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## TECHNICAL BRIEF

July 2021

# THE COMPARATIVE RECRUITMENT OF MEDICAL DOCTORS THROUGH THE HEALTH WORKFORCE ALLOCATION OPTIMIZATION (WAO) TOOL

## SUMMARY

Funded by the President's Emergency Plan for AIDS Relief (PEPFAR) through the U.S. Centers for Disease Control and Prevention (CDC) and implemented by Management Sciences for Health (MSH), the Technical Support Services Project (TSSP) provided technical assistance to Tanzania's Ministry of Health, Community Development, Gender, Elderly, and Children (MOHCDGEC) on the application of the National Health Workforce Allocation Optimization (WAO) tool in the recruitment of medical doctors. The WAO tool is an electronic decision-making support system used to allocate health staff to health facilities. The tool uses an evidence-based approach and health indicators to drive health workforce allocation decisions. It is an electronic human resources for health (HRH) recruitment system that enables candidates to submit online applications to vacant posts, and generates a short list of qualified candidates allocated based on predetermined health indicators and applicants' preferences. Using the tool, the MOHCDGEC and other public health institutions (PHIs) were able to optimize allocation of Tanzania's health workforce based on need and maximize employee satisfaction by deploying workers to their preferred working stations.

TSSP is also currently providing technical assistance to the MOHCDGEC to revise the National Health Sector Staffing level to be more realistic, using the World Health Organization Workload Indicators of Staffing Need (WISN) method. This work will also contribute to reduced HRH gaps at health facilities.

From 2018, TSSP worked with the MOHCDGEC to finalize the WAO tool (initiated by Public Health Informatics Institute and Health Informatics Training and Research Advancement Centre), as per the Tanzania recruitment system, and handed it over to the Ministry in November 2019.

In March 2020, the President's Office-Public Service Management (PO-PSM) approved the recruitment of 1,000 medical doctors to be allocated to various health facilities, as per the national health sector staffing guidelines. The TSSP supported the MOHCDGEC and PHIs in Tanzania with reviewing the online applications, shortlisting, and allocating 390 qualified candidates to hospitals under MOHCDGEC and other PHIs using the WAO tool. The other 610 positions were allocated to primary health care facilities under the President's Office-Regional Administration and Local Government Authorities (PO-RALG) using the Ajira recruitment portal. The Ajira portal differs from the WAO tool in that it can receive online applications; however, shortlisting

and allocation of qualified candidates is done manually without considering the applicant’s preferences on the duty post.

This assessment’s findings revealed that medical doctors recruited through the WAO tool had a retention rate of over 99% compared to 94% recruited through the Ajira portal. Research in Tanzania<sup>1,2</sup> has found that consideration of the applicant’s needs, including their preferences, contributes to increased retention rates.

## BACKGROUND

The Government of Tanzania is committed to equitable delivery of quality health services. Provision of these services is impeded by, among other factors, the severe shortage of skilled HRH, which stands at 52%.<sup>3</sup> The shortage of health care workers drastically impacts access and quality of care, attainment of universal health coverage, and achievement of desirable health outcomes related to HIV and other health services in Tanzania. Additionally, the existing workforce is inequitably distributed, with more health personnel in urban-based health facilities than in rural. Oftentimes when health workers have no say in choosing the location where they are posted, they do not report for duty. The public sector loses health workers to the private sector for several reasons—most notably higher salaries, better living conditions, relocation to be near family, and safety.<sup>4</sup>

To mitigate the HRH shortage, the government released recruitment permits for 1,000 medical doctors for facilities under the MOHCDGEC, PO-RALG, and other PHIs including specialized hospitals. Table 1 shows the distribution of recruitment permits per organization.

Table 1: Permit Distribution Per Organization

| S/N   | Work Permit                               | Available Vacancies |
|-------|---|---------------------|
| 1     | MOHCDGEC                                  | 306                 |
| 2     | PO-RALG                                   | 610                 |
| 3     | PHIs                                      |                     |
|       | ▪ Muhimbili National Hospital (MNH)       | 40                  |
|       | ▪ Benjamini Mkapa Hospital (BMH)          | 20                  |
|       | ▪ Muhimbili Orthopedics Institute (MOI)   | 10                  |
|       | ▪ Ocean Road Cancer Institute (ORCI)      | 7                   |
|       | ▪ Jakaya Kikwete Cardiac Institute (JKCI) | 7                   |
| TOTAL |   | 1,000               |

To facilitate the recruitment process, TSSP provided technical assistance to the MOHCDGEC to launch the WAO tool to facilitate the following: receiving online applications; shortlisting qualified applicants based on the set criteria; online verification of professional licenses through the integrated Medical Council of Tanganyika (MCT) database; allocating selected applicants based on their location preferences; and producing recruitment reports for MOHCDGEC planning and decision making.

As part of TSSP’s final year activities, the project supported the HRH technical working group to conduct a rapid analysis of routine program data of the factors affecting retention of health workers who were posted using the WAO tool as compared to the Ajira portal. Learnings from this activity will be shared with the Government of Tanzania and other implementing partners to inform policy decisions.

Figure 1: WAO tool functions



### Objectives

The overall objective of this rapid analysis was to explore retention rates of medical doctors posted through the WAO tool as compared to the Ajira portal and possible reasons for health care professionals’ turnover.

### Specific objectives

- To describe the recruitment process for medical doctors conducted in 2020 through the WAO tool for facilities under MOHCDGEC and PHIs, and through the Ajira portal for facilities under PO-RALG
- To track medical doctors who reported to their workstations after the allocation process
- To review retention rates of posted staff, understand the factors that influence their intention to stay or not stay in their workplace, and provide recommendations

### Methodology

- An extensive desk review focused on recruitment data from the WAO tool, allocation reports, and posting letters from the MOHCDGEC and PO-RALG.
- Tracked staff availability status from MOHCDGEC and PO-RALG technical reports
- Spoke with selected medical doctors allocated and retained to facilities under MOHCDGEC and PHIs

### Applications

The WAO tool was live online from March 24 to April 10, 2020. A total of 1,707 online applications were received. Applicants indicated their top three preferred workstations as per available vacancies (see Table 2). While PO-RALG used the Ajira portal to receive applications for medical doctors applying to facilities under primary health facilities (district hospitals and health centers), some applicants (350) indicated their preference for PO-RALG-based positions through the WAO tool.

Table 2: Applications received through the WAO tool by organization and gender, March–April 2020

| S/N          | Work Permit                               | Available Vacancies | Male Applicants | Female Applicants | Total Applicants |
|--------------|---|---------------------|-----------------|-------------------|------------------|
| 1            | MOHCDGEC                                  | 306                 | 750             | 342               | 1,092            |
| 2            | PO-RALG                                   | 610                 | 261             | 89                | 350              |
| 3            | PHIs                                      |                     |                 |                   |                  |
|              | ▪ Muhimbili National Hospital (MNH)       | 40                  | 401             | 284               | 685              |
|              | ▪ Benjamini Mkapa Hospital (BMH)          | 20                  | 545             | 241               | 786              |
|              | ▪ Muhimbili Orthopedics Institute (MOI)   | 10                  | 250             | 83                | 333              |
|              | ▪ Ocean Road Cancer Institute (ORCI)      | 7                   | 232             | 153               | 385              |
|              | ▪ Jakaya Kikwete Cardiac Institute (JKCI) | 7                   | 259             | 174               | 433              |
| <b>TOTAL</b> |   | 1,000               | 2,698           | 1,366             | 4,064            |

### Allocation to workstations

After receiving the online applications, the WAO tool was used to shortlist qualified applicants for the open positions with the MOHCDGEC and the PHIs based on the set criteria. In this regard, out of a total of 1,707 applications, only 1,487 applicants qualified for the selection process. The remaining 220 applicants were not shortlisted due to incomplete documentation such as expired professional licenses and missing education certificates. Qualified applicants who had selected PO-RALG as the first preference had their information downloaded from WAO and sent to the PO-RALG recruitment team for a manual allocation. The WAO tool was used to allocate applicants to fill the remaining 390 positions at the MOHCDGEC and other PHIs. Figure 2 shows health workers allocated through the WAO tool by geographic region. Figure 3 shows health workers allocated through the WAO tool by organization.

Figure 2. Allocation to workstation by geographic region

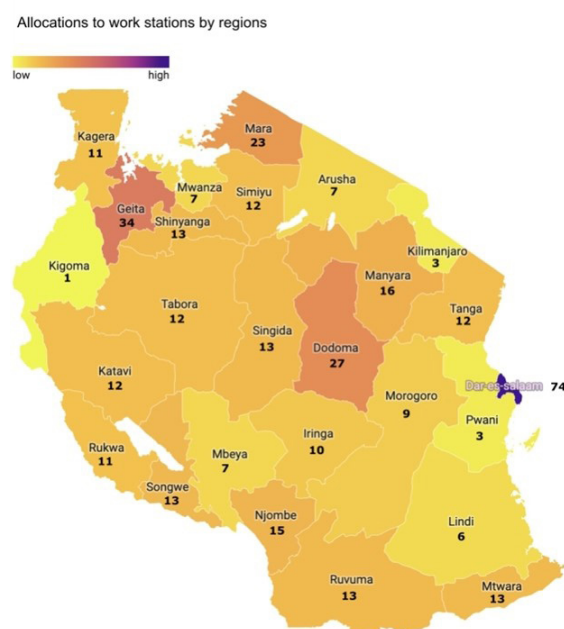
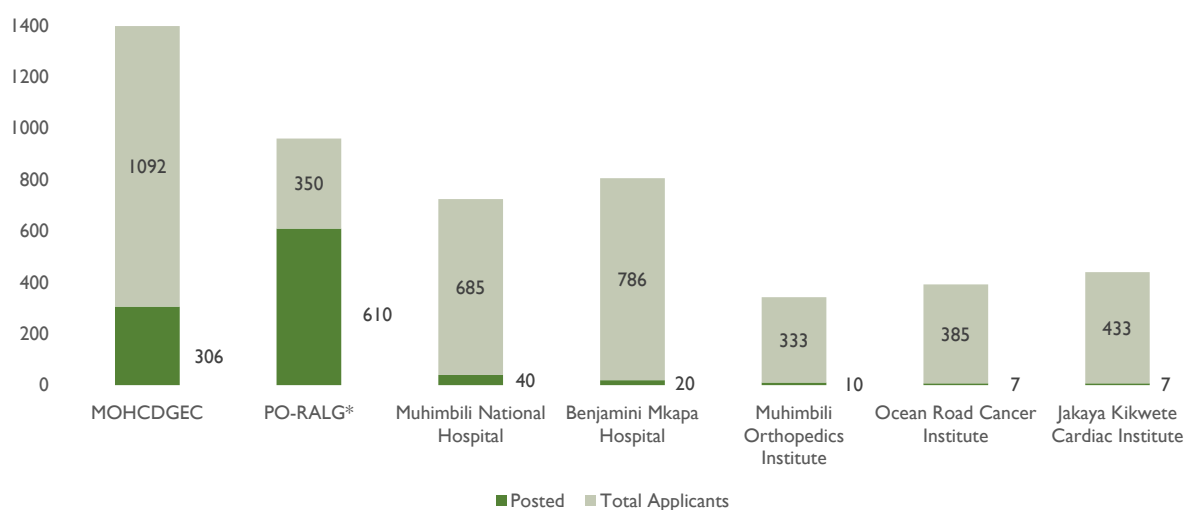


Figure 3. Total applicants compared to positions filled using the WAO tool, by organization



### Reporting status

To confirm the number of positions filled, the MOHCDGEC and PO-RALG tracked applicants who reported to their workstations two weeks after the advert deadline expired. Table 3 shows applicants who reported to their workstations after being assigned through the WAO tool or the manual system used by PO-RALG. Data indicated that 98% of the medical doctors reported to facilities under the MOHCDGEC, while 100% reported to work at the PHIs and 71% reported to facilities under the PO-RALG.

Table 3. Reporting status, by organization

| S/N          | Work Permit                               | Posted       | Reported   | % of HCWs reported |
|--------------|---|--------------|------------|--------------------|
| 1            | MOHCDGEC                                  | 306          | 301        | 98                 |
| 2            | PO-RALG                                   | 610          | 433        | 71                 |
| 3            | PHIs                                      |              |            |                    |
|              | ▪ Muhimbili National Hospital (MNH)       | 40           | 40         | 100                |
|              | ▪ Benjamini Mkapa Hospital (BMH)          | 20           | 20         | 100                |
|              | ▪ Muhimbili Orthopedics Institute (MOI)   | 10           | 10         | 100                |
|              | ▪ Ocean Road Cancer Institute (ORCI)      | 7            | 7          | 100                |
|              | ▪ Jakaya Kikwete Cardiac Institute (JKCI) | 7            | 7          | 100                |
| <b>TOTAL</b> |   | <b>1,000</b> | <b>818</b> |                    |

The lower reporting rate at facilities under the PO-RALG was possibly due to the WAO tool's consideration of deployment location preferences as compared to random deployment done by the PO-RALG manual system, as well as preference to go to hospitals with better resources and opportunities for learning rather than primary care centers with less infrastructure.

*Retention of deployed health workers*

TSSP, in collaboration with the MOHCDGEC, looked at how many of those recently recruited medical doctors had been retained at the MOHCDGEC, PHIs, and PO-RALG facilities (Figure 4). Data revealed that medical doctors posted through the WAO tool had a retention rate of 99% in facilities under the MOHCDGEC, 100% at PHIs, and 94% in facilities under PO-RALG from May 2020 to May 2021.

Figure 4. Health workers retained

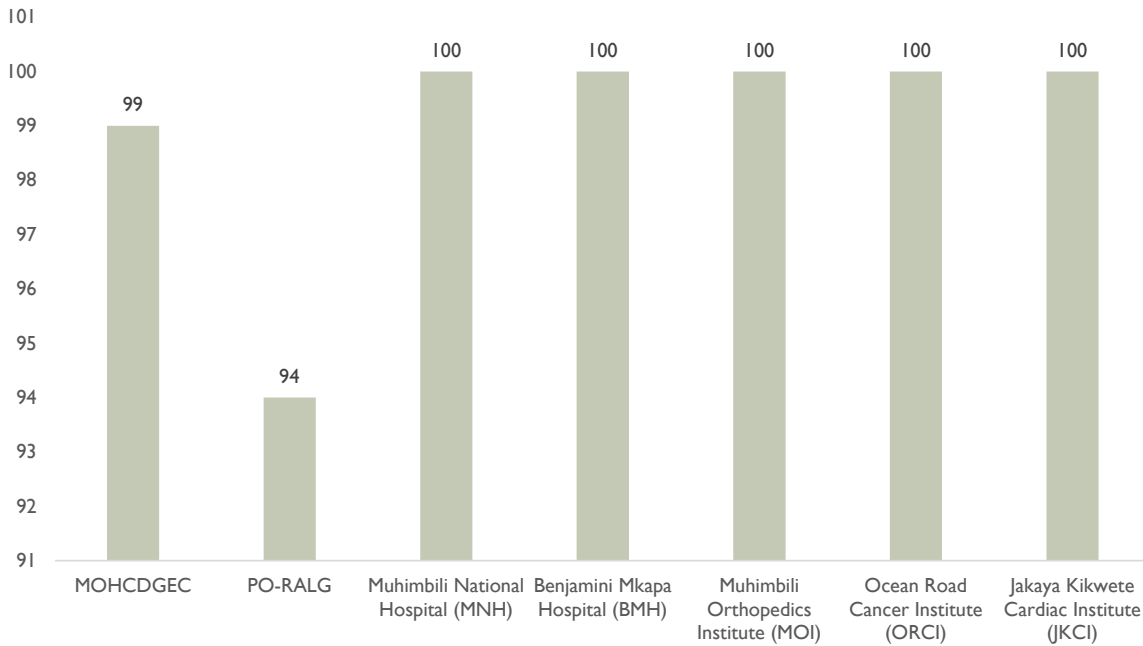
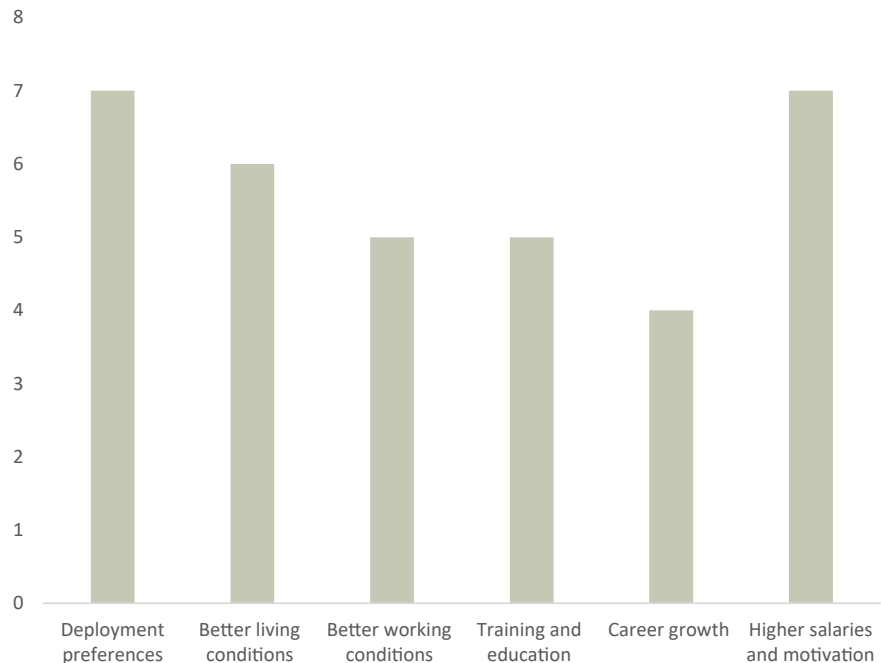


Figure 5. Health workers' retention motivation

April 2021, we spoke with 34 medical doctors from public health facilities and the MOHCDGEC to determine the possible factors for the observed higher retention rates. The following were the reasons provided: deployment as per location preferences; better living and working conditions at facilities under the MOHCDGEC and PHIs; higher salary and motivations at PHIs compared to other facilities; career growth; and continued training and education. Figure 5 shows that deployment preferences and higher salaries greatly contributed to a higher retention rate compared to other factors in PHIs and MOHCDGEC facilities.



### Limitations

The number of applicants reviewed in this round of recruitment was small; hence, greater attention to understanding HCW retention should be considered as a foundation for policy and strategy recommendations. Additionally, it was not possible to speak with health workers who reported and then left health facilities under PO-RALG, as telephone numbers were not provided at the time of the analysis.

Addressing turnover at health facilities must be approached through specific, multifaceted, and evidence-based interventions. This review benefitted from the analysis of routine program data on deployment of only medical doctors. More details about other retention strategies should be documented in a structured survey that is statistically representative with more health cadres included. Then, reasons for staff turnover might be different from workstation preferences, and additional topics that emerge can be explored in more depth and used to inform decision making, policy formulation, and implementation.

## CONCLUSION AND RECOMMENDATION

Based on these findings, use of a systematic process to allocate health care workers through deployment location preferences seems to be associated with higher retention rates and makes the recruitment process more transparent, justifiable, and fair. TSSP will continue to work closely with the Government of Tanzania to encourage the use of appropriate recruitment systems to improve retention and productivity of health care providers in order to heighten access to and quality of HIV and other health services. This includes supporting advocacy of the tool to ensure health facilities make use of evidence-based strategies to ensure a consistent and sustainable supply of trained health workers in health facilities.

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