Pre-Service Education Toolkit

Increased attention is focused on preparing the health care workforce. There is a growing need for collective access to appropriate resources and guidance for pre-service education programs. This pre-service education toolkit outlines key programmatic steps, highlights lessons learned, and identifies key resources to assist country programs, donors, and governments to develop quality and relevant pre-service education interventions. Although targeted for midwives, this toolkit may be used for other cadres as well.

Each section provides evidence-based guidance and includes related resources. The entire content of the toolkit is also available as a printable document, the Pre-Service Education Program Roadmap. The sections on advocacy, policy, quality and relevance: overview, evaluation, and scale-up may be useful for policy makers, donors, and governments. The sections on instruction and the institution are useful for institution heads, faculty, and classroom and clinical instructors.

Initially developed by Jhpiego under the leadership of the MCHIP program, this toolkit has been shaped significantly by the technical advisory group. The developers of this toolkit gratefully acknowledge the valuable input into content and resources provided.

If you have an experience about implementing pre-service education programs, we invite you to share it through the feedback form, at the top of any page. Please use the feedback form to suggest additional new resources.

The Maternal and Child Health Integrated Program (MCHIP) is the USAID Bureau for Global Health?s flagship maternal, neonatal and child health (MNCH) program. MCHIP supports programming in maternal, newborn and child health, immunization, family planning, malaria and HIV/AIDS, and strongly encourages opportunities for integration. Cross-cutting technical areas include water, sanitation, hygiene, urban health and health systems strengthening. Visit www.mchip.net for more information.
What are K4Health Toolkits?

K4Health Toolkits are electronic collections of carefully selected information resources on a particular topic for health policy makers, program managers, and service providers. They are based on a continuous publishing principle that allows them to evolve after publication to capture additional resources and to identify and fill remaining information gaps.

What is the purpose of this toolkit?

Today there is a global human resource crisis of unprecedented magnitude. There is increasing attention being paid to the importance of education for the health care workforce. This is reinforced by the concluding statement of the second global forum on Human Resources for Health Conference issued in January of 2011: “All people, everywhere, shall have access to a skilled, motivated and supported health worker within a robust health system.”

The purpose of this toolkit is to make it easier for country ministries, donors, implementing partners and educational institutions to collaborate together and learn from each other’s work. This toolkit provides practical programmatic guidance on implementing pre-service programs, summarizes lessons learned and provides tools needed for implementation.

Who developed this toolkit?

Initial development of this toolkit was led by Jhpiego under the leadership of the MCHIP program, and the technical advisory group provided significant input into content and identification of additional tools. Many thanks to the group of reviewers from the Jhpiego preservice community of practice who helped shape the initial version of the pre-service roadmap: James BonTempo, Barbara Deller, Catherine Carr, Sheena Currie, Mary Drake, Patricia Gomez, Peter Johnson, Nancy Kidua, Tsigue Pleah, Jeff Smith, Udaya Thomas, Judith Fullerton and Rebecca Bailey at WHO. The Pre-Service Program Roadmap was authored by Julia Bluestone and Catherine Carr.

Development of this toolkit was made possible by Jhpiego and by the generous support of the American people through the United States Agency for International Development (USAID), under the terms of the Leader with Associates Cooperative Agreement GHS-A-00-08-00002-00. The contents are the responsibility of the Maternal and Child Health Integrated Program (MCHIP) and Jhpiego and do not necessarily reflect the views of USAID or the United States Government.

To contact MCHIP with questions or comments about the Pre-Service Education Toolkit, please
an send e-mail message to toolkits@k4health.org.

Who are the publishers of the resources?

The resources included in this toolkit are. Publishers of resources included in this toolkit are varied and include:

- Afghanistan Ministry of Public Health
- I-TECH
- International Confederation of Midwives
- IntraHealth International
- Jhpiego
- World Federation for Medical Education
- World Health Organization [WHO]

What types of resources are included?

This toolkit was created to provide guidance and tools to design and implement pre-service education programs. It contains:

- Programmatic guidance based on the literature and practical experience
- Tools and resources to help implement a variety of pre-service related activities
- Resources on the most up-to-date evidence from the World Health Organization and other international organizations

Who are the intended audiences?

The toolkit is intended for use by:

- Policy makers, ministries of health and education, and program managers who are interested in improving pre-service education
- Faculty, classroom and clinical instructors, deans and heads of educational institutions

How do I get started using this toolkit?

Improving pre-service education requires comprehensive approaches. This toolkit outlines the programmatic steps recommended when implementing a pre-service program, although steps
may not be completed ?one-by-one?, some activities may be implemented at the same time. The toolkit attempts to address the main areas to address when strengthening pre-service education.

To browse the contents of this toolkit, use the tabs above to read a summary of recommended programmatic steps and view the related. Click on the title of the resource for more information about it, or click on the full-text link to get direct access to the full resource.

Some of the tools are readily available in an adaptable format (for example, Microsoft Word documents and PowerPoint presentations). We encourage you to alter and personalize these tools for your own use (please remember to credit the source). If you do use these tools or adapt them, we would love to hear from you. Please e-mail us. (To make a comment about the toolkit or suggest a resource, use the feedback form.)

**How can I suggest a resource to include in this toolkit?**

We invite you to contribute to evolving and enhancing this toolkit. If you have developed or use quality resources that you think should be included in the toolkit, please use the feedback form to suggest them. The toolkit collaborators will review and consider your suggestions.

**How do I cite the Pre-Service Program Roadmap?**

When citing the program guidance provided in the tabs or program roadmap, the citation should read: Bluestone, J., Carr, C. 2011. *Pre-Service Program Roadmap*. USAID/MCHIP and Jhpiego. Baltimore, MD.

**How can I make a comment or give feedback about this toolkit?**

If you have comments about the toolkit, please use the feedback form. Your feedback will help to ensure the toolkit remains up-to-date and is continually improved. For example, you can share ideas about how you have used the toolkit in your work so that others can learn from and adapt your experiences.
Advocacy

Critical to the development and strengthening of pre-service education, advocacy may be approached using this problem-solving process. This process includes collecting evidence, involving stakeholders in planning, sharing evidence about pre-service education interventions, and planning and prioritizing interventions. Toolkit users may review all topic areas for an overview of the components of advocacy. The recently released *State of the World’s Midwifery Report* is an excellent advocacy document, summarizing for the first time baseline information about midwifery workforce, education, regulation and professional associations across 58 countries.

**Collect evidence.** There is a global shortage of 4.3 million health workers, primarily in developing countries (WHO 2006). The lack of well-trained health workers is a major barrier to implementing evidence-based interventions, such as improvements in maternal and child health, HIV/AIDS, malaria, and tuberculosis (Crisp, Gawanas and Sharp 2008; Sachs 2001). In developing countries, because maternal and child health services are the largest proportion of services used by the public, more skilled health workers are needed to supply these services (Smith and Hyre 2009). A strategy for training and deploying midwives to provide basic emergency obstetrical care is critical to reducing maternal and newborn mortality (Campbell and Graham 2006).

**Involve stakeholders in planning.** Successful interventions require the involvement of political leaders, including ministers, council registrars and professional association leaders (Crisp, Gawanas and Sharp 2008). To generate consensus and support, conduct meetings with key stakeholders. These meetings may be used to discuss national health priorities, present needs assessments results, and create consensus on potential programmatic approaches. The sample Stakeholder’s Meeting Agenda outlines common goals and objectives. Refer to the Stakeholder Analysis document for guidance on identifying stakeholders and planning for their potential involvement in the process.

**Share the evidence to support pre-service interventions.** There is ample evidence that having sufficient numbers of clinically competent health care workers directly impacts other health outcomes, including infant and maternal survival rates (WHO 2006, Sachs 2001). When controlling for other factors (e.g., income), a 10% increase in health care workers per 1000
population will lead to a 2?5% reduction in child mortality (Joint Learning Initiative 2004). Midwives, physicians, and other health care workers providing maternal and newborn care can directly reduce maternal and newborn morbidity and mortality (Joint Learning Initiative 2004).

**Plan and prioritize interventions.** Before determining interventions, conduct a rapid pre-service readiness assessment to obtain basic information on current priorities, needs, and capacity. Review the current human resources for health strategy or plan (if one exists), basic package of health services, and other key documents to identify national priorities. To identify and prioritize tasks currently performed by health workers of a specific cadre, analyze their competencies related to the health care needs and activities to be performed. This is often called a task analysis (See, Quality and Relevance).

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**Lessons Learned: Advocacy**

- An analysis of the existing human resources for health plan, current national health priorities, and any other existing data on the related education program provides critical information and should be part of the needs assessment, if not done previously.

- A comprehensive list of national stakeholders is critical, including adequate representation from those who control policy, educational decisions, and labor laws. To design a relevant program, identify stakeholders who have on the ground practical experience.

- Assessment or research data is extremely helpful in convincing key stakeholders to take action or support a plan of action.

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**Tools**

**Resources:**

- **Sample Stakeholder Meeting Agenda**

  This is a sample stakeholders meeting agenda based on the Preservice Implementation Guide.

- **Stakeholder Analysis Materials**
This file contains a short document summarizing how to analyze and select key stakeholders for pre-service education work, and templates for planning for their involvement.

- **Missing Midwives**

  Highlights the important role the midwife plays in the health system and presents solutions for recruitment, training, support and deployment.

- **State of the World's Midwifery**

  State of the World's Midwifery Report contains baseline information on midwifery workforce, education, regulation and policy in 58 countries.

- **Training Site Assessment Form: Family Planning Teaching in Preservice Education**

  These tools were used in Pakistan to assess the teaching of family planning in the Lady Health Visitor, Nurses, and Nurse-Midwife cadres.

- **Respectful Maternity Care: The universal rights of childbearing women**

  The White Ribbon Alliance for Safe Motherhood addresses disrespect and abuse during maternity care with advocacy documents and a charter for maternal human rights.

**Policy and Regulatory Environment**
Understanding the relevant aspects of policy can promote advocacy efforts and increase coordination across the many levels of governance involved in the pre-service education system. This section also addresses how to involve stakeholders, policy and the regulatory environment issues. The State of the World’s Midwifery Report includes recommendations about strengthening the policy and regulatory environment to maximize the impact of midwifery services.

**Involve stakeholders strategically.** The stakeholder analysis tools described in the Advocacy section provide guidance for determining the best involvement for various stakeholders. Working groups are often formed during the key stakeholder meeting. Working groups may include: a national group of key officials who will help shape interventions and make necessary policy changes, a technical advisory group that contributes to decisions related to educational interventions, and institutional or clinical practice site-level working groups. The Sample Terms of Reference document establishes terms of reference for the different groups involved in implementing educational standards and curricular revisions.

**Review levels of governance.** Levels of governance, the regulatory framework that supports pre-service education system, are supported by the related ministries and professional councils and often outlined by national laws. The regulatory framework includes selection criteria, accreditation or other regulation, and licensing and graduation requirements. The technical brief on Licensure, Certification and Accreditation provides a concise summary of these important issues. For regulation issues, refer to the International Confederation of Midwives (ICM) Standards for Midwifery Regulation.

**Address scope of practice issues** based on task analysis findings or national priorities. Countries that want to change or share tasks between cadres of health care workers must ensure that national policies and professional scopes of practice are revised to reflect new competencies expected of that cadre. Coordinate with stakeholders and the national working groups to revise the job description to match the new scope of practice (Smith and Hyre 2009). This step may be done during meetings or in collaboration with the coordinating body over the course of the program. The WHO Task Shifting brief provides guidance on this process.

**Review existing accreditation or other quality assurance mechanisms.** Accreditation of private and public sector schools is essential for quality assurance and regulation (Crisp, Gawanas and Sharp 2008; Frenk and Chen, et al. 2010; WHO 2009). Accreditation or national regulatory bodies will help improve and maintain quality (Fullerton and Leshabari 2010). Work with national partners to provide certification or accreditation in these key educational areas: (a) effective recruitment, management and deployment of students; (b) management of resources; (c) faculty teaching and clinical excellence; (d) administrative process; and (e) development and maintenance of an evidence-based curriculum. Jhpiego uses the Standards-Based Management and Recognition (SBM-R) approach to implement educational quality assurance or accreditation. SBM-R uses agreed-upon standards to assess performance, identify gaps, and select appropriate interventions. This process is outlined in the Standards-Based Management and Recognition Implementation Guide.
Review the licensure/re-licensure process to ensure standards exist to license health care workers. The licensure process, which should facilitate life-long learning, is a regulatory responsibility of the professional council, which is charged by the government to ensure competency to protect the public. Initial licensing should occur when pre-service education is completed and must be logically linked to the required entry-level job competencies. Both licensure examinations and institutional examinations must be based on the identified core competencies. Assist ministries of health, education councils, or professional councils to revise the licensure and graduation exams to ensure priority health areas are adequately assessed before deployment. Work with the national and technical working groups to ensure that core competencies are assessed in licensure, certification, and graduation exams. This may be done as part of a workshop or over the course of program implementation.

Link continuing education to re-licensure or certification and continued professional development. Pre-service education starts a career of life-long learning, supported by continued professional development. After graduation, provide continuing education to maintain skills, and link it to re-licensure (Dal Poz, et al. 2009). Professional associations can play a strong role in developing and implementing continuing education or professional development systems. Councils ensure continued competency by requiring organized systems of continuing education and professional development.

Ensure deployment strategies to support priorities. Deployment should seek to successfully match health workers’ skill sets with communities ready to receive them (Dal Poz, et al. 2009; Smith and Hyre 2009). A robust deployment strategy can address underserved areas and reduce attrition (WHO 2007). Key to deployment is effective recruitment; for example, recruiting community members for community-based positions or selecting students from areas of priority need with hopes they will be more willing to be posted there than other students (Smith and Hyre 2009, WHO 2006). Thailand has successfully used rural recruitment strategies and bonding to increase access in rural areas (WHO 2010). Deployment issues are not always addressed, but are important if the country is attempting to meet the needs of a specific geographic population. The Bridges to Employment document outlines strategies for retaining graduates until they can be successfully deployed.

Lessons Learned: Policy and regulatory environment

? These tasks are often high-level efforts that require time, persistence, advocacy, and commitment. Many of these tasks are accomplished through the power and collaboration of the related national working groups over the life of the program. Support and investment in these working groups not only builds national capacity, but ensures the program is relevant and sustainable.

? Do sufficient research to understand what other recent assessment information might be available either from the government or other NGOs.

? In Kenya, the addition of several questions on reproductive health to the licensure exam helped
ensure long-term commitment to the topic during the curriculum.

A working understanding of the existing regulatory frameworks, processes, and regulatory bodies is essential.

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**Tools**

**Resources:**

- **Bridges to Employment**
  
  Outlines strategies for retaining graduates who have completed their course of study but have not yet been deployed.

- **State of the World's Midwifery**
  
  State of the World's Midwifery Report contains baseline information on midwifery workforce, education, regulation and policy in 58 countries.

- **Sample National Working Group Terms of Reference**
  
  This sample term of reference document is similar to others used in the establishment of national working groups, and consistent with the guidance provided in the *Preservice Implementation Guide*. It includes guidance on completing it in *italics*.

- **Community Midwife Job Description Afghanistan**
  
  This is the job description for community midwives, taken from the 2011 Ministry of Public Health in Afghanistan.

- **Midwifery Education Policy Afghanistan**
This is the community midwifery education policy from the Ministry of Public Health in Afghanistan.

- **ICM Standards for Midwifery Regulation**

Accompany the ICM midwifery competencies and standards for midwifery education. Provide background and standards for midwifery regulation.

- **ICM Global Standards for Midwifery Education**

These standards identify essential components of education for midwives, and include companion guidelines, and a glossary. They are meant to be used in combination with the ICM midwifery competencies and standards for midwifery regulation.

- **Global Standards for the Initial Education of Professional Nurses and Midwives**

These standards identify essential components of education for nurses and midwives.

- **WHO Task Shifting to Tackle Health Worker Shortages Brief**

This document outlines the guidance provided by WHO for countries considering task shifting as a means to ensure the best skill mix for health care workers.

- **Capacity Project Technical Brief # 3: Building Stronger Human Resources for Health through Licensure, Certification and Accreditation**

This Technical Brief provides an overview of issues related to Licensure, Certification and Accreditation.
Standards-Based Management and Recognition. A Field Guide

This guide provides an overview of the SBM-R process used to improve service delivery.

- Basic Medical Education WFME Global Standards for Quality Improvement

These global standards for quality improvement provide guidance on basic medical education. Postgraduate and other standards are also available.

Quality and Relevance: Overview

This section focuses on ensuring pre-service education programs are relevant to national needs and produce quality graduates. This section discusses processes to ensure education is of sufficient quality and relevance, describes the use of core competencies to guide curricula and assessment and adaptation of content and curricula, and explains how to use educational standards to ensure quality.

Ensure that pre-service education programs and strategies are of sufficient quality and relevant to national needs - globally competent and nationally relevant. (WHO 2010). To ensure that education is relevant, the competencies for each cadre may be determined by analyzing the responsibilities of the job, often called task analysis. Based on the country’s existing human resources for health (HRH) plan, task analysis can be used to determine the work each cadre should perform to provide relevant care in the target communities. Then, appropriate core competencies expected of each cadre relevant to the national HRH plan or health priorities can be established. This process helps ensure that education produces competent health workers with skills relevant to the national health priorities (Crisp, Gawanas and Sharp 2008).
Review and evaluate core competencies for each cadre. To produce competent and relevant health workers, health worker education should be competency-based. Competency-based education emphasizes the competencies, or knowledge, and set of skills and attitudes needed that are developed during educational preparation. Focusing on competencies produces health care workers able to inquire, synthesize information, and make decisions, building a foundation for continued education and learning (AAMC and HHMI 2009; Frenk and Chen, et al. 2010). Determine core competencies during early key stakeholder meetings and before any significant curricular, institutional, or clinical site interventions. International scopes of practice or competencies are useful for determining desired competencies for a particular cadre.

Frame interventions around established accreditation or educational standards. A quality assurance system based on international standards is needed to ensure quality in education. Standards of performance expectations form the foundation for interventions to strengthen educational institutions and faculty. Typically, these interventions include an investment in infrastructure, including resources and financial and management capacity (Dal Poz, et al. 2009). If standards were not applied in the accreditation process, using standards for interventions will identify gaps and allow programs to tailor interventions based on needs. Below are activities often identified as gaps and addressed in educational interventions.

Adapt educational curricula to ensure core competencies are achieved. For example, standardizing midwifery curricula, including statements of the expected outcomes of competency-based midwifery education, is an internationally-recommended best practice (Fullerton and Leshabari 2010). Revise educational curricula, licensing assessments, and continuing education materials to match national health priorities and identified core competencies (Crisp, Gawanas and Sharp 2008). The curriculum should fulfill the desired core competencies?those tasks essential to practice for each cadre (WHO 2006). Changing content has broad impact across the curriculum; therefore, changes require early and broad involvement of faculty, professional councils, patients, and other key stakeholders (WHO 2006). This process may limit the speed and number of decisions, but is the only way to provide legitimacy (WHO 2006). Collaborate with a national working group to form a Technical Advisory Group (TAG) to help revise the curriculum (both didactic and clinical) in collaboration with relevant ministries. The Pre-service Implementation Guide outlines a step-by-step process for revising national curricula.

Review national student admission standards to ensure that students will meet the desired deployment goals. For example, in many countries, large numbers of urban students adversely impact the success of rural deployment. There is increasing evidence that local recruitment is a strong predictor of long-term retention (Dal Poz, et al. 2009; WHO 2006, WHO 2010). Some countries and schools have revised their selection criteria and recruitment policies to draw students from local communities who will be more likely to accept rural deployment (Dal Poz, et al. 2009). An appropriate range of selection criterion including student investment in the community, understanding and interest in the profession, as well as cognitive ability to succeed, will all lead to increased success, deployment, and retention. Work with key stakeholders to review and revise the selection criteria, if needed. This step is important if the program has significantly revised the expected scope of practice or deployment strategies. Assess integration of national admissions standards with institutional criteria.
Lessons Learned: Quality and Relevance: Overview

Analysis of desired performance is a critical step to determine desired and relevant core competencies. Even if funding is limited, a brief activity with recent graduates will provide minimal but important data about work realities and evidence for future recommendations.

Involve the working group in comparing existing policies, national health priorities, job descriptions, and core competencies against current pre-service education programs. This process helps build consensus in making changes to ensure education is relevant.

Curricular revisions require attention to both classroom and clinical education to ensure graduates are competent upon graduation. Ensure clinical education is reviewed and revised for quality and relevance.

Tools

Resources:

• The Health Impacts of Pre-Service Education: An Integrative Review and Evidence-Based Conceptual Framework

This integrative review of the literature was undertaken to examine what is presently known about the various factors that influence the quality of PSE programs. This literature synthesis underpins a conceptual model of PSE that offers a visual depiction of the proposed relationships between factors (inputs and processes) that lead to a hypothesized desired outcome.

• Selection Criteria for Community Midwifery Training

This is the community midwifery selection criteria outlined by the MOPH in Afghanistan.

• Sexual and Reproductive Health Core Competencies in
Primary Care

Sexual and Reproductive Health core competencies for education.

- **Components of a Health Professional Curriculum**
  
  This diagram summarizes key components to include in a health professional curriculum.

- **International Confederation of Midwives Essential Competencies for Basic Midwifery Practice**
  
  This document outlines the essential competencies for basic midwifery practice. These are meant to be used along with the ICM standards for midwifery education and regulation. Also available from the website in French and Spanish. http://www.internationalmidwives.org/Documentation/ICMGlobalStandardsCom...

- **Curriculum for Community Midwifery Education**
  
  This curriculum is used for the Community Midwifery Program in Afghanistan.

- **Learning for Performance. A Guide and Toolkit for Health Worker Training and Education Programs**
  
  This manual describes a systematic instructional design process that helps connect learning to specific job responsibilities and competencies.

- **Preservice Implementation Guide. A Process for Strengthening Preservice Education**
  
  This guide outlines a process for strengthening pre-service education.
Quality and Relevance: Instruction

Instruction provided during an education program must be relevant and produce quality graduates. This section emphasizes clinical instruction as a key contributor to quality. The emphasis is on developing competent and relevant health professionals who can process information to make correct clinical decisions.

Preparing professionals: Emphasize the development of clinical decision-making capacity, working in teams, and synthesis rather than memorization of information in instructional methodologies. In this age of increased access to changing information, health care workers need to focus less on memorizing facts and more on analyzing and synthesizing information to make appropriate decisions (Frank and Chen, et al. 2010). Health care workers need competence in ?life-long learning? to adapt to evolving technologies, policies, and knowledge (Frank and Chen, et al. 2010). Work with faculty to help them understand the process for teaching clinical decision-making and ensure they are equipped to develop clinical decision-making skills in their students and to model life-long learning during their student interactions.

Foster collaboration, communication, and coordination between faculty and clinical instructors or preceptors. To help foster effective working relationships, include faculty and clinical instructors in workshop activities related to curriculum revision, development of teaching skills, or development and implementation of clinical or educational standards. A key health worker competency is the ability to provide care in interdisciplinary teams, so ensure educational approaches address these competencies (Frenk and Chen, et al. 2010). Some programs focus heavily on preceptor preparation by providing technical updates, documents, or other means to prepare clinical staff to supervise and mentor students. Facilitate partnerships between institutions and clinical sites to allow faculty to have consistent opportunities to practice and maintain clinical proficiency.

Clinical Instruction

Importance of clinical instruction in pre-service education. Global standards for midwifery education emphasize the importance of clinical instruction. Prioritize clinical education in interventions. Early exposure to clinical practice will build self-confidence in students and promote effective learning from experienced providers (WHO 2006). The clinical site, whether hospital, community health post, or private clinic, provides opportunities for students to practice and master new competencies. Consistency between what is learned in the classroom, demonstrated in the simulated environment, and practiced in the clinical site is critical for competency development. In pre-service interventions, prioritize improving students? clinical experience. Below are ways to strengthen the essential clinical practice portion of a curriculum.

Increase practice in simulation. Practice in simulation and with clients is critical for students to integrate knowledge and skills. This practice also ensures that students are not merely able to recall the didactic portion of the curriculum, but also to make appropriate clinical decisions and
manage clients? care. Educators should demonstrate and coach key tasks in a safe and simulated environment with checklists or clinical site protocols. Improve or develop skill development/simulation labs to increase students? practice time in critical competencies. The Simulation Workshop materials include resources to facilitate a workshop to help institutions establish simulation or skills labs. The Standard ICM Competency-based Skills List is a document that lists the specific models, equipment and consumables that are needed to teach each competency in a simulation lab setting.

Preparing preceptors and clinical instructors: Mentoring skills, technical updates. Preceptors (also referred to as clinical instructors) are critical to clinical learning and facilitate experiential learning in ?real world? settings. The preceptor is responsible for the teacher/learner relationship and must have skills in clinical teaching, role modeling, and socializing students into the profession. Preceptors need formal preparation for this critical work. Brief teaching techniques, such as the One Minute Preceptor or the adapted Five Minute Preceptor (Bott, et al 2011) help develop student problem-solving skills and clinical reasoning while respecting the dual role of the preceptor as both teacher and care provider. The Clinical Mentoring Curriculum and the Clinical Mentorship Manual for Integrated Services are two resources that may be used to develop staff as clinical mentors or preceptors.

Ensure that clinical site practices are consistent with curriculum, institutional goals, and standards for service delivery. Many countries have national service delivery guidelines or standards that outline expected work practices. Clinical area performance standards may describe expected work practices and standardize clinical sites to ensure students will observe the desired practices. Based on gaps identified in the standards, clinical sites may be strengthened with infrastructure support, additional training, or performance support.

Lessons Learned: Quality and Relevance: Instruction

? Ensure the program has allocated funds for addressing infrastructure issues in related clinical sites, such as non-consumable supplies, or even consumable supplies for any planned training activities, including clinical practice.

? Facilitate the development of communication strategies to help preceptors and faculty collaborate in student learning and assessment.

? Ensure that educational and institutional policies and procedures allow for students to obtain direct experience with clients in critical competencies.

Tools

Resources:
Standard ICM Competency-Based List for Basic Skills Training in Midwifery Schools

This resource lists the specific models, equipment and consumables that are needed to teach each competency in a simulation lab setting.

Simulation Training Workshop Summary

This summary describes a course currently being used by Jhpiego to help faculty use simulation to facilitate learning.

Clinical Mentorship Manual for Integrated Services

Manual designed to guide those developing clinical mentorship programmes. Includes samples tools and practical guidance.

Essential Obstetric Care Performance Standards

These are essential obstetric care performance standards used in district hospitals in Pakistan through the PRIDE project.

Clinical Mentoring Curriculum

This on-line toolkit provides materials needed for a 3-day clinical mentoring training and related tools.

Sample Clinical Communication Forms

Taken from the Effective Teaching manual, these forms may be revised and used to help facilitate communication between classroom and clinical instructors.
MCHIP Resources

This link provides key technical resources housed on the MCHIP website, including training packages and other materials.

• **HRH Global Resource Center**

This link is for the global library of human resources for health (HRH) resources focused on developing countries.

• **Knowledge for Health Website**

The K4Health website provides the latest evidence-based tools to improve health service delivery and health outcomes.

• **WHO IMCI Website**

This WHO website provides materials needed for integrating IMCI into pre-service education.

• **Connexions**

This website is a place to view and share educational materials. Anyone may view or contribute.

• **eGranary Digital Library**

This website provides digital educational resources to institutions lacking adequate internet access.

• **Supercourse**
The Institution: Management and Infrastructure

This section focuses on the institution, which delivers and supports pre-service education. Issues related to institutional management and infrastructure, including selection criteria, physical and organizational structure, management and logistics, and financing are discussed.

Organization and Administration

Strengthen institutional governance, including administration and any representative boards or committees (e.g., curriculum, research) that ensure educational programs are updated and adapted to national needs. This process might also include relationships with professional councils. Most educational standards include a section for administration or governance. Refer to the appropriate cadre’s educational standards on governance or administration for practical guidance.

Infrastructure and Resources

Address basic physical and organizational structures needed for implementing educational programs. Infrastructure issues are essential to improve the quality of graduates (Mullan, et al. 2010). Basic requirements for quality education include adequate buildings, equipment, supplies, and access to sufficient resources. Construction, repair, and maintenance of buildings, laboratories, and field sites, as well as provision of adequate learning materials, all need to be addressed (WHO 2006). Student and faculty housing must be safe and acceptable. Transportation to clinical sites for both students and faculty should be available. Leverage program funds or public-private partnerships to address infrastructure improvement.

Use information and communication technologies to support the educational process and institution staff. Using information and communication technologies (ICT) can expand formal access to education, increase access to free online resources (Frenk and Chen, et al. 2010), and
may improve efficiency and effectiveness in learning and teaching. Increasing ICT use also is recommended to provide means for faculty development (Crisp, Gawanas and Sharp 2008, Dal Poz, et al. 2009). Practical approaches for using learning technology may include: developing local area networks, strengthening local ICT support, and facilitating faculty and preceptors to learn, collaborate, and create learning materials. Faculty should be able to use the internet effectively to access information and continue life-long learning. At the minimum, ensure faculty have mastered basic computer skills, have sufficient infrastructure, and can use technology and multimedia effectively in learning. The Multimedia for Learning Workshop has been used to develop these skills in faculty in several countries.

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**Address Other Infrastructure Areas**

**Texts, learning materials, equipment, etc.** Students need access to open source learning materials and to study areas and libraries during non-class hours. Budgets should include computers, support for an information and communication technology (ICT) infrastructure, materials and supplies for skill or simulation labs.

**Financing.** Before beginning expansion or scaling up, a system for ongoing monitoring of resources must be ready. Helping key stakeholders understand the link between existing resources and additional need for expansion will facilitate maintaining quality during the process.

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**Tools**

**Resources:**

- **ICM Global Standards for Midwifery Education**

  These standards identify essential components of education for midwives, and include companion guidelines, and a glossary. They are meant to be used in combination with the ICM midwifery competencies and standards for midwifery regulation.

- **Global Standards for the Initial Education of Professional Nurses and Midwives**

  These standards identify essential components of education for nurses and midwives.

- **Basic Medical Education WFME Global Standards for**
Quality Improvement

These global standards for quality improvement provide guidance on basic medical education. Post graduate and other standards are also available.

The Institution: Faculty/Instructors and Students

This section focuses on preparing faculty and classroom and clinical instructors and selecting and supporting students. It includes a discussion of faculty training and development, continuing professional development (CPD), and faculty retention. The discussion of students looks at issues related to selection and assessment.

Faculty/Instructors

Ensure faculty and classroom and clinical instructors have effective teaching and instructional design competencies as the foundation of faculty development. It is critical to improve faculty and preceptor's ability to facilitate and assess learning and to apply instructional design principles when creating learning and assessment tools. Help faculty more objectively assess student performance by implementing objective structured clinical examinations (OSCE) and validated knowledge assessments. Use either ModCAL for Training Skills or the Effective Teaching materials to update faculty and preceptors in effective teaching.

Encourage and support faculty excellence. Addressing faculty-related issues is key to improving the quality of graduates (Mullan, et al. 2010). Several strategies are suggested for supporting faculty excellence. Faculty who excel should be recognized, either through the provision of career pathways, faculty development, advancement opportunities for women, and mentoring, and/or constructive feedback (WHO 2006).

Provide technical updates to faculty and classroom and clinical instructors. Faculty need up-to-date clinical skills and continued opportunities to maintain clinical proficiency (Smith and Hyre 2009). Educational systems need to establish a mechanism to ensure clinical skill maintenance for faculty. Work with professional councils or stakeholders to ensure processes are implemented for faculty to maintain clinical expertise and teaching skills and to access the resources needed to provide practical, competency-based education. A range of evidence-based clinical updates and courses may be used to ensure faculty and preceptors have the necessary clinical skills.

Train, sustain, and retain faculty. The theme of the WHO Working Together for Health report, train, sustain, and retain, also extends to faculty (WHO 2006). Many suggestions for retaining
workers may be applied to faculty: provide adequate information and communication and provide adequate infrastructure and a living wage that is paid on time (WHO 2006). Provision of a good and safe working environment and adequate infrastructure helps increase retention (WHO, 2010). Each country should develop its own strategy for recruitment, deployment, and retention. The WHO Retention Guidelines outline strategies for addressing faculty retention.

Students/Student Assessment

**Review institutional level student selection criteria** to ensure that students will meet the desired goals for competency and post-graduation deployment. An appropriate range of selection criteria, including student investment in their community, understanding and interest in the profession, as well as cognitive ability to succeed, will lead to increased academic success, deployment, and retention (Dal Poz, et al. 2009; WHO 2006, WHO 2010). It is important to synchronize institutional selection criteria with national criteria. Work with key stakeholders to review and revise the selection criteria, if needed, particularly if the program has significantly revised the expected scope of practice or deployment strategies.

**Emphasize student performance assessment in interventions.** One of the most difficult tasks, assessing clinical competence, powerfully impacts how students learn (Howley 2004). Assessing memorization skills does not help develop the clinical decision-making skills required for competence and results in graduates who are not clinically competent or ?ready to work? (Howley 2004). Formative assessment (for learning and feedback) is equally important as summative assessment (for making decisions about progress) and should be strengthened to ensure graduates develop desired clinical competence (University of Otago 2007). During pre-service education, teaching self-assessment and accountability is vital and self-evaluation of performance is an essential competency for every student midwife. In practice, midwives need to recognize when and how to seek help. Integrate self-assessment into student performance assessment. The Student Performance Assessment workshop materials offer resources for updating faculty or preceptors on assessment principles and practical methodologies, including how to develop and implement objective structured clinical examinations (OSCE).

**Integrate use of objective assessment tools for learning and assessment.** Assessment tools must be objective and logically linked to desired competencies and focus on the most important competencies (University of Otago, 2007). Work with institutions to improve faculty and preceptor abilities to develop and use objective assessment tools both to help students learn and assess their progress. An often overlooked, but critical step is ensuring that faculty and classroom and clinical instructors have checklists for providing feedback based on objective criteria and best practices. Help faculty more objectively assess student performance by implementing the use of OSCE and validated knowledge assessments. Many checklists are currently available for use on the MCHIP website.

**Lessons Learned: The Institution**
It is critical to ensure basic computer literacy and provision of internet access to allow faculty and students to access information and resources.

Help implement clinical assessment strategies, such as use of objective structured clinical examination (OSCE), checklists or other means.

Invite faculty, classroom and clinical instructors to key stakeholder meetings, teaching and technical skill updates, and activities to set or implement educational standards.

Tools

Websites

Resources:

- **HRH Global Resource Center**
  
  This link is for the global library of human resources for health (HRH) resources focused on developing countries.

- **Knowledge for Health Website**
  
  The K4Health website provides the latest evidence-based tools to improve health service delivery and health outcomes.

- **Connexions**
  
  This website is a place to view and share educational materials. Anyone may view or contribute.
eGranary Digital Library

This website provides digital educational resources to institutions lacking adequate internet access.

- **Supercourse**

Repository of lectures on global health and prevention designed to improve teaching of prevention.

**Technical Resources**

Resources:

- **Best Practices in Maternal and Newborn Care: A Learning Resource Package for Essential and Basic Emergency Obstetric and Newborn Care**

  This is a collection of learning guides and checklists for MNH related skills.

- **MCHIP Resources**

  This link provides key technical resources housed on the MCHIP website, including training packages and other materials.

- **WHO IMCI Website**

  This WHO website provides materials needed for integrating IMCI into pre-service education.
Faculty Resources

Resources:

- **Effective Teaching: A Blended Approach Workshop Summary**

  This summary describes a course currently used by Jhpiego along with ModCAL for Training Skills to improve faculty teaching.

- **ModCAL for Training Skills**

  This e-learning course may be used for trainers, faculty, and classroom or clinical instructors. Paper-based materials and a group-based course guidance are available for download from the website.

- **Increasing Access to Health Workers in Remote and Rural Areas Through Improved Retention**

  This document proposes sixteen evidence-based recommendations on how to improve the recruitment and retention of health workers in underserved areas.

- **Multimedia for Learning Workshop Summary**

  This summary describes a course currently being used by Jhpiego to prepare teams to collaborate on the design, development and delivery of instructionally sound, competency-based electronic learning materials that successfully bridge learning between the classroom, skills lab and clinical site.

- **Effective Teaching: A Guide for Educating Health Care Providers**
This manual and self-directed learning resource package help faculty, classroom and clinical instructors improve their teaching.

**Student Related Resources**

**Resources:**

- **Selection Criteria for Community Midwifery Training**
  
  This is the community midwifery selection criteria outlined by the MOPH in Afghanistan.

- **Student Performance Assessment Workshop Summary**
  
  This summary describes a course currently used by Jhpiego to help faculty improve student performance assessment.

**Evaluation**

Evaluation can be done at national, institutional and program levels. When planning for evaluation at any level, it also is important to know about other existing plans at national and institutional levels. This section addresses program level monitoring and evaluation.

**Evaluation occurs on multiple levels.** Monitoring and evaluation plans typically document numerical statistics and certain key quality indicators. In addition to addressing the basics, add time to measure effectiveness of innovations that add to the global body of evidence. Evaluation activities should be coordinated across national, institutional, and programmatic levels with measurable indicators that provide useful data. The WHO Handbook on Monitoring and Evaluation addresses concerns faced by low- and middle-income countries when monitoring human resource for health issues.

**Plan to monitor and evaluate program activities.** Countries may conduct national evaluations of educational systems, and institutions may be involved in institutional evaluations, often through an accreditation process. Programs working to strengthen pre-service education should also monitor and evaluate their results to better understand what is and is not effective (Frenk and Chen, et al. 2010). Program monitoring and evaluation plans should be designed early and
implemented throughout. These plans should identify which indicators relate to any existing human management information system (HMIS) or HRH plan and capture that data. Produce routine monitoring reports that document program progress and help inform the next year’s work plan. The illustrative indicators provide samples and links to resources for monitoring and evaluating pre-service education programs.

**Develop and implement a documentation plan to capture program process, output, and lessons learned.** Complementing the monitoring and evaluation (M&E) plan, a documentation plan needs to be developed to capture sufficient information to answer key programmatic questions. Knowing what is effective when implementing educational interventions is a critical for scaling up education. Even if program funding does not support large-scale studies, country case studies and success stories document what works and informs other programs.

## Tools

### Resources:

- **Illustrative Pre-Service Education Indicators**

  This document provides some illustrative pre-service indicators and links to sources for more information.

- **Using Data to Improve Service Delivery: Training Tool Kit for Pre-Service Nursing Education**

  The training toolkit is designed to help nurse educators conduct effective training of pre-service nurses in the concepts of data demand and use, data analysis, data presentation and interpretation, data communication and data-informed decision making. The modules can be presented sequentially over two days or they can be separated to supplement existing material of a similar topic. Specific learning objectives include:

  - To improve understanding of the links between data collection, analysis, reporting and use of data for program improvement
  - To improve understanding of the nurse’s role in data collection, production and use
  - Build skills to use data to monitor and improve health services
Handbook on Monitoring and Evaluation of Human Resources for Health

This handbook aims to increase the technical capacity of countries to monitor their health workforce.

- U.S. Government, Investing In People Indicators

The links to the US government list of IIP indicators.

Scale Up

Scale-up is related to increasing capacity, which has implications for multiple areas, from national policy to institutional planning. This section discusses financing, strengthening professional associations/councils, and improving institutional capacity.

Financing: planning for expansion and scale-up. Address financial planning for scale-up early on, including development of a sustainable plan for financing expansion and scale-up. The Innovative Financing for Pre-Service Education provides practical guidance on financing pre-service education. Strengthening existing and establishing new pre-service education programs must include long range plans for funding the development of institutions that provide high quality education for the country’s midwives and other health workforce providers. The Nine steps for developing a scale-up strategy provide practical guidance on planning for scale-up.

Strengthen related professional councils or associations. Develop and strengthen professional associations (Fullerton and Leshabari 2010; Dal Poz, et al. 2009). Twinning, one way of strengthening professional councils or associations, is a mutually beneficial exchange between two member midwives associations. It is a formal and substantive collaboration between two organizations? (International Confederation of Midwives (ICM), 2010). Twinning can be used to collaborate, develop, or improve regulatory frameworks or curricula, or support infrastructure investment. The Technical Briefs on Strengthening Professional Associations outline additional approaches and activities.

Improve capacity of institutions to increase uptake. The scale-up of health care workers requires additional infrastructure, faculty, and clinical instructors, which are often in shortage (Mullan et al. 2010). Creating additional clinical sites and preparing clinical instructors or preceptors to provide clinical supervision are essential components of increasing the quantity of health care workers (Mullan, et al. 2010). Gain efficiencies?consider ?hubs? at institutions with
satellite learning centers and build more instruction into clinical practice.

**Involve stakeholders in monitoring of infrastructure requirements for scale up.** The demand for additional health care workers is constrained by human and materials resources. Involve key stakeholders in reviewing numbers of projected workers against quality standards related to infrastructure, for example, ratio of tutors to students, student lodging, clinical site requirements, etc. Having the involvement of key stakeholders in this process may help mobilize additional resources and political support needed.

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**Lessons Learned: Support Scale-Up**

? The relevant professional council is a key stakeholder that should be intimately involved in your program planning, evaluation and any plans for scale-up. Although this type of collaboration may delay program implementation at times, for long-term sustainability and scalability, their partnership is one of the most important programmatic goals. Successful and sustained pre-service programs are built on a strong working relationship with the related professional council.

? Involve and use regional expertise throughout your program to help ensure program interventions are relevant and ensure continued support from regional bodies.

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**Tools**

**Resources:**

- Scaling Up Health Worker Production: The Bottlenecks and Best Buys Approach
Countries need to rapidly scale up the production of health workers in order to ensure universal access to health care and address the global shortage of over four million doctors, nurses, midwives, and support workers. In many cases, small but targeted investments in the preservice education of health workers can lead to measurable increases in the production of qualified and competent graduates. This technical brief presents an overview of an approach to help identify critical bottlenecks to providing quality preservice education and prioritize affordable actions for increasing the quantity of graduates while maintaining or improving the quality of education.

- **Framework for Financing Transformative Scale Up of Health Professional Education and Training**

  This framework focuses on the financing transformative scale up of health professional education and training in terms of funders, stakeholders and recipients.

- **Innovative Financing for Pre-Service Education**

  Provides innovative suggestions for financing pre-service education.

- **Nine Steps for Developing a Scale Up Strategy**

  This guide includes materials developed to facilitate planning for scaling up. While targeted for health interventions, the principles can be applied for scale up of other efforts.

- **Capacity Project Technical Brief #7: Strengthening Professional Associations**

  This technical brief summarizes strategies for strengthening professional associations.

- **Capacity Project Technical Brief #8: Strengthening Health Professional Associations**
Discusses various approaches for strengthening professional associations and the related benefits and challenges.

Resources

All the resources under each tab are also available here.

Advocacy

Resources:

- **Sample Stakeholder Meeting Agenda**

  This is a sample stakeholders meeting agenda based on the Preservice Implementation Guide.

- **Stakeholder Analysis Materials**

  This file contains a short document summarizing how to analyze and select key stakeholders for pre-service education work, and templates for planning for their involvement.

- **Missing Midwives**

  Highlights the important role the midwife plays in the health system and presents solutions for recruitment, training, support and deployment.

- **State of the World's Midwifery**
State of the World's Midwifery Report contains baseline information on midwifery workforce, education, regulation and policy in 58 countries.

- **Training Site Assessment Form: Family Planning Teaching in Preservice Education**

  These tools were used in Pakistan to assess the teaching of family planning in the Lady Health Visitor, Nurses, and Nurse-Midwife cadres.

- **Respectful Maternity Care: The universal rights of childbearing women**

  The White Ribbon Alliance for Safe Motherhood addresses disrespect and abuse during maternity care with advocacy documents and a charter for maternal human rights.

**Policy and Regulatory Environment**

**Resources:**

- **Bridges to Employment**

  Outlines strategies for retaining graduates who have completed their course of study but have not yet been deployed.

- **State of the World's Midwifery**

  State of the World's Midwifery Report contains baseline information on midwifery workforce, education, regulation and policy in 58 countries.

- **Sample National Working Group Terms of Reference**
This sample term of reference document is similar to others used in the establishment of national working groups, and consistent with the guidance provided in the *Preservice Implementation Guide*. It includes guidance on completing it in *italics*.

- **Community Midwife Job Description Afghanistan**

  This is the job description for community midwives, taken from the 2011 Ministry of Public Health in Afghanistan.

- **Midwifery Education Policy Afghanistan**

  This is the community midwifery education policy from the Ministry of Public Health in Afghanistan.

- **ICM Standards for Midwifery Regulation**

  Accompany the ICM midwifery competencies and standards for midwifery education. Provide background and standards for midwifery regulation.

- **ICM Global Standards for Midwifery Education**

  These standards identify essential components of education for midwives, and include companion guidelines, and a glossary. They are meant to be used in combination with the ICM midwifery competencies and standards for midwifery regulation.

- **Global Standards for the Initial Education of Professional Nurses and Midwives**

  These standards identify essential components of education for nurses and midwives.

- **WHO Task Shifting to Tackle Health Worker Shortages**
Brief

This document outlines the guidance provided by WHO for countries considering task shifting as a means to ensure the best skill mix for health care workers.

- **Capacity Project Technical Brief # 3: Building Stronger Human Resources for Health through Licensure, Certification and Accreditation**

  This Technical Brief provides an overview of issues related to Licensure, Certification and Accreditation.

- **Standards-Based Management and Recognition. A Field Guide**

  This guide provides an overview of the SBM-R process used to improve service delivery.

- **Basic Medical Education WFME Global Standards for Quality Improvement**

  These global standards for quality improvement provide guidance on basic medical education. Post graduate and other standards are also available.

**Quality and Relevance: Overview**

**Resources:**

- **Selection Criteria for Community Midwifery Training**

  This is the community midwifery selection criteria outlined by the MOPH in Afghanistan.
Sexual and Reproductive Health Core Competencies in Primary Care

Sexual and Reproductive Health core competencies for education.

- Components of a Health Professional Curriculum

This diagram summarizes key components to include in a health professional curriculum.

- International Confederation of Midwives Essential Competencies for Basic Midwifery Practice

This document outlines the essential competencies for basic midwifery practice. These are meant to be used along with the ICM standards for midwifery education and regulation. Also available from the website in French and Spanish. http://www.internationalmidwives.org/Documentation/ICMGlobalStandardsCom...

- Curriculum for Community Midwifery Education

This curriculum is used for the Community Midwifery Program in Afghanistan.

- Learning for Performance. A Guide and Toolkit for Health Worker Training and Education Programs

This manual describes a systematic instructional design process that helps connect learning to specific job responsibilities and competencies.

- Preservice Implementation Guide. A Process for Strengthening Preservice Education
This guide outlines a process for strengthening pre-service education.

Quality and Relevance: Instruction

Resources:

- **Standard ICM Competency-Based List for Basic Skills Training in Midwifery Schools**

  This resource lists the specific models, equipment and consumables that are needed to teach each competency in a simulation lab setting.

- **Simulation Training Workshop Summary**

  This summary describes a course currently being used by Jhpiego to help faculty use simulation to facilitate learning.

- **Clinical Mentorship Manual for Integrated Services**

  Manual designed to guide those developing clinical mentorship programmes. Includes samples tools and practical guidance.

- **Essential Obstetric Care Performance Standards**

  These are essential obstetric care performance standards used in district hospitals in Pakistan through the PRIDE project.

- **Clinical Mentoring Curriculum**
This on-line toolkit provides materials needed for a 3-day clinical mentoring training and related tools.

- **Sample Clinical Communication Forms**

  Taken from the Effective Teaching manual, these forms may be revised and used to help facilitate communication between classroom and clinical instructors.

- **MCHIP Resources**

  This link provides key technical resources housed on the MCHIP website, including training packages and other materials.

- **HRH Global Resource Center**

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The Institution: Management and Infrastructure

Resources:

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  These global standards for quality improvement provide guidance on basic medical
The Institution: Faculty/Instructors and Students

Resources:

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**Evaluation**

**Resources:**

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  - Build skills to use data to monitor and improve health services

- **Handbook on Monitoring and Evaluation of Human Resources for Health**

  This handbook aims to increase the technical capacity of countries to monitor their health workforce.

- **U.S. Government, Investing In People Indicators**

  The links to the US government list of IIP indicators.

**Scale Up**

**Resources:**

-
Innovative Financing for Pre-Service Education

Provides innovative suggestions for financing pre-service education.

- **Nine Steps for Developing a Scale Up Strategy**

  This guide includes materials developed to facilitate planning for scaling up. While targeted for health interventions, the principles can be applied for scale up of other efforts.

- **Capacity Project Technical Brief #7: Strengthening Professional Associations**

  This technical brief summarizes strategies for strengthening professional associations.

- **Capacity Project Technical Brief #8: Strengthening Health Professional Associations**

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References


Faculty of Medicine. 2007. *Medical Student Assessment Procedures Guide*, University of Otago: Christchurch.


Smith J and Hyre A. 2009. Planning, Development, and Maintenance of the MCH Workforce, in *Maternal and Child Health*


Supporting Organizations

We are thankful for the organizations who have provided expertise and input through the technical advisory group, those organizations include:

Source URL: https://www.k4health.org/toolkits/pse