

# What policies would attract health professionals to rural areas? Evidence from South Africa, Thailand and Kenya

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# Possible interventions to attract health workers to under-served areas?

<b>Selection</b>	Geographic origin Ethnicity Gender Career intention Service orientation
<b>Education</b>	Location of training colleges Curriculum content Rural exposure Fellowships
<b>Coercion</b>	Registration requirement Specialisation requirement International recruitment
<b>Incentives</b>	Bursaries & scholarships Direct financial incentives (rural allowance)
<b>Support</b>	Professional support Personal support

*Grobler et al  
(2009)*

# Evidence of policy effectiveness?

- Cochrane review (2009) found no rigorous controlled studies
- Need more rigorous evaluations of impact
- Methodological challenges
  - RCTs may not be possible
  - RCTs may not be sufficient
- Interim solutions?
  - Longitudinal HR databases
  - Modelling of stated preference data

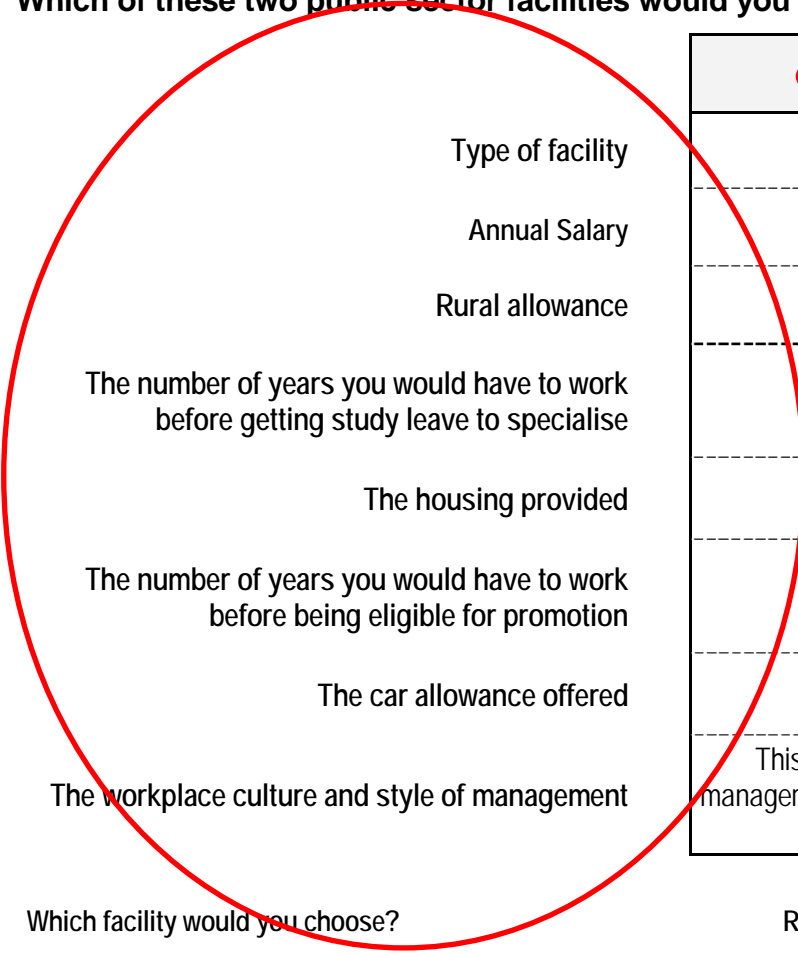
# Study methods

- Discrete choice experiment (DCE) with nursing graduates in South Africa, Thailand & Kenya
- DCE Design
- DCE Analysis
- Used statistical model to investigate:
  - Rural uptake for different policy combinations
  - Cost-effectiveness of different interventions

# DCE design

**Labelled design  
Two choices**

Which of these two public sector facilities would you choose to work in?



	RURAL Facility	URBAN Facility
Type of facility	Hospital	Clinic
Annual Salary	R120,000 per year	R120,000 per year
Rural allowance	An additional R12,000 per year	None
The number of years you would have to work before getting study leave to specialise	6 different rural policy interventions	6 years
The housing provided		None
The number of years you would have to work before being eligible for promotion	2 years	2 years
The car allowance offered	None	None
The workplace culture and style of management	This facility is formal and structured. The managers emphasise stability, following rules, and keeping things running smoothly.	This facility is personal and supportive. The managers emphasise teamwork, loyalty, and developing the full potential of staff.

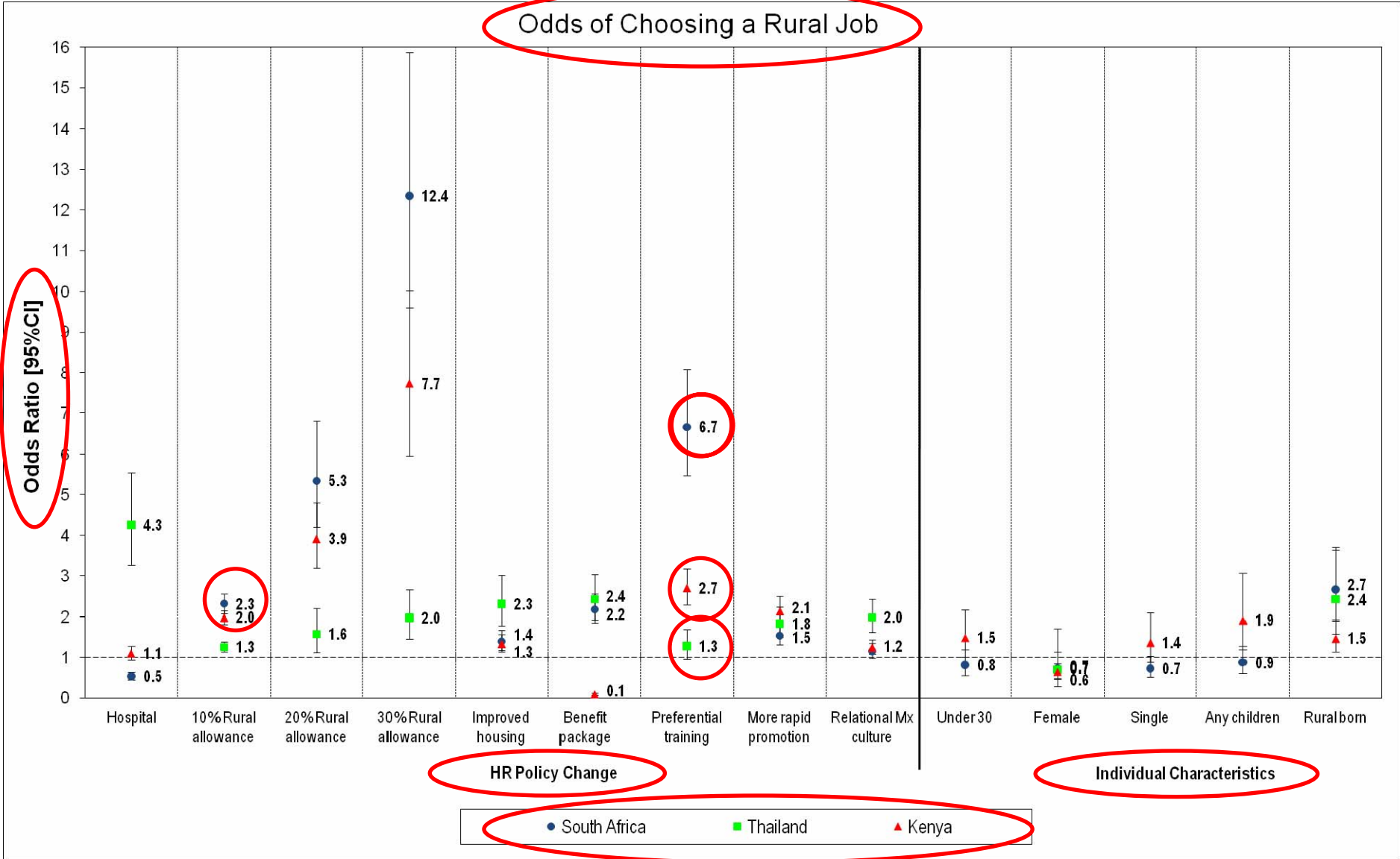
Which facility would you choose?

Rural Facility

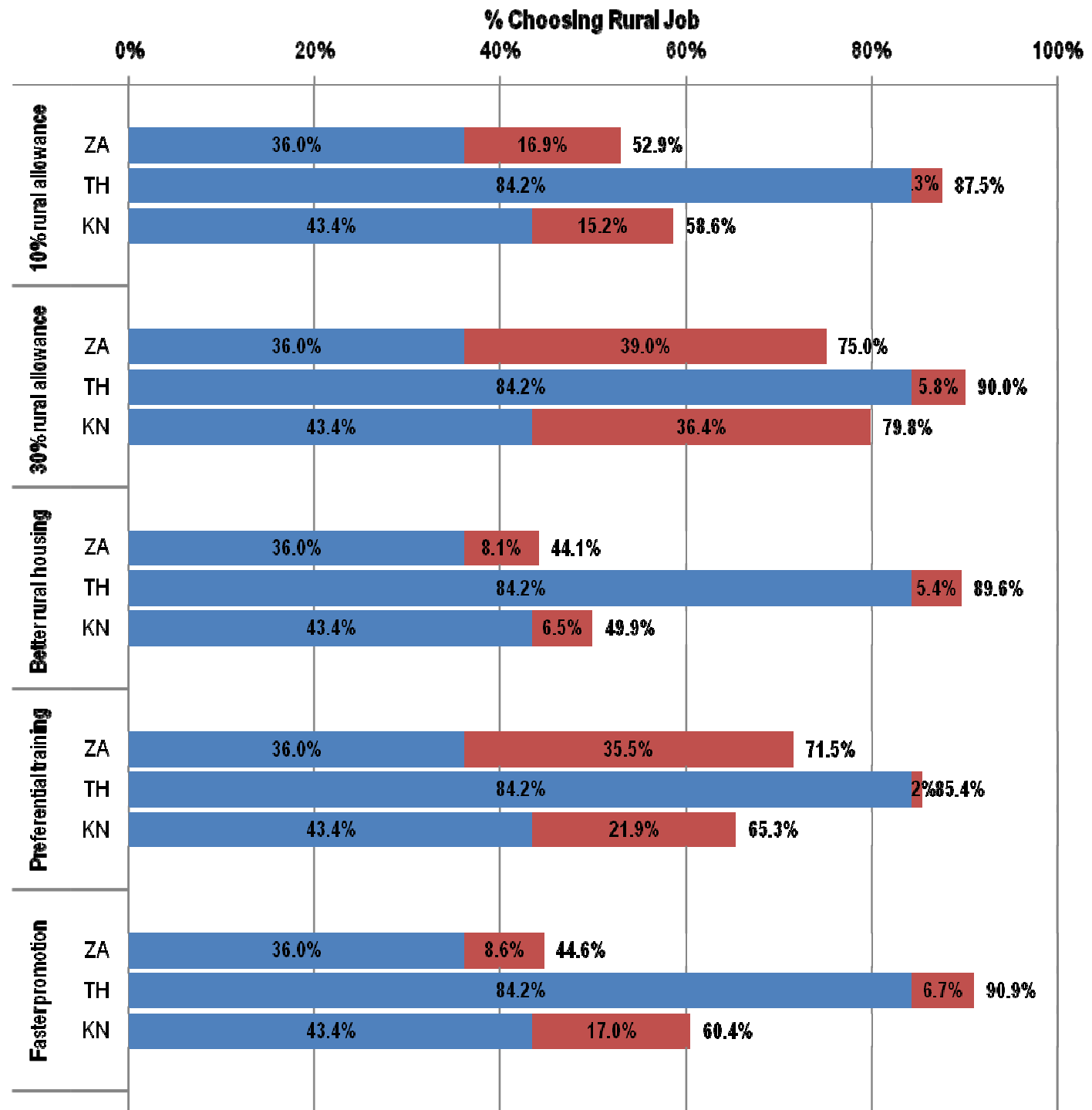
Urban Facility

**16 choice**

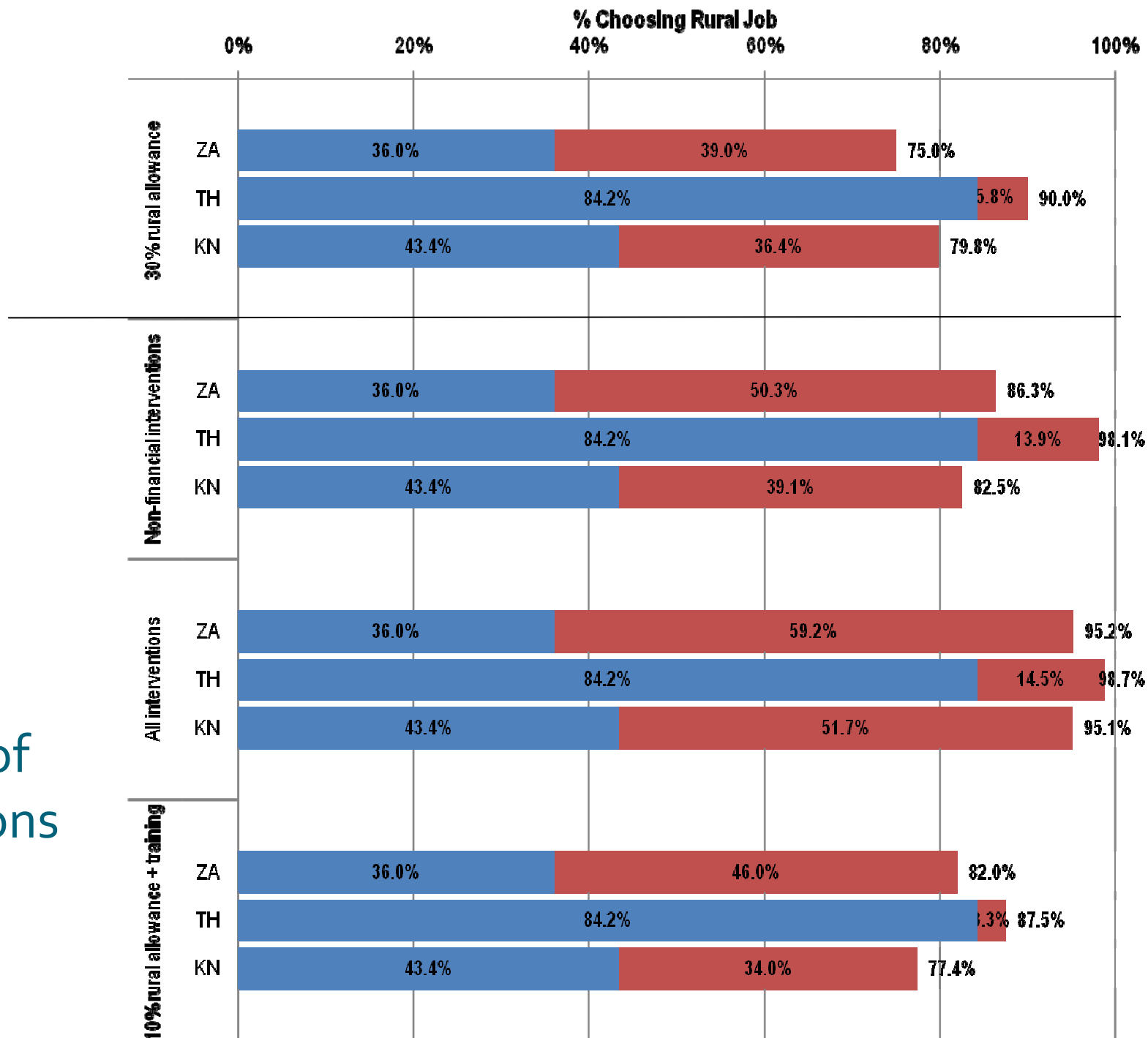
# Different country preferences



# Impact of single interventions



# Impact of packages of interventions

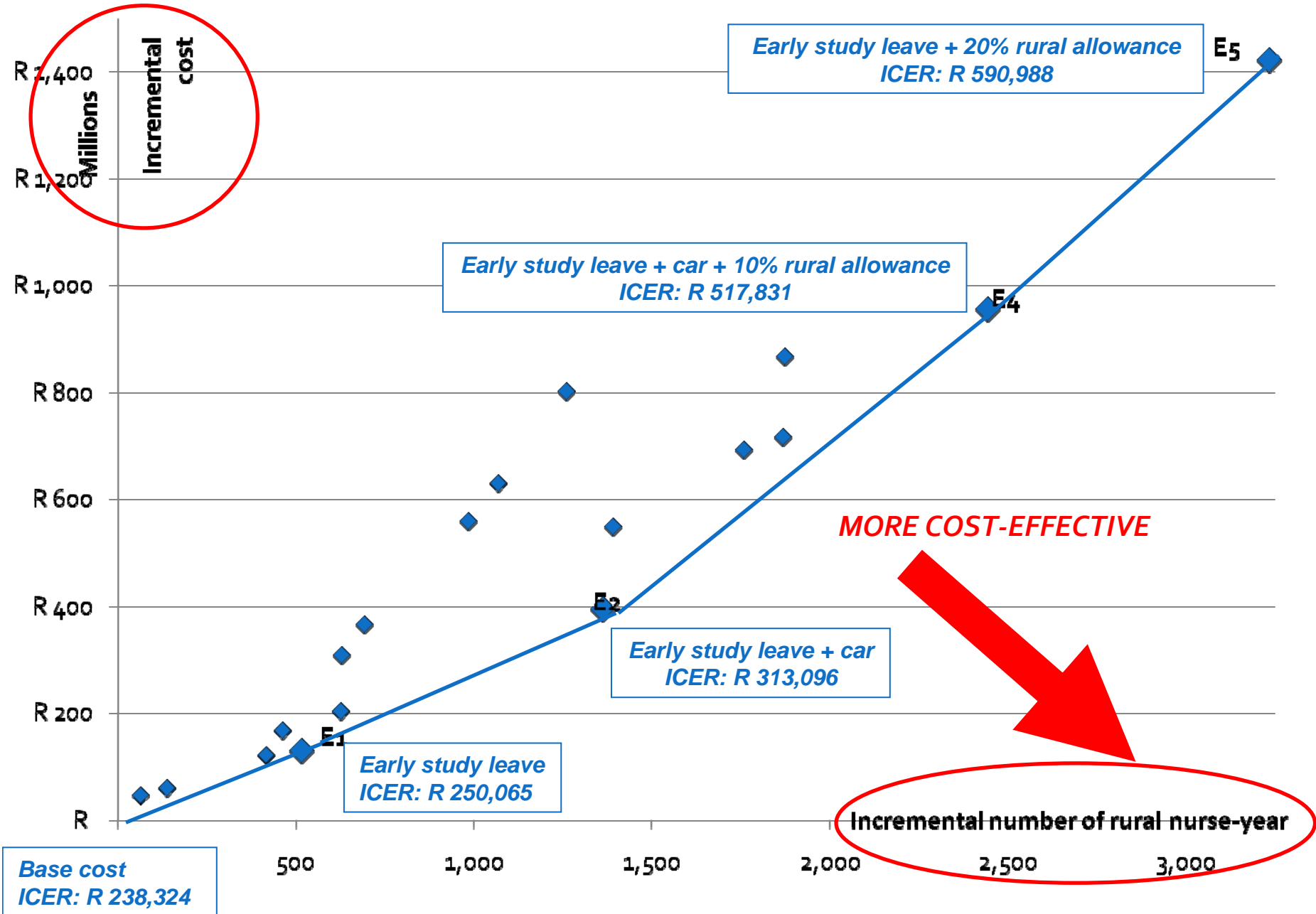




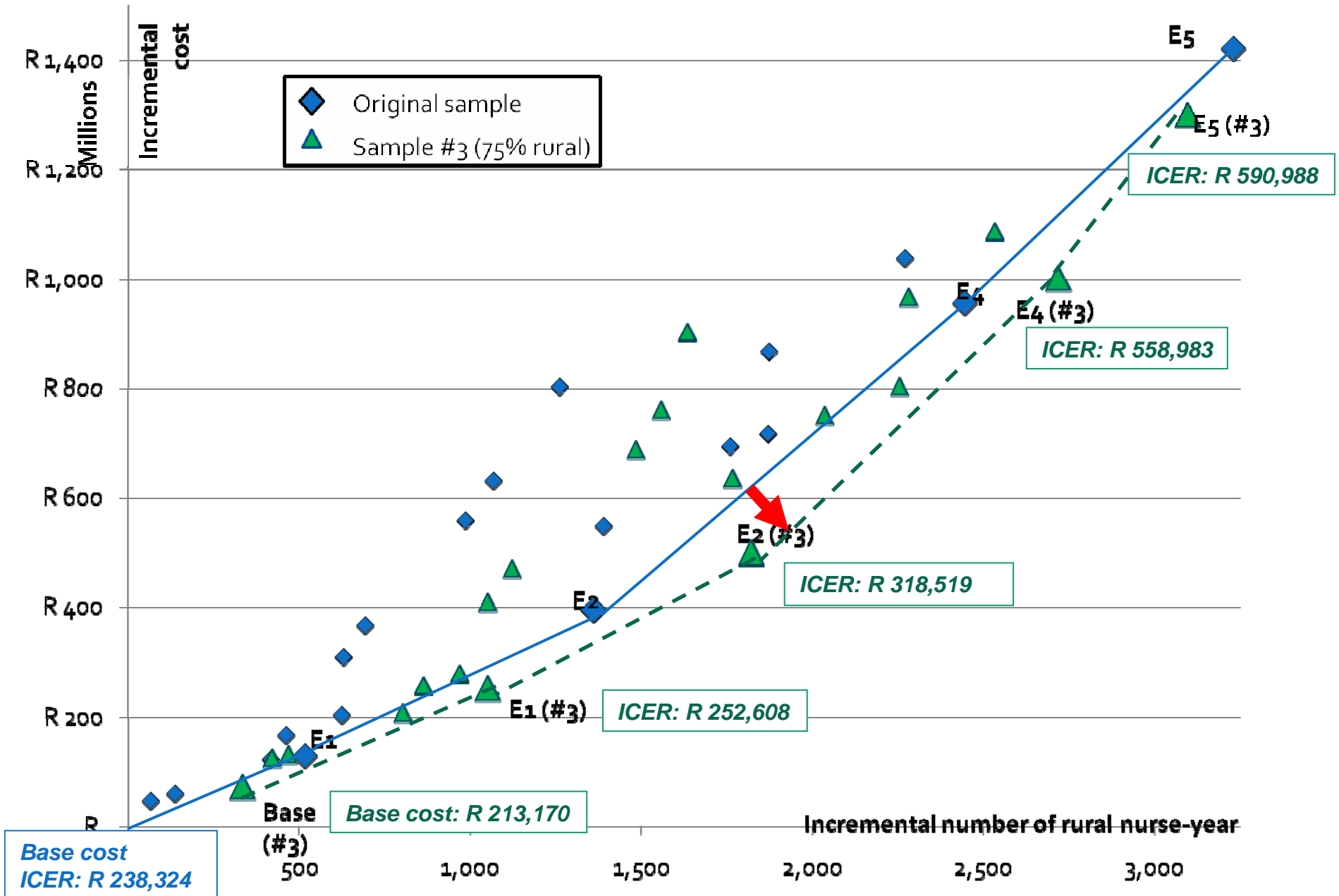
# Cost-effectiveness of interventions (ZA)

	Policy Scenario	Additional Effect (Rural Nurse Years)	Additional Cost (ZAR, R1=£11)	Cost-Effectiveness (ZAR / Rural Nurse Year)
Individual Interventions	Base scenario	-	-	-
	Promoted faster	64	46 124 497	720 695
	Better housing	136	58 736 999	431 890
	Car allowance	415	121 034 432	291 649
	Earlier study leave	515	128 885 182	250 262
	10% rural allowance (RA)	629	308 091 306	489 811
	20% rural allowance	985	557 401 459	565 890
	30% rural allowance	1 259	801 537 625	636 646
Packages of Interventions	Quick promotion + Car	461	166 454 292	361 072
	Better housing + Car	625	201 971 262	323 154
	Quick promotion + 20% RA	1 067	629 126 154	589 622
	Earlier study leave + Car	1 362	393 988 330	289 272
	10% Rural allowance + Car	1 390	546 995 962	393 522
	Better housing + Car + 20% RA	2 273	1 036 555 469	456 030
	Study leave soon + 10% RA + Car	2 445	954 698 686	390 470
	Study leave soon + 20% RA	3 233	1 420 449 751	439 360

# Incremental cost-effectiveness ratios



# Incremental cost-effectiveness ratios



# Implications for policy and practice

- Policymakers in LMICs should make more use of modelling data to inform the design of HR policies.
- There are no generic HR solutions. HR policies need to be tailored to individual country contexts.
- A combination of financial and non-financial HR strategies is required.
- Non-financial interventions can be as effective as salary increases and are more cost-effective.
- Changing student selection is a very cost-effective strategy to increase health professionals in under-served areas.



# Partners

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