

The Malawi "hybrid" medical graduates (1992-1998).

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In April 1991, the Malawi College of Medicine opened its doors to Malawi medical students who had undertaken all but the final year of their undergraduate training in the United Kingdom. The first batch qualified with the MB BS degrees of the University of Malawi in September 1992. Since then and up to July 1998, 112 doctors have been produced. They are all Malawians, 90 males and 22 females, 29%, 31% and 40% respectively come from the Northern, Central and Southern regions of Malawi. Seventy-one per cent of the graduates had passed through Chancellor College, Zomba, and 27% had attended the Kamuzu Academy, Kasunga, Malawi.

So far, most of these graduates have remained in Malawi, working in various locations in government and mission hospitals and at the University of Malawi. Many have shown encouraging interest in pursuing postgraduate education. In September 1994 the epoch of hybridisation was brought to a close with the admission of the first set of students who will train fully here in Malawi and become our first batch of home-grown doctors.

Introduction.

A hybrid is anything or anybody of mixed ancestry. So were our medical graduates who qualified with the MB BS degrees of the University of Malawi between 1992 and 1998. Their undergraduate careers were mixed; the earlier part of their medical

education took place outside Malawi and they came back to Malawi in their final year to be prepared for the MB BS degrees in Malawi.

Hybridisation in learning goes back to medieval times when peripatetic scholars travelled from place to place in quest of knowledge. There are more recent examples of hybridisation in medical education. Medical students of the University of Cambridge undertook the first part of their undergraduate career in Cambridge and thereafter went to the London medical schools for their clinical training. In Nigeria we had the "Ibadan-London" hybrid medical students. After four preclinical years in Ibadan University College, then a college of the University of London, they went to the London teaching hospitals to complete their medical education, graduating with the MB BS degrees of the University of London.

Here in Malawi, we had three groups of hybrid medical students who returned home to graduate in the University of Malawi between 1992 and 1998. This paper gives a profile of these unique medical students who have made history both for Malawi and for medical education in Africa.

The subjects

Table I shows the sources of the hybrid medical students, the numbers of students in each group and those who went on to become doctors. The 88 UK-Malawi hybrids from the United Kingdom studied at the University of St Andrew's, the oldest

TABLE I Distribution of the "hybrids"

SOURCES	STUDENTS	MEDICAL GRADUATES
UK - Malawi	88	85
Australia - Malawi	18	14
South Africa - Malawi	15	13
TOTAL	121	112

University in Scotland and at the University of London and its associated hospitals (University College Hospital; Middlesex Hospital; St. Bartholomew's; Royal Free and St. Mary's Hospital). Of those who returned from Australia, the first group studied at the University of Adelaide and the second at Flinders University, a few kilometres away from the University of Adelaide. The discouragingly poor performance of Malawi students in their first year examination at Adelaide University necessitated the sending of the second set of students to Flinders. The financial assistance towards the students' education offered by Flinders also facilitated the connection, particularly as Adelaide that year had no place for foreign students. All those from South Africa studied at the University of Cape Town.

Fate of the hybrids

a. The Graduates

Out of the 121 returnees to Malawi, 112 graduated in medicine with the MB BS degrees of the University of Malawi over the seven-year period, a production rate of 16 doctors per annum. Table II shows the yearly distribution of the graduates by numbers and gender. There were 90 male doctors and 22 females.

TABLE II Yearly spread and gender of the 112 graduates

YEAR	MALE	FEMALE	TOTAL
1992	13	1	14
1993	16	2	18
1994	15	8	23
1995	11	4	15
1996	13	2	15
1997	9	3	12
1998	13	2	15
	90	22	112

b. The non-qualifiers (Table III)

Nine students did not or have not qualified. One of the returnees from the UK died in a road accident between Lilongwe and Blantyre in 1994. Two students had to withdraw from the College; an UK returnee on account of poor performance in his studies and a South African-Malawi hybrid for his unbecoming behaviour. Three hybrids (one each from UK, Australia and South Africa) were stricken strongly with affairs of the heart, so much so that they had to give up their studies in Malawi. Three returnees from Australia are still waiting to qualify in medicine.

TABLE III The non-qualifiers

Death in an accident	1
Withdrawal from the course	2
Affairs of the heart Female : UK Male : Australia Female : South Africa	3
Still to graduate (All from Australia)	3

Districts of Origin of the Graduates (Table IV).

Thirty-three (29.5%) came from the Northern Region distributed as follows: 12 from Mzimba; 6 each from Karonga; Nkhata Bay and Rumphi, and 3 from Chitipa.

Thirty-four (30.5%) came from various districts in the Central Region (Lilongwe 7; Dedza 6; Ntcheu 5; Nkhotakota 4) three each from Ntchisi, Kasungu and Salima; 2 from Mchinji and one from Likoma Island.

Forty-five (40%) came from the Southern region (Zomba 8; Mulanje and Thyolo 7 each; Machinga and Nsanje 5 each; Chikwawa, Chiradzulu and Mwanza 3 each and Blantyre and Mangochi two each. The relatively substantial representation of Mzimba is noted with caution as this is a big district.

Pre-medical school education

Eighty (71%) of the medical graduates, studied at Chancellor College before they went abroad to study medicine; 30 of the doctors (27%) were old students of Kamuzu Academy. A few old students of Kamuzu Academy passed through Chancellor

TABLE IV Districts of origin

DISTRICT	STUDENTS
Northern Region	(33)
Mzimba	12
Karonga	6
Nkhata Bay	6
Rumphi	6
Chitipa	3
Central Region	(34)
Lilongwe	7
Ntcheu	5
Ntchisi	3
Salima	3
Likoma Island	1
Dedza	6
Nkhotakota	4
Kasungu	3
Mchinji	2
Southern Region	(45)
Zomba	8
Thyolo	7
Nsanje	5
Chiradzulu	3
Blantyre	2
Mulanje	7
Machinga	5
Chikwawa	3
Mwanza	3
Mangochi	2

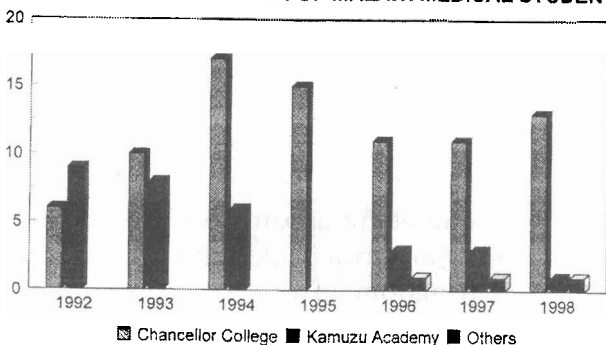
Other institutions besides Chancellor College and Kamuzu Academy which contributed to the population of these hybrids, were Malawi College of Accountancy, World University College of Switzerland and the Lester B Pearson College of Canada. Ben Chosamata of the 1997 group left Kamuzu Academy for the Malawi College of Accountancy in Blantyre from where, after spending two terms he was selected to study medicine. The student from World University College, Masauko Chaponda, was the best student in the 1996 MB BS finals, which he passed with honours. Cecilia Chibwana, who studied at the Lester B Pearson College, was the best student in the 1998 MB BS finals. Student selectors need not be afraid to offer places in our Medical School to applicants from outside Chancellor College and Kumuzu Academy.

Of the 22 female doctors, seven had attended Kamuzu Academy, 14 Chancellor College and one a college in Canada. The ratio of girls to boys who passed through Kamuzu Academy was 1:2, which is much higher than the 1 to 4.5 of those who went to Chancellor College.

College before they went abroad.

It is worthy of note that, in the first set of graduates in 1992, nine of the 14 doctors were old students of Kamuzu Academy. True to their academic pedigree, these first graduates were very sophisticated in their manners and their names. The latter feature was pleasantly noticed by one of our External Examiners in the 1992 MB BS finals. He was struck by forenames, like Moffat; Peter-Currie; Pascal and he remarked with humour, that "there was even one called Macpherson". Since 1993, Chancellor College has produced most of our medical graduates (Fig I).

BACKGROUND EDUCATION OF MALAWI MEDICAL STUDENTS



Educational maturity of the students

At graduation, it is not surprising that, due to the long tortuous period of study, the students were mature not only in age but also in education. The average age at qualification was 30 years. Academically, before they became doctors, a number of them held other degrees and qualifications obtained from universities either at home or from abroad or from both places.

(i) Degrees from University of Malawi

Among those who graduated in 1992 and 1993, four had BSc Honours degree from the University of Malawi obtained at Chancellor College (three in Chemistry and one in Biology). In that group also were four graduates who already had Bachelor of Education in Science from Chancellor College. In the 1994 set, a female student held the BSc in Chemistry and Biology before she went to the UK. The trend of the possession of another degree before qualifying was not so strong in the latter hybrids; thus only one of the returnees from South Africa had a BSc degree before he became a doctor.

(ii) From London University

Six students who went to London from Kamuzu Academy obtained BSc Honours degrees from the University of London in Physiology, Microbiology, Immunology and Pharmacology (Table V).

TABLE V Educational background

University of Malawi		
Bsc Hons	Biology	
	Chemistry	(4)
Bachelor of Education	Science	(4)
University of London		
Bsc Hons	Physiology	
	Microbiology	
	Immunology	(6)
	Pharmacology	
United States		
Bsc	Teacher Education	
The University of St Andrew's, Scotland		
BSc Med	Science	(29)
Diploma Med	Science	(20)
BSc Hons	Anatomy	
Double BSc Degrees		(6)

(iii) From the United States

The oldest member of the 1992 graduates was a clinical officer before he entered medical school. Before graduation in medicine he obtained the Bachelor of Science degree from the United States under the aegis of the Howard Ministry of Health Project and also a Certificate as an Assistant Physician.

(iv) The University of St Andrew's, Scotland.

This University provided a large number of BSc degrees. The first group of Malawi students who went there had to do a three-year course in Basic Sciences leading to the BSc in Medical Science; 29 of them had this qualification. Some of them had to do another year to obtain the BSc Honours degree. One of this group is Dr John Chisi who is back in St Andrew's working for his PhD degree in Anatomy.

As a result of these intense academic involvements, about half a dozen of these students ended up with double BSc degrees before they obtained the MB BS in Malawi.

Diploma of Medical Science. The regulations in St Andrew's were later revised whereby Malawi students did not have to do the BSc degree; instead they did the mandatory two-year course in basic

sciences at the end of which 20 of them got the Diploma in Medical Science.

MB BS (Malawi) examination results.

To date, two students have graduated MB BS (Malawi) with honours, a grade which is awarded when the student gains three distinctions out of the five subjects taken in the MB BS Finals. The first honours graduate was Moffat Nyirenda in 1992 and the second was Masauko Chaponda in 1996. There have been other outstanding graduates with distinctions and credits.

Dr Moffat Nyirenda, who was born in 1964, comes from Karonga and studied at Kamuzu Academy and University College London where he obtained BSc (Hons) in Immunology. He did two years of clinical undergraduate work at the University College Hospital, London before he returned to Malawi in 1991 to complete his studies. He did his District Hospital attachment at Mchinji in the Central Region before he went to the UK for postgraduate studies. He soon passed Part I of the (MRCP) UK. Thereafter, he embarked on research in Endocrinology at the University of Edinburgh, Scotland and he is about to submit his PhD Thesis on Molecular Endocrinology with particular reference to Diabetes. He got married in April 1998 to an English nephrologist and was exempted from the PLAB; he will later sit the English proficiency test and the Finals of the MRCP.

Where have these graduates gone?

What we know about the present disposition of these doctors is summarised in table VI.

Deceased

Two have died from chronic illness. Leslie Phiri, graduated in 1992 with a distinction in medicine and died in Blantyre in 1993 aged 38 years. A Leslie Phiri Prize in his memory was set up later by the Community Health Department of Malawi College of Medicine. Dr (Miss) Chiletso Kondwani, a 1994 graduate died in 1996 in Lilongwe.

Departed to other lands

A few have definitely left Malawi in the company of their spouses who work and live outside Malawi. There are also doubtful departures comprising two lady doctors who accompanied their husbands to the United Kingdom in quest of postgraduate

TABLE VI *Where have these graduates gone?*

Deceased	2
Departure to other lands:	
Definite	2
Doubtful	2
Most are working in Malawi:	
District Hospital attachments	
Lilongwe	12
Blantyre	7
Zomba	6
Dedza	3
Mangochi	3
Mchinji	3
Dowa	2
Rumphhi	2
One doctor each:	
Karonga	
Nkhata Bay	
Nzimba	
Ntchisi	
Salima	
Liwonde	
Kasungu	
Nkhotakota	
* Some districts are missing.	

training in medicine.

Districts Hospital attachments

In consonance with the philosophy of our College of Medicine that all our doctors will do a stint of service in the districts, many of them have had district hospital attachments after registration with the Malawi Medical Council. The most popular district hospitals covered are in Lilongwe, Blantyre and Zomba; less popular are Dedza, Mangochi, Mchinji, Dowa and Rumphhi. Some districts are still missing from coverage, notably Chitipa in the North.

Vocations

Many of these graduates have gone away, as feared. The factors which have decided them in their choice of vocation can be summarised as follows:

Salaries. Research jobs pay very well, so a number have taken up research jobs in various organisations like the Malaria Project; Aids Research Programme, Leprosy - TB Research Project etc.

Benefits which appertain to jobs have attracted doctors to the Ministry of Health, to Mission hospitals like The Adventist Hospital Blantyre; St John's Catholic Hospital in Mzuzu; the Fatima Mission Hospital at Lower Shire and to other places like the Sucoma Hospital.

Opportunities for Training have steered our

doctors to disciplines like Community Health and Paediatrics where they can more readily obtain scholarships and grants for training.

Promotion and progress prospects are better in government and in the Armed Forces than in the university so that it is not surprising that a number have taken up positions in the Ministry of Health. All in all, these graduates, by virtue of their overall maturity, have been very pragmatic and down-to-earth and realistic in their choices.

The vocations where they now currently serve are summarised in table VII.

Postgraduate education

The enthusiastic attention which these graduates are giving to postgraduate education is heartening and augurs well for the future of our young medical school.

TABLE VII *Vocations*

Salaries		
Benefits		
Opportunities	-	Postgraduate Training Promotion Progress
Government of Malawi (Administration)		
a. DHO	-	Lilongwe 3 Blantyre 2
b. Ministry of Health, Lilongwe		
Director, Clinical Services		
Chief, Community Health Services		
Deputy Controller Clinical Services		
Deputy Controller National Aids Programme		
c. Central Hospitals		
Director, QECH, Blantyre		3
Mission and Cham Hospitals		2
Private Hospitals		2
Postgraduate Education		44

The main promoters of postgraduate programmes include the College of Medicine which employs the doctors as Assistant Lecturers in postgraduate training positions; the government of Malawi, through the Ministry of Health sponsorship, various research organisations, such as Malaria Project; Aids Research, Wellcome Institute and others; Mission Hospitals and the Malawi Army. The Malawi government and the College of Medicine have been assisted financially in the funding of the postgraduate programmes, projects

and schemes by the World Health Organisation (WHO); the Beit Trust; the Royal College of Surgeons of Edinburgh; Safe Motherhood; Overseas Development Administration (ODA); Lions Club of Bavaria, and other bodies and organisations.

Community Health has been most popular. Five graduates have gone to the USA and passed the MPH (four from Johns Hopkins and one from Atlanta); three are on the course.

Paediatrics is also a very popular choice for postgraduate training, the trainees coming through the College, from Ministry of Health sponsorship and from the Malaria Project. Three graduates have passed Part 1 of the MRCP in Paediatrics; one recently returned with the Diploma of Child Health from the UK. A member of our first set of graduates (1992), M Mallewa, recently passed the final examination of the MRCP in Paediatrics. He is currently working at the Alder Hay Hospital in Liverpool.

Surgery postgraduate students have come also from the College of Medicine as Assistant Lecturers; from the Ministry of Health; one member has come through a Mission Hospital. Two, both graduates of 1993, have passed the Part One of their postgraduate qualifications: one, of the South African Fellowship, the other of the MMed. The World Health Organisations (WHO) and the Royal College of Surgeons of Edinburgh are strong supporters of postgraduate surgery in Malawi. It is a matter for joy that another one of our 1993 graduates, Devor Kumiponjera, has just passed the first (MCQ) part of the AFRCS, sitting the examination here in Blantyre. Other trainees are due to sit the same examination in September 1999.

In Obstetrics and Gynaecology, both WHO and Safe Motherhood are ardent supporters of our postgraduate studies. Two of the graduates have passed the Part 1 of the South African Fellowship examination. One has passed the MPH and has returned to continue his training.

In Internal Medicine three of our graduates have passed the Part 1 of the MRCP.

Ophthalmology has an active postgraduate programme. Two of our students are training in

Nairobi, Kenya and will later go aboard, under the umbrella of the Lions Club of Bavaria in Germany. One graduate has gone to the UK to train in ophthalmology with the financial support of the ODA.

TABLE VIII *Postgraduate Education*

Promoters	:	College of Medicine (Lecturers)
	:	Government (Ministry of Health)
	:	Research Bodies
	:	Mission Hospitals
	:	Malawi Army
Fund Providers	:	Who, Safe Motherhood, ODA etc
<i>Community Health (8)</i>		
MPH - Passed	-	5
- On Course	-	3
<i>Paediatrics (8)</i>		
Passed Part 1	-	3
Passed Diploma	-	1
<i>Surgery (7)</i>		
Passed Part 1	-	2
<i>Obstetrics and Gynaecology (5)</i>		
Passed Part 1	-	2
<i>Medicine (4)</i>		
Passed Part 1	-	3
<i>Pathology (2)</i>		
Passed Part 1		
<i>Anaesthesia</i>		
Passed DA		
<i>Anatomy</i>		
<i>Physiology</i>		
<i>Hospital Administration</i>		
<i>Research Products</i>		

Comments

The period of hybridisation brought great gains in medical education to the Malawi College of Medicine and the entire country. The period meaningfully "filled the gap"¹ in the local production of medical doctors of Malawian origin between the opening of the College of Medicine in April 1991 and the time of graduating "home-grown" doctors which is expected to happen in July 1999. When this paper was presented at the December 1998 meeting of the Association of Surgeons of East Africa, we had graduated 112 doctors from our hybrid medical students. Since then two of the three non-qualifiers (Table III) have passed the MB BS (Malawi) bringing to 114 the number of doctors so far produced, only one returnee from Australia remains to graduate.

Hybridisation ended in September 1994 when the College of Medicine admitted the first batch of students to have their complete undergraduate career here in Malawi. Their teaching has been

unique: a curriculum which integrated basic scientific, clinical and community health aspects of medicine vertically and horizontally with defined emphasis on active problem-solving learning techniques instead of the traditional didactic education of my student days. Comparison between our home grown doctors and the hybrids before them will inevitably be made. Time and the two sets of medical graduates on both sides of the academic and professional divide will tell the differences.

One striking observation made amongst our hybrid graduates has been their avid interest in pursuing postgraduate education in all disciplines of medicine. Inevitably, some subjects have been more popular than others, with doctors in droves drifting to where they hope to get quick sponsorships for training or the cushion of good remuneration or where a lucrative future practice appears probable. Departments which are not attracting many postgraduate students now need not despair; they should await their day: it is the patient dog that gets the fattest bone.

As these postgraduates careers get under way, the government of Malawi, assisted by the enlightened advice of the College, needs to map out career structures for these doctors to encourage them to stay and practise in Malawi. Most of them are still here in Malawi. Again, only time will tell how many

will remain, or return to Malawi after their postgraduate education to practise medicine.

It would be naive to expect that all our graduates, hybrid or home grown, will remain in Malawi. If during our peregrinations as teachers, we get to a far-flung place, say Iceland, to find that the Professor of Immunology there is one of our graduates from the Malawi College of Medicine, we should rejoice with him and congratulate ourselves that the product of the Malawi College of Medicine is internationally marketable. The best yardstick of measuring our success, however, will be if many, or enough, of the doctors we produce, give their services in Malawi at all levels; private sector, government hospitals, mission centres and the College of Medicine. Then will the founding fathers of the Medical School Project of Malawi; the Foundation Principal and professors of the College of Medicine feel fulfilled in the realisation of their dreams, namely, the provision and practice of good quality medicine in Malawi; by Malawians; for Malawians².

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