

POETIC TANZANIA ANNUAL REPORT 2024



Dear Colleagues and Collaborators

As we close another year of impactful work, we extend our heartfelt gratitude to everyone who has supported and contributed to the achievements of the POETIC Tanzania team in 2024. Your dedication and unwavering commitment have been instrumental in driving our efforts forward.

This year, we have continued to grow and addressed challenges with resilience; turning them into opportunities for transformative change. The milestones achieved reflect not only our team's hard work but also the shared vision and collaborative spirit of our partners and supporters.

As we look to the year ahead, we are energized by the opportunities to deepen partnerships and expand our impact through groundbreaking research, academic initiatives, and strategic policy engagement. Together, we can forge new paths and create meaningful change, drawing closer to our collective goals.

This report is more than just a record of our activities, it is a testament to what can be achieved through collaboration, perseverance, and a shared purpose. We hope it serves as a source of inspiration and a reminder of the transformative power of working together.

Thank you for being an integral part of the POETIC Tanzania journey. As we move into 2025, we look forward to building on this strong foundation, driving forward our vision for impactful, sustainable advancements in critical care.

Wishing you and your loved ones a joyous holiday season and a New Year filled with health, happiness, and continued success!

Warm Regards,
The POETIC Tanzania Team

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OUR TEAM

The POETIC Tanzania team is a dynamic group of multidisciplinary researchers based at Muhimbili University of Health and Allied Sciences (MUHAS) under the Department of Emergency Medicine. Our office is located on the 3rd floor of the CHPE building. Our work focuses on Essential Emergency and Critical Care (EECC); the foundational, life-saving care that should be provided to all critically ill patients worldwide. Through rigorous, evidence-based research, innovative implementation strategies, and targeted advocacy efforts, we are dedicated to improving the quality of care for critically ill patients both in Tanzania and globally.

TEAM MEMBERS:



Tim Baker is an Associate Professor, Critical Care Physician and Anaesthesiologist. He has 20 years' experience of global critical care research, programmatic and clinical work



Karima Khalid is a lecturer and consultant at MUHAS with more than 10 years of experience in anaesthesia and critical care. Her expertise spans both clinical and non-clinical aspects of medicine, with a particular focus on capacity building in anaesthesia and critical care.



Aneth Kaliza is a medical doctor and researcher, serves as Program Coordinator for POETIC MUHAS, focusing on improving healthcare access and enhancing critical care through Essential Emergency and Critical Care (EECC).



Rafael Shayo, is a medical doctor with a focus on clinical and public health research, currently working on quality improvement initiatives for emergency critical care at MUHAS



Elibariki Mkumbo, is a social science researcher with 17 years of experience in community and healthcare facility research, focusing on maternal and newborn health, quality improvement, and critical care, and currently leads the community critical care research for the EECCiT and POETIC projects at MUHAS while also serving as a counselor, coach, and psychotherapist.



Happy Biyengo, A medical doctor and public health specialist, with interest in research, health advocacy and data- driven approaches. She coordinates the EECCiT project funded by UNICEF.

NEW POETIC TEAM MEMBERS- 2024



Godfrey Barabona, is a clinician and researcher with a PhD from Kumamoto University, Japan, manages research projects under the APPRISE initiative at POETIC Tanzania.



Alma Damas, is a dedicated pharmacist, public health and implementation Science specialist, and a researcher at POETIC Tanzania, serving as an Implementation science specialist.



Charles Machumu, is a medical doctor, who seamlessly integrates medical expertise and creative flair. Graduating from MUHAS in 2022, he embarked on a dual career path as a medical doctor and communication officer at POETIC MUHAS.



Sabra Hussein, is a vibrant medical doctor with a growing interest in clinical research, focusing on emergency and critical care. She brings in a blend of creativity, clinical expertise, research consultancy, leadership skills to the team. At POETIC, she works in both APPRISE and EECCiT projects.



Anna Hvafner, is a visiting PhD student, from the Department of Global Public Health at Karolinska Institute, in the POETIC-Tanzania team and a Resident Physician in Family Medicine (SE). Currently, Anna is involved in projects within EECCiT and APPRISE.



Anab F. Issa, is a medical doctor and early career researcher. She graduated from MUHAS and joined the team at POETIC as a coordinator of the EECCiT project. She is currently pursuing her masters at Cambridge University.

WHAT WE DO

Our work at POETIC is tailored around EECC, which is the care that all critically ill patients should receive everywhere in the world.

POETIC Tanzania team is driving several projects including Essential Emergency and Critical Care in Tanzania (EECCiT), African Partnership for Peri-operative and Critical Care Research (APPRISE), Oxygen as a Service and others. Beyond these initiatives, our efforts extend to various other activities, including research, advocacy, stakeholder engagement, implementation, workshops, conferences, training and capacity-building sessions.

OUR PROJECTS

ESSENTIAL EMERGENCY AND CRITICAL CARE IN TANZANIA (EECCiT)

Essential Emergency and Critical Care in Tanzania (EECCiT) is a government-led initiative, funded by UNICEF, and aligned with Tanzania's national strategic plan for Essential Emergency and Critical Care Services launched in November 2023. In EECCiT, the POETIC Tanzania team provides technical assistance for the operationalization and integration of EECC, including oxygen therapy, in Primary Health Care across five Tanzanian mainland regions and Zanzibar. The key activities in the project include strategy dissemination, development of material for capacity building, HMIS review, needs assessments, development of implementation strategies, implementation, and evidence generation.

The following activities have been undertaken in EECCiT in 2024:

- Kick off meeting for EECCiT at MUHAS took place on the 21st- 22nd March, 2024 at Giraffe Beach Hotel, Mbezi Beach
- Dissemination of national strategies and guidelines at the Primary Healthcare Conference in Dodoma 25-27th March 2024



- Regional dissemination meetings conducted in 5 regions across Tanzania mainland and in Zanzibar
- A clinical training course on EECC was developed by POETIC Tanzania during 2024 and piloted in Dar es Salaam region with 24 frontline health workers together with the MoH, PORALG, Moh Zanzibar, the RMO, UNICEF and MUHAS.
- The POETIC Tanzania team developed EECC indicators and presented them at a workshop in Morogoro for discussion and refinement. The audience included members from the Ministry of Health, PoRALG, UNICEF, Muhimbili National Hospital and other experts.
- An assessment of health facilities in all 6 EECCiT regions was conducted in October-November to identify gaps in provision of EECC, the reasons for the gaps and the needs of health workers and others to be able to increase coverage of EECC. The assessment included facility-level availability of resources, ward and bedside readiness and qualitative interviews. The findings are being used to develop implementation strategies for use in EECCiT during 2025.



AFRICAN PARTNERSHIP FOR PERI-OPERATIVE AND CRITICAL CARE RESEARCH (APPRISE)

This NIHR-funded multi-country project is focused on improving perioperative and critical care in Africa. It involves four countries: Tanzania, South Africa, Uganda, and Ethiopia. The Tanzania arm of this project is led by the POETIC Tanzania team.

Sub-Projects:

- **The African Critical Illness Outcome Study (ACIOS)**, a prospective, multi-country, multi-centre, observational study to determine the burden and mortality of patients with critical illness and the current coverage of EECC. The study was conducted in Tanzania and 21 other African countries and involved 19872 patients in 180 acute hospitals. The manuscript for this study has been accepted for publication in *The Lancet*. A pre-print is available https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4955306



- **5Rs to Rescue:** A quality improvement and research project that aims to reduce post-operative mortality in Africa through '5Rs': R-Risk assessment, R- Recognition, R- Response, R- Reassessment, R- Reflection. The first phase of this project was a quality improvement carried out in Tumbi and MOI hospitals and concluded in March 2024. The second phase is research in five referral hospitals in Tanzania and will pave the way for a larger randomized control trial.



- **The Rule of Thumb:** A prospective, multi-center efficacy study of a bundled peri-operative care package to prevent and treat life-threatening intra- and post-operative maternal hemorrhage during or after caesarean section. This project will be conducted in two regional referral hospitals in Tanzania.
- **Community Engagement and Involvement (CEI):** Community critical care research aiming to investigate perspectives on critical illness in the community, and from survivors of critical illnesses and relatives involved in their care. Data collection has been conducted in two hospitals in Dar es Salaam and Pwani regions and analysis and write-ups are underway.

PARTICIPATION IN CONFERENCES AND WORKSHOPS

This year, POETIC Tanzania had a strong presence in several local and international platforms and audiences.

18th World Congress of Anaesthesiologists, which took place in Singapore from 3rd – 7th March 2024.



Annual Society of Anaesthesiologists of Tanzania Conference in Dar es Salaam in May 2024



12th MUHAS Conference in Dar es Salaam, June 2024



Symposium on Emergency and Critical Care (SEMCC) in Zanzibar from August, 27th-30th 2024



9th All Africa Anesthesia Congress which was held at the Sandton Convention Centre in Johannesburg on 16th-19th September 2024.



CME Series on Management of Obstetric and Neonatal Complications, hosted by Ministry of Health , Sept 2024



POETIC MUHAS organized and participated at the 1st Global Research Conference on Essential Emergency and Critical Care with the theme, “Establishing the Global Research Priorities for EECC” which attracted an international audience in Karolinska Institute, Stockholm Sweden. Booklet EECC Conference Booklet.pdf



African Conference on Emergency Medicine (AfCEM) Botswana 2024: November 6th-8th, in Gaborone, Botswana



EECC Champions Workshops were conducted: the first in Dar es Salaam in May and the second in Zanzibar in August.



EECC NETWORK

The global EECC Network is continuing to grow and now has 980 members from all over the world. <http://www.eeccnetwork.org/>



EECC CHAMPIONS

EECC Champions are a dynamic and driven group committed to spreading the principles of EECC globally, forming a network of advocates dedicated to fostering equitable and effective critical care. To date, there are 67 champions from Tanzania, who carried out activities in collaboration with the POETIC Tanzania team across various capacities;

- **EECC Advocacy:** EECC Champions across Tanzania, including regions such as Dar es Salaam, Katavi, Zanzibar, and Kilimanjaro, have conducted training sessions emphasizing the benefits of implementing EECC. These efforts focus on improving patient outcomes, particularly in resource-limited settings.
- **Saving lives:** A premature baby was saved by one of the champions, following immediate provision of EECC. The champion was able to do this by positioning the baby in a neutral position and providing oxygen.
- In June, Dr Salehe Mrutu received this recognition for his exceptional dedication to advancing EECC.
- EECC Champion Peter Saria and colleagues published in Anaesthesia News Essential Emergency and Critical Care: Training Global Champions in Tanzania https://issuu.com/associationofanaesthetists/docs/a_news_september_2024_web?fr=sOGMwODc3NjlyMTA



PUBLICATIONS

In 2024, we have published in international peer-reviewed literature

1. McKnight J, Willows TM, Oliwa J, Onyango O, Mkumbo E, Maiba J, Khalid K, Schell CO, Baker T, English M. Receive, Sustain, and Flow: A simple heuristic for facilitating the identification and treatment of critically ill patients during their hospital journeys. *J Glob Health*. 2023 Dec 22;13:04139. doi: 10.7189/jogh.13.04139. PMID: 38131357; PMCID: PMC1074034. [Receive, Sustain, and Flow: A simple heuristic for facilitating the identification and treatment of critically ill patients during their hospital journeys - PubMed](#)
2. Khalid, K., Schell, C.O., Oliwa, J. et al. Hospital readiness for the provision of care to critically ill patients in Tanzania– an in-depth cross-sectional study. *BMC Health Serv Res* 24, 182 (2024). <https://doi.org/10.1186/s12913-024-10616>
3. Onyango OO, Willows TM, McKnight J, Schell CO, Baker T, Mkumbo E, Maiba J, Khalid K, English M, Oliwa JN. Third delay in care of critically ill patients: a qualitative investigation of public hospitals in Kenya. *BMJ Open*. 2024 Jan 4;14(1):e072341. doi: 10.1136/bmjopen-2023-072341. PMID: 38176878; PMCID: PMC10773318.
4. Health care workers' experiences of calling-for-help when taking care of critically ill patients in hospitals in Tanzania and Kenya. https://link.springer.com/article/10.1186/s12913-024-11254-y?utm_source=rct_congratsemail&utm_medium=email&utm_campaign=oa_20240717&utm_content=10.1186%2Fs12913-024-11254-y#citeas
5. Hospitals in Health Systems: Opportunities for Efficient, High-quality, and Integrated Care". <https://documents.worldbank.org/en/publication/documents-rports/documentdetail/099052424144516229/p1787771c10d8b0e41b9f916191e741fd65>
6. Strategies for oxygen ecosystems in Middle-Income Countries–A review and Case Study from Lebanon. <https://www.hindawi.com/journals/emi/2024/9964636/>
7. Care of the critically ill begins in the emergency medicine settings https://journals.lww.com/euro-emergencymed/fulltext/9900/-care_of_the_critically_ill_begins_in_the_emergency.123.aspx
8. The African Critical Illness Outcomes Study (ACIOS): A Point Prevalence Study of Critical Illness in 22 Nations in Africa. https://papers.ssrn.com/sol3/papers.cfm?abstract_id=4955306

CAPACITY BUILDING SESSIONS

Through 2024 the team conducted weekly capacity building sessions to enhance research skills, soft and hard skills to all team members, so that we can enhance output and every member is capacitated to perform to the best of their capabilities.

EECC LEARNING COURSES/TRAINING

A free online course on Essential Emergency and Critical Care (EECC), offering CME/CPD credits from Stanford University, is available for both physicians and nurses. This course remains open for those interested in enhancing their knowledge and skills in EECC.

<https://eeccnetwork.org/#training>

MENTORSHIP PROGRAM

Dr Carl Otto, a PhD student affiliated to POETIC Tanzania successfully defended his PhD thesis titled, “Essential care of critical illness”, at Karolinska Institute in Sweden in Nov 2024.



Mentorship and supervision are also conducted in the team for one PhD student at MUHAS, Dr.Karima Khalid, and two international PhD students, Dr Anna Hvarfner at Karolinska Institute, and Federica Mangini at University of Cape Town.

COLLABORATIONS

We have collaborated with universities, non – governmental organizations and governments to improve the quality of care for critically ill patients.

1. Ministry of Health, Tanzania
2. PORALG, Tanzania
3. Ministry of Health, Zanzibar
4. Ifakara Health Institute, Dar es Salaam, Tanzania
5. Queen Mary University of London, UK.
6. Karolinska Institutet, Stockholm, Sweden
7. Uppsala University, Uppsala, Sweden
8. Stanford University, USA
9. Institute of Healthcare Improvement, USA
10. University of Cape Town, South Africa
11. UNICEF
12. World Health Organization
13. The World Bank
14. PATH
15. World Federation of Societies of Anaesthesia
16. World Federation of Intensive and Critical Care
17. International Federation of Emergency Medicine
18. London School of Hygiene and Tropical Medicine, UK
19. African Federation of Emergency Medicine

FUNDERS

We have received funding from several organizations to ensure sustainability of our work.

1. UNICEF
2. National Institutes of Health Research, UK
3. Laerdal Foundation
4. World Federation of Intensive and Critical Care
5. Association of Anaesthetists, UK
6. Life Support Foundation, Sweden
7. Einhorn Foundation, Sweden
8. Karolinska Institute, Sweden

POETIC WEBSITE

For more information on what we do at POETIC TANZANIA, kindly visit our website. <http://www.poetictz.org>



APPRECIATION

We extend heartfelt appreciation to the MUHAS administrative leadership and to all partners for the collaboration and support we've shared in the year 2024

We humbly extend an invitation to colleagues who share our belief in the alignment with theirs, offering prospects for collaboration and the charting of a course towards future successes together. Your expertise and perspective will undoubtedly enhance the collaborative process, contributing to the success of initiatives that align with our mutual objectives and have a lasting impact on global public health.



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