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T-REC

Building research capacity of blood services in Africa

Drop by drop: building African research capacity in blood services

An innovative project in Ghana and Zimbabwe supported local blood services staff to carry out research into what will improve services in their own countries. The EU-funded 'Building research capacity of blood transfusion services in Africa' or 'T-REC' brought together African blood services practitioners and managers who have in-depth knowledge of the needs and challenges of their transfusion services, with academics experienced in designing and conducting international quality research.

"We can help together to uplift the issue of research in the National Blood Service Zimbabwe."

Stella Rupi, clinical nurse, NBSZ

Why does Africa need local researchers in blood transfusion?

Blood banking in Africa faces challenges because of inadequate funding leading to poor donor recruitment and retention strategies and the shortage of a safe pool of regular voluntary donors. There is no evidence to support current recruitment strategies in Africa. The relatively high prevalence of Infectious diseases such as Hepatitis B and malaria makes screening difficult in resource-limited settings. The cost effectiveness of screening for such infections has not been assessed in these resource-limited settings. Evidence used to guide policy and practice in blood transfusion has almost exclusively been generated by Europe and North America and is often inappropriate for African contexts. It is therefore important for African researchers to generate their own research about blood transfusion and put the findings into policy and practice.

What did T-REC do?

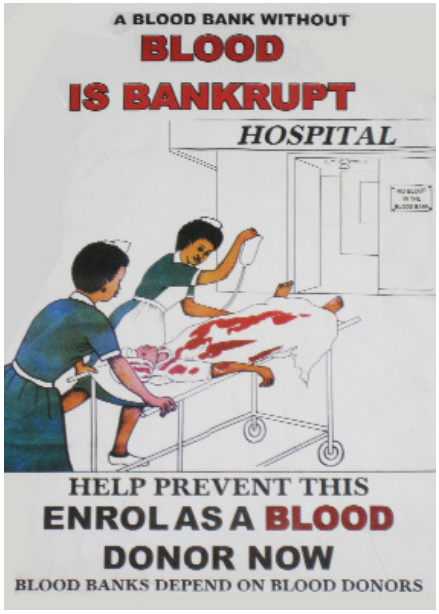
Between 2011–2015, T-REC strengthened research capacity at individual, institutional and supra-national levels through supporting four PhD students from Zimbabwe and Ghana who were jointly supervised by researchers from their local university and a European university. Their projects cover donor motivation, rationalising syphilis screening, trends in HIV patterns and economics of infection screening.

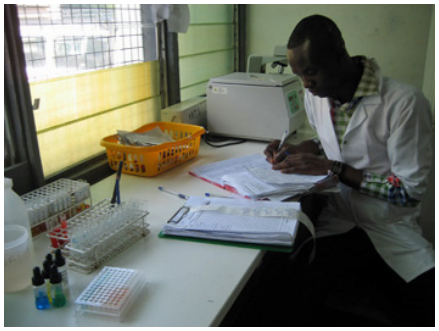
In addition, each year up to nine staff each from the transfusion services in Ghana and Zimbabwe undertook a one-year, work-based part-time course called the Diploma in Project Design and Management (DPDM). This took them through the process of designing and carrying out their first transfusion research project. Supplementary research funds were also provided to undergraduate and postgraduate students to undertake research on a blood transfusion related project.

What are the changes so far?

The effects of research capacity strengthening often take many years to have an impact. However, changes in national blood transfusion services are already taking place. For example, in Ghana, a Research Uptake Group has

Poster for recruiting blood donors in Ghana.





Health worker at the National Blood Service in Ghana.

been formed as a result of T-REC. This group feeds into the National Research Steering Committee and the findings of research from the PhD students and DPDM students will be useful at this level. The blood service in Zimbabwe has further strengthened its research capacity during the T-REC project as evidenced by the recent national consultation in February 2015 to review its research experience, including lessons from the T-REC collaboration. NBSZ determined its next steps to enhance research capacity among its staff and academics.

Overall, blood transfusion staff and students found the research capacity strengthening to be highly motivational professionally. They gained the ability to be constructively critical of existing practices and found ways to solve problems.

Evidence emerging from the studies of PhD and DPDM students include the following:

"Doing the DPDM was a tremendous experience. I am now a proud researcher and medical practitioner."

Mernad Mutenherwa, National Blood Service Zimbabwe

Zimbabwe

The work of Tonderai Mapako, a T-REC PhD student in Zimbabwe, is being used to inform policies and practice at the National Blood Service Zimbabwe. Results from one study on changes in HIV prevalence in the general population are being continuously used to inform the review of the blood donor risk management model at NBSZ. The risk assessment data is to be combined with a cost effectiveness analysis done by another T-REC PhD student, Nyasha Mafirakureva.

Ghana

Isaac Nuako and Stephen K. Danso conducted Knowledge Attitude and Practice (KAP) studies among nursing students and first-time voluntary blood donors respectively. Their results and recommendations are influencing the policy of the National Blood Service in Ghana and informed the message content for educational campaigns to general public and to health workers. Critical messages and information will be included in the curriculum for training nurses on blood transfusion and for donor clinic staff. The messages are also helping to develop action plans for blood donor retention programmes.

Three other DPDM students in Ghana researched factors that affect the motivation and retention of family and voluntary blood donors. Recommendations from their work will be included in strategies for blood donor retention, and the National Blood Service intends to input specific findings into a revision of its policy on motivation and retention for voluntary blood donors. It intends to adopt recommendations into strategies for phasing out the family replacement system, converting into voluntary non-remunerated donors.

About T-REC

With funding from the European Community, T-REC is a partnership between the universities of Copenhagen (Denmark) and Groningen (the Netherlands) and blood services and universities in Ghana and Zimbabwe. It is led by Professor Imelda Bates from the Liverpool School of Tropical Medicine, UK.

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