

# Letter to the Editor

## Malawi's health publication productivity-a response and where do we go from here?

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The present writing is motivated by a recent research article by Gondwe and Kavinya<sup>1</sup> in which these authors reported a review of health research productivity from Malawi in MEDLINE-indexed journals for the period 1996 to 2006. Several important findings are worth reiterating as they will form the basis of my discussion. These are: research output has grown by 103%; only 20.9% of the first authors were Malawian nationals; 50% of the published papers were from the College of Medicine; and TB, HIV and AIDS, malaria and maternal health were the leading subject areas of research.

It is pleasing to note that research productivity has grown over the ten years reviewed. We however also need to ask whether 63 journal articles for an entire 13 million population country is a number we would like to be identified with for any longer. I am sure we do not need to be unfair to ourselves by not recognizing the great strides that we have made over the years. But 63 articles in a year is an indication that more work awaits all of us.

The fact that Malawian nationals contribute one-fifth to the research output is interesting. On the one hand, we can rejoice to the fact that there has been a considerable gain over the past several years from only 4 articles in 1996 to 25 in 2006. For the record, we may also highlight the fact that it has never been the intention (as far as I know) of any institution in this country to promote "all-Malawian-no expatriate" publications. But we can also argue that there is no harm in a healthy "Malawian versus expatriate" competition. It would be unwise to ask that an increase in the proportion of publications by Malawians be achieved by reducing the research productivity of expatriates working in Malawi. This is because the higher research output of expatriate researchers has not prevented Malawians from publishing. In fact, it may have increased the output of nationals as some of the Malawian-first author articles come from collaborative projects between nationals and expatriate researchers.

That 50% of all the papers come from the College of Medicine is probably a confirmation of the adherence by the College to its Mission Statement i.e. "To be an academic centre of excellence, responsive to the health needs of Malawi and its neighbours within the Southern African region in training of professionals, provision of clinical services and medical research." This has always been the aim of the federal system of colleges of the University of Malawi (UNIMA), which is to promote teaching at both undergraduate and graduate level, service and community engagement, research and publication. Within this federal system, only College of Medicine and Kamuzu College of Nursing are 100% "health affairs" colleges. We are not sure what was the contribution of the other colleges within UNIMA was to the (health) research output of Malawi.

To be sure however, if the College of Medicine contributed about 50%, the other colleges each are likely to have contributed

a smaller proportion. Furthermore, if contributions from non-governmental organizations (NGOs) such as Medicine Sans Frontiers (MSF), the Ministry of Health (MoH), and other agencies are to be considered, the health research output from the other colleges may be minimal<sup>2</sup>. Further research may elucidate what the limited impact of the other UNIMA colleges in health research publications may mean. Furthermore, faculty from these other colleges may be published in non-MEDLINE-indexed health journals where the College of Medicine's output may be minimal.

The fact that many of the publications are within infectious diseases (TB, malaria, HIV and AIDS) and maternal health may be an indication that both national and international researchers in Malawi have prioritized these global challenges. Ramos et al<sup>3</sup>, have reported that normalised by GDP (gross domestic product), Gambia, Malawi and Guinea-Bissau were the most productive countries in TB research in the world for the period 1997-2006. International funding and interest towards infectious diseases has increased and Malawi continues to exert its competitive edge over other African nations in this regard. It is important to recognize that while funding possibilities specifically limit in which countries research funding may be made available for, many international funding calls are just interested in "developing nations" or "sub-Saharan Africa." It would therefore be unwise to suggest that the publication productivity from Malawi by international institutions is the problem we have to limit. In fact, some of us feel that we need more of these "foreign" institutions to come and work in Malawi; and for those which are already working in the country, to expand their research programs. Having more expatriate researchers may not necessarily increase the proportion or number of publications by nationals, but will increase the total number of articles from research carried out in Malawi.

The absence of research interest or publication in non-communicable health conditions, including injuries, is disconcerting. Much more disappointing is the limited possibilities of local funding for any of the public health challenges facing the nation.

Gondwe and Kavinya<sup>1</sup>, appeared to have chosen the first author's name and affiliation as an indicator of authorship seniority. Not all journals or research teams chose to follow this arrangement. We are not even sure how researchers publishing in the Malawi Medical Journal list the order of seniority. A recent article by Kwiek et al<sup>4</sup> has a note: "These authors contributed equally to this manuscript" suggesting that the order of authors 1 and 2 may have been decided by a "coin toss".

It is always tempting to suggest that previous published articles, like that by Gondwe and Kavinya<sup>1</sup> could have included this aspect or the other. However, such a list of "could have also studied this or that" is likely to be endless. It would be interesting in a future study to also explore the sex (gender) distribution of authors, the sources of funding for the research, and for academic authors, their career stage

(e.g. lecturer, senior lecturer or professor).

Writing successful journal articles is difficult and time consuming. People may be unprepared or hesitant to write articles independently. Additional training and tutoring in manuscript writing, as have been pioneered by the Malawi Medical Journal is essential. But this means that potential authors have to give the time necessary to accomplish this, which is a challenge.

It is perhaps important to remember that if an ex-pat writes a grant and is successful for research based in the country they are more likely to be the first author. Malawian investigators need to either be in charge of more research grants which will automatically lead to more first authorships. Some alternative is that as co-investigators on an ex-pat grant, they make first authorship an up-front agreement in exchange for conducting the study in Malawi. This solution is problematic as it suggests that without making scientific contributions worth the accolade of being an author, such responsibility is being granted just because one is a Malawian national. If this approach were to be abused, being a Malawian author on a collaborative international project will soon be recognized as an "honorary" position.

The key to participation of these "foreign" institutions operating in Malawi to guarantee strong Malawi partnership in these endeavours which should include Malawi investigators who take an active role in the in-country operations of these institutions as well as assuring that each institution has a strong human resources development and training plan in place.

Finally, the recent acceptance of the Malawi Medical Journal into MEDLINE may contribute to increasing the number of indexed papers from Malawi. While the number of papers published will matter, but much more so, we should be sure that the quality of these papers continues to improve. Despite the imperfection of the impact factor (IF),<sup>5</sup> it will be interesting to assess the ranking of the Malawi Medical Journal compared to its peer in several years from now. It can however be argued that the editors will need to balance between being Malawi-centric on one hand and being a health journal of international repute which will accept manuscript on merit and of relevance to its readership and not just from Malawi.

### Conflict of interest

The author has received a Fogarty International Center's training fellowship for Malawians to the University of North Carolina at Chapel Hill, United States.

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## Malawi's New Magnetic Resonance Imaging (MRI) Centre

On 23rd June 2008 the Minister of Health, Honourable Khumbo Kachali opened the first ever Magnetic Resonance Imaging Centre at Queen Elizabeth Central Hospital in Blantyre. The machine has been set up, thanks to a combination of efforts from the Malawi government, Michigan State University, College of Medicine, National Institutes for Health (USA), and General Electric Health Care who donated the actual machine according to radiologist, Dr.Sam Kampondeni.

According to [www.medicinenet](http://www.medicinenet), MRI is a radiology technique that uses magnetism, radio waves and a computer to produce images of body structures. The scanner is a tube surrounded by giant circular magnet. The patient is placed on a moveable bed that is inserted into the magnet. The magnet then creates a strong magnetic field that aligns the protons of the body and they produce a faint signal that is detected by the receiver portion of the MRI scanner. The received information is processed by a computer and an image is produced.

According to Dr Kampondeni so far over 200 patients have been scanned by the MRI. "Each patient takes 1 hour to be scanned. We do about 5 patients per day. Patients from QECH and other government hospitals are done free. Patients from private hospitals pay a subsidized fee," he said.

*Continued on page 11*

