

Appendices

Annex 1: Self administered questionnaire for studying nurses' willingness to work in health facilities of remote districts of Tanzania

Respondent ID number: _____

Dear Student,

What you answer on these questions is strictly confidential. It will not be possible for anyone outside the research team to trace your identity. After completing the questionnaire, put it in an envelope and seal it.

This study is carried out by Centre for International Health (of the University of Bergen) in collaboration with the National Institute for Medical Research (NIMR) and the Chr. Michelsen Institute (CMI), Bergen Norway. The purpose of the study is to identify how nursing students feel about working in remotely located health facilities compared to more centrally located health facilities. The questions contained in this form also request you to provide some personal information such as your age, gender, socio-economic status etc.

It is important to answer honestly and independently without discussing the questions or answers with the colleague near you. Please make sure you read through the questions very carefully before attempting to answer, and ask for clarifications from any of the team members if you do not understand.

***We hope you will enjoy filling in this questionnaire*

A: General information

(0) Respondent ID number

(1) Name of nursing school

(2) Location of nursing school

In a rural district	1
In an urban district/regional capital	2

(3) Is the nursing school public, private or owned by a NGO / faith-based organisation?

Public nursing school	1
Private nursing school	2
NGO / faith-based nursing school	3

(4) How important were the following reasons for your choice of starting the nursing studies?

Reasons	Of little or no importance	Of some importance	Of great importance
I wanted to make sure I would get a job	1	2	3
I wanted to make sure that I get a job that pays well	1	2	3
I want to continue the tradition of my family	1	2	3
I want to help people who need health care services	1	2	3
I had no special reasons to become a nurse	1	2	3

B: Personal characteristics

(5) Gender

Male	1
Female	2

(6) Your age in years

(7) Where is your birth place?

Dar es Salaam	1
Other regional capital	2
Rural district capital	3
None of the above but less than 100km from the nearest rural district capital	4
More than 100km from the nearest rural district capital	5
Abroad	6

(8) Where did you grow up?

Dar es Salaam	1
Other regional capital	2
Rural district capital	3
None of the above but less than 100km from the nearest rural district capital	4
More than 100km from the rural district capital	5
Abroad	6

(9) Please indicate your marital status

Married	1
Single	2
Divorced	3
Cohabiting	4

(10) How many children do you have?

(11) How many dependants do you have? (Do not count children!)

(12) Do you live with your parents?

Yes	1
No	0

(13) Do your parents depend on you economically?

Yes	1
No	0

(14) Do you personally own any of the following, and are the items functioning or not? (Please do not skip – circle '1' if your answer is 'Yes' or '0' if your answer is 'No').

Item	Do you personally own...		Is the item functioning?	
	Yes=1	No=0	Yes=1	No=0
Bicycle	1	0	1	0
Motor vehicle	1	0	1	0
Television	1	0	1	0
Video	1	0	1	0
Refrigerator	1	0	1	0
Stove (electric or gas)	1	0	1	0
House or farm	1	0		
Land	1	0		
Wrist watch	1	0	1	0

(15) Who was the head of the household where you grew up?

Father	1
Mother	2
Uncle	3
Aunt	4
Senior sibling (brother or sister)	5

(16) What is or was your father's highest level of education?

Did not complete primary education / no education	0
Completed primary education	1
Completed form four secondary education	2
Completed form six secondary education	3
Completed technical/ vocational education	4
Completed college/ university education	5

(17) What is or was your mother's highest level of education?

Did not complete primary education / no education	0
Completed primary education	1
Completed form four secondary education	2
Completed form six secondary education	3
Completed technical/ vocational education	4
Completed college/ university education	5

(18) On what basis did the household where you grew up occupy the dwelling?

Privately owned	1
Rented	2
Other	3

(19) What was the main construction material for the outer wall of the house where you grew up?

Wood and mud	1
Stone and mud	2
Stone and cement	3
Bricks	4
Other (specify)	

(20) What was the construction material for the roof of the house where you grew up?

Corrugated iron/steel sheet	1
Grass	2
Wood and mud	3
Bamboo	4
Other (specify)	

(21) What was the main source of lighting in the house where you grew up?

Electricity	1
Kerosene	2
Fire wood/ candle	3
Other (specify)	

(22) Did the household where you grew up own any of the following? Indicate also whether the items were functioning or not.

(Please do not skip – circle '1' if your answer is 'Yes' or '0' if your answer is 'No')

Item	Our household owned		The item was normally functioning	
	Yes=1	No=0	Yes=1	No=0
Cattle	1	0		
Bicycle	1	0	1	0
Motor vehicle (private)	1	0	1	0
Motor vehicle (commercial)	1	0	1	0
Radio	1	0	1	0
Television	1	0	1	0
Video	1	0	1	0
Refrigerator	1	0	1	0
Stove (electric or gas)	1	0	1	0
Land	1	0		
House or farm	1	0		

C: Questions on job preferences

(23) Where would you prefer to work after nursing school?

I would prefer to work as a nurse in the health sector	1
I would prefer to work outside the health sector	0

(24) Working as a nurse, would you prefer to work in a government or a faith based health facility?

I would prefer to work in a government health facility	1
In would prefer to work in a faith based health facility	0

(25) Please state how important the following reasons are in explaining your preference regarding work in government vs faith based facilities (question 24 above)

Reason	Of little or no importance	Of some importance	Of great importance
Promotion opportunities	1	2	3
Opportunities for support to pursue further education	1	2	3
Work time flexibility	1	2	3
Good social working environment	1	2	3
Good pay in terms of salary and allowances	1	2	3
Adequate and supportive supervision from the management/ supervisors	1	2	3
Availability of equipment and technology	1	2	3

(26) Working as a nurse, would you prefer working in an urban or a rural area?

I prefer working in a rural area	1
I prefer working in an urban area	0

(27) Please state how important the following reasons are in explaining your preference regarding work in a rural vs. an urban area (question 26 above)

Reason	Of little or no importance	Of some importance	Of great importance
Promotion opportunities	1	2	3
More independence for clinical practice	1	2	3
Possibility to be considered for further training	1	2	3
Closeness to family and friends	1	2	3
Getting respect and recognition from community members	1	2	3
A desire to provide health care to the poor and needy	1	2	3
Good working environment	1	2	3
Low costs of living	1	2	3
Closeness to important services (health, education and recreation etc)	1	2	3

Thanks for your efforts so far!

We are now going to ask some questions about your willingness to work in rural and remote areas of the country. These questions may be a bit challenging, so please make sure that you read the information carefully.

You will be asked several questions where you will have to choose between two different jobs. One of the jobs is in a rural and remote area and the other is in an urban area. The attributes of the urban job will remain constant throughout. In the rural job, some attributes will remain constant throughout, while other attributes will be changed in order to see if this has any effect of your choice between the two.

Here are the attributes that will remain constant for both jobs all the way throughout:

	The urban job	The rural job
Place	Regional capital (other than Dar es Salaam)	More than 500 km away from Dar es Salaam, more than 200 km away from the nearest regional capital, and about 50-100 km away from the nearest district headquarter
Availability of schools	Relatively well equipped schools (both private and public)	Schools available, but only public with shortage of essential inputs such as teachers and equipment
Transport and communication facilities	Reliable	Not reliable
Utilities (e.g. clean tap water, electricity)	Available	Water available, but electricity not guaranteed
Recreational facilities	Available and sufficient	Mostly not available, and if available they are of very poor quality
Duration of posting	At least 3 years	At least 3 years

Two of the job attributes that will vary in the rural job are:

- 1) Whether or not you will be provided with free housing, and
- 2) The time before you will be provided with a scholarship for further education.

Start by assuming that housing is provided neither in the urban nor in the rural job, and that further education is provided after six years in both jobs (Assumption A):

ASSUMPTION A

	The urban job (<i>regional capital</i>)	The rural job (<i>remote</i>)
Housing	No housing provided	No housing provided
Further education provided	After 6 years	After 6 years

Another attribute of the rural job that will vary is the level of your salary. Your monthly salary in the urban job would be 250,900/= Tshs.

(28) Given the information you now have about the two jobs, which one will you choose if

(a) Your monthly salary for the rural job will be Tshs. 250,900/=	I would choose the job in a regional capital	I would choose the job in a rural district
(b) Your monthly salary for the rural job will be Tshs. 300,000/=	I would choose the job in a regional capital	I would choose the job in a rural district
(c) Your monthly salary for the rural job will be Tshs. 350,000/=	I would choose the job in a regional capital	I would choose the job in a rural district
(d) Your monthly salary for the rural job will be Tshs. 400,000/=	I would choose the job in a regional capital	I would choose the job in a rural district
(e) Your monthly salary for the rural job will be Tshs. 450,000/=	I would choose the job in a regional capital	I would choose the job in a rural district
(f) Your monthly salary for the rural job will be Tshs. 500,000/=	I would choose the job in a regional capital	I would choose the job in a rural district
(g) Your monthly salary for the rural job will be Tshs. 550,000/=	I would choose the job in a regional capital	I would choose the job in a rural district
(h) Your monthly salary for the rural job will be Tshs. 600,000/=	I would choose the job in a regional capital	I would choose the job in a rural district
(i) Your monthly salary for the rural job will be Tshs. 650,000/=	I would choose the job in a regional capital	I would choose the job in a rural district

(28a) If you chose the job in the regional capital in all cases above, please state the amount of salary in the remote job that would make you choose the rural job before the urban one:

Tshs.: _____

Now, please make the following change in the assumptions about the rural job: Assume that free housing is provided in the rural job (Assumption B):

ASSUMPTION B.

	The urban job (<i>regional capital</i>)	The rural job (<i>remote</i>)
Housing	No housing provided	FREE HOUSING PROVIDED
Further education provided	After 6 years	After 6 years

As above, your monthly salary in the urban job would be 250,900/= Tshs.

(29) Given the information you now have about the two jobs, which one will you choose if

(a) Your monthly salary for the rural job will be Tshs. 250,900/=	I would choose the job in a regional capital	I would choose the job in a rural district
(b) Your monthly salary for the rural job will be Tshs. 300,000/=	I would choose the job in a regional capital	I would choose the job in a rural district
(c) Your monthly salary for the rural job will be Tshs. 350,000/=	I would choose the job in a regional capital	I would choose the job in a rural district
(d) Your monthly salary for the rural job will be Tshs. 400,000/=	I would choose the job in a regional capital	I would choose the job in a rural district
(e) Your monthly salary for the rural job will be Tshs. 450,000/=	I would choose the job in a regional capital	I would choose the job in a rural district
(f) Your monthly salary for the rural job will be Tshs. 500,000/=	I would choose the job in a regional capital	I would choose the job in a rural district
(g) Your monthly salary for the rural job will be Tshs. 550,000/=	I would choose the job in a regional capital	I would choose the job in a rural district
(h) Your monthly salary for the rural job will be Tshs. 600,000/=	I would choose the job in a regional capital	I would choose the job in a rural district
(i) Your monthly salary for the rural job will be Tshs. 650,000/=	I would choose the job in a regional capital	I would choose the job in a rural district

(29a) If you chose the job in the regional capital in all cases above, please state the amount of salary in the remote job that would make you choose the rural job before the urban one:

Tshs.: _____

Now, please make the following change in assumptions about the rural job: Assume that there is no longer free housing in the rural job. Instead, assume that in the rural job you will have further education after only 3 years, rather than after 6 years (Assumption C):

ASSUMPTION C.

	The urban job (<i>regional capital</i>)	The rural job (<i>remote</i>)
Housing	No housing provided	No housing provided
Further education provided	After 6 years	AFTER 3 YEARS

As above, your monthly salary in the urban job would be 250,900/= Tshs.

(30) Given the information you now have about the two jobs, which one will you choose if

(a) Your monthly salary for the rural job will be Tshs. 250,900/=	I would choose the job in a regional capital	I would choose the job in a rural district
(b) Your monthly salary for the rural job will be Tshs. 300,000/=	I would choose the job in a regional capital	I would choose the job in a rural district
(c) Your monthly salary for the rural job will be Tshs. 350,000/=	I would choose the job in a regional capital	I would choose the job in a rural district
(d) Your monthly salary for the rural job will be Tshs. 400,000/=	I would choose the job in a regional capital	I would choose the job in a rural district
(e) Your monthly salary for the rural job will be Tshs. 450,000/=	I would choose the job in a regional capital	I would choose the job in a rural district
(f) Your monthly salary for the rural job will be Tshs. 500,000/=	I would choose the job in a regional capital	I would choose the job in a rural district
(g) Your monthly salary for the rural job will be Tshs. 550,000/=	I would choose the job in a regional capital	I would choose the job in a rural district
(h) Your monthly salary for the rural job will be Tshs. 600,000/=	I would choose the job in a regional capital	I would choose the job in a rural district
(i) Your monthly salary for the rural job will be Tshs. 650,000/=	I would choose the job in a regional capital	I would choose the job in a rural district

(30a) If you chose the job in the regional capital in all cases above, please state the amount of salary in the remote job that would make you choose the rural job before the urban one:

Tshs.: _____

D: Questions about perceptions of various job aspects and working opportunities

Please indicate your agreement/disagreement with the following statements. Choose the alternative that fits you the best by circling on the respective number

		Strongly agree	Agree	Neither agree nor disagree	Disagree	Strongly disagree
31	Working in a health facility in a remote district will give me an opportunity to serve the poor and the needy	1	2	3	4	5
32	Working in a health facility in a remote district will provide me with more appreciation and respect as a medical worker than working in urban areas	1	2	3	4	5
33	Working in a health facility in a remote district will ensure that I can raise my children better than in urban places	1	2	3	4	5
34	By being ready to work in a health facility found in a remote district, I will increase my chances for going to further studies.	1	2	3	4	5
35	By being ready to work in a health facility found in a remote district, the chances for promotion will increase	1	2	3	4	5
36	By being ready to work in a health facility in a remote district, my chance for securing loan from the government will increase (e.g., loans to be used to construct a house or buy transport facilities).	1	2	3	4	5
37	The salary is the most important feature of a job	1	2	3	4	5
38	The general satisfaction coming from helping people is the same no matter how much I get paid	1	2	3	4	5
39	If I choose to work outside the health sector, I am likely to get better paid	1	2	3	4	5
40	If I choose to work outside the health sector, I am likely to work in a more conducive working environment	1	2	3	4	5
41	If I take a job outside the health sector, there will probably be better opportunities for professional advancement	1	2	3	4	5
42	I have seriously considered seeking employment as a nurse in another African country	1	2	3	4	5
43	I have seriously considered seeking employment as a nurse in Europe or North America.	1	2	3	4	5

(44) Please range the importance of the following features of a job from 1 to 8, where 1 is the most important and 8 is the least important.

Job attribute	Rank
(a) Provision of housing	
(b) Good physical working environment	
(c) Supportive supervision	
(d) Good social working environment	
(e) Salary and allowances	
(f) Possibility of further training / upgrading of professional knowledge	
(g) Attractive location of the job posting (including service infrastructure)	
(h) Reasonable / manageable workload	

E. Questions to be able to contact you in the future

We have asked questions about your future choices and we would like to be able to contact you in the future for follow up questions. If you allow us, please provide your contact details that will enable us to contact you in the future.

(45) Will you allow us to contact you in the future for follow up questions?

Yes	1 → Please proceed to question (46)
No	0 → You have completed the questionnaire. Thank you!

(46) Your personal address

Name:.....

Address:_____

Town/City:_____

Mobile phone number:_____

(47) A close relative that is likely to stay at the current address for several years

Name:.....

Address:_____

Town/City:_____

Mobile phone number:_____

(48) A close friend that is likely to stay at the current address for several years

Name:.....

Address:_____

Town/City:_____

Mobile phone number:_____

*******THANK YOU FOR YOUR TIME*******

Annex 2: Interview guide for the study of ‘Decentralisation- centralization dilemma: recruitment and distribution of health workers in remote districts of Tanzania’

A. Questions to guide interview with district level officials (DEDs, DMOs, DHROs)

1. Can you please tell me briefly how do you (normally) go about the process of recruiting health workers especially under the current decentralized arrangement of health services delivery?(to be crosschecked with what is said in the formal policy documents)

-Probe on whether the district advertised vacant posts? where the advertisements were posted? How many times they advertised? What else do they do? .

-Probe on how the process is related to the budget process at the district level and also at the central level.

-Probe on how do they get information of the shortages/surpluses of health workers in the facilities found in the districts and how this information is channeled up to decision making /planning authorities at the district level.

-Probe on the composition and technical competencies of those involved in interviewing selected potential candidates to fill the vacancies.(check whether there is a rule for minimum standard of those who are vested with the authority to conduct interviews)

-Probe on the ‘political’ roles of councilors in the budget and health workers recruitment processes in relation to formal budgeting and recruitment rules/regulations

-Probe whether the districts have ‘decentralized authority’ to budget and spend some of taxes collected at their respective districts, recruiting and motivating health workers (check in the budget: what is the contribution of districts(from taxes) in the overall budget and what is coming from the central government, what is budgeted for health workers by districts and what is approved by the central government)

2. In summary, how is the process of actually employing the health workers done through the DED’s office?

3. Recently, the government has reinstated central recruitment of some health workers (eg. Clinical Officers) how does this central recruitment complement or contradict the decentralized process of health workers recruitment process?

-Probe on whether it does ensure timely placement of needed health workers?

-probe on the role of district in this renewed process

4. In the last 2(2004/2005 and 2006/2007) financial years,

(a) How many health workers from all facilities in the district were requested from DMO’s office?(by cadres)

(b) How many from the DMOs were requested from DED’s office?

(c) How many from DED’s office were requested from the central ministries(MoHSW, Central Establishment)?

(d) How many were approved by government ?

(e) How many were actually recruited.?

(f) Of those who were recruited(especially doctors, nurses and clinical officers), how many are still working within the district o and how many have resigned?

(g) Of those who were offered letters of employment, how many turned down the job offer ?

(i) How many took up the offer and stayed for a while before resigning?

5. If there are those who turned down the employment offer and those who stayed there for a while before resigning , what do you perceive to be the reasons for them to fail to turn up and or turn up and resign after a short while?
6. In facilities where there are vacancies, can you explain why has there been a failure to recruit and place health workers accordingly?
7. How long does it take to actually recruit and place health workers from the time the need has been identified to the actual recruitment and placement?
8. Generally how do you perceive to be the strengths and weaknesses of the implementation of decentralization policy as it relates to planning of health workers and its distribution at the district level ?
9. How do you generally relate it with equality in terms of distribution of health workers across districts in Tanzania
10. Now let us go back to few years before decentralization, can you please educate me based on experience on the process of health workers recruitment under the then central recruitment process?
11. In terms of efficiency and effectiveness of the recruitment process, how do you compare it with the current decentralized arrangement?(emphasize on the theoretical advantages of the two systems and see if , practically one systems is better than the other)
12. Do you think any of the two system is better than the other?, WHY ?
13. In your opinion, what functions regarding health human resources planning can best be centrally managed improve recruitment process and retention of the employed workers at the district level. Why?
14. In your opinion, what functions with regard to human resources planning can best be managed by decentralized districts to improve the recruitment process and retention of health workers at the district level,, WHY??

B: Questions to be administered at the National level. (Officials at the ministry of health, Central establishment, Ministry of finance, representatives of professional organizations, Health sector- related- NGOs , the academia and the international organization with a stake in health sector development)

1. What do you think have been the effects of institutional reforms(decentralisation) on human resources planning(recruitment, placement and retention) and its effects on the distribution of health workers in the public health sector across districts ?
2. What are your views regarding the adequacy of preparatory work before decentralisation and its implications for human resources planning and distribution?
 - Preparation on collection of adequate and analysis of human resources data on skills, numbers and distribution in public- private, and rural- urban.
 - Analysis of health care labour market characteristics.(demand/supply, retirements, deaths, vacancies & vacancy rates,)
 - Capacity issues: capacity of institutions & and availability of personnel with skills to implement human resources policies under decentralisation(both at the central and district levels).
3. Do you think geographical imbalances of health workers distribution(in the public sector) across districts has increased, decreased or stabilised as you compare between the pre and post decentralisation periods? WHY?
 - probe on the role of internal labour market competition within the public sector

4.What opportunities do you think decentralisation has brought with regard to making the process more efficient for improved human resources planning(opportunities that were not present under the old model).

5.What obstacles that you think came with decentralisation that may impact on human resources recruitment , distribution and its attending imbalances?

6.What are your general comments regarding the strengths and weaknesses of decentralisation as compared with centralization with reference to human resources (planning) recruitment and distribution?

Annex 3: Consent form

Respondent ID number _____

Title of study: 'THE EFFECTIVENESS OF FINANCIAL AND NONFINANCIAL INTERVENTIONS IN ATTRACTING NURSES TO WORK IN REMOTE AREAS OF TANZANIA: A CONTINGENT VALUATION STUDY'

Name of researcher: Michael A. Munga

- 1. I confirm that I have been informed about the present study and also that I had the opportunity to ask questions. I fully understand the information provided.***
- 2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason.***
- 3. I accept the invitation to participate in the above study.***

Date:.....

Signature:.....



THE UNITED REPUBLIC OF
TANZANIA



National Institute for Medical Research
P.O. Box 9653
Dar es Salaam
Tel: 255 22 2121400/390
Fax: 255 22 2130660
E-mail: headquarters@nimr.or.tz

Ministry of Health
P.O. Box 9083
Dar es Salaam
Tel: 255 22 2120262-7
Fax: 255 22 2110986

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June 15, 2006

Michael Munga,
NIMR Headquarters,
P o Box 9653,
Dar es Salaam.

CLEARANCE CERTIFICATE FOR CONDUCTING MEDICAL RESEARCH IN TANZANIA

This is to certify that the research entitled: "*Spatial imbalances in the distribution of health personnel in Tanzania under decentralization: An examination of quantitative and qualitative differences in selected rural and urban districts*" whose Principal Investigator is *Munga M*, has been granted ethics clearance to be conducted in Tanzania.

The Principal Investigator of the study must ensure that the following conditions are fulfilled:

1. Progress report is made available to the Ministry of Health and the National Institute for Medical Research, Regional and District Medical Officers after every six months.
2. Permission to publish the results is obtained from National Institute for Medical Research
3. Copies of final publications are made available to the Ministry of Health and the National Institute for Medical Research.
4. Any researcher who contravenes or fails to comply with these conditions, shall be guilty of an offence and shall be liable on conviction to a fine

Name: Dr Andrew Y Kitua

Signature

CHAIRMAN
MEDICAL RESEARCH
COORDINATING COMMITTEE

Name: Dr Gabriel L Upunda

Signature

CHIEF MEDICAL OFFICER
MINISTRY OF HEALTH