels, including outreach programs at the local level, diversity statements at the academic level, and regulatory steps at the federal level.10.1093/jamia/ocac156_https://search.ebscohost.com/login.aspx?direct=true&db=rzh &AN=160328419&site=eds-live.
- 48. Social Asymmetry, Artificial Intelligence and the Medical Imaging Landscape. Semin Nucl Med 2022 ;524:498–503. Currie G, Rohren E. Social and health care equity and justice should be prioritized by the mantra of medicine, first do no harm. Despite highly motivated national and global health strategies, there remains significant health care inequity. Intrinsic and extrinsic factors, including a number of biases, are key drivers of ongoing health inequity including equity of access and opportunity for nuclear medicine and radiology services. There is a substantial gap in the global practice of nuclear medicine in particular, but also

radiology, between developed health economies and those considered developing or undeveloped. At a local level, even in developed health economies, there can be a significant disparity between health services, including medical imaging, between communities based on socioeconomic, cultural or geographic differences. Artificial intelligence (AI) has the potential to either widen the health inequity divide or substantially reduce it. Distributed generally, AI technology could be used to overcome geographic boundaries to health care, thus bringing general and specialist care into underserved communities. However, should AI technology be limited to localities already enjoying ample healthcare access and direct access to health infrastructure, like radiology and nuclear medicine, it could then accentuate the gap. There are a number of challenges across the AI pipeline that need careful attention to ensure beneficence over maleficence. Fully realized, AI augmented health care could be crafted as an integral part of the broader strategy convergence on local, national and global health equity. The applications of AI in nuclear medicine and radiology could emerge as a powerful tool in social and health

equity.10.1053/j.semnuclmed.2021.11.011_https://search.ebscohost.com/login.aspx?direct =true&db=rzh&AN=157327013&site=eds-live.

49. Advancing health equity with artificial intelligence. J Public Health Policy 2021;424:602– 611. Thomasian NM, Eickhoff C, Adashi EY. Population and public health are in the midst of an artificial intelligence revolution capable of radically altering existing models of care delivery and practice. Just as AI seeks to mirror human cognition through its data-driven analytics, it can also reflect the biases present in our collective conscience. In this Viewpoint, we use past and counterfactual examples to illustrate the sequelae of unmitigated bias in healthcare artificial intelligence. Past examples indicate that if the benefits of emerging AI technologies are to be realized, consensus around the regulation of algorithmic bias at the policy level is needed to ensure their ethical integration into the health system. This paper puts forth regulatory strategies for uprooting bias in healthcare AI that can inform ongoing efforts to establish a framework for federal oversight. We highlight three overarching oversight principles in bias mitigation that maps to each phase of the algorithm life cycle. (© 2021. The Author(s), under exclusive licence to Springer Nature Limited.)10.1057/s41271-021-00319-

5_https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=34811466&site=eds-live.

50. Application of Artificial Intelligence-Based Technologies in the Healthcare Industry: Opportunities and Challenges. Int J Environ Res Public Health 2021 ;181Lee D, Yoon **SN.** This study examines the current state of artificial intelligence (AI)-based technology applications and their impact on the healthcare industry. In addition to a thorough review of the literature, this study analyzed several real-world examples of AI applications in healthcare. The results indicate that major hospitals are, at present, using Al-enabled systems to augment medical staff in patient diagnosis and treatment activities for a wide range of diseases. In addition, AI systems are making an impact on improving the efficiency of nursing and managerial activities of hospitals. While AI is being embraced positively by healthcare providers, its applications provide both the utopian perspective (new opportunities) and the dystopian view (challenges to overcome). We discuss the details of those opportunities and challenges to provide a balanced view of the value of AI applications in healthcare. It is clear that rapid advances of AI and related technologies will help care providers create new value for their patients and improve the efficiency of their operational processes. Nevertheless, effective applications of AI will require effective planning and strategies to transform the entire care service and operations to reap the benefits of what technologies

offer.10.3390/ijerph18010271_https://search.ebscohost.com/login.aspx?direct=true&db=md c&AN=33401373&site=eds-live.

51. Artificial intelligence for good health: a scoping review of the ethics literature. BMC Med Ethics 2021 ;221:1–17. Murphy K, Di Ruggiero E, Upshur R, et al. Background: Artificial intelligence (AI) has been described as the "fourth industrial revolution" with transformative and global implications, including in healthcare, public health, and global health. Al approaches hold promise for improving health systems worldwide, as well as individual and population health outcomes. While AI may have potential for advancing health equity within and between countries, we must consider the ethical implications of its deployment in order to mitigate its potential harms, particularly for the most vulnerable. This scoping review addresses the following question: What ethical issues have been identified in relation to AI in the field of health, including from a global health perspective?Methods: Eight electronic databases were searched for peer reviewed and grey literature published before April 2018 using the concepts of health, ethics, and AI, and their related terms. Records were independently screened by two reviewers and were included if they reported on AI in relation to health and ethics and were written in the English language. Data was charted on a piloted data charting form, and a descriptive and thematic analysis was performed. Results: Upon reviewing 12,722 articles, 103 met the predetermined inclusion criteria. The literature was primarily focused on the ethics of AI in health care, particularly on carer robots, diagnostics, and precision medicine, but was largely silent on ethics of AI in public and population health. The literature highlighted a number of common ethical concerns related to privacy, trust, accountability and responsibility, and bias. Largely missing from the literature was the ethics of AI in global health, particularly in the context of low- and middle-income countries (LMICs).Conclusions: The ethical issues surrounding AI in the field of health are both vast and complex. While AI holds the potential to improve health and health systems, our analysis suggests that its introduction should be approached with cautious optimism. The dearth of literature on the ethics of AI within LMICs, as well as in public health, also points to a critical need for further research into the ethical implications of AI within both global and public health, to ensure that its development and implementation is ethical for everyone, everywhere.10.1186/s12910-021-00577-

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52. BUILDING UNBIASED AI: Health systems and payers are trying new approaches to cut down the likelihood of bias unintentionally creeping in at each stage of AI. *Mod Healthc* 2021 ;5225:18. Cohen

JK. https://search.ebscohost.com/login.aspx?direct=true&db=rzh&AN=152603521&site=ed s-live.

53. The Emerging Hazard of AI-Related Health Care Discrimination. Hastings Cent Rep 2021 ;511:8–9. Hoffman S. Artificial intelligence holds great promise for improved health-care outcomes. But it also poses substantial new hazards, including algorithmic discrimination. For example, an algorithm used to identify candidates for beneficial "high risk care management" programs routinely failed to select racial minorities. Furthermore, some algorithms deliberately adjust for race in ways that divert resources away from minority patients. To illustrate, algorithms have underestimated African Americans' risks of kidney stones and death from heart failure. Algorithmic discrimination can violate Title VI of the Civil Rights Act and Section 1557 of the Affordable Care Act when it unjustifiably disadvantages underserved populations. This article urges that both legal and technical tools be deployed to promote AI fairness. Plaintiffs should be able to assert disparate impact claims in health-care litigation, and Congress should enact an Algorithmic Accountability Act. In addition, fairness should be a key element in designing, implementing, validating, and employing

AI.10.1002/hast.1203_https://search.ebscohost.com/login.aspx?direct=true&db=rzh&AN=14 8999077&site=eds-live.

- 54. Ensuring patient and public involvement in the transition to Al-assisted mental health care: A systematic scoping review and agenda for design justice. HEALTH EXPECTATIONS 2021 ;244:1072–1124. Zidaru T, Morrow EM, Stockley R. Background: Machine-learning algorithms and big data analytics, popularly known as 'artificial intelligence' (AI), are being developed and taken up globally. Patient and public involvement (PPI) in the transition to Al-assisted health care is essential for design justice based on diverse patient needs. Objective: To inform the future development of PPI in AI-assisted health care by exploring public engagement in the conceptualization, design, development. testing, implementation, use and evaluation of AI technologies for mental health. Methods: Systematic scoping review drawing on design justice principles, and (i) structured searches of Web of Science (all databases) and Ovid (MEDLINE, PsycINFO, Global Health and Embase); (ii) handsearching (reference and citation tracking); (iii) grey literature; and (iv) inductive thematic analysis, tested at a workshop with health researchers. Results: The review identified 144 articles that met inclusion criteria. Three main themes reflect the challenges and opportunities associated with PPI in AI-assisted mental health care: (a) applications of AI technologies in mental health care; (b) ethics of public engagement in AIassisted care; and (c) public engagement in the planning, development, implementation, evaluation and diffusion of AI technologies. Conclusion: The new data-rich health landscape creates multiple ethical issues and opportunities for the development of PPI in relation to AI technologies. Further research is needed to understand effective modes of public engagement in the context of AI technologies, to examine pressing ethical and safety issues and to develop new methods of PPI at every stage, from concept design to the final review of technology in practice. Principles of design justice can guide this agenda.10.1111/hex.13299_https://search.ebscohost.com/login.aspx?direct=true&db=rzh& AN=151957756&site=eds-live.
- 55. Equitable Implementation of Artificial Intelligence in Medical Imaging: What Can be Learned from Implementation Science? *PET Clin* 2021 ;164:643–653. Yousefi Nooraie R, Lyons PG, Baumann AA, Saboury B. Artificial intelligence (AI) has been rapidly adopted in various health care domains. Molecular imaging, accordingly, has demonstrated growing academic and commercial interest in AI. Unprepared and inequitable implementation and scale-up of AI in health care may pose challenges. Implementation of AI, as a complex intervention, may face various barriers, at individual, interindividual, organizational, health system, and community levels. To address these barriers, recommendations have been developed to consider health equity as a critical lens to sensitize implementation, engage stakeholders in implementation and evaluation, recognize and incorporate the iterative nature of implementation, and integrate equity and implementation in early-stage AI research.; Competing Interests: Disclosure The authors have nothing to disclose. (Copyright © 2021 Elsevier Inc. All rights

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produced, with the potential to widen inequities by race, ethnicity, gender, and other sociodemographic factors implicated in disparate health outcomes. We propose a set of strategic assertions to examine before, during, and after adoption of these technologies in order to facilitate healthcare equity across all patient population groups. The purpose is to enable generalists to promote engagement with technology companies and co-create, promote, or support innovation and insights that can potentially inform decision-making and health care equity. (© 2021. The Author(s).)10.1007/s11606-021-06846-x_https://search.ebscohost.com/login.aspx?direct=true&db=mdc&AN=34027610&site=eds-live.

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the main arguments for and against no-fault compensation. The second explains why it is likely that AI systems will be widely introduced. The third part analyses why it is difficult to fit AI systems into fault-based compensation systems while the final part suggests how no-fault compensation could provide a possible solution to such challenges.10.1007/s10728-021-00430-

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LMICs contexts is recent and there is a lack of robust local evaluations to guide decisionmaking in low-resource settings. After discussing the potential benefits as well as the risks and challenges raised by AI-based health care, we propose five building blocks to guide the development and implementation of more responsible, sustainable, and inclusive AI health care technologies in LMICs.10.1186/s12992-020-00584-

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