

Developing a High-Impact Learning Program for Global Health Professionals: The STAR Project

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Abstract

Background. The Sustaining Technical and Analytical Resources (STAR) project seeks to invest in and expand the capacity of diverse senior global public health professionals. STAR builds on traditional work-based fellowships by partnering with universities in order to curate (or develop) and deliver high-quality, tailored learning across a set of required “core competency domains” as well as elective skills- or content-based competency domains. **Pedagogy.** In a rapidly changing global health context, ongoing learning is essential but often gets sidelined by other pressures; STAR’s approach aims to respond to these challenges by developing a learning curriculum tailored to the needs of our participants and their roles in global health. STAR’s pedagogy utilizes individualized learning plans, a deliberate practice approach, and a hybrid mentorship model to support project participants to achieve their learning objectives as well as broader project goals. **Next Steps.** The STAR project is in its first year of implementation. Furthermore, our future work will focus on developing a monitoring and evaluation plan that seeks to track the progress of our participants, guide project improvements, measure the impact of learning activities, and inform the pedagogy of future global health training initiatives.

Keywords

pedagogy, global health, capacity strengthening, competency-based education

Introduction

The global health workforce is diverse, including clinicians, academicians, private sector investors, and public health experts, combining training and experience from many fields. To be effective, these professionals require knowledge, skills, and attitudes that address the challenges of working in a multidisciplinary, multisectoral environment to improve population health worldwide. Colleges and universities have a long legacy of training the global health workforce; however, much of these efforts are focused on student-level trainees who have limited field-based experience. Training resources and support for senior professionals is often lacking.

USAID funded the Sustaining Technical and Analytical Resources (STAR) project to invest in and expand the capacity of senior global public health professionals by partnering with universities to support learning. STAR seeks to bolster traditional work-based fellowships with

dedicated time for leadership development and capacity-strengthening using focused learning activities supported by linkages to academic resources (Public Health Institute [PHI], 2018). The STAR project is a partnership between the PHI, Johns Hopkins University (JHU), the Consortium of Universities for Global Health (CUGH), and the University of California San Francisco (UCSF). STAR’s core premise is that effective global health practice is contingent upon not only technical prowess but also on a sophisticated foundation of “power skills” and “essential

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Table 1. Conceptual Challenges and Solutions Proposed by the STAR Project.

Challenge identified	Corresponding solution in STAR
<i>One size may not fit all:</i> Professional development is a mainstay in fellowship programs, and the participants in STAR will have varying learning needs.	<i>Highly tailored learning:</i> Individualized Learning Plans are tailored based on numerous factors, including specific needs and career goals, individual learning style and preference, appropriateness for specific job duties and responsibilities, and cultural context of the organization and country of placement.
<i>Learning is deprioritized:</i> Job responsibilities, travel, and resource constraints result in lack of time and budget, which can interfere with participation in learning activities.	<i>Protected learning time:</i> Up to 10% level of effort; Onsite manager buy-in secured before participant is hired. The opportunity to improve performance is provided through a Deliberate Practice Approach through learning, application, feedback, and adjustment.
<i>Lack of synthesis and discussion:</i> Global health professionals may not have opportunities to identify and discuss key themes and challenges with a trusted community of professional peers, thus inhibiting their ability to fully master and apply new learning within their own context.	<i>The Hybrid Mentorship model</i> offers facilitated discussion and group networking as well as optional one-on-one mentorship with a senior technical professional.

Note. STAR = Sustaining Technical and Analytical Resources.

perspectives” (described below) that make the implementation of health programs by global health practitioners more relevant and impactful. In this article, we describe STAR’s pedagogy as a unique perspective to guide the development of global health professionals. The strategy described herein lays the foundation and rationale for the STAR learning curriculum.

STAR Participants and Needs

STAR participants include (a) fellows: early- to senior-level global health professionals who have a 2-year commitment and (b) interns: most of whom have completed a graduate training program, or are current students, but have limited work experience and a 3- to 12-month commitment. STAR participants provide technical support across numerous health priority areas and donor-funded environments. Furthermore, they are also responsible for capacity strengthening and knowledge sharing under the supervision of their onsite manager (OSM).

Interviews with previous USAID-funded fellowship participants were conducted to inform the design of STAR’s learning program. We found that the learning needs of fellows and interns differed from each other—and within cohorts—due to diverse career stages, technical foci, past experiences, and host schools. Interviewees also revealed a desire for more accountability for meeting professional development objectives and stressed the importance of OSM/supervisor “buy-in”: too frequently learning was deprioritized in a busy workplace. Most respondents also wanted to participate in a mentor/mentee relationship but had varied definitions of mentorship and what a mentoring relationship should be. However, participants commonly desired more meaningful collaboration and engagement with each other. Global health

professionals are challenged with navigating multiple different learning opportunities and figuring out the best fit for them, deprioritization of learning, finding time within the work week to engage in learning activities, and lack of space to reflect upon how learning applies to the workplace (Table 1).

STAR Global Health Competencies and Milestones

The STAR learning curriculum is anchored in a competency-based framework. This framework was developed based on a scoping review of the published literature on competency domains in global health (ASPH Education Committee, 2016; Jogerst et al., 2015; Sawleshwarkar & Negin, 2017; USAID, 2016, 2017); grey literature—including USAID’s Backstop 50 and the Foreign Service National competencies; and focused competency models for relevant global health technical areas (USAID, 2016, 2017). Our model includes eight core competency domains and 20 technical domains (both skill and content-based; Figure 1). The eight core competencies reflect “power skills,” that is, effective communication, collaboration, capacity strengthening, and culturally competent practice, as well as “essential perspectives,” that is, ethical decision making, understanding global burden of disease, gender, and health equity. The elective technical competency domains include skill domains such as health policy and epidemiology and content areas like maternal and child health and HIV/AIDS. To provide support for the full complement of learners, we implemented a five-level milestone approach built on models identified through the review (Table 2; Douglass, Jaquet, Hayward, Dreifuss, & Tupesis, 2017; Jogerst et al., 2015; USAID, 2017). All participants are required to address

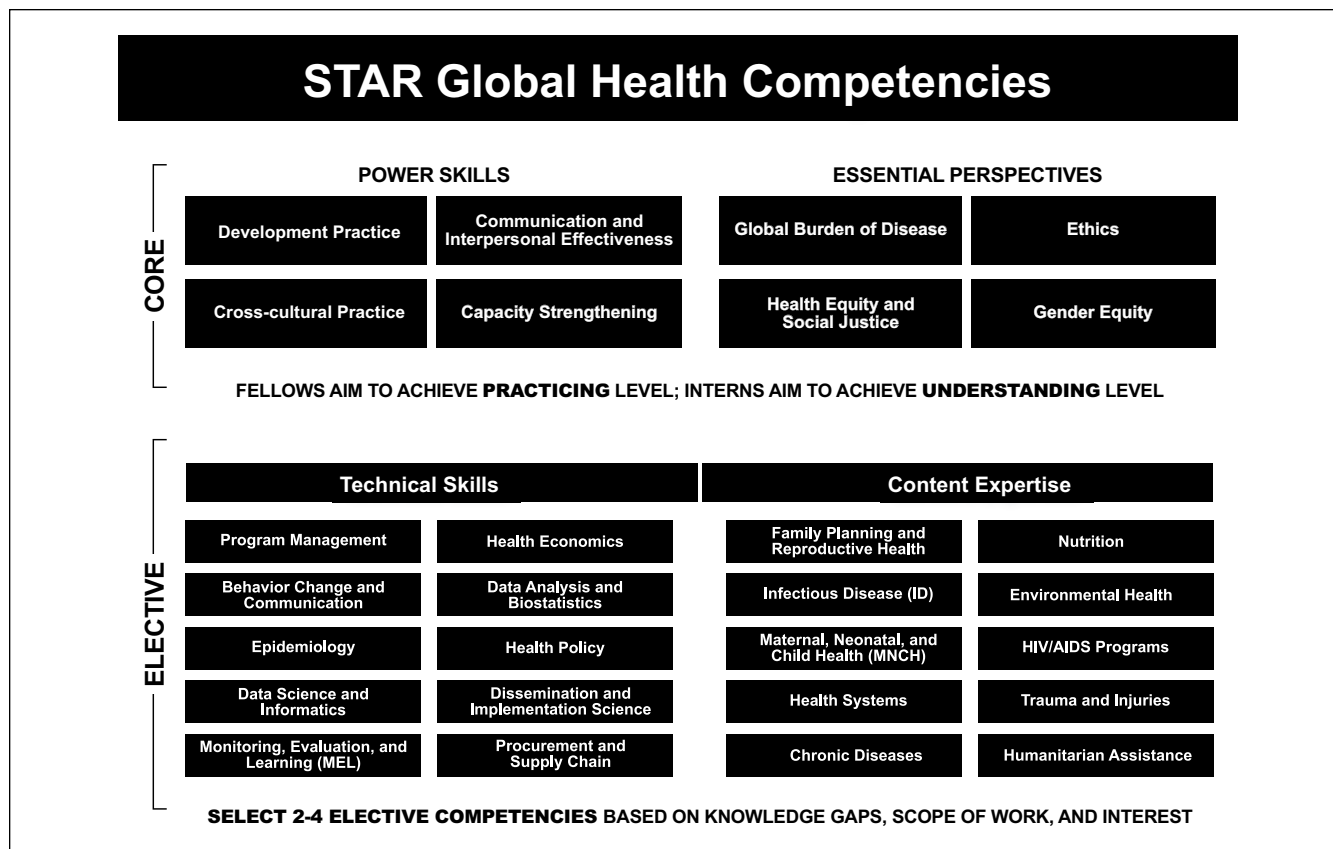


Figure 1. STAR competency framework for global health technical professionals.

Table 2. Milestone Levels for Global Health Technical Professionals.

Milestone levels	Descriptions
<i>Inquiring</i>	Emerging awareness of skill/subject and its bearing on global health
<i>Understanding</i>	Exploration of topic area and opportunities in global health
<i>Practicing</i>	Active involvement in global health and application of skills in the topic area
<i>Leading</i>	Design, plan, coordinate, evaluate, and supervise in the topic area
<i>Advancing</i>	Inform and create the frontiers of global health in the topic area

the eight core competencies and select a limited number of skills or content-based domains relevant to their job.

STAR Pedagogy

Learning in STAR seeks to strengthen participant knowledge and application of all eight core competencies. Given the heterogeneity of STAR’s partners and participants, we sought to define and articulate consistent strategies to deliver our learning curriculum. A Theory of

Change was developed to define educational strategies to meet program objectives (IPAL-Keystone, 2009; Rogers, 2014; Taplin, Clark, Collins, & Colby, 2013; Vogel, 2012; Woolcock, 2013).

We identified three strategic components: an individualized learning approach, linking learning to performance, and mentorship. The *Individualized Learning Plan (ILP)* informs the delivery of content that is both high yield and high impact to the individual participant. The STAR project also attempts to link learning to performance by using a *Deliberate Practice* approach; the ILP focuses on activities that can change behavior and be refined based on performance feedback, which supports the application of the knowledge and skills gained. The last component is a *Hybrid Mentorship* model that harnesses peer mentoring, technical one-on-one mentorship, and the competencies within core domains to reinforce learning. Figure 2 summarizes the main features of our theory of change, with a detailed description of the three components presented in the following sections.

Individualized Learning Plan (ILP)

Concept. STAR participants have unique life experiences, strengths, and weaknesses, and thus will require different

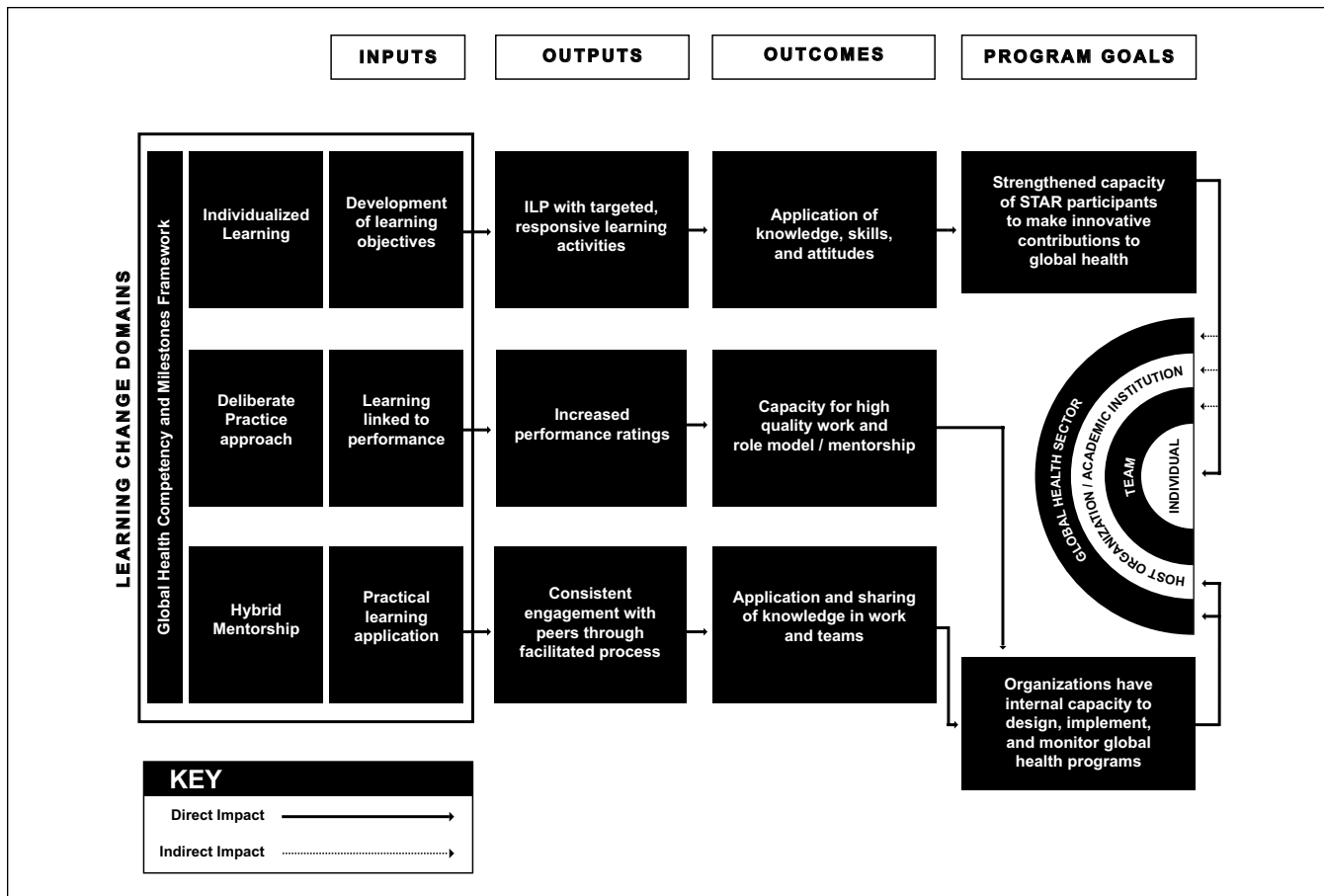


Figure 2. STAR learning theory of change.

learning pathways to grow as global health professionals.

Description/Context. Learners from diverse backgrounds have different needs in terms of topic areas and may also engage with information and each other differently (Doobay-Persaud, Chuang, & Evert, 2018; Doobay-Persaud, Galvin, Sheneman, & Murphy, 2017; Sadana, Chowdhury, Mushtaque, Chowdhury, & Petrakova, 2007). In a global public health workforce that is composed of a majority (70%) of women, many emerging as well as senior leaders—and particularly women who only comprise 25% of the global health leadership (World Health Organization, 2019b)—struggle to balance family and personal commitments, demanding jobs, discrimination, unequal pay, and frequent travel (Garrett, 2017; Talib, Burke, & Barry, 2017; World Health Organization, 2019a, 2019b). Access to learning materials may be circumscribed by where they are based (e.g., low-income countries), time, and financial issues (Diallo & Maizonniaux, 2016; Evashwick, 2013). At different career stages, supervisors and organizations have different levels of support for continued learning (Evashwick, 2013; Sadana et al.,

2007). Finally, identifying courses suitable for senior technical professionals in highly niched and/or emerging subspecialties is challenging (Sadana et al., 2007). STAR recognized the need to diversify the nature of learning opportunities to match participants' individual needs (Adams, Wagner, Nutt, & Binagwaho, 2016; Skinner, 2019). In addition, the project has shifted the focus of learning toward new and often underemphasized topics such as development practice and communications.

Implementation Strategy. Individualizing learning for each participant takes into account multiple factors, including learners' previous knowledge/training/experiences, their current and future roles, and their priorities, constraints, learning style, and level. Each STAR participant receives an ILP, which begins with a baseline competency assessment, review of previous experience and their scope of work, and identification of their learning styles and preferences. The learning activities may include courses/workshops, conferences, mentoring, and coaching. In order to offer high-quality learning options, a mapping of online and in-person course offerings is being conducted

among partner institutions as well as other global health learning platforms. The mapping of learning activities emphasizes alignment with the competency framework and STAR's pedagogical approach. We also developed a strategy to assess learning activities across a set of variables including online versus in-person, problem-based versus theory-based, level of learner engagement, and kind of assessment.

Deliberate Practice

Concept. STAR's learning curriculum will be delivered in a way that results in changes in work performance.

Description/Context. Deliberate practice is an approach to building expertise via well-defined goals and targeted areas for improvement (Ericsson, 2008). In the context of contemporary education approaches, a curriculum modeled on deliberate practice will determine the overall competencies, define outcome-based objectives, and provide learner-centered instructional methods, accompanied by formative assessment, reflection, and mentoring (Krackov & Pohl, 2011). In clinical training, deliberate practice has been adopted across medical and surgical specialties to improve the clinical performance of trainees (Issenberg et al., 1999; Kneebone, 2009; Singhal et al., 2012). Several aspects of the STAR learning curriculum support deliberate practice, including (a) outcome-based objectives defined using STAR's competencies and milestones framework; (b) links between learning objectives, job descriptions, and performance goals; (c) curated learning activities associated with outcome objectives; (d) mentorship groups that reinforce application of learning activities to global health practice; and (e) continuous formative and summative assessments done by participant and OSM linked to performance.

Implementation Strategy. Deliberate practice in STAR is reinforced by the provision of performance management support, ongoing performance feedback, coaching to support performance improvements, and prioritization of learning activities that support work-based outcomes. While every effort is made to provide linkages between participant performance and their learning activities, we recognized that, due to confidentiality standards in coaching agreements and the numerous teams that interact with participants, performance issues that deliberate practice could address may not be reported to the learning team. Additionally, the fellowship period may be too short a time to see significant changes, due to the time needed between receipt of performance reviews and corrections and changes. Regardless, adopting a performance lens to learning, we hope to maximize the effectiveness of global health professionals.

Hybrid Mentorship Model

Concept. To reinforce the eight core competency domains and strengthen participants' networks requires group and technical mentoring.

Description/Context. Mentoring is vital to professional development in global health, influencing career choice and collaborative practice. In a recent systematic review, Kashiwagi and colleagues identified mentoring approaches: dyad, peer, facilitated peer, speed, functional, group, and distance mentoring. The traditional dyad—pairing a mentee with a senior or more experienced mentor—was common and often the sole focus of mentorship programs (Kashiwagi, Varkey, & Cook, 2013). Dyad mentoring is also one of the most vulnerable mentoring models, due to heavy reliance on individual-level attributes, personalities, and styles of the participants (Wanberg, Kam-meyer-Mueller, & Marchese, 2006). There is a paucity of data on group mentoring, but it has been reported to be a powerful, time-efficient, and enjoyable approach (Alleyne et al., 2009). Group mentoring also incorporates benefits of peer-mentoring and networking. Alleyne et al. (2009) also reported that group diversity enhanced the mentorship process, although differences in trainees' interests and experience posed challenges. STAR uses a hybrid design that includes (a) group-based mentoring for facilitated discussions around core competencies and (b) one-on-one technical mentoring. This allows for integration of a central curriculum addressing STAR's core competencies via groups while individualized technical mentors support participants via a more traditional mentorship relationship.

Implementation Strategy. With this hybrid design, we aim to address threats to the program's success and mitigate some pitfalls of mentorship models in previous fellowship programs. While STAR anticipated that fellows—especially senior fellows—may be skeptical of group mentorship, we have found that many enjoy the opportunity to build understanding and skills with colleagues in a safe environment. This has been achieved by supportively challenging participants' knowledge and skills and facilitating group dynamics conducive to a collegial, enabling environment; participants from different geographies and background cross-pollinate ideas and support learning. We anticipate that not all fellows may request or desire an individual technical mentor and finding mentors suitable for each fellow's needs may be challenging. By splitting responsibilities for the Mentorship Program between trained STAR facilitators and senior technical mentors, we address concerns about incentives, accountability, and regular and sustained monitoring of the program. The Facilitated Group Mentorship Program for participants is focused on the eight core competencies. Fellow groups are conducted online

via Zoom, and Intern groups are in person. Participants received key resources for review in advance of the meetings. We will continue to monitor participants' progress in both activities of the hybrid design to inform future changes.

Pedagogical Activities for STAR Participants

STAR participants undergo 6- to 24-month fellowship placements; many of the fellowships are based at USAID, USAID missions, Ministries of Health, and Implementing partners. STAR participants fill a wide variety of roles from supply chain management to senior technical advisors in maternal child health. Pedagogical activities are implemented in three distinct phases: Onboarding, During the Fellowship, and End-line, and further descriptions are given below.

- *Onboarding*: During the onboarding phase, that is, within the first 3 months of the fellowship, we strive to develop an ILP informed by the competency assessment. During the first program year of STAR, 14 fellow learning assessments and 21 intern learning assessments were completed. ILPs drew from a broad range of conferences, workshops, and courses, and by the end of the first year, the learning database included nearly 450 courses from PHI, JHU, UCSF, CUGH, and other organizations that were identified through an initial mapping of resources available among STAR partners. A quality assessment process—Relevance, Engagement, Access, and Pedagogy (REAP)—was developed to assess each course.
- *During the fellowship*: Participants have 10% effort dedicated to learning throughout their fellowship. In addition to the learning activities in their ILP, participants are engaged in mentorship activities and quarterly performance reviews related to our deliberate practice approach.
- *End-line*: STAR participants evaluate each of the learning activities they partake in as well the overall learning program annually, including at the end of the fellowship. A process has been developed to track fellow progress along the global health milestones; this includes a self-reflection and an assessment from their OSM.

Discussion

Global health is rapidly changing across dimensions including models of development assistance, data and information systems, and the pattern of disease and disease outbreaks. Accordingly, people working in this field must be lifelong learners, continually adapting their

behaviors and practice to reflect emerging realities. Practically, however, the pressures—intellectual, physical, and emotional—associated with global health work often crowd out space for learning, often particularly core knowledge and skills that are foundational to global health leadership. The STAR project sought to address this challenge. While there is a proliferation of online courses in global health, these are often emerging in a disjointed fashion. This results in a lack of enabling structures for learners to recognize learning needs, identify fitting opportunities, and consolidate learning through reflection and synthesis. STAR's learning agenda seeks to address this challenge, through tailoring learning that focuses on core competency domains and is closely linking learning to workplace performance, providing prompts for reflection and assessment, and simultaneously building peer networks. We will be monitoring and evaluating this model as it is implemented and will refine the model and our understanding of the challenges, in order to inform STAR's activities as well as other initiatives focused on global health professional education.

Conclusion

Employers in global health need to recognize how dynamic this field has become and ensure that their employees are able to keep current with new thinking and opportunities, across core competencies as well as in their technical areas, through continuing education opportunities. To-date, learning for professionals within the field has not been systematized. Our work seeks to move the field toward more commonly shared understanding of the terrain of learning needs. We recognize that reaching consensus on an operational global health competency framework will likely be challenging, but believe that such an investment is worthwhile, in terms of facilitating the identification of learning gaps and the cataloguing of new learning opportunities. We aim to contribute to evidence and experience that can help inform the work of other global public health training programs that share similar goals of capacity strengthening and leadership development. Through this contribution, we can help enable the field as a whole to better support the array of professionals that make global health projects and programs happen.

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