



TELEMEDICINE'S (TM) FULL RANGE OF BENEFITS IN A DEVELOPING COUNTRY: THE EXAMPLE OF SOUTH AFRICA

Sinclair Wynchank & Moretlo Molefi

**Tele Medicine Research Centre,
Medical Research Council of South Africa,
Pretoria & Cape Town, South Africa**

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TM's well known benefits (1)



- **Reduced costs**
- **Greater efficiency**
- **Specialised medical services
(otherwise unavailable in
sparsely populated regions)**
- **CME & other Tele Education**
- **Less travel (for patients and
Health Care Givers)**

TM's well known benefits (2)



- **Etc, etc, etc**
(You already know all this very well indeed.)

Developed and Developing countries' TM Differences



In Developing countries:

- **Infrastructure lacks**
- **Less ICT & computer experience**
- **Fewer available funds**
- **Nursing sisters have much more responsibility**
- **Medical conditions present much later/have different prevalences**

Developed and Developing countries' TM Differences



In South Africa the above differences exist:

- **Plus** a special effort, since 1994, to reverse previous regime's neglect of public health services in some regions (using TM, etc)
 - o These regions are mainly (but not entirely) remote rural areas

TM's particular benefits for Developing Countries (1)



- **All the benefits relevant to
Developed countries,
PLUS**

TM's particular benefits for Developing Countries (2)



- **Familiarity with ICT & improving computer literacy**

- o **Usually no previous exposure**
- o **Spin off possible in other non-medical fields (eg maintenance)**

TM's particular benefits for Developing Countries (3)



- **Testing ruggedised/simplified, (locally designed) TM devices**
 - o **Clinic environments very harsh**
 - o **Poor maintenance facilities**
 - o **Simplified controls (eg colour coded buttons, not menus)**
 - o **Remote control for computer (same buttons/easier consultation)**

TM's particular benefits for Developing Countries (4)



- **TM reduces patients' need to travel**
 - **Intrinsic cost high for the poor**
 - **Loss of a single day's income is disastrous**
 - **Strong cultural preference to die in one's own village, for some ethnic groups**

TM's particular benefits for Developing Countries (5)



- **Nursing sisters' knowledge & skills improved**
 - **Often in charge of isolated rural clinics (& Drs visit rarely/never)**
 - **Distance learning**
 - **eg Interactive distance learning progs (such as Community Paediatrics in 14 modules)**

TM's particular benefits for Developing Countries (6)



- **Frequently encountered conditions managed in Rural Clinics**
 - o **Such conditions are managed otherwise in Developed nations**
 - o **(eg HIV/AIDS, TB, Malaria)**

South African Examples (1)

- **Mobile Tele Pathology Laboratory**
 - **Commissioned for military use; implementation so far is purely civilian**
 - **For: infections, dermatology haematology, anatomical & chemical pathology**

South African Examples (2)



- **Tele Dermatology**

- **This important project merits its own presentation by Professor Roy Colven;**

ca 14h00, Conf Room 2,

Thur 7 April

South African Examples (3)



- **Newly graduated Drs,
performing compulsory
Community Service**
 - **Without TM, “out of touch”**
 - **Able to manage certain
conditions better (stroke,
myocardial infarct, etc)**
 - **Formal distance learning**

South African Examples (4)



- **Video Programmes in District Hosp Waiting areas**
 - **For patients: HIV/AIDS prevention, information re infection, management, etc**
 - **Other STDs**
 - **Additional topics under preparation**

South African Examples (5)

- **Self instruction for staff (part of the Patients' Video project)**
 - **Viewed on demand**
 - **Supplementing information presented by other means**
 - **eg Use of Anti retroviral medications (recently introduced)**

South African Examples (6)

- **Referrals for neurosurgical consultation**
 - **Simple TM patient data (including imaging) via Email from District Hosp**
 - **Many unnecessary referrals obviated, hence cost benefits**

South African Examples (7)



- **MDR TB infections**
 - **Adherence to Pharmaceutical management**
 - **Project just starting**

Where does this leave us?



- **Preliminary results of these projects indicate**
 - **Value already demonstrable**
 - **Compared with Developed countries: Additional Benefits**
 - **Some cost benefits already confirmed**

What next? (1)



- **Install & field test TM PHC Workstation/extend network**
- **Avoid ‘wheel reinvention’**
- **Increase collaboration with neighbouring African nations**

What next? (2)



- **Collaborate with WHO and IAEA to:**
 - **Allow network to be used for several disciplines**
 - **Prevent any Anglophone/Francophone divide in African TM**

Conclusions



- **Cost benefits demonstrated**
- **Better PHC service offered with TM**
- **Both patients and Health Care staff approve of TM**
- **The pilot network should be extended**

Thank you



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