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Should active recruitment of health workers from sub-Saharan Africa be viewed as a crime?

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Shortages of health-care staff are endemic in sub-Saharan Africa (table).[1] Overall, there is one physician for every 8000 people in the region. In the worst affected countries, such as Malawi, the physician-to-population ratio is just 0·02 for every 1000 (one per 50 000). There are also huge disparities between rural and urban areas: rural parts of South Africa have 14 times fewer doctors than the national average.[2] These numbers are very different to those in developed countries: the UK, for example, has over 100 times more physicians per population than Malawi.[3] Furthermore, almost one in ten doctors working in the UK are from Africa. The insufficiency of health staff to provide even basic services is one of the most pressing impediments to health-care delivery in resource-poor settings. The consequences are clearly shown by the inverse relation that exists between health-care worker density and mortality.[4–6]

High-income countries, such as Australia, Canada, Saudi Arabia, the USA, the United Arab Emirates, and the UK[7,8] have sustained their relatively high physician-to-population ratio by recruiting medical graduates from developing regions, including countries in sub-Saharan Africa.[9] In contrast, over half of the countries in sub-Saharan Africa do not meet the minimum acceptable physician to population ratio of one per 5000—WHO's Health for All standard.[3] Nurses, pharmacists, and other health workers are systematically recruited from a region struggling with the greatest burden of infectious and chronic illness[6,8] and the specific challenge of HIV/AIDS.[10]

Several recent reviews of health workers employed in Australia, Canada, the UK, and the USA have shown the extent of the brain drain. An estimated 13 272 physicians trained in sub-Saharan Africa are practising in Australia, Canada, the UK, and the USA.[8] Around a third of medical graduates from Nigerian state medical schools migrate within 10 years of graduation to Canada, the UK, and the USA.[11]

In sub-Saharan Africa, nurses commonly bear the brunt of health-care delivery, but their numbers have declined substantially in recent years because of migration. In Malawi, for example, there has been a 12% reduction in available nurses due to migration.[12] In 2000, roughly 500 nurses left Ghana, double the total number of nursing graduates for that same year.[13] The recent upsurge in migration has affected the ability of nurse training programmes to continue because of poor staffing levels.[14] Death caused by infectious and chronic diseases[15] is also a major contributor to nurse attrition in the region.

The number of pharmacists living in sub-Saharan Africa is also very low in comparison with that in many other regions of the world. Liberia has a pharmacist-to-population ratio of only one to 85 000,[3] 77 times lower than that in the USA.[3] In 2001, more pharmacists emigrated from South Africa (600) and Zimbabwe (60) than graduated (500 and 40).[16] Many pharmacy outlets have closed because of a scarcity of trained pharmacists and pharmacy technicians.[17]

Recruitment from sub-Saharan Africa occurs despite pleas to discontinue such efforts from local and international ministries of health.[18–20] Western recruitment agencies, such as O'Grady Peyton International (USA and UK) and Allied Health (Australia), have established offices in South Africa to facilitate recruitment, while corporations such as Shoppers Drug Mart (Canada) and Rite Aid actively recruit from South Africa using touring recruitment workshops.[21] Recruitment strategies involve advertising in national newspapers and journals, text-messaging to health workers, personal emails and internet sites, and recruitment workshops. Offers of employment are accompanied by legal assistance with immigration, guaranteed earnings, and moving expenses.[21]

	Physicians			Nurses			Pharmacists		
	Number	Per 1000 population	Year	Number	Per 1000 population	Year	Number	Per 1000 population	Year
Non-African countries									
Australia	47 875	2·47	2001	176 188	9·10	2001	13 956	0·72	2001
Canada	66 583	2·14	2003	309 576	9·95	2003	20 765	0·67	2003
UK	133 641	2·30	1997	704 332	12·12	1997	29 726	0·51	1997
USA	730 801	2·56	2000	2 669 603	9·37	2000	249 642	0·88	2000
Saudi Arabia	34 261	1·67	2004	74 414	2·97	2004	5485	0·22	2004
United Arab Emirates	5825	2·02	2001	12 045	4·18	2001	1086	0·38	2001

(Continues on next page)

Lancet 2008; 371: 685–88

See **Editorial** page 623

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	Physicians			Nurses			Pharmacists		
	Number	Per 1000 population	Year	Number	Per 1000 population	Year	Number	Per 1000 population	Year
(Continued from previous page)									
African countries									
Angola	1165	0·08	2004	18 485	1·31	2004	919	0·07	2004
Benin	311	0·04	2004	4965	0·72	2004	11	0·00	2004
Botswana	715	0·40	2004	4753	2·65	2004	333	0·19	2004
Burkina Faso	708	0·05	2004	4268	0·32	2004	343	0·03	2004
Burundi	200	0·03	2004	1337	0·19	2004	76	0·01	2004
Cameroon	3124	0·19	2004	25 997	1·60	2004	700	0·04	2004
Cape Verde	231	0·49	2004	410	0·87	2004	43	0·09	2004
Central African Republic	331	0·08	2004	908	0·23	2004	17	0·00	2004
Chad	345	0·04	2004	2146	0·24	2004	37	0·00	2004
Comoros	115	0·15	2004	481	0·61	2004	41	0·05	2004
Côte d'Ivoire	2081	0·12	2004	7773	0·46	2004	1015	0·06	2004
Congo, Democratic Republic of the	5827	0·11	2004	28 789	0·52	2004	1200	0·02	2004
Congo, Republic of the	756	0·20	2004	3214	0·84	2004	99	0·03	2004
Equatorial Guinea	153	0·30	2004	218	0·43	2004	121	0·24	2004
Eritrea	215	0·05	2004	2365	0·55	2004	107	0·02	2004
Ethiopia	1936	0·03	2003	14 270	0·20	2003	1348	0·02	2003
Gabon	395	0·29	2004	6275	4·64	2004	63	0·05	2004
The Gambia	156	0·11	2003	1618	1·13	2003	48	0·03	2003
Ghana	3240	0·15	2004	15 797	0·74	2004	1388	0·06	2004
Guinea	987	0·11	2004	4061	0·47	2004	530	0·06	2004
Guinea-Bissau	188	0·12	2004	912	0·59	2004	40	0·03	2004
Kenya	4506	0·14	2002	37 113	1·18	2002	3094	0·10	2004
Lesotho	89	0·05	2003	1123	0·62	2003	62	0·03	2003
Liberia	103	0·03	2004	589	0·17	2004	35	0·01	2004
Madagascar	5201	0·29	2004	3585	0·20	2004	175	0·01	2004
Malawi	266	0·02	2004	7264	0·59	2004	-	-	-
Mali	1053	0·08	2004	5986	0·45	2004	351	0·03	2004
Mauritania	313	0·11	2004	1658	0·56	2004	81	0·03	2004
Mauritius	1303	1·06	2004	4438	3·60	2004	1428	1·16	2004
Mozambique	514	0·03	2004	3947	0·21	2004	618	0·03	2004
Namibia	598	0·30	2004	6145	3·06	2004	288	0·14	2004
Niger	296	0·02	2004	2421	0·20	2004	20	0·00	2004
Nigeria	34 923	0·28	2003	127 580	1·03	2003	6344	0·05	2004
Rwanda	432	0·05	2004	3570	0·42	2004	278	0·03	2003
São Tomé and Príncipe	81	0·49	2004	256	1·55	2004	24	0·15	2004
Senegal	594	0·06	2004	2606	0·25	2004	85	0·01	2004
Seychelles	121	1·51	2004	634	7·93	2004	61	0·76	2004
Sierra Leone	162	0·03	2004	1211	0·23	2004	340	0·07	2004
South Africa	34 829	0·77	2004	184 459	4·08	2004	12 521	0·28	2004
Sudan	7552	0·22	2004	17 656	0·51	2004	3558	0·10	2004
Swaziland	171	0·16	2004	4590	4·24	2004	70	0·06	2004
Tanzania	822	0·02	2002	10 729	0·30	2002	365	0·01	2002
Togo	225	0·04	2004	1667	0·33	2004	134	0·03	2004
Uganda	2209	0·08	2004	14 805	0·55	2004	668	0·03	2004
Zambia	1264	0·12	2004	16 990	1·56	2004	1039	0·10	2004
Zimbabwe	2086	0·16	2005	9357	0·72	2004	883	0·07	2004

Table: **Ratios of health workers to number of population**[1]

Without immediate actions to discourage migration, the health consequences for Africa are dire. We developed a projection model to illustrate the expected outcome of physician attrition on the delivery of HIV services over the next 5 years. Between 2006 and 2012 there could be an almost three-fold increase in the number of patients per physician (from about 9000 to 26 000) and an overall decrease in the number of physicians treating patients with HIV from 21 000 to about 10 000 (figure).[22,23] This finding stands in sharp contrast to the level of care expected in developed countries. In the USA, for example, a full-time physician would be expected to manage about 2000 patients per year or 20–25 patients in a standard clinic day.[24]

Although the active recruitment of health workers from developing countries may lack the heinous intent of other crimes covered under international law, the resulting dilapidation of health infrastructure contributes to a measurable and foreseeable public-health crisis. There is now substantial evidence of state and organisational involvement in active recruitment of health workers from developing to developed nations.[7,8]

There is no doubt that this situation is a very important violation of the human rights of people in Africa. In recent years, international law has developed the notion of international crime to strengthen the accountability of individuals for serious violations. One indication of the gravity of acts and that they deserve treatment as international crimes that has been developed by the International Criminal Court is that they create social alarm.[25]

Active recruitment of health workers from African countries is a systematic and widespread problem throughout Africa and a cause of social alarm: the practice should, therefore, be viewed as an international crime. Recruitment of health workers from Africa is an structured initiative led by recruitment organisations, but clearly sanctioned by countries that then accept these placements, such as Australia, Canada, Saudi Arabia, the UK, the United Arab Emirates, and the USA.[7,8] Active recruitment is considered unethical under many national policies, leads to negative health outcomes,[3,26] and undermines the right to health as asserted in the Universal Declaration of Human Rights,[27] various International Covenants,[18] and numerous declarations and legally binding treaties including the Convention on the Rights of the Child and the Convention on the Elimination of All Forms of Discrimination against Women.

Customary international law suggests that such recruitment strategies cease. There are many statements and recorded declarations of state representatives indicating an international consensus that active health-worker recruitment is wrong and should not be propagated. The *Commonwealth Code of Practice for the International Recruitment of Health Workers*, *Melbourne Manifesto*, the *UK National Health Service's (NHS) code on ethical recruitment*, and the *World Medical Association Statement on Ethical Guidelines for the International Recruitment of Physicians*, and the WHO task force against the brain drain,[28] all clearly demonstrate awareness of the problems of health-worker migration from poor to richer countries. These statements set minimum standards to prevent exploitation of workforces in poorer countries, including equitable recruitment whereby recipient countries should receive new health workers only when there is compensation to the delivering state to contribute to health structure.[18]

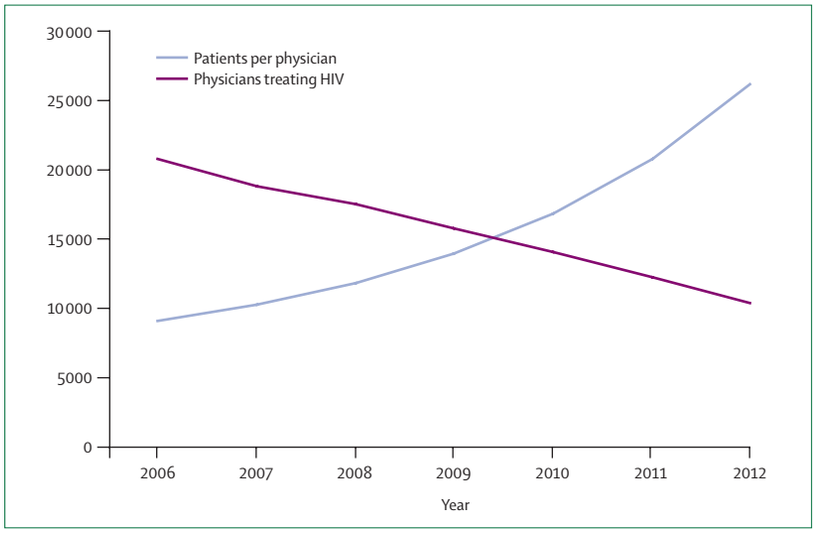

Figure: **Projected effect of physician migration between 2006 and 2012**
The model is based on the following assumptions for sub-Saharan Africa: 83 000 practising physicians at end 2006;[3,8] 20% migration rate[8] in the first 3 years increasing by 10% annually therafter; HIV prevalence, incidence, treatment, and death rate in physicians similar to that in the general population; retirement rate of 2·5% per year; 11 000 medical students graduating per year, decreasing by 10% per year;[20] 25% of physicians involved in HIV care,[20] increasing by 5% per year due to increased patient load; 22·5 million people living with HIV at mid-2006,[22] including a 1·7 million incidence in 2006 increasing at a rate of 1·5% per year; AIDS-related mortality of 8·1 per 1000 for people not on highly active antiretroviral therapy (HAART) and 3·6 per 1000 for people on HAART, with 6% of all people with HIV taking HAART.[23]

We, of course, recognise that while there is a right to health for everyone, there are also health-workers' rights to consider. Health workers should have freedom of movement and choice of where they live and work, just as any workers should.[27] To encourage the retention of health workers, governments and policy makers need to use incentives and to address the reasons for migration: low salaries, inadequate resources, long hours and heavy workloads, a threat of infections and violence, and lack of career development.[29]

However, while strategies aimed at retaining health workers through improvement of local conditions have been discussed for several years, migration continues to increase.[9] Efforts to compensate countries for lost health workers are inadequate and are not based on mutual agreements, despite declarative statements and intentions. A 2004 report estimated that Ghana alone has lost around £35 million of its training investment in health professionals to the UK.[30] In comparison, by

recruiting Ghanaian doctors, the UK saved about £65 million in training costs between 1998 and 2002, while their contribution to service provision is estimated at around £39 million a year.[30] The benefiting countries should make amends through supporting repatriation of professionals who have left the country, training initiatives, the building and staffing of new health schools, and support for the development of retention frameworks, including improved salaries, pensions, recruitment of retired workers, and rural-worker incentives.

When the international community permits for-profit companies to actively entice overworked and often underpaid workers away from the most vulnerable populations, it is contributing to the deterioration of essential health-care delivery. Improvement of the health of the world's poor is a challenge that the international community is failing to adequately address. Current international treaties and commitments are severely compromised if we are unwilling to adhere to their principles and prevent obvious harms to poor people. Clear, enforced regulation is needed to prevent recruitment companies from enticing health workers away from their local work, and developed countries should adequately compensate less-developed countries for the human resources they have lost and continue to lose.

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