

AI: THE PATIENT'S PERSPECTIVE

Surveys reflect uncertainty among patients and providers.

WITH INSIGHTS FROM CIKU MATHENGE, MD, MSc, PhD, FEACO

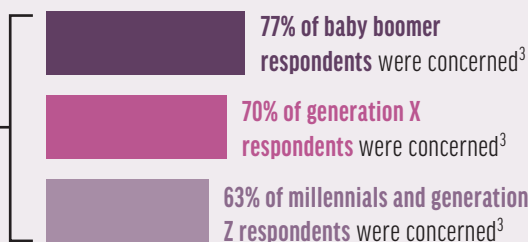
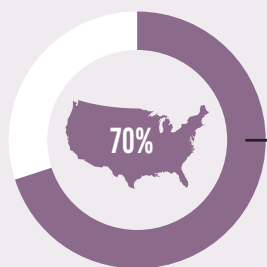


At the 2023 AAO Annual Meeting, Ciku Mathenge, MD, MSc, PhD, FEACO, of the Rwanda International Institute of Ophthalmology, delivered a talk on the patient's perspective on AI.¹ Dr. Mathenge shared insights from her own investigations, including the Rwanda Artificial Intelligence for Diabetic Retinopathy

Screening (RAIDERS) study, and she reviewed some survey data capturing patients' perceptions of AI.² Dr. Mathenge noted, "I do think we need our patients to have the right perceptions of and trust in our systems if they are to become viable and valuable. Evidence is showing that we need to do better at how and what we are telling the public about AI."

SURVEY DATA ON AI IN HEALTH CARE

70% of US adults have concerns about the increased use of AI in health care, and concerns varied by age group.³

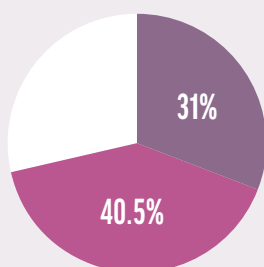


1 in 3 patients said they were comfortable with AI-led primary care⁴



1 in 4 patients said they were comfortable with AI-led therapy⁴

"Patients get worried when they realize not only that AI is not 100% accurate but [also] that AI cannot explain how it is reaching its diagnosis."
—Dr. Mathenge



31% of 926 respondents reported being very uncomfortable and 40.5% reported being somewhat uncomfortable with receiving a diagnosis from an AI algorithm that was accurate 90% of the time but incapable of explaining its rationale⁵

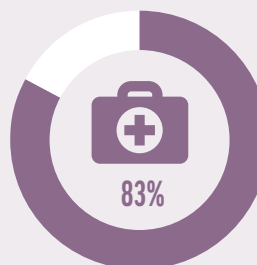
Patients' concerns with AI included⁵:

- Misdiagnosis (91.5%)
- Privacy breaches (70.8%)
- Less time with clinicians (69.6%)
- Higher health care costs (68.4%)

83% of health care providers do not use AI

According to Dr. Mathenge, fair AI:

- Should be a **collaborative act**;
- Should be a **negotiation between utility and humanity**; and
- Should clarify **who is responsible for what at all levels**, from the individual programmer who wrote the code, to the software company that trains and deploys systems, and up to the end user subjecting the patient to AI.¹



"We ourselves are not sure about AI, [and] we are probably communicating those doubts to the public. The question [posed] to professionals was, 'Do you think AI will hurt or help health care?' The majority think it will hurt health care." —Dr. Mathenge

1. Mathenge C. Fairly treated: the patient's perspective on artificial intelligence. Paper presented at: AAO Annual Meeting; November 5, 2023; San Francisco, CA.
2. Mathenge W, Whitestone N, Nkurikiye J, et al. Impact of artificial intelligence assessment of diabetic retinopathy on referral service uptake in a low-resource setting. *Ophthalmol Sci*. 2022;2(4):100168.
3. Zipp R. AI is everywhere. But Americans are concerned about its role in health care.

Morning Consult. August 7, 2023. Accessed December 1, 2023. <https://pro.morningconsult.com/analysis/ai-health-care-americans-public-opinion>
4. Padgett Z. SurveyMonkey poll AI isn't disrupting healthcare - yet. Accessed December 1, 2023. <https://www.surveymonkey.com/curiosity/ai-isnt-disrupting-healthcare-yet>
5. Khullar D, Casalino LP, Qian Y, et al. Perspectives of patients about artificial intelligence in health care. *JAMA Netw Open*. 2022;5(5):e2210309.