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POLICY

MATTHEW ZHOU

Mitigating Algorithmic Bias in Government Healthcare AI Procurement

EXECUTIVE SUMMARY

Procurement officials in government should build language into AI health contracts that mandates data transparency, privacy protection, and bias prevention. Healthcare institutions are encountering new governance challenges as digital tools, algorithms, and data all become instrumental parts of medical decision-making and patient care delivery. Improper governance of these tools can lead to disparities in patient outcomes, including inaccurate predictions based on race and gender.

Public-sector procurement is a critical leverage point by which government bodies can build accountability mechanisms for conscientious purchasing of AI-based healthcare tools. This policy brief recommends that government procurement officers build language into AI contracts by using the Healthcare AI toolkit, which allows agencies to incorporate and customize best practices for health tech governance into their requests for proposals (RFPs) and contracts. These contract clauses are built to fit the unique regulatory landscape of the health data ecosystem and can help guide purchasers toward mechanisms for meaningful algorithm accountability. In doing so, government agencies will more likely be able to procure tools that build in transparency, fairness, and privacy by design.

BACKGROUND

Healthcare institutions are encountering new governance challenges as digital tools, algorithms, and data all become instrumental parts of medical decision-making and patient care delivery. These tools require different forms of oversight and regulation, but also represent

new opportunities for healthcare institutions to formalize privacy protections, strengthen patient–physician trust, and improve patient health and save lives in ways never possible before.

Recent trends around technology use in healthcare have exposed the deep impact that healthcare algorithms can have on patient safety, privacy, and equity:

- An algorithm made by Optum, a healthcare solutions company, was found to have racial bias. The algorithm, which predicted patient healthcare utilization and costs, passed over 28.8% of Black patients who required follow-up healthcare.[1]

- The use of race-based correction factors in kidney disease diagnosis led to the underdiagnosis and delay of care for 29% of Black patients with advanced kidney disease.[2]

- New sources of behavioral and demographics data, such as social media history, internet searches, TV watching habits, and education status, are being used to set prices for insurance premiums.[3]

- Flawed data led to 13% less accurate predictions of sepsis risk and severity.[4]

Healthcare providers and healthcare software makers share a pressing responsibility to proactively define and require oversight of algorithmic tools as they gain wider use and adoption.

Procurement processes for technology tools represent a critical leverage point in encouraging responsible AI development within healthcare. In the past five years, approximately 39 different government regulations and operational guidelines around AI procurement have been adopted worldwide, indicating accelerating interest in responsibly exercising government purchasing power for shaping the quality and efficacy of AI-based products.[5]

RECOMMENDATIONS

By using procurement contracts to specify evaluation criteria and oversight mechanisms for purchased healthcare AI tools, government bodies can solicit greater transparency and accountability from

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private-sector AI companies on their algorithm products. This policy brief recommends that government procurement offices and hospitals acquiring third-party AI-based tools carry out the following steps for their procurement process.

1. **Procurement officers should include diversity, bias prevention, and multidisciplinary technical teams as key criteria within their evaluation framework for vendor contract bids.** More specifically, tools should ensure that healthcare services are delivered equitably for BIPOC communities, and that the AI vendor team that is building the tool reflects the diversity of the community it is meant to serve.

Procurement contracts already incorporate preferential criteria during bid evaluation, such as New York State's [10% criteria](#) for incorporating minority-owned/women-owned businesses into the winning contract vendor's sourcing pipeline.[6] Such preferences have been created in response to established histories of demographic disparities and barriers to access for marginalized communities.

The ability to influence contractor bids through selection criteria can help emphasize values of equity and non-discrimination during the purchasing process. The Supreme Court has recently ruled on cases involving this kind of affirmative policy-making, and upheld using such preferences in the use of procurement processes as long as clear histories of historical bias for the community have been demonstrated.[7]

2. **Procurement officers should ensure that request for proposal (RFP) requirements and terminology are standardized and clear for AI vendors to submit bids that directly address the procuring organization's needs.** The toolkit offers a standard set of "AI contract rider" clauses that can be included within procurement RFP documents.

An AI Now Institute report analyzing AI procurement governance policies highlights the need for "algorithmic accountability policies to clearly define the objects of governance as well as establish shared terminologies across government departments."[8] Having a shared vocabulary and standard templates for algorithmic governance across government bodies enables cohesive and streamlined procurement pipelines. Additionally, the requirements and structure

for RFP processes are better clarified for AI vendors to allow smaller businesses to compete with larger ones.

Procurement officers thus should require an "AI contract rider" attached to contracts that consolidates best practices in algorithm governance for specific industry domains.[9] Such a rider should be made available to procurement officers through an accessible user experience so that RFP authors need not demonstrate detailed mastery of algorithmic governance concepts.

3. **Procurement officers should require vendors to follow a regular monitoring and auditing plan to regularly solicit feedback from impacted stakeholders and communities establish clear guidelines and metrics for unacceptable tool performance, and structure equity guardrails tailored to each specific use case.**

It is currently difficult to create effective monitoring and evaluation plans for AI tools because of intellectual property concerns, privacy requirements around data-sharing, ambiguous industry standards around algorithm transparency, and challenges in defining terms like "non-discrimination," in addition to challenges inf getting vendors to change their behaviors. A review of differing technical definitions for fairness in machine learning systems, for example, found 24 definitions that could be applied to different use cases.[10]

Procurement officers should consider retaining a third-party algorithm auditor who can provide independent expertise and guidance on an auditing plan tailored to the procurer's specific use case. These experts can evaluate the risk tolerance and organizational priorities of the procuring body and isolate the correct fairness metrics to include in a monitoring plan.

For more information on these recommendations, please see the Health AI Procurement Guide, which offers a guided workflow for drafting contracts to stipulate transparency requirements, bias prevention design, and privacy standards for algorithm-based products procured through public funds.

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Endnotes

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2 Jyoti Madhusoodanan, "Is a Racially-Biased Algorithm Delaying Health Care for One Million Black People?" *Nature*, December 16, 2020, https://doi.org/10.1038/d41586-020-03419-6.

3 Marshall Allen, "Health Insurers Are Vacuuming up Details about You-and It Could Raise Your Rate," *Scientific American*, July 18, 2018, https://www.scientificamerican.com/article/health-insurers-are-vacuuming-up-details-about-you-and-it-could-raise-your-rates/.

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6 "Minority- and Women-Owned Business Enterprises," Office of the New York State Comptroller, https://www.osc.state.ny.us/state-vendors/resources/minority-and-women-owned-business-enterprises-mwbes.

7 Daniel E. Ho and Alice Xiang, "Affirmative Algorithms: The Legal Grounds for Fairness as Awareness," *University of Chicago Law Review*, February 21, 2021, https://lawreviewblog.uchicago.edu/2020/10/30/aa-ho-xiang/.

8 See Basu, *supra* note 5.

9 "The New York City Artificial Intelligence Strategy," NYC Mayor's Office of the Chief Technology Officer, Oct. 2021, https://www1.nyc.gov/assets/cto/downloads/ai-strategy/nyc_ai_strategy.pdf.

10 Swati Gupta, et al., "Too Many Fairness Metrics: Is There a Solution?" *SSRN Electronic Journal*, April 9, 2020, https://doi.org/10.2139/ssrn.3554829.