

## Modern SatHealth Vehicles SAVE LIVES, TIME & MONEY



More than ever, companies rely on the internet to successfully operate their businesses from communications to research and database management. This is especially true in the medical field where access to communications is crucial with lives at stake.

The integration of Satcom technology into vehicles is revolutionizing the way rural communities and individuals living in disaster stricken areas receive healthcare.

Often times, people in remote locations aren't willing to spend half a months' worth of salary to travel the 100 km to get to a clinic that may or may not help them. eHealth can alleviate this burden to the patient.

Vehicles equipped with mobile satellite antennas such as C-COM Satellite iNetVu Auto-Deploy VSAT systems along with medical equipment can now provide isolated patients with quality care no matter where they live. iNetVu antennas allow physicians access to broadband internet, online patient database management, real-time diagnoses and specialist support anytime, anywhere. Online guidance in emergency situations can save lives without the delay of long ambulance rides while a patient deteriorates.

Clinical media contain information in various forms such as text, graphics, medical images, audio & video signals, cannot be sent any way other than by satellite. X-ray images, clinical EEG signals, ultrasonic scan results, and many more can be diagnosed in real-time. Also, data compression for reduced volume of transmitted data, data encryption for the protection of the privacy of patients, and the obtaining of instantaneous frequency data are made possible by mobile communications.

If governments, NGO's and medical officials want to improve their knowledge and effectiveness in the industry, telemedicine is the broadest leap into 21<sup>st</sup> Century Health Care.



Let's take a look at the Mobile Maternal Healthcare Clinic which is Africa's first Mobile Maternity Unit equipped with satellite communications, deployed in Nigeria, by Bayelsa Hospital.

Designed, Integrated & Maintained by MST Specialised Vehicles, Cape Town, South Africa. Procured by Oil Companies, as social investment for their licensing agreements, this bus is the first of 72 such vehicles (2 for each of Nigeria's 36 states) These fully operational mobile maternity clinics are equipped with 1<sup>st</sup> Class equipment and consumables, and the ability to connect with specialists worldwide no matter the location.

What does this vehicle do?

- ✓ Vital monitoring
- ✓ Ultrasound scanning
- ✓ HIV testing
- ✓ Pregnancy testing
- ✓ Immunisations and basic check ups
- ✓ Incubation and monitoring of the infant
- ✓ NATURAL BIRTH

Vehicles are fully staffed with professional doctors and volunteers, stocked with high grade medical supplies, in constant communication via satellite, and on the road as often as possible.

Cost Effective – Saves Lives

In Nigeria, once the full program has been rolled out, the plan is to see over 1,000,000 Pregnant, peri-urban women per year, and drastically reduce maternity mortality rates.

The cost of this mobile clinic is est. \$500,000

Monthly maintenance costs are est. \$20,000 / month.

Henceforth, the cost to operate & maintain one vehicle for 3 years = est. \$1.2 million.

To operate 72 vehicles over 3 years = \$86 million.

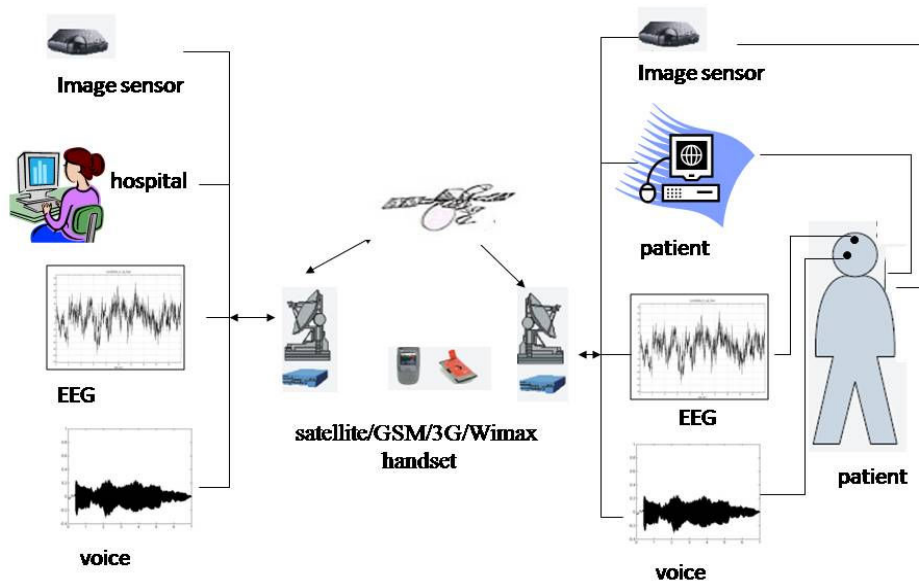
To see 1,000,000 women / year (38 / day / mobile clinic), would cost \$86 / woman / year.

Hospitals are always the largest % of health care costs, and with building prices rising, ONE state of the art hospital might cost \$25-50 million just to build.

MALAWI is next target country for these vehicles by MST:



Basic eHealth Flow Chart using IP via Satellite



*“It is estimated that approximately 74% of maternal deaths could be prevented if all women had access to services which would prevent or treat such complications associated with pregnancy and birth. It is therefore clear that access to, and provision of, emergency obstetric care, family planning services and ante-natal and post-natal care are key determinants of maternal health.”*

- Amnesty International, 2009

- Broadband access anytime, anywhere
- Larger Coverage
- Better Security
- Lower Cost
- Faster Speeds & Lower maintenance



Modern Examples of SatHealth as shown below: Mobile Surgical Vehicle, Pre/Post Natal Care Vehicle, Mobile Health Clinic, Mobile Diagnostic Center, Mobile Breast Cancer Screening, Health Train

Saab Grintek, a reselling partner of C-COM Satellite Systems has integrated iNetVu VSAT into the *Transnet-Phelophepa Healthcare Train*

[http://www.roche.com/responsibility/access\\_to\\_healthcare/developing\\_countries/transnet-phelophepa\\_healthcare\\_train.htm](http://www.roche.com/responsibility/access_to_healthcare/developing_countries/transnet-phelophepa_healthcare_train.htm)

The Train will stop at very remote railway stations to serve under developed communities. The Train will connect via the satellite platform in the back of vehicle to the Academic Hospital of UCT. Services such as Internet Access, DSTV, Video Transfers, X-Ray scan's and internet will be send over the Platform.

The Transnet-Phelophepa Health Care Train is a mobile clinic bringing medical care to rural South Africa, where there is just one doctor for every 5,000 patients. Phelophepa is owned and operated by Transnet with Roche being Phelophepa's main external sponsor, providing funding since the train took its first journey in 1994.

Phelophepa has 18 coaches and is equipped to provide general health, dental, eye and psychiatric care, as well as cancer screening tests, diabetes prevention and counselling sessions. In addition it provides community education on general health issues, such as hygiene and nutrition, as well as an outreach programme visiting local schools and villages to deliver vital health checks, medicines and education.

With support from Roche, the train has reached out to over 5.4 million people to date - including women and children who would otherwise have no access to basic medical services. One of the things that make the service so effective is that it provides much needed basic health education to people in the community, including traditional healers.



**Mobile Surgical Vehicle - California, USA**



**Mobile Health Clinic - Brockville, Canada**



**Mobile Diagnostic Center - Russia**



**Breast Cancer Screening – New Zealand**



**Mobile Surgical Satellite Service  
New Zealand**



**Transnet-Phelophepa Healthcare Train -  
South Africa**

