

high-risk behaviour (Cohen, 2002). The workforce in all sectors is affected through mortality and through loss of productivity as a result of sickness. The loss of teachers from training institutes and those who provide on-the-job training interrupts the flow of production and undermines the substantial investment – by both the public and private sector, as well as by donors – in the development of human capital (Kelly, 2000; Cohen, 2002).

Moreover, health workers are exposed not only to social risks of HIV/AIDS but also to occupational risks. In countries with inadequate health budgets, they may be placed at additional risk because of a lack of basic supplies required to observe universal precautions. For example, in the case of Zambia, a study revealed that safety standards were practised by only 67% of health service providers, disinfectants were available only in 51% of cases, and gloves were available in only 56% of cases.¹⁵ Health workers are at even higher risk of both transmitting and contracting HIV/AIDS during the conflict and post-conflict period because of the breakdown of health systems, together with the lack of supplies or even the knowledge to observe basic nosocomial infection procedures (see Box 9).

Box 9. Infection control practices in Cambodia in 1992

One of the first projects set up by WHO in the immediate post-conflict period in Cambodia, in 1992, was a hospital infection control project to develop infection control procedures appropriate for Cambodia at that time, as well as associated training.

During this project it was found that health workers, trained to use pressure cookers to sterilize needles and syringes for immunization, did not apply the basic principles of sterilization to sterilizing other instruments, and continued to use flaming (the only method available during the Khmer Rouge period) for other instruments, including those that would be in contact with blood.

This lack of transfer of principles stemmed from the experience of only obeying orders, as a survival strategy. It necessitated adapting the teaching methodology to ensure a wider application of principles.

The impact of HIV/AIDS during a conflict varies from country to country. In cases where a country is isolated for a considerable period, the risks of transmission within the country may be low. In the post-conflict phase, the reopening of borders and normalizing of relations with neighbouring countries can lead to increased potential risk of transmission. In countries where there have been movements of armies across borders, the risk of HIV/AIDS becomes higher. The Joint United Nations Programme on HIV/AIDS (UNAIDS, 2003) has developed an initiative on HIV/AIDS and security that addresses the risks of transmission during conflicts and peacekeeping operations.

A controversial proposal by universities in Thailand to test for HIV/AIDS students who had achieved entry level to medicine and other health-related fields sparked a heated debate. While the proposal was defended as intending to minimize risks of the spread of HIV/AIDS from doctors, dentists and nurses, it was attacked on the grounds of violating students' human rights, even though it respected patients' rights.¹⁶

It is becoming increasingly important, for planning and economic reasons, to gather and analyse more data on the impact of mortality and loss of productivity in order to confront the situation more realistically and to identify more appropriate strategies to deal with or overcome the constraints.

9. Using current frameworks and tools for human resources development

A window of opportunity for a fresh start occurs in post-conflict countries. In order to use that opportunity effectively, it is necessary to examine modern approaches and frameworks for human resources development, and their evolution. This will give a picture of how the field of human resources development has changed, during the period of the conflict, in relation to new approaches to health care delivery in an increasingly complex environment.

¹⁵ Data presented by B.U. Chinwa et al. at an international conference on AIDS in Amsterdam in 1992.

¹⁶ Reported by Prangthip Daorueng for InterPress News Service, 30 December 1997.

Egger & Adams (1999) have outlined the changes and concerns in human resources development in relation to production, management, policy and planning over the latter half of the 20th century. They note that the main emphasis up until the mid-1970s was on a *training approach*, based on a hospital-based curative model. This approach continued, although efforts were made to change curricula in line with the incorporation of primary health care in health service delivery.

In the 1980s, there was a move to encourage countries to integrate workforce planning into health systems, which gave rise to a *planning approach*. This led to the development of workforce planning models, such as those developed by Hornby, Hall, Dewdney and Shipp (WHO, 2001b).

The initial approach was to concentrate on developing formulae such as health professional-to-population and doctor-to-nurse ratios. This gave rise to the danger of considering a ratio of that type to be the “magic formula” for optimum planning. These ratios were frequently arbitrarily defined or copied from other countries or based on international averages (Zurn et al., 2002).

This approach is simplistic and ineffective, as it fails to take due account of factors that are specific to each country, such as geographical location, population density, communications, available budget, disease patterns and disease burden, and workloads. The key to using this approach is a good source of reliable data. Such data are not always available in many countries, because of the difficulty of collecting information and transmitting them regularly from isolated districts and provinces to regional or central level.

There was also a move to develop and deploy new types of health care providers in developing countries. This approach faced a number of constraints. First, it was used by health planners based in planning units that were isolated from the other human resources development functions, particularly training. Second, there was strong resistance from professional associations to the development of new types of health care providers, who were perceived as undermining the roles of existing professionals, particularly of doctors.

A *policy approach* emerged in the 1990s, aiming to achieve health sector reforms. The policy perspective signalled the beginning of advocacy for an integrated approach to human resources development. The aim of the integrated approach was to ensure that training institutes became involved in national policy and planning processes, so that training would be more appropriately adapted to health service needs. However, the health sector – like other sectors, such as education – has concentrated more on generating policies and less on implementation (Bowe, Ball & Gold, 1992; Egger, Lipson & Adams, 2000).

Despite major efforts to encourage countries to use an integrated policy approach, a study on 15 countries, undertaken in 1998 by the World Health Organization (WHO), found that in six countries there was some implementation of policies but no impact, in five countries there was substantial implementation but only minor impact, while in four countries there was substantial progress in implementation and a notable impact. Of these four countries, two had notably higher gross domestic product per capita relative to the other countries (Egger, Lipson & Adams, 2000). In the case of the Pacific island nations, evidence suggests that the fragmentation of human resources development functions and lack of a dedicated focal point for human resources development in ministries has a negative impact on the development of human resources policy.

Despite efforts to encourage governments to undertake more comprehensive approaches to human resources development, they continue to maintain a view of human resources development as personnel administration (Dussault & Dubois, 2003) or training (Martinez & Collins, 1999). Dussault & Dubois (2003) directly attribute the human resources problems experienced by many countries – imbalances, mismatch, qualitative disparity and unequal distribution – to lack of human resources policies. Several authors have highlighted the importance of human resources in the successes and failures of health sector reform (Pan American Health Organization, 1997; Martineau & Martinez, 1997; Martinez & Collini, 1999; Buchan, 2000).

The field of human resources development is itself complex, and its context within health service delivery has also become increasingly complex. Efforts to promote a *strategic approach* in order to raise the profile and enhance understanding of human resources development have led to the development of conceptual frameworks, such as those of Hornby (WHO, 2001b) and Martineau & Martinez (1997). These frameworks have generally focused on human resources development within the national context.

More recently, through a series of high-level international meetings, held in Annecy in 2000, Ottawa in 2002 and Geneva in 2002, a new human resources development framework has been designed to highlight the role of human resources in achieving the health systems functions of financing, stewardship and health planning, and resource generation, within the wider context of national and global sociodemographic, geographical, political and economic concerns (WHO 2000, 2001a, 2002b, 2002b). While this framework is more appropriate for analysis of human resources development within the complexity of the broader post-conflict context, the simpler frameworks that focus on the national context can be used at a more practical level within de facto health authorities when establishing human resources development focal units in the early post-conflict phase.

There are many human resources development tools to assist de facto health authorities in developing capacity in all aspects of human resources development. Examples of such tools include the WHO human resources toolkit and the Management Sciences for Health human resources development instruments. Despite this, many countries cling to outdated approaches. The post-conflict period is an opportunity to start again. Nevertheless, while these tools can be invaluable in the development phase, they are too sophisticated for use in the immediate post-conflict reconstruction phase. There is a need to create a bridge between the point where de facto health authorities start work, in the early days of reconstruction, and the point where they can effectively and confidently use these strategic frameworks and tools.

10. Establishing a focal unit for human resources development in a de facto health authority

Human resources are the key to successfully implementing national health policies and strategies. Despite consuming 60%–80% of the recurrent health budget (Green, 1999), human resources development commands little attention. To reflect their importance, the functions of human resources development must be specifically addressed within a de facto health authority.

In re-establishing the de facto health authority, attention must be given to the situation of the health professionals who become the senior health service managers and who will shape the future health service, together with the necessary policies and plans. The majority of these professionals will have been affected by the conflict and are preoccupied with the security and survival of their families. However willing they may be, only a few of them can afford to dedicate full-time attention to the work of rebuilding the health system in the early days. In the absence of knowledge about trends in health service delivery, there is a natural tendency to revert to former familiar systems, where human resources development was accorded little importance and human resources functions were scattered throughout the ministry. In such systems, approaches were generally ineffective, concentrating on individual components of human resources development but failing to address all components in a balanced manner.

Evidence indicates that the lack of a dedicated focal point in human resources development in the de facto health authority jeopardizes the development and implementation of human resources policy and plans. The process of redeveloping a health authority in a post-conflict environment provides a unique opportunity to prevent repetition of past mistakes and to undertake a more strategic approach to the area that consumes the highest proportion of the recurrent health budget.