

## It's high time to close the global gap in health research capacity

By Fasika Tadesse

If there is one thing, we have all learned from the past 18 months, it is that all countries, whether high, middle, or low-income urgently need robust health research capacity. For too long it has been the norm that health research in low-resource settings such as Ethiopia, has been led by institutions and researchers from the global North. An approach that doesn't always take local problems and contexts into account and leaves little space and time for the development of national expertise.

The push to decolonize global health is gaining traction, shifting power away from a dominance that has seen academics, donors, and implementing organisations from the global North decide what gets done and how to best do it. A [commentary in BMJ](#) and a recent [online event](#) hosted as part of the Geneva Health Forum highlighted the growing awareness for the importance of closing the research capacity gap between the Global North and Global South.

The Dagu project, a partnership between the Ethiopian Federal Ministry of Health, the Ethiopian Public Health Institute (EPHI), four Ethiopian universities - Mekelle, Gondar, Hawassa and Jimma, as well as the London School of Hygiene & Tropical Medicine (LSHTM), sees itself as working to counter the imbalance in global health research. This project is unique in that it has succeeded in receiving dedicated international funding for embedded research capacity strengthening implemented through a strong partnership. *"The Dagu project is a new experience for all of us. We have learned a lot in the process of coordinating and evaluating the program implementation and the PhD capacity building as part of the project was a very useful component of the project,"* says Dr Meseret Zelalem, Director of the Maternal and Child Health Directorate at the Ethiopian Federal Ministry of Health.



Dagu, which gets its name from a word used by the Afar people in northeast Ethiopia for “a system of communication”, comprises of several streams of work. An evaluation of the Optimising the Health Extension Program (OHEP); measurement, learning and evaluation support for its implementing partners; and, perhaps most importantly, embedded within all this, the capacity development component. The aim is to develop Ethiopian excellence in public health evaluation and improve quality and utilisation of primary and community-based health care services. Dr Araya Abrha Medhanyie (PhD), the Dagu focal person at Mekelle University explains how all this fits together. *“One of the things that makes the Dagu project special is the multiple elements [...] This means working with a number of different actors, from universities in Ethiopia and a university in the UK, to the Federal Ministry of Health, the Regional Health Bureaus and the NGOs implementing OHEP. It seems difficult to bring all of these elements together, but the Dagu project has shown that this can work.”*

### **Evaluation of the Optimising the Health Extension Program**

Ethiopia has been successful throughout the past decades in reducing child mortality, but coverage, utilisation and quality of primary newborn and child health services have remained low. So, in 2016 the Ethiopian government set in motion OHEP to try to improve primary health care services for children and tasked four NGOs with its implementation. The evaluation of OHEP was however just one side of the story. The Ethiopian government and its partners had a vision, to invest in stronger Ethiopian health research capacity for the future, to build national knowledge, skills and expertise to find solutions to problems encountered in Ethiopia. This vision ultimately led to the creation of Dagu.

### **Collaboration and focus on real world problems**

The evidence generated through the Dagu project is focused on finding answers to real world problems. It is guided by a learning-by-doing approach, with a lot of the learning happening through collaboration.

In practice this means ten PhD students from public health institutions, universities and regional health bureaus and enrolled across four Ethiopian universities complete their PhDs with support from the Dagu project. They receive supervision and mentoring from supervisors at their respective Ethiopian universities, as well as from experienced LSHTM researchers. They moreover receive financial support to carry out their research. *“The project has really brought all stakeholders together in a way that was previously not done. We are coming together to look at and solve health problems in Ethiopia and in a way that I think can be replicated elsewhere too. This tie between the universities and regional health bureaus and ministry of health should be further strengthened now,”* says Habtamu Beyene, who recently graduated from the Dagu PhD programme at Hawassa University.

For the ten participating PhD students Dagu is a special opportunity, because finding a PhD position in Ethiopia is not an easy task. Dawit Wolde, a researcher and lecturer at Jimma University waited for a long time to further his academic career until he had the opportunity to enrol in the Dagu project. His story and those of the nine fellow PhD students supported by the project is a success story. Three of the Dagu supported PhD students, including Habtamu Beyene, have already defended their theses successfully and the remaining students are close to completion. Dagu could serve as a template for future capacity development initiatives in global health research in Dr Getachew Tollera’s, view, the Deputy Director General of EPHI. *“Embedding a vertical human capacity development with a research project is a unique experience. During the Dagu project, we have been implementing both research and a human capacity development component. We learnt that embedding capacity building within existing projects has an impact in strengthening the local*

*research capacity as well as achieving the project's goal. I also consider research partnerships, as a sound investment in a country in general."*



### **Evidence generation – for Ethiopia and beyond**

In terms of tangible outputs from Daggu, by the end of the project, Dr Araya Abrha Medhanyie, the PhD supervisor from Mekelle University, expects 30 to 40 published academic papers. That is a wealth of information and knowledge available not just to Ethiopia, but globally. The knowledge and evidence generated from Daggu will be helpful for the Ethiopian context and beyond. He also mentions the spill-over learning that is happening on an ongoing basis. Daggu brings together numerous institutions, but also a lot of people from different backgrounds, origins, experience and ages. *"Everyone is learning from each other and influencing each other, it is exciting."*

The combination of mentoring and supervision by Ethiopian and international researchers is especially important to PhD student Amare Tariku, who works for Institute of Public Health at Gonder University. It has aided his speedy progress with his studies, and he says it is one of the reasons why the academic output from the Daggu project is of very high quality. One of the papers Amare Tariku published was specifically mentioned in an editorial by a senior international public health researcher, proof of how highly regarded the academic outputs are. For Amare it is also about the future of Ethiopian excellence in public health research. He works at the university and is sure he will be able to pass on everything he is learning to future academics at his institution. Moreover, he is proud of the fact that all Daggu PhD students are contributing high quality research findings to the evaluation, providing implementers and the government with much needed insights. Considering how much the project has contributed to the participants' academic excellence, Amare wishes to see the privilege he was lucky enough to have taken advantage of, extended to those doing their first and second degrees.

Being part of a large-scale evaluation was particularly important for Alem Desta, another Dagu PhD student. A lecturer at Mekelle University for the past decade under the school of public health's care system and policy department, Alem benefitted from specialised training on topics relevant to his PhD research. *"I couldn't have gone this far in my studies if the project was not there."* The icing on the cake for Alem is the opportunity he has been given to collect data from Oromia, Tigray, Amhara and southern regional states. For the baseline data collection," said Alem, *"All the PhD students under this project helped in the coordination of the survey. Without this coordination I could not have gone this far. I know from friends studying for their PhD under different programs, that they face a lot of challenges when it comes to data collection."* Alem often contemplates who he would have become had he not studied his PhD with the support of this project. *"I feel like I have two PhDs,"* he said. *"My involvement in the Dagu project is another PhD by itself."*

### **Change in culture**

Alem Desta's experience isn't unique among the Dagu participants. The learning hasn't just happened in terms of better understanding whether and how OHEP is having an impact on children's health. There is also noticeable change when it comes to the way projects, students and finances are managed within the partner universities. The Dagu project is seen to serve as a benchmark for other projects with embedded capacity building. Mekelle University, where Dr Araya Abrha Medhanyie teaches, is a young institution, just 25 years old. Collaborations with other universities and implementation research projects are common, but this is the first time that the capacity development element is part and parcel of one, he explains. *"For a collaboration like this to work there needs to be a clear understanding from the beginning. Funders need to be on board as well. We all agreed learning was crucial, in other projects there might not be the courage to have a truly embedded capacity development element."*

The change in culture is also happening in the non-academic world. Habtamu Beyene, the newest Dagu PhD graduate, works for the Regional Health Bureau. His advanced academic skills and knowledge have equipped him with the ability to solve health problems with a scientific approach. *"At the moment",* Habtamu says, *"we still use too many routine reports, which don't give us a clear picture of the effectiveness of certain interventions. They don't provide sufficient information. Now I am able to take an evidence-based approach to problems and to decision-making."* His former fellow PhD student Amare Tariku echoes this, adding: *"it is not just the learning, it is also the way we are taught about critical thinking practices, which is really valuable. This has changed my mind of how to do public health research."*

Amare and Habtamu are also a great example of the diversity of students enrolled in the Dagu project. Some students are academic staff at the participating Ethiopian universities, but others are experts working in the Regional Health Bureaus or the Ethiopian Public Health Institute. They have a wealth of experience which they bring to the table, so there is a lot of learning between the students.

### **Dagu shouldn't be unique**

*"It's definitely the time for those who are investing in public health to combine this with capacity development especially in low-income settings,"* says Professor Lars Ake Persson, from the London School of Hygiene & Tropical Medicine. *"In the time of the pandemic, it is obvious there is a global gap in research and evaluation capacity."*

It seems everyone involved in Dagu agrees that the project shouldn't remain the exception. Several health problems persist in Ethiopia which require solutions. Ethiopian researchers are best placed to finding these solutions, most are convinced. Directing international resources towards stronger public health research capacity in the country makes a lot of sense, especially in a resource constrained setting. Dr Araya Abrha Medhanyie concurs, adding: *“For me personally and for my institution, capacity development is the top priority. I would wholeheartedly recommend a similar approach again. I know it is difficult to convince funders to embed capacity development into a project, to attach PhD students to a project, but it is the top priority for an emerging university, in a country such as Ethiopia. This is in the interest of the country and the university. Any of the challenges we faced are far outweighed by the benefits.”* For PhD student Amare Tariku the benefits go both ways with international partners benefiting from the Ethiopian researchers' excellent understanding of the national context. *“Scientific thinking and development never stop and through collaboration that development can be pushed along further.”*

