
TouchFoundation

Improving HRH permit allocation and distribution across Tanzania

04 May 2016

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Agenda

- Overview of Touch Foundation
- HRH value chain and Touch's Prioritization & Optimization Analysis (POA) tool
- Q&A
- Appendix

- **Overview of Touch Foundation**
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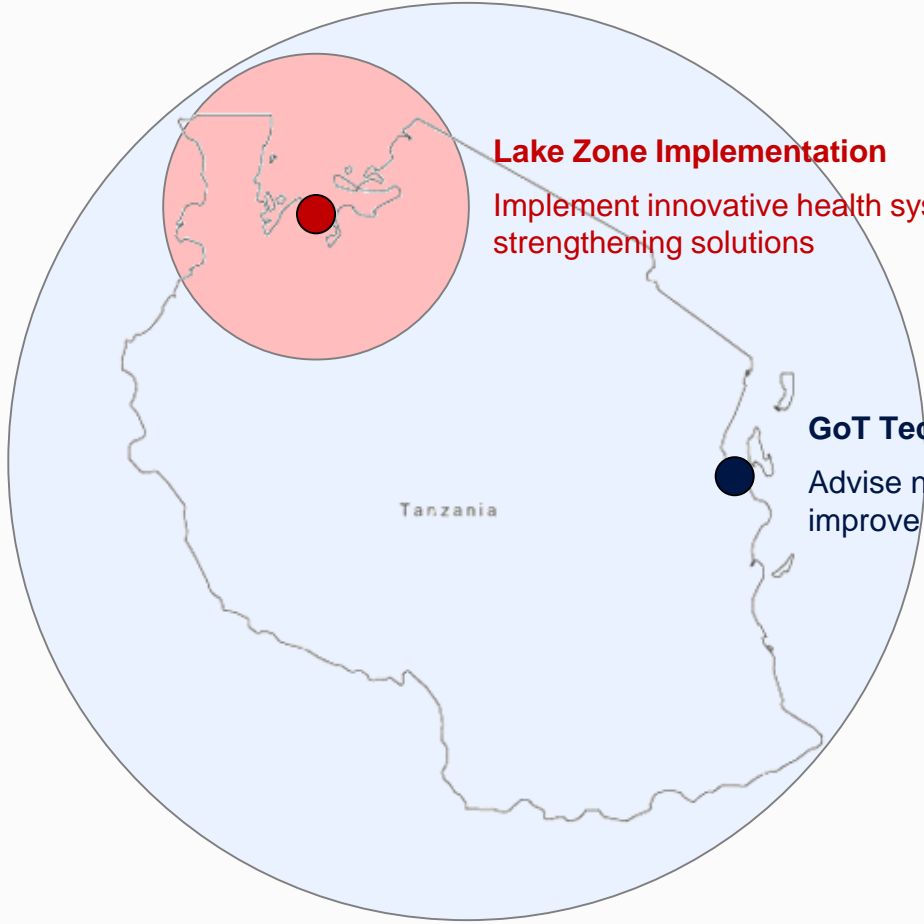
TouchFoundation

Touch Foundation combines the best of private and public sector approaches and expertise to strengthen the Tanzanian health system across different levels of care.

We develop innovative solutions and prove their success on the ground. We expand our impact by sharing acquired knowledge with the local and international public health community.

We strengthen the Tanzanian health system at both local and national levels, and share our lessons learned with the global health community

TouchFoundation



Lake Zone Implementation
Implement innovative health system strengthening solutions

GoT Technical Advisory
Advise national Government and improve the Tanzanian health system



Knowledge sharing
Share learnings with the local and international public health community

Touch plays a catalytic role by attracting and collaborating with a wide array of implementing and funding partners

Corporate approach and partnerships

- Touch Foundation was **founded in 2004** by Lowell Bryan, a Director Emeritus at McKinsey & Company, now President of Touch.
- The Touch team is a strong mix of on-the-ground **private sector and health professionals**, a New York office support team and a Board of Directors drawn primarily from the business sector
- Touch **partners with professional firms** and organizations such as McKinsey & Company, Weill Cornell, Stroock & Stroock and Lavan
- Touch collaborates with key **stakeholders at local and national level** (e.g. MoHCDGEC, PORALG, POPSM) and sits on the MoHCDGEC HRH and Safe Motherhood Technical Working Groups, and the HRH Alliance led by BMAF

Financial leverage and funding

- Touch manages an average budget of \$5-6 million per year, and has invested **over USD 60 million¹ in Tanzania**
- Touch has been in a **PPP agreement with USAID** since 2007
- Touch works in partnership with **private sector funders** such as Vodafone Foundation, Medtronic Foundation, ELMA Philanthropies, Vitol Foundation, Bristol-Myers Squibb Foundation

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Touch is working with MOHCDGEC, PORALG, POPSM and LGAs to assess the challenges across the entire HRH value chain

HRH Process

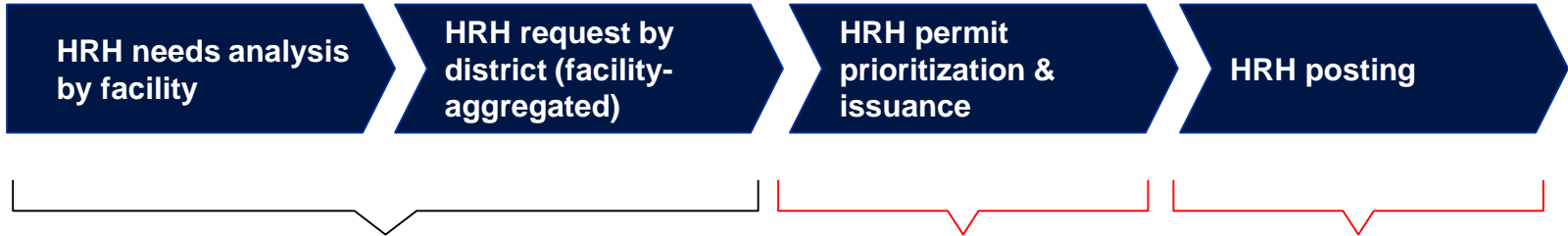


Responsible Institution	CHMTs and health facilities	PORALG and LGAs	POPSM, MOHCDGEC	MOHCDGEC, PORALG
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Challenges	<ul style="list-style-type: none"> Identify individual facility needs based on actual workload Produce needs analysis with available data or limited additional work from CHMT 	<ul style="list-style-type: none"> Provide quality, data-driven HRH requests, for central government to make informed decisions 	<ul style="list-style-type: none"> Match permit requests with supply and budget constraints Prioritize permits according to strategic priorities (e.g. regional priorities) 	<ul style="list-style-type: none"> Match graduates to permits Maximize reporting rates of graduates to their designated facility
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We identified key gaps that limit the impact of current solutions

HRH Process



Current solutions

WISN
(as mandated by BRN)

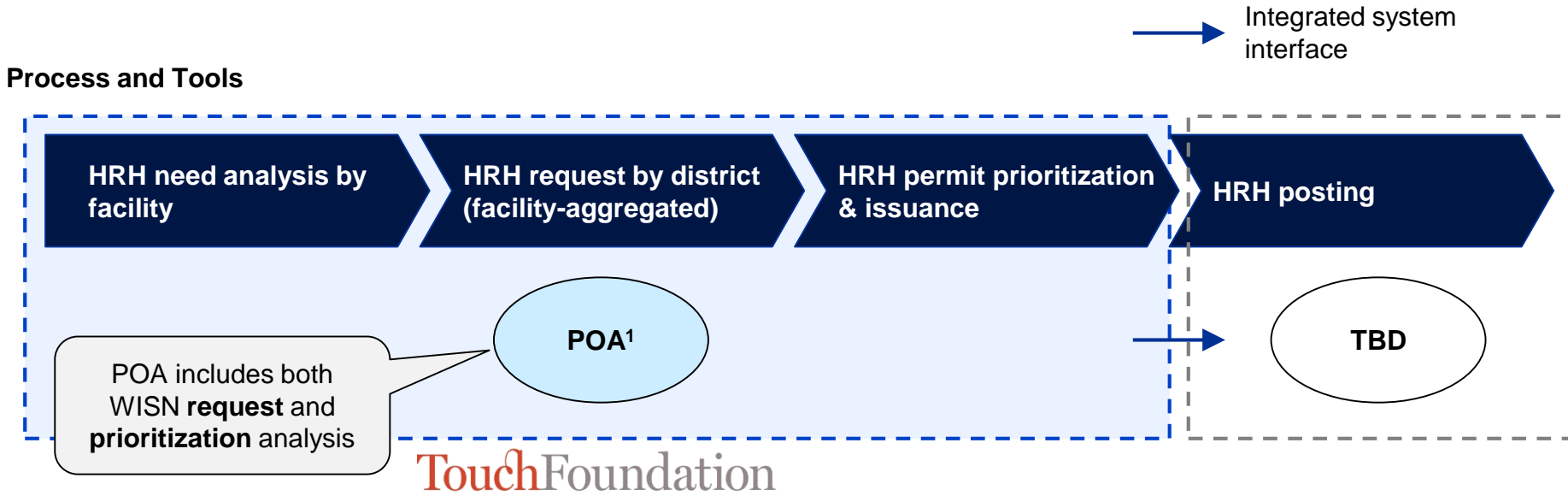
No current solution in place

No current solution in place

Challenges of current solution

- **Quality of WISN results** depends heavily on the definition of service standards for each health cadre
- The **feasibility of implementing WISN** on a national scale depends on the amount of data to be collected and its accuracy/consistency
- WISN provides an “ideal” need for each facility based on workload and does not consider the **country-wide limitations with respect to budget and supply** of HRH
- Without proper solutions for this step, **WISN’s impact on overall distribution of HRH will be limited**
- POPSM is unable to use the data from WISN meaningfully if receives **HRH requests from LGAs that greatly exceed budget and supply** availability
- Appropriate solutions for this step will contribute to **increased retention if integrated with solutions across the previous steps** of the value chain

Touch developed the Prioritization & Optimization Analysis (POA) tool based on WISN to address gaps through an integrated solution



Description

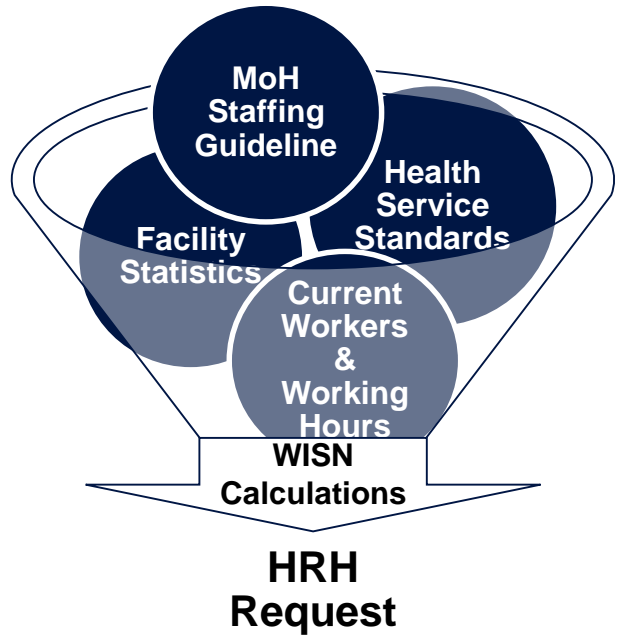
- POA is a **single tool, based on WISN and integrated** across the entire process of request and issue of permits
- POA uses **workload indicators** (WISN) to identify HRH needs at each facility **and prioritizes** (based on need and strategic priorities) each health worker request across the country
- POA allows an **analysis of requests based on supply and budget constraints**
- New HRH graduates should be assigned to the permitted posting across health facilities to **maximize HRH reporting rate**
- Touch is collaborating with CDC who is plans on updating their preference matching tool already used in Mozambique

WISN need assessment + HRH request prioritization = better HRH allocation

The use of the WHO WISN approach was mandated by BRN to calculate the need of HRH workers based on workload at each facility

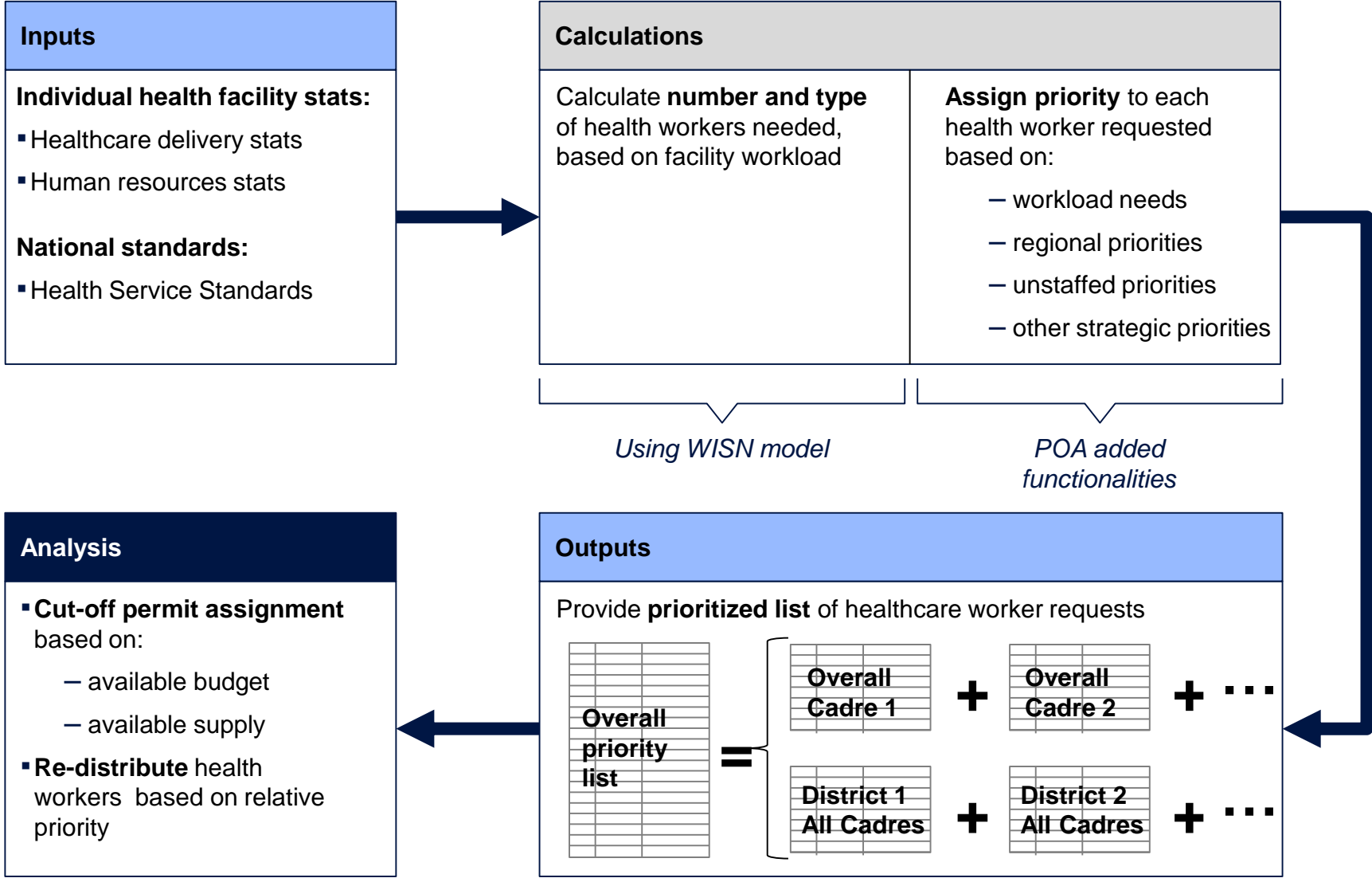
Inputs

- 1 MoH Staffing Guidelines** HRH cadres required in health facilities & their responsibilities
- 2 Health Service Standards** Time to complete each healthcare service, standardized by cadre and facility level
- 3 Facility Statistics** Historical workload per service type per facility
- 4 Current Workers & Working Hours** Current number of HRH per facility & their working hours.



Touch is working with the MOHCDGEC on refining the Health Service Standards to streamline the data collection process (i.e. decrease the amount of data collected, leverage HMIS data to the extent possible)

The POA adds to the WISN the possibility to assign a priority to each health worker requested, across the country



Main features of the Prioritization & Optimization Analysis (POA) tool

POA features

POA builds upon and is completely integrated with WISN

Description

- POA **integrates the WISN** and calculates HRH needs at each facility
- POA **prioritizes** each health worker based on the WISN outputs

“Priority ranking index” is assigned to each individual health worker request

- POA **assigns a “priority ranking index”** to each health worker requested by the LGAs
- Priority levels can be adjusted based on various priority parameter (e.g. **priority regions, facility types**)
- Priority levels can also be adjusted for **“first worker” or “unstaffed facilities”**

POA matches HRH demand to supply and budget constraints

- The POA uses the priority ranking to **match LGA request levels to health worker supply and budget constraints** and **“scientifically”** cut health worker requests in excess

The Priority Ranking Index (PRI) is based on the “utility” of each worker needed



- HRH deficit calculated for **each cadre in each facility**
- HRH deficit is the **difference between:**
 - HRH need calculated using WISN
 - Current staffing** level

- The priority ranking index for each HRH is the % of **workload the existing workforce would have to overwork if the additional HRH will not be assigned**
- The priority ranking index quantifies **how useful one additional health worker is to alleviate the workload of existing workforce** in the facility
- Priority ranking index the ratio between:
 - left over **HRH deficit**
 - **existing workforce:** sum of current workers and workers assigned before the additional worker

- The **priority ranking index can be adjusted by various factors:**
 - Regional priorities
 - Facility level priorities
 - Non-zero rule (e.g. for an unstaffed facility, the priority of the first HRH will be 99,999)
 - Others as they may be needed

- Each health worker needed in the district (or in Tanzania) can be **univocally ranked** based on the priority ranking index
- The prioritized list of health worker requested can then be **“cut” based on supply and/or budget constraints**, assigning only the most important permits based on the highest priority ranking

Numerical example on the meaning of the Priority Ranking Index (PRI)

ILLUSTRATIVE

HRH Deficit calculation

- HRH need: 3.4
- Current staffing: 1
- **HRH deficit: 2.4**

Priority ranking index (PRI)

- **First worker:**
 - left over deficit if not assigned: 2.4
 - Existing workforce: 1
 - **PRI: $2.4 (2.4/1) = 240\%$**
- **Second worker:**
 - left over deficit if not assigned: 1.4
 - Existing workforce: 2
 - **PRI: $0.7 (1.4/2) = 70\%$**
- **Third worker:**
 - left over deficit if not assigned: 0.4
 - Existing workforce: 3
 - **PRI: $0.1 (0.4/3) = 10\%$**
- After third worker, PRI becomes negative, therefore surplus

Priority ranking index adjustment

- If this region is a priority region, all the PRIs can be increased by X%, based on the relative priority with other regions

Priority ranking of HRH

- See next slide

Example of POA priority ranking and analysis

Priority ranking for Nurses in Shinyanga MC district

ILLUSTRATIVE

Order	Priority ranking index	Cadre type	Facility	Facility Level	Region	Budget left
1	99,999	Nurse	Lifeline Dispensary	Dispensary	Shinyanga	TZS 16,835,934
2	99,999	Clinical_officer	Bushora Dispensary	Dispensary	Shinyanga	TZS 16,129,665
3	99,999	Nurse	Bushora Dispensary	Dispensary	Shinyanga	TZS 15,443,542
4	1,418	Nurse	Nhegezi Health Center	Health_Center	Shinyanga	TZS 14,757,420
5	1,318	Nurse	Nhegezi Health Center	Health_Center	Shinyanga	TZS 14,071,297
6	845	Medical_attendan	Nhegezi Health Center	Health_Center	Shinyanga	TZS 13,664,763
7	745	Medical_attendan	Nhegezi Health Center	Health_Center	Shinyanga	TZS 13,258,230
8	632	Nurse	Ngokolo RC Health Center	Health_Center	Shinyanga	TZS 12,572,107
9	609	Nurse	Nhegezi Health Center	Health_Center	Shinyanga	TZS 11,885,984
10	532	Nurse	Ngokolo RC Health Center	Health_Center	Shinyanga	TZS 11,199,861
11	526	Clinical_officer	Nhegezi Health Center	Health_Center	Shinyanga	TZS 13,365,028
12	439	Lab_tech	Kolandoto Hospital	District_Hospital	Shinyanga	TZS 4,374,720
13	426	Clinical_officer	Nhegezi Health Center	Health_Center	Shinyanga	TZS 3,668,452
14	395	Lab_assistant	Nhegezi Health Center	Health_Center	Shinyanga	TZS 2,769,421
15	378	ANO	Nhegezi Health Center	Health_Center	Shinyanga	TZS 1,413,318
16	378	Clinical_officer	Kambarage Police Dispensary	Dispensary	Shinyanga	TZS 707,049
17	373	Nurse	Nhegezi Health Center	Health_Center	Shinyanga	TZS 20,926
18	360	AMO	Nhegezi Health Center	Health_Center	Shinyanga	TZS (1,335,177)
19	322	Medical_attendan	Nhegezi Health Center	Health_Center	Shinyanga	TZS (1,741,711)
20	295	Lab_assistant	Nhegezi Health Center	Health_Center	Shinyanga	TZS (2,640,741)

Assumptions

- Supply: 5 nurses
- Budget: 16.8 million

Supply cut-off
(if only 5 nurses available)

Budget cut-off

Notes:

- Nurses #1 and #3 and clinical officer #2 assigned based on **non-zero rule**, i.e. artificially high priority
- Prioritization through the **priority ranking index should be done at national level across all districts and all cadres** (this example is only illustrative)
- Budget constraints should be applied at national level and across all cadres
- Supply constraints should be applied at national level within each cadre

Benefits and challenges of applying POA across the HRH request and allocation process

- **Benefits:**

- The POA tool has been **designed to fit within the current process** and does not require a modification of “business as usual” from its users
- The POA tool adds prioritization to the WISN model, **without requiring additional data collection**
- The POA intermediate outputs (i.e. prioritized list of HRH) provide POPSM or LGAs with an **aid for decision making and reviewing of district requests** scientifically
- The POA analysis functionalities provide the POPSM with an **initial draft of permit allocation** that can and should be sense-checked and tailored based on external factors not modelled in the tool

- **Challenges:**

- The use of POA needs to be **coordinated among the many stakeholders** that participate in the HRH request and allocation process (POPSM, MOHCDGEC, PORALG)
- Upfront **buy-in from key users** (POPSM, PORALG) **and beneficiaries** (MOHCDGEC) will be key to the successful application of the tool
- POA **assumptions need to be validated, calibrated and endorsed** by key stakeholders to ensure prioritization is calculated effectively
- The POA tool **impact is maximized when POA is applied to the entire country**. Small-scale trials are mostly useful for feedback on implementation

We are now working to finalize the POA tool and roll out in select regions of Tanzania

- **Next steps:**



- We are **currently engaging with development partners**, including members of the group in this meeting, to ensure the development of POA is integrated within current plans and supports efforts across the entire HRH value chain
- We are **working with the MOHCDGEC team to review and simplify the WISN service standards**, that feed into POA as well
- We are **working with PS3 to ensure POA can be successfully rolled-out** in alignment with MOHCDGEC strategic priorities
- We are **engaging with MOHCDGEC, POPSM and PORALG to align all stakeholders** around POA and ensure its endorsement from the people that will use it and will receive its outputs
- We are also working with our partners to **integrate POA with HMIS and other existing systems**, and leverage HMIS data to the extent possible

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For WISN, the MOHCDGEC developed specific activity standards that required a large amount of data to be collected at the facility level

Facility Statistics Aligned to MoH Activity Standards: data sources

Dispensary	Health Facility	Hospital
<ul style="list-style-type: none">• Total of 23 activities were specified across four cadres – CO, CA, ANO, Nurse	<ul style="list-style-type: none">• Total of 50 activities were specified across seven cadres – MD, AMO, CO, CA, NO, ANO, Nurse	<ul style="list-style-type: none">• <i>MoH decided not to include hospitals in the WISN this year due to the complexity of data required</i>
 <ul style="list-style-type: none">• HMIS: Data for 9 activities were to be extracted from HMIS• Facility-based: Data for the remaining 14 activities were to be manually collected from each facility	 <ul style="list-style-type: none">• HMIS: Data for 17 activities were to be extracted from HMIS• Facility-based Data for the remaining 33 activities were to be collected manually from each facility	

When Shinyanga MC and Sengerema districts applied the WISN as mandated by the MoH, they were not able to gather all required data

Facility Statistics Aligned to MoH Activity Standards: collection challenges

- For data that had to be collected directly from facilities, a number of challenges were encountered:
 - Sengerema was able to gather the data for 3 dispensaries** during the time allowed to develop PEs (approximately one week) and **Shinyanga gathered data for 4 dispensaries**
 - The **dispensaries that did provide the data in the required timeframe reported that it took up to 36 hours** for one person to gather the required data
 - Touch conducted analysis to estimate the FTE time it would take **to gather data from dispensaries and health centres** and found:

LGA	Time for single dispensary	Time for single health centre	Time for all LGA facilities	Number of facilities
Sengerema	15 hours	21 - 26 hours ¹	144 days	63 Dispensaries & 9 Health Centres ³
Shinyanga	19 hours	50 hours ²	70 days	24 Dispensaries & 2 Health Centres ³

- Sengerema was not able to provide any data from HMIS in the required timeframe. Shinyanga took five days to extract data from HMIS for 15 facilities. However, based on Touch's experience of extracting data from HMIS, it is expected that data for one facility could be extracted in less than 30 minutes
- To counter these setbacks, Touch used a modified version of the MoH activity standards based on Touch analysis of MoH guidelines, district and facility feedback, and feasibility in terms of time needed for collection*

1. 21 hours for health centres that do not conduct surgery and 26 hours for health centres that do conduct surgery

2. No Shinyanga health centres conduct surgery, so only one measure applicable

3. This is for existing facilities, not planned new facilities