

## Telemedicine meetings conclusions and papers

Intercountry Meeting on Telemedicine (Riyadh, Saudi Arabia, 7–9 February 1999)

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### Conclusions

- Telemedicine is more than a technological issue; it rather transforms national health care services to make them more accessible, available and equitable. It is a new vehicle for delivery of healthcare, that will transform the way health care is delivered and therefore should be dealt with as a strategic development in the national health care system.
- Most decision-makers, managers, health care professionals and citizens in most countries lack basic information on telemedicine services and potential. This has resulted in misconceptions, resistance to telemedicine and relative lack of progress in project initiation.
- Telemedicine is still not recognized as a technical programme within the ministries of health and is not a unit at the ministries of telecommunications in countries of the Region. This has resulted in dealing with telemedicine projects as pilot or demonstration projects despite the fact that they are fully functional and operational in most cases.
- Telemedicine initiatives, projects and activities are still in their early stages in most of the countries of the Region. Reporting on their experience and making use of their achievements requires more time and effort.
- Countries of the Region do not have the necessary legal and administrative framework to incorporate telemedicine service in the national health care systems. There is a need to develop national plans or to create frameworks to introduce telemedicine services at the national level.
- Full understanding and commitment by top management to telemedicine should be secured and seen as essential for the success of telemedicine projects.
- Introduction of telemedicine as part of the national health care system requires thorough study and consideration at all levels.
- There is an acute need for telemedicine services with special emphasis on tele-consultation, tele-education and tele-radiology.
- Continuous medical education has become an integral element of patient care in an ever-expanding field of medicine. Tele-education can help as many health care professionals in remote areas are deprived from any means of continuing education, the heterogeneous background of health care professionals with different medical and health backgrounds, the lack of organized health education programmes and the rising need for building up credit hours for renewing licences to practice in different countries.
- The World Health Organization and the International Telecommunication Union and their regional offices in Alexandria and Cairo can play a major role in the area of tele-health and telemedicine. Working together in a coordinated fashion will enhance the activities and projects in the Region.

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### Recommendations

1. Development of national plans and frameworks for tele-health and telemedicine should be pursued by countries of the Region as a prerequisite for coordinated national telemedicine services.
2. Countries of the Region should constitute national telemedicine taskforces consisting of healthcare administrators, doctors/physicians, telecommunications managers and private sector representatives to develop national plans for tele-health and telemedicine.
3. The national telemedicine taskforce should identify and initiate work on the following areas:
  - vision of national health and role of telemedicine
  - goals for telemedicine programme

- understanding/identification of areas of need; focus on unprivileged/underserved/unserved areas and/or wider/community coverage
  - execute study/studies
  - feasibility of programme
  - pilot projects.
4. The national plan for telemedicine should build on components in the national health policy and other related policies, including national telecommunication policy, medical education policy, national information policy and information technology policy.
  5. The national plan should ensure the full integration of telemedicine services in the national health care system. This integration should aim at horizontal rather than vertical development of telemedicine services. This requires the identification of providers of health care services and their specific roles such as the government, the private sector, the military system and possibly others. The plan should identify partners and stakeholders to enable development of a participatory approach with all concerned.
  6. Any national plan should consider the availability of resources that will assist either at the planning stage or at the implementation stage. These resources may include:
 

human resources from the government, private sector, research and development institutions, nongovernmental organizations, and health and medical professionals

financial resources to support travel, consultancy assistance; access to information and data, locally and internationally

administrative support.
  7. The national plan should recognize, from the outset, the constraints and difficulties that may hamper the implementation in the future. These may include:
 

initial hostility and resistance by patients and professionals

lack of awareness of and information on the value and benefits of telemedicine

lack of financial resources

absence of constitutional protection, laws, regulations and legislation to support telemedicine activities

weak intersectoral cooperation.
  8. In the process of development of national telemedicine plan thorough analysis and understanding of the telecommunication sector should be secured, including identification of the major players and service providers and the relevant laws, regulations, and future plans.
  9. The national plan for telemedicine should include a built-in mechanism for evaluation: a measurement of cost–effectiveness and efficacy, sustainability and expandability.
  10. Regional cooperation should build on some sub-regional classification according to geographic proximity, language, socioeconomic status, etc. It is therefore recommended to establish sub-regional groups (networks) to promote collaboration, which may lead to develop telemedicine programmes within these groups of Member States. Among the sub-regional groups which might be considered are the north African countries, the countries of the Gulf Cooperation Council and the Fertile Crescent countries.
  11. WHO/ITU should sponsor or conduct regional studies to assess, evaluate and analyse the feasibility of development and initiation of telemedicine programmes in the Region.
  12. WHO/ITU should establish and publish guidelines for the development and initiation of telemedicine projects and programmes in the Region.

13. As most of the countries of the Region lack a proper telecommunications infrastructure and as the Internet is available in all countries now, the Internet should be used as a carrier to establish connectivity between countries. Internet is reasonably cheap to make it available in health institutions and is easy to use with minimum training and resources.
14. WHO, ITU and countries of the Region are recommended to sponsor small projects aiming at introducing the Internet in all health care centres in the Region. This may include support to acquire a personal computer, modem, printer and one year connection.
15. In order to keep the current momentum and communication between professionals interested in telemedicine in the Eastern Mediterranean Region, it is recommended that the Regional Office establish a listserv, discussion group, a mailing list, a news bulletin and a virtual meeting room for telemedicine in the Region.
16. To disseminate information on telemedicine, it is recommended that WHO and its Regional Office establish web sites for telemedicine covering the status of telemedicine worldwide and provide listings with résumés of programmes and services in the Region. Sites should provide links to recommended sites, good practices, policies and new trends, and identify expert/resources institutions and use.
17. Tele-consultation in the areas of oncology, cardiology and the broader field of radiology should be among the first subjects to be introduced in regional and sub-regional cooperative telemedicine programmes as they constitute priorities in most countries.
18. In line with WHO and national health policies, which consider primary health care and preventive medicine to be the basis of an effective national health care system, it is recommended that WHO conduct a comprehensive study to help countries assess needs for telemedicine services and develop model national policy for their use.
19. WHO and its Regional Office should encourage its Member States to include health informatics, tele-health and telemedicine as a technical programme with separate budget lines and resources.
20. Training programmes, fellowships and field visits should be provided to health care and telecommunications staff from the Region to create the required human resources to support telemedicine activities in the Region.
21. To start tele-education activities for health care, responsible bodies should:

develop inventory medical education resources whereby each country will know what others have as this will reduce duplication

develop awareness and promotional materials to emphasize the importance of electronic medical records and interactive media as tools for continuing education

develop a mechanism of collaboration between medical colleges at country level and regional level in order to avoid duplication and enhance interaction

initiate national and regional pilot projects for medical education for health care professionals

approach the satellite operation companies in the Region such as Arabsat and Nilesat to solicit their views, opinions and possible support

develop and submit comprehensive and detailed proposals for tele-education initiatives to governments of different countries and have the approval and support of the ministry of health with the consideration of having this discussed at higher regional levels such as the WHO Regional Committee for the Eastern Mediterranean, the Arab Medical Board and the Council of Ministers of Health of Arab countries.

22. WHO should arrange a follow-up meeting to discuss and evaluate the progress in this area. This meeting should also propose technical solutions for telemedicine.
23. A regional task force should be established to follow up and work out the details of the proposed telemedicine/tele-education pilot projects, including:

subject matter for the telemedicine/tele-education links

participating institutions

protocols for telemedicine/tele-education links

technical specifications (medical, computing and communications)

resources estimates and possible resources

criteria for evaluation

plans of action.

24. The role of WHO and ITU is essential in the advancement of telemedicine and tele-education in the Region. The two United Nations agencies working in the area of telemedicine should enhance their collaborative efforts and systematize it for the benefit of countries. It is recommended that they establish a formal mechanism of coordination both at international and regional levels.