



SB 503: AI Systems Mitigation

Senator Akilah Weber Pierson, M.D.

SUMMARY

SB 503 requires developers and deployers to identify, mitigate, and monitor specified artificial intelligence (AI) technologies for potential bias when used in healthcare settings. This bill ensures that proactive steps are taken to detect and reduce bias, protecting patients against avoidable harm.

BACKGROUND

AI technology has had explosive growth in healthcare in just the past few years. As ChatGPT notes, “AI has rapidly reshaped the healthcare landscape, transforming everything from diagnostics and treatment to administrative efficiency and patient engagement.” But, even ChatGPT recognizes that one challenge in this integration is preventing bias and ensuring equity¹.

Bias has long disproportionately impacted the quality of care minority or vulnerable communities receive. The California Task Force Reparations Report highlighted that systemic racism and the failure to address unique mental and physical health needs have created undeniable inequities. Black Californians face shorter life expectancies, higher rates of infant and maternal mortality, psychological distress, and chronic, life-threatening diseases².

Several research institutes and healthcare facilities have already begun efforts to identify and correct biases in AI models. Even major large language model (LLM) companies have recognized the importance of testing and training against bias and have the capacity to do so. For example, Meta AI released the FAirness in Computer Vision Evaluation (FACET) dataset, which is a public, comprehensive benchmark designed to encourage researchers to

evaluate potential bias and fairness concerns for protected characteristics in their AI models. A 2019 study revealed that a major LLM manufacturer, used for millions of patients, tested their algorithm and found excessive bias, confirming the study’s results³.

Focusing on AI systems used in clinical decision-making and health care resource allocation helps align with federal regulations and identify technologies that may produce biased outputs. This supports developers and healthcare facilities in mitigating and testing for such bias in health programs and activities

PROBLEM

The harm caused by bias in the integration of AI in healthcare cannot be overstated. The top 10 most widely used algorithms across the industry rely on an accuracy metric that, by design, “necessarily means being racially biased on health³”. The aforementioned study’s researchers made a single tweak to an algorithm’s index variable and reduced bias by over 80%³. A different study found that four major commercial LLMs all had instances of promoting harmful medical practices. In some form, all used outdated race-based medicine, disproven racist rhetoric, or even “completely fabricated equations⁴”. These examples highlight the urgent need for oversight and monitoring to ensure that these tools are safe, accurate, and equitable, especially when used in sensitive healthcare settings or with vulnerable populations.

SPECIFICALLY, THIS BILL

Specifically, SB 503 will require:

- Developers and deployers to identify AI systems used to support clinical

¹ OpenAI. (March 2025). ChatGPT [Large language model]. Retrieved from <https://chat.openai.com/chat>

² California Task Force Members. 2023. *California Task Force to Study and Develop Reparation Proposals for African Americans Final Report*. California Department of Justice. <https://oag.ca.gov/system/files/media/full-ca-reparations.pdf>

³ Ziad Obermeyer et al. (2019). *Dissecting racial bias in an algorithm used to manage the health of populations*. *Science* 366, 447-453. DOI: 10.1126/science.aax2342

⁴ Omiye, J.A., Lester, J.C., Spichak, S. et al. (2023). *Large language models propagate race-based medicine*. *npj Digit. Med.* 6, 195. <https://doi.org/10.1038/s41746-023-00939-z>



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decisionmaking and health care resource allocation.

- Developers and deployers to mitigate the risk for biased impacts when used in health programs or activities.
- Deployers to regularly monitor these AI systems any potential bias that may occur.

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