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International medical migration: a critical conceptual review of the global movements of doctors and nurses

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Key words

Migration
Healthcare professionals
Global equity
Critical review

Abstract

Background

A critical appraisal of the discourse describing international medical migration around the turn of the 21st century.

Method

A critical narrative review of a range of sources including grey literature, books, commentary and research reports, to trace the development and spread of specific causative models. English-language literature focussed on the Anglophone world.

Findings

The attribution of causative relations between the density of skilled medical workers (assumed to be linked with their migration), the provision of healthcare and population health outcomes illustrates how the global reach of biomedicine has to be understood in the context of local conditions. The need to understand migration as an aspect of uneven global development rather than a delimited issue of manpower services management is illustrated with reference to debates about 'brain-drain' of sub-Saharan Africa's healthcare professionals, task-shifting and the crisis in healthcare human resources. The widespread presumed cause of shortages of skilled healthcare staff in sub-Saharan Africa were over-determined by a compelling narrative of rich countries stealing poor countries' trained healthcare professionals. This narrative promotes medical professional interests and ignores historical patterns of under-investment in healthcare systems and structures. Sociological theories of medicalization suggest that the international marketization of medical recruitment is a key site where the uneven global development of capital is at work. A radical reconfiguration of medical staffing along the lines of 'task-shifting' in rich and poor countries' healthcare systems alike offers one means of thinking about global equity in access to quality care.

Introduction

While the international migration of skilled healthcare professionals has a long history (Gish 1971), its particular visibility in the early years of the twenty-first century and the way that it has been held responsible for health problems in resource-poor countries is the topic of this paper. Global mobility as an ongoing aspect of human existence that is only likely to increase in scope, scale and spread, has potentially far-reaching implications for how equitable healthcare provision is organised nationally and internationally. Uneven global development with associated differential markets for labour and other commodities, along with the development of new markets for medical recruitment at the end of the 20th century, has promoted international professional migration.

The study of medicalization, whereby non-medical problems become defined and subsequently treated as medical problems, has tended to focus on unruly bodies subject to normalization pressures such that pharmacologically treatable illnesses or disorders are defined. Despite the intention that medicalization be defined as a neutral process (Conrad, Mackie, and Mehrotra 2010), there is an implicit assumption in much research that medicalization must be negative (Parens 2013). This paper examines how global migration of skilled healthcare workers can be understood as part of the medicalization of global public health problems and thereby responds to Conrad's call to examine how

The engines of medicalization have proliferated and are now driven by more commercial and market interests than by professional claims-makers (Conrad 2005b: 10).

These ‘emergent engines of medicalization’ need to be examined ‘with political economy perspectives’ to supplement social constructionist approaches (Conrad 2005), given the contrast between the medicalization of the 1970s and 1980s (medical professional dominance and physician entrepreneurship) and the technical scientific innovations of the 1990s with associated pharmacological and medical markets (Clarke et al. 2003). The transnational capitalization of medical recruitment offers new ways for medicalization to develop at a population rather than individual level.

From the middle twentieth century onwards, doctors (and subsequently nurses) from low-income countries have formed a reserve army of labour (Castles and Miller 2009) for high-income countries, but this was not discussed as a ‘crisis’ until the early years of the twenty-first century, when the debate developed along emotive lines. In 2006, the World Health Organisation Report focussed on the loss of healthcare personnel from the world’s poorest countries, which were also the places that were coping with the spread of HIV (WHO 2006). In positing a causal connection between poor population health outcomes and high rates of skilled health worker emigration, the WHO report confirmed the idea of a causal connection between a higher density of healthcare professionals and improved life expectancy. The insistence on trained professionals, rather than socioeconomic conditions as key for ameliorating public health has been widespread and can be interpreted as medicalization. The debate

about the effects of physician and nurse emigration on the countries that they were leaving, and the obligations upon those that receive them, has and continues to be emotive. Within this debate, nurses and doctors embody the importance of health as a social good such that their emigration from a place with health problems is highly charged. The presumed positive effect that skilled healthcare professionals have on the health of a population is challenged by the ‘task-shifting’ (or task-sharing) movement, which seeks to provide health services in resource-poor settings by employing workers with reduced training.

Explanatory models and theories for international ‘brain drain’ and ‘flow’ of so-called ‘human healthcare resources’ do not take into account sociological theories of professional dominance and medicalization. An examination of the evidence cited in the 2006 World Health Organisation report, which promoted the idea of a causative link between healthcare professional density and poor population health outcomes, considers how the link is asserted and offers a means to interrogate the policy responses to shortages of healthcare professionals. In pointing to medicalization of global public health problems, the paper reiterates the need to include equity in consideration of healthcare staffing in rich and poor worlds alike.

Methods

A narrative literature review followed up references using traditional scholarly methods and including articles, chapters and pamphlets to locate further references.

The research sought to establish the conceptual and theoretical context in which late 20th and early 21st century migratory movements of doctors and nurses have been understood by offering a critical analysis of sources.

Problematizing medical migration

The lack of good quality statistical data to track the movement of physicians, midwives and nurses has been periodically lamented over the last four decades (Ahmad 2005; The Committee on the International Migration of Talent 1970; van Hoek 1970; OECD 2010). Despite these inadequate data, competition for the world's health workforce has been termed a global 'bidding contest' analogous to competition for other commodities in limited supply (Labonté and Schrecker 2007). Significant skilled international migration is confined to the rich world (for instance more than a quarter of foreign doctors in Belgium are from the Netherlands and Norwegians constitute about half of those in Denmark (Connell 2010)). Furthermore, of the skilled workers who migrate from poor to rich countries, healthcare workers represent a small proportion (Stilwell et al. 2004). Thus the migration of doctors and nurses from sub-Saharan Africa to the Global North is a subsection of wider movements, yet, this aspect of migration came to dominate the global public health agenda at the start of the twenty-first century (Bradby 2013). The 'embarrassing optics of rich countries exploiting the health human resources of African countries devastated by the AIDS epidemic' (Wright, Flis, and Gupta 2008) became impossible to ignore.

The estimated 20% of doctors and 10% of nurses from Africa that work overseas (Connell 2010; Clemens and Pettersson 2008), represent a potential impediment to their source country's capacity to deliver healthcare and to do so equitably (Stilwell et al. 2004; Connell 2010). The sense that the 'departure of trained professionals from low income countries to find work in high income countries has emerged as a perverse subsidy' (K. Mensah, Mackintosh, and Henry 2005) appeared as a strong critique that was widely taken up, including by the World Health Organisation.

Between 23 and 34 per cent of practising physicians in New Zealand, the UK, the US, Australia and Canada have been trained elsewhere, and while a small proportion of these are from sub-Saharan African, nonetheless, the damage done to poor countries losing a high proportion of medical and nursing graduates made headlines. As one of the world's poorest countries, Malawi has a low life expectancy, high infant mortality and a high prevalence of HIV/AIDS. More than 100 nurses per year have been leaving Malawi, which, in a country that produces only fifty graduates per year from its nursing schools (Record and Mohiddin 2006), represents a significant loss. In South Africa a regional referral centre for spinal injuries near Johannesburg had to close down when both resident anaesthetists were recruited by a new Canadian spinal injuries unit (Martineau, Decker, and Bundred 2004). In the Philippines an entire cardiovascular unit in a provincial hospital was temporarily closed because of the wholesale recruitment of its nurses to overseas jobs (Alkire and Chen 2006).

Nurses have been described as ‘one of the most critical components of the workforce’ (Buchan and Aiken 2008) with the global nurse shortage adjudged ‘not just an organizational challenge or a topic for economic analysis; it has a major negative impact on health care’ (Buchan 2006). Elsewhere, both doctors and nurses are referred to as the ‘most precious resource’ (Johnson 2005) for sub-Saharan African countries (Coombes 2005) and as

crucial instruments of health, doctors and nurses should be treated differentially – indeed exceptionally well, exceptionally soon – for ethical reasons that go far beyond their own well-being (Alklire and Chen 2006: 116).

The loss of skilled health workers has been described in emotive and/or hyperbolic terms, as part of a confounding of the provision of doctors and nurses with the provision of health. The ‘robbing’, ‘raiding’ (Johnson 2005) and ‘poaching’ of trained professionals who constitute poor countries’ ‘educated elite’ has been lamented as ‘deeply immoral’ (Hooper 2008). The ‘devastating consequences for the source countries’ (Larsen et al. 2005) have been indicted as criminal (Mills et al. 2008) and compared with slavery (Heath 2007). Otherwise measured authors ‘declaim the brain drain in the most strident and emotive language’ (Crush, Chikanda, and Pendleton 2012: 927).

With the departure of trained professionals from their poor home countries for better paid jobs in the rich world making headlines, it became hard to avoid the conclusion that ‘brain drain’ was not only contributing to, but driving inequality in the

distribution of health workers world-wide (Daniels 2008). With significant aid being devoted to distributing antiretroviral treatment in sub-Saharan African countries, chronically depleted health services, lacking infrastructure, personnel and equipment became a highly visible. Sub-Saharan Africa's lack of healthcare personnel became shamefully apparent when the migration of doctors and nurses from South Africa, Zimbabwe and Ghana to Western countries came under scrutiny. Although research has most often focussed on particular countries' loss of professionals (e.g. Chikanda 2005a; Crush and Pendleton 2012) and others have noted the significant differences between African countries (e.g. Niger compared to Ghana (Clemens and Pettersson 2008)), the emigration of skilled health care workers has nonetheless come to be talked about as a highly pressing **sub-Saharan African** public health problem. The delineation of 'sub-Saharan Africa' as a meaningful geographical space has been criticised as a construction of the Global North (Airhihenbuwa 2007), but is nonetheless reproduced here as a central term of the 'brain drain' debate.

Attention to the emigration of healthcare professionals from sub-Saharan African countries, coinciding with poor health-outcomes in the same places became the focus of two influential reports (JLI 2004; WHO 2006). These two reports represent the convergence of ideas about the key role of skilled healthcare professionals, not just as a correlate of population health outcomes, but as a **causative** correlation such that a higher density of professionals is seen as a major cause of improving population health. As a perpetuation of earlier models of professional dominance, the

supposition that skilled healthcare professionals ‘cause’ good health in resource-poor settings has influenced the global policy agenda around ‘brain drain’.

JLI 2004 and WHO 2006 reports

In 2004, the ‘Joint Learning Initiative’ (a funded network of over 100 ‘global health leaders’) drew attention to the dismal effects of HIV spread and labour emigration coinciding with chronic underinvestment in healthcare staff in African countries (Initiative 2004). Also in 2004, a High Level Forum on the Health Millennium Development Goals reported on ‘... a human resources crisis in health, which must be urgently addressed’. And so in 2006 the World Health Report enumerated a shortfall in the global health workforce, suggesting there were 4.3 million too few doctors, nurses, midwives, and other healthcare workers worldwide, calling the situation a ‘global health workforce crisis’ (WHO 2006).

These reports were key in putting healthcare professional shortage on the global public health agenda, which, as a political process relies on a compelling narrative. The story that rich countries were poaching doctors from poor countries is persuasive and plausible, illustrating as it does, wider international inequalities. These inequalities became encapsulated in the idea, described in the Joint Learning Initiatives report (Initiative 2004) that there were more Malawian-trained doctors in Manchester than in Malawi. Subsequently this idea of Malawian physicians congregating in Manchester has been queried as an urban myth

<http://www.bbc.co.uk/news/magazine-16545526>, lacking sound numerical basis

(Lizi, Lwanda, and Matiti 2013).

Mythical or otherwise, the Joint Learning Initiative report of 2004, confirmed by the World Health Report of 2006, suggested a connection between global migration flows of health professionals to industrialized, primarily Anglophone countries from poorer countries, with particular attention paid to sub-Saharan African countries with impoverished healthcare provision, deteriorating health outcomes and high rates of HIV infection. Longitudinal research demonstrated a positive association between HIV prevalence rates and the departure of medical professionals from sub-Saharan Africa (Bhargava and Docquier 2002), while poor work conditions, fear of HIV transmission, (Chikanda 2005b), having family members overseas, and/or employment in the private sector to accumulate money (Chikanda 2005a) all promoted the departure of skilled health professionals in the case of Zimbabwe. While poor conditions, including poor health, promotes emigration, the link between low healthcare worker density back to health outcomes is less clear. The evidence used to assert the link between healthcare worker emigration and poor health outcomes in these key reports is considered next.

Relationship between healthcare worker density and population health

The WHO (2006) report includes the following graphic, illustrating an association between the density of healthcare workers per unit of population, against measures of

maternal, child and infant mortality (see figure 1 below), which was derived from a graphic that appeared in the earlier Joint Learning Initiative Report (2004) (see figure 2). These graphs bring to the fore some assumptions about the relationship between a population's health, the healthcare provision available and the healthcare professionals available.

Figure 1 (reproduced from World Health Organisation, 2006 (WHO 2006)) about here.

In the JLI report the collapse in life expectancy in, for instance, Zimbabwe and Zambia (see figure 3, below), is presented as evidence of the fatal effects of the combined burden of HIV, together with long-term under-investment in healthcare services. A measure of mortality is then plotted against a measure of the density of healthcare professionals and entitled 'More health workers – fewer deaths' (see figure 2 below), which appropriately describes the association represented (Initiative 2004).

The 2006 World Health Report declared the global crisis in health workforce a central problem for public health and one that required both national and international governance. The graph that was first published by the Joint Learning Initiative in 2004 was reproduced in the 2006 World Health Report, but now the title assumes a causative connection with 'Health workers save lives!' (see figure 1, above). This title states an unambiguously causative relation between the presence of health professionals and fewer premature deaths in the population. This assertion ignores

the difficulty of demonstrating an independent effect of increased healthcare professional density on improved health outcomes in the face of confounding variables, which are drivers for **both** poor health and an attenuated healthcare workforce. For instance, studies of physicians who are absent from their employment because of industrial action (Cunningham et al. 2008) or due to high rates of migration (Bhargava and Docquier 2002) show that mortality rates tend to improve or remain stable with the reduced availability of physicians, suggesting that doctors do not, in any straightforward way, save lives.

Similarly, where healthcare staff shortages have led to ward closures, hospital mortality rates have remained stable rather than deteriorating (Brown 1997). Where commentators seek to demonstrate a link between, for instance a lack of nursing staff and poor health outcomes, the measures cited are often confined to clinical settings, for example cross-infection rates and post-surgery adverse events, thereby capturing an aspect of professional practice rather than assessing patients' general wellbeing or predicted life expectancy (Buchan and Aiken 2008).

In 1978 Alfonso Mejia noted the difficulty of measuring 'the impact of migration on the health status in donor and recipient countries' was such that any measures were rendered 'almost useless' (Mejia 1978). More recent quantitative analyses of the association between the density of healthcare professionals and mortality rates have given contradictory results. Using global data, a higher density of doctors has been

shown to have a positive effect on maternal, infant, and under-five mortality (Robinson and Wharrad 2001) and a higher density of doctors, nurses and midwives was positively associated with maternal mortality rate and to a lesser extent with infant mortality rate and under-five mortality (Anand and Bärnighausen 2004). In ‘developed’ countries doctor density has been found to have a negative effect on infant and perinatal mortality and no effect on maternal mortality (Cochrane, St Leger, and Moore 1978). Other studies using global data found no significant association between doctor density and infant mortality (Kim and Moody 1992), and no association between doctor density and either infant or maternal mortality (Hertz, Hebert, and Landon 1994). Three studies found no association between nurse density and maternal mortality, infant or under-five mortality, and infant mortality (Kim and Moody 1992; Robinson and Wharrad 2000; Robinson and Wharrad 2001). No association was found between the concentration of doctors and nurses and the utilization of 6 ‘essential’ health services in low and middle income countries, leading to speculation that other health workers, who had not been included in the research, were undertaking aspects of service provision (Kruk et al. 2009), a point to which we return.

Figure 2 (reproduced from Joint Learning Initiative, 2004 (Initiative 2004)) about here.

The graphs in the Joint Learning Initiative (2004) and the World Health Report (2006) cite one paper that is notable for its demonstration of an independent effect of

healthcare professional density on mortality rates in a multi-country analysis (Initiative 2004; WHO 2006). This paper offers a cautious conclusion regarding the role that the density of human resources having a role to play ‘in addition to other determinants’ when ‘accounting for the variation in rates of maternal mortality, infant mortality, and under-five mortality across countries’(Anand and Bärninghausen 2004).

Figure 3 (reproduced from Joint Learning Initiative 2004 (Initiative 2004)) about here.

The text of the 2006 World Health report states that

... worker numbers and quality are positively associated with immunization coverage, outreach of primary care, and infant, child and maternal survival ... The quality of doctors and the density of their distribution have been shown to correlate with positive outcomes in cardiovascular diseases (Anand and Bärninghausen 2004). (WHO 2006)

While immunization coverage and primary care outreach are good indicators that health services are being provided, and may be correlates of improving population health, they are not simple indicators of population health, in the way that infant, child and maternal survival undoubtedly are. Yet, the tendency to confound the provision of **health services** with the provision of **health** is routine in discussions of global ‘brain drain’, as is an assumption that the provision of **health services** is closely related, if not co-terminus with, providing a higher density of skilled health workers. This tendency to collapse down the careful qualification of research findings in Anand and Bärninghausen (2004) is epitomised by a commentator in the British

Medical Journal who claims that ‘there is a linear relation between health outcomes and the density of healthcare workers’ such that:

Current policies of recruiting doctors from poor countries are a real cause of premature death and untreated disease in those countries and actively contribute to the sum of human misery (Heath 2007).

The over-simplified claim that ‘health care professionals save lives’ (WHO 2006) suggests simple solutions to the workforce crisis, such as manipulating migration flows. A simplified model posits the emigration of trained healthcare personnel as causing poor health outcomes, thereby implying simplified interventions to regulate migration ‘flows’ in the name of promoting health. Such ‘plumbing’ models render ‘healthcare human resources’ (HHR) a mobile commodity open to manipulation through preventing emigration, promoting return migration and introducing so-called ethical recruitment.

Regulating the movement of resources

Attempts to reduce migration out of countries with significant unmet need for healthcare betrays a view of healthcare workers as a mobile and transferable resource whose flow is open to regulation (Wright, Flis, and Gupta 2008). This view potentially ignores workers’ own assessment of their interests, not to mention violations of individual freedom of movement (Mackintosh et al. 2006). Attempts to restrict international recruitment, and offer incentives for skilled healthcare workers to stay put have proved largely ineffective in sub-Saharan Africa (Kwadwo Mensah 2005).

Even if the restriction of skilled healthcare workers' emigration could be achieved, this would not necessarily increase their availability in source countries, since there is no guarantee that those workers will make themselves available for public-service posts, particularly not in the rural and/or impoverished areas where the need is greatest (Clemens 2007). Furthermore, in poor countries such as Ghana, with a small number of resident healthcare workers, even if a policy of migration-reversal could be achieved, it would not bring the density of physicians up to WHO-recommended levels (Arah, Ogbu, and Okeke 2008). By contrast in richer countries such as New Zealand, where physicians numbers are much higher per head of population, it has proved easier to attract health workers to return from the OECD countries to which they had migrated (Zurn and Dumont 2008). This suggests that globally attempts to foster return migration may have widened inequalities of healthcare professional density.

In parallel with emigration restriction, ethical recruitment policies, for instance through compensatory payments to sending countries which have trained a considerable proportion of a destination country's healthcare staff, have sought to mitigate the damage of brain drain (Mackintosh, Raghuram, and Henry 2006). The UK's code to restrict recruitment from 150 developing countries, proved ineffective in as much as 13,000 foreign nurses and 4,000 doctors arrived between 2000 and 2004 (Bevan 2005). Restrictions on recruitment applied to public sector health care

facilities, but private healthcare was exempt, so the effect on overall numbers of foreign recruitment has been minimal (Daniels 2008). In the day-to-day work of recruitment agencies there is an over-riding concern to fill empty jobs, and little consideration of ethical implications (Runnels, Labonté, and Packer 2011). Medical recruitment agencies have been successful in mobilizing healthcare personnel as a resource that responds to market demand where migration restrictions and global codes of practice without ‘teeth’ have been ineffective.

While skilled healthcare workers are treated as a commodity by medical recruitment agencies, elsewhere they are treated as a public good. This clash of perspectives is made explicit where professionals are trained in publically-funded education systems and then recruited to work abroad. It has been suggested that the injustice of ‘poaching’ professionals who should be available to a local public could be addressed through financial restitution (Mackintosh, Raghuram, and Henry 2006; Mackintosh et al. 2006). Arguably this approach treats the emigration of skilled professionals as an issue of inequality between nation states such that the cost of creating expertise should be borne by the country that benefits from the resultant ‘intellectual property’ (Pang 2002). Restitution and migration regulation risk reinforcing medical exceptionalism, treating healthcare workers as qualitatively different compared to other essential workers. Furthermore, it promotes a view of medical workers as a resource belonging to a specific locality and, if that locality is poor, as carrying special moral obligations for their country of origin’s health (Millen 2008). Whether doctors

and nurses from poor settings should carry an extra moral responsibility for their country's public health is not a question that has been much interrogated (Raghuram 2009).

Recently there has been a shift in the debate about the estimated 4.3 million personnel missing from global health systems (WHO 2006) with the acknowledgement that the international migration of doctors and nurses may never have been 'the main culprit behind these shortages' (OECD 2010). A realization that the 'global health workforce crisis' goes beyond the issue of migration (OECD 2010) underpins alternative responses.

Task-shifting

As an alternative to manipulating migration, task-shifting interrogates whether highly trained personnel constitute the best means of providing effective and efficient healthcare (OECD 2010). The gravity of the health problems facing countries such as Malawi and Zambia, having created the

necessary conditions for exploring new ways to deliver health care; ways that are possibly less expensive, more community focused, more empowering (MacLachlan and Mc Auliffe 2005)

and possibly more effective. Shifting tasks from highly trained professionals to less qualified, lower paid staff has been commonplace in hospitals wherever work-loads are high. But so-called 'task-shifting' has taken on particular resonance as a response to chronic healthcare staff shortages in low-income settings with high rates of

infectious disease and/or maternal mortality (Smith and Favell 2006). Rather than producing clinically oriented health professionals who are expensive to train and likely to migrate once qualified, health workers whose skills are appropriate to the disease burden and availability of resources in a particular settings present a better investment (WHO 2008).

So-called 'mid-level cadres' (clinicians trained in specific tasks appropriate for local settings) offer clinical efficacy and economic value in the provision of emergency obstetric care (Mc Auliffe et al. 2011) and treatment for HIV (Callaghan, Ford, and Schneider 2010; Mdege, Chindove, and Shehzad 2012). In Malawi clinical officers and clinical assistants now constitute a significant healthcare workforce and one that does not have the international mobility conferred by an internationally recognized medical degree (MacLachlan and Mc Auliffe 2005).

Although the research evidence remains limited (Mdege, Chindove, and Shehzad 2012) task-shifting initiatives have achieved success (e.g. East, Central, and Southern African Health Community (ECSA-HC) 2010; Lehmann et al. 2009; Mannan et al. 2010). With nurses successfully undertaking cataract surgery in Bangladesh and caesarian sections in Mozambique, we might ask why Western countries remain reliant upon much more expensive models of doctor-led surgery (Crisp 2010)? Task-shifting is potentially paradoxical for the professional interests of doctors and nurses. In Western countries, redistributing menial or repetitive tasks to occupational

divisions with less training and lower pay has been interpreted as one means of maintaining medical professional dominance. However, the prospect that valued medical and surgical interventions, competently undertaken by clinical officers in resource-poor settings, offers a potential threat to the justification for highly trained clinical professionals. Task-shifting as a response to the global 'crisis in healthcare human resources' has been criticized as legitimating the provision of a second-class service to resource-poor countries, accompanied by assertions of the very value of skilled professionals.

Skilled health professionals have come to represent the particular value of health as a quality that allows us to enjoy other aspects of human existence and as a common good (Daniels 2008) and this has been an aspect of the good standing of Medical and Nursing professionals in Western countries. The market value of skilled health professionals (which is related to their symbolic value), has been realised by medical recruitment agencies, as well as private medical schools that have opened in India and, more recently, English-language programmes in Eastern Europe.

Task-shifting has been presented a means to prevent markets from exploiting value from medical labour: health professionals who are not trained in English cannot emigrate for employment overseas (Dovlo 2003). The tendency to take 'mid-level cadres' for granted as a stable work force and/or to assume that they represent a short-term measure until the stock of skilled workers builds up (Mc Auliffe et al.

2011) under-estimates the ability of the market for healthcare workers to adapt to new circumstances. While a shortened training in a local language prevents individual healthcare migration, the increased mobility of technology and patients (Labonté et al. 2013; Whittaker, Manderson, and Cartwright 2010), allows value to be extracted from task-shifting in other ways. There are indications that Indian models of healthcare, making use both of the lower salaried professionals and of cadres with less training, offer high quality healthcare at low prices, such that complex heart surgery with good outcomes can be sold to American patients in the Cayman Islands (Govindarajan and Ramamurti 2013b; Govindarajan and Ramamurti 2013a). New models of healthcare provision exploit the gaps of uneven global development for profit.

Concluding thoughts

In response to the global debt crisis of the late 1970s, African countries were obliged by the World Bank and International Monetary Fund to ‘de-prioritize’ investment in their social sectors – including health and education – in favour of promoting export-currency to enable interest payments on loans owed to foreign banks. The effects of the ‘structural adjustment policies’ (or ‘brute neoliberalism’ (Onuki 2011)) of the 1980s became apparent through the 1990s, with the suspension and mandatory early retirement of healthcare professionals (Daniels 2008), such that the public health sector shrank and the private health sector grew. This promoted the emigration of health professionals from rural settings and public service jobs, leading to health professional shortages, which, combined with other aspects of under-investment

exacerbated poor working conditions and therefore emigration, especially in areas where HIV was spreading (Chikanda 2005a).

The public health problems in sub-Saharan Africa, like the emigration of skilled healthcare professionals can be seen as having common cause in the imposition of under-investment. Analyses that emphasize the role of individual migration decisions and link this to poor population health outcomes make the 'healthcare worker crisis' into a debate about doctors' and nurses' mobility, emphasizing professional rather than socio-economic determinants of health. The arrival of the global HIV pandemic in resource-poor countries medicalized aid programmes (Ivers et al. 2010), cementing the central role of medical personnel as key to improving health outcomes.

Addressing global health inequalities by focussing on healthcare professional densities as achieved through their migratory movements has maintained a medicalized view of heroic doctors and nurses as improving health outcomes, thereby benefitting medical recruitment agencies' business. Task-shifting approaches offer a powerful critique to professional claims of unique expertise in specific interventions, the implications of which have been largely ignored in resource-rich settings. Conrad's call to look at the political economy of medicalization would find fertile ground if a global rather than a nationally-bounded view of healthcare provision could be adopted (Conrad 2005).

The amplification of migration (Castles and Miller 2009) as part of 'the expansion and intensification of social relations and consciousness across world-time and world

space' (Steger 2009) has yet to inform research into healthcare professionals' migration. The means, and crucially the motivation, to migrate between localities, nations and continents are within the grasp of an increasing proportion of humanity and the apparently irrepressible desire to migrate has proven very hard to regulate. Alongside the amplification of migration is the mobility of capital, ideas and technology that (interests in medical tourism notwithstanding), is yet to inform research into global health inequalities. In particular the penetration of public healthcare provision with the interests of private and corporate capital has received too little analytic interest in the assessment of global health inequalities. This paper seeks to wrest attention away from the ideals of Hippocratically-bound medical professionals operating within nationalised health systems towards the flows of capital in the provision of services that institutions and individuals will pay for. The willingness of national institutions to pay for the recruitment of medical and nursing personnel has been a crucial part of so-called 'brain drain', which task-shifting has partially circumnavigated. Anticipating the future flows of capital within and beyond the nation state is a task which perhaps ought to occupy more of our attention.

The opening up of statutorily-funded health service provision to for-profit contractors underway in Western European welfare states (e.g. Davis and Tallis 2013), means that economic exigencies, rather than social equity will increasingly determine the commissioning of services. The effects of these changes on national bounded as well as global inequalities are of interest. Attending to movements of capital, as well

as to human mobility in the global healthcare economy might, at the very least, prevent professional migrants from being held individually accountable for public health problems with long-standing antecedents and far-reaching implications.

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Competing interests

The author has no competing interests.

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