Question	Addressed to	Response
Does the intervention on ICT need to be modified in such a way that it require also a training or orientation on hw to use it routinely and uniformally?	Dr. Alex Rowe	Yes, there was some kind of training or orientation. Note that my systematic review did not consider this type of "training" to be a "training" intervention. In other words, it was expected that most interventions would need some kind of orientation on how the intervention would work.
Would you please provide some examples of community support? Does this include work on community engagement and accountability?	Dr Alex Rowe	An example of "community support" would be community education. I could also include community engagement and accountability.
What do you mean by "high-quality research" on CHWs? Can you give an example of a research project on CHWs that is "high-quality"?	Dr Alex Rowe	By "high quality", I mean in terms of risk of bias. So, a high-quality design would be a randomized controlled trial with no large flaws (e.g., loss to follow).
Were there studies that included training and mentorship?	Dr Alex Rowe	"Mentorship" was considered to be in the same intervention category as supervision; and the systematic review had 26 study comparisons on "training + supervision". The grouping of mentorship and supervision was done for 2 reasons. First, a good supervisor provides mentorship. Second, the term mentorship (as far as I can tell) has appeared relatively recently (in the past 10 years or so) in the scientific literature on improving health worker performance in LMICs. So, it would be problematic to misclassify older studies of mentorship as not being mentorship just because older studies weren't using that term.
How do studies of performance and studies of interventions to improve HW performance account for and control for enormous variations in workloads, timely access to required resources and equipment to deliver services, appropriate staffing levels, health worker wages, etc.?	Dr Alex Rowe	Excellent question. We don't control for these important factors. The problem is that study context is often not described very well, and when it is, it's never done in a standardized way. It would be a huge improvement if future studies could characterize context in a useful, standardized way.
For QI projects of HCW performance in facilities with evolving strategies with PDSA cycles so there are no defined 'protocols' per se, but where gathering quality of care indicitors involves gathering data about patient care, how is IRB and ethics approached?	Either speaker	In the one study that I've done of QI methods and PDSA cycles. There was a protocol, and IRB and ethical clearance was handled in the usual way.
In the systematic review, are there any clear differences in effects in 'L' versus 'M' countries among 'LMIC'- i ask as in practice there are massive differences in infrastructure and and capacity. I wonder how useful the concept of LMIC still is.	Dr Alex Rowe	See Table N2 of Appendix 1 of the 2018 Lancet GH article. Briefly, "group problem solving only" and "patient support + training" tended to be more effective in middle-income countries compared to low-income countries. In contrast, the following strategies had similar effect sizes for low vs. middle income countries: supervision only, printed information for health workers, supervision + training, and training.
What has been the impact of COVID-19 vaccine rollout in HCW improvement either pre- or post- COVID?	Dr Owen Musopole	The coverage of vaccine amongest HCWs has improved greatly. Many HCWs were affected especially during 2nd wave and we experienced heavy workload and poor quality of service during Covid 19. Most quality improvement stalled during covid 19 as QIST meetings and other services were suspended
What has been the role of regulatory systems in quality improvement programs for health workers?	Dr Alex Rowe	It's very difficult to say, as we had few studies of this, and regulations were always combined with many other strategy components.
Could you kindly share some of the QI tools used in Malawi?	Dr Owen Musopole	Many QI tools but commonly used are the prioritization matrix, parato charts, 5whys plus RCA (Fishbone) and we do alot of PDSAs. We alos use 5S tools.
What strategies do you use to promote and ensure people-centred care?	Dr Owen Musopole	We have put in place client feedback and complaint redress mechanism using an officer called Hospital Ombudsman. Others systems that need improvement include patient satisfaction surveys and community scorecards. With Covid pandemic, community scorecards are not done currently, hopefully after covid 19, these initiatives with resume

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What are the Human Resources issues you mentioned exist in Malawi and how have you been able to navigate or proffer solutions to these issues	Dr Owen Musopole	Chronic problems with human resources for health,however the country continues to train more and putiing in place retention strategies to motivate crtitical staff to stay in country by working on better conditions of service, career progression through promotions and many more while paying attention to the economic status of the country
Did you explore QI interventions engaging clients and taking into account their perspectives? If yes what was the results from the literature?	Dr Alex Rowe	I don't recall seeing this kind of intervention exactly, although many studies "engaged" patients.
Could you speak to the implementation of 'standard 9' - community engagement for QoC (specific learnings on approaches and sustainability), and if you could also touch on any plans to expand QoC to service delivery at community level?	Dr Owen Musopole	Malawi uses community structures like Villige health committees, Health center management committees and health surveillance assistants to provide out reach clinic services, Community based newbone health interventions and others. Standard 9 helps us to strengthen functionality of these structures since some of the facilities under QOC are health centres that serve rural communities.
How are the activities funded/supported that are done to address the gap for QI-Hospital or MOH?	Dr Owen Musopole	Some activities are supported by Government through Other Reccurrent Transaction (ORT) if there are in the District plans and budgets. Partners also support districts to achieve their plans
Do we know why only 6 per cent of health workers were washing their hands in the facility before the QI process?	Dr Owen Musopole	Lack of understading on the importance, Hand washing facilities not available at strategic points and lack of enforments
Was there standard indicators fixed for QI projects across the facility? If so, was it automated?	Dr Owen Musopole	No automation, Facilities choose their own QI projects depending on their prioritized problems
How do you drive staff engagement in quality improvement?	Dr Owen Musopole	When the leadership of the facility shows committment to QI activities and commit necessary resources towards QI activities, staff easily follow. Leadreship needs to be innovative and creative to make sure that QI activities are meaningful and positive results also serves as an encouragements especially when they are cerebrated
What is your experience in engaging central government to easily get the project approved?	Dr Owen Musopole	We continue to engage central government to embrace quality in all depertment since quality is crosscutting
Can you describe the community engagement for QOC - learnings on approaches and sustainability?	Dr Owen Musopole	Community engagement through community scorecards is the best but has not been rolled out adequately in Malawi because of covid 19 and resource gaps. We have not lerned much on this curently, will be able to share more in the next sharing
How do you continue the supportive supervision to ensure sustainability? Who provides it? Is the facility leadership involved to engage? What rewards and recognitions apart from certificates did you provide?	Dr Owen Musopole	Supportive supervision is a core functon of managers. It has to be planned and budgetted for. Supervison at different levels within the facility by facility management or by external supervisions from central level
What are the major reasons for high staff turn over and how have we mitigate this in private hospitals?	Dr Owen Musopole	Major reason is condition of services and the government is working toward addressing the issue
Any reason for senior doctors not participating?	Dr Owen Musopole	Senior doctor think QI is for nurses and junior staff. We feel this is so because of lack of knowledge about Quality. We continue to involve them them through trainings and other QI activities and we are hopeful for a breakthrough
Are the factors influencing quality performance similar in terms of priority for public HW and private HW considering that the 'what is in it for me' for the two sectors might differ.	Dr Alex Rowe	Great question. My team didn't examine this in detail. However, if you go to the review's website (www.HCPperformancereview.org), go to the home page, you can do a quick analysis (separately) of studies in "public sector" and "private sectors" settings to see how the strategies (and their effectiveness differs).

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Is there evidence that (i) training on QoC itself is helpful? And (ii) QoC interventions when combined with recognition/reward (e.g. RBF) are more beneficial? (iii) disease/program-specific HW capacity-building interventions (this is often the case that drives HW capacity initiatives?	Dr Alex Rowe	There's a lot of evidence that shows that training is helpful, but the effects are not that high (in the 5 to 10 %-point range) and the effects tend to wane over time. Regarding RBF, we found that the effectiveness tended to be modest, but I'd refer you to the 2018 Lancet GH paper for details.
Are there some frameworks available to evaluate healthcare worker performance improvement methods?	Dr Alex Rowe	Much has been written on evaluating health worker performance. I don't know of a single reference that summarizes the strengths and limitations of all the methods. I will try to find something useful.
When can we move from project to program in QI?	Dr. Owen Musopole	QI projects are part of Quality Improvement program.We do alot of QI projects in Quality improvement and are platforms for learning problem sorving skills
How is supervision defined? Is there a minimum number of visits?	Dr. Owen Musopole	Supervision can be at different levels to support the teams on the implementation sites. Central level and district management level supervision. It helps in appreciating progress and also resolving challenges on sites. We do supportive suppervision usually quarterly or bianually subject to resources availabilty mostly
Was mentorship looked at as training on site or was it not assessed as an intervention?	Dr Alex Rowe	Mentorship was analyzed in the same category as “supervision,” although I recognize that there is overlap (e.g., a good mentor will provide education).
Have the new guidelines/standards in Malawi been rolled out? How is this working?	Dr Owen Musopole	We have rolled out especially standard 1 and 9. in most facilities under QOC learning. We are still learning and hoping for the best with Covid 19 as it is draining our efforts
I understand that different context has influences on the outcomes of the study? So can we conclude that the study will give better conclusion if made for each country rather than all the countries combined?	Dr Alex Rowe	Very interesting question. Ideally, we’d want context-specific effectiveness estimates for intervention (e.g., what’s the effectiveness of training in hospitals versus outpatient clinics?). Practically speaking, however, there are generally too few studies to do this. And if you look at the results from one study with a specific context of interest, you’d might well wonder if there were “unmeasured” factors that influenced strategy effectiveness, and thus a single study might be an outlier. Looking at aggregate results (e.g., across many contexts) can help because measures of central tendency (e.g., median effects) might help decision-makers when (for example), they are considering implementing an intervention at scale, which covers many different contexts. I think it’s best to use both approaches. That is, look at results of individual studies or small groups of studies in a given context, but also look at aggregate results. The latter can also be examined with models to identify contextual factors that influence effectiveness (e.g., the 2018 Lancet GH study found that effectiveness tended to be greater when strategies were implemented in public health facilities compared to private facilities). All that said, it’s also very important to prospectively monitor performance wherever an intervention is implemented, as that local data is (by definition) representing the context that you care about.