# Strengthening Routine Supportive Supervision of Primary Healthcare in Tanzania through an Innovative Approach Using an Electronic Tool

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## Introduction

Effective supportive supervision of healthcare services is crucial for improving and maintaining quality of healthcare. However, this can be challenging in an environment with chronic shortage of qualified human resources for health, overburdened healthcare providers, multiple roles of district managers, high donor fragmentation and ineffective or inefficient allocation of limited financial resources. Thus, simple, timely, accurate and cost-effective solutions building on existing structures are required. Given these circumstances we systematically evaluated an approach developed in Tanzania to strengthen routine supportive supervision of primary healthcare providers through their Council Health Management Team (CHMT).

***The e-TIQH approach***

In a first step of this sequential approach a systematic assessment of quality of care was carried out in all health facilities within a council using the so called electronic Tool for Improving Quality of Healthcare – in short e-TIQH. The CHMT formed the core of the assessment team, but to increase objectivity and reduce bias community representatives and healthcare providers from the public and private sector were also included. The assessment consisted of an immediate, constructive feedback to the healthcare providers and subsequent joint discussions about how to address the identified quality gaps. In a second step, an annual stakeholder meeting at council level was conducted to further discuss the findings and decide on ways forward. This then provided important inputs for the third step, the routine annual council health planning and budgeting process (Fig. 1).

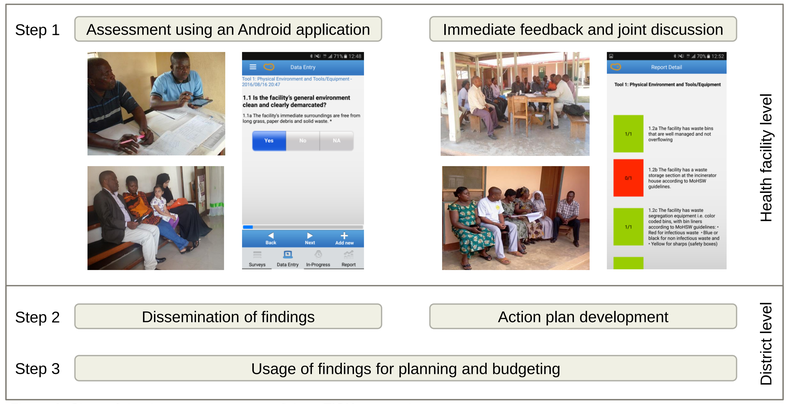


**Figure 1:** ***Chart of the three-stage process of the e-TIQH approach.***

## Method

Mixed methods were used to compare the e-TIQH approach with routine supportive supervision. An economic costing analysis was carried out by conducting informal interviews with CHMT members and analyzing council documents in three out of eight intervention councils (Fig. 2). Cost of staff was estimated based on their salary and time spent. One time start-up cost and recurrent cost for one round of supportive supervision per quarter was calculated separately. Cost spanning multiple quarters were divided equally over the relevant time period. Qualitative data was collected through in-depth interviews, whereas observational data and informal personal exchanges recorded in a field notebook as well as materials collected during the field work complemented the data set. 24 interviews were done with purposefully selected respondents at council and health facility level in the same three districts as above.

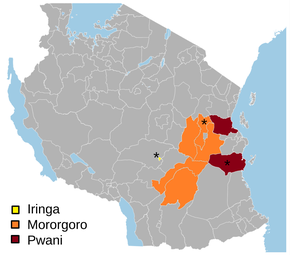


**Figure 2: Map of councils where the e-TIQH approach was implemented.** The situation of 2011 is presented. Each color indicates one region. Asterisks mark councils selected for the economic costing analysis and in-depth interviews.

## Results

Table 1 shows that e-TIQH supportive supervision reduces person time and cost spent during quarterly supportive supervision. This is even the case despite the fact that the assessment team in the e-TIQH approach consisted of two more assessors (12 in total) than in the routine approach (10 in total) in order to increase objectivity and reduce bias. If an equal amount of assessors were to be used the decrease in cost and person time would be more pronounced, but this reduction in assessor is likely to impact effectiveness. Main cost driver was the number of days spent conducting the assessment, which could be reduced by seven days because less time was needed at the health facility itself.

**Table 1:** ***Cost and person time spent for routine and e-TIQH supportive supervision in an average rural council.***

| | Routine supportive supervision | | e-TIQH supportive supervision | | | |
|---|---|---|---|---|---|---|
| | | | Recommended option | | Reduced assessor option | |
| | *Person time* | *Cost* | *Person time* | *Cost* | *Person time* | *Cost* |
| Preparatory work | 34h | 191$ | 41h | 314$ | 35h | 169$ |
| Assessment | 613h (21d) | 6'410$ | 475h (14d) | 5'279$ | 400h (14d) | 4'557$ |
| Reporting | 137h | 584$ | 116h | 614$ | 97h | 415$ |
| ***Total*** | ***710h*** | ***7'185$*** | ***633h*** | ***6'207$*** | ***480h*** | ***5'141$*** |

**Table 1:** e-TIQH supportive supervision cost incorporated the cost for tablets, although they could be substituted by personal smart phones, and the platform running cost assuming this would be shared across all 179 councils in Tanzania. The number of assessment days took into the account travel time between health facilities and their typical distribution in a council. Costs are given in USD. Figures are rounded and thus might not exactly add up to the total.

In-depth interviews confirmed that using the e-TIQH approach during supportive supervision made it more feasible and decreased its cost. The electronic tool also strongly improved reliability, timeliness, completeness, legibility and security of data collected during supportive supervision. Automated data entering and analysis simplified and increased the accessibility of meaningful data. Also, most respondents perceived the e-TIQH approach as more accurate due to the assessment design and its supportive nature. Additionally, involving community representatives in the approach was said to make it more objective and fair. Thus, this led to improved acceptance within the community and amongst service providers and increased staff motivation and ownership of quality improvement initiatives at local and council level. Finally, having a yearly stakeholder meeting was seen as a crucial platform for mutual learning and understanding, which also contributed to improved acceptance, motivation and ownership (Fig. 3).

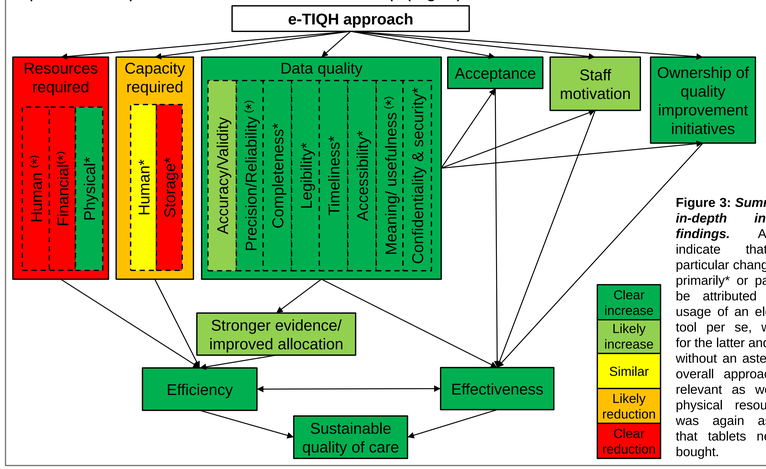


**Figure 3:** ***Summary of in-depth interview findings.*** Asterisks indicate that the particular change could primarily* or partially(*) be attributed to the usage of an electronic tool per se, whereas for the latter and issues without an asterisk the overall approach was relevant as well. For physical resources it was again assumed that tablets need be bought.

## Conclusion

The here presented results showed that compared to routine supportive supervision, the e-TIQH approach increased data quality, acceptance, motivation and ownership, while reducing resources required. Consequently, the approach made supportive supervision more effective, efficient and sustainable. Therewith, it facilitated addressing and maintaining crucial quality standards and provided valuable evidence for decision-making, which ultimately lead to improvements in quality of primary healthcare.

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