



# Application of discrete choice experiments to identify health workers' employment preferences

**Supporting Country-Led Efforts to Recruit and Retain  
Health Workers and Improve Their Productivity**

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## *Key HRH policy issues for discussion*

- Implementing rural retention interventions requires an understanding of the context, including the labor market, as well as worker preferences.
- Targeting recruitment and education closer to where there is need, and providing support to a meaningful professional and personal life are key ingredients for promoting rural recruitment and retention.
- Measuring the effects of rural retention interventions can be done, but attribution of observed effects to key determinants is often difficult; at present, there is limited evidence based on rigorous evaluation of interventions.
- New approaches to quantify the relative importance of different job characteristics can help identify appropriate interventions for rural retention (e.g., through DCE)



# A Brief Introduction to Discrete Choice Experiment (DCE)

- DCE is a quantitative technique based on the assumption that any goods or services can be described in terms of their characteristics or attributes, *and that individuals preferences can be measured based on these observed characteristics*
- DCE is quantitative evaluation of the relative importance of each attribute from the individual's perspective, which can be used to predict likely decisions
- DCE has been extensively applied in health care research in a wide range of contexts and addressing different policy and research issues (e.g., economic evaluation, insurance choices)



## Stated Preference Methods: Advantages

- There are very few studies that identify and measure the actual impact (“revealed preferences”) of key determinants on health workers’ willingness (or un-willingness) to work in rural or remote areas
  - >> *In the absence of such quantifiable data, how should policy makers choose and invest among the multiple interventions?*
- Stated preference method offers an alternative data source, to collect quantitative information on health worker preferences with respect to job characteristics and their impact on worker decision to take up the job.
  - >> *It is more powerful than qualitative assessments and ranking exercises*



## Stated Preference Methods: Limitations

- DCE are stated preferences, not actual choices
  - >> *Detailed qualitative data may help to validate findings, but prospective research will be required to follow up on respondents and observe their actual decisions*
- Preferences will change over time, especially due to career progression and changes in personal life (e.g., single students vs. mid-career married health workers)
- Experimental design and estimation techniques are not simple



# Discrete Choice Experiment Analysis

Step 1

- Situation Analysis and Qualitative Analysis to define key policy questions, determine target groups and job attributes

Step 2

- Experimental Design –to define appropriate job “choice sets”
- Survey design and data set construction

Step 3

- Sampling and Data Collection
- Interviews with target health workers on job preferences

Step 4

- Statistical and econometric analysis
- Quantification of job preferences

Interpretation of results: >> Important to be aware of the limitations of stated preference methods; can be more powerful when combined with other data sources (e.g., cost data)

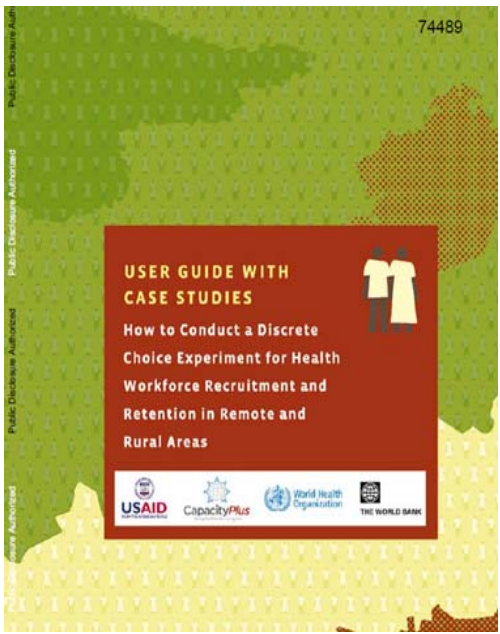


# Examples of DCE Questions

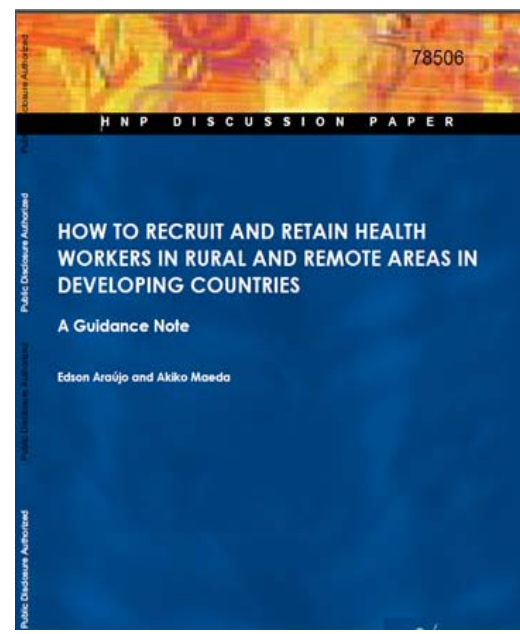
- What proportion of health workers will take a proposed job when offered given a specific incentive?
- How much additional salary will be necessary to attract doctors, nurses, midwives, and other professionals at different stages of their career to work in rural areas?
- How important are non-monetary incentives in recruitment and retention of different types of health workers?
- How do these factors vary by gender, workers with different education and socio-economic backgrounds, or by place of origin?
- What is the trade-off between salary and other types of incentives, such as improved working conditions?



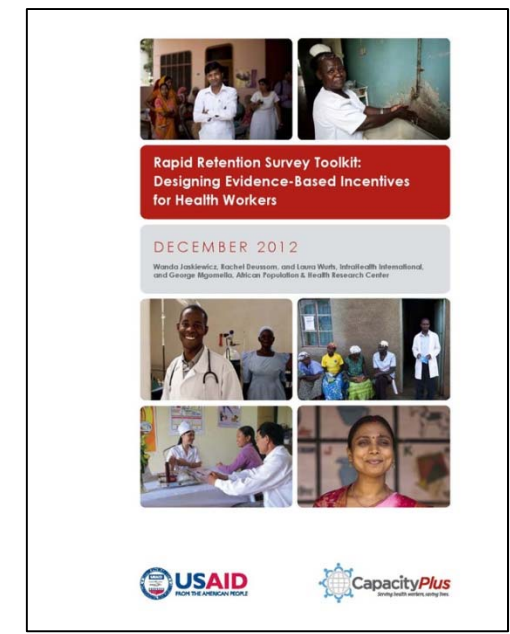
# Resources on Rural Recruitment and Retention Policies and Discrete Choice Experiment



[www.who.int/hrh/resources/dceguide/en/index.html](http://www.who.int/hrh/resources/dceguide/en/index.html)



[www.worldbank.org/en/topic/health/publication/how-to-recruit-retain-health-workers-in-rural-remote-areas-in-developing-countries](http://www.worldbank.org/en/topic/health/publication/how-to-recruit-retain-health-workers-in-rural-remote-areas-in-developing-countries)



[www.capacityplus.org/rapid-retention-survey-toolkit](http://www.capacityplus.org/rapid-retention-survey-toolkit)



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