BACKGROUND

One of the pillars of a well-functioning health system is the system’s human resource. In general, these potential providers acquire most of the knowledge and skills needed during their pre-service education. In spite of this, there are various factors which demand providing in-service training because existing pre-service education may not provide all the knowledge and skills required, due to gap in curriculum and/or poor learning experience or legal restrictions. In addition, there is a constant flow of new evidence which demands development of new techniques, technology, knowledge and approaches. Continuous medical education (CME) in Nepal, however, is lacking. As such, providers require periodic ‘refresher’ courses and in-service training to update their knowledge and skills.

In simple terms ‘in-service training’ means training that is given to employees during the course of employment. This is education for employees to help them develop their skills in a specific discipline or occupation. In-service training takes place after an individual begins work responsibilities. Most typically, in-service training is conducted during a break in the individual’s work schedule.

NFHPII supported different kinds of group-based as well as self-paced training, orientation, and review meetings in district as well as community level. All of this training information goes to a training database. This technical brief covers only in-service training for service providers.

The National Health Training Centre (NHTC) and other divisions and centers of the Ministry of Health and Population (MoHP) provide in-service training to MoHP personnel. NHTC has a network of six regional training centers along with six family planning (FP) clinical training sites and 18 skilled birth attendant (SBA) training sites.

NHTC coordinates over 89 types of training ranging from up-grading the level of community health workers, training biomedical technicians, to training on ultrasonography for higher-level service providers. Divisions and centers like the Child Health Division (CHD), Logistics Management Division (LMD), Family Health Division (FHD) and the National Health Education Information and Communication Center (NHEICC) also provide relevant training. In general, these national-level trainings are well-coordinated and standardized and follow training principles, but are often vertical in nature.

The National Health Training Strategy 2004, developed by NHTC responds to national plans and strategies as well as to the training requirements of the Department of Drug Administration and Department of Ayurveda to provide, promote and expand safe and effective high quality health services. It also addresses the requirements of regional and district health teams to fulfill their function.

The Nepal Health Sector Program 2 (NHSP 2) states that a scientific and robust projection of human resources (HR) for the coming 5 years is needed to develop/update strategic planning for human resources for health. Projection and strategic planning will include developing public and private sector HR, addressing HR supply and demand, and strengthening HR skills and knowledge. Quality of care largely depends on the quality of providers. Upgrading and updating their skills will be done to enhance the quality of care. Skills of care providers and support staff at health and sub-health posts, primary health care centers and district hospitals will be updated through in-service refresher training, coaching and onsite support. Care providers will receive refresher training once during the NHSP 2 period.

The Nepal Family Health Program II (NFHP II) is supporting the MoHP to train its human resources to enhance service provider performance, thereby improving health logistics and quality and access to maternal, neonatal and child health (MNCH), and FP services.

STRATEGIC APPROACH

Health worker performance depends not only on a variety of factors including capability (knowledge, skills), opportunity (resources), and motivation (incentives) but also a wide range of contextual factors: expectations communicated to them by supervisors, health facility infrastructure, client flow, use of space, scheduling/organization of work, cleanliness; and systems factors: management information.
systems, finance, human resource practices, management capacity, and logistics systems for drugs/supplies.

NFHP II takes into consideration, as much as possible, all factors affecting health workers performance. With regards to knowledge and skills enhancement, NFHP focuses on in-service training (IST) with the following approaches:

1. Strengthen the IST system (planning and coordination mechanism, package development, trainers’ development, site strengthening, post-training follow-up/ support)
2. Technical support to conduct IST to improve quality of services
3. Develop training approaches for pilot interventions and expansion (e.g. community-based neonatal care program (CB-NCP) and chlorhexidine (CHX) program).

**KEY ACTIVITIES/INPUTS**

- Supported NHTC *plan and coordinate trainings* by establishing the Training Working Group (TWG) at NHTC and Training Coordination Group (TCG) in two districts. Supported the formation and functioning of the TCGs in order to strengthen the district training system to maintain quality of training at district and community levels. Supported the implementation of the training management guideline (TMG) to streamline selection of participants and training management.
- Supported NHTC, CHD, FHD, LMD, NHEICC *develop and update FP/MNCH training packages and curriculums* based on evidence reflected in medical standards and protocols as well as knowledge and skills required to perform their job. The newest training packages developed include those for chlorhexidine, use of misoprostol addressing post-partum hemorrhage at home births and community based newborn care programs.
- Supported NHTC *develop a pool of trainers* from its various training sites both for clinical training though clinical training skills (CTS) (99 CTS trainers) and other training through training of trainers (TOT) (436 trainers).
- Supported strengthening of existing FP training sites to provide quality FP services and training using *FP quality improvement tools* to identify gaps and addressing them by providing equipment, instruments, models, audio visual aids, supplies and updating the knowledge/skills of trainers as needed.
- Provided support after trainings in the form of technical support visits (TSVs) (See Technical Brief #18), coaching, providing equipment/instruments, material and service site updating, to ensure providers initiate services.
- Training data can be disaggregated by cadre of worker and by training topic. In-service training was provided to a total of 70,950 service providers with NFHP II support. Large majority of the trainees were FCHVs (84%), followed by maternal and child health workers (MCHWs) and auxiliary nurse midwives (ANM) (6%). Nearly 5% of trained cadre were village health worker (VHW) (Graph 1).

**Graph 1: Trained HR (Dec 2007-March 2011) by Cadre specific**

Note- Numbers include multiple trainings received by service providers

- Graph 2 presents the same data by technical contents of the in-service training supported by NFHP II. The three most common areas of in-service training were “Child Health/Nutrition”, “FCHV” and “Maternal/Newborn for Community Workers”.

**Graph 2: Trained human resource (Dec 19, 2007 - March 2012)**

- Approximtely US$ 2.4 million has been spent to support these trainings. The average expenditure per course per participant varied widely and depended upon type, duration, skill-level of participants and location of the training, etc. On average, FP training cost US$ 177 per participant (daily cost US$ 20) and for FCHVs, US$ 14 (daily cost US$ 7).

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1 Rolpa and Siraha;
2 Chhetrapati Family Welfare Center, Family Planning Association of Nepal, Tribhuvan University Teaching Hospital, Paropakar Maternity and Womens' Hospital and Institutionalize Clinic and Training Center/ Nepalgunj)
3 TraiNet, USAID
Other types of training supported include Comprehensive FP and Counseling, FP Refresher Training for village health workers (VHWs)/MCHWs, Basic Health Logistics Training for MCHWs, etc.

Supported follow-up after training, with MoHP staff, to improve service providers’ performance for all NFHP II-assisted training (e.g. community-based integrated management of childhood illness [CB-IMCI], CB-NCP, health logistics). For example, NFHP II followed-up 72% of HF’s and 37% of HWs that carried out CB-NCP training in Salyan together with the district public health officer.

Group-based training to large numbers of health workers nationwide requires significant financial resources and causes absenteeism when they are away for training. As storekeepers belong to the general administrative group, they are frequently transferred to and from the health sector, causing tremendous loss in skilled human resource. To address this, NFHP II developed an innovative self-paced Basic Health Logistics Training course using a CD ROM. A total of 16 participants were trained and certified in this course.

Develop training approaches for pilot interventions and expansion

NFHP has been a pioneer in developing new pilot interventions such as use of misoprostol to address post-partum hemorrhage at homebirths, and the CHX program. Enhancing the knowledge and skills of service providers are integral parts of these interventions. Therefore, training packages were developed, tested and institutionalized within the national system, which has helped expand the interventions.

RESULTS

Training System Strengthened

- The TWG has become a platform to discuss issues pertaining to training managed by NHTC and provide recommendations to resolve them. The TWG also provides input to systematize and standardize the design, implementation and monitoring of trainings.

- Over 25 training packages related to CB-IMCI, CB-NCP, FP, FCHVs, HFOMC, maternal and neonatal health and health logistics have been developed and institutionalized into the Department of Health Services training system.

- All key FP clinical training sites supported by NFHP II are providing training based on the NHTC annual plan. The Chhetrapati Family Welfare Center (CFWC) and Institutionalized Clinic and Training Center are functioning well even after the transfer of management to the MoHP. Furthermore, significant public sector budget has been allocated for these sites (and for logistics training) and the MoHP has approved the development of CFWC as an autonomous body to provide a wide range of training.

- Those who have received clinical training skills and training-of-trainers training, are active in FP and SBA trainings and the Regional Health Training Centers are providing training in their respective areas.

Improvement in Quality of Services

- An increase was seen in the number of implant service sites from 15 to 96, and availability of trained service providers from 28 to 229 between 2007/2008 and 2010/2011. In addition, there was a significant increase in implant use from 3115 to 24,518 new users between 2007/08 to 2010/11 in all 22 NFHP II core program districts.

- Observation during technical support visits (TSVs) of FCHVs shows that they have maintained knowledge and skills needed for providing services after training. For example, their knowledge regarding the eight ARI danger sign4 improved from 43-44% before training to 99-100% after training.

- Similarly, improvements were noted in health logistics. Of all the health facilities visited during TSVs, the First Expiry First Out (FEFO) system was applied in 49% of store-rooms, which increased to 85% (see Graph 4), indicating that once a critical mass of trained personnel has been achieved, the FEFO system is maintained.

4 Fast breathing, chest in-drawing, unable to eat and drink, abnormally sleepy, high fever, low body temperature, skin pustules and malnutrition
CHALLENGES

- Large numbers of group-based training (with vertical approaches) has resulted in poor quality and overlapping of training events, duplication and inconsistencies in content, poor use of resources and high absenteeism. Moreover, training is seen as an incentive rather than a capacity-building exercise.
- The misconception among health workers/managers that training will solve all performance problems hinders their ability to analyze gaps and subsequently address them.
- Post-training follow-up and support including coaching is difficult to conduct and coordinate as they are given inadequate importance and limited financial and human resources, hampering transfer of learning.
- Despite MoHP commitment, continuity and smooth functioning of FP training sites remains a challenge.
- As a significant number of trainings are still not under the NHTC system, coordinating trainings efficiently and synergy between the various training activities is still a challenge.
- Involvement of service providers (mainly from HFs) as trainers in community level training has resulted in significant absenteeism, hampering service provision. Similarly, supervisors’ heavy involvement in training has diverted their attention from program monitoring and supervision.

LESSONS LEARNED

- Mechanisms like training working groups (TWGs) are a cost-effective way to discuss issues as well as systematize and standardize designs, implementation and monitoring of training.
- Though time consuming, standardization and institutionalization of training helps reduce outside dependence in the management of training and helps and promotes sustainability.
- To optimize the impact of training and reduce cost as well as absenteeism due to training, appropriate selection of participants (including consideration of attrition/transfer), use of alternative learning approaches (e.g. coaching, on-the-job training, computer assisted learning), conducting training closer to service providers worksite, and decentralization of training is required.
- The use of quality improvement (QI) tools (i.e. checklists) are helpful to identify gaps and take actions systematically.

RECOMMENDATIONS

- NHTC should have a coordinating structure both at the central and district levels (such as the TWGs) to support overall training management systems including update of trainers, training packages, supply of training materials (such as anatomic models, teaching/learning materials), accreditation of training sites, maintenance/use of databases and certification of training.
- On-site and off-site post training follow-up systems should be strengthened including district to district supervision.
- NHTC, together with program divisions, should set a mechanism to better link training with the actual HR need and build capacity of service providers and managers to assess the root causes of performance gaps and address them accordingly.
- Considering absenteeism and the high cost of group-based training, NHTC together with MoHP program divisions should explore and implement alternative ways to reduce absenteeism and cost, such as by adopting the alternative learning approach, and decentralizing training.
- NHTC should develop a system and institutionalize monitoring of training and its training sites using QI tools.