

Question 14-1/2: Application of telecommunications in health care

1 Statement of Problem or Situation

The introduction of telemedicine in developing countries is being delayed due to the lack of knowledge and the limited experience in these countries. The Report on *Telemedicine and Developing Countries – Lessons learned*, prepared as an output for Question 14/2, together with the discussions and recommendations of the World Telemedicine Symposium for Development Countries, as well as reports on the missions to developing countries by telemedicine experts, all show that developing countries have an overwhelming need for the provision of medical and health care services, especially in areas outside the cities and that telecommunications services could be an economical means of achieving national health policy objectives with regard to improvement and/or extension of medical and health care.

Implementation of telemedicine requires multidisciplinary collaboration, with the active participation of telecommunication operators and health care professionals. There is a need to bridge the gap between the telecommunication and health-care communities at all levels. National Ministries of Health and Communications also need to work together towards introduction of a telemedicine policy and achievement of universal service where emergency services, health and social information systems are concerned. The creation of national associations, committees, task forces and the like, with a multidisciplinary composition, is necessary to bring together telecommunication and health professionals, lawyers, industry and others to assist with awareness-raising at national level.

2 Question or Issue Proposed for Study

The Study Group shall:

- 1) Take further steps to assist in raising the awareness of decision-makers, telecommunication operators, donors and others about telemedicine and how telecommunications might be able to help solve some health-care needs including telemanagement of medical institutions and provide elements to universal service relating to emergency, health and social services.
- 2) Encourage interaction and commitment between telecommunication and health sectors in developing countries in order to concentrate the utilization of limited resources by implementing telemedicine services, taking into account special needs of women.
- 3) Identify telecommunications pilot projects for telemedicine applications appropriate to developing countries; provide an analysis of project results and help developing countries to define a policy and strategy in regard to the application of telecommunications to support implementation of telemedicine.
- 4) Promote development of telecommunications standards for telemedicine applications in conjunction with the ITU-R and ITU-T Sectors in particular.
- 5) Update the directory of companies, institutes, service providers which use telecommunications facilities in telemedicine applications which would be appropriate and cost-effective in the context of meeting the needs of developing countries. The directory should include, as far as possible, a list of donor institutions in this domain.

3 Expected Output

The output expected from this Question will include:

- Guidelines on how to formulate a telemedicine project and what telecommunication facilities will be appropriate, taking into account the local environment, and the social and economic situation. These guidelines should be based on the most common care problems in developing countries.
- Development of the concept of health network based on national, regional and international networks.

- Guidelines on telemedicine policy and strategy highlighting the role of the telecommunications in the introduction of telemedicine services.
- Guidelines on how to assist medical universities/medical schools in developing countries with the introduction of telemedicine in their training programme.
- A database about the different pilot projects and experience in developing countries, what financing mechanisms and technologies have been used, what services have been provided, what the results of the pilot projects have been, what lessons to learn, what mistakes to avoid..
- Liaise properly with ITU-T and ITU-R for the development of telecommunications standards for telemedicine applications, but also in collaboration with other relevant bodies. Such standards should facilitate the maximum interworking between different telemedicine equipment and telecommunication networks, particularly in the domain of videoconferencing. Further, the work on these standards should also take into account security and privacy in order to guarantee the integrity and confidentiality of patient information
- Conduct the World Telehealth Symposium for developing countries in 2003 in together with WHO, UNIDO, EC and other organizations.
- Guidelines on how to identify and engage donors in the funding of telemedicine.

4 Timing of the Expected Output

The work undertaken by the Study Group can be phased over the next study cycle. Implementation of small-scale pilot projects should take place over the next two or three years. A yearly progress report will be issued.

5 Proposers and Sponsors

Formulation of the proposed Question has been based on the results of the study under Question 14/2 of the study period 1998-2002 and the recommendations emanating from the Report of the second World Telemedicine Symposium for Developing Countries held in Buenos Aires in June 1999.

6 Sources of Input Required in Carrying out the Study

Inputs will be expected from Member States and Sector Members, the European Commission, the European Health Telematics Observatory, the World Health Organization, telemedicine institutes, etc. Contributors to and contacts already established in preparing the Telemedicine Report will be tapped for contributions to the work of the Study Group and new contacts will be invited.

7 Target Audience

a) Types of target audience

	Developed Countries	Developing Countries	LDCs
Telecom policy makers	*	*	*
Telecom regulators	*	*	*
Service Providers (operators)	*	*	*
Manufacturers	*	*	*
Ministries of Health	*	*	*
International funding bodies	*	*	*
Telemedicine institutes	*	*	*

This Question aims at stimulating collaboration between the telecommunications and telemedicine communities, between developed and developing countries. Essentially, a transfer of technical knowledge from developed to developing countries is expected. However, the experience gained from telecommunications for telemedicine applications in developing countries will also be expected to benefit equipment suppliers and service providers in developed countries, so that they have a better understanding of what is cost-effective in third world markets.

b) Who will use the output

See sections 3 and 7 a).

c) Proposed Methods for the Implementation of the Results

The outputs of the this Question can be made available via ITU World Wide Web sites, distribution of hard copies to the mailing lists of the ITU and other organizations, etc.

8 Proposed Method of Handling this Question or Issue

The outputs of the Question can be prepared by the **study group** in close collaboration with the ITU/BDT, taking into account missions by telemedicine experts to developing countries and telemedicine pilot projects. The study group should invite collaboration with other interested international, regional and national organizations. The study group should also establish collaboration with the other ITU sectors in regard to promoting development of relevant standards. It is important that a gender perspective be integrated in the study of this Question.

9 Coordination Requirements of the Study

See section 8 above.

10 Other Relevant Information

The activity for the next study cycle can build on the Telemedicine Report and other initiatives which resulted from Question 14/2 of the last study period, the World Telemedicine Symposium, telemedicine expert missions to developing countries, and the numerous contacts established world-wide in the coming years.
