

Policy talk: incentives for rural service among nurses in Ghana

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Accepted 29 November 2011

Like many countries in sub-Saharan Africa, Ghana is faced with the simultaneous challenges of increasing its health workforce, retaining them in country and promoting a rational distribution of staff in remote or deprived areas of the country. Recent increases in both public-sector doctor and nurse salaries have contributed to a decline in international out-migration, but problems of geographic mal-distribution remain.

As part of a research project on human resources in the Ghanaian health sector, this study was conducted to elicit in-depth views from nursing leaders and practicing nurses in rural and urban Ghana on motivations for urban vs rural practice, job satisfaction and potential rural incentives. In-depth interviews were conducted with 115 nurses selected using a stratified sample of public, private and Christian Health Association of Ghana (CHAG) facilities in three regions of the country (Greater Accra, Brong Ahafo and Upper West), and among 13 nurse managers from across Ghana.

Many respondents reported low satisfaction with rural practice. This was influenced by the high workload and difficult working conditions, perception of being 'forgotten' in rural areas by the Ministry of Health (MOH), lack of professional advancement and the lack of formal learning or structured mentoring. Older nurses without academic degrees who were posted to remote areas were especially frustrated, citing a lack of opportunities to upgrade their skills. Nursing leaders echoed these themes, emphasizing the need to bring learning and communication technologies to rural areas.

Proposed solutions included clearer terms of contract detailing length of stay at a post, and transparent procedures for transfer and promotion; career opportunities for all cadres of nursing; and benefits such as better on-the-job housing, better mentoring and more recognition from leaders. An integrated set of recruitment and retention policies focusing on career development may improve job satisfaction and retention of nurses in rural Ghana.

Keywords Human resources for health, nurses, workforce distribution, Ghana, rural recruitment

KEY MESSAGES

- Widespread distrust about lengths of public sector contracts, and delayed promotions, limit rural recruitment of nurses in Ghana.
- Nurses perceive career advancement opportunities to be located in the major urban areas, and equate rural service with slow promotions, lack of mentoring or career development.
- Non-degree nurses feel especially vulnerable in terms of long-term financial or professional security, because they appear to be excluded from the growing trend to professionalize nursing in Ghana.

Introduction

Health worker shortage has impeded the achievement of development goals in many countries (Nullis-Kapp 2005) and Ghana is no exception. The population density of health care providers in a country positively affects the coverage of immunization, as well as skilled birth attendance (Anand and Bärnighausen 2004; WHO 2006), leading to an inverse correlation between health worker density and infant mortality, maternal mortality and various disease-specific outcomes (Khann *et al.* 2003). Sub-Saharan Africa is faced with serious needs to simultaneously increase its health workforce, retain them in country and deploy staff where health needs are greatest, while promoting worker competence, satisfaction and productivity (Luoma 2006). Staffing rural areas is particularly difficult: Zambia, for example, has 20 times more doctors in urban than in rural areas, and Malawian doctors practice predominantly in urban areas (World Bank 2008).

Ghana is a developing country with high rates of morbidity and mortality coupled with notable differences between rural and urban settings. The maternal mortality ratio of Ghana is estimated at 451/100 000 live births (GSS *et al.* 2009b). According to the Demographic and Health Survey (GSS *et al.* 2009a), infant mortality at the national level is 50 deaths per 1000 live births; 49 and 56 per 1000 live births in rural and urban Ghana, respectively. Whereas the under-5 mortality rate in urban Ghana is 75 deaths per 1000 live births, in rural Ghana it is as high as 90 deaths per 1000 live births. Coverage of skilled birth attendance is 82% in urban Ghana compared with 43% in rural Ghana. There are also marked variations across the 10 regions of Ghana with low coverage in predominantly rural regions such as the Northern and Upper West regions, recording 27% and 47%, respectively, compared with 84% in Greater Accra region which is largely urban (GDHS 2008, see GSS *et al.* 2009a).

As in many countries, the distribution of health care workers in Ghana is skewed towards urban areas. Wilson *et al.* (2009) found that countries (both developed and developing) reported geographically skewed distributions of health care professionals, favouring urban and wealthier areas. In 2009, Ghana had a total of 20 691 nurses (general nurses, midwives and community health nurses). Although this figure represents a 19% increase over the previous year (Deville *et al.* 2010), the difficulty of attracting and retaining highly qualified nurses to deprived or remote areas of Ghana still poses a challenge.

In Ghana and elsewhere, health policy-makers and managers are searching for ways to improve the recruitment and retention of staff in remote and deprived areas. Several sources report the lack of a holistic approach to health worker retention

at country level (WHO 2006), despite the recognition of complex interactions between incentives such as pay, job satisfaction, career prospects and quality of life; many such interactions may be country-specific (Buchan 2002; Lehmann *et al.* 2008).

Fiscal incentives for rural service have been tried in Ghana in the past. For example, a salary top-up scheme called the Deprived Area Incentive Allowance (DAIA) was launched for health workers in deprived areas in 2004, and nurse salaries in Ghana are already high by regional standards. However, retention of health workers in rural areas is still a major challenge. At this juncture, the Ministry of Health (MOH) is keen to explore alternative (non-fiscal) incentives for rural recruitment and retention of health staff. The present study was conducted to elicit in-depth opinions from nursing leaders and in-practice nurses in both rural and urban Ghana on potential incentives to promote recruitment and retention in rural service.

Methods

This qualitative study is based on in-depth interviews conducted with 115 in-service nurses in the Upper West, Brong Ahafo and Greater Accra regions, as well as 13 nurse administrators: nine regional Deputy Directors of Nursing and four hospital Directors of Nursing. This selection of regions represents the capital city (Greater Accra), a semi-rural middle belt of the country (Brong Ahafo), and a poor remote region at the furthest distance from the capital (Upper West). Interviews were conducted as part of a larger qualitative project that targeted doctors at the same facilities; findings from doctors and medical leaders have been published (Snow *et al.* 2011). A complementary discrete choice experiment to assess preferences for rural posting was also carried out among final year nursing, medical and public health students (Kruk *et al.* 2010).

The study undertook a purposeful selection of health facilities. Fourteen health facilities were selected in each of the three regions:

- six hospitals of comparable size (approximately 50-bed capacity): two public, two private for-profit and two private not-for-profit hospitals;
- four level B facilities (mid-sized facilities);
- four primary health clinics.

This sampling plan targeted 42 health facilities in total, and ensured representation of public and private sector facilities, as well as primary, secondary and tertiary levels of care. In Upper

West region where there were no private for-profit hospitals, one additional public and one additional private not-for-profit hospital were included.

Selection of in-service nurses

In Ghana, there are different types of nurses: degree nurses (nurses with a university degree), diploma nurses, midwives and certificate nurses (community health nurses and health assistants). For the study, nurses available at a given facility on the visiting day were invited to participate, irrespective of professional rank, as long as they had been in their post for at least 6 months. To provide a weighted representation of nurses across facilities with different staffing norms, the following selection formula was employed: in facilities with fewer than 20 nurses, six were interviewed; in facilities with 20–40 nurses, eight were interviewed; in facilities with more than 40 nurses (only four such hospitals in total), 10 nurses were interviewed. Three members of the research team with experience in qualitative methods conducted all interviews; representatives of the MOH were not present during interviews.

Selection of leaders

Nine of the 10 Regional Deputy Directors of Nursing (except Upper West) and four hospital Directors of Nursing in Ghana were interviewed. The leaders in the Upper West region were away from the station during the interview period. Attempts were made to interview them at a later date while they were visiting Accra but these interviews fell through.

Written informed consent was obtained from each participant prior to commencement of each interview. Approval for the study was obtained from the Ghana Health Service Ethical Review Committee; the Kwame Nkrumah University of Science and Technology Committee on Human Research, Publications and Ethics; and the University of Michigan Institutional Review Board.

A semi-structured interview guide was designed to solicit open-ended discussions on selected themes, identified during successive consultations of the research team and review of the literature (Mathauer and Imhoff 2006; MOH 2007; Grobler *et al.* 2009). Selected themes included: current conditions of service; what would be required to attract and retain rural nurses; understanding of current MOH posting and promotion policies; and proposed improvements. The guide was piloted in Greater Accra and the Northern region; refinements were made prior to commencing the formal study.

Interviews were carried out from May to July 2009. Interviews typically lasted 30–60 minutes; all were conducted in English, taped, and transcribed verbatim in Ghana. Following an initial reading of transcripts, the study team met to discuss both the original and emergent themes. Transcripts were coded on dominant themes, and analysed in duplicate, with each analyst blind to the summary of the other. Coding was undertaken by a team of six researchers. Two members were paired to read a selected number of transcripts. Within each pair, both members read all transcripts independently. The entire team then converged to discuss emerging themes in the data and resolve disputes on coding. One team member read all transcripts and facilitated the discussion. The division of transcripts into sections greatly helped in the

management of the data. The team compared summaries, involving extra readers to resolve any differences. Overall, there were high levels of agreement over interpretations and emphasis among the authors.

Results

The results represent the views and perceptions of respondents. Overall, 115 nurses and 13 nurse leaders (total = 128) were interviewed, and the majority (81.3%) of participants were females. Their ages ranged from 24 to 65 years with a mean age of 45.5 years. The majority (69.5%) of the interviewees were staff nurses; only 6.3% were degree nurses and they happened to be the nurse leaders in the study (see Table 1).

Job satisfaction

Many nurses in rural Ghana noted they had little choice about their posting, and were resentful at being forced to serve in deprived regions. Nurses generally expressed dissatisfaction with rural postings, often referring to them as *sacrifices*. Dissatisfaction was due to the large workload; challenging working conditions such as inconsistent supply of electricity, inadequate water supply and poor medical equipment; lack of clear terms of contract and promotion; lack of opportunities for professional advancement; and a sense of being *lost* or *forgotten* in the system.

On the other hand, there were nurses who regarded rural service as a commitment to their professional obligations, inculcated during training. A minority regarded rural postings as an opportunity to develop professional skills or fast track their careers given that there would be less competition for the few career development opportunities that arise.

Career development

It was clear in the interviews that professional development opportunities could serve as a magnet for recruitment, or drive nurses away. In all three regions, a majority of nurses expressed interest in staying at their post if they make progress in their careers.

Learning opportunities

All the nurses in this study expressed great interest in learning opportunities. Nurses working in the Greater Accra region were generally happy with the opportunities they have available for continuing education, whereas nurses in Brong Ahafo and Upper West regions reported difficulties in finding learning opportunities to meet their 3-year licensing requirements, add new skills and certifications, and pursue timely promotion.

Nurses across all three regions expressed a desire to upgrade themselves through evening or weekend classes. Although professional refresher training is required to maintain an active license, such opportunities are lacking for nurses in deprived areas. The majority of the interviewees in Upper West, and in rural areas of Brong Ahafo, expressed difficulty in getting access to training or workshops, and for most of them, their re-certifications had lapsed. One interviewee indicated that in the past 27 years of work she has been given the opportunity to attend in-service training only once. Problems of access are

Table 1 Number, age, sex and type of nurses and nurse leaders participating in in-depth interviews, by region, Ghana, May–August 2009

Region	Upper West Region (n = 47)	Brong Ahafo (n = 31)	Greater Accra (n = 37)	Nurse leaders (n = 13)	Total (n = 128)
Age					
Range	24–59	24–60	27–65	49–58	24–65
Mean age (years)	39.8	48.4	47.6	53.1	45.5
Sex					
Female	41 (87.2%)	25 (80.6%)	35 (94.6%)	3 (23.1%)	104 (81.3%)
Male	6 (12.8%)	6 (19.4%)	2 (5.4%)	10 (76.9%)	24 (18.7%)
Type of nurses					
Community health nurse	12 (25.5%)	5 (16.1%)	2 (5.4%)	0	19 (14.8)
Staff nurse	34 (72.3%)	21 (67.8%)	29 (78%)	5 (38.5%)	89 (69.5)
Medical assistant ^a	1 (2.2%)	5 (16.1%)	6 (16.2%)	0	12 (9.4)
BSN (degree)	0	0	0	8 (61.5%)	8 (6.3)

^aMedical assistants are nurses who have upgraded their skills through an 18-month training and usually work in the rural and underserved areas of Ghana. A new 4-year model began in 2007 (Miniclier *et al.* 2009).

exacerbated by weak infrastructure, such as lack of electricity that limits evening study.

“Here there is no light. If I want to improve my education, I can’t read, at any point in time they call on you, ‘these sick people are here’, ‘someone is coming to deliver’ or ‘you are to go for outreach’, so when you compare that to your colleagues who are in the regional capital, most of my colleagues are now in the university.”

Nurses also mentioned that workload was an obstacle to career development: a majority complained that it seems they cannot be granted study leave due to staff constraints in their facilities.

Nurse leaders reported on the need to enhance computer literacy among nurses. It was evident that the nurses are aware of and see the importance of using computers and the internet. According to the leaders, having access to computers and the internet would enable nurses to upgrade their knowledge and skills in the use of computers. It would not only facilitate their access to information on new and emerging practices, but they would also be able to update their knowledge in nursing by, for example, participating in on-line courses on nursing. Yet, the majority of nurses in all three regions lacked access to computers in their workplaces.

“When you are here you cannot develop yourself for anything. Me sitting here like this, I want to know something about IT, very well but where do I get that? But if I were to go to Kumasi,¹ after work, I will get a place that I will sit and someone will teach me.”

Nurses working in the Christian Health Association of Ghana (CHAG) facilities appeared to have somewhat better access to learning opportunities compared with nurses in public facilities, including better access to computers. One CHAG facility had set up internet for all clinical staff, charging users a few Ghana cedis per month. Many CHAG institutions also had routine workshops and in-service training, although there were complaints about unfairness in who gets to attend and the inability to attend due to staff constraints. By contrast, the majority of

nurses in public facilities in all regions, including district hospitals, complained of lacking access to internet services, libraries or publications, or routine workshops, and were consistently frustrated about the relatively few learning opportunities.

Nurses outside metropolitan areas noted that their colleagues working in district or regional capitals had much better learning opportunities. They spoke about feeling ashamed when they met classmates who had been abroad or stayed in the big cities; they felt they were lagging behind on developments in clinical technology and disease management. They offered ideas for remote learning such as long-distance programmes, or structured learning opportunities that might be offered in tandem with mentorship, and visiting teachers.

One striking issue that the nurse leaders alluded to was that the MOH is focusing on providing education opportunities for new graduates, while ignoring older nurses in the system. This was described as a source of de-motivation, with the potential to affect retention in remote areas. However, according to the nurses, this has spurred efforts among older nurses to pursue further education. The older nurses called for fairness in access to workshops or certification courses.

Mentoring and supervision

Mentorship and supportive supervision were repeatedly mentioned as critical for building competence and improving job satisfaction. The nurses interviewed were of the view that there were stark differences in mentorship opportunities across the three regions. Very few rural facilities had any active or formal mentoring or routine supervisory visits to community health facilities.

Most nurses working in relatively bigger hospitals indicated receiving mentorship from senior colleagues during ward rounds, in-house seminars and clinical meetings. Even for these nurses, mentorship depended on the workload and willingness of the doctors or senior colleagues to teach or mentor. Nurses working in smaller hospitals and lower-level health facilities, particularly in the Upper West region did not have access to mentorship since most of them manage the

facilities alone, or with a subordinate, and do not receive regular supervisory visits.

Particularly common among the younger community health nurses were complaints about the lack of or infrequent support supervision. A majority of these nurses reported that they had been deployed to head health centres without the benefit of an orientation or an opportunity to work under experienced nurses to gain administrative experience or enhance their clinical skills.

“They do not pay attention to those in rural areas; people always try to find ways and means to be in the town to avoid all these things because when you are here, you are stuck, they don’t care. They will come and interview you and take their vehicles away and whether you die or survive, no one cares about you.”

Clear terms of contract

The lack of clearly documented terms of contract was mentioned by a majority of nurses. Specific concerns included: lack of detail regarding the expected length of stay at a given post, and lack of information about procedures for transfer and promotion.

Posting

Whereas a majority of the nurses acknowledged the rationale for rural postings, they expressed frustration with the posting system, which they called unfair and non-transparent. A majority of the nurses had accepted postings to rural areas hoping to be transferred to urban areas after serving for 3 to 4 years, but had ended up staying for longer periods without any hope of being transferred. They were concerned about the transfer system: some nurses complained that transfers required having a person of influence (e.g. a priest, assembly member or a powerful relative) to negotiate on your behalf.

Promotion

The nurses lamented about the lack of clear promotion policies. Although a majority of nurses interviewed knew that they should be promoted every 3 years, many were not sure of how promotions were actually organized. Many had been stalled at their current position for long periods without promotion, and they did not know when their next promotion might occur. They said that this demoralized them. One nurse said:

“I have not heard of promotion since I came here... If you apply, they don’t call you, they told us in School it takes 3 years to the next level. I have been working at this post for 12 years. The promotion, they are too slow. I went for promotion interview last year, up till now, no results, so we are always demoralized.”

The lack of a clear pathway for promotions cut across all regions and facilities. An interviewee working at a CHAG facility indicated that she completed an appraisal form for promotion a couple of years ago but had not received any response. She reiterated that those who had already attended promotion interviews had not received their promotion letters, and as such had not received the commensurate salaries.

Salary and allowances

Frustrations over salary disparities emerged in the interviews, particularly among older nurses. The older nurses with lower qualifications, even with additional courses such as midwifery, expressed their bitterness over seeing the younger nurses entering the profession with better qualifications and higher salaries. The salary levels of nurses appeared to be affecting retention in rural areas. All the respondents indicated frustration with the low salaries, particularly in light of their heavy workload. Some nurses reported that juniors had higher salaries than their seniors, possibly because of a higher level of education.

The delay in processing salaries for new entrants, typically for more than a year, caused financial hardship for nurses posted to the rural areas. In some cases, some nurses, out of passion for their work, are still eager to continue working, irrespective of the low salaries. One nurse said:

“Me, actually, if I look at my salary, I won’t work, because after working for 30 years, my monthly salary is GHc160. But I like my nursing.”

In the Upper West region, most of the nurses interviewed reported a high cost of living, indicating for example, that they often travel long distances to regional capitals to purchase food. They recommended the introduction of incentives including extra allowances referred to by many as ‘bush allowances’, to reward service in rural hardship areas, where the cost of living could be high. Nurses varied in the type of incentives they desired, with some seeking a small token of appreciation for their hard work. This, they said, could take the form of non-financial rewards such as a wax print cloth at the end of the year, or simply verbal acknowledgment from their superiors for work well done.

Working conditions

There were considerable differences in working conditions across regions and between public and private facilities. Compared with the Upper West, a higher proportion (majority) of nurses in Greater Accra and Brong Ahafo reported that their facilities had more staff, better equipment and were equipped with water and electricity. Across all regions, nurses in private or CHAG facilities reported better working conditions.

Lack of adequate staff resulting in overwork was a recurrent, dominant theme in nurses’ descriptions of their working conditions. All nurses described their workload as heavy or overwhelming and emphasized the need for more staff. They attributed the increased workload to the National Health Insurance, which had increased hospital attendance in many facilities. Nurses who were managing health centres alone reported even more difficult conditions; a community health nurse in Brong Ahafo described an instance when the power failed as she was conducting a night delivery, and she had to hold a torch between her teeth to deliver the baby.

Infrastructure, equipment and supplies

Nurses in rural primary care settings, without sophisticated equipment or new technology, indicated that they were not learning new things. They worried about losing their

professional skills because cases that required advanced diagnostics or higher-technology care were referred to the next level. Although many facilities in Ghana lack adequate infrastructure, equipment and supplies, some facilities in Greater Accra region were better equipped. However, nurses also decried the inadequacy of beds and space in some Greater Accra facilities given the increasing number of patients; they emphasized the intense over-crowding in some facilities and the need for patients to sleep on the floor.

Housing and transportation

Personal accommodation was a major concern for all nurses. In Upper West, nurses reported a general lack of available accommodation, both at the health post and in the surrounding community. In Brong Ahafo, nurses indicated that many facilities had some living quarters for nurses but these were congested, and many nurses had been forced to share single dwelling units; accommodation was also reported as prohibitively expensive. In Greater Accra and Brong Ahafo, nurses cited the distance between their place of residence and their work as a source of difficulty, given the traffic and lack of public transport. In more remote areas, the same concern was cited as a source of insecurity, as many feared walking long distances in the evening or at night. Young nurses posted into very remote locations spoke movingly of learning to live in rural darkness, without electricity. For older nurses, a place to live after retirement was a source of worry. Several older nurses identified the need for construction loans, or a 'susu' (savings) scheme that would give them assistance to build their own retirement homes.

Given the lack of housing facilities within or close to most facilities, the majority of nurses indicated a need for some sort of transportation to ease their commute. These needs varied across regions, with nurses in the Upper West indicating a preference for motorcycles while nurses in Greater Accra and Brong Ahafo indicated a preference for increased access to car loan schemes.

Recognition

Recognition by communities and the health system was reported by most respondents as one of the key factors in the retention of nurses in rural areas. In the Upper West and Brong Ahafo regions, nurses reported that community acceptance, support and respect were important in their decision to stay and work in the rural communities.

"Me, I want to stay, the people are so concerned about me, they like me. At least when I am passing, they say good morning, good afternoon, or come to visit me. They show they actually like me."

Conversely, some nurses felt bitter about the lack of recognition for their work and commitment to rural service by the health system. A nurse in Brong Ahafo who has been delivering babies for many years, but who has not 'officially' got the qualifications to be recognized as a 'skilled attendant', narrated her story:

"Here I act as the doctor, nurse, preventive nurse and the midwife. Even though I am not a midwife, our in-charge has made sure we

should all know how to do certain things: I can deliver, my other guy can deliver so if someone comes and the in-charge is not there I don't tell the person that our in-charge is not there, I have to attend to the person conduct the delivery. Then that report will be submitted as supervised delivery."

Discussion

The quest to develop human capacity for health delivery is a cornerstone of Ghana's national health policy. This includes a mix of technical, managerial and logistics capacities required to promote, protect and improve health (MOH 2007). One of the policy measures is to increase the production, recruitment and retention of the health workforce, focusing on middle-level health professionals (such as community health nurses and health assistants), and to ensure their equitable distribution (MOH 2007).

All the nurses in this study expressed great interest in learning opportunities. Mentoring, access to training and effective implementation of promotion and posting policies were highlighted as important elements in any incentive programme for retention of nurses.

The essence of mentorship and supportive supervision is to correct shortcomings and promote good practice and professionalism. The findings suggest that nurses in rural Ghana appreciate the need for mentoring by senior colleagues and doctors. They noted that mentoring helps foster stronger working relationships among health workers. It provides career guidance and professional advice to nurses. The opportunity to interact and exchange ideas with experienced co-workers and managers engenders a sense of belonging within the health system, which thereby could help address the issue of neglect (feeling 'forgotten'). Regarding supervision, nurses, particularly in rural areas, seemed to welcome supervision. They perceived supervision as an opportunity to learn and improve upon their performance. They reported being disappointed by the lack of supervisory visits from supervisors. These positive views of supervision differ from similar qualitative studies in Benin and Kenya, where nurses perceived supervision as an exercise of control, and thus regarded supervision as unhelpful and distant rather than personal and supportive (Mathauer and Imhoff 2006). It is clear that mentoring and supervision are viable instruments for promoting retention of nurses in rural Ghana.

In-service training was considered by the nurses to be an important element of any institutional capacity-building programme. Participation in regular training would upgrade their skills and improve their professional development. However, the nurses described existing in-service training programmes as inadequate and unstructured. According to Wilson *et al.* (2009), continuing professional development was found to have the potential to impact positively on patient care, improve professional job satisfaction and may support rural recruitment and retention of health professionals.

The frustrations described by nurses in remote areas about the inadequacy of training and career opportunities is best interpreted within the context of the evolving standards for nurses, and the geographic distribution of nurses with different levels of training. The less skilled nurses, i.e. those with 2-year

post-secondary school certifications from health assistant training schools and community health training schools, are the group most likely to accept posting to remote areas, and they predominated in interviews in the Upper West Region. Three-year diploma or university degree nurses are far less likely to accept posting to remote areas, and this was reflected in their lower representation during the interviews outside Greater Accra. These professional cadre nurses have been trained in sophisticated diagnostics and surgical support, and they typically have a strong interest in remaining in tertiary facilities; degree nurses were rare in Upper West or Brong Ahafo, except in management positions.

Many nurses with only 2-year certificates are keen to advance into the higher (diploma or eventually degree) cadres; diploma nurses, in turn, aspire to degree programmes. For entry into diploma or degree programmes, they need additional credits and a chance to acquire higher grades. This may explain, in part, the high level of frustration among nurses in Upper West and remote parts of Brong Ahafo.

Further education and professional progress were ranked as the highest of incentives by respondents in a similar study in Kenya and Benin (Mathauer and Imhoff 2006), and were identified in a parallel study of doctors in Ghana (Snow *et al.* 2011). Study leave after 2 years was also identified as one of the preferred incentives for rural service among graduating medical students in Ghana (Kruk *et al.* 2010).

Another issue that seemed to hamper recruitment and retention in rural areas was nurses' perception of being forgotten by management, at both the regional and national levels. This phenomenon not only shatters hopes among nurses in rural areas for the possibility of transfer to urban areas for professional development, but also results in refusal to accept posting to the rural areas among nurses in urban areas. The MOH has a policy to ensure that newly deployed staff do not spend more than 3 years in deprived areas (MOH 2007). However, this policy appeared to be unknown to most of the interviewees and is not being effectively implemented.

Lack of clear terms of contract regarding posting, coupled with uncertainties around promotions and transfers, are clearly affecting rural recruitment and retention in Ghana. The nurses advocated for a posting and transfer system that will accord them an opportunity to serve in other regions of the country and ensure that nurses trained in Accra also serve in remote areas. Improving human resources communication and procedures would appear to be an actionable policy area for the MOH.

There is a debate about the importance of salaries or wages as an incentive for attracting health workers to remote areas. In Benin, for example, a quarter of respondents in a study requested financial rewards to encourage rural work (Mathauer and Imhoff 2006), and in Thailand, salary was also positively associated with decreasing intention to leave work among nurses (Kunaviktikul *et al.* 2001). In a study in Malawi by Mangham and Hanson (2008), registered nurses stated that 'improved remuneration' would have a positive effect on motivation and encourage the recruitment and retention of registered nurses. Similarly, in a study of Ghanaian graduating medical students, Kruk *et al.* (2010) reported that the effect of a 100% salary increase on predicted uptake of rural posting was approximately equivalent to that of improved infrastructure and management quality.

Financial incentives, although important, were not proposed as the most important incentives or motivational factors for rural service among Ghanaian nurses. Likewise, Snow *et al.* (2011) reported that fiscal incentives were not a high priority among Ghanaian doctors, and less important than career mobility. The greater weight given to career over fiscal incentives among Ghanaian nurses and doctors may reflect their recent salary increases, or simply a growing interest in professional advancement. This is consistent with recommendations from delegates at the Joint World Health Organization/Asia Pacific Action Alliance on Human Resources for Health conference in Hanoi, Viet Nam (WHO 2009), which focused on the challenges facing the health system in recruiting committed health workers to underserved areas. The conference emphasized that financial incentives work best when combined with other incentives.

Proposed policy solutions for rural service

The findings of this study offer testable options for an integrated package of interventions to promote rural retention of nurses, ranging from more transparent and reliable posting and promotion procedures, to the creation of more opportunities for all nurses to further their education and advance their careers. Incentives to reward rural nursing might include: new rural training opportunities, preferential access to training, faster promotion, or a building fund for nurses who work in rural service. Such interventions may promote rural service even without direct financial incentives. It is important to note that formulating new policies themselves may not help considerably in solving the problem; the way forward should emphasize finding strategic and innovative ways to successfully and consistently implement policies, both existing and new.

Acknowledgements

The authors wish to thank the former Acting Chief Director of the Ghana Ministry of Health, Madam Salimata Abdul-Salam; the former Director General of the Ghana Health Service, Dr Elias Sory; the Director, Policy Planning, Monitoring and Evaluation of the Ministry of Health, Mr George Dakpallah; and the Director, Human Resource for Health Development of the Ministry of Health, Dr Ebenezer Appiah-Denkyira, for their administrative commitment to this study. We express our gratitude to the Center for Global Health, University of Michigan, notably Rani Kotha and Susan Frazier, for support on many administrative dimensions of this project. Special thanks are due to Jennifer C Johnson and Dr Kofi Gyan of the University of Michigan. Special thanks are given to the directors of health facilities in Ghana for allowing their employees to participate in these interviews, and finally, we gratefully acknowledge the contributions of all participants.

Funding

This work was supported by the Bill and Melinda Gates Foundation (Grant number: 50786) through the Ghana-Michigan Collaborative Health Alliance for Reshaping Training, Education and Research (CHARTER). Ghana-Michigan

CHARTER is a collaborative research and capacity building initiative between the University of Michigan, the Ghanaian Ministry of Health, the University of Ghana, and the Kwame Nkrumah University of Science and Technology to address the strengthening of human resources for health in Ghana.

Conflict of interest

The authors declare that they have no conflicting interests.

Endnote

¹ Kumasi is the capital of the Ashanti region and the second largest city in Ghana. There is also a teaching hospital located in Kumasi.

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