



RESEARCH AND EVALUATION REPORT

Institutionalizing Quality Improvement in Tanzania: A review and a look forward

Simon Hiltebeitel, EnCompass LLC Sarah Smith Lunsford, EnCompass LLC Davis Rumisha, University Research Co., LLC Stephen Hobokela, University Research Co., LLC

FEBRUARY 2019

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DISCLAIMER

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For more information on the work of the USAID ASSIST Project, please visit <u>www.usaidassist.org</u> or write assist-info@urc-chs.com.

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ABBREVIATIONS

Acquired Immune Deficiency Syndrome
Antiretroviral Therapy
USAID Applying Science to Strengthen and Improve Systems
Comprehensive Council Health Plan
Human immunodeficiency virus
Henry Jackson Foundation
Ministry of Health, Community Development, Gender, Elderly and Children
Open Performance Review and Appraisal System
Plan-Do-Study-Act
President's Office - Regional Administration and Local Government
Regional/Council Health Management Team
Quality improvement
Standard Evaluation System
University Research Co., LLC
Joint United National Programme on HIV and AIDS
United States Agency for International Development
Walter Reed Army Institute of Research

EXECUTIVE SUMMARY

Introduction

Tanzania's Regional and Council Health Management Teams (R/CHMTs) are well positioned to lead quality improvement (QI) activities to improve the quality of HIV services, with particular focus on implementing the test and start approach. However, these mid-level managers face competing priorities, limited budget, and other challenges to effectively support facilities in their geographies. The Government of Tanzania recently began working to strengthen accountability systems for QI at the council level by selecting a district focal person for QI to be part of the district health technical team. This individual will be responsible for coordinating and managing QI activities at the district level.

The USAID Applying Science to Strengthen and Improve Systems (ASSIST) project in Tanzania was tasked with supporting the President's Office - Regional Administration and Local Government (PO-RALG), Ministry of Health, Community Development, Gender, Elderly and Children (MOHCDGEC) and Walter Reed Army Institute of Research (WRAIR) team to enhance capacity of RHMT/CHMTs in 19 councils in three regions of the Southern Highlands of Tanzania to manage and lead QI efforts. The focus was on building R/CHMT teams as effective coaches who could in turn support the facility QI teams. ASSIST collaborated with the Henry Jackson Foundation (HJF) to conduct four skill-building sessions for 45 mid-level managers (29 female, 16 male) from R/CHMTs in these regions including two learning sessions and three practical orientation coaching visits. Between May and July 2018, R/CHMTs from all 19 councils conducted at least two coaching visits to supported facilities using council funds. This was the first time that councils had funded QI coaching visits in these 19 councils. ASSIST also developed a coaching guide for the teams to use as a reference when supporting frontline QI teams in improving the quality of HIV care.

The objective of this assessment is to examine the process and results of building capacity among these mid-level managers as a function of institutionalizing QI at the council and regional levels. Findings from this assessment will complement the knowledge products being developed by USAID ASSIST.

Methodology

We compared results of the baseline (N=28 in 2 regions) and end-line (N=44 in 3 regions) selfassessments to observe differences in self-perception of QI skills, knowledge, competencies, and use of tools. Endline interviews were conducted with 14 of the 44 mid-level managers who participated in the end line self-assessment survey. Respondents from 13 facilities were asked about their perceptions of institutionalization of QI at the facility level.

Results

Between baseline and end line, mid-level managers reported an improvement in their self-assessed understanding of QI methods. At baseline, none of the 28 mid-level managers surveyed felt they were well developed in all of the skills related to QI methods and tools, and all but one self-assessed themselves as needing "a lot of development" in at least one of the QI methods at tools. At end line, respondents showed a higher level of confidence in facilitating and leading QI teams, motivating and giving opportunities to QI team members, understanding how the culture of a workplace influences quality of care, and building confidence of QI team members.

R/CHMTs who participated in an end line interviews reported providing facility QI teams with support in managing the QI team process, and providing technical assistance for QI and in monitoring and use of data for decision making. They also reported intentions to continue providing this support following the end of ASSIST. Fewer respondents indicated they shared results and lessons learned across facilities, in part due to short duration of the intervention; however, all had intentions to do so in the future.

At facility level, challenges around funding persisted. There was room for improvement in participating in shared learning opportunities and ensuring new staff were educated in improvement. Despite these challenges, all facilities were tracking QI indicators and reporting them to the district and regional levels, QI team members had clear understanding of QI roles and responsibilities, and had copies of national QI documents. Additionally, seven facilities had spread the use of improvement methods to areas beyond HIV, indicating a level of comfort with QI.

Conclusion

Mid-level managers can provide coaching support to facilities in improving the quality of care in Tanzania and may be an effective mechanism for institutionalizing QI. Efforts should be made to administratively and financially support R/CHMTs to providing further coaching to current facilities and spread changes and improvement methods to other facilities.

I. INTRODUCTION

During FY17, the USAID Applying Science to Strengthen and Improve Systems (ASSIST) project provided support to Tanzania's Ministry of Health, Community Development, Gender, Elderly and Children (MOHCDGEC) to improve the quality of HIV services following the country's adoption of test and start for antiretroviral therapy (ART) delivery. By the end of FY17, 781 quality improvement (QI) teams were supporting various improvement activities across 25 regions in Tanzania. Achievements such as improved access to HIV testing, linkages to care and treatment, and higher levels of viral suppression have resulted from these efforts.¹

These improvements in care were made in the context of weak coordination across QI activities, low levels of accountability, and inadequate institutionalization of innovations across regions. Council Health Management Teams (CHMTs) have the opportunity and position to lead QI activities at the council level but have competing priorities and often are unable to play a coordinating role in improvement. Regional Health Management Teams (RHMTs) are tasked with leveraging resources for QI and advocating for QI among frontline health workers and regional and district executives. However, these responsibilities have not been fulfilled leading to poor QI implementation and little to no budget allocation for QI. The MOHCDGEC recently began working to strengthen accountability systems for QI at the council level by selecting regional and district focal persons for QI to be part of the regional and district health technical teams respectively. These individuals will be responsible for coordinating and managing QI activities at regional and council levels.

USAID ASSIST in Tanzania was tasked with supporting the President's Office - Regional Administration and Local Government (PO-RALG), MOHCDGEC and Walter Reed Army Institute of Research (WRAIR) team to enhance capacity of R/CHMTs in 19 councils in three regions of the Southern Highlands of Tanzania to manage and lead QI efforts. The main approach was for ASSIST to support and transform the R/CHMT teams to be effective coaching teams who will in turn support the facility QI teams. ASSIST collaborated with the Henry Jackson Foundation (HJF) to conduct four skill-building sessions for 45 midlevel managers (29 female, 16 male) from R/CHMTs in these regions including two learning sessions and three practical orientation coaching visits. Between May and July 2018, R/CHMTs from all 19 councils of Mbeya, Songwe and Ruvuma regions conducted at least two coaching visits to supported facilities using council funds. This was the first time that councils had funded QI coaching visits in these 19 councils. ASSIST also developed a coaching guide for the teams to use as a reference when supporting frontline QI teams in improving the quality of HIV and AIDS care.

The objective of this assessment is to examine the process and results of building capacity among these mid-level managers as a function of institutionalizing QI at the council level. We compare the results of the baseline and end line self-assessments to observe differences in self-perception of skills, knowledge, competencies, and tools and qualitatively examine mid-level manager and facility staff perceptions of support and capacity to improve care. The findings from this assessment will complement the knowledge products being developed by USAID ASSIST.

II. METHODOLOGY

Data for this report were collected using three separate data collection tools. A survey was administered to mid-level managers at baseline (May 2018) and end line (November 2018) asking them to self-assess their competence on quality improvement skills across several domains. Mid-level managers were also interviewed at end line about their views on factors critical for institutionalizing QI coaching, what activities related to institutionalization they currently perform, and whether they will continue to perform those

¹ USAID Applying Science to Strengthen and Improve Systems: Annual Performance Monitoring Report FY18

activities after ASSIST support ends. The perspective of facility staff in this assessment was captured using a rapid assessment tool to ask questions related to indicators of institutionalization in their facilities.

Self-assessment Competency Survey

The self-assessment competency survey was administered to mid-level managers at baseline (May 2018) and end line (November 2018). No individual identifying information was captured in these surveys to promote open and honest assessment. During the baseline assessment, 28 mid-level managers (13 females, 15 males) from 19 councils of Mbeya and Songwe regions completed the competency survey. 44 of the 45 mid-level managers from Mbeya, Songwe, and Ruvuma regions supported by the project completed the follow-up assessment in November 2018.

The objective of the self-assessment competency survey was to examine the process of building capacity among these mid-level managers as a function of institutionalization of QI. The competency survey tool asked individuals to rate themselves on a 3-point scale; 1) I need a lot of development; 2) I need some development; or 3) I feel I am well developed. A total of 35 questions were asked in the following domains: QI methods and tools (8 questions); change management (2 questions); team building (7 questions); leadership (7 questions); performance management (6 questions); communication (5 questions). One additional question asked respondents to about their availability to coach and supervise QI teams in their district or region (no time, less than 50%, or more than 50%).

We compared the results of the baseline and end line self-assessments to observe differences in selfperception of skills, knowledge, competencies, and tools.

Individual QI Coaches Interview Tool

The Individual QI Coaches Interview Tool was administered to 14 mid-level managers at end line, 6 from Mbeya, 7 from Ruvuma, and 1 from Songwe. Interviewees were asked questions about their training, workload, and how their coaching visits were financed and six open-ended questions about how to institutionalize and operationalize QI coaching. These six questions related to policy factors, legislation of policy, whether coaching should be incorporated into supportive supervision, institutionalizing QI coaching, accountability, Interviewees were also asked activities related to institutionalization they currently perform, and whether they will continue to perform those activities after ASSIST support ends.

Rapid System Assessment Tool

ASSIST included the perspective of facility staff in this assessment using a rapid assessment tool to ask questions related to indicators of institutionalization in their facilities. Respondents from 13 health facilities (six in Mbeya, five in Ruvuma, and two in Songwe) were asked 15 questions related to indicators of institutionalization of QI in their facility. No answers were recorded and yes answers were probed to find evidence of institutionalization.

III. RESULTS

A. Self-Assessment Data

The baseline self-assessment data overall revealed mid-level managers viewed their skills and competencies as needing development. No respondents felt their skills and competencies in the area of QI methods and tools were well developed, especially in the areas of providing oversight for a QI initiative for HIV and AIDS services, providing technical support to multiple QI teams, and mentoring others in QI where no respondents felt they had well-developed skills. At baseline, none of the 28 mid-level managers surveyed felt that they were well developed in all of the skills related to QI methods and tools, and all but one self-assessed themselves as needing "a lot of development" in at least one of the QI methods at tools. As seen in **Figure 1** below, respondents felt more confident in all of the QI methods and tools skills at end line.

Figure 1: Self-assessment of QI methods and tools skills at baseline and end line

I need a lot of development	need so	me deve	elopment 🗖	I feel	l am well deve	oped		
QI methods and tools	Baseline			n	En	d line	n	chi- square p- value
I understand what is meant by quality and its dimensions	26%	7	70% 4 <mark>%</mark>	27	2% 21 <mark>%</mark>	77%	43	p = <0.001
I understand what is meant by standards and guidelines and I am familiar with current HIV and AIDS guidelines and standards set towards reaching 90:90:90 UNAIDS goals	18%	64%	ó <mark>18%</mark>	28	20%	80%	44	p = <0.001
I understand what is meant by quality improvement and I am able to collect HIV and AIDS information to aid improvement	19%	74	.% 7 <mark>%</mark>	27	23%	77%	44	p = <0.001
I have the skills, knowledge and ability to provide oversight to a quality improvement initiative for HIV and AIDS services	52	2%	48%	27	5 <mark>%</mark> 20%	75%	44	p = <0.001
I have the skills, knowledge and ability to monitor the quality of care and I understand that measurement is for learning and not judgement		6%	37% 7 <mark>%</mark>	27	2 <mark>%</mark> 26%	72%	43	p = <0.001
I can explain and use PDSA cycles to make small-step-change to care delivery processes	(53%	33% 4 <mark>%</mark>	27	2 <mark>%</mark> 41%	57%	44	p = <0.001
I can provide high-level technical support to multiple QI teams in which teams can learn from, and teach each other		82%	18%	28	2 <mark>%</mark> 50%	48%	44	p = <0.001
I can mentor and teach others about improvement methodology	5	9%	41%	27	2 <mark>% 23%</mark>	75%	44	p = <0.001

Legend

The largest improvements in the percentage of respondents who felt that they were well developed were observed in understanding what is meant by quality and its dimensions, providing oversight for a QI initiative for HIV and AIDS services, and mentoring others in QI. At end line, respondents felt least confident in their ability to explain and use plan-do-study-act (PDSA) cycles and to provide high-level technical support to multiple QI teams, although they assessed their skills as improving considerably since baseline. In total, 11 of 44 (25%) respondents at end line felt they were well developed in all skills related to QI methods and use of tools, and only 3 of 44 (7%) felt they needed a lot of development in any of the skills. The majority, 30 of 44 (68%), felt either well developed or needed some development in all of the skills.

No respondent felt they had strong change management competencies at baseline. At end line, 65% of respondents felt that they had well developed skills to understand change management concepts and 51% felt they had well developed skills to understand different change management approaches (see **Figure 2**)

Figure 2: Self-assessment of change management skills at baseline and end line

I need a lot of development	Legend need some d		I feel I	am well develo	oped		
Change Management	Ba	seline	n	End	d line	n	chi- square p- value
I understand what is meant by change, change concept and change management in the context of improving quality of care	43%	57%	28	2 <mark>%</mark> 33%	65%	43	p = <0.001
I understand different approaches to introduce and manage change successfully	50%	50%	28	2 <mark>%</mark> 47%	51%	43	p = <0.001

Respondents felt that they had less need for development of some team building skills at baseline, including resolving QI team conflicts and giving supportive and constructive feedback. They felt less confident about developing and distributing performance measures and leading QI team discussions on results and implications for continued improvements. At baseline, none of the 28 mid-level managers surveyed felt that they were well developed in all of the skills related to QI methods and tools, and 22 of 28 (79%) self-assessed themselves as needing "a lot of development" in at least one of the QI team building skills. At end line, 12 of 44 (27%) respondents felt that they were well developed in all skills related to team building and 31 of 44 (70%), responded that they either felt well developed or needed some development in all of the skills. Only one respondent felt that he or she needed a lot of development in any team building skills (**Figure 3**).

Figure 3: Self-assessment of team building skills at baseline and end line

I need a lot of development	need some development	Ifeel	I am well developed		chi-
Team Building	Baseline	n	End line	n	square p value
I have the skills, knowledge and ability to choose group members in order to build up an effective and efficient QI team	<mark>39%</mark> 54% 7%	28	23% 77%	44	p = <0.001
I have the skills, knowledge and ability to observe team processes and give both supportive and constructive feedback	29% 68% 4%	28	2% 18 <mark>% 80%</mark>	44	p = <0.001
I have the skills, knowledge and ability to ensure QI team members have a clear definition and understanding of their roles and responsibilities	<mark>46%</mark> 46% 7%	28	2 <mark>% 1</mark> 1% 86%	44	p = <0.001
I have the skills, knowledge and ability to collect feedback from QI team members regarding proposed/implemented changes	<mark>43%</mark> 54% 4%	28	2% 23 <mark>% 75%</mark>	44	p = <0.001
I have the skills, knowledge and ability to lead QI team discussions on results and implications for continued improvements	50% 46% 4%	28	25% 75%	44	p = <0.001
I have the skills, knowledge and ability to develop and distribute performance measures to QI team members	57% 43%	28	2 <mark>% 30% 68%</mark>	44	p = <0.001
I have the skills, knowledge and ability to identify, manage and resolve QI team conflicts	1 <mark>5%</mark> 73% 1 <mark>2%</mark>	26	36% 64%	44	p = <0.001

Legend
I need a lot of development I need some development I feel I am well developed

Respondents exhibited the most confidence in their abilities as leaders at baseline when fewer than 50% of respondents identified themselves as needing a lot of development on each of the leadership skills. At end line, respondents showed a higher level of confidence in facilitating and leading QI teams, motivating and giving opportunities to QI team members, understanding how the culture of a workplace influences quality of care, and building confidence of QI team members. Respondents showed a lower level of confidence in their ability to effectively champion the HIV/AIDS QI process in their district and directing the implementation and spread of improvement methods and tools across their district or region, indicating that they have greater confidence supporting individual QI teams than they do supporting collaborative improvement across teams (**Figure 4**).

Legend

eadership	Baseline		Baseline		Baseline		n		End line	n	chi- square p value
I can effectively champion the HIV/AIDS QI policy process in my district/region	43%	43% 14	% 28	2 <mark>%</mark> 36	% 61%	44	p = <0.001				
I can facilitate and lead QI teams to improve the quality of care and treatment services	36%	57% 7	% 28	0% 20 <mark>%</mark>	80%	44	p = <0.001				
I can lead improvement in HIV care and treatment services, aligning priorities and removing barriers	43%	50% 7	% 28	2 <mark>%</mark> 30%	68%	44	p = <0.001				
I can direct the implementation and spread of improvement methods and tools across the district / region	36%	57% 7	% 28	2 <mark>%</mark> 40	% 58%	43	p = <0.001				
I am able to motivate and give opportunities to any QI team member to exercise of his/her tasks	36%	54% 11	% 28	0% 2 <mark>0%</mark>	6 80%	44	p = <0.001				
I understand how the culture at workplace influences the quality of care	36%	61% 4	% 28	0% 2 <mark>3</mark>	% 77%	43	p = <0.001				
am able to build confidence and belief in team members' abilities to succeed	32%	54% 14	% 28	0% 21 <mark>%</mark>	79%	43	p = <0.001				

Figure 4: Self-assessment of leadership skills at baseline and end line

Respondents had greater confidence in their performance management skills at end line over baseline, but were more comfortable with their skills around describing and assessing indicators and reviewing documentation than they were with run charts, developing indicators, and differentiating between process and outcome indicators (**Figure 5**).

Figure 5: Self-assessment of performance management skills at baseline and end line

Legend

I need a lot of development I need some development I feel I am well developed

Performance Management	Baseline				End	line	n	chi- square p- value
I have the skills, knowledge and ability to describe indicator characteristics, help teams understand numerators and denominators for various indicators	Question not ask	ed at baseline		0% 1	8%	82%	44	N/A
I have the skills, knowledge and ability to develop indicators	61%	36% 4 <mark>%</mark>	28	5 <mark>%</mark>	39%	57%	44	p = <0.001
I have the skills, knowledge and ability to differentiate process vs outcome indicators	56%	37% 7 <mark>%</mark>	27	5%	45%	50%	44	p = <0.001
I have the skills, knowledge and ability to develop and interpret run charts	11%	15% <mark>8%</mark>	26	5%	49%	47%	43	p = <0.001
I am able to assess the status of performance measures and results of quality improvement projects / initiatives	68%	29% 4 <mark>%</mark>	28	2 <mark>%</mark>	34%	64%	44	p = <0.001
I am able to review QI documentation and make recommendations to QI teams for minutes format, documentation and analysis made by QI teams using SES journals	64%	32% 4%	28	0%	36%	64%	44	p = <0.001

Generally, respondents were more confident in their ability to communicate effectively and their awareness of how poor communication impacted quality of care, but needed to strengthen their ability in helping teams foster good communications skills and their skills in helping teams bring the patient perspective into the QI work at baseline. At baseline, one of the 28 mid-level managers surveyed felt that they were well developed in all of the communication skills, and 14 of 28 (50%) self-assessed themselves as needing "a lot of development" in at least one of the communication skills. At end line, 28 of 44 (64%) respondents felt that they were well developed in all communication skills and no respondent felt that they needed a lot of development in any communication skills (**Figure 6**).

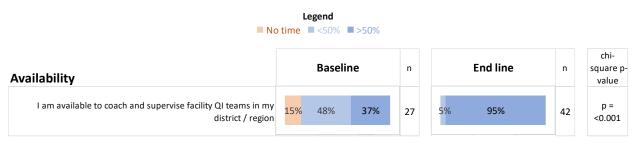
Figure 6: Self-assessment of communication skills at baseline and end line

chi-Baseline n **End line** square pn Communication value p = 14% 54% 28 43 I can communicate effectively <0.001 p = I understand how poor communication affects quality of care 11% 48% 27 43 < 0.001 I am able to guide QI teams improve communication and p = 39% 57% 169 overcome communication barriers between team members, 28 44 < 0.001 leadership as well as clients I understand my responsibility to speak up if something goes p = 18% 68% 149 28 44 wrong and I know how to do this < 0.001 I listen to the voices of patients and their families and use their p = 29% 54% 28 44 <0.001 input to inform quality improvement activities

Legend
I need a lot of development I need some development I feel I am well developed

Finally, respondents assessed their availability to coach and supervise teams as well developed or needing some development. At baseline, 15% of those surveyed said they had no time to coach and supervise facility QI teams while at end line, 95% of respondents said they could devote at least 50% of their time (**Figure 7**).

Figure 7: Self-assessment of availability to coach and supervise facility QI teams at baseline and end line



B. Endline Mid-Level Manager Interview Data

To gain a more in-depth understanding about institutionalization of quality improvement in the Southern Highlands Regions, fourteen mid-level managers providing QI coaching were administered an additional questionnaire asking about what QI activities they engage in now and what activities they expect to continue in the future after the end of ASSIST support. These questions were related to managing the QI team processes, technical assistance for QI, assistance in monitoring and use of data, and sharing results and lessons learned. Coaches consistently carried out the tasks related to managing the team processes and expect to continue to do so in the future. They were also asked questions their views about engagement of the main actors in QI and how to maintain engagement. Six of the mid-level managers interviewed were from Mbeya, seven from Ruvuma, and one from Songwe. Most of these coaches provided coaching to the health center (12) and district hospital levels (11). Some coaches provided coaching to regional hospitals (3) and dispensaries (3). One coach provided coaching to all four health facility levels, and two provided coaching only at the health center level.

All 14 interviewees got training in QI from the ASSIST Project while one mentioned getting updates from facility QI meetings. Ten coaches reported providing coaching visits three times, two coaches went 8 times, one went 4 times, and the last went 3-4 times per facility. Six coaches reported using only personal support/funds. The other sources were council funds (3), HJF (2), and a combination of WRAIR and personal funds (2).

Respondents were asked which policy factors are important for the ongoing success of R/CHMT engagement in coaching QI teams. Key factors mentioned were routine inclusion of the QI budget line in the Comprehensive Council Health Plan (CCHP), integration of QI coaching with routine supportive supervision and mentoring visits; adhering to a QI coaching schedule, having reliable transport; and R/CHMT participation. One coach mentioned making QI part of the national health policy of Tanzania. Respondents had differing interpretations when asked about legislation of a policy or changes required to operationalize and maintain QI coaching and mentoring by R/CHMT as a regular activity. Some focused on policy changes that were required to implement specific changes, such as when viral load testing can be conducted. Others focused on the need to budget for QI activities or allocate people on the duty roster to coaching. One said QI training was seen to be advantageous by the council. Others saw the requirement from the ASSIST project for data as a key factor; in the future the council could provide that role of requiring monthly data. Two interviewees saw no need for policy changes and two did see a need without specifying what was needed.

When asked whether the coaching process be incorporated into existing supportive supervision visits or should it run independently, opinions were split. Eight respondents said that the coaching process should run independently. They believed that there would not be enough time for adequate coaching if incorporated into supportive supervision. Six respondents thought QI coaching should be incorporated into supportive supervision. By incorporating the activities, it is more likely that they can be budgeted, continuity can be maintained, and people can continue to get practice providing QI support. Further, due to shortage of staff, the people who can provide supportive supervision and QI coaching overlap. Responses differed by region. Five of the six respondents from Mbeya thought coaching and supportive supervisions should be run independently. Four of the seven respondents from Ruvuma and the respondent from Songwe thought they should be combined.

In discussing how to institutionalize QI coaching and mentoring, respondents focused mainly on the need to include QI coaching in planning documents (CCHPs and strategic health plans) and to actively involve and train additional CHMT staff and CHMT staff reviewing indicators monthly to see results. QI coaching needs to be a routine duty, with one respondent from Ruvuma advocating that it be incorporated into monthly data collection visits. This respondent was one of the ones who thought QI coaching and supportive supervision should be combined. Individuals also recommended further developing QI tools and budgeting for coaching. Respondents thought the main mechanisms for making the R/CHMT accountable were to institute regular reporting: monthly at the CHMT level and quarterly at the RHMT level. They also cited the importance of allocating funds, advocating for the importance of QI, doing on the job training, and getting feedback from QI teams. The interviewee from Songwe suggested that QI be part of evaluation or the Open Performance Review and Appraisal System (OPRAS).

All of the coaches had been able to analyze coaching data generated from coaching visits. Examples cited included gaps in second test coverage for HIV-exposed infants (HEI), viral load testing, documentation of test results, and provider-initiated testing and counselling (PITC). The main actors to use facility QI coaching reports, in order of most to least frequently cited, were: implementing partners, facility staff, CHMTs, RHMTs, and coaches. Coaches recommended that these actors can be engaged by

sharing and discussing reports and results at various venues like quarterly HIV data review meetings, discussing what activities were targeted for improvement and making plans for future improvement, and including QI on the agenda for meetings. Dissemination of good results to other facilities can also drive engagement.

Mid-level managers were also asked about their current coaching activities and what they plan on continuing after the end of external support from USAID ASSIST. Most were and planning on continuing providing technical assistance related to managing team processes (**Figure 8**).

Figure 8: Technical assistance related to managing the team process

	Are you carrying out this task now?	Will you continue to do this task after ASSIST support ends?
Assess and strengthen a QI team's functionality	14	14
Assist QI teams to agree and understand their roles and responsibilities	14	14
Observe, identify, manage, and resolve QI team conflicts	13 1	14
Lead QI team discussions on performance results and implications for continued improvements	13 1	14
Advocate with managers to be involved in the QI activities at the site	14	14
	E Yes	No

They also consistently provided TA for all tasks related to QI with the exception of assisting QI teams to institutionalize successful changes (change management) (**Figure 9**).

Figure 9: Technical assistance related to quality improvement

	Are you carrying out this task now?	Will you continue to do this task after ASSIST support ends?
Develop or draw flow charts or process analysis diagrams	14	14
Review documentation and analysis made by QI teams using SES journals	14	14
Develop an improvement action plan	14	14
Identify changes to test	14	14
Use PDSA cycles to make small-step-change to care delivery processes	13 1	14
Assist QI teams to institutionalize successful changes (change management)	9 5	13 1
	🔳 Yes	No

Coaches provided a lot of support for monitoring and use of data, although some coaches were not currently verifying the validity of indicator data. All had plans to do so moving forward (**Figure 10**).

	Are you carrying out this task now?	Will you continue to do this task after ASSIST support ends?
Assess the status of performance measures (indicators) and results of QI initiatives implemented by QI teams by reviewing records, databases	13 1	14
Assist QI teams understand numerators and denominators definitions for various indicators and calculation of indicator values	14	14
Verify validity of various indicator data	11 3	14
Draw the graphs for a time series chart (run chart)	14	14
Annotate run chart with changes and other events	14	14
Interpret run charts for various indicators	14	14
	📕 Yes	No

While most coaches provided support to the individual QI teams they supported and reported each team's indicator performance to higher levels of the system, few coaches thought they were currently carrying out tasks related to sharing results and lessons learned, including documenting best practices, spreading improvement methods and tools across the district, and communicating results from one team to another team in their district (**Figure 11**). It is possible that they had not yet been working to spread improvement

methods or disseminate results because at the time of end line data collection they only had six months of experience since they began working on QI coaching in May 2018. The coaches expect to perform these tasks in the future without ASSIST support. Doing so will be essential to maximize the impact coaches can have within their district or region.

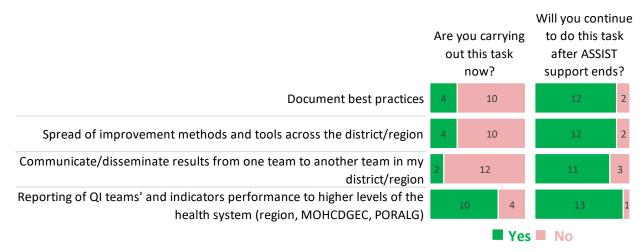


Figure 11: Assistance related to sharing results and lessons learned

C. Facility Perspective

To gauge institutionalization of QI from the perspective of the health facilities, representatives of 13 health facilities were asked a series of questions related to indicators of institutionalization. The 13 facilities include 6 facilities in Mbeya, 5 in Ruvuma, and 2 in Songwe and were 7 health centers, 4 hospitals, one dispensary, and one unidentified facility.

Gaps persist in funding for QI activities, with few facilities having funds allocated for QI and only one advocating for them in the CCHP. Not all facilities were attending sharing meetings and only six of the 13 were orienting new staff to improvement. All facilities were tracking indicators and reporting them to the district and regional levels, were clear on QI roles and responsibilities, and had copies of national QI documents. Seven facilities had spread the use of improvement methods to areas beyond HIV and AIDS (**Figure 12**).

Figure 12: Facility Perspective on Institutionalization

Indicator	Question	Yes / No	Summary of yes responses
Commitment to include improvement as an activity; advocate for funding	Has a commitment been made by the RMO/DMO/RC/DC/DED to address and improve care?	8 5	Funding provided to train 3 staff on QI (2 facilities), provide transportation for coaches to attend QI training and for coaching visits (1 facility), refreshments for QI meetings (1 facility), and budget for motivation of QI team members (1 facility)
	Have funds been allocated for this year?	9	The source of funding was identified as the IP (2) or not identified (2)
	Are funds for QI regularly/continually advocated for in the CCHP?	12	
Policy and guidelines/strategic plans/standards	Is there a written improvement policy and plan?	5 8	All facilities, regardless of whether they answered yes or no, cited the availability of plans in the SES forms (13). Additionally, cited policy on infection prevention and control (1), and written policy on monthly QI meetings (1). All facilities in Ruvuma responded no, all other facilities responded yes
	Please list National QI documents for which you have copies	13	National QI guideline (10), QI participant manual (10), QI training notes (4), SOPs(3), SES forms (3), health systems strengthening strategic plan for HIV/AIDS (1), QI guideline (1), and QI checklist (1)
Recognition of improvement	Are there explicit incentives for achieving improvements?	13	Verbal appraisal (10), written appraisal (4), tablets provided during data review meeting (3), meeting refreshments (3), allowance after meetings (1), 1 member selected to attend QI training (1), per diem paid (1), attend meetings (1)
Communication within regions on performance and feedback	Is there a mechanism by which improvement information on communicated from regional to facility?	13	Whatsapp (13), phone calls (12), visiting (8), email (3), written QI materials (1), and feedback reports (1)
	How many sharing meetings or episodes were conducted this year?	6 7	Five (5) teams had one sharing meeting or episode, two teams had two. The venues included data review meetings (2), CTC (1), regional (1), CHMT (1), and with NGO partners (1)
Roles and responsibilities	Is/are there staff member(s) who are tasked with improvement responsibilities?	13	Facilities generally described a set up where a chairperson organizes and ensures meetings take place, a secretary keeps minutes, a data clerk manages the data, and each member is assigned an indicator to track
	Are staff clear on their QI roles?	13	
Regular meetings and visits to facilities	Are there meetings and RHMT and CHMT levels and with facility staff about improving care? How often?	3 10	Meetings occurred as often as monthly (1), quarterly (1), four times (1), three times (3), 2 times (2), and once (2). Three of six facilities in Mbeya responded no to this question. All other facilities responded yes.
Introduction of new staff into improvement	Are new regional and district staff (and relevant regional-level partners) oriented to improvement?	7 6	Facilities described what they do in different ways, including a focus on the 5 S's, giving new staff a completion form, orienting them on QI and reporting, and following up the QI training with 2 days of practice
Financial support included in budget (meetings, transport)	Do activities directly targeted at improving care receive funding?	9	Incentives included transport (2), 10000 TZS (USD 4.33) for submitting QI meeting minutes (1), and funds allocated for refreshments (1)
Monitoring and tracking data, identification of problems	Are improvement indicators being tracked at the district and regional level?	13	All facilities except one stated that 8 improvement indicators were being tarcked at the district and/or regional level. The other facility said they are tracked at the clinic level.
Application of improvement activities to other clinical areas	Have improvement methods been used in areas beyond HIV/AIDS program?	6 7	Facilities mentioned applying improvement methods to TB (4), nutrition (2), and immunization (1). One facility mentioned adapting the system for tracking LTFU from HIV and applying it to tracking LTFU in immunization. One facility had not yet used improvement methods in other areas but plans to use them for malaria

IV. Discussion

This report presents the findings of an examination of mid-level managers (R/CHMTs) as QI coaches in an effort to institutionalize support for improvement in three regions in Tanzania. Coaches and mentors play an important role in improving the quality of care (Bradley et al, 2008; Magge et al 2014; Race and Skees, 2010). Using local coaches has been shown to be a sustainable approach to building capacity (Horwood et al, 2015; Manzi et al, 2017). There has been some discussion in the literature about the merits and challenges with internal versus external coaches (Knights and Poppleton, 2008). R/CHMTs occupy a unique position as internal to the health system but external to the facility.

Mid-level managers self-reported a significant improvement in their understanding of QI methods and their ability to support facilities in improving the quality of HIV care. The number of visits these coaches carried out ranged from one to 4. The fact that only 3 of 14 interview respondents reported having coaching visits financially supported by the council suggests that support for could be enhanced, but that the interview respondents saw enough value in the coaching visits to self-fund them.

Findings suggest that QI coaching visits from R/CHMTs could be built into ongoing supportive supervision visits but would have to be intentionally designed to ensure both supervision and coaching received the support and focus needed to be successful. Other research indicates that building coaching and mentorship into existing supervision can effectively improve the quality of care (Bailey et al, 2015; Cancedda et al, 2014), however these studies do not focus on building the capacity to continuously improve. Most coaches indicated they were currently providing support for monitoring and data use, and all planning on continuing this support after the end of ASSIST which can target improvement and aid in prioritizing efforts (Manzi et al, 2017).

Respondents suggested the following mechanisms for institutionalizing and building accountability for improvement: including building QI coaching in planning documents and funding; developing QI tools for coaches; building R/CHMT capacity to review monthly indicator data; ensuring regular QI reporting at R/CHMT meetings; and including QI in R/CHMTs performance evaluation.

At the facility level, challenges around funding persisted. There was room for improvement in participating in shared learning opportunities and ensuring new staff were educated in improvement. Despite these challenges, all facilities were tracking indicators and reporting them to the district and regional levels, were clear on QI roles and responsibilities, and had copies of national QI documents. Additionally, seven facilities had spread the use of improvement methods to areas beyond HIV, indicating a level of comfort with QI.

D. Limitations

A limitation of the findings is that the end line results for the self-assessment survey include respondents from Ruvuma Region who were not included in the baseline, so it is possible that the Ruvuma participants had a different perception of their need for development of QI skills at the start of the project. Because no identifying information was collected in the surveys to promote openness, it was not possible to disaggregate the results by region. However, given the large differences in baseline and end line perceptions, it is unlikely that disaggregating by region would change the overall results. Self-assessment data is valuable, but could be strengthened by direct observation of coaching sessions to evaluate the quality of support.

V. CONCLUSION

Mid-level managers can provide coaching support to facilities in improving the quality of care in Tanzania and may be an effective mechanism for institutionalizing QI. Efforts should be made to administratively and financially support R/CHMTs to providing further coaching to current facilities and spread changes and improvement methods to other facilities.

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