Increasing access to health workers in remote and rural areas through improved retention

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World Health Organization
What do we know at present?

- Rural retention is critical for health outcomes
- It is a matter of concern for both developed and developing countries
- Much research was conducted, but there are very few real ‘success stories’
- There are no readily available operational solutions
- But there is scope for improvement
Definitions

- No consensus on a definition for “rural areas” - usually defined as “non-urban”

- Each country has its own definition based on:
  - the settlement profile:
    - population density
    - availability of economic structures
  - the accessibility from an urban area:
    - distance in kilometres or hours drive.

- Remote/underserved = areas where relatively poorer populations reside:
  - remote rural areas;
  - small or remote islands; urban slum areas; areas that are in conflict or post-conflict; refugee camps; areas inhabited by minority or indigenous groups*

* Not specifically included in the current literature review
Methods for the literature review

- Published articles or reports **between 1995 and September 2008**

- **Search terms:** rural, remote, retention strategy/package, incentives, access, benefits, motivation ... AND health workforce, health workers, doctors, nurses, midwives

- **Inclusion criteria:**
  - Rural or remote
  - Systematic and/or general reviews
  - Description of problem, analysis of factors, description of interventions or evaluations
  - Types of health workers: doctors, nurses, midwives* (not included CHWs and VHWs)

- **500 references initially, down to 245 in the database:**
  - 55 studies describing problems and factors affecting choices of location (30 countries)
  - 48 studies describing an intervention or effects of an intervention (19 countries)
  - Out of the 48, only 31 studies present some sort of evaluation (various methods)
Access to health workers in remote and rural areas depends on two inter-related aspects

• **Factors influencing decisions/choices of location:**
  – Why people come to, stay in or leave rural and remote areas

• **Health system's responses:**
  – Education and regulatory interventions
  – Monetary compensation (direct and indirect financial incentives)
  – Management, environment and social support
Why do people come to, stay in or leave rural and remote areas?

Opportunity cost:
“a health worker will accept a job if the benefits of doing so outweigh the opportunity cost”

Human behaviour:
“I like my job and I am happy that people believe in me. .. I have retraining and awards every year and the community believes in me. They respect me a lot, so I think I need to work hard for them”

## How to elicit preferences and choices?

### Semi-structured interviews, focus groups

<table>
<thead>
<tr>
<th>Factors for motivation</th>
<th>Discouraging factors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appreciation and support by managers</td>
<td>Low income/allowance</td>
</tr>
<tr>
<td>People respect me/appreciate my work</td>
<td>Difficult transportation</td>
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<td>Stable job and income</td>
<td>No updated information</td>
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<tr>
<td>Get more training</td>
<td>Lack of knowledge</td>
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<tr>
<td>Love for work</td>
<td>Heavy workload without plan</td>
</tr>
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</table>

### Discrete choice experiments

<table>
<thead>
<tr>
<th>Attributes</th>
<th>Job 1</th>
<th>Job 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>Location</td>
<td>City</td>
<td>District town</td>
</tr>
<tr>
<td>Net monthly pay</td>
<td>K40,000</td>
<td>K30,000</td>
</tr>
<tr>
<td>Availability of material resources</td>
<td>Usually inadequate</td>
<td>Usually adequate</td>
</tr>
<tr>
<td>Typical workload</td>
<td>Heavy: barely time to complete duties</td>
<td>Medium: enough time to complete duties</td>
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<tr>
<td>Provision of housing</td>
<td>Basic housing provided</td>
<td>Basic housing provided</td>
</tr>
<tr>
<td>Opportunity to upgrade qualification</td>
<td>After 5 years</td>
<td>After 3 years</td>
</tr>
</tbody>
</table>

Sources: Dieleman et al, 2003; Mangham et al, 2009
### Categories of interventions

<table>
<thead>
<tr>
<th>Category of intervention</th>
<th>Examples</th>
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<tbody>
<tr>
<td><strong>A. Education and regulatory interventions</strong></td>
<td>• Targeted admission of students from rural background</td>
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<td></td>
<td>• Recruitment from and training in rural areas</td>
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<td></td>
<td>• Changes / improvements in medical curricula</td>
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<td></td>
<td>• Early and increased exposure to rural practice during undergraduate studies</td>
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<td></td>
<td>• Educational outreach programmes</td>
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<td></td>
<td>• Community involvement in selection of students</td>
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<td></td>
<td>• Compulsory service requirements (bonding schemes)</td>
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<td></td>
<td>• Conditional licensing (license to practice in exchange of location in rural areas)</td>
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<tr>
<td></td>
<td>• Loan repayment schemes (paid studies in exchange of services in rural areas for 4-6 years)</td>
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<td></td>
<td>• Producing different types of health workers (mid-level cadres substitution task shifting)</td>
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<td></td>
<td>• Recognize overseas qualifications</td>
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<tr>
<td><strong>B. Monetary compensation (direct and indirect financial incentives)</strong></td>
<td>• Higher salaries for rural practice</td>
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<td></td>
<td>• Rural allowances, including installation kit</td>
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<td></td>
<td>• Pay for performance</td>
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<td>• Alter the remuneration methods (fee for service, capitation etc)</td>
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<td>• Loans (housing, vehicle)</td>
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<td></td>
<td>• Grants for family education</td>
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<td></td>
<td>• Other non-wage benefits</td>
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<td><strong>C. Management, environment and social support</strong></td>
<td>• General improvement in rural infrastructure (roads, phones, water supplies, radio communication)</td>
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<td></td>
<td>• Improving working and living conditions, ensure adequate supplies of technologies and drugs</td>
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<td>• Supportive supervision</td>
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<td>• Support for continuous professional development, career paths</td>
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<td>• Special awards, civic movement, and social recognition</td>
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<td>• Flexible new contract opportunities for part-time work</td>
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<td>• Reduce the feeling of isolation (professional networks, telemedicine, distance learning)</td>
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<td></td>
<td>• Increase chances for recruitment to civil service</td>
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What works? (1)

• **Education and regulatory interventions:**
  – Health professionals from rural background are more likely to practice in rural areas
  – Adapting curricula to include rural health issues improves competences and creates more interest to work in rural areas
  – Loan repayment schemes, direct incentives and medical-resident programmes to encourage rural placement have the highest service completion rates and physicians retention rates
  – The effectiveness of compulsory placement shows mixed results

*Source: Sempowski, 2003, Grobler et al, 2005*
What works? (2)

- **Monetary compensation:**
  - Direct financial incentives to practice in rural areas may encourage rural practice, in particular in developed countries, but reports from developing countries are not all positive

- **Management, environment and social support:**
  - Professional and community support to rural workers encourages rural practice:
    - supportive supervision
    - internet access (tele-health, distance learning)
    - community involvement projects
    - professional networks
  - Very few countries have implemented and evaluated large scale interventions to improve the infrastructure and living conditions

How can we measure “success”? 

- Disparities in the rural/urban ratio of health workers to population density
- Percentage of health workers to choose to work in rural areas as a consequence of an intervention
- Vacancy rates
- Duration in post
- Service utilization rates (before and after)
- Patient satisfaction surveys
- Health workers satisfaction surveys
- *Health outcomes (confounding factors!)*

France: General Practitioner density

GP density per 1000 pop
- 1.43 - 1.54
- 1.54 - 1.67
- 1.67 - 1.84
- 1.84 and more
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First expert consultation, 2–4 February 2009, Geneva
Gaps and challenges for our knowledge

- **Data and measurement issues:**
  - Poor health information systems
  - Research methods to elicit preferences

- **Evaluations and impact assessment:**
  - Study design/strength of the evidence
  - Attribution of effects
  - Contextual issues
  - How do we know there is a “success” – outcome measures

- **Implementation at country level:**
  - Time effect, sustainability and scaling up issues
Research questions

1. What is the role of different factors in influencing health workers’ choices of location and how best can they be identified? How do they vary by category of health worker?

2. How should effective retention interventions be designed and implemented to improve staffing of rural health facilities?

3. What are the pre-requisite for the design and implementation of retention strategies?

4. How effective are different interventions in influencing health worker location?

5. How can the effect of retention strategies be measured and evaluated?

Do we always understand the effects?
- What works and why?
- What doesn’t work and why?
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For the discussions of the expert group:

- Agree upon the **scope of the recommendations**:
  - What **strategies** to include and why?
  - What **categories of health workers** to focus on?

- Identify and agree upon a **common research framework** for the analysis of retention strategies, including their evaluation

- Identify the **research gaps** and propose a **programme to fill the gaps**

- Examine specifically the aspects related to **challenges for country level implementation**