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Tackling the Obstacles  
to Fight Filarial Infection  
and Podoconiosis

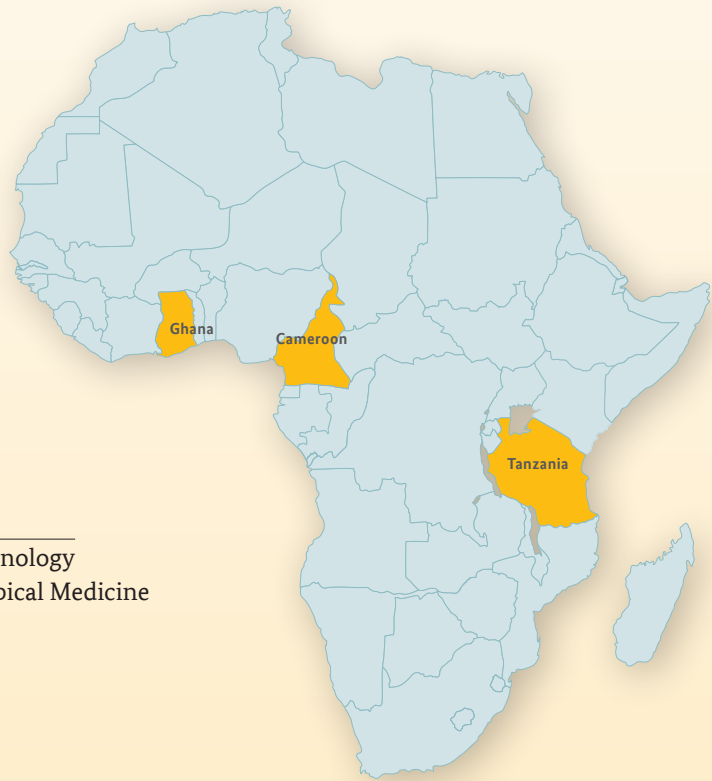
# TAKeOFF

Tackling the Obstacles to Fight Filarial infections and podoconiosis

## Short description of the network project:

From 2017 to 2022, the TAKEOFF consortium of researchers from Ghana, Tanzania, Cameroon, and Germany – aiming to improve the management of morbidity due to lymphatic filariasis (LF) and podoconiosis – developed digital tools for better lymphedema (LE) case identification and carried out clinical trials which showed that intensive hygiene training for LE patients lessened morbidity and led to a better quality of life. Building on these results, the future consortium's

work will focus on: 1) following up on the patient cohorts with new research questions regarding non-communicable diseases, wounds, and antimicrobial resistance, but also with the goal of establishing or expanding morbidity management centres and teams for eventual integration into national control programmes/health systems; 2) integrating the developed digital tools into national/international health systems; and 3) using the capacity built for conducting clinical trials to carry out test-and-treat trials for LF and onchocerciasis.



### CAMEROON

University of Buea

### GHANA

Kwame Nkrumah University of Science and Technology  
Kumasi Centre for Collaborative Research in Tropical Medicine

### TANZANIA

National Institute for Medical Research

### GERMANY

University Hospital Bonn (Nordrhein-Westfalen)  
Ludwig-Maximilians-University of Munich (Bayern)



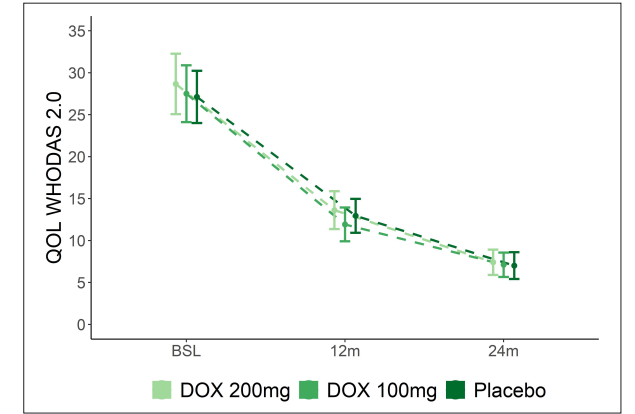
Hygiene training | The TAKEOFF team explaining the importance of hygiene management to community members in Tanzania. (©TAKeOFF Tanzania)

## Challenge, approach and impact:

TAKeOFF builds on the successes achieved by the network during its first funding period, which brought together researchers from Ghana, Tanzania, Cameroon and Germany to address obstacles to eliminating lymphatic filariasis (LF) and podoconiosis. The work completed 1) showed that digital health using mobile phones instead of paper lists increased lymphedema (LE) case identification and subsequent treatment; 2) established a GCP-compliant clinical trial platform (F-CuRE); 3) quantifiably confirmed for the first time that the application of stringent hygiene protocols alone effectively lessened morbidity, providing crucial input in the process of WHO morbidity guideline development; and 4) acquired the support of partner countries' ministries of health (MOHs) in sustaining morbidity management centres and teams for neglected tropical diseases (NTDs).



Washing of lymphedema | The TAKEOFF team in Cameroon showing the correct way to wash the affected legs. (©TAKeOFF Cameroon)



Significant improvement in quality of life after intensive hygiene training in Ghana (reflected in a decrease in disability scores) – comparable in the different treatment groups (©TAKeOFF Ghana)

In the second funding phase, TAKEOFF will maintain the momentum to help achieve the UN Sustainable Development Goals according to the WHO Road Map 2030 for NTDs. TAKEOFF will: follow up on its valuable filarial LE and podoconiosis cohorts to investigate how sustainable WHO hygiene protocols will become if patients are less intensely supervised than in a clinical trial; expand morbidity management centres and teams for eventual integration into national control programmes/health systems; elucidate links between two non-communicable diseases (diabetes and hypertension) and LE progression and wounds, incl. characterisation of antimicrobial resistance; help MOHs integrate digital health tools and data acquisition into their national and international health systems; and render assessments and recommendations of alternative treatment regimens to eliminate LF and onchocerciasis, including new regimens and WHO-recommended, environmentally safe larvicides for the latter condition.



Onchocerciasis – nodule palpation | A TAKEOFF team member palpating the onchocerca nodules of a patient in Ghana. The subcutaneous nodules in which the adult worms reside are often in close proximity to the bones and displaceable. (©TAKeOFF Ghana)

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## Link to Website:

<https://www.takeoff-ntd.org>

