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Ensuring equal participation and inclusion in a knowledge exchange initiative: evaluation using an equity-integrated logic model and checklist

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To ensure effective knowledge management (KM) in global health programs, all health workforce members must engage in the knowledge cycle, and KM systems must value and respect individuals' unique knowledge needs and perspectives, regardless of their identity. However, power and privilege imbalances result in inequitable differences in KM opportunities and outcomes. We introduce the equity-integrated Knowledge Management for Global Health Logic Model and checklist and apply them to evaluate a knowledge exchange intervention. These tools can help plan for and monitor and evaluate equitable KM interventions by identifying who might be experiencing inequity in KM systems and which aspects of KM tools and techniques are not being delivered equitably. The evaluation identified key approaches that helped make the knowledge exchange intervention equitable including using an inclusive design thinking approach, adopting dialogue-based KM techniques, and including French-language discussion spaces for francophone participants. Challenges included meeting the high demand for participation, introducing new technology without hindering the opportunity for equal participation, and balancing the need for more discussion time, especially for Francophone participants, with participants' overall limited time to participate. This case study demonstrates the utility of these tools as "niche innovations" for building more inclusive and useful KM systems and processes.

Keywords: global health; equity; logic model; checklist; measurement; community of practice; knowledge exchange; knowledge sharing

Introduction

Knowledge management (KM)—the systematic process of collecting and curating knowledge and connecting people to it so they can act effectively—is one of the most valuable assets in

addressing current global health challenges (Salem et al., 2022a). Effective KM can help the health workforce find, share, and apply timely and relevant information, as well as collaborate across geographic boundaries, to enhance health systems and achieve health and development objectives, ultimately helping to improve and save people's lives (Salem et al., 2022b). People, processes, and technology make up the three essential elements of knowledge management (Pee & Kankanhalli, 2009), but the critical importance of people in this equation cannot be underestimated. Knowledge management is about creating additional value through knowledge creation and transfer, with thought leaders putting people first (Limaye et al., 2017) and championing a "knowledge-sharing culture as vehemently as they champion tools and platforms" (Behme & Becker, 2021: unpaginated).

KM has a long history of breaking down silos and creating opportunities for diverse groups of people to share information with each other (Trees, 2022). Still, the global health field, and the KM systems within global health, are not immune to power and privilege differentials, which are rooted in unequal relationships between high- and low-income countries arising from the "pillars of colonialism" and neocolonialism (Beaulieu, 2013; Salem et al., 2022b). It is, therefore, crucial to intentionally integrate equity into KM for global health initiatives to ensure everyone in the health system has a fair opportunity to define and participate in the KM systems. Drawing on the World Health Organization (WHO) definition of health equity (WHO, no date), we define equity in KM for health programs as "the absence of unfair, avoidable, and remediable differences in knowledge creation, access, sharing, and use among groups of health workforce members, whether those groups are defined socially, economically, or environmentally" (Salem et al., 2022a: vi). Examples of socially defined identities include age, race, ethnicity, physical ability, gender identity, and language. Economically defined identities include income and occupation while environmentally defined identities include geographic location and level of the health system.

Practical tools for integrating equity in KM are lacking. Some checklists exist to ensure diversity, equity, and inclusion in events and conferences (for example, Columbia Business School, 2021; OpenCon, 2017) or global health partnerships (for example, Larson et al., 2022). Also, recent webinars have shared considerations and ideas as KM teams integrate diversity, equity, and integration into their work (for example, Rockefeller Philanthropy Advisors, 2020; Trees, 2022). This article shares two new practical tools for integrating equity in KM initiatives—an updated KM for Global Health Logic Model and an accompanying checklist—that aim to fill this gap. To demonstrate the utility of these tools, we apply them to an evaluation of a knowledge exchange intervention called Learning Circles to assess the extent it is equitable and to identify areas for improvement. Based on the findings from the equity-centered evaluation, we also provide recommendations for designing

equitable knowledge exchange interventions that are applicable to KM practitioners more broadly.

Tools for integrating equity into KM for global health programs

The Knowledge Management for Global Health Logic Model, developed by a community of practice of KM professionals working in global health and development called the Global Health Knowledge Collaborative (https://ibpnetwork.org/topics/14344), is a tool for planning the resources and activities needed to reach global health programs' knowledge and program outcomes. In the model, the problem statement and long-term outcome surround the central components of the model—inputs, cyclical processes and outputs, and outcomes—with monitoring and assessment occurring throughout. A thorough description of the original KM for Global Health Logic Model can be found in Ohkubo et al. (2015).
An equity-integrated version of the logic model, published in May 2022 by the Knowledge SUCCESS project (Salem et al., 2022a), features a revised problem statement and long-term outcome to highlight the link between efficient, effective, and equitable KM and stronger health programs, policies, and practices (Figure 1). Key equity prompts are included for each component of the logic model to analyze ways in which knowledge needs and barriers may vary by the identities people hold.

Inputs are the investments made in the KM initiative, such as people, data and information, financial resources, and technology. The equity prompts in this component focus on who and what are being included as part of the KM system, and who makes those decisions—issues that typically point to fundamental questions of power and privilege. For example, predominant KM methods used today in global health, which are grounded in scientific methods such as randomized controlled trials, were designed by and for people with historically more power and privilege (King et al., 2016). Although such evidence is critical for advancing the global health field, it is also just as critical to recognize and value the "know-how" or experiential knowledge of practitioners implementing and scaling interventions under real-world conditions. Understanding the power and privilege differentials at the inputs level can guide a KM initiative from the start to be more equitable.
The Inputs feed into intertwined Processes and Outputs: the processes consist of the KM cycle of knowledge assessment, generation, capture, synthesis, and sharing while the outputs are the KM products and activities resulting from that knowledge cycle. The equity prompts in the Processes component ask how power and privilege influence the stages of the KM cycle, the forms in which knowledge is shared, who it is shared with, and how norms and policies influence knowledge flows. For example, gender homophily, which is the preference to interact with people of the same gender identity, can limit women's and men's ability to

access knowledge within an organization through informal networks and male- or female-dominated partnerships (Plourde & Thomas, 2019).

At the Output level, equity is assessed by the four essential elements to equitable and effective KM tools and techniques: they should be **available** to everyone in the health system; **accessible** to everyone at no or reasonable cost and consider people's format, language, timing, and technology needs; **acceptable** by respecting people's culture and being responsive to their identities; and of high **quality** (accurate, up-to-date, unbiased, and relevant). These four elements are adapted from the global health field's essential elements of health services (UNCESCR, 2000), which are linked to the economic, social, and environmental categories of people's identities. For example, health workforce members may experience barriers to accessing certain KM products or events because they do not speak or understand the language (a social construct) used in the KM product or event, or they lack access to digital technologies because they live and work in rural areas (an environmental factor). By integrating equity considerations throughout KM systems and processes, we expect to achieve stronger and more equitable outcomes in the health program.

The Checklist for Assessing Equity in Knowledge Management Initiatives (equity checklist) and its accompanying how-to guide expand on the prompts from the logic model to assess equity-related strengths and weaknesses in KM initiatives (Knowledge SUCCESS, 2022). While the equity-integrated logic model is intended to be used when designing and planning new KM interventions or when monitoring and evaluating existing KM interventions, the checklist is designed as a practical tool to use when preparing to implement KM interventions and as a reference tool throughout implementation. For this reason, the checklist is organized by the five-step KM Road Map for global health programs, 1) Assess Needs, 2) Design Strategy, 3) Create and Iterate, 4) Mobilize and Monitor, 5) Evaluate and Evolve, and it also includes broader KM systems-level considerations. Finally, the checklist also includes nuanced considerations for specific types of KM tools and techniques, whether they be publications and websites or KM events that bring people together for discussions.

Learning Circles case study

Background about Learning Circles

In May 2021, Knowledge SUCCESS, with support from the U.S. Agency for International Development (USAID), launched a highly interactive regional online series, called Learning Circles (https://knowledgesuccess.org/learning-circles/), to allow for dialogue, learning, networking, and collaboration among family planning and reproductive health (FP/RH)

professionals working in the same region. Although we had not yet published the equity-centered tools, we did consider equity in the design of Learning Circles. For example, to mitigate unequal power dynamics that may limit participants from openly sharing their experiences, Learning Circles gathers mid-career program managers and technical advisors from Asia and Anglophone (English-speaking) and Francophone (French-speaking) sub-Saharan Africa—the three broad regions where the project's priority audiences are from.

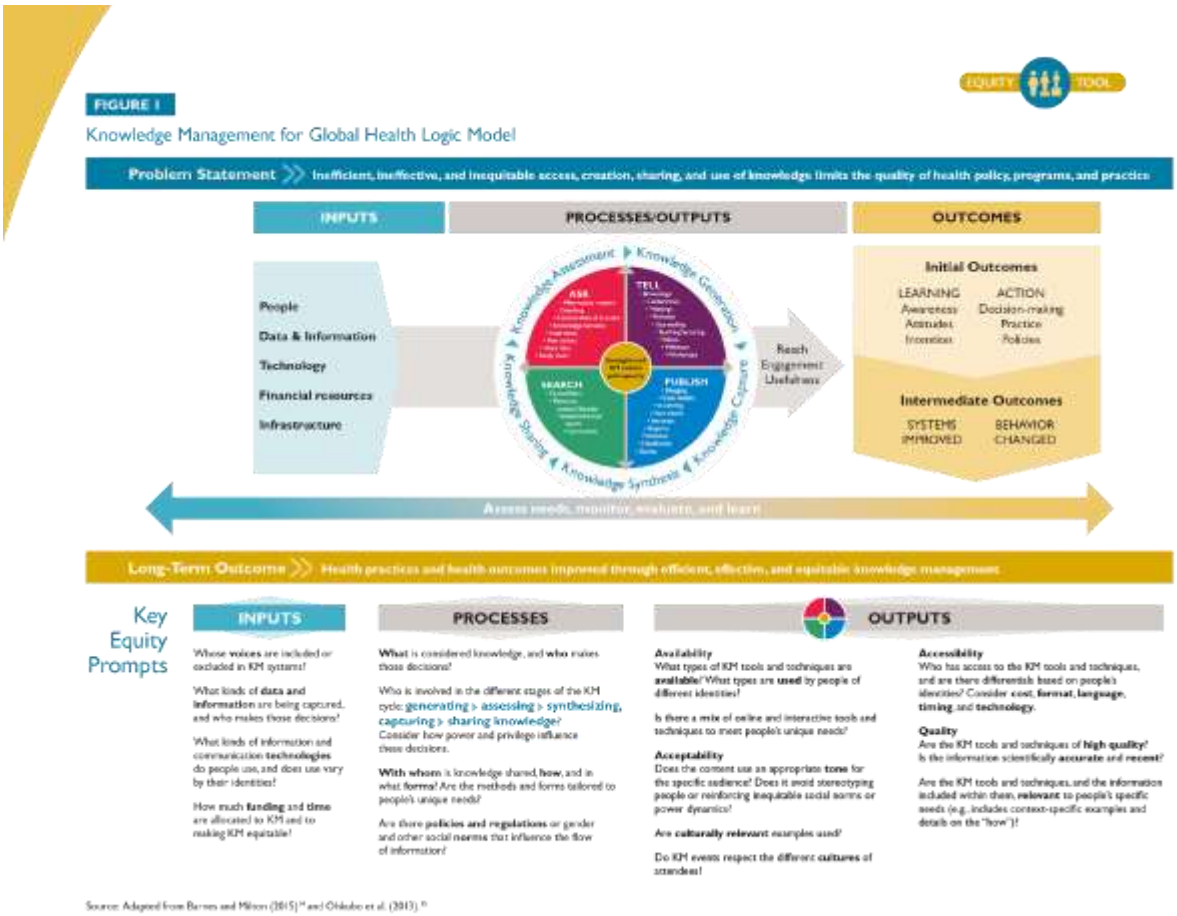

Figure 1: Knowledge management for global health logic model

Participants share knowledge during four live Zoom sessions (each session is 1.5–2 hours long) in plenary with the full cohort (approximately 30–40 members) and small groups (3–6 people each). In the small groups, knowledge is shared using a mix of KM approaches where participants take turns sharing their personal experiences on what works and what doesn't work in FP/RH programs and soliciting advice/feedback from one another. For the first cohort in Anglophone sub-Saharan Africa, the activities in each session built on one another (e.g., identifying common challenges and opportunities through a Rose, Bud, Thorn exercise

[Mural, no date] followed by developing "15% solutions" [Lipmanowicz & McCandless, no date]), requiring consistent engagement from each participant from session to session. Based on feedback, the program was adjusted so that each session's activities were relatively independent of one another. Specifically, expectation boards are used to share and discuss participant expectations on what they hope to achieve; Appreciative Inquiry and 1-4-All (adapted for a virtual setting from 1-2-4-All) to share exceptional experiences in FP/RH programming and the factors that made them a success; Troika Consulting to share challenges and generate solutions; commitment statements to craft action items that are within the individuals' reach; and open spaces to encourage continued dialogue after the Learning Circles experience ends. (For more about these techniques, see the Liberating Structures website at https://www.liberatingstructures.com/.) In between live sessions, participants continue the discussion over WhatsApp with prompting questions from the facilitators (Figure 2).

By creating a space where participants feel comfortable sharing detailed, practical solutions to program challenges with their peers, Learning Circles aims to improve reuse and adaptation of FP/RH best practices while avoiding past mistakes. Key insights from each regional cohort are documented and shared online so that the wider FP/RH community can benefit.
In the first round of the Learning Circles series in 2021, Knowledge SUCCESS held three regional cohorts where 104 participants from 31 countries in Africa and Asia discussed successes and challenges in FP/RH. Each cohort focused on a particular theme:

- **Anglophone sub-Saharan Africa:** Addressing Challenges in FP/RH During COVID-19
- **Francophone sub-Saharan Africa:** Meaningful Youth Engagement in FP/RH Programs
- **Asia:** Ensuring Continuity of Essential FP/RH Services During Emergencies

Evaluation methods

To assess the equitable nature of Learning Circles, we used multiple data sources.
First, we adapted the logic model equity prompts for Learning Circles (see the Supplement) and used **administrative data** to answer the equity prompts related to Inputs and Processes.
We conducted an **online survey** (in English and French in August 2022) of Learning Circles participants from the first three cohorts (n=104). The survey assessed the Availability, Acceptability, Accessibility, and Quality (AAAQ) of Learning Circles from the participants' perspective and the Outcomes resulting from their participation. No tangible benefits were offered to complete the survey. Twenty participants completed the survey (21% response rate) (see Table 1). Survey data were disaggregated by gender identity and region to identify any notable differences in AAAQ by key identity groups. Descriptive statistics were used to summarize the data.

We also conducted **in-depth interviews**, in English or French over Zoom between July and August 2022, with a sub-sample of Learning Circles participants who attended, at minimum, the last session of their regional cohort when participants developed their commitment statement (regarded as a key activity and output of Learning Circles). The interviews used the questions from the Most Significant Change (MSC) technique, a complexity-aware monitoring and evaluation method (Davies & Dart, 2005), to assess Outcomes of Learning Circles with supplemental questions to better understand any equity-related issues related to the AAAQ of Learning Circles. Participants were offered US$25 upon the completion of the virtual interview as compensation for any internet data charges incurred. The interviews were recorded with the participants' permission to allow for transcription, coding, and analysis (using ATLAS.ti). All interviews, coding, and analysis were conducted by two authors (NM and MY) who were not a part of the Learning Circles program or planning process. We completed 15 in-depth interviews, 5 from each regional cohort (see Table 1).

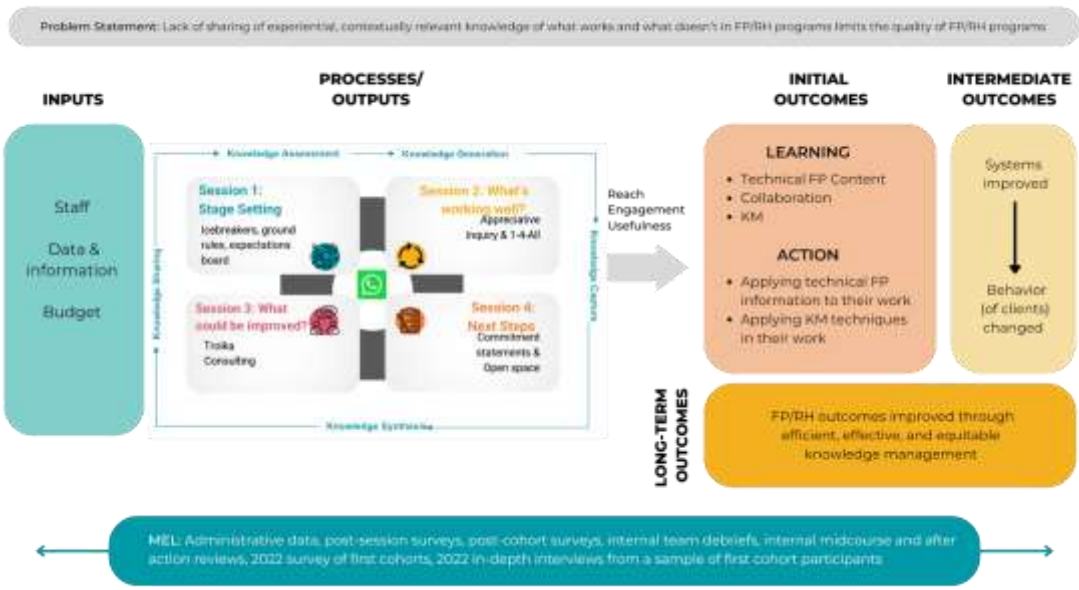

Figure 2. Learning Circles Program and Logic Model

In addition, five team members involved in designing and implementing Learning Circles individually and anonymously completed the **equity checklist** in Google Forms in English or French in July 2022. One of the authors (RT) then collated and synthesized the responses and led a 1-hour facilitated discussion, with four of the team members, focusing on the checklist items with the most discordant responses to reach consensus about strengths and areas for improvement.

This research received ethical approval from the Johns Hopkins Bloomberg School of Public Health Institutional Review Board. All in-depth interviewees and online surveyors consented before the start of the interview/online survey.

Limitations

During the in-depth interviews, some interviewees experienced internet connectivity issues, which disrupted discussions and forced many participants to turn videos off so that visual cues could not be accounted for by the participants nor the interviewer. While there was a tangible benefit for participating in interviews, there was none for the online survey, which may have resulted in selection bias because those who are more invested in Learning Circles have more reason to give their time freely. In addition, although we collected interview data in French (for Francophone Africa-based participants), this data was then translated to English and combined with the English data during analysis, which could have resulted in nuances lost in translation. Finally, we had small sample sizes, particularly for the online survey, so our ability to generalize is limited especially when disaggregating the data by the relevant identities of participants.

Table 1. Participants by Learning Circles regional cohorts

Regional cohorts	Learning Circles participants	Participants attending the last session	Online survey respondents	In-depth interview participants
Anglophone sub-Saharan Africa	38	18	6 (2 women/4 men)	5 (2 women/3 men)
Francophone sub-Saharan Africa	38	18	9 (4 women/5 men)	5 (2 women/3 men)
Asia	28	12	5 (1 woman/4 men)	5 (3 women/ 2 men)
Total	**104**	**48**	**20 (7 women/13 men)**	**15 (7 women/8 men)**

Findings

Below we present the findings by the main elements of the logic model: Inputs, Processes, Outputs, and Outcomes. The results are also summarized in Table 2.

Inputs

We assessed equity of Learning Circles at the inputs level by reviewing administrative documents and using the equity checklist to consider whose voices were included or excluded when designing and implementing Learning Circles, what kinds of data and information were used to design it, and the resources allocated to address equity.

An important strength identified through the equity checklist was that the design and implementation of Learning Circles emerged from potential participants themselves through earlier co-creation activities with FP/RH professionals worldwide. Another strength was that the project design team held several types of reflection and adaptation meetings throughout implementation, including regular team meetings, facilitator debriefs after each session, and midcourse and after-action reviews, which led to improvements in the Learning Circles program. One area for improvement noted was to collect and disaggregate immediate post-cohort survey data based on key demographic characteristics of the participants to facilitate ongoing equity analysis.

As a new KM innovation for the project, significant staff time and budget were allocated to Learning Circles. The core team has ranged from 8 to 10 team members, with representatives from Kenya, the Philippines, Senegal, and the USA (generally 2 team members per regional cohort plus an additional 2–4 team members working across the regions to facilitate synergy and idea sharing). When completing the equity checklist, the team thought the internal team structure and dynamics were generally equitable, noting, for example, that the team reflected the diversity of the context in which Learning Circles operated and that roles were equitably and transparently distributed.

The percentage of the project budget allocated to Learning Circles has increased from about 3% in the first year of implementation to about 7% in the second (current) year, primarily to account for adequate staff time to facilitate rich discussions among the participants. When completing the equity checklist, the team suggested it may be helpful to explicitly identify the percentage of the activity's budget that is allocated to ensuring equity (e.g., for translation/interpretation needs).

Processes

We assessed the degree to which the Learning Circles program/process was equitable based on what is considered knowledge and who is involved in the knowledge cycle (through administrative records and the equity checklist), and how gender or other social norms influenced the flow of information (based on interviews with Learning Circles participants).

During earlier co-creation workshops, FP/RH professionals expressed a need for detailed, tacit knowledge and experience, particularly about how to implement successful programs and learn from failures, which is best exchanged during informal discussions. These expressed needs formed the foundation of the design of Learning Circles, including the composition of the participants and the program.

Learning Circles participants are considered the experts on the given technical topic for each cohort—they generate, assess, and share knowledge with their fellow cohort members with support from the facilitators using a mix of KM techniques. Keeping in mind power dynamics that might prevent participants from sharing openly about program experiences, especially negative or "unsuccessful" experiences, we intentionally aim to include only mid-career FP/RH program managers and technical advisors as participants—professionals with enough experience to bring to the discussion but not as much opportunity as more senior professionals to share their experience. We also aim to include participants from different countries and organizations and to have a balanced mix of gender identities.

Across regions, the interviewees described Learning Circles as a forum that was open, respectful, and conducive to easily sharing information. None of the interviewees thought there were negative gender or other social norms that prevented the open exchange of information. Rather, they pointed to social norms at the professional level that encouraged openness. A man from Francophone Africa explained:

> *I don't think there were really any gender or societal barriers or biases that prevented, or could prevent, people from sharing information ... The participants were also quite respectful of each other, and I think everyone felt comfortable, really, sharing their experience.*

One woman from Asia also referred to the group norms that were articulated in the first session, which included active engagement and openness to opposing viewpoints:

> *With Learning Circles, our group norms are respect, active engagement, opposing viewpoints welcome, and have fun. And no, there is no gender barrier there. Yeah, woman and man, we can speak freely.*

Outputs

Equity-related outputs were measured through availability, accessibility, acceptability, and quality, mostly through the online survey and interviews. **Availability** was measured by comparing interest against actual participation. Administrative records indicate significant demand for Learning Circles; for the first round of cohorts, 205 FP/RH professionals (110

women, 95 men) registered interest in the Anglophone Africa cohort, 128 in the Francophone Africa cohort (58 women, 70 men), and 63 in the Asia cohort (31 women, 32 men). Because each cohort is capped at 30–40 participants, it has been challenging to meet this demand. The Asia cohort included 28 participants (16 women, 12 men), while both the Francophone and Anglophone Africa cohorts had 38 participants each (22 women, 16 men in each). In terms of **acceptability**, all survey respondents said they "strongly agreed" or "agreed" that Learning Circles was respectful of their culture. In addition, a strength identified through the equity checklist was that religious and national holidays of the participants' countries were considered when scheduling sessions. We considered five main **accessibility** factors: the format of the activities used in Learning Circles, technology, organizational norms for participation, language, and time.

Learning Circles format

Most survey respondents strongly agreed or agreed that the Learning Circles activities were easy to complete (19 of 20) and that they felt very confident completing them (17 of 20). When asked about the activity of creating commitment statements, half said they did not create a commitment statement, were not sure if they did, or did not attend the activity; most were men (7 men vs. 3 women) and half were from Francophone Africa. Of the 10 who said they created a commitment statement, 4 (3 from Francophone Africa) did not think it was easy to create the commitment statement or were not sure. All but one, however, thought it was a useful exercise and said they acted on their commitment statement.

Among interviewees, most (12 of 15) recalled making a commitment statement, and many said they had followed through and implemented them. However, a few men from Francophone Africa shared that they had not fully implemented their commitments but appreciated the follow-up from the facilitators, which held them accountable.

Technology and organizational norms

Nearly all survey respondents (at least 17 of 20) said they strongly agreed or agreed that their project or organization encourages them to participate in knowledge exchange events and that they generally have a reliable internet connection. None of the in-depth interview participants cited lack of participation due to internet connection challenges or not knowing how to connect to the sessions.

A critical limitation identified through the equity checklist, however, was that participants require stable internet access and those who don't have internet access are excluded altogether. Strengths were that the project team had considered the needs of participants logging onto Zoom from their smartphones rather than desktops and intentionally selected commonly used tools for the program, such as Google Docs and Slides, to avoid creating

barriers to active engagement. However, the program does introduce some other simple tools like Google Jamboard to expose the participants to new tools.

One woman interviewee from Asia explained that she experienced barriers to completing the activities that incorporated unfamiliar online tools, which also took time away from engaging in discussions:

> *The thing is that what I think sometimes it seems difficult for me to cope with the modern technology. Like you have used many emojis and sometimes some fun activities, which I was not able to understand, and then the time [would be] completed. That's what I faced. If we can all understand equally, I would enjoy the session more.*

Language

Although nearly all survey respondents strongly agreed or agreed that they did not experience language barriers to actively participating in Learning Circles, the team completing the equity checklist indicated there were language barriers in the Asia cohort. All discussions were held in English, making it difficult sometimes for the participants to understand each other due to different accents. To mitigate this barrier, facilitators sometimes rephrased participants' statements.

Time

Most survey respondents (16 of 20) also said they strongly agreed or agreed that they have time at work to participate in knowledge exchange events to inform their programs, with no apparent differences by gender identity or region. In addition, 19 of 20 said they attended at least half of the Learning Circles sessions, and 13 said they attended all four sessions. Still, time constraints may have been a barrier for some participants. Among the seven survey respondents who did not attend all four sessions, lack of time was the main reason; there were no differences by region but more men (4) than women (2) cited this.

We also asked survey respondents if there was enough time in the sessions to have useful discussions with other participants. Only about half (11 of 20) of the survey respondents said they strongly agreed or agreed that there was enough time. Among the 9 respondents who were neutral or did not agree, 7 were men and 4 were from Francophone Africa. Among interviewees, a few women pointed out that time was a limitation as it did not allow every participant to share. For example, a woman from Asia explained:

> *As I see it, it gives a scope to every participant to share their ideas. But the time was sometimes—it was a very limited time that every member of the group cannot share their thoughts and ideas equally.*

Several in-depth interviewees from Francophone Africa suggested follow-up, face-to-face sessions to ensure everyone can participate in knowledge exchange.

Quality

Quality was measured by whether knowledge shared was contextually relevant and useful.

Contextually relevant knowledge

All but one survey respondent said they strongly agreed or agreed that the experiences and insights shared in Learning Circles were relevant to their own context. Similarly, only one interviewee thought the information exchanged was not contextually relevant, because their own day-to-day clinical work was so different from the other participants' program-planning duties.

Many interviewees mentioned that it was useful to share experiences with colleagues from the same region but not the exact same country. They found their situations were similar enough so that solutions to shared challenges and recommended practices could be carried over or adapted. For example, an interviewee from Anglophone Africa benefited from hearing what others were doing to reach religious groups, since several participants also worked with faith leaders. At the same time, a Cameroonian interviewee explained that comparing their work with that of their colleagues inspired them to work from their cohort's existing knowledge base and "step up [their own] game" after being empowered to try new approaches. Similarly, a woman from Bangladesh described learning approaches from neighboring countries of Myanmar, Nepal, and Pakistan:

> *If they can use this approach why we don't use this in Bangladesh? We are in better perspective. We think from their country aspect so we can easily adapt the process.*

Perceptions of usefulness

Nearly all survey respondents (18 of 20) strongly agreed or agreed that Learning Circles was a useful model for learning what works and what doesn't in FP/RH, and the interviewees across all regions also had an overwhelming positive response about Learning Circles. They noted learning how to use new online tools like Google Jamboard, described their appreciation for the planning that went into the sessions, and found the facilitators to be engaging. One man from Francophone Africa explained:

> *I found the format very interesting, because personally, it was the first time that I discovered some of the tools that trainers or facilitators had used […] The methodology used by the facilitator was really very interesting because it led the participants to be quite collaborative, quite participative in the sessions.*

Nearly all survey respondents said they would recommend Learning Circles to a colleague.

Outcomes

Most interviewees (9 of 15) shared that the most significant change they experienced from their participation in Learning Circles was gaining **improved or new knowledge** about FP/RH programming, and sometimes they applied this knowledge in their own programs. More women (6) than men (3) reported this. For example, a woman from Anglophone Africa explained:

> *… as a reproductive health program implementer in Uganda, I learned how we could make use of the different networks to do more advocacy … I was learning from the Kenya participants how they were doing it on their side, especially using social media, how we could identify key actors for family planning that we could also make use of in Uganda.*

Similarly, 15 of 20 survey respondents said they applied information they gained from Learning Circles to inform program design, improvements, or policy.

More than half of the interviewees (7 of 15) noted significance of the new **relationships with peers** working in FP/RH in other countries. This peer network helped to strengthen their confidence in the programming approaches they undertook, especially at the beginning of the COVID-19 pandemic. A young man from the Anglophone Africa cohort described that:

> *… it gave me courage knowing I'm not the only person facing this as a youth leader … that there are other youth leaders and other health workers in some other part of the world who are facing those challenges. … it was very impactful for me.*

Most interviewees (9 of 15) reported learning new ways of sharing knowledge with others and **how to better manage knowledge** overall. Some also reported that they integrated KM and/or applied the KM techniques used in Learning Circles in their own work. For example, a woman from Francophone Africa explained:

> *And now I know how I can share my knowledge with others, … I organized [three] discussion groups [with youth and with community leaders] in my country … to see*

> *what challenges they face in accessing family planning and reproductive health services.*

Similarly, a woman from Asia described how she applied the KM techniques from Learning Circles to her work:

> *After participating in Learning Circles … I used the [KM] techniques in discussion and brainstorming with stakeholders and community leaders about malaria program for reproductive health services. … it's quite effective and helpful for me to extract the information.*

Another positive, but unexpected, outcome reported by four interviewees (three men and one woman) across the three regions was that their participation in Learning Circles served as a **professional development opportunity** that led to their involvement and advancement in the FP/RH field, such as being invited to serve as a National Youth Focal Person for FP2030 and generally advancing to more senior positions. For example, a man from Asia described being promoted to manage a regional network from the experience and skills he gained from Learning Circles:

> *… I was also a part of this whole regional network [Southeast Asia Health Youth Action Network] and the impact that has created was that earlier I was only looking after the India level network, but after trading the insights [from Learning Circles] that I provided to the organizational senior management, they also asked me to lead this Southeast Asia regional network as well.*

Discussions

This case study of an equity-centered evaluation of a KM initiative illustrates the utility of the recently updated KM for Global Health Logic Model and the accompanying equity checklist for planning, implementing, monitoring, and evaluating equity in KM initiatives. The equity prompts at the Inputs and Processes levels in the logic model can help teams consider equitable investments in the KM initiative, including who and what are being included or excluded and whether power and privilege imbalances are influencing those decisions. Although this case study made use of these equity prompts for retrospective reflection, we think they would be most helpful for assessing needs *before* designing a KM initiative to ensure equity-minded investments and processes. The equity prompts at the Outputs level, organized by the AAAQ elements, served as a useful tool for developing evaluation questions used in the survey and in-depth interviews of Learning Circles participants, and therefore assessing the equitable nature of Learning Circles from the perspective of the participants.

We found the equity checklist a complementary tool to the logic model, providing more in-depth and nuanced considerations both related to the implementation of Learning Circles and to internal team structures and dynamics. To account for any potential power asymmetries among our team and ensure everyone had an equal voice, we implemented the checklist in two phases. First, individual and anonymous completion via Google Forms allowed all team members to voice their opinions and perspectives freely, and it gave each team member sufficient time to consider all the checklist items. Second, we discussed discordant items through an online meeting to come to consensus. Not all team members were able to join the discussion, however, which we found was a limiting factor for assessing certain checklist items that required certain roles to be present (e.g., managers who have in-depth knowledge of budget allocations). In addition, our team found that not all checklist questions were relevant for the specific KM initiative being assessed. We recommend adapting the equity checklist to meet each particular team's needs and ensuring a broad range of roles and perspectives when completing the checklist. This equity-focused evaluation found that Learning Circles helped participants to improve or gain new knowledge to apply in their FP/RH programs, establish peer networks that strengthened their confidence in program implementation, and learn new KM techniques to better manage knowledge in their programs. The evaluation also identified several strengths and some areas for improvement regarding the availability, acceptability, accessibility, and quality of Learning Circles.

Recommendations for ensuring equitable knowledge exchange initiatives are listed in Textbox1 taking into account these findings.

Availability

Significant time and resources were invested to make this KM initiative available, based on an expressed need using a design thinking approach. Design thinking—a human-centered approach to problem solving—can help advance diversity, equity, and inclusion to ensure better design and sustained use of relevant solutions, including KM solutions, that meet people's diverse needs (Dhoundiyal, 2019; Fan 2019; Friss Dam & Yu Siang, 2022; Jackson, 2015).

A key challenge has been meeting the high demand for Learning Circles, given the number of participants are capped at 30–40 per cohort. The project plans to publicly share guidance, tools, and training on the Learning Circles program so that others can implement Learning Circles with their networks and partners worldwide and make the KM initiative available to a wider audience.

Table 2. Equity-Related Strengths and Limitations of Learning Circles

	Strengths	**Limitations**
INPUTS	● Co-creation with FP/RH professionals worldwide formed the foundation of Learning Circles' design. ● Project team includes 8–10 representatives from Kenya, the Philippines, Senegal, and the USA and they used several types of reflection and adaptation meetings to design and iterate Learning Circles. ● % of project budget increased from 3% to 7% between the first and second years of implementation.	● Post-cohort survey data cannot be disaggregated by demographic characteristics.
PROCESSES	● Co-creation participants expressed a need for experiential knowledge, which formed the foundation of the program design, including composition of participants and the program. ● The participants themselves are the experts and the ones engaged in the knowledge cycle. ● No negative gender or other social norms prevent information flow.	● N/A
OUTPUTS		
Availability	● There has been significant demand to participate in Learning Circles, demonstrating a need and interest for such a program.	● Number selected to participate is capped at 30–40 per cohort, making it difficult to meet high demand.
Acceptability	● All survey respondents said Learning Circles was respectful of their culture. ● Participants' religious and national holidays were considered when scheduling sessions.	● N/A
Accessibility		
Format	● Most survey respondents thought the Learning Circles activities were easy to complete and felt confident completing them.	● Some barriers to completing and following up on the activity of commitment statements may have been

		present, possibly more so for French-speaking participants.
Technology	• Nearly all survey and interview respondents stated they did not have internet connectivity challenges to participating in Learning Circles. • The team intentionally selected commonly used and simple technology, such as Google Docs and Slides, to avoid barriers to participant engagement.	• Participants generally require stable internet access to engage fully in the program, and those with no access are excluded altogether. • Some participants may lack experience with technological tools, even commonly used ones, which may hinder their ability to participate equally in discussions.
Norms	• Nearly all survey respondents said their project or organization encourages them to participate in knowledge exchange events.	• N/A
Time	• Most survey respondents said they have time at work to participate in knowledge exchange events.	• Several participants could not participate in all sessions due to lack of time, possibly more of an issue for men than women. Also, there may not be enough time in the sessions themselves for all people to participate equally, and this may have been more prominent among men and French speakers.
Language	• Nearly all survey respondents said they did not experience language barriers. • Separate Learning Circles cohorts were conducted fully in French for francophone speakers from sub-Saharan Africa.	• Facilitators of the Asia cohort indicated there was some difficulty understanding participants' different accents in English.
Quality	• Nearly all survey and interview respondents said Learning Circles was useful, that they would recommend it to colleagues, and that the experiences and insights shared in Learning Circles were easily adaptable to their own contexts while motivating them to push the envelope.	• N/A

Acceptability

All surveyed participants agreed that Learning Circles was respectful of their culture. When scheduling sessions, religious and national holidays in the participants' countries were considered. In addition, the facilitators represent the countries where the participants are located, and the participants praised the facilitators for creating an open environment where everyone's views and ideas were welcomed and encouraged.

Accessibility

Format

Learning Circles participants mostly thought the KM activities undertaken in the program were easy to understand and complete. A substantial portion, particularly French-speaking participants, did express some confusion about the commitment statements activity. To mitigate these barriers, the program could be revised to craft the statements in smaller breakout rooms rather than in plenary, with facilitators providing more support. In addition, commitment statements could be described in more straightforward terms that provide a better balance between the competing principles of simplicity and informativeness for efficient communication across languages (Regier et al., 2015).

Technology

The technological tools used in Learning Circles—Google Suite, Zoom, and WhatsApp—were intentionally chosen for their near-ubiquitous use and low bandwidth requirements. While some participants appreciated being exposed to new tools like Google Jamboard, others found them to be a barrier to equal discussion. To address this, a "tech practice" session can be incorporated into the Learning Circles program at the outset to introduce the tools and ensure all participants have an equal starting point.

At a broader level, the Learning Circles virtual model, spurred by the pivot to digital technologies during the COVID-19 pandemic, gave FP/RH professionals across countries a space to connect and collaborate. However, it is also important to consider the unintended equity consequences where people in less advantaged socioeconomic conditions are left behind (Crawford & Serhal, 2020)—in this case, FP/RH professionals in certain countries or regions who lack a steady internet connection. Adapting the program to a regional face-to-face format creates its own challenges and barriers, however, because costs would be associated with gathering participants from neighboring countries in one physical location. Linking an in-person event with existing regional meetings and conferences could be a viable option.

Language

Language barriers were not a problem for our audiences in sub-Saharan Africa because we host both anglophone and francophone cohorts. While the wide diversity of primary languages and different accents in the Asia region caused some barriers to comprehension among the participants, language barriers generally were not a problem in Asia. Providing global health professionals knowledge exchange opportunities in languages they feel comfortable with is fundamental to making progress on decolonizing global health (Hommes et al., 2021).

Time

People are motivated and want to attend the sessions, but many lack time to attend consistently. At the same time, participants want more time in the sessions themselves to ensure equal opportunity for discussion. This need may be greater among francophone participants because the French language generally uses 15% to 30% more words than English to convey similar concepts (Kwintessential, no date). The francophone sessions could be extended by a half-hour to accommodate this need. In addition, integrating the Learning Circles program within an existing community of practice or working group may help participants fit the sessions into their busy schedules since the program would be more closely connected with the work they are already doing.

Quality

Learning Circles participants lauded the program for facilitating the sharing of contextually relevant experiences and knowledge that could be easily adapted between countries and for motivating critical reflections on how FP/RH programs could be improved in their respective settings. Such a KM initiative that respects and values the voices and experiences of the health workforce from the global "South" can help to counter the "uneven knowledge map" where most scientific knowledge is produced in the USA and Europe while the global South, particularly Africa, "effectively melt[s] off the map" (Boyes, 2018: unpaginated). By emphasizing the knowledge of those who have endured long histories of oppression and marginalization and providing a space to communicate and share their own experiences (Crawford et al., 2021), Learning Circles provides a model that works toward decolonizing knowledge production. In addition, such types of communities of practice have been found to be an effective means for sharing knowledge, creating innovative solutions, and promoting collaboration (Greenwood et al., 2017; Silverstein et al., 2022).

Conclusions

The updated Knowledge Management for Global Health Logic Model and the accompanying equity checklist fill a gap for practical tools that the health workforce can use to plan,

implement, monitor, and evaluate equity in their KM initiatives. Application of these tools to evaluate the Learning Circles KM initiative identified key approaches that helped make Learning Circles available, accessible, acceptable, and high quality, including using an inclusive design thinking approach and adopting dialogue-based KM techniques. The tools also signaled areas to make Learning Circles more widely available and accessible such as training others on the program to scale implementation and embedding it within existing communities of practice.

Although the decolonization of knowledge requires a complex set of systems-level actions to dismantle entrenched power and privilege imbalances, we see these new tools as a type of transformative "niche innovations" described by Cummings et al. (2021). Such innovations are a necessary component to building more inclusive and useful KM systems and processes and new ways of working that are representative of the diverse global health workforce.

Box. Equitable Knowledge Exchange Interventions: Key Recommendations Based on the Learning Circles Evaluation

- Co-create new KM interventions with your audiences using a design thinking approach
- Assemble a KM project team that reflects the diversity of the audiences of the KM intervention and distribute roles and responsibilities equitably and transparently
- Budget accordingly to ensure equity of the KM intervention
- Provide a space for audiences to connect with each other and share contextually relevant, experiential knowledge in languages they are comfortable using
- Develop shared group norms with your audiences that emphasize active engagement and openness to everyone's viewpoints
- Consider your audiences' religious and national holidays when scheduling KM events
- Consider carefully the duration of the KM event, taking into account language needs, to ensure equal opportunity for participants to share their experiences
- Incorporate tech practice sessions into KM event agendas to introduce the tools that will be used and select commonly used and simple tools to avoid barriers to engagement
- Regularly collect and disaggregate data on your audiences' experiences with the KM intervention based on key demographic characteristics of the audiences to facilitate ongoing equity analysis

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Supplement: KM for Global Health Logic Model Equity Prompts Adapted for Learning Circles, and Data Sources

KM for Global Health Logic Model Equity prompts	Equity prompts adapted for Learning Circles	Main data sources
INPUTS		
Whose voices are included or excluded in KM systems?	Whose voices were included or excluded in designing and implementing Learning Circles?	Administrative data Equity checklist
What kinds of data and information are being captured, and who makes those decisions?	What kinds of data and information were used to design Learning Circles, and who makes those decisions?	Administrative data Equity checklist
What kinds of information and communication technologies do people use, and does use vary by their identities?	N/A (all team members have access to internet, Zoom, etc.)	N/A
How much funding and time are allocated to KM and to making KM equitable?	How much funding and time are allocated to Learning Circles and to making it equitable?	Administrative data Equity checklist
PROCESSES		
What is considered knowledge, and who makes those decisions?	What is considered knowledge, and who makes those decisions?	Administrative data Equity checklist
Who is involved in the different stages of the KM cycle: generating, assessing, synthesizing, capturing, sharing knowledge? Consider how power and privilege influence these decisions.	Who is involved in generating, assessing, and sharing knowledge within Learning Circles? Consider how power and privilege influence these decisions.	Administrative data Equity checklist
With whom is knowledge shared, how, and in what forms? Are the methods and forms tailored to people's unique needs?	With whom is knowledge shared within Learning Circles, how, and in what forms? Are the methods and forms of sharing tailored to participants' unique needs?	Administrative data Equity checklist
Are there policies and regulations or gender and other social norms that influence the flow of information?	Are there gender or other social norms that influence the flow of information within the LCs cohort?	In-depth interviews
OUTPUTS		
Availability		

What types of KM tools and techniques are available? What types are used by people of different identities?	Who has expressed interest in Learning Circles and who actually participates in Learning Circles?	Administrative data
Is there a mix of online and interactive tools and techniques to meet people's unique needs?	N/A (types of KM techniques used answered under Processes)	N/A
Acceptability		
Does the content use an appropriate tone for the specific audience? Does it avoid stereotyping people or reinforcing inequitable social norms or power dynamics?	N/A (question geared more toward written content)	N/A
Are culturally relevant examples used?	N/A (had to limit survey questions to avoid a lengthy survey)	N/A
Do KM events respect the different cultures of attendees?	Did Learning Circles respect the different cultures of participants?	Survey
Accessibility		
Who has access to the KM tools and techniques, and are there differentials based on people's identities? Consider cost, format, language, timing, and technology.	Were there differentials in participation in Learning Circles based on the formats used (ease of completion and confidence to complete activities, creation of commitment statement), technology, project/organizational norms, time constraints, or language barriers?	Survey In-depth interviews (commitment statements)
Quality		
Are the KM tools and techniques of high quality? Is the information scientifically accurate and recent?	Was Learning Circles a useful model for sharing what works and what doesn't in FP/RH? How likely are participants to recommend Learning Circles to a colleague?	Survey In-depth interviews
Are the KM tools and techniques, and the information included within them, relevant to people's specific needs (e.g., includes context-specific examples and details on the "how")?	Was the information shared in Learning Circles relevant to participants' own contexts?	Survey In-depth interviews