

HCD Solutions across Countries

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I. POLICY AND FINANCIAL REQUIREMENTS

A. GOVERNMENT POLICIES AND STRUCTURE FOR HRM

1. IRAN: ESTABLISHING A MINISTRY OF HEALTH & MEDICAL EDUCATION

In some countries such as Iran, situating responsibility for medical education in the ministry of health has been an effective way to improve the linkages between the various levels of education and the health education system. This has also improved the fit between health education and health system needs in countries, as in Iran.

Intervention

In 1985 Iran established a national Ministry of Health and Medical Education to improve the country's development of human resources for health and to better match health education to population health needs. There has been enormous progress in ensuring the availability of a health workforce with the right number and skill mix of workers.

The ministry is responsible for all aspects of planning, leadership, supervision, and evaluation of health services, including the training and educating of human resources for health, within the "Comprehensive Health Delivery System" that makes up Iran's health infrastructure.

The Undersecretary for Health Affairs oversees the training of community health workers, or behvarzes, and female volunteers. Behvarzes, both male and female, are selected from local rural populations, trained in Behvarz Educational Centers, and staff rural health houses. The number of behvarzes is determined by the size of the rural population, and 32,500 trained behvarzes are currently delivering services in health houses.

The Undersecretary for Educational and Universities Affairs is responsible for educating and training health professionals and ensuring continuing education programs. From 1985 to 2000, the number of medical students increased by approximately 27,000 and the number of other health profession students by approximately 60,000.

The Office of Continuing Education—working with 44 universities and faculties, 62 scientific-professional associations, and 10 research centers—directs continuing education programs for all licensed medical staff in Iran, including physicians, dentists, pharmacists, and lab technicians. In 1998, 908 such programs were administered; in 2001, 1,505 programs.

The Ministry also has an Undersecretary for Management and Resources Development and Parliamentary Affairs, directly responsible for training managers and employees. Training programs are tailored to target groups with the goal of maintaining standards and continuously improving academic knowledge among managers and employees. At the end of all courses, attendees receive a license and after completing 176 hours of training they receive an additional monetary bonus.

Result

Iran's innovative integration of medical education and the health care system has dramatically expanded access to health services throughout the country, reduced reliance on external workers and services, and significantly improved key health indicators (see table 1 on next page).

Table 1. Gains from integrating medical education and the health care system in Iran

<i>Indicator</i>	<i>1984</i>	<i>2000</i>
Physicians	14,000	70,000
Physicians per 1,000 population	0.39	1.04
Full-time faculty members	3,153	9,000
Ratio of students in postdoctoral programs to all medical students (%)	2.3	10.0
Infant mortality rate (per 1,000 live births)	51	26
Under-five mortality rate	70	33
Vaccination coverage against 7 contagious diseases (%)	20	95
Patients sent abroad for treatment	11,000	200
Foreign medical workers	3,153	0

Sources:

1. Vatankhah, Soudabeh. 2002. "Human Resource Development for Health in the Islamic Republic of Iran." Paper presented at the 49th Session of the WHO Regional Committee for the Eastern Mediterranean, Cairo, October 2002; www.emro.who.int/RC49/RC49-10%20IranPresentationPaper.doc.
2. Joint Learning Initiative. 2004. Human Resources for Health: Overcoming the Crisis. Pages 85-86 (Box 3.5: Iran's Revolution in Health).

2. GHANA: STREAMLINING THE RECRUITMENT PROCESS

Improving and simplifying procedures can often reduce delays between graduation and placement. Simple operations research can identify unnecessary procedures and highlight the main time bottlenecks in recruitment. Better advertising of vacant posts could also help.

Intervention

The government of Ghana merged the Personnel Management Unit with the Human Resource Development (HRD) Division in 2000, and placed them both in the same building, and appointed professional human resource at the regional levels.

Result

The merging of the Personal Management Unit and the HRD Division has cut processing times by as much as 25%.

Source: High Level Forum on Health MDGs. Health Workforce Challenges: Lessons from Country Experiences. Second Meeting of High-Level Forum on the Health MDGs, Abuja, Nigeria on 2-3 December 2004. <http://www.hlfhealthmdgs.org/Documents/HealthWorkforceChallenges-Final.pdf>.

B. AUTHORIZED SCOPES OF PRACTICES FOR HEALTH CADRES

1. ZAMBIA: EXPANDING the ROLE of MIDWIVES

An amendment of the old Zambian medical practice act eventually allowed clinical officers and nurses to perform procedures and functions that had been restricted to doctors under the old law. This opening up was made possible by the enactment of the Zambian Nurses and Midwives Act of 1997 and has significantly altered the need for clinical officers at the health center level and for nurses at other levels.

The Nurses and Midwives Act

Before the revision of the Nurses and Midwives Act, nurses and midwives were not allowed to operate on their own. They could not run nursing homes, due to legal barriers. Under the revised Nurses and Midwives Act of 1997, the nurse/midwife's role has been expanded to provide therapeutic, palliative and rehabilitative care and treatment of illnesses normally carried out in the presence of a doctor. Some of the responsibilities a nurse is now able to carry out include:

- Assessing, diagnosing and providing the relevant therapeutic interventions;
- Carrying out physical examinations
- Inserting and removing intra -uterine devices
- Carrying out resuscitation and intubation
- Carrying out vacuum extraction
- Prescribing relevant drugs and other pharmaceutical preparations
- Providing counseling
- Providing such other information, care and procedures relevant to nursing and midwifery practice that is necessary to prevent disease, disability or any illness or to protect life.

Midwives role

Generally midwives have been providing basic care during pregnancy, delivery and post partum period and all methods of contraception except bilateral tubal ligation in both urban and rural settings. They also provided information, education and communication (IEC) in reproductive health. Midwives are involved with youth programs and in prevention of STIs, including HIV/AIDS.

Under the Nurses and Midwives Act of 1997, counseling in reproductive health issues is now offered at every health center and hospitals, mainly by trained midwives. They can also perform blood tests and treatment of various STIs. Midwives also play an important role in activities on prevention of mother to child transmission of HIV, including support of those mothers who are found to be HIV positive.

Midwifery curriculum

The General Nursing Council in collaboration with cooperating partners has revised the midwifery curriculum to strengthen the nursing and midwifery practice in line with the expanded scope of practice spelled out in the new Act. The new curriculum incorporates new trends in maternal and neonatal health, family planning, gender, infection prevention, health management information system and advocacy. Included in this curriculum is the component of pre and post abortion care counseling and provision of post-abortion care (PAC) and family planning services.

Results

The signing of the new Act has removed legal barriers to an expanded role for nurse/midwives in the provision of certain primary medical care services. Nurse midwives have now been given a greater role in the provision of reproductive health services; for example, they can now be trained to perform MVA for patients with incomplete abortion.

Sources:

- a. Mtonga, Velepi and Martha Ndhlovu. 2001. *Midwives' role in management of elective abortion and post-abortion care: Zambian country report*. Unpublished paper prepared for the conference "Expanding Access: Advancing the Role of Midlevel Providers in Menstrual Regulation and Elective Abortion Care," Pilanesberg National Park, South Africa, 2-6 December 2001.; www.ipasihcar.net/expacc/reports/ZRepF.PDF.
- b. USAID. 2003. *The Health Sector Human Resource Crisis in Africa: An Issues Paper*. Pages 27-28

2. GHANA and ZAMBIA: EXPANDING the NUMBER of CADRES ELIGIBLE for VARIOUS POSITIONS

Until recently, a nurse could not head a district health unit in Ghana, because only medical doctors were eligible. Similarly, under the health reforms in Zambia, the position of district director of health posts is now open to nurses, clinical officers, and environmental health technicians, besides doctors

Result

Reforms in eligibility qualifications, as the ones enacted in these two countries, act as a strong incentive for experienced professionals to remain in government service.

Source: USAID. 2003. *The Health Sector Human Resource Crisis in Africa: An Issues Paper*. Pages 27-28

C. CREATING A CADRE OF PARA-PROFESSIONALS

1. MID-LEVEL WORKERS: CLINICAL OFFICERS in MALAWI

Malawi had 123 doctors serving a population in excess of 10 million in 2002-2003 (doctor: population ratio of 1: 89,962)¹. Four out of 26 health districts had no doctors whilst a further six had only one doctor.

Intervention

Malawi's response to this problem was the clinical officer cadre; since 1980, when the first group of clinical officers commenced service delivery, Malawi has been training and relying on clinical officers.

Clinical officers are largely responsible for the provision of clinical care at district hospital level and play a very important role in the larger central hospitals. Often clinical officers will be supported by doctors but they have shown themselves able to function well without medical officer support. Their duties include OPD care, emergency care, ward management of hospitalized patients and surgical care. Clinical officers carry out a range of surgical procedures including caesarean sections, hernia repairs, management of ectopic pregnancies and fracture management. With the advent of anti-retroviral treatment to public sector patients, it is clear that the clinical officers will be leading the teams responsible for delivery of ARVs in many health districts.

Clinical officers undergo a four year. Medical assistants, a separate cadre, have two years of training, and are allowed to upgrade to the clinical officer level after some years of practice.

Many clinical officers have moved beyond the clinical care sector to lead district health management teams (as district health officers) and to support many of the important programs in Malawi such as TB Control, Malaria Control, IMCI and others. Here they are active as program managers and as researchers.

It is clear that clinical care at hospital level in Malawi will be severely hampered, if not impossible, without the clinical officer cadre. The lesson learned is that in those areas where doctors are reluctant to go, the introduction of a clinical officer cadre can ensure effective service delivery of good quality.

Source

Dr Rudi Thetard, MSH Malawi, and Mr. Alan Macheso, MSH, Malawi (thetard@malawi.net). Annual Report July 2002-June 2003. Malawi Health Management Information Bulletin, Health Management Information Unit, Planning Department, Ministry of Health and Population, December 2003.

2. MIDDLELEVEL PRIMARY HEALTH CARE WORKERS in NEPAL

Nepal is one of the poorest and least developed nations in South Asia. Its dramatic geography, stretching from the highest mountains in the world, to the tropical low lying plains in the south presents a great obstacle to improving the health of its 23,4 million people.

The Nepal Health Care system is based on the district health system. The country is divided into districts, and each district into village development committees (VDC). Most districts have a district hospital. The District Public Health Officer is responsible for all primary health care services in the district.

Intervention

Nepal's approach to make health accessible to most of its population was the creation of various cadres of midlevel health workers. Usually each district has one or two health centers and several health posts and sub health posts; the latter are staffed by different levels of workers known by a bewildering array of acronyms. Health posts are staffed by Health Assistants (HA) who have three years of clinical training, while sub health posts are staffed by Auxiliary Health Workers (AHW) - also known as Community Medical Assistants (CMA) - with 18 months of clinical training. These categories of staff are able to diagnose and treat the common illnesses in their area. Many of the more experienced ones have extensive clinical knowledge, at times more than the doctors to whom they refer.

There are other community-based workers that are under the authority of each health or sub health post. Each health post has an auxiliary nurse midwife (ANM), responsible for antenatal care, deliveries in the health posts or at home, immunization and growth monitoring of children. She is also responsible for implementing vertical programs such as polio immunization days or vitamin A distribution campaigns. These workers have 15 months of clinical training, including practical training around conducting deliveries. Sub health posts employ Maternal and Child Health Workers (MCHW) instead of ANMs. These women have three months of training followed by a six week refresher course. They are responsible for immunization and antenatal care at the sub health post.

Both health and sub health posts employ a village health worker (VHW). This worker has three months of training and is responsible for home visits, follow-up of TB cases, assistance with immunization programs, treatment of pneumonia, supplying worm medicine and contraceptives.

A final category is the female community health volunteer (FCHV). These are women chosen by women's groups in the community. They have 14 days of initial training and a refresher course of a few days twice a year. Their main task is maternal health education, but they also distribute condoms, vitamin A tablets and oral rehydration solution.

Traditional birth attendants (TBA) are also used and found all over the district. Many of these women have been trained either by mission hospitals or by the government. However the training of TBAs has fallen out of favor internationally and this program no longer receives funding.

Results

Although the Nepalese system sounds impressive and well organized, it functions poorly at times. Staff positions may not be filled, staff may not present for duty, services are open for only a few hours daily, and are often corrupt. In an attempt to try and improve management and service delivery, the government has recently transferred control of health posts in certain districts to the village development committees. Results remain to be seen.

In spite of these problems the government of Nepal has managed to distribute health posts and sub health posts throughout the country and has done well in making health systems accessible to all the people. Almost no village is more than two hours walk from the nearest health post. Midlevel workers make this possible. For this Nepal is to be commended. While the system still faces challenges, it provides a structure on which to build.

Source

Dr Colin Pfaff, Medical Officer, TEAM Hospital, Dadeldura, Nepal (colin@galacticomm.org). Department of Health Services: The contributions of trained TBAs in Nepal, Family Health Division. Katmandu: His Majesty's Government of Nepal, 1998.

II. HUMAN RESOURCE MANAGEMENT

A. PERFORMANCE MANAGEMENT/SUPERVISION

1. PERFORMANCE-BASED MANAGEMENT in MALAWI: Output targeting per staff

Banja La Mtsogolo (BLM), a national NGO based in Blantyre, operates clinics in 13 locations. Since BLM purchases all its drugs, contraceptives, and supplies, clients pay fees for services. BLM employs clinical officers and nurses trained by (and previously working for) the government. BLM provides family planning, STI and HIV/AIDS prevention services.

Intervention

BLM employs results-oriented management, supported by output-targeting per staff. Each year, clinic staff set targets for the number of clients to be counseled and treated, the couple-years of protection (CYP) they hope to achieve, and the level of fees they plan to earn. BLM attracts clients through quality services, quality being defined in terms of client waiting time and provision of appropriate counseling and treatment. Quality is assessed through supervision from BLM headquarters and client satisfaction surveys.

Each month, each clinic plots its achievements against its planned targets and sends a short report to BLM headquarters, which periodically prepares a summary performance report of all clinics and then distributes this to each clinic (thus encouraging competition and peer pressure). Twice a year, BLM also publishes the clinics' performance results in national newspapers along with short articles relating to the services they offer and their fees.

Results

By 1998, after just five years in existence, BLM was generating more couple-years of protection (CYP) than all the government clinics together, even though government services were free. To date, no BLM clinic has failed to meet its financial targets and all clinics show steady rise in utilization. Staff is highly motivated, the clinics are clean and orderly, patients are treated with courtesy and respect, and few have to wait more than 15 minutes. BLM's continuing-client rate for family planning is over 75 percent. Most impressive of all, BLM has achieved a growing number of men requesting a vasectomy, a rarity in Africa.

Source: USAID. 2003. The Health Sector Human Resource Crisis in Africa: An Issues Paper. Pages 32-33.

2. ZAMBIA: PERFORMANCE REVIEW SYSTEM

Since 1999 Zambia requires each health center to participate in performance assessments conducted by staff from the district health offices. Using pre-designed forms, district staff spend half-a-day at each health center reviewing its cleanliness, inspecting health records, assessing staff knowledge of the basic health package, and observing them provide services to clients.

Performance Improvement Review

In late 2000, the Performance Improvement Review (PIR) system, prototyped in the Eastern Province by USAID-funded NGOs, was adopted. The PIR involves a bi-annual review of the quality and the quantity of services offered in various community health programs. Rather than merely being a top-down exercise, the PIR is conducted by a joint team of reviewers drawn from the district health office, the local health

centers, and the NGO. It involves interviews with service providers, supervisors, managers, and clients; discussions with the local community about the clinic's health programs; and observation of service provider-client interactions.

Government clinics adopted the scoring system under the PIR, a simple yes/no questionnaire. During the next supervisory visit, the clinic scores and related findings are tabulated, carefully reviewed and discussed with staff to identify problems and to agree on corrective action. The district health office plots successive quarterly scores.

Results

Over the first nine months of this process, the health centers have shown a marked improvement. Staff is keen to see their scores and to compare their performance with other health centers. According to them, this is the first time they have had real feedback on how they are doing.

Source: USAID. 2003. The Health Sector Human Resource Crisis in Africa: An Issues Paper. Page 33.

3. GHANA: SUPERVISORS SUPPORTING GOOD PERFORMANCE

A survey of staff management carried out in four hospitals in Ghana showed that the two independently-run hospitals had a clearer role assignment for supervisors and staff than the two government hospitals. Overall performance in the independent hospitals was ranked by both government officials and the public as significantly higher than that of the government institutions.

Tools for measuring performance. In the two government hospitals, although staff did have job descriptions, treatment schedules, and quality guidelines available (on paper), these were not well known to the health staff. However, in the independent hospitals, the written Daily Task Schedule was a key tool: it assigned tasks to staff and served as a guide when supervisors assessed staff performance. The Daily Task Schedules provided a more specific and clear guide on job descriptions which aided the supervisor's evaluation.

Supervisor's role in performance management

The supervisors' role was the linchpin of performance enhancement in the independent hospitals. Routine performance appraisals were linked to promotions, incentives and sanctioning of staff. Focus group discussions clearly showed that pressure from supervisors served to keep health workers on their toes. Supervisors were keen to ensure good performance within their area of responsibility, which they perceived to be directly linked to their retaining their supervisory position. Staff perceived a direct linkage between management and incentives such as promotions and it foster some competitiveness among workers.

Sources:

1. Dovlo, D, Sagoe, K, Ntow, S, and Wellington, E. 1998. Ghana Case Study: Staff Performance Management in Reforming Health Systems. European Union Funded Research Project "Measuring and Monitoring Staff Performance in Reforming Health Systems". <http://www.liv.ac.uk/lstm/research/documents/ghana.pdf>.
2. USAID. 2003. The Health Sector Human Resource Crisis in Africa: An Issues Paper. USAID HSR in Africa. Page 35.

B. DEPLOYMENT TO RURAL AREAS

1. THAILAND: COMPULSORY SERVICE IN RURAL AREAS

Thailand is a lower middle-income developing country with a population of 62.3 million in 2002, 65% of which resides in rural areas. The country is divided into provinces, districts, sub-districts and communes called *Tambons*.

An early development of the Thailand health system was the establishment of schools to produce a health workforce. The first medical school was established in 1888; later, nursing colleges and schools of dentistry and pharmacy were established. The graduates of these institutions were placed mainly in the country's capital.

The government realized the difficulties and high cost of expanding health care services with high-level health professionals, so it trained lower-level personnel to deliver essential maternal and child care, immunization and environmental health services in the rural villages. These workers were mainly midwives and junior sanitarians, who received one or two years of training after junior high school. They worked in a relatively limited number of rural midwifery centers and health centers. Much still needed to be done to get medical professionals practicing in the rural villages.

Intervention: compulsory service

By the early 1950s every province had a provincial hospital, usually quite small (20–30 beds). During this early period, medical students were offered scholarships and a contract stipulating that they would work for the Ministry of Public Health (MoPH). After graduation, these students were sent to the provincial hospitals and to some big rural health centers.

Since 1977 graduates from public medical schools have to work for the public health system for three years, or face high fines. Public doctors can also practice privately, and many of them do. However, if they opt for working solely in the public sector, they receive a US \$250 special allowance per month.

Results

The rural health development policy started in 1977 has resulted in a great expansion of rural public health services. In December 2001, at the district level, there were 728 district hospitals that covered more than 95% of the total rural districts. The district hospitals are 10 to 120-bed hospitals; most of them have 30 beds. There were 2725 district hospital doctors, a dramatic increase, albeit only 58% of the total requirement of 4700. At the provincial level there are 92 hospitals: 25 designated as regional hospitals and the rest as general hospitals.

Currently all professionals except graduate nurses graduate mainly from the public universities under the Ministry of University Affairs (MoUA); paramedics and graduate nurses graduate from institutions under the MoPH. In 2002, there were 11 public medical schools and one private medical school, producing 1400 graduates. As the majority has been schooled through public schools, this has resulted in higher retention of medical graduates in the rural areas.

Sources:

1. Wibulpolprasert, S and Pengpaibon, P. Integrated strategies to tackle the inequitable distribution of doctors in Thailand: four decades of experience. *Human Resources for Health* 2003, **1**:12; <http://www.human-resources-health.com/content/1/1/12>.

2. Joint Learning Initiative. 2004. Health Human Resources Demand and Management: Strategies to Confront Crisis. Report for the Working Group on Demand. Page 46 (Box 3.2: Cooperation between Universities and Health Authorities).

2. COLOMBIA: COMPULSORY SOCIAL SERVICE

Valle University in Colombia has implemented a program of compulsory social service in cooperation with the local municipal government. Students contribute to community health services throughout their training. Observers suggest that the experience fosters a sense of social service in the students. The university also manages and evaluates pilot projects in partnership with the local health services authority.

3. MEXICO: COMPULSORY PRE-SERVICE PRACTICUM in RURAL AREAS

In Mexico, the health profession curricula includes one year during which students live in rural communities where they work in primary health care units. Universities, local health authorities and the ministry of health share responsibility for the program. The concept was developed in 1936 and has been developed and institutionalized throughout the country in the years since.

Source: Joint Learning Initiative. 2004. Health Human Resources Demand and Management: Strategies to Confront Crisis. Report for the Working Group on Demand. Page 46 (Box 3.2: Cooperation between Universities and Health Authorities).

4. LOCAL RECRUITMENT IN THAILAND

Local recruitment and local assignment enhance the sustainability of community work, as rural retention can be career-long. The key to retaining workers in rural areas is ensuring career opportunities similar to those available to workers in more privileged settings.

Over the last four decades Thailand has had great success in improving equitable access to health care for all, and in delivering services to remote rural populations by developing an innovative package of incentives for health workers. Young doctors and nurses, qualifying for hardship and non-practice allowances, could earn nearly as much as the most senior official.

In 1977, 46 percent of outpatient visits were to urban provincial hospitals, only 29 percent to rural health centers. Over the next 30 years, the government's program of rural health development reversed that trend. By 2000 only 18 percent of outpatient visits were to urban provincial hospitals, and visits to rural health centers had almost double to 46 percent.

Intervention

Attracting and training health professionals from rural populations has been key in Thailand's success. The ministry of public health recruits nurses, midwives, junior sanitarians, and other paramedics, and trains them locally in nursing and public health colleges around the country. Upon graduation they are deployed in their hometowns, and granted a license for service in the public sector alone. The initiative has created a strong core of local health workers in Thailand.

Results

Graduates are much more likely to return to their home communities if their education was selected or supported by the local community. Thailand's positive local recruiting efforts show how countries can address the inequitable distribution of health workers. To have impact, rural recruitment programs must function within a stronger context of support, which includes:

- Improvement of rural health infrastructure.
- Access to training and career advancement opportunities to rural workers.
- Attractive financial incentives, including hardship allowances for rural service.
- Long-term political commitment to supporting health workers and investing in the national public health care system.

Sources:

1. Wibulpolprasert, Suwit, and Paichit Pengpaibon. 2003. "Integrated Strategies to Tackle Inequitable Distribution of Doctors in Thailand: Four Decades of Experience." *Human Resources for Health* 1(12).
2. Joint Learning Initiative. 2004. *Human Resources for Health: Overcoming the Crisis*. Page 51 (Box 2.2).

C. TRAINING

1. SOUTH AFRICA: IMPROVING HUMAN CAPACITY with LIMITED RESOURCES

In South Africa, district-level authorities collaborated to train staff and improve service delivery without external support. This effort not only improved services but also laid the foundation for collaborative activities over the next several years, which improved services throughout the region.

The problem

In the Eastern Cape—one of the poorest provinces in South Africa—during the early nineties, clinic nurses needed to be trained to provide a wider spectrum of primary health care (PHC) services. Challenges included the need to train a large number of nurses, the time-consuming nature of the training (six weeks of classroom, three weeks of practicum) and a shortage of accessible training courses, facilities, funding, and local trainers.

Intervention

A regional management team (with representation from provincial and local government authorities) agreed to participate, develop and implement a regional PHC course. This course was successful because:

- the curriculum was tailored to reflect local needs and conditions;
- off-site training was limited to the theoretical work, with practical work done on site so that service providers would not be absent from their duty stations.
- local doctors, nurses, and health managers served as trainers and facilitators, providing both the practical and theoretical components of the course while continuing to perform their regular daily work;
- inexpensive accommodations and training facilities were found;
- external examiners participated in the final exams to ensure the quality of training.

Results

Over eight years, the skills of almost all clinic nurses in one region of the province (approximately 500) were upgraded through the training program. This program led to a marked improvement in the range of services delivered through the PHC clinics in the region. Some of the approaches developed in the PHC course were incorporated into a larger training program in the Eastern Cape by an agency implementing a large donor-funded PHC program.

Lessons

Through a belief in their abilities and with the will to implement the training, the regional team set up the PHC training program without external support. This approach allowed authorities to maximize limited human and financial resources to strengthen and extend PHC service delivery. Nurses were eager to take the PHC course because they saw its value for their careers, so the courses were booked far in advance. Finally, the collaborative approach allowed the different authorities to develop trusting relationships through a team approach—an unintended benefit of the collaboration and a platform on which to develop many other initiatives.

Source: *The Manager*. 2004. Tackling the Crisis in Human Capacity Development for Health Services. Vol.. 13, No. 2.

D. HUMAN RESOURCE INFORMATION SYSTEMS

1. ZIMBABWE

The Zimbabwe Personnel Information System (PIS) was funded by DANIDA through the World Bank, as part of a family health project. Work started on the system in 1989/90 and the Ministry of Health did not consult other parts of the public service. The system went live in 1993.

Personnel Information System

The PIS was created to replace the existing CARDEX manual system which was cumbersome to maintain, and because computerized data available elsewhere (mainly the SSB payroll system) did not meet all the needs of the Ministry of Health.

The PIS database is maintained by the Establishment Control Unit. It keeps information on the Ministry of Health, and it covers the entire health sector, excluding mission hospitals. The system is capable of producing basic information about individuals, staffing and health establishments. It contains information on authorized posts by cadre and grade for each health facility and employees' relevant biographical details including hiring dates, promotions, departures, and reasons.

The PIS database can also provide statistical reports. Several of the reports allow personnel to plan their work efficiently and to be proactive. For example, there are reports on staff on probationary status, staff whose contracts expire within one year, staff due to retire within one year, staff due for advancements and posts due for vacancy. The statistical reports included national in-post/vacancy statistics by category and in-post statistics sorted by station.

The database is linked to the country's Health Management Information System, making it possible to relate staffing data with disease incidence and workload data. The system was installed in each provincial health office and at the central MOH, and regularly updated consolidated reports are produced. The central database also records intakes and outputs from all basic training programs.

Results

The system enabled provincial managers to track vacancy levels and loss rates, monitor workload and staffing levels at individual facilities, follow up identified imbalances with the districts, and negotiate changes in the authorized posts with the central MOH. Every six months, an analysis of workload versus health indicators (incidence rates, coverage rates, and death rates) was made against staffing levels. Thus, for the first time, managers could hold informed discussions with provinces and districts about staffing and staff performance. Although recruitment and deployment remained a central-level responsibility, the average time for filling a vacant post was reduced from six months to two.

Sources:

1. International Record Management Trust. 2001 International Experiences with Civil Services Censuses and Civil Service Databases: Zimbabwe Case Study 5. Annex 2.
<http://www1.worldbank.org/publicsector/civilservice/casestudy5zimbabwe.pdf>.
2. USAID. 2003. The Health Sector Human Resource Crisis in Africa: An Issues Paper. Page 34.

E. WORKPLACE PROGRAMS FOR HIV PREVENTION/TREATMENT

1. ZAMBIA: HIV TREATMENT

The International Council of Nurses, the Zambian Nurses Association and Boehringer Ingelheim partnered for a new model in access to AIDS therapy and an innovative strategy to strengthen the health care infrastructure. The International Council of Nurses (ICN) is a federation of 124 national nurses' associations representing the millions of nurses worldwide. Operated by nurses since 1899, the ICN is the international voice of nursing and works to ensure quality care for all and sound health policies globally. The Zambian Nurses Association was established in 1950 and has a local organizational structure in all provinces and districts of Zambia.

Free HIV treatment for pregnant nurses

In November 2003, nurses and other health care workers in Zambia were the focus of a special program for access to Viramune (nevirapine), Boehringer Ingelheim's antiretroviral treatment effective in preventing Mother-to-Child Transmission (PMTCT) of the HIV virus. The Zambian Nurses Association partnered with the Zambian Ministry of Health in the administration of the program, to provide free testing and treatment for pregnant nurses and other health workers through the PMTCT Viramune Donation Program.

Results

Nurses and other health care workers shoulder a double burden as they are the principal caregivers both for people living with AIDS and for their own families. Thus, providing a nurse with free treatment allows the nurse to remain in the health system and care for others in society. Access to treatment also provides a powerful incentive for nurses to stay in the profession and in their country.

Sources:

1. ICN. 2003. "Novel AIDS Treatment Program for Health Care Workers in Zambia." ICN Press Release, November 13, Geneva.
2. Joint Learning Initiative. 2004. Human Resources for Health: Overcoming the Crisis. Page 79.

2. ETHIOPIA'S MILITARY: HIV PREVENTION and MOBILIZING AGAINST HIV/AIDS

HIV/AIDS is increasing workloads, killing workers, and causing stress among care providers. In high prevalence countries, protective equipment and safe practices need to be developed to reduce worker risk. Ensuring adequate supplies of simple protective equipment (gloves, soap, and bleach), training workers in precautionary guidelines and protocols, and implementing post-exposure prophylaxis policies are all necessary to maintain a healthy workforce. Sustaining supplies requires effective logistic channels and adequate budget allocations at all levels of the health system.

Intervention

After a 1996 survey among army blood donors revealed an HIV/AIDS prevalence rate of 6 percent, the Ethiopian Defense Force command gave HIV/AIDS control a high priority. To spearhead the response, HIV/AIDS committees were established at all levels of the military (from the ministry to battalion command level), including ground and air forces. Measures to curb HIV/AIDS integrated AIDS programming into all army activities. What distinguished this approach from most other military AIDS programs is that the responsibility for controlling HIV was made a part of the core activities of the command at every level, not delegating it to the health corps alone.

Results

Seroprevalence surveys in 2001 showed that the prevalence of HIV infections had not increased, even with a fivefold increase in the size of the armed forces.

Source: Joint Learning Initiative. 2004. Human Resources for Health: Overcoming the Crisis. Page 55 (Box 2.5).

III. PARTNERSHIPS

A. LINKAGES among the PUBLIC SECTOR, PRIVATE SECTOR, and COMMUNITY NETWORKS

1. BANGLADESH: ENLISTING COMMUNITY HEALTH VOLUNTEERS

The Problem

Bangladesh has a shortage of trained rural area health personnel to address the major causes of morbidity such as tuberculosis and diarrhea.

Intervention

Bangladesh was able to address the lack of front-line health workers by enlisting community health volunteers to conduct home-based health education and provide the essential local presence necessary for a successful DOTS program.

BRAC, formerly known as Bangladesh Rural Advancement Committee, is a non-governmental organization that has a long-standing program of *shasta shabikas* (village workers for primary care) linked to its village-based development programs.

BRAC works closely with the National Tuberculosis Program (NTP). The collaboration, which started in 1994, takes place at various levels. At the central level, the NTP trains BRAC technicians on laboratory techniques and quality control. Also, NTP carries out quality control checks on the diagnostic procedures. The government provides drugs (that BRAC gives for free to the patients), salary and transport costs, as well as laboratory equipment and supplies. At local level, the government hospitals entertain all the patients referred by BRAC. In addition, BRAC provides performance report to the NTP on a periodic basis.

BRAC recruits community health volunteers within the village under the reasoning that local recruitment and assignment increase social and cultural compatibility and worker efficiency. Worker satisfaction and performance also are enhanced when workers are recruited from and trained to perform functions most appropriate to the community—and when they join locally-based teams that work together to serve the community. Absenteeism, for example, is greatly reduced by having workers recruited and assigned locally.

To promote staff retention, BRAC created a special incentive scheme and dedicated laboratory services, linked to *shasta shabikas* in villages. The performance-based payment system has met with success in the remote villages as it provides additional income to households with limited resources. In the directly observed treatment (DOTS) program against tuberculosis, patients are required to pay an upfront fee for treatment. Part of the fee is returned to the patient upon successful completion of treatment, but part is retained by the health worker as an incentive for patient compliance.

Results

BRAC shows that community health workers can help deliver primary care, categorical programs, or a combination of the two. Performance-linked financial incentives can help imbue public service values, a sense of purpose, and social recognition. Although detection rate is shy of the WHO target of 70%, it has dramatically increased to 62% since the implementation of the BRAC TB DOTS program. In 2001, the treatment program had reached a cure rate of over 90% (above WHO 85% target), an increase from the cure rate of 66% at the inception of the program.

Sources:

1. Chowdhury, Mustaque. 2003. "Health Workforce for TB Control by DOTS: The BRAC Case." Joint Learning Initiative Working Paper. BRAC, Bangladesh. [www.globalhealthtrust.org/].
2. Hossain, Belayet, and Khaleda Begum. 1998. "Survey of the Existing Health Workforce of Ministry of Health, Bangladesh." *Human Resources Development Journal* 2 (2): 109–116.
3. Joint Learning Initiative. 2004. *Human Resources for Health: Overcoming the Crisis*. Page 46, 77.

3. CAMBODIA: CONTRACTING HEALTH PROFESSIONALS in the PRIVATE SECTOR

The problem

Many years of war and political upheaval left Cambodia with a limited health infrastructure, particularly in rural areas. Health worker morale was poor, management capacity at the district level was weak, and access to service was inadequate. A 1998 demographic and health survey found that, nation-wide, only 39% of children were fully immunized and 21% of mothers had received any prenatal care during their last pregnancy. To address these serious issues, the Ministry of Health (MOH) devised a "coverage plan" which focused on delivery of a minimum package of basic preventive and curative services such as immunization, family planning, antenatal care, and provision of micronutrients.

Interventions

With financing provided by the Asian Development Bank, the government contracted with NGOs in two different ways:

- a service delivery contract (SDC, called "Contracting Out" in the original study) in which the contractors had complete line responsibility for service delivery, including hiring, firing and setting wages, procuring and distributing essential drugs and supplies, organizing and staffing health facilities
- a management contract (MC, referred to as "Contracting In" in the original) in which the contractors worked within the MOH system and had to strengthen the existing district structure. The MC contractors could not hire or fire staff, although they could request their transfer. Drugs and supplies were provided to the district through the normal MOH channels. The MC contractor received a budget supplement of US\$0.25 per capita per year to spend on incentives for staff, operating expenses, etc.

There was also a control area, where the management of services remained in the hands of the District Health Management Team (DHMT) and drugs and supplies continued to be provided through normal MOH channels. As with the MC, the DHMT received a budget supplement of US\$0.25 per capita per year to spend on incentives for staff, operating expenses, etc. Technical assistance and training on management were provided to the DHMT.

The MOH used a formal competitive process for selecting the NGOs based on both the quality of the technical proposals and cost. Contracts were for 4 years. All the winning bidders were international NGOs with previous experience working in Cambodia, since at the time the contracts were bid there were few Cambodian NGOs active in the health sector. Contract management was carried out by a special unit of the MOH using local consultants.

Twelve districts with a combined population of 1.5 million were randomly assigned to the three different approaches; baseline household and health facility surveys were carried out in late 1997 and follow-on surveys were carried out in August 2001, about 2.5 years after implementation began and four years after the baseline survey.

Results

There were larger improvements in immunization coverage, use of antenatal care and other indicators in the SDC and MC districts than in the control districts, although they were quite similar at baseline. For example, full immunization coverage increased 40 percentage points in the SDC group, compared to 25 percentage points in MC, and 19 percentage points in the control group. The poor appear to have benefited disproportionately from contracting; the concentration index, i.e., the extent to which health services became more or less pro-poor, registered this change from baseline to follow-up evaluation. With the exception of use of modern birth spacing and Vitamin A, services in SDC districts became more pro-poor followed by the MC districts. The control districts became less pro-poor.

The cost of SDC was considerably higher than the MC or the control groups but led to a considerable saving in out-of-pocket expenditures by people in the community. The difference between the MC and the control districts (US\$0.96 per capita per year) reflected almost entirely the cost of the contract with the NGO so that these two groups had the same amount of resources to spend on actual service delivery.

Comments

The results of this randomized controlled study showed that contracting with NGOs can significantly improve service delivery within a short period of time. It appears that the greater autonomy provided to NGOs under SDC enabled a greater improvement in performance than MC. Overall, contracting with NGOs was considerably more successful than government delivery of the same services, benefited the poor much more, and was achieved at a reasonable cost. The success achieved with contracting has been expanded during a subsequent project, financed by the Department of International Development (DFID), the Asian Development Bank, and the World Bank, and now covers about 20% of the population of Cambodia.

Source: Loevinsohn, B and Harding, A. 2004. Contracting for the Delivery of Community Health Services: a Review of Global Experience. Health, Nutrition and Population (HNP) Discussion Paper. The International Bank for Reconstruction and Development / The World Bank. <http://siteresources.worldbank.org/HEALTHNUTRITIONANDPOPULATION/Resources/281627-1095698140167/Chap11LoevinsohnHarding.pdf>

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