



# Human Capacity Development for Improved Reproductive, Maternal, Newborn, Child, and Adolescent Health

## MCSP Synthesis Brief

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### Introduction

Sustained improvement of reproductive, maternal, newborn, child, and adolescent health (RMNCAH) outcomes cannot be achieved without investing in human resources—the health workers and managers who make service delivery possible. Addressing human resource challenges through human capacity development (HCD) and related health systems strengthening interventions is an important step toward improving long-term health outcomes.

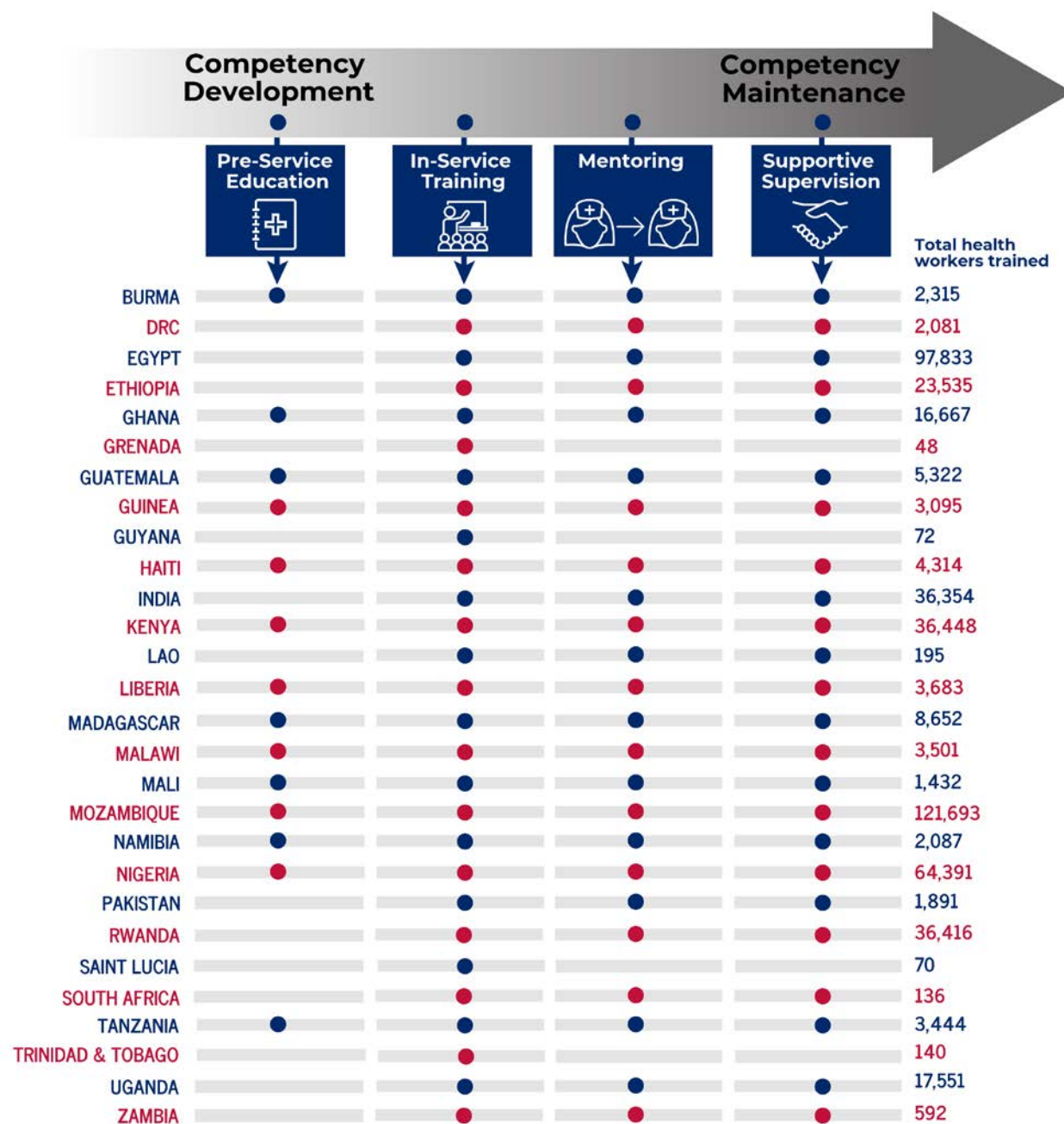
The Maternal and Child Survival Program (MCSP) is a global, \$560 million, five year cooperative agreement funded by the United States Agency for International Development (USAID) to introduce and support scale-up of high-impact health interventions among USAID’s 25 maternal and child health priority countries, as well as other countries. HCD is a cornerstone of MCSP’s support. HCD is the processes used to develop individual and team abilities to set goals and to strengthen and maintain the competencies required for individual and team roles in the health system. USAID’s Vision for Health Systems Strengthening prioritizes human resources for health and transformative models for education and maintenance of skills for the delivery of essential services. With those priorities in mind, MCSP applied evidence-based approaches to HCD and sought to transform traditional approaches that have not had the desired outcomes.

### Human Capacity Development Program Approaches

HCD program approaches followed the lifecycle of a health worker, beginning with competency development during pre-service education (PSE) and continuing on to support professional development through in-service training, mentoring, and supportive supervision. Over the lifetime of the project, MCSP defined its approach to each phase and summarized evidence from country programs and external literature to identify and synthesize best practices. The breadth of MCSP HCD efforts is summarized in Figure 1.

This document will link to case studies or briefs describing MCSP’s approach to each area listed above, link to case studies from select MCSP countries to illustrate MCSP’s approach and share outcomes, describe key lessons learned, and make recommendations for the way forward.

**Figure I. Human capacity development interventions and number of health workers reached across continuum of competency development and maintenance, by country**

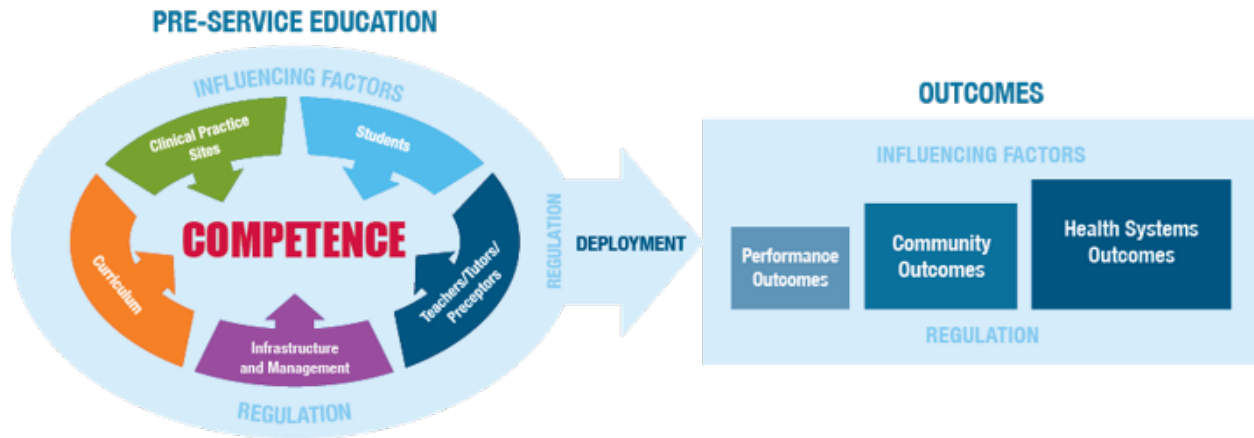


### Pre-Service Education

MCSP defined PSE as the curriculum of studies that prepares a health provider with the competencies required for entry into a health profession. PSE programs combine theoretical knowledge and clinical or practical experience to build a basic competency set based on the scope of practice. MCSP guidance on PSE is summarized in the project’s [PSE brief](#). MCSP used the conceptual model shown in Figure 2 to ensure a comprehensive approach was used to strengthen country PSE systems.<sup>1</sup>

<sup>1</sup> Conceptual model based an integrative review of the literature: The Health Impacts of Pre-Service Education, ©Jhpiego Corporation, 2012. Accessed at: <http://reprolineplus.org/resources/health-impacts-pre-service-education-integrative-review-and-evidence-based-conceptual>

**Figure 2. Conceptual Model: Health Impacts of PSE**



### *Case Study: Addressing Gender, Academic Management, and Clinical Practice in Liberia*

In Liberia, MCSP worked closely with the Ministry of Health (MOH) and relevant professional bodies to strengthen PSE systems for midwives and medical laboratory technicians (MLTs). The project used a [health systems strengthening approach](#) to assess gaps and then target interventions to improve the education system in each area: clinical practice, students, faculty and preceptors, infrastructure, and management and curriculum. This brief Liberia case study will highlight efforts undertaken to address gender, improve academic leadership and management, and strengthen clinical practice.

**Gender:** MCSP completed a gender analysis at project start-up to identify interventions to address gender in PSE for midwives and MLTs. The analysis identified a gender disparity in both professions, as well as a lack of gender awareness in policies and pedagogy. The details of MCSP gender work in Liberia are summarized in this PSE policy [case study](#). MCSP’s comprehensive approach to gender in PSE included supporting schools to implement sexual harassment policies, integrate gender-responsive pedagogy into teaching, implement a communication campaign to improve gender balance for both professions, and remove policies that expel pregnant female students from their education. These interventions led to increased male midwifery student intake from 5% in 2016 to 18% in 2018 and female MLT intake from 28 to 35% in the same time period. These policies should help reduce female student attrition rates into the future.

**Academic management and leadership:** In response to MCSP’s assessment findings indicating school directors did not feel enabled to lead or have the financial or management skills required, the project implemented an academic leadership and development program. The program was a combination of in-person sessions and individual work on a leadership-focused change management project over a nine-month period. Following completion of the program, all directors and deans were able to manage and plan their budgets, create and implement resource mobilization strategies, and apply human resource management practices. In addition, MCSP created an [academic information system database](#) and dashboard to enable schools to more easily manage students’ information from enrollment through graduation. School national accreditation scores increased from 68% at baseline in 2017 to 78% at endline in 2018. MCSP formed a network of academic directors to support continued peer learning and advocacy, and it is still active.

**Strengthening clinical practice:** MCSP implemented a site-based, low-dose, high-frequency (LDHF) approach to strengthen the clinical practice sites affiliated with the PSE schools for practical rotations; the details are summarized in this [case study](#). Over the period of a year, midwives and their teams in the clinical practice site facilities completed two rounds of 3-day trainings focused on priority maternal and newborn health interventions. In between the two in-person trainings, facility-based peer practice coordinators facilitated short, regular practice-based learning

The LDHF approach consists of short, structured, onsite, interactive learning activities delivered to a team in the workplace with practice sessions repeated over time. Optimal LDHF includes brief, ongoing activities (e.g., skills practice, drills, and games) at the job site to sustain learning and support decision-making.

sessions. During learning sessions, facility staff used MCSP-established preceptor corners, which are areas in the workplace with models and materials to support facility-based training. These interventions improved not only the quality of the clinical practice sites but also the care they provided to patients; for example, over the two years that LDHF was implemented, stillbirths dropped from 443 in 2016 to 110 in 2018.

### *Case Study: Harmonizing the Continuous Quality Improvement and Accreditation Processes in Tanzania*

In Tanzania, MCSP's efforts to improve PSE, summarized in [this brief](#), prioritized using educational standards to implement a continuous quality improvement approach. MCSP used educational standards to identify gaps and tailored interventions to address the gaps and strengthen the overall PSE system. The project engaged the zonal health resource centers (ZHRCs), the local bodies involved in ensuring PSE quality, to support direct implementation. In addition, MCSP worked closely with the ZHRCs, the national accrediting body, and professional associations to recommend ways to harmonize continuous quality improvement and national accreditation efforts to improve efficiencies. This collaboration with ZHRC ensured the sustainability of PSE activities after MCSP successfully transitioned program ownership to the government. As a result of these efforts, overall percentage of educational standards achieved increased at MCSP-supported health training institutions from 37% in 2015 to 81% in 2017. MCSP built the capacity of local partners throughout the project, and stakeholders indicated that the improvements in skills labs, educational quality improvement via the ZHRCs, and strengthened infrastructure would be sustainable beyond the project. An endline assessment identified a substantial difference in skill competency from MCSP-supported health training institutions, as well as promising, sustainable improvements to the PSE system. On objective structured clinical exams, students from MSCP-supported schools scored an average of 80% compared to 68% from schools that MCSP did not support.

### *Case Study: Integrating eLearning into PSE in Ghana*

The midwifery and community health nursing schools in Ghana were confronted with limited and over-stretched resources, a breadth of subjects that students had to learn, and high instructor-to-student ratios with overcrowded classrooms. To address these issues and augment classroom learning and skills development, MCSP set up a fully equipped skills laboratory and introduced eLearning as a blended learning approach for students to achieve competency in clinical areas. MCSP designed the eLearning to be part of a continuum of learning that combines theoretical and practical methods, summarized in [this brief](#). The project strengthened local capacity by launching and supporting the eLearning Secretariat in the MOH to actively manage and engage in the digital learning effort, developed a methodology to implement eLearning, and created standardized eLearning modules in partnership with faculty and local business solutions. MCSP built digital learning capacity at the national and health training institution level, supported the implementation of an offline/online learning management system, and deployed eLearning modules to 31 nursing and midwifery schools in the 10 regions in Ghana.

### *Action-oriented Learning and Recommendations for Pre-service Education*

- **Emphasize increasing clinical practice quality and quantity of clinical or practical experiences for PSE programs.** Having an impact on a PSE system is complex, and the effects on individuals can be felt further downstream rather than directly affecting individual students. To improve the competence of new graduates, prioritize efforts to strengthen the quality of services within clinical practice sites and the oversight of clinical instruction by preceptors, clinical instructors, or embedded faculty; increase the quantity of clinical practice rotations to provide more encounters with clients; and expand the variety of clinical practice settings. The use of the LDHF training to improve clinical practices for health workers within the clinical sites was particularly effective.
- **Build upon or harmonize any educational quality improvement efforts into existing national educational accreditation systems to ensure sustainability.** Often countries implement educational quality improvement efforts separate from national accreditation systems, which might not exist or be

functional. All educational quality improvement efforts should support strengthening existing accreditation systems, or help create the structures for these systems to ensure sustainable quality efforts and build self-reliance.

- **Ensure significant system investments for eLearning integration.** Programs interested in investing in eLearning or mLearning should ensure to adequately plan, budget, and prepare for each aspect of the following: establishment of policy, governance, and leadership of the effort; deployment of the technology, infrastructure, and learning platforms; content development; and integration of eLearning into the curriculum. eLearning that can replace instructor-led training and lead to cost efficiencies, such as anatomy and physiology or basic science courses may be a more efficient investment than creating supplemental clinical content.

## In-Service Training or Continuing Professional Development

MCSP defines in-service training as a structured and formal training approach for health care workers and managers (after completion of PSE) to reinforce existing competencies or develop new ones. MCSP guidance on in-service training emphasizes the use of new and evidence-based techniques and interventions and is summarized in the project's [in-service training brief](#). In-service training is usually an important component of continuing professional development.

### *Case Study: Combining In-Service Training with Quality Improvement Processes in Liberia*

MCSP's in-service HCD approach, summarized in this [case study](#), included a combination of specific and integrated skills-based in-service trainings, followed by integrated quality improvement processes such as strengthened supportive supervision and workplace, individual, and team-based mentoring. The trainings were implemented and led by local managers from district health teams and county health teams. MCSP, in close collaboration with MOH counterparts, built upon and strengthened the existing in-service training and national supervisory system to sustainably close the gap between desired performance and practice. By the end of the project, MCSP had supported the MOH to increase the number of functional health facilities with staff from 58% in 2015 to 100% in 2017 of the 77 target facilities in Grand Bassa, Lofa, and Nimba counties.

MCSP also developed health facility scorecards to measure facility performance on clinical standards, which were assessed at baseline, midline, and endline to monitor progress through the life of the project. Supervisors reviewed scorecards with facility staff and focused on areas that needed more attention. The facility-based, integrated training approach; use of facility scorecards and data to inform mentoring and supportive supervision efforts; and efforts to address health workforce, infrastructure, and supply chain issues were effective interventions to improving the quality of services in Liberia after the Ebola epidemic.

### *Case Study: Testing New Approaches to In-Service Training in Nigeria*

In Nigeria, MCSP conducted a comparative study to compare the LDHF approach to training with the traditional classroom training approach. The results are summarized in this [study brief](#). Two different study arms completed either the traditional basic emergency obstetric and newborn care training or the LDHF approach, which included the addition of mobile mentoring and post-training peer practice sessions. After 12 months of implementation, the study found the traditional arm demonstrated 74.8% competency, and the LDHF arm demonstrated 81.1% competency. The LDHF arm resulted in program implementation cost savings (reduced per diem, transportation, hall rental costs) of approximately 3,000 USD per person.

## Action-oriented Learning and Recommendations for In-Service Training

- **Apply the LDHF approach where possible for in-service training.** Across several MCSP countries, implementing facility-based, practice and simulation heavy training was effective, feasible, and reduced interruptions to care. Recommendations in addition to those in the briefs linked to above are included in MCSP's Madagascar [HCD approach brief](#).

- **Ensure that sufficient practice is an essential component of all in-service trainings.** No matter how in-service training is delivered, the use of simulation, case-based learning and ensuring sufficient practice and feedback opportunities is essential for effectiveness.
- **Supplement in-service training with mentoring and supportive supervision.** Isolated training interventions have not been effective at improving health worker performance. Integrating in-service training with interactive, continuous post-training mentoring or supportive supervision is more effective than isolated, traditional training in improving provider knowledge and uptake of key practices/interventions.
- **Combine HCD efforts with other efforts to strengthen health systems.** Capacity-building efforts must be accompanied by addressing processes, management issues, and supply chain issues to adequately improve quality of services.

## Mentoring

MCSP defines mentoring as the process through which an experienced and empathetic person, proficient in her/his content area (mentor), teaches and coaches another individual (mentee) or group of individuals (mentees) in-person and/or virtually to ensure competent workplace performance and provide ongoing professional development. MCSP conducted a literature review and collected data from 24 country programs implementing mentoring, in combination with other approaches, such as quality improvement initiatives, facility-based training, or supportive supervision, to prepare guidance summarized in this [mentoring brief](#).

### *Case Study: Integrating LDHF and Mentoring in Rwanda*

In Rwanda, MCSP used an integrated LDHF training combined with mentorship to build capacity in health worker skills. The approach and results are summarized in this [alternative to classroom-based training case study](#). The intervention provided an integrated training approach, targeting high-impact interventions that included: Helping Babies Breathe, Essential Newborn Care, Basic Emergency Obstetric and Newborn Care and integrated management of childhood illnesses. Competency-based, in-service LDHF trainings were provided and followed by facility-based mentoring using a quality improvement-driven approach. A step-down approach was employed, engaging professional associations in the provision of follow-up mentoring activities, with associations mentoring hospital staff, hospital staff mentoring health center staff, and health center staff mentoring community health workers. The project implemented this model in 172 facilities in 10 districts, resulting in improved provider competence and compliance with recommended treatment protocols. For example, newborns successfully resuscitated increased from 74% in 2016 to 92% in 2018, and fresh stillbirth rates per 1,000 deliveries were reduced by 36% from 2015 to 2018.

### *Case Study: Clinical Mentorship for Midwifery in Lao*

In Laos, to support re-establishing midwifery in the country and improve the competence and reputation of the profession, an approach to institutionalizing clinical mentorship was co-designed with maternal and newborn health providers and the provincial health departments in two provinces of northern Lao. This was done as part of a health systems strengthening primary health care program. Mentorship was rolled out at provincial, district, and health center level and has become integrated into government budgets in one province where organizational support ceased. Early Essential Newborn Care is a national program in Lao. Mentorship compliments and supersedes Early Essential Newborn Care ensuring integration of maternal and newborn care and has gained national recognition.

Overall, the clinical skills of the mentees and mentors improved and were maintained over a 2-year period. The proportion of midwives' passing MNH skills measured by an observed clinical skills examination increased from a baseline of 24% in September 2016 to over 50% in December 2018. Similarly, from chart reviews the proportion of clinical interventions correctly performed improved; breastfeeding within 1 hour (34% to 99%), skin-to-skin initiation (36% to 97%), and partograph completion (10% to 79%). These improvements are described in the [Lao mentoring case study](#).

After MCSP, mentoring currently continues within the primary health care program and has also extended to the community level to build the skills and ensure ongoing support and supervision to community volunteers implementing home visits. In addition, mentoring will be scaled up to three new districts and three new provinces in northern Lao within 2019. See the [Lao mentoring implementation guidance](#) for more details.

### *Action-oriented Learning and Recommendations for Mentoring*

- **Prioritize complex skill sets for mentoring efforts.** Mentoring, combined with other approaches, is promising for improving health care provider performance but also labor-intensive. Countries should consider the complexity of the skill set when determining their interventions and prioritize mentoring for more complex skill sets, such as managing obstetric complications or managing HIV and related co-infections.
- **Design mentoring programs to build upon the use of existing national platforms and systems, rather than introducing new or parallel systems or approaches.** While some countries implemented new systems to test mentoring, for long-term sustainability, mentorship programs should be designed to use the existing systems and staffing already in place. Doing so improves the chances of sustainability.
- **Explore cost-effectiveness analyses or financial analyses to help countries select sustainable and cost-effective interventions for HCD.** Mentorship shows promise, but a costing analysis is important to inform stakeholders and budget-holders of the long-term cost and system implications of implementing a mentorship program. Analyzing inputs and costs will help inform the development of sustainable mentorship models.

### *Supportive Supervision*

MCSP follows the World Health Organization's definition of supportive supervision as a process of helping staff to improve their own work performance continuously. It is carried out in a respectful and non-authoritarian way with a focus on using supervisory visits as an opportunity to improve knowledge and skills of health staff. Supervision is a formal process that emphasizes health facility management and captures certain key indicators and statistics. It is often more hierarchical and managerially oriented, and the goals are pre-determined by the health system. In many MCSP countries, mentoring was added to or combined with traditional supportive supervision efforts.

### *Case Study Implementing Enhanced Supervision in Madagascar*

In Madagascar, MCSP enhanced traditional supportive supervision efforts to make them more frequent, effective, and practical. These efforts are summarized in MCSP's [Madagascar supportive supervision brief](#). Enhancements included provision of mobile mentoring via structured phone calls and SMS, the use of quality dashboards and service statistics to inform quality improvement planning and efforts, data quality assessments, and use of objective structured clinical exams to assess provider skills. Surveys identified that providers and supervisors felt onsite supervision was more useful and important than mobile mentoring, and 86% of providers reported that their supervisors helped them identify concrete quality improvement actions to take.

### *Action-oriented Learning and Recommendations*

- **Emphasize onsite supervision where possible.** MCSP's Madagascar program showed that onsite supervision by existing workplace supervisors was preferred by end users and is feasible and cost-effective compared to relying primarily on district or remote supervision.
- **Include specific skill practice or the review and use of data to identify and address quality issues in site-based supervision.** In Madagascar, study participants reinforced that these aspects of supervision were particularly useful. In addition, MCSP's work to improve the quality of care in other countries,

which involved improvements to supportive supervision, often included the provision of both skills practice and the use of data to better drive and target supportive supervision efforts toward results.

- **Consider shifting the emphasis away from the use of detailed checklists and standards during supportive supervision visits towards a focus on use of data and service delivery statistics to identify and resolve quality issues.** This shift in focus may help ensure supervision efforts result in improved performance and changes in provider practices rather than focusing primarily on assessments and reporting.

## Conclusion

Learning from MCSP's experience in HCD, countries and implementing partners should continue to apply newer, evidence-based approaches to build capacity. The shift away from classroom-based trainings and checklist-based supervision and toward workplace-based, interactive approaches that rely on using a few priority metrics for performance and course correction is essential for more responsive and therefore more effective and sustainable HCD. As part of this process, there are a few priority, overarching recommendations. First, invest in quantifying the cost implications of an HCD package, preferably also applying cost effectiveness analysis to help governments determine how best to invest their funds for maximum impact. The most cost-effective strategies should be selected, and focus on the skills that are the most critical and most frequently performed. Second, consider the use of cost-efficient and rapid mechanisms, such as the [Most Significant Change Tool](#), to get rapid feedback on what is working well and what the emerging challenges are and facilitate a responsive and adaptive approach that can be optimized to the local context. Third and lastly, explore the systems issues and drivers that present opportunities and barriers to implementing alternative HCD approaches as well as other systems issues that need to be addressed to improve performance and work with partners to address them.

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