

UTILIZING MATHEMATICAL MODELING TO TACKLE DEPRESSION & RELATED MENTAL HEALTH CONDITIONS AMONG ADOLESCENT GIRLS & YOUNG WOMEN IN SUB-SAHARAN AFRICA



BRANDED AS:

WOMEN DERIVE MATHEMATICAL MODELS FOR MENTAL HEALTH (WEALTH)

Introduction

In Sub-Saharan Africa (SSA), Adolescent Girls and Young Women (AGYW) face a stark mental health crisis, with a threefold higher prevalence of clinical depression compared to their male counterparts. Despite the severity of this issue, many low and middle-income countries (LMICs) allocate less than 2% of their health budgets to mental health. Mathematical modelling offers a transformative approach to address this challenge. By harnessing data to produce actionable insights, we can make precise forecasts and support evidence-based policy decisions. This approach is crucial for predicting mental health disorders and evaluating intervention strategies, ultimately guiding effective policy and resource allocation.

Call for Applications from Early to Mid-Career Researchers and Policy Makers

The WEALTH project invites applications from Early to Mid-Career Researchers and Policy Makers across Sub-Saharan Africa for an innovative online training program aimed at building capacity in mathematical modeling of depression and related mental health conditions among Adolescent Girls and Young Women (AGYW). This capacity-building initiative aims to equip participants with essential skills to develop data-driven interventions, influence policy and address mental health challenges.

Why Enrol in This Programme?

- This is an international collaborative initiative of members of faculty from the University of Ibadan, University of Warwick, Federal University of Technology, Akure (FUTA), Federal University, Oye-Ekiti (FUOYE) and Imperial College, London.
- It features a **multidisciplinary curriculum** with courses in **brain and mental health, mathematical and statistical modelling, spatial modelling, epidemiology, and gender studies.**

- The programme is **action-oriented** with a focus on developing skills in **statistical and mathematical modelling of mental health** as well as in **knowledge translation** to influence practice and policy.
- A blend of **online lectures** and **one-on-one mentorship** with **world class experts** from a range of relevant disciplines.
- The opportunity to work on a **capstone research paper** and **policy brief** as well as carry out policy advocacy on a topic of your interest with support from programme faculty.
- A **yearly in-person conference** to meet expert and budding mathematical modelers from all over Africa.
- On completion of this course, participants will walk away with the ability to :
 - **Critically evaluate** statistical and mathematical models of depression and related mental health conditions.
 - **Develop and refine** mathematical and statistical models of depression and related mental health conditions.
 - **Interpret and explain** models to policymakers and non-modelers through written and oral communication.
 - **Advocate** for **evidence-based interventions** and **policy change** to address mental health issues specifically affecting AGYW in SSA.

Program Details:

- **Program Type:** Online certificate course
- **Program Focus:** Mathematical modeling for mental health, with a primary emphasis on depression among AGYW in Sub-Saharan Africa.
- **Target Audience:** Early to mid-career researchers and policymakers in public health, brain health, non-communicable diseases (NCDs), and gender studies.
- **Eligibility:** Open to residents from Cameroon, Eritrea, Gambia, Ghana, Kenya, Malawi, Nigeria, Rwanda, Sierra Leone, Somalia, South Africa, Tanzania, Uganda, and Zimbabwe.
- **Program Duration:** 18 months of online training, with an average commitment of 40 hours per month.
- **Format:** Online Lectures and One-on-One Mentorship with a yearly in-person conference.

Eligibility Criteria:

- A university degree or higher in a related field (e.g. health sciences, epidemiology, statistics, social sciences, public policy etc.)
- Familiarity with survey research methods and analysis of nationally representative survey data
- Ability to run and interpret descriptive statistics and an understanding of statistics and research terminology.

- Knowledge of at least one of the following data analysis software packages: STATA, SAS, SPSS, R
- Strong writing skills.
- Ability to devote an average of 40 hours/month to the course.
- Affiliation to a university, research institution or government organization based in Cameroon, Nigeria, Gambia, Ghana, Malawi, Rwanda, Tanzania, Sierra Leone, Eritrea, Zimbabwe, Somalia, Kenya, South Africa, and Uganda.
- Preference will be given to applicants from Consortium for Advanced Research Training in Africa (CARTA) partner institutions and to graduates of the Centre for Child and Adolescent Mental Health (CCAMH)

Desirable Criteria:

- Prior work in mental health, brain health, other non-communicable disease conditions, gender studies.

How to Apply:

Submit your resume and a letter of application to: **wealth4womeninafrica@gmail.com**. Applicants will undergo a thorough selection process, and successful candidates will be awarded a full scholarship for the program.