

# ATTRACTING AND RETAINING HEALTH WORKERS IN RURAL AREAS IN KENYA: INVESTIGATING NURSES VIEWS, CAREER CHOICES AND POTENTIAL POLICY INTERVENTIONS

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## INTRODUCTION

The human resources crisis in low income countries has become increasingly apparent since the adoption of the Millennium Development Goals in 2000. Several international initiatives have stressed the important role played by human resources for health but despite this health worker shortages remain a key policy concern. The maldistribution of health workers within countries is a crucial problem felt most acutely in rural areas.

Understaffing in Kenya's rural primary care facilities is particularly severe. There is a dearth of empirical data on health worker flows and behaviours and their implications on policy. A range of financial and non-financial factors have been described as playing a role in health workers' decisions and motivations, yet their relative importance when considering a rural posting remains unclear. This research aimed to address known evidence gaps to better understand the determinants that influence health workers' choices to help overcome rural-urban recruitment and retention disparities. Similar studies were carried out in South Africa and Thailand.

This policy brief provides findings from the baseline for this research as well as from a follow-up cohort of 250 nurses post qualification. It is hoped that this will help the Kenyan government to better understand the impact current and future policy interventions might have on employment preferences and their influence on recruitment and retention of nurses in rural areas of Kenya.

## METHODS USED

- Participants were selected from four medical training colleges: Nairobi, Muang'a, Meru and Kakamega; (Muang'a, Meru and Kakamega are located 87km, 238 km and 355 km from Nairobi respectively).
- Study participants were nursing students training to become registered nurses due to take their final exams. All students who intended to sit their final exams in the second half of 2008 were invited to participate. Baseline data collection took place between August 2008 and January 2009. A total of 345 students were enrolled for the baseline survey.
- Study participants comprised approximately equal proportions of pre-service trainees, 48.1% (enrolled straight from high school), and upgrading nurses, 51.9% (in-service nurses enrolled into nursing college to upgrade from enrolled community nurses to registered nurses).
- Multiple methods were used to evaluate individuals' attitudes, values, preference and choices in relation to the likelihood of selecting a rural job posting.
  - A self-administered questionnaire provided information on individual characteristics and attitudes that might influence work decisions.
  - A discrete choice experiment aimed to investigate participants' job preferences related to certain possible policy interventions, namely financial and non-financial incentives that could be used to attract them to rural job postings.
- Experimental economic games assessed study participants' underlying values and their responsiveness to different types of incentives.
- Focus group discussions helped to understand participants' responses in more detail; two were conducted in each medical training college from the pool of participants who had completed a self-administered questionnaire (1 each for pre-service trainees and upgrading nurses).
- Participants were eligible for follow-up if they sat their exams in March 2009 and had been declared qualified in their exam results announced in June 2009. All 250 eligible cohort members were contacted quarterly with follow-up beginning in August 2009.

## KEY FINDINGS

### CHARACTERISTICS OF THE STUDY POPULATION

Most study members were female (75.4%) with approximately two-thirds coming from a rural or relatively rural area. Upgrading nurses were generally older than their pre-service counterparts (upgrading nurses mean age, 38 years; compared with 24 years for pre-service trainees). Upgrading nurses were more likely to be married, to have children and have parents with lower levels of educational attainment when compared to pre-service trainees (77.7% and 72.3% of pre-service trainees' fathers and mothers, respectively had completed primary education, compared to 57.5% and 40.2% for upgrading nurses).

### PERCEPTIONS OF RURAL AND URBAN AREAS

Students' perceptions of rural settings were generally understood to be those with poor infrastructure, poor health services, limited variety of available housing and few recreational facilities. Rural job placements were thought to have lower incomes, provide slower career advancement and higher levels of workplace stress due to resource limitations. Contrastingly, urban areas were perceived as having better infrastructure, better health services and a good variety of recreational facilities. Moreover, urban job postings were viewed as offering better career advancement, a higher level of clinical experience and more training opportunities, such as seminars and workshops.

Of particular concern for upgrading nurses, many of whom have children, was the separation they experience when sending their children to school in urban areas as rural schools are viewed as being of a poor standard. And of general concern to both trainee groups was the recent tribal, post-election violence seen in Kenya, making a rural posting dominated by a different tribe a daunting prospect. Nonetheless rural areas were viewed more positively with regard to having an overall lower cost of living, more opportunities for gaining managerial experience and greater ease of task allocation, given smaller staff numbers.

Upgrading nurses were less enthusiastic about rural jobs than the pre-service trainees; 46.4% of upgrading nurses said they would be happy to accept a rural posting compared to 58.4% of pre-service trainees.

#### What incentives would encourage the students to work in rural areas?

Self-administered questionnaire data showed that pre-service students were significantly more likely than upgrading students to agree on the motivating effect of greater responsibility and the importance of decent housing. Being able to choose the rural area to work in was also felt to be of some value while there was strong support for greater rural financial incentives as a

means to attract people to such posts, with the majority of students suggesting that this should be up to 50% of basic salary.

In the self-administered questionnaire, about half the upgrading and pre-service students (49.4% and 52.5% respectively) felt that "a safe job with no risk of closing down or unemployment" was the most important factor when looking for a job, ranking this more highly than "a good income so that you do not have any worries about money", "doing an important job that gives you a feeling of accomplishment", or "working with people you like". This was reflected during focus groups where the new short-term contracts for specific rural posts were generally unpopular, with permanent public contracts preferred by both pre-service and upgrading nurses. Those disliking short contracts referred to the lack of a pension plan and long-term job security.

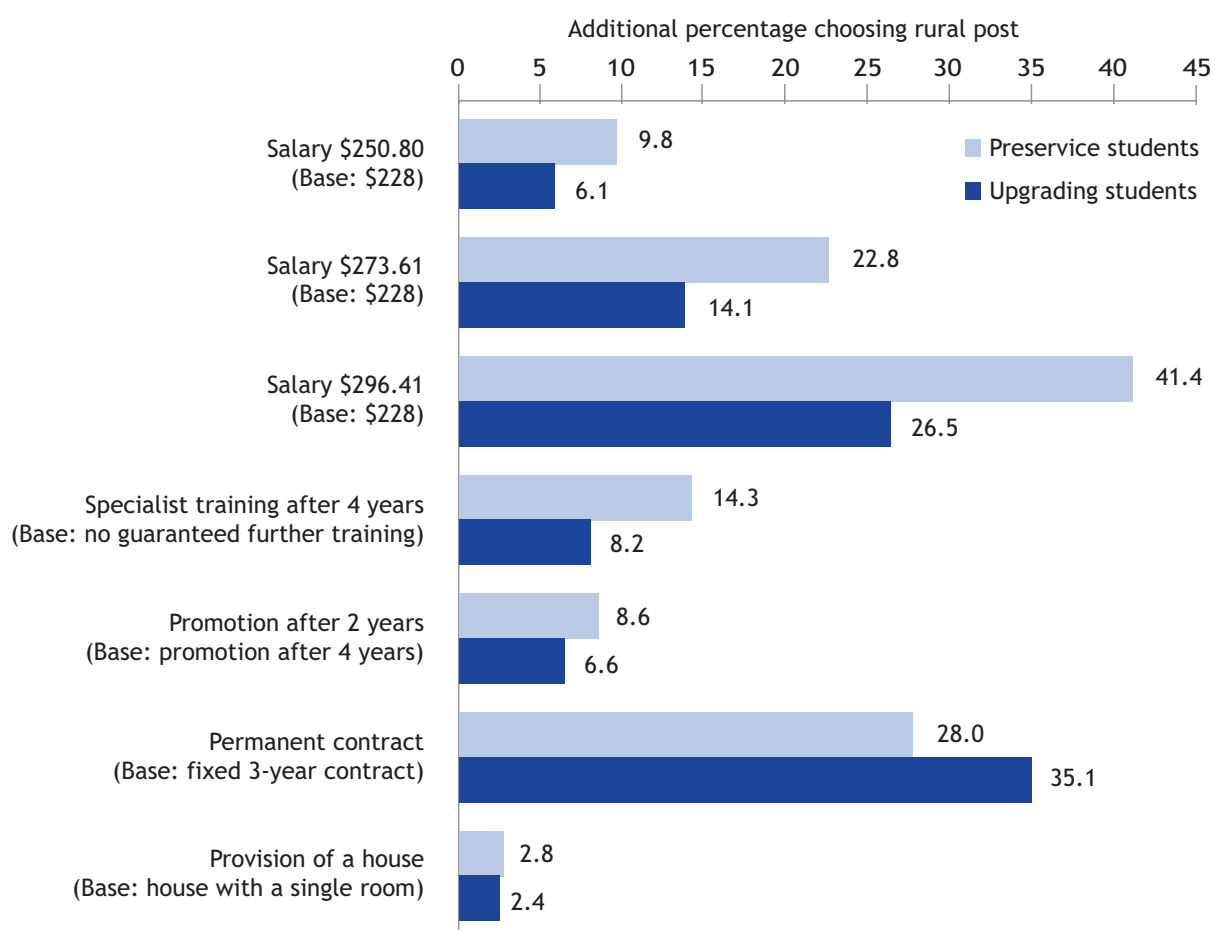
In the discrete choice experiment for the pre-service group, most job characteristics were statistically significant, see Figure 1. Providing a 10% rural allowance, subsidised housing, preferential access to postgraduate training, a permanent contract, and supportive management all increased the odds of choosing a rural job, whereas having to wait longer for promotion decreased the odds. Offering a permanent contract and preferential training opportunities had the largest impact on rural uptake, with higher odds ratios than a 10% rural allowance. Older, male, and married pre-service students had lower odds of choosing a rural job.

Upgrading nurses valued incentives similarly to pre-service trainees except that for them housing was not important in urban postings, and supportive management was not statistically significant for either rural or urban jobs. Being offered a permanent contract was particularly attractive to the upgrading nurses. In this group, older nurses were more likely to choose a rural job.

### COHORT FOLLOW-UP

250 qualified nurses from the sample were included in the follow-up cohort. Among the pre-service nurses, results indicated that gender, marital status, having children, being born in a rural area and age group did not have any significant association with working in rural areas or in the public sector at follow up. However, what medical training college was attended showed some association, with those attending the furthest medical training college from Nairobi being more likely to work in rural areas. Similarly, for the upgrading nurses, training in the furthest medical training college from Nairobi was significantly associated with working in rural areas and in the public sector at the end of follow-up. In addition, being born in a rural area and being older were significantly associated with working in the public sector.

**Figure 1: Impact on percentage of respondents choosing a rural post over an urban post when specified job attributes are changed**



## CONCLUSION AND POLICY RECOMMENDATIONS

- Registered nurse graduates had generally more negative views of life and work in rural areas than in urban areas. While self-administered questionnaires and focus group discussions indicated that concerns over career stagnation and loss of training opportunities compounded several perceived social disadvantages of rural areas (poor infrastructure and amenities such as schools), the discrete choice experiments indicated that such adverse perceptions could be countered by policies to make rural postings more attractive, notably: preferential career development or training schemes, provision of permanent contracts and financial compensation in the form of allowances or higher salaries.
- Registered nurse graduates demonstrate altruism consistent with vocational norms to help patients and the poor while also appreciating that rural service, while not preferred, may reasonably be requested of trained professionals using mechanisms such as bonding. Such findings suggest possible continued roles for non-financial incentives that appeal to professionalism to encourage rural postings while noting that basic needs for income and security must be met.
- While registered nurses may have preferences for the type of work they would like, the current labour market in Kenya, with a shortage of opportunities, may not permit such preferences to be fully expressed in the form of actual employment decisions. Thus many pre-service trainees employed after one year in the private sector continued to pursue public sector employment when opportunities arose.

### RELATED PUBLICATIONS

Mullei K, Mudhune S, Wafula J, Masamo E, English M, Goodman C, Lagarde M, Blaauw D. (2010) Attracting and retaining health workers in rural areas: investigating nurses' views on rural posts and policy interventions. *BMC Health Services Research* 10(Suppl 1):S1. Available at: <http://www.biomedcentral.com/1472-6963/10/S1/S1>

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