

Dear Editor/reviewers,

Thank you very much for your thorough quality check of our manuscript. We sincerely appreciate your time, effort, and commitment to ensuring the highest standards of scientific publications. We believe that your valuable input will contribute significantly to improving the quality and clarity of our manuscript.

Please find our point-by-point responses to the comments below:

1. Questionnaires/FGDs and Interview Sources Clarification (Comment)

Response 1.1: Questionnaire: Factors Associated with Health Professional Participation in Rural Health Extension Service at Nyinenyang Primary Hospital, Makuay District, Gambella Region, Ethiopia.

Section A: Socio-demographic characteristics

- 1. What is your gender (**Gender**)?**
 0. Male
 1. Female
- 2. How old are you (**Age**)?**
_____ years
- 3. What is your marital status (**Marital Status**)?**
 0. Married
 1. Divorced
 2. Widowed
- 4. What is your educational level (**Educational Level**)?**
 0. Diploma
 1. Bachelor's degree
 2. Master's degree
- 5. What is your health profession (**Professional Cadre**)?**
 0. Nurse
 1. Health officer
 2. Community extension workers
 3. Medical doctor

6. How many your monthly income (**Monthly Income**)?
_____ Ethiopian Birr
7. How many years have you been working in your current profession (**Work Experience**)?
_____ years

Section B: Work-related factors

8. On average, how many patients do you attend to per day (**Workload**)?
_____ patients
9. Have you ever received formal training on health extension services (**Training on HES**)?
0. No
1. Yes
10. In your workplace, do you receive any incentives i.e. financial or non-financial (**Availability of Incentives**)?
0. No
1. Yes

Response 1.2: Focus Group Discussion (FGD) Guide

Study title: “Determinant of Health Professional Participation in Rural Health Extension Service at Nyinenyang Primary Hospital, Makuey District, Gambella Region, Ethiopia”.

Opening Script:

Thank you for agreeing to participate in this discussion. We are interested in learning more about your experiences and perspectives regarding your work in rural areas, particularly the challenges you face and what affects your participation in rural health extension services. There are no right or wrong answers; please share your honest views. Your responses will be kept confidential.

Part 1: Challenges faced by health professionals in rural areas

1. Shortage of skilled workers

- ❖ How would you describe the availability of skilled health workers in your area?
- ❖ How does this affect your daily work and service delivery?
- ❖ Inadequate infrastructure
- ❖ What is the condition of the health facility where you work (e.g., buildings, electricity, and water)?
- ❖ How do these conditions affect patient care?

2. Medical equipment and supplies

- ❖ Do you have the equipment and supplies you need to provide quality care?
- ❖ How do shortages affect your work?

3. Financial incentives

- ❖ How do you feel about your current salary and incentives?
- ❖ What changes in incentives could improve retention in rural areas?

4. Support and supervision

- ❖ How would you describe the level of support and supervision from your supervisors or the health administration?
- ❖ What could be improved?

Part 2: Factors influencing participation in health extension services

1. Educational Level

- ✓ In what ways do you think education and training influence a health worker's willingness to participate in HES?

2. Workload

- ✓ How does your patient load affect your ability to participate in HES activities?

3. Training on HES

- ✓ Have you received training on health extension services?
- ✓ How has it influenced your skills, confidence, and willingness to participate?

4. Professional Cadre

- ✓ Do you think your professional role influences your participation in HES? Why or why not?

Closing question

If you could change three things to improve rural healthcare and increase health professionals' participation in HES, what would they be?

Response 1.3: In-Depth Interview (IDI) Guide

Study title: "Determinant of Health Professional Participation in Rural Health Extension Service at Nyinenyang Primary Hospital, Makuey District, Gambella Region, Ethiopia".

Opening Script:

Thank you for agreeing to be interviewed. We would like to discuss your personal experiences and views on working in rural healthcare, the challenges you face, and the factors that affect your participation in health extension services. Your identity will remain confidential and anonymous.

Section 1: Challenges faced by health professionals in rural areas

- ✓ Can you describe the biggest challenges you face working in a rural health facility?
- ✓ How do shortages of skilled staff impact your work?
- ✓ Can you give examples of how infrastructure or equipment limitations have affected patient care?
- ✓ How adequate are your financial incentives for the work you do?
- ✓ Tell me about the kind of support or supervision you receive. Is it sufficient?

Section 2: Factors influencing participation in health extension services

- ✓ How does your level of education influence your ability or willingness to participate in HES?
- ✓ Does your daily workload affect your participation in HES activities?
- ✓ Have you ever attended training on HES? If so, how has it affected your professional practice?
- ✓ In your opinion, do certain professional roles have more opportunities or responsibilities in HES? Why?

Closing question

If you had the authority, what specific changes would you make to improve health professionals' participation in HES?