

# An Assessment of the Potentials for Retention of Primary Health Care Workers in Rivers State, Nigeria

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## ABSTRACT

**Background:** Primary Health Care (PHC) development in Nigeria is in its infancy, characterized by scarcity of human and material resources that are unevenly distributed. Attraction and retention of skilled staff in PHC centres require an understanding of the associated variables. **Objective:** This study assessed retention potential of PHC workers in Rivers State, Nigeria.

**Methods:** A cross-sectional descriptive study design with a mixed method of data collection was used. The quantitative data were collected using semi-structured, pre-tested, self-administered questionnaires and analysed using SPSS version 20.0 software. The qualitative aspect was done concurrently using focus group discussions and analysed thematically. The multi-stage sampling method was used to select 378 respondents made up of Community Health Extension Workers, Community Health Officers, nurses and doctors from the Primary Health facilities.

**Results:** The mean age of the respondents was 39.8±8.1 years; with 339 (89.7%) females and 39(10.3%) males. Among the respondents, 215(56.9%) wanted opportunities for better work placement outside their current facility, with 48.4% preferring locations outside Africa. Salary, promotions and capacity building (35.7%, 33.1% and 24.1% respectively) were the commonest

factors for their preference. The age, cadre, profession, duration of work, general working conditions, ability and skills as well as work activities had statistically significant relationships with their desire to leave.

**Conclusion:** This study found a low potential for retention of primary health care workers, as more than half of the workers desired better work placement outside their current facilities. In addition, priority attention should be given to the younger age group, which was found to be the high turnover group.

**Keywords:** Primary Health Care, Health Care Workers, Retention, Potential

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## INTRODUCTION

Globally, skilled health workers are in short supply with poor regions of the world being worst hit. The largest needs-based shortages of health workers are in South-East Asia at 6.9 million and Africa at 4.2 million.<sup>1</sup> Many of the skilled workers often seek better opportunities in more developed countries, which hampered the achievement of the Millennium Development Goals and also a major threat to the achievement of the Sustainable Development Goals(SDGs).<sup>1</sup> The availability of sufficient and appropriately distributed skilled health personnel especially at the PHC level is an important determinant of the strength of a health system.<sup>2</sup> This is especially so in resource-poor countries, that already have weak healthcare systems with demotivated PHC workers, in the face of a high and increasing burden of communicable and non-communicable diseases<sup>3-5</sup>. Primary Health

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Care development in Nigeria is still in its infancy, characterized by scarcity of human and material resources that are unevenly distributed.<sup>6,7</sup> These may lead to increased workload for the few available workers who may even be more demotivated in the face of inadequate or poor remuneration and incentives.<sup>8</sup> Attraction and retention of skilled staff, especially in remote PHC centres also requires understanding of the associated variables in the local setting.<sup>9,10</sup>

The additional presence of poor work environment and conditions, especially in rural settings with few social and other amenities, may contribute to further de-motivation. This contributes to poor retention of the much-needed skilled workers, with resultant brain drain, and reduced effectiveness of available workers.<sup>11</sup> The nation's healthcare workforce, therefore, continues to be at risk of brain drain, with the resultant weakening of the already poor health system.<sup>3</sup>

Girasek et al<sup>12</sup> with use of mixed methods identified that doctors and arguably other health professionals generally prefer to work in teaching hospitals, rather than work in the rustic rural settings, with the need for the provision of incentives that will attract rural service delivery in rural Hungary. Zhang et al<sup>13</sup> in their health facility-based survey in China, suggest the need for improvement in job satisfaction of physicians, to reduce the intention to quit due to workplace burnout. Also, a study amongst registered nurses in a nursing home in the USA suggested that stabilization of leadership or chain of command, was useful towards retention of health care workers.<sup>14</sup>

A negative perception of the workplace environment as being harsh and un-supportive, with autocratic management, as well as intra-professional verbal and psychological conflict, have been noted as key reasons for the premature

resignation of skilled nurses in South Africa.<sup>15</sup> The willingness to help the needy, provision of hardship allowance, in-service training, and decent housing, has been identified as strong health service motivators, in a rural facility-based survey in Tanzania.<sup>16</sup>

A facility-based survey in Nigeria maintains that poor health leadership and health infrastructure, as well as primitive rural living conditions, were main dis-satisfiers towards working in and providing effective health services in remote or rural settings.<sup>17</sup> This study thus assessed the potential for retention among primary healthcare workers in River State, Nigeria.

## METHODS

### Study location

Rivers State is one of the six states in the south-south geopolitical region of Nigeria. According to the 2006 census; the state has an estimated population of 5,198,716 people consisting of about 20 distinct ethnic groups. There are four (4) largely 'urban' and nineteen (19) 'rural' local government areas spread across upland and riverine areas. According to the Rivers State Primary Health Care Management Board (RSPHCMB), there are three (3) tertiary, thirty-seven (37) secondary, and about three hundred (300) PHC centres spread across the three (3) senatorial districts of the state, with at least one medical officer in each PHC centre.<sup>18</sup> However, with the trending regional dearth of human resources for health, the ratio of medical doctors to health centres keeps dropping due to the increasing demand for further studies, long-term goals and yearning for greener pastures.<sup>18</sup> This is seen in the staff strength across the 23 LGAs which is far below the required number needed in the primary health centres (medical doctors 245, nurses 316, community health officers 138, community health extension workers 2020).<sup>18</sup> The study was carried out in 9 LGAs randomly selected

from the 23 LGAs in the state. Thereafter, 5 Primary Health Facilities were randomly selected from each of the 9 LGAs (Obio/Akpor, Okrika, Port Harcourt city, Khana, Oyigbo, Tai, Emohua, Asari-Toru and Ogba/Egbema/Ndoni).

#### **Study Design/Study population/sample size**

A cross-sectional design was used in conducting this study. The study population comprised all cadres of health workers in Primary Health Care facilities in Rivers state - doctors, nurses/midwives, Community Health Extension Workers (CHEWs), and Community Health Officers (CHOs). A minimum sample size of 371 primary health care workers was required for the study, but a total number of 378 PHC workers were recruited.

#### **Inclusion and exclusion criteria**

Included in the study were staff that had served for at least one year in a PHC centre, staff on recent transfer that had served for less than one year in the current health facility, but served for one or more cumulative year(s) in PHCs and contract staff being paid or remunerated by the government of Nigeria. Contract and/or other staffs that are remunerated by or receive additional remuneration or incentives from one or more non-governmental agencies as well as volunteer staffs were excluded.

#### **Sampling Technique**

The multi-stage sampling method was used in the study. At the first stage, 3 LGAs were selected from each of the 3 senatorial districts of Rivers state (making a total of nine (9) LGAs), by simple random sampling from a frame of LGAs in each senatorial district.

In the second stage, five PHCs were selected from each of the selected LGAs (after a pre-survey mapping revealed the existing staff strength per facility), also by simple random sampling from a sampling frame of primary health centres in each of the senatorial districts, with equal allocation of

the sample size amongst the forty-five (45) selected PHC facilities.

Stratified sampling proportionate to the sizes of the various cadres of health care workers was then employed to select health workers from each of the selected PHCs. These cadres consisted of the CHEWs, CHOs, midwives, and doctors. Then simple random sampling was used to recruit two (2) CHEWS, two (2) CHOs, and four (4) midwives, from the nominal roll of each of the selected facilities; and two (2) doctors randomly selected by balloting from a list of 5 PHC facilities in each of the 9 LGAs. This yielded a total of ninety (90) CHEWs, ninety (90) CHOs, one hundred and eighty (180) nurses/midwives, and eighteen (18) doctors sampled from all the forty-five (45) selected facilities.

#### **Study period/Data collection process**

Data were collected over a period of two (2) months starting from May to June 2015, using both qualitative and quantitative methods. The quantitative aspect of the study was done using pre-tested, semi-structured, self-administered questionnaires. A total of ten questions were used to assess the workplace retention potentials of the respondents.

For the qualitative data, focus group discussions were conducted using an FGD topic guide. Four LGAs were purposively selected from the list of 9 LGAs used in the study to participate in the FGD. The participants were stratified into 6 groups, made up of CHEWS, CHOs, midwives, doctors, and management/leadership of PHCs. FGD groups one to four was made up of the core health workers (doctors, nurses, CHEWs and CHOs stratified based on their profession, in that order- 1-4). Two sessions of FGD were done for each of the professions making a total of 8 sessions with the core staff. Groups five and six were made up of a mix of heads of the PHCs and PHC coordinators of

the selected 4 LGAs. Each FGD lasted for about 60 minutes.

Qualitative data obtained with the aid of carefully taken notes and consented audio recording of the sessions were grouped and analyzed according to the specific objectives of the study. There was also sub-grouping of information according to the FGD groups and sub-groups. Key recurring themes within and between the groups and sub-groups in tune with the specific objectives were identified and summarized. Direct quotes of strong expressions of key and recurring themes, were also presented.

### Study Limitations

The study may have been limited by a bias of information provided by respondents who may have overestimated or underestimated their potentials for job retention. Cross-sectional studies are not the best for detecting causality; hence temporality cannot be assigned to the relationship between the variables. However, questionnaires were simplified, a good rapport was established, confidentiality assured and enough time given to respond to questions in a bid to minimize these limitations.

### RESULTS

A total of 378 questionnaires were properly filled and analysed. The mean age of the respondents was  $39.8 \pm 8.1$  years with an age range of 20 – 64 years and the majority of the respondents were within the age bracket of 30-44 years. The commonest ethnic groups were Ikwerre, Ogoni and Kalabari (Table I).

Most of the respondents were in the senior staff cadre. Almost half of the respondents were nurses but there were an equal proportion of CHEWs and CHOs. Almost two-thirds reported that their workplace was far from their residence (Table II).

Three-fourths of the respondents still preferred primary health facilities as their place of work. Two hundred and nineteen 219 (57.9%) of the respondents indicated better financial incentives as their reasons for preferring their chosen health facility. The non-financial incentives included interesting grass-roots practice, improvement in competence, and ability to prevent major diseases. Two hundred and fifteen 215 (56.9%) wanted opportunities for better work placement outside their current facility. One hundred and eighty-one (48.0%) stated that they would stay until retirement if their needs are met (Table III). In Figure I, salary was the commonest influential factor for retention for the respondents. However, others indicated promotions and capacity building.

There was a statistically significant association between the age of the respondents and their desire for better workplaces. There was also an increased tendency to want opportunities for better work placement among the senior staff compared to the junior staff. This association was statistically significant. There was a statistically significant association between professional cadre and desire for better work placement. There was an increased tendency to want opportunities for better work placement among the respondents working in urban centres compared to their rural counterparts. (Table IV)

**Table I: Socio-demographic characteristics of the respondents**

| <b>Variable</b>               | <b>Frequency (n = 378)</b> | <b>Percentage</b> |
|-------------------------------|----------------------------|-------------------|
| <b>Age (years)</b>            |                            |                   |
| 20 – 24                       | 8                          | 2.1               |
| 25 – 29                       | 26                         | 6.9               |
| 30 – 34                       | 65                         | 17.2              |
| 35 – 39                       | 91                         | 24.1              |
| 40 – 44                       | 92                         | 24.3              |
| 45 – 49                       | 47                         | 12.4              |
| 50 – 54                       | 42                         | 11.1              |
| ≥ 55                          | 7                          | 1.9               |
| <b>Sex</b>                    |                            |                   |
| Male                          | 39                         | 10.3              |
| Female                        | 339                        | 89.7              |
| <b>Marital status</b>         |                            |                   |
| Single                        | 57                         | 15.1              |
| Married                       | 301                        | 79.6              |
| Widowed                       | 20                         | 5.3               |
| <b>Religious denomination</b> |                            |                   |
| Pentecostal                   | 298                        | 78.8              |
| Catholic                      | 80                         | 21.2              |
| <b>Ethnic group</b>           |                            |                   |
| Ikwerre                       | 73                         | 19.3              |
| Ogoni                         | 56                         | 14.8              |
| Kalabari                      | 53                         | 14.0              |
| Opobo                         | 44                         | 11.6              |
| Okrika                        | 42                         | 11.1              |
| Ogba                          | 32                         | 8.5               |
| Etche                         | 30                         | 7.9               |
| Engenni                       | 24                         | 6.4               |
| Others*                       | 24                         | 6.4               |
| <b>Community</b>              |                            |                   |
| Urban                         | 157                        | 41.5              |
| Rural                         | 221                        | 58.5              |

\* Omoku, Itsekiri, Ijaw, Urhobo, Ibani.

Mean age (Male) = 42.4±4.7 years; Mean age (Female) = 39.5±8.4 years

$t = 3.248$  ( $p = 0.002$ )

**Table II: Respondents' occupational characteristics**

| Variable   | Frequency (n = 378) | Percentage |
|--|---------------------|------------|
| <b>Cadre</b>   |                     |            |
| Senior staff( > GL 6)                                  | 310                 | 82.0       |
| Junior staff (< GL 6)                                  | 68                  | 18.0       |
| <b>Profession</b>                                      |                     |            |
| Nurse  | 180                 | 47.6       |
| CHEW   | 90                  | 23.8       |
| CHO  | 90                  | 23.8       |
| Doctor   | 18                  | 4.8        |
| <b>Duration of work at current facility (years)</b>    |                     |            |
| 1 – 6  | 286                 | 75.7       |
| 7 – 12   | 60                  | 15.9       |
| 13 – 18  | 17                  | 4.5        |
| 19 – 24  | 4                   | 1.1        |
| 25 – 30  | 11                  | 2.8        |
| <b>Duration of work at previous facility (n = 257)</b> |                     |            |
| 1 – 6  | 213                 | 82.8       |
| 7 – 12   | 36                  | 14.0       |
| 13 – 18  | 4                   | 1.6        |
| ≥ 18   | 4                   | 1.6        |
| <b>Number of years of experience in a PHC setting</b>  |                     |            |
| ≤6   | 159                 | 42.1       |
| 7 – 12   | 136                 | 36.0       |
| 13 – 18  | 60                  | 15.9       |
| 19 – 24  | 8                   | 2.1        |
| 25 – 30  | 4                   | 1.1        |
| ≥ 31   | 11                  | 2.8        |
| <b>Means of transportation to work</b>                 |                     |            |
| Public transport                                       | 305                 | 80.7       |
| Private car  | 51                  | 13.5       |
| Private motor bike                                     | 15                  | 4.0        |
| Others*  | 7                   | 1.9        |
| <b>Means of transportation from work</b>               |                     |            |
| Public transport                                       | 298                 | 78.8       |
| Private car  | 51                  | 13.5       |
| Private motor bike                                     | 15                  | 4.0        |
| Others*  | 14                  | 3.7        |
| <b>Perceived distance of residence from workplace</b>  |                     |            |
| Very close   | 12                  | 3.2        |
| Close  | 77                  | 20.3       |
| Far  | 240                 | 63.5       |
| Very far   | 49                  | 13.0       |

*Mean work experience (Male) = 8.8±3.9 years*

*Mean work experience (Female) = 8.7±6.7 years*

*t = 0.151 (p = 0.881)*

*\* Boat and walking*

**Table III: Respondents' work place preferences and potentials for retention.**

| Variable  | Frequency (n = 378) | Percent |
|---|---------------------|---------|
| <b>Preferred health facility</b>                                    |                     |         |
| Primary   | 286                 | 75.7    |
| Secondary   | 48                  | 12.7    |
| Tertiary  | 40                  | 10.6    |
| Private   | 4                   | 1.1     |
| <b>Reasons*</b>   |                     |         |
| Better financial incentives   | 219                 | 57.9    |
| Better non-financial incentives                                     | 127                 | 33.6    |
| <b>Non-financial incentives* (n = 127)</b>                          |                     |         |
| Grass root practice   | 95                  | 74.8    |
| Increase knowledge  | 15                  | 11.8    |
| Prevention of major diseases  | 12                  | 9.4     |
| Community practice  | 6                   | 4.7     |
| Gives time to study   | 5                   | 3.9     |
| Others**  | 6                   | 4.7     |
| <b>Desire to leave</b>  |                     |         |
| Yes   | 215                 | 56.9    |
| No  | 163                 | 43.1    |
| <b>Location of preferred facility if allowed to leave (n = 215)</b> |                     |         |
| Within the state  | 70                  | 32.6    |
| Niger-delta   | 19                  | 8.8     |
| Nigeria   | 15                  | 7.0     |
| Within Africa   | 7                   | 3.3     |
| Outside Africa  | 104                 | 48.4    |
| <b>Reasons for choice</b>   |                     |         |
| Better financial benefits   | 200                 | 52.9    |
| Better non-financial benefits                                       | 135                 | 35.7    |
| <b>Duration of stay if needs are met (years)</b>                    |                     |         |
| < 10  | 156                 | 41.3    |
| > 10  | 41                  | 10.8    |
| Till retirement   | 181                 | 47.9    |
| <b>Reaction to unmet needs</b>                                      |                     |         |
| Leave*  | 121                 | 32.0    |
| Not leave   | 141                 | 37.3    |
| Do not know   | 116                 | 30.7    |

\*Multiple responses

\*\* 'to reduce cost', 'career path', 'because it is pure'

\*All the respondents stated that they would leave as soon as possible

**Table IV: Respondents' socio-demographic characteristics and desire for better work placement outside their current facility (turnover potential)**

| Variable                       | Desire for better work placement |             |                | Test statistic             | p value  |
|--------------------------------|----------------------------------|-------------|----------------|----------------------------|----------|
|                                | Yes<br>n (%)                     | No<br>n (%) | Total<br>n (%) |                            |          |
| <b>Age (years)</b>             |                                  |             |                |                            |          |
| 20 – 24                        | 4 (50.0)                         | 4 (50.0)    | 8 (100.0)      | Fisher's exact =<br>39.370 | < 0.001* |
| 25 – 29                        | 8 (30.8)                         | 18 (69.2)   | 26 (100.0)     |                            |          |
| 30 – 34                        | 20 (30.8)                        | 45 (69.2)   | 65 (100.0)     |                            |          |
| 35 – 39                        | 27 (29.7)                        | 64 (70.3)   | 91 (100.0)     |                            |          |
| 40 – 44                        | 50 (54.3)                        | 42 (45.7)   | 92 (100.0)     |                            |          |
| 45 – 49                        | 32 (68.1)                        | 15 (31.9)   | 47 (100.0)     |                            |          |
| 50 – 54                        | 15 (35.7)                        | 27 (64.3)   | 42 (100.0)     |                            |          |
| ≥ 55                           | 7 (100.0)                        | 0 (0.0)     | 7 (100.0)      |                            |          |
| <b>Sex</b>                     |                                  |             |                |                            |          |
| Male                           | 27 (69.2)                        | 12 (30.8)   | 39 (100.0)     | $\chi^2 = 2.705$           | 0.100    |
| Female                         | 188 (55.5)                       | 151 (44.5)  | 339 (100.0)    |                            |          |
| <b>Cadre</b>                   |                                  |             |                |                            |          |
| Junior staff                   | 30 (44.1)                        | 38 (55.9)   | 68 (100.0)     | $\chi^2 = 5.505$           | 0.019*   |
| Senior staff                   | 185 (59.7)                       | 125 (40.3)  | 310 (100.0)    |                            |          |
| <b>Profession</b>              |                                  |             |                |                            |          |
| CHEW                           | 34 (37.8)                        | 56 (62.2)   | 90 (100.0)     | $\chi^2 = 36.289$          | < 0.001* |
| CHO                            | 42 (46.7)                        | 48 (53.3)   | 90 (100.0)     |                            |          |
| Nurse                          | 122 (67.8)                       | 58 (32.2)   | 180 (100.0)    |                            |          |
| Doctor                         | 17 (94.4)                        | 1 (5.6)     | 18 (100.0)     |                            |          |
| <b>Community</b>               |                                  |             |                |                            |          |
| Urban                          | 109 (69.4)                       | 48 (30.6)   | 157 (100.0)    | $\chi^2 = 17.240$          | < 0.001* |
| Rural                          | 106 (48.0)                       | 115 (52.0)  | 221 (100.0)    |                            |          |
| <b>Work experience (years)</b> |                                  |             |                |                            |          |
| ≤ 6                            | 111 (69.8)                       | 48 (30.2)   | 159 (100.0)    | Fisher's exact =<br>31.490 | < 0.001* |
| 7 – 12                         | 68 (50.0)                        | 68 (50.0)   | 136 (100.0)    |                            |          |
| 13 – 18                        | 32 (53.3)                        | 28 (46.7)   | 60 (100.0)     |                            |          |
| 19 – 24                        | 0 (0.0)                          | 8 (100.0)   | 8 (100.0)      |                            |          |
| 25 – 30                        | 0 (0.0)                          | 4 (100.0)   | 4 (100.0)      |                            |          |
| ≥ 31                           | 4 (36.4)                         | 7 (63.6)    | 11 (100.0)     |                            |          |

\*Statistically significant



**Table V: Respondents' reported 'single most influential factors' and their desire for better work placement outside their current facility**

| Influential factors    | Desire better work placement |             |                | Test statistic             | p value      |
|------------------------|------------------------------|-------------|----------------|----------------------------|--------------|
|                        | Yes<br>n (%)                 | No<br>n (%) | Total<br>n (%) |                            |              |
| Salary                 | 79 (58.5)                    | 56 (41.5)   | 135 (100.0)    | Fisher's exact =<br>16.540 | 0.006*       |
| Welfare                | 7 (63.6)                     | 4 (36.4)    | 11 (100.0)     |                            |              |
| Promotions             | 72 (57.6)                    | 53 (42.4)   | 125 (100.0)    |                            |              |
| Capacity building      | 45 (49.5)                    | 46 (50.5)   | 91 (100.0)     |                            |              |
| Infrastructure         | 0 (0.0)                      | 4 (100.0)   | 4 (100.0)      |                            |              |
| Amenities              | 8 (100.0)                    | 0 (0.0)     | 8 (100.0)      |                            |              |
| Safety                 | 4 (100.0)                    | 0 (0.0)     | 4 (100.0)      |                            |              |
| Factors                | B coefficient                | p value     | OR             | 95% confidence interval    |              |
|                        |                              |             |                | Lower limit                | Higher limit |
| <b>Age</b>             |                              |             |                |                            |              |
| ≤ 40*                  | 1.192                        | < 0.001**   | 3.294          | 2.044                      | 5.308        |
| > 40                   |                              |             |                |                            |              |
| <b>Work experience</b> |                              |             |                |                            |              |
| ≤ 6*                   | 0.930                        | 0.001**     | 2.535          | 1.493                      | 4.307        |
| > 6                    |                              |             |                |                            |              |
| <b>Community</b>       |                              |             |                |                            |              |
| Urban*                 | 0.673                        | 0.006**     | 1.960          | 1.217                      | 3.155        |
| Rural                  |                              |             |                |                            |              |
| <b>Cadre</b>           |                              |             |                |                            |              |
| Junior staff           |                              |             |                |                            |              |
| Senior staff*          | 0.678                        | 0.034**     | 1.970          | 1.054                      | 3.683        |
| <b>Constant</b>        | -1.895                       | < 0.001**   | 0.150          |                            |              |

\*\*Statistically Significant

All the respondents who indicated amenities and safety as their single most important factor for retention in their primary health care centre wanted opportunities for better work placement while none of the respondents that indicated infrastructure desired these opportunities. This association was statistically significant (Table V).

Respondents aged 40 years and below were 3 times more likely to desire better opportunities outside their current workplace compared to their older counterparts. Urban community

workers were 2 times more likely to desire better opportunities outside their current workplace compared to rural community workers. Senior staff was 2 times more likely to desire better opportunities outside their current workplace compared to junior staff. General working condition, ability and skills use, and work activities had statistically significant relationships with the respondents' desire to leave. Work motivation was a statistically significant factor influencing their desire for better placement. (Table VI)

**Table VI: Respondents' predictors of desire for better opportunities outside current workplace using job satisfaction, motivation and frustration.**

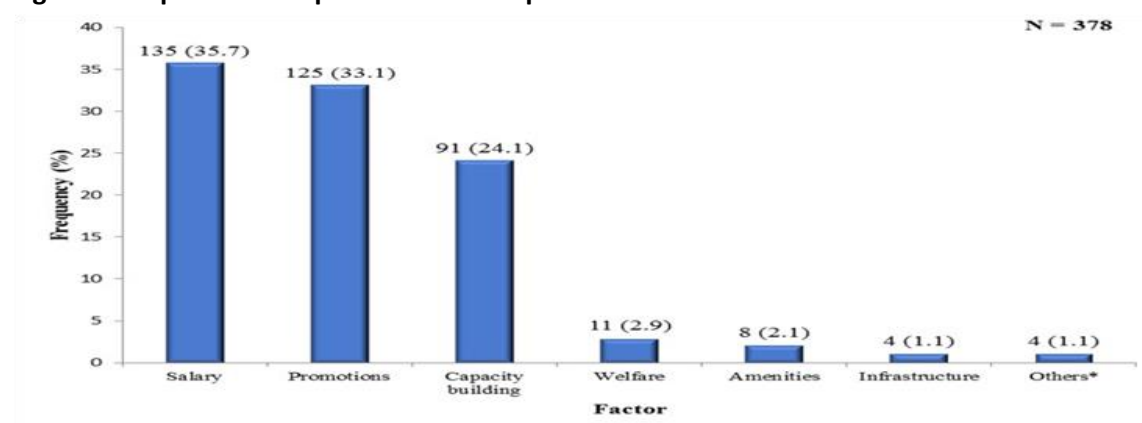
| Intrinsic Factors          | B coefficient | P value | OR    | 95% confidence interval |              |
|----------------------------|---------------|---------|-------|-------------------------|--------------|
|                            |               |         |       | Lower limit             | Higher limit |
| General working conditions | -0.954        | 0.001*  | 0.385 | 0.211                   | 0.961        |
| Pay and promotions         | -0.153        | 0.574   | 0.858 | 0.504                   | 1.463        |
| Work relationships         | -0.787        | 0.360   | 0.455 | 0.084                   | 2.456        |
| Abilities and skills use   | -0.768        | 0.002*  | 0.464 | 0.287                   | 0.748        |
| Work activities            | -1.311        | 0.001*  | 0.269 | 0.160                   | 0.819        |
| Constant                   | -0.364        | 0.675   | 0.695 |                         |              |
| Extrinsic Factors          | B coefficient | P value | OR    | 95% confidence interval |              |
|                            |               |         |       | Lower limit             | Higher limit |
| General working conditions | -0.954        | 0.001*  | 0.385 | 0.211                   | 0.961        |
| Pay and promotions         | -0.153        | 0.574   | 0.858 | 0.504                   | 1.463        |
| Work relationships         | -0.787        | 0.360   | 0.455 | 0.084                   | 2.456        |
| Abilities and skills use   | -0.768        | 0.002*  | 0.464 | 0.287                   | 0.748        |
| Work activities            | -1.311        | 0.001*  | 0.269 | 0.160                   | 0.819        |
| Constant                   | -0.364        | 0.675   | 0.695 |                         |              |
| Factors                    | B coefficient | P value | OR    | 95% confidence interval |              |
|                            |               |         |       | Lower limit             | Higher limit |
| Job satisfaction           | 0.265         | 0.429   | 1.303 | 0.677                   | 2.510        |
| Workplace motivation       | -0.766        | 0.001*  | 0.465 | 0.383                   | 0.945        |
| Frustration                | -0.112        | 0.698   | 0.894 | 0.507                   | 1.576        |
| Constant                   | -0.375        | 0.398   | 0.687 |                         |              |

\*Statistically significant

Intrinsic predictors: Reference category,  $R^2$  (coefficient of determination) = 16.6% to 23.2%

Extrinsic predictors: Reference category,  $R^2$  (coefficient of determination) = 9.3% to 12.5%

Logistic regression: Reference category,  $R^2$  (coefficient of determination) = 3.5% to 4.6%

**Figure I: Respondents' reported factors important for their retention at their current health facility**

\* Safety, comfort, and convenience

### Focus group discussion results

More than half of the participants wanted to leave for better options. The reasons for this varied from better salaries to opportunities to improve capacity, to the desire for places with better basic and social amenities for themselves and their families.

One of the doctors said, *“I don’t get the opportunity to improve myself to my full potential by staying here.”*

One of the CHEWs also said, *“I want to relocate for better salary and other necessities such as electricity, good roads and generally better livelihood; the low and irregular salary does not really help matters.”*

A nurse said, *“I recently just got married and now have plenty of responsibility at hand and therefore would need to find other better opportunities.”*

A CHO, who desired to remain in his facility said: *“I don’t really have any other option outside this place because the condition in the country is such that a good job is very hard to find.”*

Another CHEW said *“The community gives us money and foodstuff. They even lend us money. I even want to go. They are the reason we are staying.”*

### DISCUSSION

The study showed that half of the workers were aged 35 – 44 years, with an age bracket of 20-64 years which is similar to the finding in a study done by Nahla and Abdullah<sup>19</sup> in Saudi Arabia. This population had a mean age of 39.8±8.1 years that was slightly older than that found in the study by Ebuehi et al<sup>20</sup> on job satisfaction among PHC workers in Ogun State,

Nigeria. Most of the respondents were females which was also similar to the study by Ebuehi et al.<sup>20</sup> This could be due to the fact that majority of the nurses, CHOs and CHEWs were females, as these are female-dominated occupations in Nigeria.<sup>21</sup> The observed gender difference might have policy implications for recruitment of more males to serve in difficult and hard to reach regions.

It is not surprising that all the respondents were Christians and the majority was of the Pentecostal denomination. Almost a half of the workers were nurses, equal proportions of CHEWs and CHOs and a few doctors. This depicts a true reflection of the distribution of the workforce in PHCs in the country, and in consonance with the minimum standards for Primary Healthcare in Nigeria.<sup>22</sup> This minimum standard requires at least one doctor per PHC. Most of the respondents had worked for 1 – 6 years which was in contrast with the study by Kumar et al<sup>23</sup> in India, where majority of the workers had more than 15 years of experience. This implies a higher turnover in this study compared to the latter, and thus the suitability of this population in assessing the factors that could influence the tendency for high staff-turnover in this area.

Almost two-thirds of the study population perceived their place of work as being far from their residence. Probably due to the poor living conditions in the communities where the PHCs are located, and as such, most of them used public transportation to and from work. It could also be attributed to the frequency of administrative transfers experienced by the PHC workers. For that reason, most health workers keep their families in the city where there are more social amenities. This could aggravate the

level of dissatisfaction and absenteeism among the workers, and in turn affect service delivery.

Retention of health workers is closely related to how satisfied and motivated they are with their jobs, so this study also looked at the retention potential of PHC workers by assessing their preferred health facilities, desire for better opportunities and factors influencing their choices. It was found that three-quarters of the workers preferred primary health facilities. A similar study done by Ojaka et al<sup>24</sup> in Kenya which assessed the respondents' preferred choice of facility, found that 50.9% of the respondents preferred working for an NGO while 26.9% would prefer Government. This is because with the NGOs, salaries are relatively higher and other motivational issues such as allowances, mentoring support from superiors are well managed and promotion is tied to performance eliminating stagnation from career progression.

This study also showed that more than half of the respondents have desire for better work placement elsewhere which is similar to the proportion found in the Ojaka et al<sup>24</sup> study. This could be because in developing countries like Nigeria, stress and burnout is high; remuneration is poor, and the presence of heavy workload due to shortage of manpower all culminate into low job satisfaction and high turnover levels. About half of the respondents desired better work placement outside Africa while a third mentioned within the state. The implication of this is that there could be staff shortages which would limit accessibility to quality health services and programs, and in turn affect health outcomes. In addition, staff shortages negatively affect the motivation of the remaining staff as they create increased

workload, causing extra stress and the risk of more staff leaving or being absent from work.

This study also revealed salary was the mentioned factor influencing the desire to remain at the PHC as indicated by the respondents which is in consonance with findings as can be seen in the studies carried out by Henderson LN et al<sup>25</sup> in Pacific and Asian countries and Peters DH et al<sup>26</sup> in India. This was also the finding among Pakistani physicians and Malian health workers who ranked salary and good pay as the first and the second important motivating factor, respectively.<sup>27,28</sup> The existence of salary supplements, benefits and allowances greatly contribute to health worker motivation and therefore the enthusiasm to remain in the health care facility. Contrary to this, health workers of two Indian states ranked good income as the third least important characteristic of an ideal job.<sup>26</sup> Generally, money is rarely the most important motivator which was shown in the results of Malik et al<sup>28</sup> a study conducted in Pakistan which highlighted that although financial incentives are important, they are not sufficient enough to improve health workers' performance. Although health workers need to receive a living wage,<sup>29</sup> but evidence suggests that too much focus on financial incentives to motivate individuals in the public sector might have some negative impacts.<sup>27</sup>

Findings from this study also showed that a quarter of the healthcare workers indicated capacity building as a strong motivating factor for retention. Professional training improves commitment to service delivery and gives an employee a sense of belonging. Also, education and training play an important role in the production of well-trained and properly groomed workers. Career development and life-

long learning activities in health care promote job satisfaction, increase retention of workers, and enable continued provision of high-quality health care. There was an increased tendency to desire opportunities for a better work placement with a decrease in age of the respondents in this study, which is consistent with findings from the Asegid et al<sup>30</sup> study. This is expected because the older respondents are burdened with the responsibilities of family and cherish job security more compared to their younger counterparts who are searching for better opportunities. This high turnover tendency among the younger health workers could worsen the depletion of the already scarce human resources for health and its consequent negative effect on health outcomes in the country.

A larger proportion of the senior staff cadre desired opportunities for better work placement compared to the junior staff cadre. This was likely due to the fact that less highly qualified junior staff were more inclined to stay at their current jobs because their experience and educational level were less marketable and therefore, they had limited employment opportunities. This could also explain the finding that most of the doctors and nurses wanted opportunities of better work placement compared to CHEWs and CHOs. This depletion of doctors could be due to their desire to specialize. This trend of moving away from general practice is disturbing, as primary care can best be provided at the community level by general practitioners, especially in rural areas. This could be because it is perceived that income and status are lower in general practice than specialities. A report from Australia suggests that increasing the salary of general practitioners and increasing the practitioners' opportunities for procedural and academic

work would help to address this imbalance between generalists and specialists.<sup>31</sup> This approach would be helpful in Nigeria too, where there is a shortage of doctors at Primary Health Centres and community hospitals.

There was an increased tendency to desire opportunities of better work placement among the respondents working in urban centres compared to their rural counterparts. This is in contrast with the Asegid et al<sup>30</sup> study which found a higher turnover among respondents in rural centres. This could be due to the exposure to numerous other opportunities in the urban community compared to the rural. It may not necessarily mean poor working conditions but due to the higher cost of living in the urban area compared to the rural area, health workers are more likely pushed to find jobs with better pay. It could also be because those in the rural centres are indigenes of the communities and enjoy serving their people.

Findings from this study also revealed that respondents who were satisfied with the general working condition in their current facility were less likely to want better work placement outside their current workplace than their dissatisfied counterparts. This is in consonance with studies done in Ethiopia<sup>30</sup> and China.<sup>32</sup> Those who were satisfied with the use of their abilities, skills and training in their current facility, were also less likely to want better work placement outside their current workplace than their dissatisfied counterparts while those who were satisfied with the work activities in their current facility were less likely to want better work placement outside their current workplace than their dissatisfied counterparts. On the other hand, Asegid et al<sup>30</sup> found no statistical significance with work activities and use of skills and training of the

workers and seeking for better work placement outside their current workplace. Although it was expected that low job satisfaction will significantly influence the intention to leave the profession as is obtainable in literature,<sup>33</sup> this was not the case in this study where job satisfaction had no statistically significant relationship with the desire for better opportunities outside the present facility. Motivation, on the other hand, had a statistically significant relationship with the health workers' desire for better work placement opportunities outside their current centres. This is in consonance with literatures<sup>24,34-36</sup> and is a point of intervention to increase the potentials for retention of healthcare workers in the country. Notably, all the respondents who indicated basic amenities and safety as their single most influential factors for retention desired better work placement. This implies the need for improvement in these areas.

## CONCLUSION

There was a low potential for retention of primary health care workers in the study as more than half of the workers desired better work placement outside their current facility. Salary, promotions and capacity building were the workers' most selected factors important for their retention at the health care facility. Workplace motivation was a statistically significant factor influencing the desire for better placement elsewhere.

## RECOMMENDATIONS

The findings of this study have obvious public health implications and so the following recommendations were proffered as the way forward to a better retention of HCWs in Nigeria:

1. Providing local financial and non-financial incentives: attraction and retention allowance for both rural and urban communities, transportation allowance, accommodation allowance and others. Special allowances schemes (hardship allowances) should be instituted for doctors to remain in rural areas.
2. Offering opportunities for professional advancement. Though training of the health care workers is already included in the Nigerian National Healthcare Policy, it should be efficiently implemented and monitored by the government and other relevant stakeholders.
3. Strategies aimed at specific age groups; the younger age group, being the high turnover group should be given priority attention. Since this group is motivated more by finance and promotions, these should be made available to retain them.

**Ethical Considerations:** Ethical approval for the study was obtained from the Institutional Ethics Committee. Approval to carry out the study was obtained from the RSPHCMB. A written informed consent was obtained from each respondent.

**Author Contributions:** Kadiri-Eneh NP designed the study; Tobin-West C, Uzochukwu BSC and Kadiri-Eneh NP carried out the data analysis; Kadiri-Eneh NP and Azuike EC wrote the first draft, and all authors reviewed approved the final draft.

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