SURE Rapid Response

How effective are financial incentives for attracting (and retaining) health workers to rural areas in Uganda?

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This rapid response was prepared by Ekwaro A OBUKU

Key messages

Despite a recent initiative by the Government of Uganda to institute financial incentives [1] for health workers in rural areas, slightly over 1,000 have reported for duty out of the 10,124 jobs advertised [2].

- ➔ The research evidence identified seven main motivational areas for health workers [3]:
  - (a) Financial incentives (b) career development (c) hospital management (d) availability of resources (e) continuing education (f) recognition or appreciation and (f) hospital infrastructure.
- ➔ Financial incentives alone are necessary but they are not sufficient to motivate health workers [4].
  - Financial incentives can attract substantial numbers of health workers to underserved areas but do not have lasting effects for their retention.
- ➔ Extrinsic motivation incentives (e.g. salary) impact more negatively than the intrinsic incentives (e.g. self appreciation of significance of work done to society) [5].

Who requested this rapid response?

This document was prepared in response to a specific question from a decision maker in the Ministry of Health, Uganda.

! This rapid response includes:

- Key findings from research
- Considerations about the relevance of this research for health system decisions in attracting and retaining health workers in rural and remote settings in Uganda.

X Not included:

- Recommendations
- Detailed descriptions

What is SURE Rapid Response?

SURE Rapid Responses address the needs of policymakers and managers for research evidence that has been appraised and contextualised in a matter of hours or days, if it is going to be of value to them. The Responses address questions about arrangements for organising, financing and governing health systems, and strategies for implementing changes.

What is SURE?

SURE – Supporting the Use of Research Evidence (SURE) for policy in African health systems – is a collaborative project that builds on and supports the Evidence-Informed Policy Network (EVIPNet) in Africa and the Regional East African Community Health (REACH) Policy Initiative (see back page). SURE is funded by the European Commission's 7th Framework Programme.
www.evipnet.org/sure

Glossary

of terms used in this report:
www.evipnet.org/sure/rr/glossary

Background

Health worker coverage in Uganda is critically low and stagnated at 56% of the staffing norm between 2010 and 2012 [6, 7]. Moreover, previous reports highlight mal-distribution of health workers with about 70% of medical doctors working in urban health facilities in Uganda [8]. A cross–sectional study in Australia showed an association between lower health worker supply and poor health outcomes in rural and remote settings compared to urban areas [9].

Between 2006 and 2007 the Uganda Ministry of Health (MoH) developed a policy and strategic plan to address this human resource for health crisis. In the Fiscal Year 2012/13, the MoH planned to recruit health workers and achieve 65% of the staffing norm [2, 6]. The MoH opted to use financial incentives (salary enhancement, duty allowance) particularly targeting medical doctors to work in rural and remote health facilities [1]. However by the end of February 2013, out of the 10,231 positions advertised 5,713 health workers were offered jobs but only 1,393 reported for duty leaving over 8,000 vacancies [2]. They cited poor remuneration, lack of accommodation and poor working conditions.

This paper therefore summarises the research evidence from systematic reviews on the effectiveness of strategies to attract and retain health workers in underserved areas.

How this Response was prepared

After clarifying the question being asked, we searched for systematic reviews, local or national evidence, and other relevant research. The methods used by the SURE Rapid Response Service to find, select and assess research evidence are described here:

www.evipnet.org/sure/rr/methods

What the quality of evidence (GRADE) means

The quality of the evidence is a judgement about the extent to which we can be confident that the findings of the research are correct. These judgements are made using the GRADE framework, and are provided for each outcome. The judgements are based on the type of study design (randomised trials versus observational studies), the risk of bias, the consistency of the results across studies, and the precision of the overall findings across studies. For each outcome, the quality of the evidence is rated as high, moderate, low or very low using the definitions below.

⊕⊕⊕⊕
High: We are confident that the true effect lies close to what was found in the research.

⊕⊕⊕◯
Moderate: The true effect is likely to be close to what was found, but there is a possibility that it is substantially different.

⊕⊕◯◯
Low: The true effect may be substantially different from what was found.

⊕◯◯◯
Very low: We are very uncertain about the effect.

For more information about GRADE:

www.evipnet.org/sure

What we found from the research evidence

We found two systematic reviews [3, 5] of observational studies which described motivation and retention of health workers in rural and remote settings (1 in low and middle income countries [3]and 1 in developed countries only [5]). The third review focused on the effects of financial incentives in both low-middle, and high income countries [4].

1. The evidence identified seven main motivational areas for health workers [3]

➔ These include: financial incentives; career development; hospital management; availability of resources; continuing education; recognition/appreciation and hospital infrastructure.

Financial incentives alone are necessary but they are not sufficient to motivate health workers

Patients or population: Health workers of all cadres
Settings: Rural/remote areas in Low and Middle Income Countries (Uganda, Tanzania, Kenya, Zimbabwe, Malawi, Ghana, Senegal, Cameroon, Benin, Mali, South Africa, Georgia, Vietnam, Georgia, Jordan, Bangladesh, Malaysia, Indonesia).
Intervention: Financial and non-financial incentives
Comparison: No incentives at all.

Outcomes	Impact	Number of studies	Quality of the evidence (GRADE)
Financial incentives	90% of the studies mentioned that salary or allowances for health workers as crucial motivators. This was significantly motivating for lower cadres (nurses) compared to medical doctors.	18	⨁⨁◯◯ Low
Career development	85% of the studies identified the possibility for health workers to specialize or be promoted as important. Health workers perceived more career development opportunities in urban than rural areas.	17	⨁⨁◯◯ Low
Hospital/Clinic Management	80% of the studies identified health workers were motivated by having a positive working relationship with the health facility management team.	16	⨁⨁◯◯ Low
Availability of resources	75% of the studies referred to the importance of availability of basic equipment and medical supplies (drugs) necessary for health workers to perform their job. This enables workers to utilize their knowledge and skills to the fullest.	15	⨁⨁◯◯ Low
Continuing Education	75% of the studies identified opportunities to take on-job classes and attend seminars/workshops as crucial motivators. This was especially crucial for young professionals.	15	⨁⨁◯◯ Low
Recognition/Appreciation	70% identified the need for health workers to be valued and supported either from management, colleagues to be trusted by the communities they serve as important motivators; which received a higher score among doctors than nurses.	14	⨁⨁◯◯ Low
Hospital infrastructure	45% mentioned that poor infrastructure does not inspire confidence in health workers and patients.	9	⨁◯◯◯ Very Low

GRADE Working Group grades of evidence (see bar on the right)

2. Extrinsic motivation incentives impact more negatively than the intrinsic [5]

The second systematic review described the motivation of Allied Health Professionals to work in rural and remote areas, based on the two part theory of Herzberg [10]. This theory describes extrinsic and intrinsic incentives.

> *Extrinsic motivation incentives are external to the individual e.g. salary. They are provided by the workplace and prevent job dissatisfaction. An intrinsic motivation incentive is the pleasure derived purely from the work itself. Intrinsic incentives make a person "feel good" about their work e.g. autonomy, the challenge of work and perceived importance of their work to society.*

➔ **Health workers described 38 different incentives 246 times. Almost half (n=115) were negative extrinsic incentives. The most frequent were: (a) poor access to professional development (b) professional isolation and (c) insufficient supervision.**

Health workers perceived extrinsic motivation incentives as a key barrier to retention (and attraction) in rural and remote areas of work

Patients or population: Allied Health Professionals
Settings: Rural and remote areas in High Income Countries [Australia, U.S.A, Canada]
Intervention: Financial and non-financial incentives
Comparison: No incentives at all.

Outcomes	Impact	Number of studies	Quality of the evidence (GRADE)
Positive influence	Incentives that influence positively were reported at similar frequencies for both extrinsic (n=54/246) and intrinsic (n=59/246) incentives.	35	⊕⊕◯◯ Low
Negative influence	Extrinsic factors with a negative influence were the most frequently reported (n=115/246) compared to intrinsic incentives with a negative influence (n=18/246).	35	⊕⊕◯◯ Low

GRADE: GRADE Working Group grades of evidence (see bar on the right)

3. Financial incentives can attract substantial numbers of health workers to underserved areas but do not have lasting effects for retention. [4]

- The types of financial incentives included: **(a)** scholarships or **(b)** educational loans with a *requirement* to serve in remote areas; **(c)** educational loans with an *option* to serve in remote areas or pay-back; and **(d)** direct financial incentives to qualified health professionals.
- About 70% of medical doctors who were given financial incentives during medical school training met their obligation to work in the underserved areas.
- Between 12% and 90% of health workers remained in the underserved areas after their obliged period of service.
- Medical officers and dentists who were recruited to remote areas on the basis of financial incentives alone were less likely to remain in the area (<5 years).

Financial incentives alone are necessary but they are not sufficient to motivate health workers to work in remote areas

Patients or population: Medical students, medical doctors.
Settings: Rural and remote areas in Middle and High Income Countries (South Africa, USA, Japan, Canada, New Zealand)
Intervention: Financial incentives used
Comparison: Financial incentives not used

Outcomes	Impact	Number of studies	Quality of the evidence (GRADE)
Attraction/Recruitment	The recruitment proportion was 71% (95% CI: 60–80%) Range: Between 33% and 100% of those who took incentives were recruited across 25 different programs. (Pooled REM, heterogeneity p < 0.001).	25	⊕⊕◯◯ Low
Retention	Between 12 % and 90% of those who took financial incentives remained in the underserved areas, across 18 different programs. Periods of retention varied between studies from 1 to 29 years.	18	⊕◯◯◯ Very Low

GRADE Working Group grades of evidence (see bar on the right)

Relevance of the research to the question being asked

➔ Findings	▷ Interpretation*
APPLICABILITY	
➔ **Studies on financial incentives were predominantly from high income countries, and as early as the 1930s. However, 25 studies descibing important incetives were from LMICs.**	▷ *The data on financial incetives may be outdated and irrelevant to Uganda's setting. However, there is consistency in the findings from descriptive studies that ranked motivational incetives from health workers in LMICs. The studies focused on rural/remote areas and it is possible that health system/socio-economic conditions that prevailed in the 1930s in HICs persist in Uganda today.*
EQUITY	
➔ **The evidence addresses inequity health worker distribution with much fewer in rural/remote areas.**	▷ *Studies showed health worker mal-distibution is associated with population health outcomes, with poorer outcomes in rural/remote areas. However, the quality of evidence is weak.*
COST CONSIDERATIONS	
➔ **Individual studies reported costs of training health workers and few reported amounts of salary enhancements. None reported costs of non-financial incetives.**	▷ *Non financial incentives are an indirect cost which requires a long-term line budget. For example systematic professional development for health workers requires the ministies of education, health and finance to forecast costs for further training of partcularly young health professionals.*
MONITORING & EVALUATION	
➔ **Evidence on financial incetives in high income countries was from long term retrospective evaluations**	▷ *The current financial incentives by Uganda's MoH should be evaluated prospectively for effectiveness (attraction and retention of health workers), before and efter; and using appropriate comparisons. It is worth examining quality of care, and involvement of community health workers.*

About the research underlying this Response

Types of	What we searched for	What we found
Interventions	Incentives, Motivation,	Incentives, Motivation, Extrinsic, Intrinsic
Participants	Health Workers	Doctors, Nurses, Allied Health Professionals
Settings	Rural, Remote, LMICs	Underserved, Rural, Remote, LMICs, HICs
Outcomes	Attraction, Retention	Attraction, Retention, Types of incentives, Influence of incentives (positive, negative).
Research	Systematic reviews of RCTs	Systematic reviews of observational studies (7)

Date of most recent search: March 2013 in PubMed, Cochrane and Google Scholar data bases.

Limitations: The evidence is from observational studies (qualitative/focus group discussions/interviews, surveys, cohort and mixed methods) hence low to very low quality. Evidence on effects of financial incentives is from high income countries. Some evidence of effects is from as early as 1930 in the USA.

*Judgements made by the authors of this response based on the findings of the research and consultation with others (see acknowledgements). For additional details about how these judgements were made see: www.evipnet.org/sure

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Conflicts of interest

None known.

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This Rapid Response should be cited as

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The Evidence-Informed Policy Network (EVIPNet) promotes the use of health research in policymaking. Focusing on low and middle-income countries, EVIPNet promotes partnerships at the country level between policymakers, researchers and civil society in order to facilitate policy development and implementation through the use of the best scientific evidence available.
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