

SPECIAL ARTICLES

DISSEMINATION OF RESEARCH RESULTS IN AFRICA*

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What a difference the past few decades have made in scientific and medical journalism! Africa needs to keep abreast of the remarkably exponential strides that have been taken by Information Technology. Indeed, the benefits that we see emerging world-wide are bound to be enjoyed more by African and Third World scientists than even in Europe and in the USA. I shall explain.

The previous bad news: Thirty-five years ago when I was Editor of the *Ghana Medical Journal* I complained bitterly in one editorial about some good work, even medical memoranda, described in African medical journals that were totally ignored by INDEX MEDICUS and other international librarian media that usually drew the world's attention to published work of note. That editorial¹ was taken seriously and I received apologies from *Index Medicus* and from a certain American who seemed to take my rebuke personally. But he had a valid defence. How did I expect *Index Medicus* to include *Ghana Medical Journal* in their list when we were not able to publish punctually every 3 months as we had made readers to expect? I blushed, if you could diagnose a black man's shame^{2, 3}. Hard as we tried, coups d'états, failing economy, and industrial strikes sabotaged every effort to get the journal out on time. Index Medicus obliged, though, and began indexing us. It also emerged that Africa had been divided into regions, and the developed world could only index not more than a few scientific and medical journals per region. The parameters for inclusion of one journal and not the other were not very clear, but prompt and punctual publishing was a sine qua non.

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Much African scientific gem failed to surface as easily as was expected until (wait for it) the Information Technology Revolution.

The present good news: Today, we do not have to rely on patronage of the developed countries to get our own scientific gem "known about". If we get our information on line today, it can be read the same day in Alaska, Cambridge UK, Cambridge USA, Moscow, Melbourne, and Vellore. We need, though, to emulate the best practice of the international front runners of which the *British Medical Journal* is easily the first. *African Journal of Health Sciences (AJHS)* has been described as "the fastest growing medical journal on the continent with a wide readership within and outside Africa"⁴, so why does *AJHS* have articles queuing up for publication in 2008? The *BMJ* practice, if we are able to try it, can come to the rescue. What is this practice? **ANSWER:** Publish refereed articles on line at once, to await shortened print versions later. These on line articles which are available immediately, can be quoted worldwide. Is that the reason why 1.2 million people visit bmj.com each month?⁵ I shall never forget the remarkable article of Didier Fassin and Helen Schneider⁶ which the *BMJ* Editor not only published with a striking front cover photograph and bold caption: **Understanding AIDS in South Africa: Issues of race hinder public health** but he also under the heading "EDUCATION and DEBATE", invited "Rapid Responses" on line. From the first rapid response by David Rasnick on 27 February 2003 entitled "Mbeki's AIDS Panel still active"⁷ to 8 April 2005 when Nassim Camdar posted the last response, also titled "Mbeki's AIDS Panel still active"⁸, and the new *BMJ* Editor halted the debate, there had been no less than 836 communications published with an incredibly huge amount of information. On line information has no space problem. That was why the then Editor, Dr Richard Smith, having read my own "rapid response", allowed publication of all 7000 words, with 70 references⁹. The present good news is that African Medical Journals can do exactly the same, and publish all refereed and accepted communications sent to them immediately.

The advantage of on line publication is enormous. It quickly removes lopsidedness in printed material, correcting the impression that only foreigners are world experts in Tropical Medicine. A large book on Tropical Medicine was published in the United Kingdom only 3 years ago without a single mention of some internationally recognised African contributions. On line publication of our own journals will draw attention to these contributions.

Press releases: Another good practice of the *BMJ* and *Lancet* is the way they tell the world media what is on the verge of being published. How many African journals do that? And how many of our radio and TV networks will come out promptly with the information we give them? I once drew attention to what I considered a worthy news item on the publication in *Lancet* of an African Professor of Medicine about the way Ghanaian high blood pressure was inherited— a concept that was totally new at the time¹⁰. When I enquired from the News Agency why nothing happened with the information I gave them I was told they were waiting for the permission of the Minister of Information! How do we bypass that kind of situation? We should use more often non-governmental radio stations that do not have to ask permission from anybody when dealing with such scientific truth that *Lancet* was pleased to publish. Permission is sometimes obtained from abroad before health information is put out in Africa. What is wrong with the advice of our local best brains? Are they not good enough to consult about our health? Sometimes what is recommended for us is known to be hazardous, as for instance the prescription of *Mefloquine* for malaria. This drug has 53 side effects (including schizophrenia) listed in the *British National Formulary*^{11, 12}, yet some African countries are still importing it when KEMRI has demonstrated conclusively what my mother used to save me from cerebral malaria when I was a child¹³, namely that the Neem tree (*Azadirachta indica*) is first class in the treatment of malaria^{14, 15}. We also know the value of *Artemisia Annuq* yet Artemisinin has been recommended as worthy of being compounded with certain drugs ostensibly to prevent parasitic drug resistance¹⁶, when rectal Artemether has been used successfully in Ghana for malaria¹⁷.

On line debates in the African scientific and medical journals will immediately alert readers to alternative views and therapies that have been shown to work, and which may be against what have been recommended from outside. Ghanaian doctors have found mosquito netting without medication to be as effective in preventing mosquito bites as the ones “officially” recommended. We need also to conduct research into the effect of the medicated netting on the mosquitoes themselves. Will they become resistant to insecticides in one generation or less? What is the effect on babies inhaling the medication from the nets?

GOL to be our GOAL: Get on line should be our goal. Manuscripts should be sent invariably on line (with print versions in the minority). We must not wait till our research results are approved abroad before we publish them in Africa. Get on line as soon as you discover something new. Do not wait in order to be able to explain what you discover. Send it to the editor at once on line. If you try to explain it, and the explanation is wrong, the one who later correctly explains your discovery takes credit for what you discovered. When I discovered that Parkinsonian tremor was audible with the stethoscope, a visiting professor advised that I should explain it before I sent it for publication. “I shall do no such thing. If the Editor does not like what I discovered, it will not be published” I retorted. *The Lancet* liked it, and they published it¹⁸ as also did the *BMJ*¹⁹. On line publication also educates far more people than print information. If I asked you who first made the following statement would you know the correct answer, I wonder? The statement is this: “HIV is not the cause of AIDS”. If you said President Thabo Mbeki you would be wrong. It was made not by an “ignoramus”, but by the leading scientist who discovered the molecular genomic structure of retroviruses, one Professor Peter Duesberg, in the USA²⁰. Get on line, and educate yourself. To disseminate research results in Africa quickly and efficiently, move from the 20th Century into the 21st.

Diaspora Clout But how can we do that with electricity cuts (on & off) seven times in 12 hours as I found recently at the Faculty of Science in the University of Cape Coast, Ghana? **ANSWER:** Make use of our kith and kin in the Diaspora. What people call “Brain Drain” I call “Talent Export”²¹. Our people living abroad are more prepared to help us develop information technology than we realise. The nanotechnology and solar energy that Professor Mohamed Hag Ali Hassan of the Academy of Sciences for the Developing World (TWAS) discussed in his excellent article is not beyond our reach²². Remember also that our Diaspora relatives include those of our kith and kin who were sent across the Atlantic through enforced migration. As I have always identified huge talent among them, I told some of them recently that they are just the tip of a huge *brainberg* (a term I coined) whose base is in Africa: “You are not only the tip of a huge brainberg but also the evidence (if evidence was required) that present day Africans have hidden treasures of brain power that need to be brought out and placarded”²³. I said to them “please, help us identify and use much of Africa’s huge hidden talent”²³. No one else would like to do this for us. It is most gratifying to find that University of Pennsylvania African Studies Center, for example, has been monitoring African Journals on line²⁴, and the WHO has only 86 African Journals listed on line with the statement that this “will promote African publishing by encouraging writers to publish in their country

or regional journals”²⁵. Sadly, one of those listed has nothing on their HOME PAGE. In addition to using what I have called ‘Diaspora Clout’ to correct defects like this let us on this continent befriend the South African Bioinformatics Institute²⁶, and even Kenya’s own School of Information Sciences at Moi University²⁷, which are up and running, and ask them to help African readers of this Editorial to *Get On Line!*

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