FINAL LIST OF SUBGRANTEES

Innovation Hub on Artificial Intelligence for Sexual, Reproductive and Maternal Health in Africa

Grant No. 109804 – 001

December, 2022

STIs THEME

Appn ID	Country	Organization type	Track	Study Title	Research question	Intervention description	Duration
248	Nigeria	Established Organization over 5 years – **mDoc Healthcare**	Innovation	Harnessing the power of Artificial Intelligence to augment patients' knowledge, understanding and behaviours with Sexually Transmitted Infections	Can an AI-enabled chatbot for pregnant women and their partners increase STI care and measurably improve STI knowledge and care-seeking behaviour in pregnant women?	Chatbot based on mDoc. It will provide personalized guidance to pregnant women on STIs.	15 months
218	Ethiopia	Established Organization over 5 years - **Addis Ababa Science and Technology University**	Innovation	Sexually transmitted disease monitoring and assistance tool design in Ethiopian higher education institutes	How to construct predictive model for STDs? What are protective measures, symptoms and treatments for STDs? How can an anonymous chatbot with big data analytics can be designed for students?	Mathematical modelling to identify key variables that predict STDs among University students. Also a chatbot to disseminate information and help students freely get help.	18 months

MATERNAL HEALTH THEME

Appn ID	Country	Organization type	Track	Study Title	Research question	Intervention description	Duration
180	Uganda	Registered Masters or PhD student – **Makerere University**	Research	Prediction of miscarriages among women seeking antenatal care in Uganda: A machine learning approach.	Can machine learning algorithms predict women at risk of miscarriage using data collected during antenatal care?	Will build a classification machine learning algorithm that will predict the risk of miscarriage among women seeking antenatal care, while identifying the major factors that influence a pregnancy ending in a miscarriage. The algorithm will be deployed as a web application	18 months
241	Namibia	Startup organization younger than 5years - **Pan African Information Communication Technology**	Research	Machine Learning for identifying teenage patients at risk of gestational hypertension	How can an ML model be developed by comparing the prediction performance of nine classification models to identify teenage patients at risk of gestational hypertension?	Will develop an ML model by comparing the prediction performance of nine classification models to identify teenage patients at risk of gestational hypertension. This project will (1) gather clinical datasets relating to teenage pregnancies from the Namibian context (2) train the dataset based on nine binary classification models (3) test and compare the prediction performance of the different models trained.	18 months
236	Uganda	Established Organization over 5 years – **Makerere University**	Research	A Machine Learning-aided Platform for Point-of-Care Pregnancy Risk Assessment from 2D Ultrasound	Our research question is can we develop and evaluate a machine learning-aided platform for automatic early detection of pregnancy risks and complications in underserved populations?	Develop a smart robust, and rapid screening solution for high-risk pregnancies utilizing a combination of US imaging modalities, and a computational platform backed by AI in the form of Deep Learning Models.	12 months

HIV

Appn ID	Country	Organization type	Track	Study Title	Research question	Intervention description	Duration
127	Uganda	Established Organization over 5 years – **The Medical Concierge Group**	Research	Using Machine Learning and Artificial Intelligence (AI) modelling to identify high-risk sub-population eligible for PrEP and willing to pay for the services.	What are the characteristics and market size segments of the population willing to pay for PrEP services in Uganda?	Will leverage ML and AI modeling to identify, quantify, analyze, and map high-risk populations that are eligible for PrEP and can pay for the services. Will use existing datasets.	18 months
190	Tanzania	Established Organization over 5 years - **Muhimbili University of Health and Allied Sciences**	Innovation	Artificial intelligence for screening of TB among people living with HIV	Can access to screening of TB among PLHIV lower the mortality of HIV?	There is a need for development of affordable and accessible methods for screening of TB. The team has developed an AI algorithm for screening of TB by using chest X-ray. The algorithm was trained using publicly available dataset. Want to use the tool for screening of TB cases with a special focus on people living with HIV.	18 months

ADOLESCENT SRH

Appn ID	Country	Organization type	Track	Study Title	Research question	Intervention description	Duration
138	Ghana	Established Organization over 5 years - **University of Ghana, Legon**	Research	Utilizing AI to Promote Sexual and Reproductive Health Outcomes for Adolescents with Disabilities in Ghana	How can AI be used to Promote Improved Sexual and Reproductive Health Outcomes for Adolescents with Hearing, Speech and Visual Disabilities in Ghana?	This seeks to utilize machine learning to break the barriers inhibiting adolescents with hearing, speech and visual disabilities from accessing SRH information and services. A mixed-methods research design will be adopted to collect data from in-school adolescents with hearing, speech and visual disabilities, as well as key stakeholders.	18 months
165	Kenya	Established Organization over 5 years – **University of Embu**	Research	BESHTE: A Chatbot to enhance HIV testing, status awareness, and status disclosure among adolescent boys and girls and young men and women in Kenya	How can a Chatbot enhance HIV testing, status awareness, and status disclosure while addressing discrimination, and stigmatization to reduce new HIV infections among adolescents and young adults in Kenya?	A quasi-experimental research design to develop a Chatbot. It will be used to increase HIV knowledge and HIV testing, while enhancing status awareness and status disclosure to sexual partners within the population group. It will also address discrimination and HIV-related stigma toward adolescents and young adults seeking testing and treatment.	18 months
255	Uganda	Registered Masters or PhD student - **Mbarara University of science and Technology**	Research	Leveraging Artificial Intelligence Techniques To Inform Choice Of Modern Contraceptives Among Adolescent Girls And Young Women.	Can artificial intelligence techniques predict the likelihood of occurrence of contraceptive side effects and failure rate among adolescent girls and young women aged 15-24 years?	Project will follow up young girls and adolescent women aged 15-24 years using selected modern contraceptive methods and attending family planning clinics for a period of 12 months. The data collected will be used to develop an AI model that will predict likelihood of occurrence contraceptive side effects and contraceptive failure.	18 months