



CO-DESIGNING A FAIRNESS DASHBOARD

FOR CLINICAL APPLICATIONS OF ARTIFICIAL INTELLIGENCE
IN MENTAL HEALTH

WELCOME PACKAGE

camh
mental health is health

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Let's get to know each other!



Think about this icebreaker question for our first meeting:

If you could instantly master any skill, what would it be?

Project Team: Who you will be working with



**Dr. Laura Sikstrom,
Project Scientist,
Project Lead**

Designs and leads all aspects of the project, oversees qualitative research and engagement



**Dr. Marta Maslej,
Project Scientist,
Project Lead**

Designs and leads all aspects of the project, oversees quantitative research and data



**Patrycja Szkudlarek,
Research Analyst
Trainee**

Assists with the organization and logistics of the project, including scheduling and payment



To be determined

Someone new will join our team in early 2024!

Project Team: People Behind the Scenes



**Dr. Sean Hill,
KCNI Director**

Proposed the project, made this project possible



**Dr. Stefan Kloiber,
Clinician Scientist**

Supports with his clinical research expertise in depression, anxiety



**Dr. Juveria Zaheer,
Clinician Scientist**

Supports with her research expertise and knowledge of CAMH logistics



**Dr. George Fousias,
Clinician Scientist**

Supports with his clinical research expertise in motivational deficit



**Masooma Hassan,
Business Intelligence**

Supports with her expertise in AI applications in healthcare

Co-Designing a Fairness Dashboard: Overview



The problem:

The use of artificial intelligence (AI) in mental healthcare can be biased and unfair.

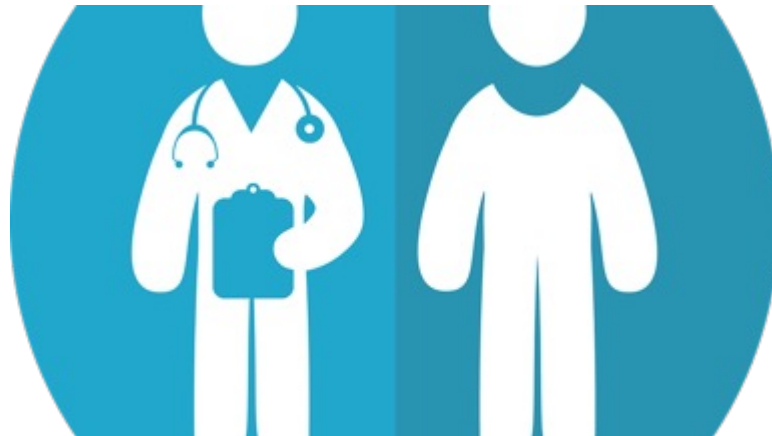


The goal:

To design a visual tool (dashboard) that represents sociodemographic data fairly and will help scientists develop fair AI models for future care.

We need to combine:

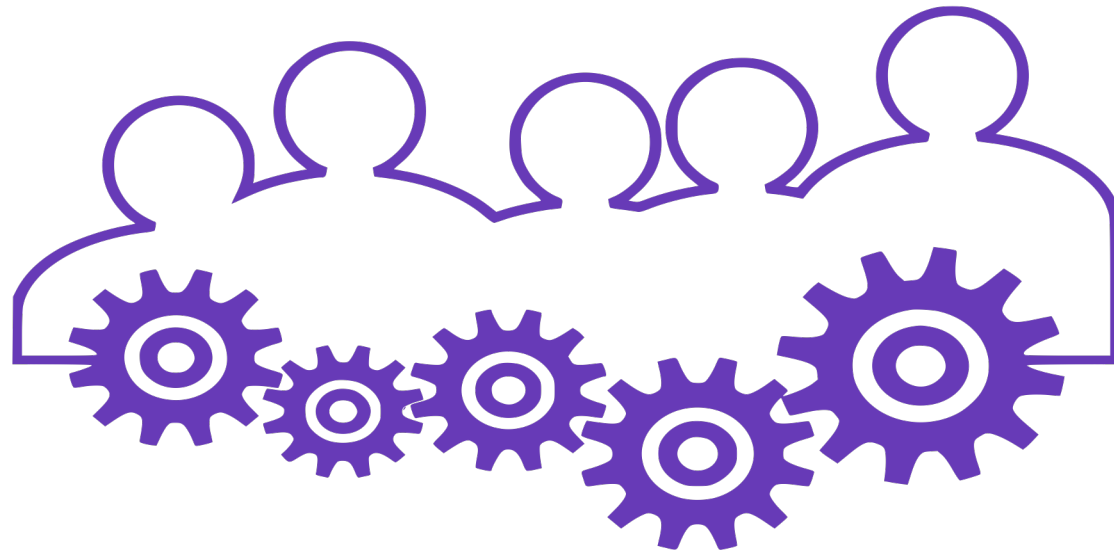
Needs of clinical and data scientists



Views and ideas of people with lived experiences

Our “Why”

- ➔ AI models can harm certain groups of people in healthcare settings when they are trained with unrepresentative data.
- ➔ For AI use to be fair, it needs to be given consistent, high-quality *sociodemographic data*. Unfortunately, this information is often inaccessible or inconsistently collected in healthcare.
- ➔ We saw this as an opportunity to access this data and create a visual resource (the Fairness Dashboard) for scientists to help improve equitable data use in mental health care.



Health Equity

Unit / Clinic: Acute Care U5

Were you born in Canada?
 Yes No Prefer not to answer Do not know

What Year Did you Arrive in Canada?

Which of the following best describes your racial or ethnic group?

- Asian-East (i.e. China, Japan, Korea)
- Asian-South East (i.e. Malaysia, Filipino, Vietnamese)
- Asian-South (i.e. India, Pakistan, Sri Lanka)
- Black-African (i.e. Ghanaian, Kenyan, Somali)
- Black-North American (i.e. Canadian, American)
- Black-Caribbean (i.e. Barbadian, Jamaican)
- First Nations
- Indian-Caribbean (i.e. Guyanese with origins in India)
- Indigenous/Aboriginal not included elsewhere
- Inuit
- Latin American (i.e. Argentinian, Chilean, Salvadorian)
- Melis
- Middle Eastern (i.e. Egyptian, Iranian, Lebanese)
- White-European (i.e. English, Italian, Portuguese, Russian)
- White North American (i.e. Canadian, American)
- Mixed Heritage (i.e. Black-African and White-North American)
- Prefer not to answer
- Do not know
- Other:

What is your religious or Spiritual Affiliation?

- Animism or Shamanism
- Atheism
- Bahá'í Faith
- Buddhism
- Christian (not included elsewhere on the list)
- Christian Orthodox
- Confucianism
 Hinduism- Islam
- Jainism
- Judaism
- Native Spirituality
- Pagan
- Protestant
- Rastafarianism
- Roman Catholic
- Sikhism
- Spiritual
- Unitarianism
- Zoroastrianism
- I do not have a religious or spiritual affiliation
- Prefer not to answer
- Do not know
- Other:

What is your Sexual Orientation?

- Heterosexual
- Gay
- Lesbian
- Bisexual
- Two-Spirit
- Queer
- Prefer not to answer
- Do not know
- Other:

What is your Gender?

- Female
- Male
- Intersex
- Trans Female Male
- Trans Male Female
- Two-Spirit
- Do not know
- Prefer not to answer
- Other:

What type of housing do you live in?

- Own Home
- Renting Home
- Boarding Home
- Correctional facility
- Homeless/on the street
- Group home
- Shelter/Hostel
- Supportive Housing
- Living with parents
- Prefer not to answer
- Do not know
- Other:

What was your total family income before taxes last year?

- \$0 - \$4,999
- \$15,000 - \$19,999
- \$20,000 - \$24,999
- \$25,000 - \$29,999
- \$30,000 - \$34,999
- \$35,000 - \$39,999
- \$40,000 - \$59,999
- \$50,000 or more
- Prefer not to answer
- Do not know

How many people does your income support?

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10+
- Prefer not to answer
- Do not know

Do you have any of the following disabilities?

- No Disabilities
- Chronic Illness
- Developmental Disability
- Learning Disability
- Mental illness
- Physical Disability
- Sensory Disability (ie hearing or vision loss)
- Drug or Alcohol Dependence
- Prefer not to answer
- Do not know
- Other:

How Is This Being Done?

Information sourced from CAMH's electronic health records, including demographic surveys administered to patients via **Health Equity Registration Forms**, are being used to build these visualizations.



What Do Scientists Think?

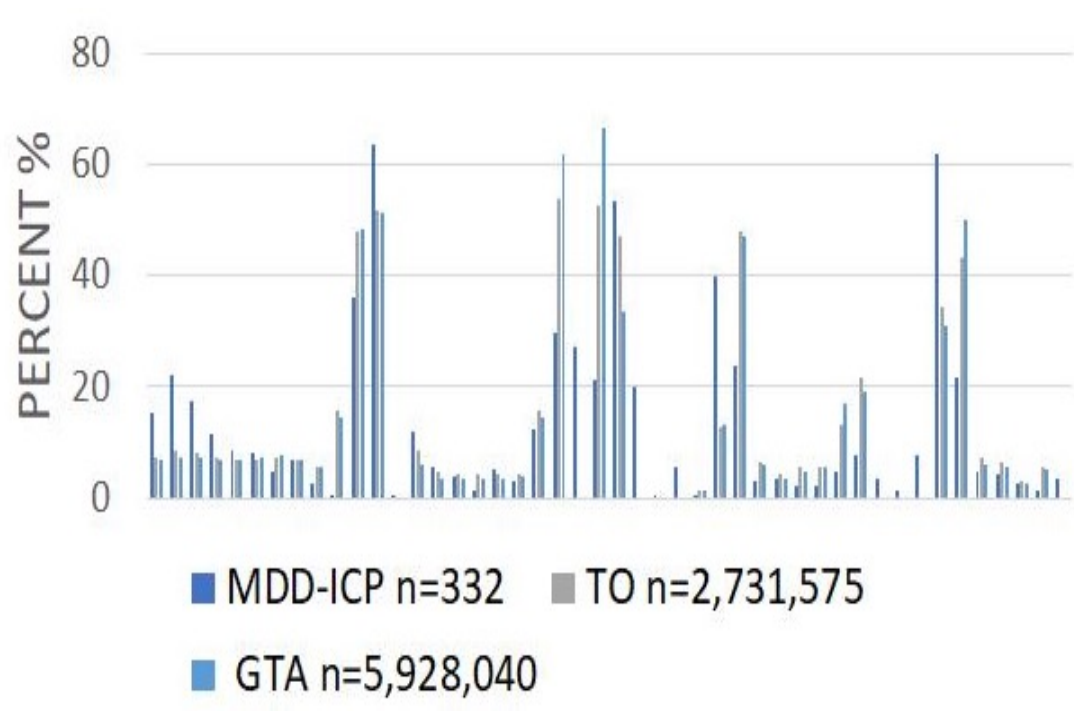


Figure 1 – Example of Fairness Dashboard prototype version 1

We interviewed scientists and asked for their feedback on visualizations we made based on past studied sociodemographic data (*Figure 1*). We also asked about the need for a Fairness Dashboard.

What we learned:

- Visualizing this data in detail could improve future health studies (e.g., project design, recruitment) and help make them more equitable and fair.
- Scientists want guidance on how to responsibly use this data.
- We need to better understand if, and how, equity deserving groups and communities want to be visually represented in a tool like this.

How Will You Contribute?



Attend monthly meetings with the team (in-person/virtually)



Learn from our workshops about Artificial Intelligence and Data Dashboards



Share your views and ideas about these topics through in-depth discussions

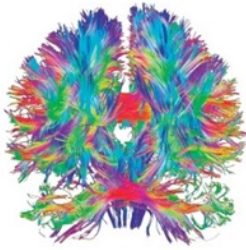


Time commitment: minimum 4 hours per month from Sept 2023-Aug 2024



Compensation for your time and help - \$30 per hour

Guidelines: Time Commitment and Taxable Income



Time Commitment:

- Some meetings or training sessions may require 30 minutes to 1 hour of preparation beforehand. If you feel you need more time to prepare, please let us know and we will allot more time when materials are sent out.
- If any additional hours are available, we will talk with you beforehand about whether you would like to participate. You will be compensated for all participation.

Taxable Income:

Please note, CAMH has a requirement that once you receive \$500 of payment in a calendar year, the income becomes taxable and they will need to issue you a T4. Please let us know if this is okay with you and if you prefer to not exceed the \$500 amount, we can do our best to accommodate this by keeping your hours within that limit.

Guidelines: Payment Set Up & Process



In order to get paid, please email patrycja.szkuclarek@camh.ca the following by **September 15th** (or earlier if possible):

1. Your SIN number
2. Completed **Electronic Funds Transfer Form** (attached to your welcome email)
3. A copy of a void cheque.

Payment Process:

- Advisors need to keep track of their own hours.
- Hour tracking includes meeting duration, time spent checking emails, and time needed for reading required materials in preparation for a training/meeting.
- We ask that you submit your hours on or before the **15th of every month** by email to Patrycja. We can send you an email or calendar reminder ahead of time for when this is needed at your request.
- Each month, we will submit your hours to our finance department, and you will receive your funds via electronic deposit within **7-10 days**.

Guidelines: Feedback & Breaks



Giving and Receiving Feedback:

- We may ask you for feedback from time to time on your experience. We are also happy to receive any suggestions for change or feedback on your experience at any time.
- When you first start, we will ask you how you would like to give and receive feedback.

What to do if you need to take a break:

- If you can't attend a meeting for any reason, it's okay to take a step back. You do not have to attend every meeting and can take a break from your role if needed.
- If you are able to share commentary about the project through email or in another form online, we are happy to receive it. However, there is no expectation of this.
- If you need to take a break from your role, please contact patrycja.szkuclarek@camh.ca

Before Our First Meeting...



1. Take some time to reflect on your expectations of working on this project. You can use this Google Jamboard to share your thoughts (or chat about it with us at our meeting):

<https://jamboard.google.com/d/1XaTRs05nnvL0iQreO3yjsa1aOfIsOYt26QwA-pa76k/edit?usp=sharing>

2. If you would like to learn more about AI in psychiatry before we get started, you can watch this video led by our project leader, Dr. Laura Sikstrom, and other collaborators:

What is 'AI' and what is it doing in psychiatry?

<https://www.youtube.com/watch?v=qVUs-BnGI0U>

Please note: *These activities are optional. Feel free to take a look before our first meeting, but no need to complete them unless you'd like to on your own time.*

Thank you for joining us and welcome to the team! 😊

For any questions, please feel free to reach out to:
Patrycja Szkudlarek – Patrycja.szkudlarek@camh.ca

CAMH Updates

Stay up to date on CAMH news, including projects and findings:
<https://www.camh.ca/en/camh-news-and-stories>

The Patient and Family Learning Space is a great resource:
<https://www.camh.ca/en/your-care/programs-and-services/patient-and-family-learning-space>

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