# Ethical AI in Healthcare: Responsible Practices for Preventive Health Models

By: Lilian Damisa

## Data Privacy and Consent

We ensure that all patient or health-related data used in the glycemic modeling is anonymized and de-identified. If any real-world data is involved, informed consent must be obtained, and all data handling must comply with data protection regulations (e.g., NDPR or GDPR).

## Fairness and Bias Mitigation

AI models trained on local meal data must be inclusive of diverse demographics (e.g., age, gender, medical history) to prevent bias. If certain groups are underrepresented, predictions may be less accurate for them. We commit to:

* Reviewing datasets for imbalance.
* Validating models across subgroups.
* Continuously auditing for unfair treatment or predictions.

## Transparency and Explainability

AI outputs, such as glycemic predictions, should be explainable to healthcare professionals and patients. We aim to:

* Use interpretable models (like decision trees or linear regression) when possible.
* Provide clear explanations for how predictions were made.
* Avoid “black-box” decisions in clinical settings.

## Safety and Risk Minimization

The simulation of antibiotic resistance is for research only; not to guide real-time treatments. We clearly label such models as experimental and ensure they are not misused. Also, AI should not replace doctors, but support them with better insights.

## Accountability and Continuous Monitoring

We recognize the need for:

* Audit trails for model changes.
* Human-in-the-loop reviews before decisions.
* Regular checks to update models with new data and scientific understanding.