

Understanding Bias and Fairness in AI-enabled Healthcare Software

Virtual Public Meeting
December 17, 2021

11:00 am – 4:00 pm ET

Meeting Objective: The meeting will focus on considerations to reduce bias and increase fairness in artificial intelligence used to make health care decisions. Speakers will highlight how bias manifests in health care, methods to prevent, mitigate, and test for bias, and promising examples to address bias. The meeting will end with a discussion of how different federal agencies are thinking about bias and fairness in health care.

11:00 am **Welcome and Overview**

Mark McClellan, Duke-Robert J. Margolis, MD, Center for Health Policy

11:10 am **Introduction: Artificial Intelligence in Health Care**

Presentation:

Christina Silcox, Duke-Robert J. Margolis, MD, Center for Health Policy

11:20 am **Session 1: How Bias Arises in AI Healthcare Software**

Objective: Bias in artificial intelligence stems from several different causes, such as underrepresented training data, otherwise biased training datasets, bias in how the model is created, and bias in how the AI is deployed. This session will feature presenters who will highlight how bias can arise in AI and specific examples where this has happened.

Moderator: Gillian Sanders Schmidler, Duke-Robert J. Margolis, MD, Center for Health Policy

Presentation:

Chris Hemphill, Actium Health

Presentation:

Kasia Chmielinski, Harvard University

Presentation:

Benjamin Goldstein, Duke University

Additional Panelists:

Pilar Ossorio, University of Wisconsin, Madison

Saman Parvaneh, Edwards Lifesciences

Open Discussion and Q&A

12:30 pm **Break**

1:00 pm **Session 2: Procedures for Preventing, Mitigating, and Detecting Bias in Health Care AI**
Objective: In this session, panelists will continue the discussion on how bias can arise in health care artificial intelligence, providing additional details on procedures to prevent, mitigate, and detect bias throughout the product development process.

Moderator: Christina Silcox, Duke-Robert J. Margolis, MD, Center for Health Policy

Panel Discussion:

- **Ziad Obermeyer**, University of California, Berkeley
- **Sara Murray**, University of California, San Francisco
- **Gigi Yuen-Reed**, IBM Corporation
- **Kadija Ferryman**, Johns Hopkins University
- **Eric Henry**, King & Spalding LLP

Open Discussion and Q&A

2:00 pm **Break**

2:10 pm **Session 3: Utilizing AI to Reduce Bias and Injustice in Health Care**
Objective: In this session, speakers will highlight promising examples of artificial intelligence being developed to mitigate bias and reduce injustice in health care. Speakers may also comment on future considerations for uptake and implementation of these technologies.

Moderator: Andrea Thoumi, Duke-Robert J. Margolis, MD, Center for Health Policy

Presentation:

Art Papier, VisualDx

Presentation:

Emma Pierson, Cornell University

Presentation:

Mercy Asiedu, Global AI Powered Health Technologies

Additional Panelists:

- **Jana Schaich Borg**, Duke University
- **Sonoo Thadaney Israni**, Stanford University

Open Discussion and Q&A

3:20 pm

Federal Agency Roundtable

Objective: In this session, a panel of government experts will react to the day's discussion. Speakers may also comment on the direction for the future of AI regulation and current agency initiatives around bias and AI in health care.

Moderator: Mark McClellan, Duke-Margolis Center for Health Policy

Panel Discussion:

- **Elham Tabassi**, National Institute of Standards and Technology
- **Robin Wetherill**, Federal Trade Commission
- **Matthew Diamond**, U.S. Food and Drug Administration
- **Stephen Konya**, Office of the National Coordinator for Health Information Technology

3:55 pm

Closing Remarks and Adjournment

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