Telemedicine Country Report

Pakistan.

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Greetings from Pakistan!!
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Outline of today’s presentation

- Pakistan Demographics – an overview
- The Initial Years!
- Role of NGO’S.
- Role of MOST
- Telemedicine / E-Health Training Center
- Telemedicine – Role in disaster Management
- Regional & International Collaboration
- Current Scenario.
- Future Directions!
Pakistan Health Scene

- Total Population: > 150 Million
- Current Doctors / Dentists: 108,133
- Current Specialists: 24,000

Doctor:Population Ratio = 1:1555

Specialist:Population Ratio = 1:12800

URBAN RURAL DISPARITY
TELECOMMUNICATION INFRASTRUCTURE

CONNECTIVITY

Telephone Lines
ISDN, Lease Lines
Fiber Optics
Radio Modems
Satellite Links

All available
CONNECTIVITY

Digital Exchanges >95%
Internet connection 3,000 cities
Fiber optics 500 cities
Satellite communication – Asia Pak Sat 1
TELEMEDICINE IN PAKSITAN

• The Initial Years
• Current Scenario
• Future Directions
The Initial Years!

TELEMEDICINE & TELMEDPAK
A Project of Elixir Technologies

Government – Telemedicine Task Force
Private Sector – TelMedPak
TELMEDPAK

Two main areas

• Web portal www.telmedpak.com

• Telemedicine Projects
Online surgery to be shown in telemedicine conference

ISLAMABAD: Senior medical specialists and IT professionals would demonstrate online surgery in the National Telemedicine Conference on June 22, being organized by Technology Resources Mobilization Unit (TRMU), Ministry of Science and Technology (MoST).

Heart diseases claim 17m lives: WHO

GENEVA: One billion people are overweight or obese, contributing to the 17 million deaths a year caused by heart diseases or strokes, the World Heart Federation warned on Thursday. The worldwide federation of heart specialists – which announced the launch of World Heart Day on Sept 29 – said it had observed a 13fold increase in mortality for 25-35 year-olds.

First national moot on telemedicine to be held on 22nd

The first national conference on telemedicine will be held here on June 22 to explore the method and ways for controlling the urban-rural disparity in health through the use of Information Technology (IT). Unfortunately, most of our health facilities are urban-based and the government is unable to make available these services to far-flung parts of the country due to scarcity of resources.

270,000 newborns die every year: report

Out of the over 5.5 million babies born annually in the country, nearly 270,000 die before they are a month old, according to a new report on under-five child mortality. The report says the rate of under-five mortality has stagnated in Pakistan, with 173 deaths per 1,000 live births.

Latest this week!
- Restructuring of health dept discussed
- Anonymity in list of drugs exempted from GST
- Sindh to purchase antibiotics vaccine
- FBR calls for regulatory body to check drug prices
- WHO confirms seven new cases in Balochistan

Top Links:
- How to Prevent Nuclear Hazards
- Pulmonology
- Cancer Society
- Pulmonology
- Internet

Health Issues
- First Aid
- Alternate Medicine
- Congo virus
- Dengue Fever
- TelMedPAK School Health Program

Medical Education
- Pakistan Medical and Dental Council – PMDC
- Medical Colleges Entrance Test
- Medical Student
- Medical Tutorials

Dental Health
- TelMedPAK Newsletter
- Disaster Management
- Surgical Unit II
- Holy Family Hospital
- DHO Hospital
Telemedicine Projects

- Gilgit Project (Nov. 2000)
- Taxilla Project
Telemedicine Activities of TelMedPak

Establishment of Telemedicine Centers

- THQ Gujar Khan
- Pind Dadan Khan
- THQ Pindi Ghaib
- Fateh Jhang
- Jhand

Holy Family Hospital, Rawalpindi
DHQ Hospital, Rawalpindi
ROLE OF MINISTRY OF SCIENCE & TECHNOLOGY & TELEMEDICINE
MoST & Telemedicine

Task Force

- Notification issued September 2001

- Tasks assigned:
  Identify pilot projects of National Interest
  Create awareness about Telemedicine
MoST & Telemedicine

Task Force

Projects Identified:
- Telemedicine Education of Doctors
- Tele-psychiatry, Tele dermatology
- HMIS, HIRC
- Live Demonstration of Telemedicine Applications
- Awareness Seminars / Organization of Meetings
“Telemedicine / E-health Training Center”

Pak-US Collaboration in S&T
Module 1. Basic Computer Training

Module 2. Basic Telemedicine Training & Online Lectures by US Experts

Module 3. Hands on Training
Telemedicine / E-Health Training Courses

43 Trainees trained so far

- 30 doctors
- 9 nurses
- 02 Satellite experts (SUPARCO)
- 01 IT professional (HDF)
- President HPWS (Hemophilic Patient)
Graduation Ceremony
Role of Telemedicine/E-health Center in Disaster
Earth Quake of Pakistan

Magnitude 7.6
86,000 people lost their lives
69,000 injured
Heaviest damage occurred in the Muzaffarabad area
Estimated 4 million people in the area left homeless
B.H.U Shohal Najaf& Civil Hospital Gharhee
RMC Allied Hospitals

- No of pts: 5544
- Surgeries Performed: 2035
- Amputations/paraplegia: 87/144
- Mortalities: 89
How did we respond?

The entire Nation stood up to the Challenge
Surgeons from all over the country were no exception

International Response:

Remarkable !!
Role of Telemedicine in Disaster Management Pakistan

Experience
“Telemedicine / e-health Training Center”

Pak-US Collaboration in S&T

Identified as only center in the country to play its role in Telemedicine in disaster situations
Telemedicine in Disaster Management
- Experience in Pakistan

Initiative of:
Ministry of Information Technology Pakistan
International Telecommunications Union (ITU)
Pakistan Soft Ware Board (PASHA)
INTEL
Telemedicine & e-health center holy family hospital
Telemedicine - Role in disaster Management

- Multitasking
- Hub at Holy family hospital (Tertiary Care)
- Remote centers in disaster area
- Step down hospitals
- Follow up
- Rehabilitation
Role of Hub at Holy family hospital

- Customization of Telemedicine Software for disaster relief
- Training of Volunteers in Telemedicine consultations
- Respond to Teleconsultations from relief camps at disaster site.
- Coordination of relief activities with P.M RELIEF Cell in Islamabad.
- Addressing day to day needs of Earthquake victims
Role in Disaster Management

Customization of Telemedicine Software for disaster relief
Role in Disaster Management

Training of Volunteers in Telemedicine consultations
Role in Disaster Management

- Setting of telemedicine centers
- Shoal Najaf / Balakot
Telemedicine Equipment

Telemedicine disaster relief bag

- Pentium 4 Laptop
- Web Camera, Microphone & Speaker
- Digital Camera
Mobile Telemedicine Setup
Role in Disaster Management

- Setting of telemedicine centers
  Centers in AJK – Muzaffarabad
  Centers in Shoal Najaf Balakot  NWFP
Role in Disaster Management

- Setting of telemedicine centers
  - Centers in AJK – Hattian Bala
Role in Disaster Management

- Collaboration with Foreign Relief Missions
- Cuba/Turkey/UAE
- NGO'S
- Pakistan Govt. relief missions
Coordinating With Pakistan Army
Airlifting Patients requiring Specialist Care
Role in Disaster Management

- Collaboration with VCU / NASA Experts
Results

- Teleconsultations with Specialists
- Referred cases were sent to the tertiary hospitals in a state of complete “surgical preparedness”.
- The stay in the hospital was minimized.
- Speedy treatment was ensured.
FOLLOW-UP OF EARTHQUAKE VICTIMS IN A REMOTE HOSPITAL USING TELEMEDICINE

- Telemedicine centers in Step down hospitals: Pindi Gheb / Attock
Duration of stay in hospital

Total hospital stay: 10-57 days (mean 36)

- Stay at Tertiary care hospital: 6 days
- Stay at Step down hospital: 30 days
Computer skills of paraplegics and their attendants can be used as a tool in their rehabilitation.

Rehabilitation while based at tertiary centers should include basic training of paraplegics and their attendants.
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4th APT workshop, Rawalpindi 2006

Jointly organized by
■ APT
■ ITU
■ Tokai University, Japan,
■ Telemedicine Association of Pakistan
■ Telemedicine / E-Health Training Center.

Special session on Role of Telemedicine in Major Disasters
4th APT workshop, Rawalpindi 2006
Current Initiatives


2. Tele-Rehabilitation Center Muzaffarabad (2007-2008)


4. MOIT Health Net Project
Health NET
Health NET

Main hub Tertiary Care centers (Medical Schools)

District Telemedicine centers (DHQ Hospitals)

Punjab Province

35 DHQ
Future Directions!

1. National Telemedicine Program Pakistan
2. Establishment Telemedicine School
3. Regional & International Collaboration
Methodology

Tertiary Care centers

Punjab: 4
Sind: 4
NWFP: 2
Baluchistan: 2
Federal Region: 1
Methodology

Main hub Tertiary Care centers (Medical Schools)

District Telemedicine centers (DHQ Hospitals)

Punjab Province
35 DHQ & 4 Tertiary care centers
Thank you