



BLOODSAFE Symposium Report

June 10, 2021

The BLOODSAFE Program is a unique initiative that supports research to enhance availability of safe blood for patients in low or lower-middle income countries (LLMICs) in Sub-Saharan Africa. The program is funded by the National Heart, Lung, and Blood Institute (NHLBI), which is part of the National Institutes of Health (NIH). The BLOODSAFE program commenced in July 2020. On June 10, 2021, approximately one year later, a virtual symposium was held to introduce the program to the global transfusion medicine, public health and implementation science communities. There were 135 registrants from 22 countries, representing 44 government agencies and 17 non-governmental agencies.

The symposium was moderated by Dr Meghan Delaney, in her role as the chairperson of the BLOODSAFE program. In her opening remarks, Dr Delaney described the structure of the BLOODSAFE program that includes three Africa based study teams located in Ghana, Kenya, and Malawi and one data coordinating center at University of Minnesota under Dr Cavan Reilly's leadership. The six-year BLOODSAFE program includes two years of assessment followed by four years of implementation research to support increasing access to safe blood products. Dr Keith Hoots, Director of NHLBI's Division of Blood Diseases and Resources, and Dr George Mensah, Director of NHLBI's Center for Translation Research and Implementation Science, both individually welcomed the symposium guests and speakers and underscored NHLBI's commitment to BLOODSAFE.

The first session of the symposium focused on the three BLOODSAFE scientific project teams' work. Dr Lucy Asamoah-Akuoko, one of the two principal investigators for the Ghana team, described the two projects they have designed. Dr Lucy Asamoah-Akuoko leads a study in Ghana evaluating community-based communication programs to increase blood donation. Dr Yvonne Dei-Adomakoh is the principal investigator of a study to assess if iron supplementation interventions can be used to improve blood donation rates in Ghana. Dr Pratap Kumar, one of the two principal investigators for the

Kenya team, presented the project Pathways for Innovation in Blood Transfusion Systems in Kenya which is focused on studying hospital transfusion practices at the hospital level. Dr Juan Carlos Puyana is the other principal investigator for their team. Lastly, Dr Bridon M'Baya, one of the two principal investigators for the Malawi team presented the projects they are undertaking that focus on enhancing blood donation at schools and beyond. Dr Mina Hosseinpour is the other principal investigator for the Malawi team. Each of the three study teams have written protocols, achieved necessary approvals across multiple organizations and review boards and have built new study teams to execute their study's vision.

The second session of the symposium focused on Quality Systems and Policy. It was moderated by Dr Simone Glynn, Chief of NHLBI's Blood Epidemiology and Clinical Therapeutics Branch. Dr Andre Loua, the Technical Officer for Blood Safety, Tissues and Organ Transplantation at the World Health Organization's (WHO) Regional Office for Africa, presented on the availability and access to safe blood and blood products in the WHO African Region. Dr Loua's talk provided a detailed description of the blood systems in Africa and how WHO is working to support improvement in blood safety and supplies. Dr Doris Mbanya is a consultant haematologist at the Yaoundé University Teaching Hospital in Cameroon and is the current president of the African Society of Blood Transfusion (AfSBT). Dr Mbanya's presentation about the contributions of the AfSBT in promoting "Safe Blood for All" illustrated how the AfSBT and its members have made strong progress in advancing safe blood transfusion in all of the African nations.

The third and final session in the symposium was entitled "Approaches to Research" and was moderated by Dr Makeda Williams, NHLBI's Global Health Program Director. Dr Fred Semitala is a Lecturer in the Department of Medicine and Executive Director, Makerere University Joint AIDS Program in Uganda. Dr Semitala's presentation was about the foundational principles of implementation science and described some of his "real life" examples of implementation science studies that focus on HIV care and programming. The next speaker was Ms Linda Barnes, who is a DrPH candidate, MHA, Vice President of Biotherapies for the AABB and has extensive experience in transfusion practices in LMIC. Ms Barnes discussed qualitative research on Voluntary Non-Remunerated Blood Donation, in Caribbean nations. Her talk provided perspectives on how qualitative and mixed methods research can support development of a sustainable blood supply by finding the most critical suite of contributing factors. The final talk of the symposium was given by Dr Kathryn Maitland who is a Professor of Paediatric Tropical Infectious Diseases Imperial College, London and is based in East Africa. Dr Maitland discussed a randomized controlled trial of transfusion timing and volume in African children with severe anaemia.

The symposium successfully brought awareness to a large international audience about the BLOODSAFE program. The symposium described the background and importance of improving availability and delivery of safe blood for transfusion in LLMICs in sub-Saharan Africa. The experience provided a robust educational opportunity for the BLOODSAFE study team members to learn about the other BLOODSAFE projects and to gain exposure to quality, blood program accreditation, professional societies and leading researchers in the field. To learn more about the BLOODSAFE program, please visit our website: <https://bloodsafe-research.org/>.

Written by:

Dr Meghan Delaney, DO, MPH
Chairperson, BLOODSAFE Program, NIH
Director, Transfusion Medicine
Professor, Pathology & Pediatrics, The George Washington University Health Sciences
Division Chief, Pathology & Laboratory Medicine Division
Children's National Hospital
Washington, DC, USA