

FMFI Health

Tele-health Tsilitwa

4 October 2007

East London Health Resource Centre

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ConnectivityAfrica

IDRC  CRDI

CSIR
our future through science


meraka
I N S T I T U T E
African Advanced Institute for Information
& Communications Technology

The Challenge

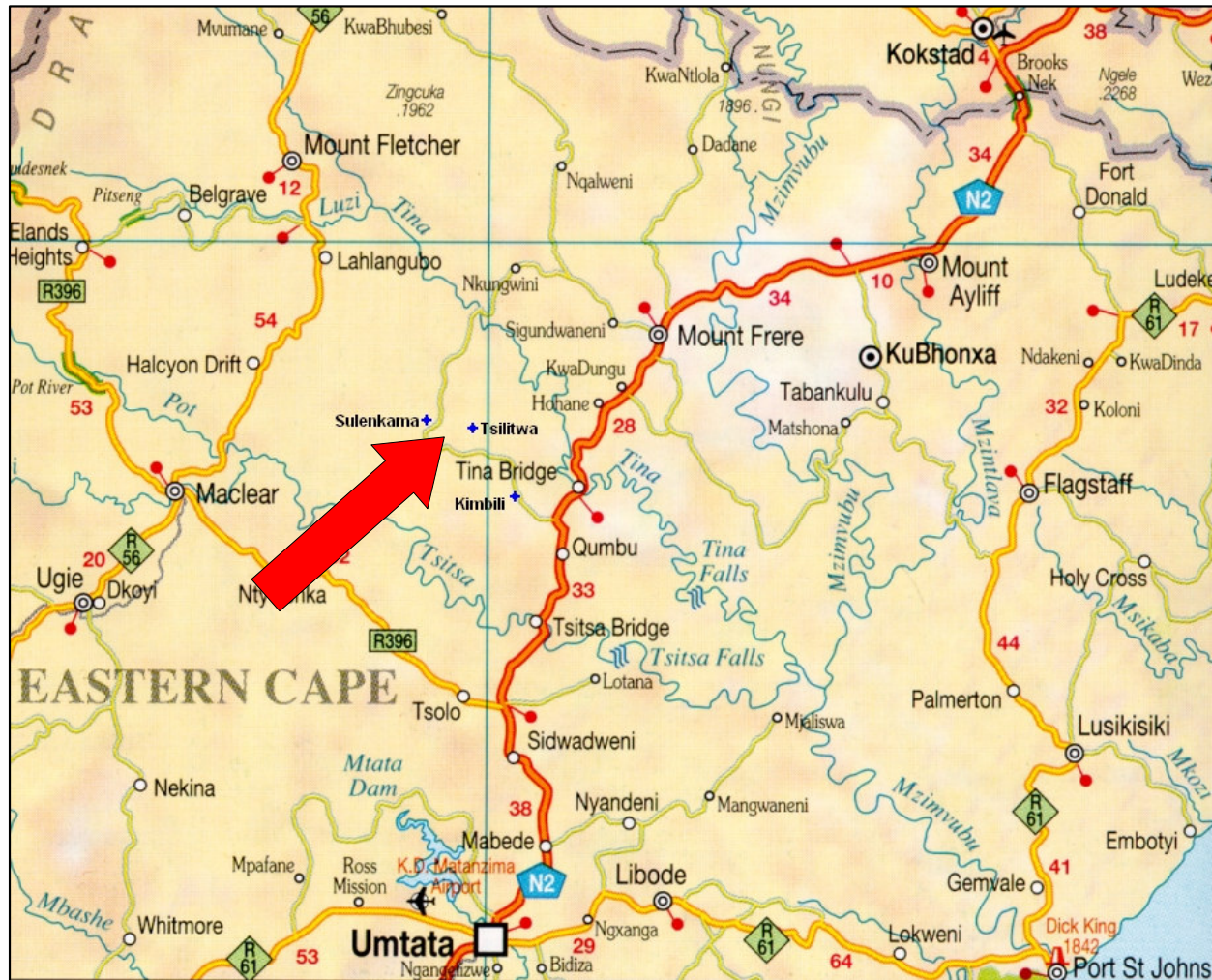
- How can rural communities overcome failures in regulatory policy by implementing innovative, low-cost connectivity solutions in order to promote sustainable development?
- “...we have to ensure that as many of our people as possible master modern technologies and integrate them in their social activities, including education, delivery of services and economic activity. This relates in particular to communication and information technology.”

(President Thabo Mbeki, SA National R&D Strategy, January 2002)

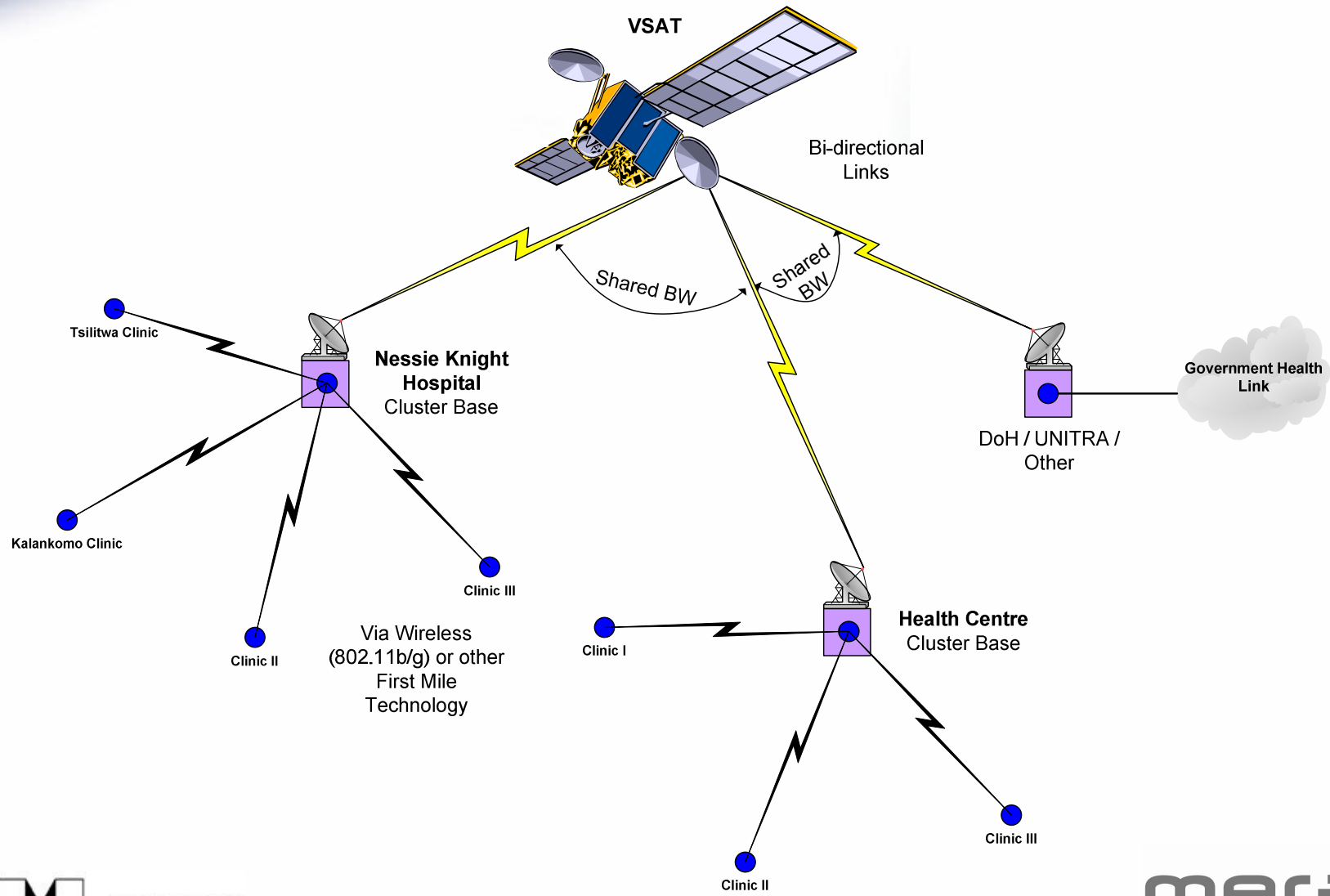
Tsilitwa Tele-health Vision

- To demonstrate to government how the use of low-cost communications technology can help promote development in under serviced areas through building local ICT capacity for enhanced healthcare and education. The results of this research will be used to inform policy in health and education and seek to influence telecommunications regulations.

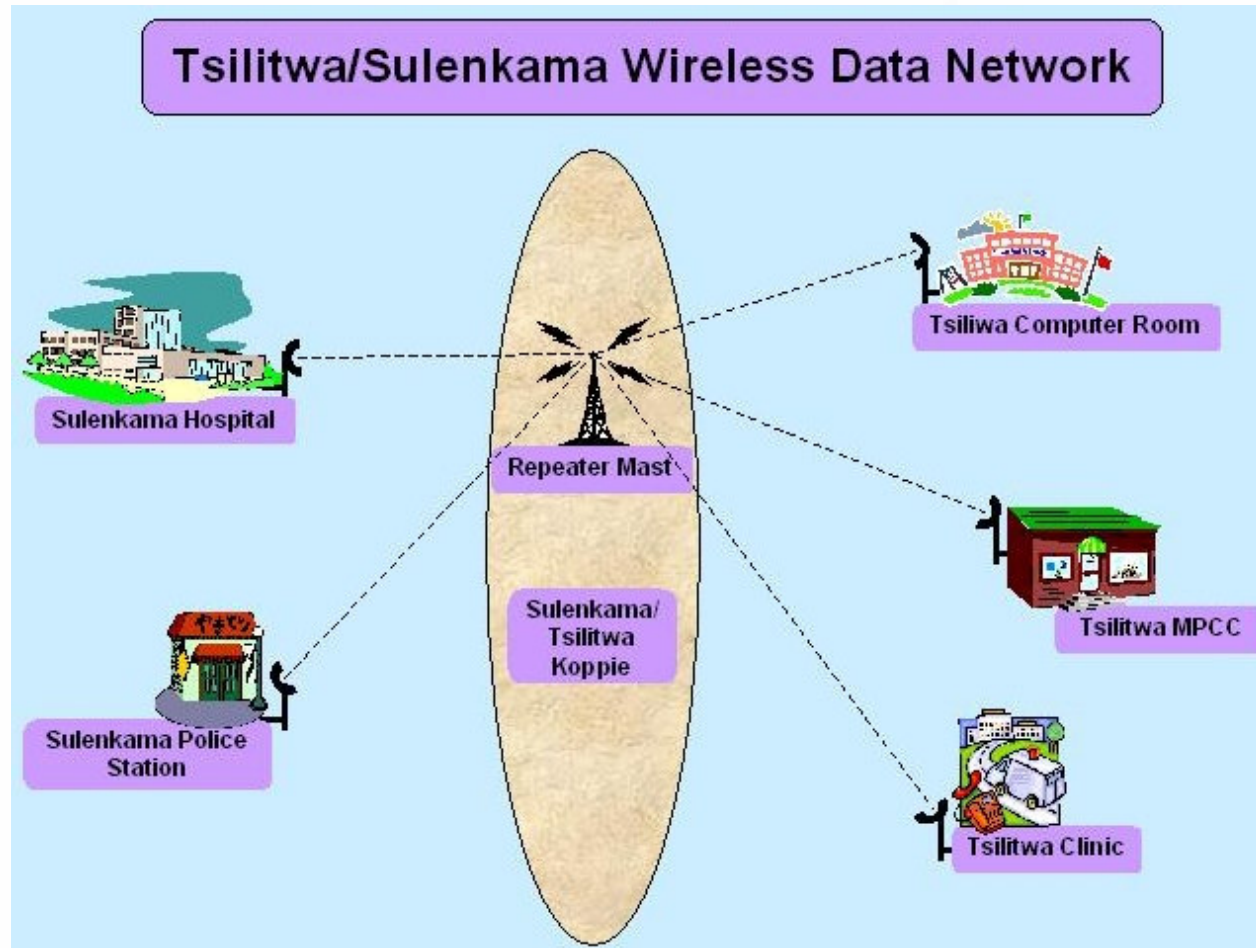
Tsilitwa project: Eastern Cape, SA



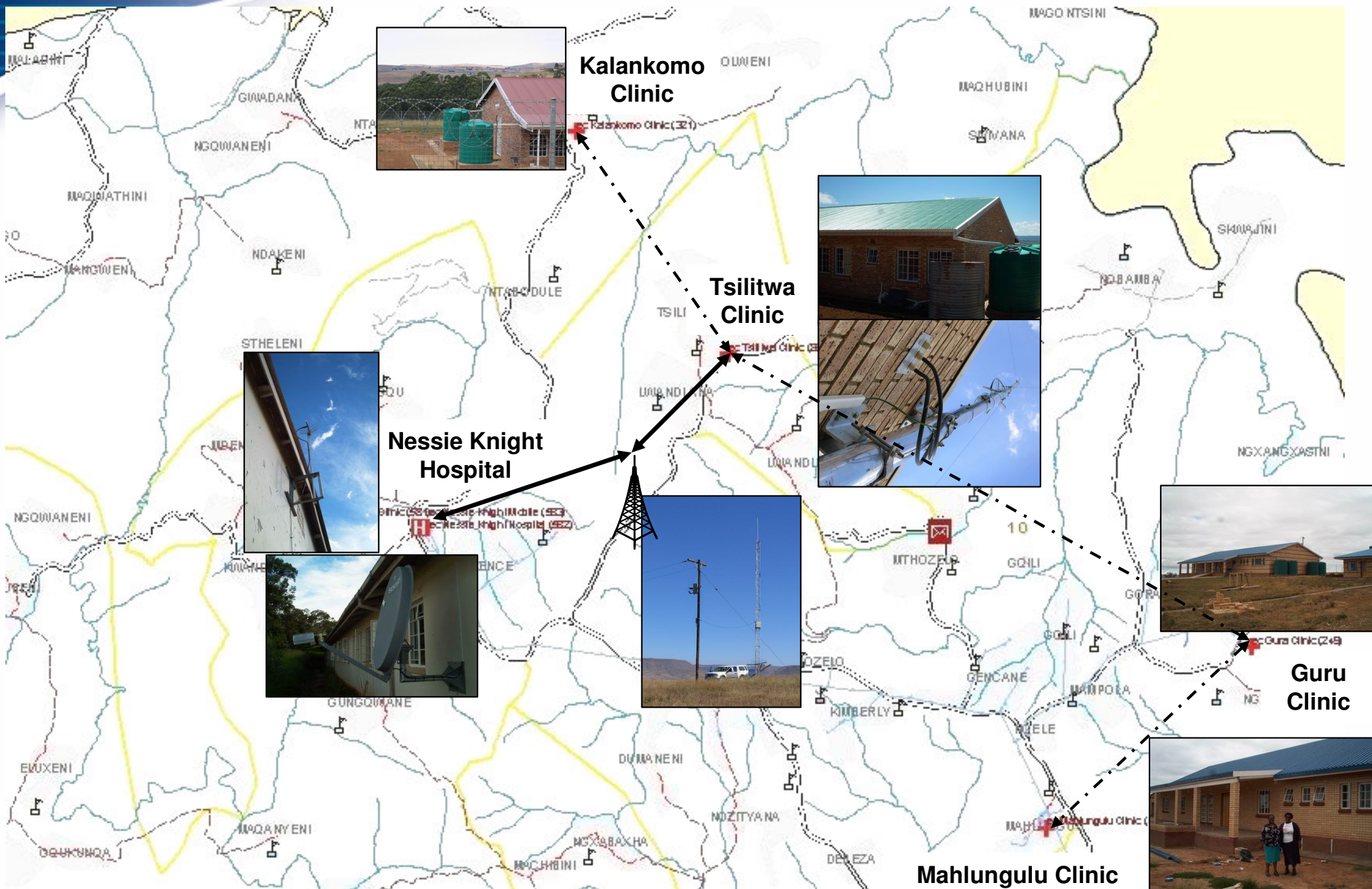
Rural Health Network Concept



Tsilitwa\Sulenkama Wireless Data Network



Tsilitwa Wireless Network



Kalankomo Clinic

Tsilitwa Clinic

Nessie Knight Hospital

Guru Clinic

Mahlangu Clinic

Applications

Tele-Consultation



Send site



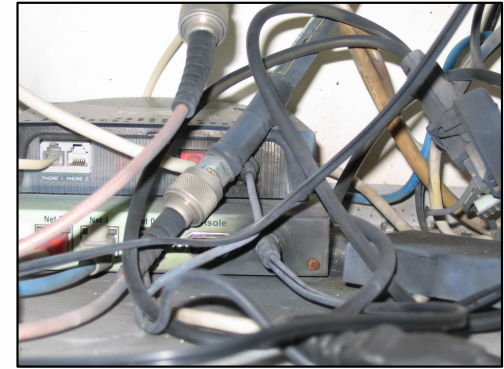
Receive site

Tele-dermatology



Implementation Challenges

- **Power**
- **Lightning and Power surges**
- **No line-of-sight**
- **Infrastructure, policy and regulation**
 - Under the Electronic Communications Act, a class licence would be needed by FMFI partners for both infrastructure and services, but the use of WiFi would still be hamstrung by the control on power levels, limited to 100mW and crossing public boundaries.
- **User uptake**
 - Training, work flow
- **Costs**
 - GSM modem
 - VSAT
- **Maintenance & Support**



Changed behaviour in the use of ICTs

- Clinic sister
- Rural doctors
- Health specialists
- Health administrators
- Technical Support & Maintenance

Tsilitwa Telehealth Outcomes

- Requesting a research licence from the regulator ICASA to be able to provide legal wireless connectivity.
- Leveraging government funding through the USASA to sponsor the costs of the satellite connection.
- Creating a showcase project for high level exposure such as the visit by President Thabo Mbeki.
- Providing evidence of the details of telehealth applications in deep rural settings to accelerate the development of policy and strategy.
- Getting the primary user (clinic sister) to act as a champion for telehealth solutions by speaking at conferences.
- Engaging with provincial health authorities, gathering possible funding commitments and submitting proposals for replication at the district level.

Thank You

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