Telemedicine and e-health the South African experience

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United Nations/Zambia/ESA Regional Workshop

26-30 JUNE 2006, LUSAKA

SA NATIONAL TM PROGRAMME

- Started in 1999
- Phased approach
- National coordination
- Currently provinces have TM in their workplan

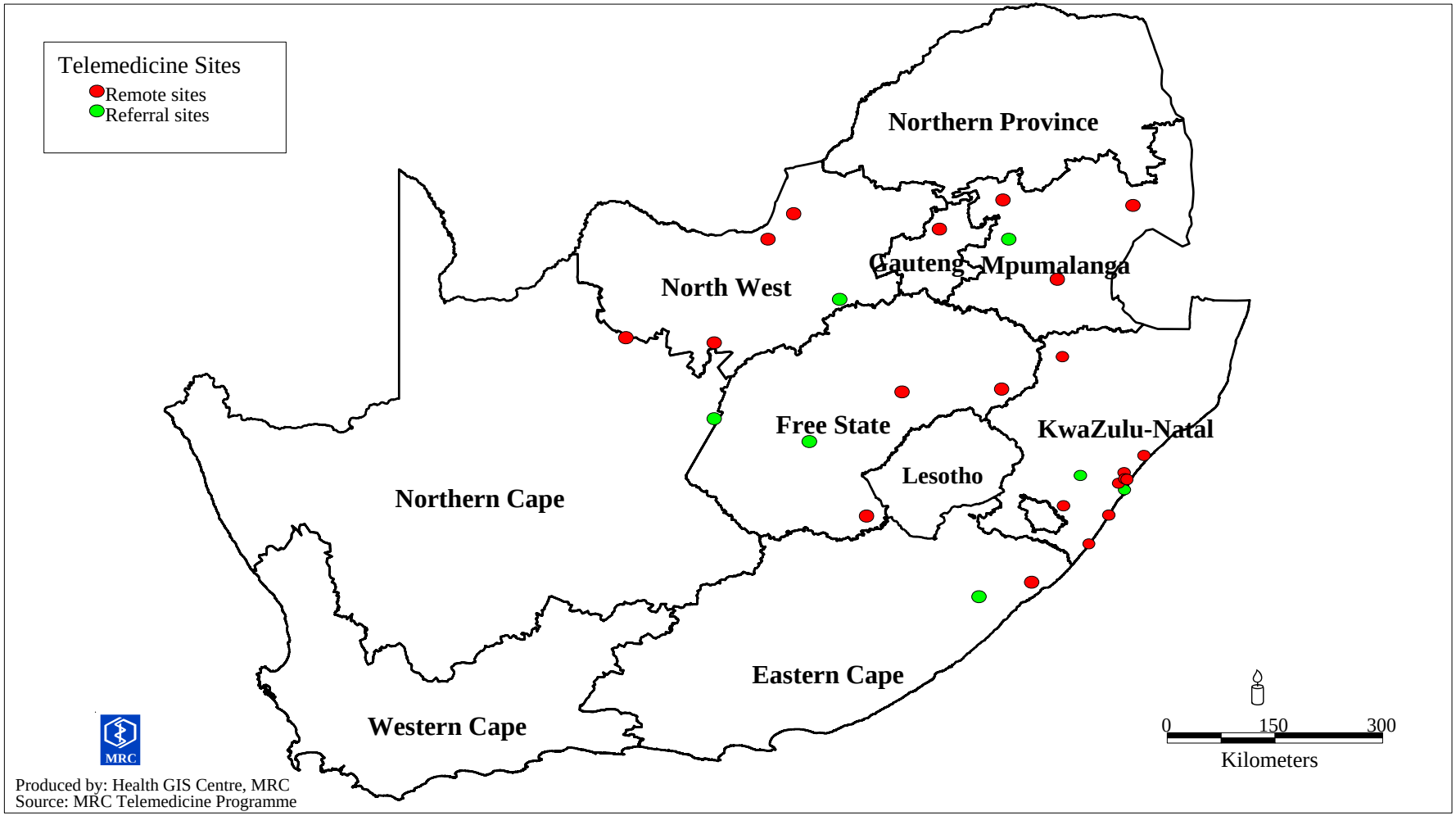
THE NEED

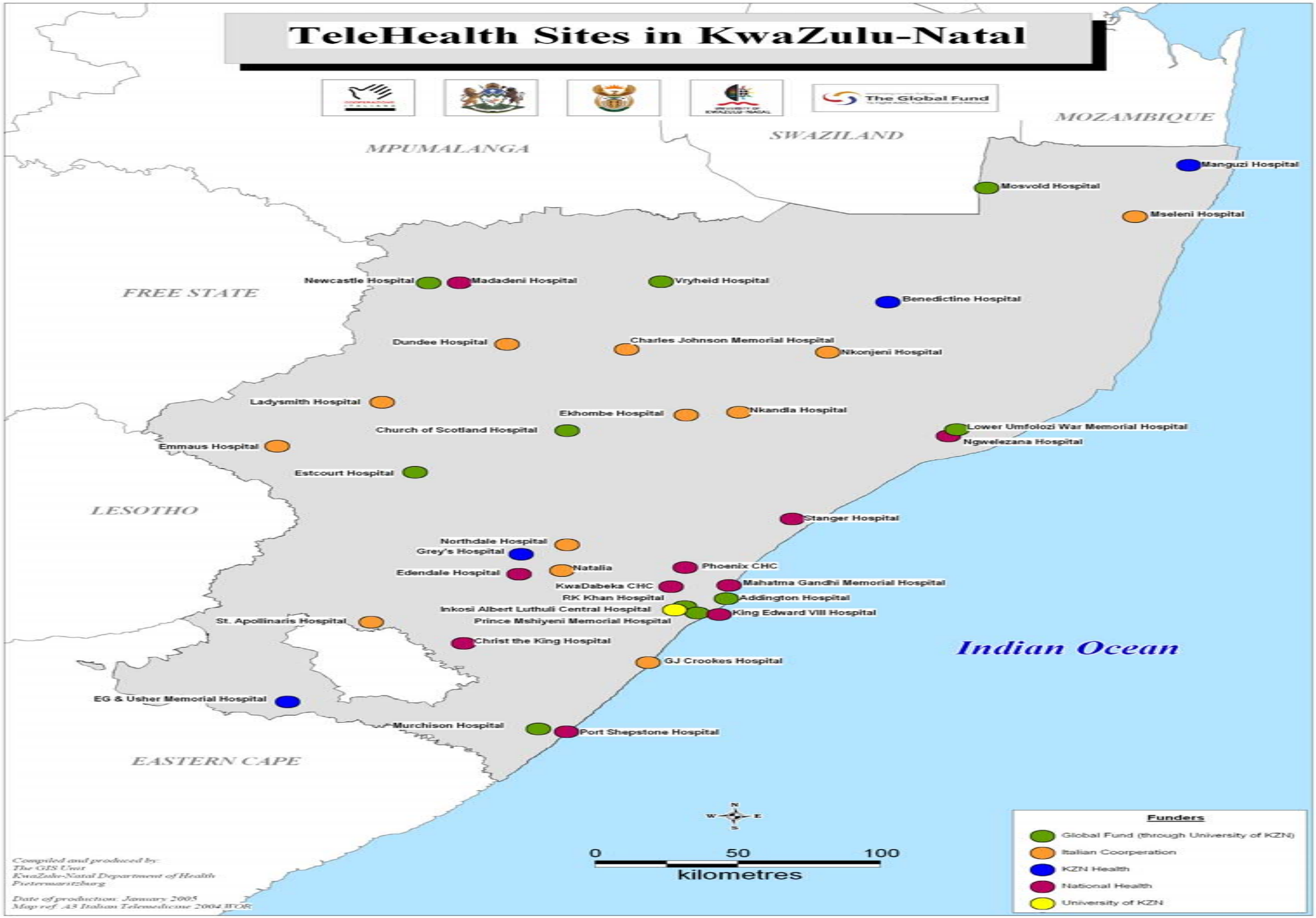
- First world v/s third world medicine.
- Inequalities of the past.
- SA government’s commitment to healthcare for all.
- Primary Healthcare focus.

DELIVERABLES

- Clinical services to remote communities.
- Improved efficiency.
- Tele-education and Training.
- Medical Research.

SOUTH AFRICA: 1999 TELEMEDICINE SITES




TeleHealth Sites in KwaZulu-Natal
The Global Fund
MPUMALANGA
SWAZILAND
MOZAMBIQUE
FREE STATE
LESOTHO
EASTERN CAPE
Indian Ocean
Manguzi Hospital
Mosvold Hospital
Mseleni Hospital
Newcastle Hospital
Madadeni Hospital
Vryheid Hospital
Benedictine Hospital
Dundee Hospital
Charles Johnson Memorial Hospital
Nkonjeni Hospital
Ladysmith Hospital
Ekhombe Hospital
Nkandla Hospital
Church of Scotland Hospital
Lower Umfolozi War Memorial Hospital
Ngwelezana Hospital
Emmaus Hospital
Estcourt Hospital
Stanger Hospital
Northdale Hospital
Grey's Hospital
Natalia
Phoenix CHC
Edendale Hospital
KwaDabeka CHC
Mahatma Gandhi Memorial Hospital
RK Khan Hospital
Addington Hospital
Inkosi Albert Luthuli Central Hospital
King Edward VIII Hospital
Prince Mshiyeni Memorial Hospital
St. Apollinaris Hospital
Christ the King Hospital
GJ Crookes Hospital
EG & Usher Memorial Hospital
Murchison Hospital
Port Shepstone Hospital
N
W
E
S
0
50
100
kilometres
Funders
Global Fund (through University of KZN)
Italian Coorperation
KZN Health
National Health
University of KZN
Compiled and produced by:
The GIS Unit
KwaZulu-Natal Department of Health
Pietermaritzburg
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Map ref: AS Italian Telemedicine 2004 WOR

Telemedicine Research Centre

Established as a joint project by the Department of Health and the MRC with a mandate

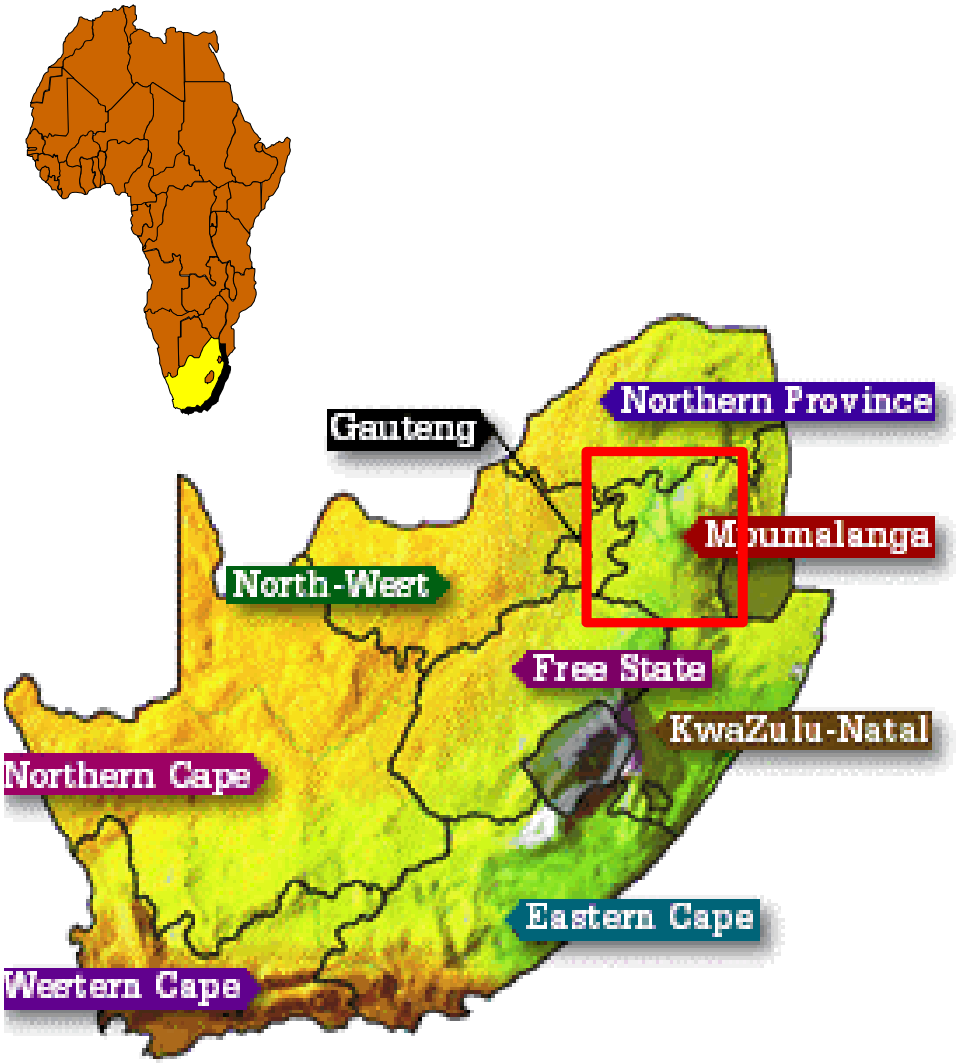
- To evaluate existing and planned TM systems to ensure improved delivery
- Coordinate national TM activities
- Investigate new technologies and practices
- To establish TM standards in TM
- Establish Tele-Education for health care proffessionals

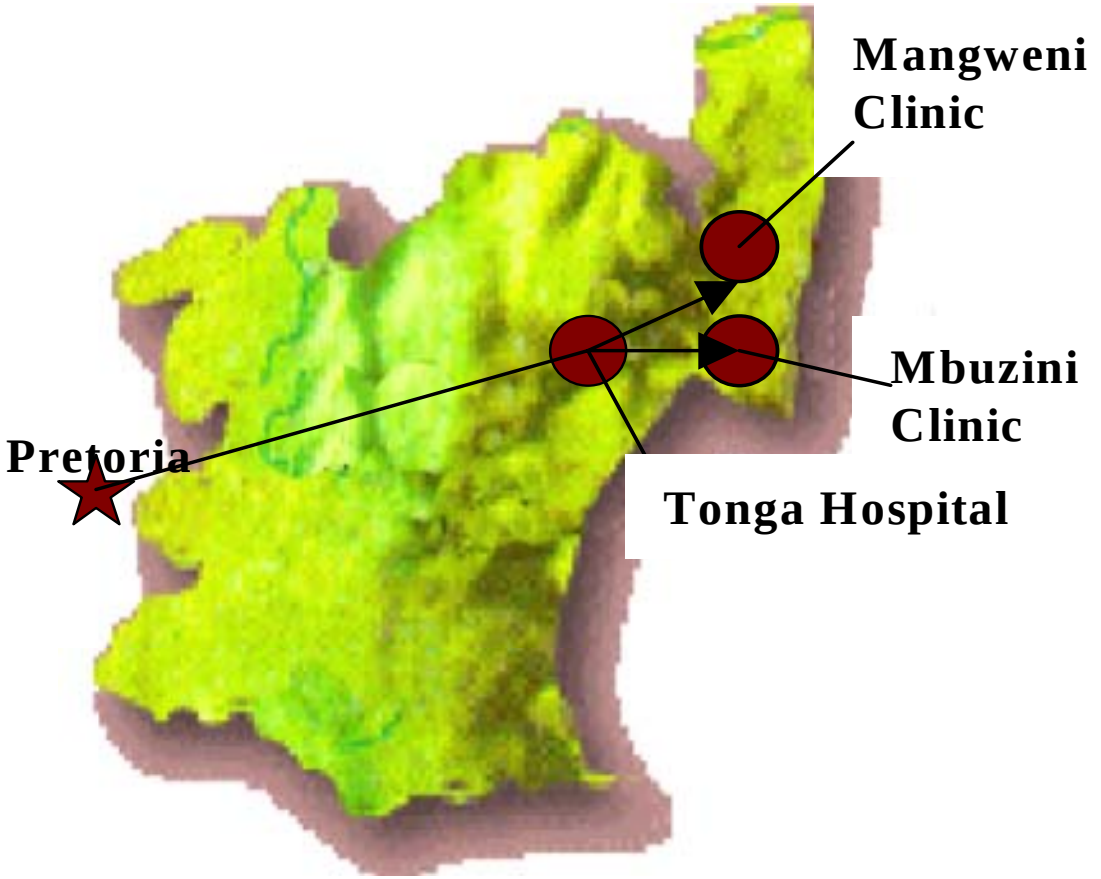
projects

- Clinical Telemedicine- about 40 sites radiology,dermatology,ultrasound, neurosurgery,opthalmology ,pathology etc
- Teleeducation 34 sites KZN,

  40 sites FS
- Mindset Health Channel >100 sites
- R & D projects –mobile lab

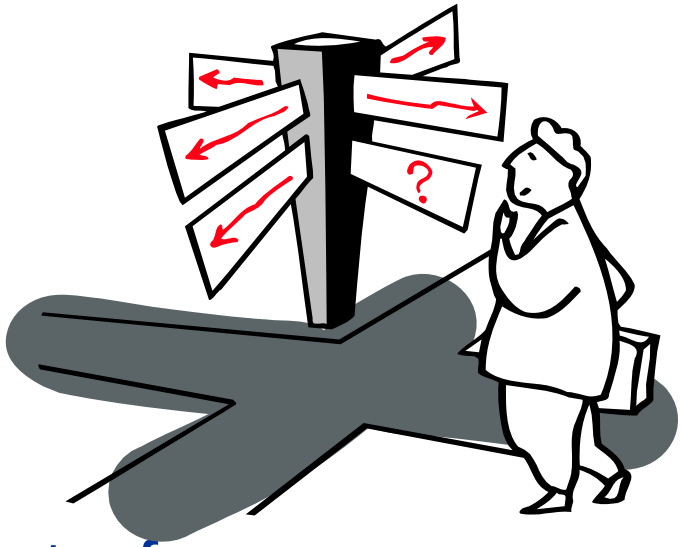
  Workstation development


Gauteng
Northern Province
Mpumalanga
North-West
Free State
KwaZulu-Natal
Northern Cape
Eastern Cape
Western Cape


Mangweni Clinic
Mbuzini Clinic
Pretoria
Tonga Hospital

WORKSTATION

Challenges Identified in the Projects



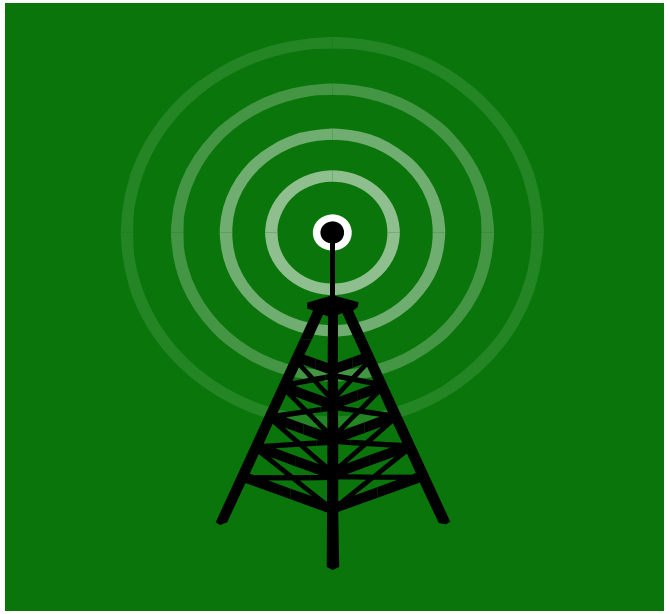
- Connectivity Issues
- Human – Technology Interfaces
- System integration
- Affordability
- Standards

Telecommunications infrastructure

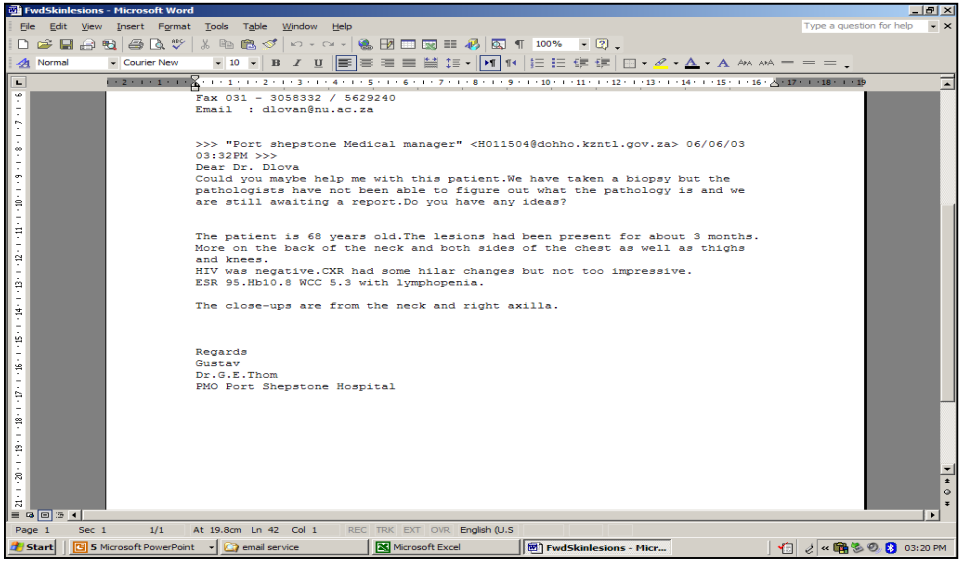
- Most projects use ISDN lines
- Health channel uses satelite
- Teleeducation in FS uses satelite
- GSM/GPRS
- POTS

Connectivity Issues

- Cost
  - Installation
  - Ongoing Cost
- Bandwith
  - 384 kbps if video conferencing is required
- Identified solution
  - WiMax / WiFi
  - Low maintenance cost
  - Offer other opportunities
    - VOIP
    - Internet and e-Mail
- Challenge – Licensing

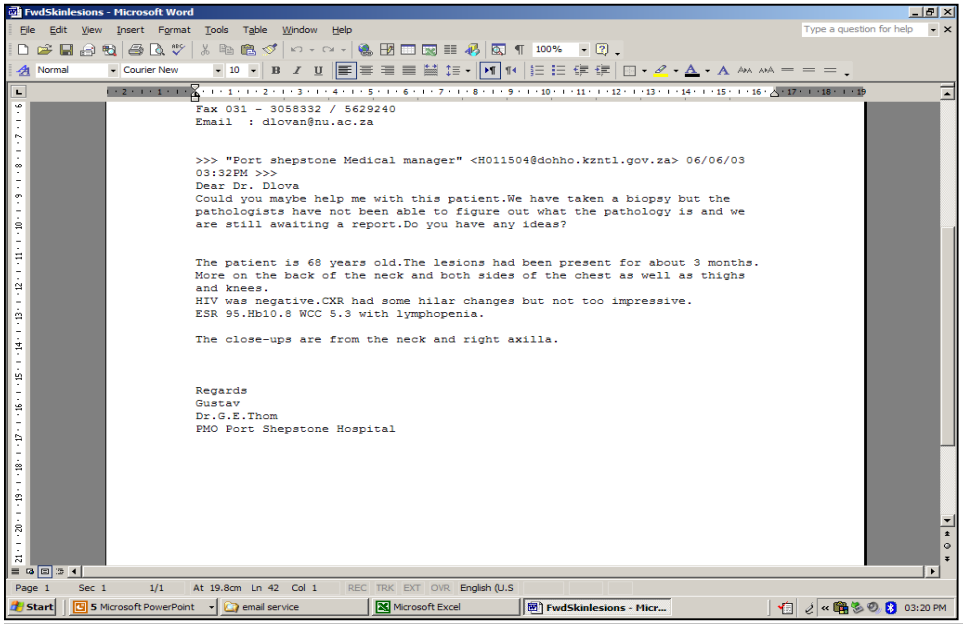


e-Mail



- Store and forward
- Image attachment
  - <500 kb
  - <3/4 pics max

e-Mail



Local experience

>85% of all images are adequate

>80% patients saved unnecessary transfer

Primary Health Care Telemedicine Workstation (SA innovation)

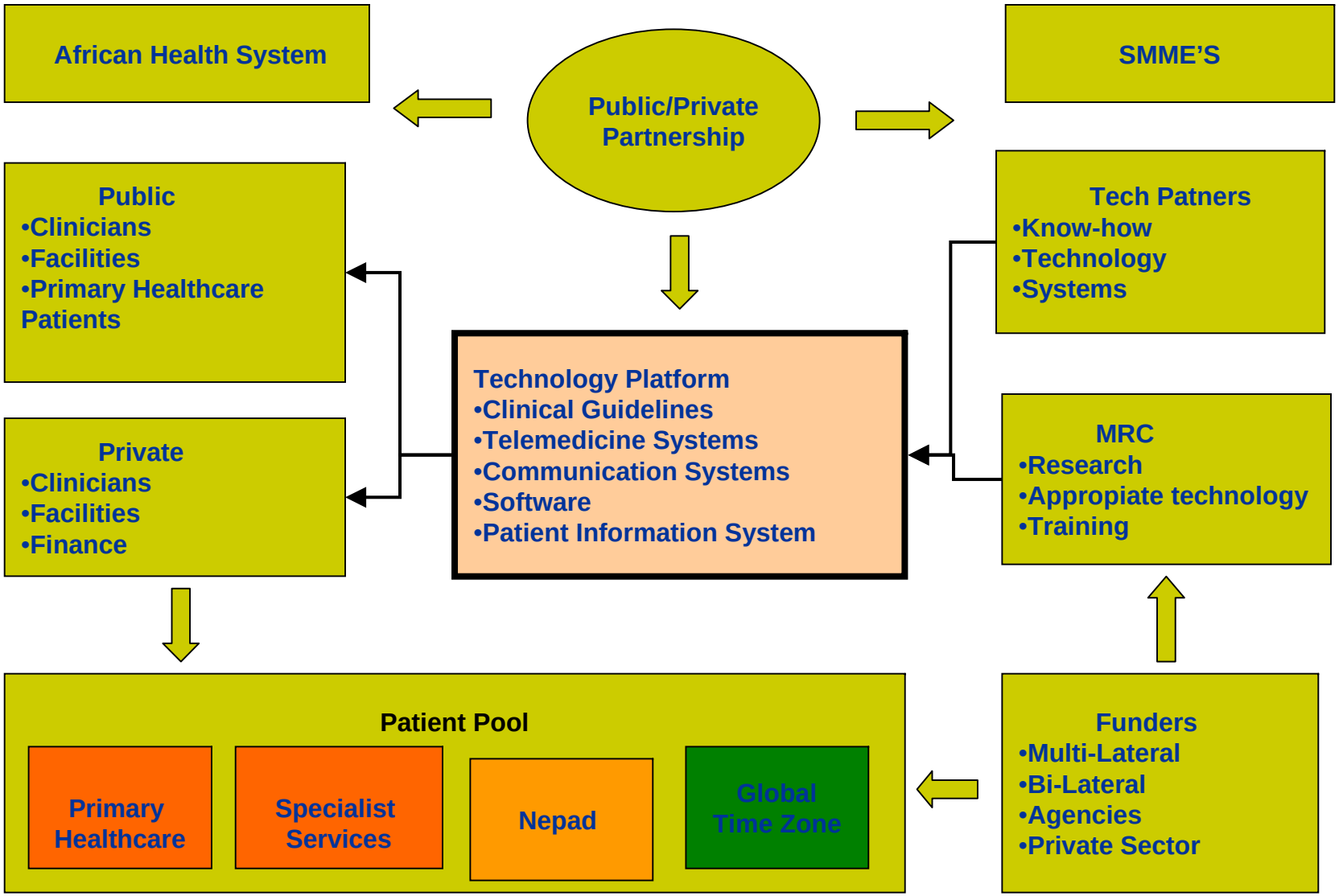
Mobile PathLab
24 2:36 PM

KAMA

24 2:38 PM

24 2:39 PM

VIRTUAL HOSPITAL



Way forward

- Wireless technologies for Africa telehealth
- Negotiate for free bandwidth for health and education

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11th ISfTeH International Conference

26 – 29 November 2006

International Convention Centre
Cape Town, South Africa

Thank You!