

## **Training of Health Workers in Small Island States: Bridging the Distances**

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### **Abstract**

One of the mechanisms to improve the health sector throughout the region is the Caribbean Cooperation in Health Initiative (CCH). Approved by CARICOM Heads of Governments in 1986, this initiative focuses regional efforts on eight priority areas of health sector development. One of these areas is human resource development, which includes the training of health workers. This paper seeks to explore the possibilities of distance education for the training of health workers in small states. It reviews two programmes conducted by regional organizations in the context of the limitations of small island states. Theoretical and operational issues connected to the design of the training programmes are also discussed. The paper concludes by reflecting on the role of the University of the West Indies Distance Education Centre (UWIDEC) in facilitating professional training programmes.

### **Introduction**

The promotion of healthy lifestyles, protection of the environment and an enhanced capacity to provide quality health services has been high on the agenda of Caribbean governments for many years. At a meeting of the CARICOM Conference of Ministers responsible for Health (CMH), held in 1984, the Caribbean Cooperation in Health Initiative (CCH) was introduced. The CCH, which was intended to increase regional collaboration in health sector development, was approved by the Heads of Governments in 1986. A decade later, Caribbean governments agreed to revise the initiative. Health professionals from throughout the region met and recommended eight priority areas, strategies for implementation and areas of common concern

requiring joint action. These recommendations were accepted by CMH in 1998.

One of the eight priority areas identified was human resource development. Within this specific priority area, "the development of an educational policy on functional, interdisciplinary training for health professionals" (PAHO, 1998, 22) was identified as a sub-priority. The objective of this "sub-priority" area was to improve the capacity of countries to respond effectively and efficiently to training needs. The provision of suitable training for health workers was therefore recognized as a regional priority in the development of the health sector. Given the identification of training for health workers as

a sub-priority area of the CCH, this paper examines the features specific to small island states which impact on training. Two training programmes for health workers are described, in relation to theoretical and operational issues impacting on the design of distance education programmes.

### **Features of Small Island States that Impact on Training**

There has been much debate about definitions of small states and islands. Some definitions focus on population statistics while others focus on power relationships in the world order. For the purposes of this paper the criteria used by Rogers (1996) for determining small island states will be applied to the Caribbean. According to Rogers, small island states share a relative lack of resources because of small size. They are also isolated from the “developed” countries and, to a large extent, from each other. These two criteria form the basis for many of the challenges that can impact on training within the Caribbean.

Foremost amongst the challenges posed by small size and lack of resources is the provision of cost-effective programmes. The small number of persons requiring professional training on any one island may make unit costs of training high. This in turn raises the issue of financing for training programmes. Where do funds for training programmes originate? This lack of finance further impacts on capacity building within training institutions. Rogers (1996) points out that many institutions are forced to seek international aid, which may carry with it stipulations about the timing and nature of the training to be developed. The stipulations of the aid agency may not necessarily be in keeping with the needs of the community.

Linked to the issue of lack of resources is the

availability of skilled trainers. Many small states are characterized by outward migration of skilled staff. For those islands where professionals choose to stay, training may be a part-time activity. This has implications for the quality of training delivered.

Global education issues also impact small island states. One such issue is the increase in credentialism in adult and continuing education. Small islands are limited in their capacity to provide credentialism, because of their limited ability to provide a variety of accredited institutions for training. This has implications for the demand for training offered.

The second criterion – the dispersion and relative isolation of small island states – has encouraged a focus on distance education as a means of providing training. Two of the challenges posed by this focus, however, are selecting an appropriate mode of delivery and also ensuring that materials are culturally appropriate.

Though referring to small island states in general, the challenges identified by Rogers are applicable to small island states in the Caribbean. Responding to these challenges, institutions and organizations within the region have been making efforts to educate health workers. Two examples of these efforts are the Training in Health and Environmental Health, conducted by the University of the West Indies Centre for Environment and Development (UWICED) and a pilot programme on Laboratory Quality Assurance conducted by the Caribbean Epidemiology Centre (CAREC).

### **Training in Health and Environmental Health**

The Training in Health and Environmental Health was a two-year joint project, which

commenced in 1998, involving UWICED, the Pan American Health Organization (PAHO/WHO), the United Nations Development Programme (UNDP) and CARICOM. The project was largely a “train-the trainers” activity, which targeted a range of health and environmental professionals and para-professionals, including nurses, doctors, community workers and educators trained in environmental health and health promotion.

The primary target group of the project – health personnel from across the region – was identified as having a major role to play in public education. It was felt, however, that this role could be more clearly defined, thus promoting greater efficiency. Training in Health and Environmental Health was therefore geared to address “the absence of a system of effective public education and its consequences in terms of a paucity of persons knowledgeable about technical and managerial health and environmental health issues in 13 Caribbean countries” (Walters, 1998, 4).

The training project covered four content areas, namely diabetes, chronic diseases, environmental health and water quality. These areas were selected on the basis of priority areas identified by the CCH and PAHO/WHO. In addition to these specific content areas the programme also prepared participants to use innovative training methodologies and multimedia approaches.

The actual training was delivered via a mixed mode, comprising audioconferencing and print materials. Persons from six countries were trained on-site in multimedia video production. Audio conferences, which were used to deliver content, were conducted using the facilities of the University of the West Indies Distance Education Centre (UWIDEC). These facilities

comprise an audio learning (AL) network linking twenty-eight sites throughout the region. The AL network is currently based on digital telephone lines, with a “bridge”, which basically allows many callers to participate in the same discussion, in real time. At the twenty-eight sites throughout the region there are audio conference rooms, equipped with microphones and speakers, to facilitate the process.

The print materials took the form of two complementary books, namely a resource manual and a training manual for each content area. The resource manual contained factual information and supplementary readings, as well as relevant training activities, while the training manual contained applied, interactive material. Each participant also received a manual on community education for health workers.

### **Pilot Programme in Laboratory Quality Assurance**

Another training programme, which sought to bring together professionals and para-professionals in health from throughout the region, was the pilot course on Laboratory Quality Assurance. This pilot programme was conducted in 1998 by CAREC in conjunction with the U.S. Centres for Disease Control and Prevention. As the name implies, the programme was intended to promote “professionalism” among laboratory personnel and enhance quality control procedures in laboratories across the region.

A second objective was related to the feasibility of using distance education as a training alternative. Given the resource intensive nature of CAREC’s training activities throughout the region, it was felt that a more cost-effective means of regional training should be sought. The Laboratory Quality Assurance training

programme was conducted as a pilot distance-learning course, in an effort to assess the feasibility and effectiveness of the approach for CAREC member countries.

The pilot programme targeted medical laboratorians, who possessed at least basic medical laboratory training. The target included medical technologists, laboratory supervisors, directors and laboratory consultants in nine countries/territories including the Bahamas, Barbados, Belize, Cayman Islands, Jamaica, St. Lucia, St. Vincent and the Grenadines, Suriname and Trinidad and Tobago.

The programme was delivered using a combination of videocassettes, audio conferences, and print materials. Five videos were viewed by groups of participants in the various countries. Audio conferences were scheduled intermittently between viewings of the videos, with specific objectives related to the content of the videos. Related print materials were also provided. A total of three audio conferences were conducted, using the facilities of the UWIDEC.

### **Comparison of Programmes**

The programmes identified above, though different in vision and scope, share a number of similarities. First, both programmes involved adults who were professionals or para-professionals in their respective fields. This suggests participants were bringing with them a certain level of experience in the field of work.

Second, the programmes were conducted across several islands, and as a result were subject to the limitations of small island states. In light of the challenges posed by the context of smallness, attempts were made to utilize audio conferencing as a cost effective, accessible means of bridging the distances.

Third, in both instances, there was an attempt to supplement the audio conferences through repetition of information in the form of print.

With regard to the experiences related to these similarities, both programmes were affected by technical and pedagogical problems. The technical problems included absence of technicians during system failures, inadequate volume and voice levels at times and the inability of some countries to participate due to technological problems.

Pedagogical problems were related to the delivery style of facilitators and the level of interactivity of the audio conferences. Some participants felt the programmes were too conventional and didactic and there was insufficient involvement of course participants in the training process.

These similar experiences identified are by no means peculiar to small island states or to the specific field of health training. Macdonald (1998) identifies some of the limitations of audioconferencing as:

- Lack of or limited visual communication, impeding interaction in the training activity
- Low quality voice on lines
- Noises on the lines impeding conversational dynamics

Macdonald points out that these limitations should not act as a deterrent to the use of the technology for delivery of programmes. Instead, they should feature in the planning exercise of any institution interested in providing training via this medium. Macdonald further notes the necessity of balancing the limitations of the medium against the advantages. These he lists as

- Interactivity – through real-time discussion between instructor and learner
- Near universality – due to the existence of telephone lines almost everywhere
- Affordability – since it has the lowest capital and operating costs
- Flexibility – the equipment is portable and easily removed
- Ensure that instructors are prepared in advance, particularly in the use of the technical equipment
- Integrate voice and visual elements as far as possible

The problems experienced during the delivery of both programmes and the issues identified by Macdonald suggest that a key consideration in the design of open and distance programmes is interactivity.

### **Interactivity in Distance Education**

Interactivity is a widely used term in discussions about audioconferencing and distance education in general. Interaction takes place between instructor and learners, among learners in the same audioconferencing room and among learners at different sites. Interactivity is usually determined by the rate and extent to which participants are satisfied there was an opportunity to:

- Ask questions
- Make contributions to discussions
- Meet and discuss off line
- Participate in learning activities
- Engage in discussions on line
- Engage in informal discussions on line

Burge and Roberts (1998) suggest the following methods to ensure interactivity during audio conferences:

- Select the highest possible quality of equipment that you can afford

Distance education theorists such as Börge Holmberg insist that to be effective, distance education must have a human face. Desmond Keegan (1996), writing on Holmberg's theory, says that to Holmberg, the single most important element in education is learning by individual students. Parer (1983) points out that Holmberg emphasizes "guided didactic conversation" or interaction among students, tutors and other representatives of the institution.

Holmberg says that learning materials developed with this concept of guided didactic conversation would present the following characteristics:

- Easily accessible presentations of study matter; clear, somewhat colloquial language in writing that is easily readable, moderate density of information.
- Explicit advice and suggestions to the student as to what to do and what to avoid, what to pay particular attention to and consider, with reasons provided.
- Invitations to an exchange of views, to questions, to judgements of what is to be accepted and what is to be rejected.
- Attempts to involve the student emotionally so that he or she takes a personal interest in the subject and its problems.
- Personal style, including the use of the personal and possessive pronouns.
- Demarcation of changes of themes through explicit statements, typographical means or in recorded, spoken communications,

through a change of speakers, or through pauses (Holmberg, 1983, 117, quoted in Keegan, 1996, 96).

Holmberg forecasts that if a distance education programme is prepared following these principles, it will be attractive to students, will motivate them to study and will facilitate learning. Other theorists suggest this may not be sufficient to facilitate learning. One such theorist is Michael Moore, who recognized that distance education involves mainly adult students who take responsibilities for their own learning. Moore stresses that true learning takes place when students reconstruct ideas and skills within the context of their ideas and skills (Parer, 1993). Writing in the phenomenological tradition, Moore emphasizes the role of life experiences in facilitating learning.

## **Conclusion**

Within recent times the nature of the general work environment has been experiencing rapid changes. Collier (1985) credits these changes to general social changes such as increasing access to education, information and communication, transportation and resources. In the same vein, Romizowski (1998) points out that in the workplace machines and technology of various types are taking over routine tasks formerly performed by man. Brekon, Harvey and Lancaster (1994) point out similar changes taking place with regard to the health field. Health educators for example must be better equipped to formulate, implement and evaluate programmes rather than simply deliver them to a community.

Another important trend in the workplace is the rapid diversification and evolution of work methodologies. This has created a situation where workers, particularly in health and related areas, need to constantly “re-tool” and

upgrade skills to keep up-to-date with the changes. New research findings and constant changes in technology have made it impossible to provide all the necessary training for the workplace beforehand. There is an increasing need for “just-in-time” training - that is, “individualized” training, which is available on demand. This avoids the wastage involved in providing wide-ranging, pre-service training which may not suit the needs of a particular worker.

From the examples of training programmes for health workers implemented thus far, it is apparent that efforts are being made to deal with issues related to smallness and lack of resources of small island states. This is being done through collaboration and use of existing infrastructure. It seems, however, that more emphasis needs to be placed on comprehensive programme planning and instructional design. In particular, attention should be paid to technological, administrative, pedagogical and contextual issues.

The UWIDEC has an integral role to play in collaborating with organizations/institutions on distance education programme planning issues. The existing audioconferencing and administrative network, as well as the human resource capabilities of the organization, can provide useful resources for small island states poised to take advantage of the benefits of distance education.

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