TELEMEDICINE CHALLENGES IN AFRICA

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Health Challenges (1)

- South Africa faces a growing burden of disease including HIV, TB and Malaria
- 88% of South Africans have access to 25% of the total national health-spend
- There is a shortage of nurses, doctors and medical specialists in the State sector
- The poorest of the poor are the most affected by the inequities of service and funding
- Medical schools are producing fewer doctors and specialists than are required
Health Challenges (2)

- Electronic patient record systems are “fragmented”
- Limited access to affordable bandwidth in rural areas
- The same concerns are greater in sub-Saharan Africa and there is a growing expectation that South Africa will resolve some of these problems for Africa
- Present Trends - 42 African countries median age below 20 years
- Global differences: ageing and home care vs poverty and death.
Applications

Tele-Consultation

Send site

Receive site

Tele-dermatology
Lessons Learned

• In some instances it is necessary to exceed the power output regulations for WiFi to be able to connect distant rural sites.
• Telehealth applications can be commissioned in deep rural settings to link clinic sisters to health specialists for diagnosis, referral and teleconferencing.
• Leadership and change management.
• An effective telehealth solution depends on the commitment of the entire chain of command in the health environment to use it from clinic to specialist.
• Role of champions, social dynamics between staff.
• Successful pilot projects in the telehealth environment can lay the foundation for institutionalisation.
Lessons Learned contd.

• To introduce a telehealth solution effectively and ensure it is used, one has to facilitate individual use by the clinic staff, the hospital doctors and upwards to the district and provincial level personnel - overworked staff?

• Capacity building for effective use of ICT’s in health needs to be structured to include clinic staff, hospital personnel, specialists and administrators.

• Ongoing support must be provided at the local level to facilitate the integration of ICT activities into established health routines for diagnosis and referral.
Philosophy

- A philosophy that considers the technological, economic and social/policy aspects:
- It is the intention to view the use of technological solutions in relation to how their application can more effectively impact key MDG indicators including childhood and maternal mortality as well as healthcare worker density.
- An approach that first looks at basic needs and how appropriately ICTs can be used as a tool for:
  - Right information about the right individual to the right person at the right place at the right time
  - The conversion of “homecare to ruralcare”
  - Rural Clinic of the Future
Vision Statement

The Center for eHealth is established as to foster excellence in ICT research relevant to the health needs of the MDGs, South Africa and the continent in collaboration with leaders in the field.
Mission Statement

The center will conduct research towards developing technologies for the rural clinic of the future that will provide the “right information about the right individual to the right person at the right place at the right time” by means of Telemedicine and Medical informatics, built around mHealth, Open Source, Monitoring & Surveillance, and Distance Education.
Vision
Mission
Themes
Enablers

mHealth
Open Source
Surveillance
Education

MDGs
mHealth

Mobile phones
Smart phones
PDAs
MP3 players
Microcomputers
Homecare devices

Integration
Telemedicine
Data collection
Education
Surveillance
Open Source Solutions

- EMR
- DHIS
- HIV / TB
- Surveillance
- Decision Supp
- Supply
- PACS
- Education
- Lab Data
- Genome

Integration
Interoperability
Development
Surveillance

Geospatial - ICT4EO

+ Natural Resource and Environment

+ Health

+ Animal Health

= Detection, Identification and Monitoring of Infectious Diseases (DIMS)
Education

mEducation

to

mHealthEducation
Technology

- Mobile devices: GSM phones, multimedia/smart phones, Internet tablets
- Wireless networks: GSM, 3G, WLAN
- Voice, speech and language technologies: speech interfaces, audio information systems etc.
- Social software: Mediawiki, blogs, Knowledge Building tools.
A Joint Africa-EU Strategy

• Enhanced use of ICT applications in order to achieve MDG objectives, notably in the health and education sector;

• Explore and test possibilities to improve access to health services through the use of telemedicine and e-health within Africa and beyond

• Promote telemedicine and early warning systems for epidemics, linked to rapid response plans;

• Promote integrated health research strategies and improve national capacities in areas such as health management information systems, epidemiological surveys, clinical and operational research, and enhance links with the European and Developing Countries Clinical Trials Partnership (EDCTP);

• Appropriate financing sources in accordance with their respective scope and their relevance to objectives and activities concerned, their specificity and eligibility criteria, such as the 10th EDF, ENPI, DCI;
Conclusion & Way Forward

- Africa has S&T expertise to participate in EUFP7 projects
- eHealth – telemedicine, GEO, HIS, “homecare to rural care”
- Regions of Knowledge
- Co-funding from DST for EUFP7
- Building EU/Africa FP7 collaboration
Thank You

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