
Innovations towards Rural Health Care:

some efforts of TeNeT / RTBI, IIT Madras

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It Started with a email in 2000



- ▶ A email arrived from a Internet kiosk in a remote village:
 - ▶ A potential epidemic of Chicken Pox
- ▶ Instant response from the Government Doctors

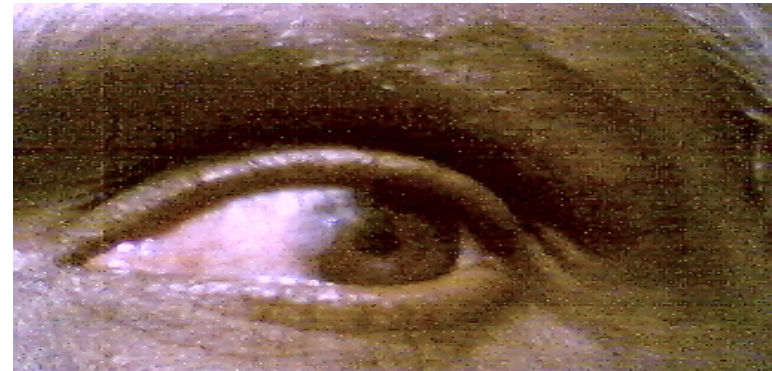
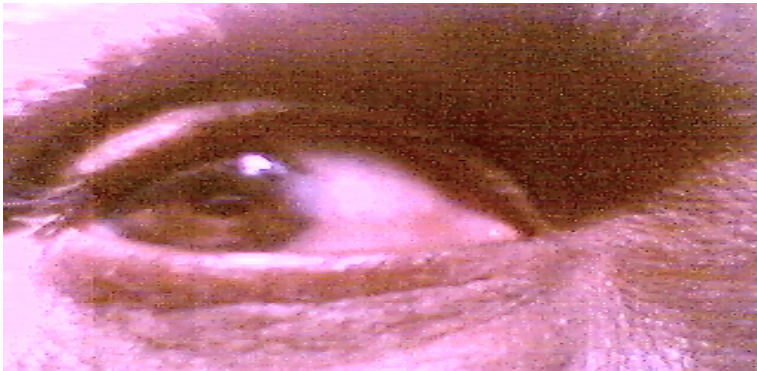
Eye-care followed

- ▶ Large percentage of blindness in India is due to cataract: curable
 - ▶ Screening Eye camp for outreach



Till recently Eye Ailments that could only be detected this way...

- ▶ Palaniammal, a 60 year old woman in Melur



- ▶ web camera photo: Remote feedback by Eye hospital



- ▶ And finally to video conferencing
 - ▶ also a Online Patient database created
 - ▶ for patients to register in advance
 - ▶ to help the hospital schedule and track the patients
- ▶ A computer test for colour blindness added

Address <http://bluebill.tnhi.chiraag.com/Quest/admin/index.htm> Go Links

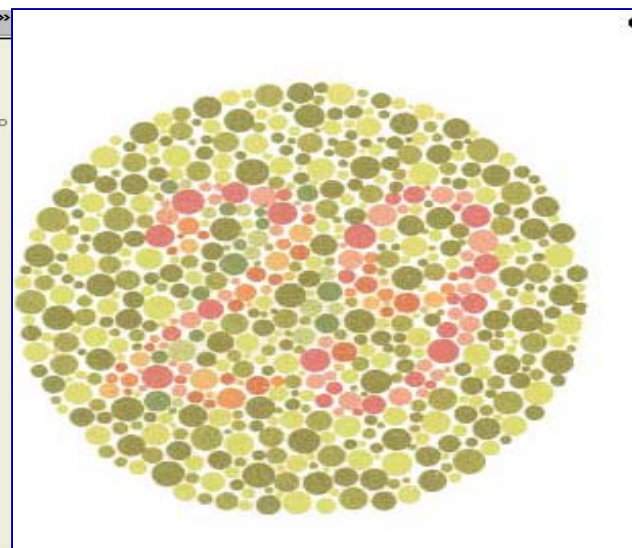
ARAVIND EYE CARE SYSTEM

Aravind Questionnaire

- Update Session
- Update Project List
- Create New User
- Delele Data
- Patients for Current Session
- Patients in Queue
- View Status
- Last Session Feedback
- Revenue Details
- Repeated Visitors
- Change Password
- Go Home

Update Session

| | | |
|---------------------------------------|--|---|
| Enter Doctor/Counsellor Name | <input type="text" value="Ms.Shanawaz"/> | Regd.Session 2004-04-30 2004-05-07 |
| Select Project Code | <input type="text" value="TNTHI"/> | |
| Session Date From | <input type="text" value="30/04/2004"/> | |
| Session Date To | <input type="text" value="30/04/2004"/> | |
| Session From Time (hh:mm) | <input type="text" value="04:00:00"/> | |
| Session To Time (hh:mm) | <input type="text" value="06:00:00"/> | |
| Time Per Patient(hh:mm) | <input type="text" value="00:10:00"/> | |
| Select Day | <input type="text" value="Friday"/> | |
| <input type="button" value="Update"/> | | |



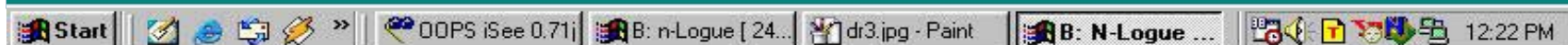
Video Conferencing continued

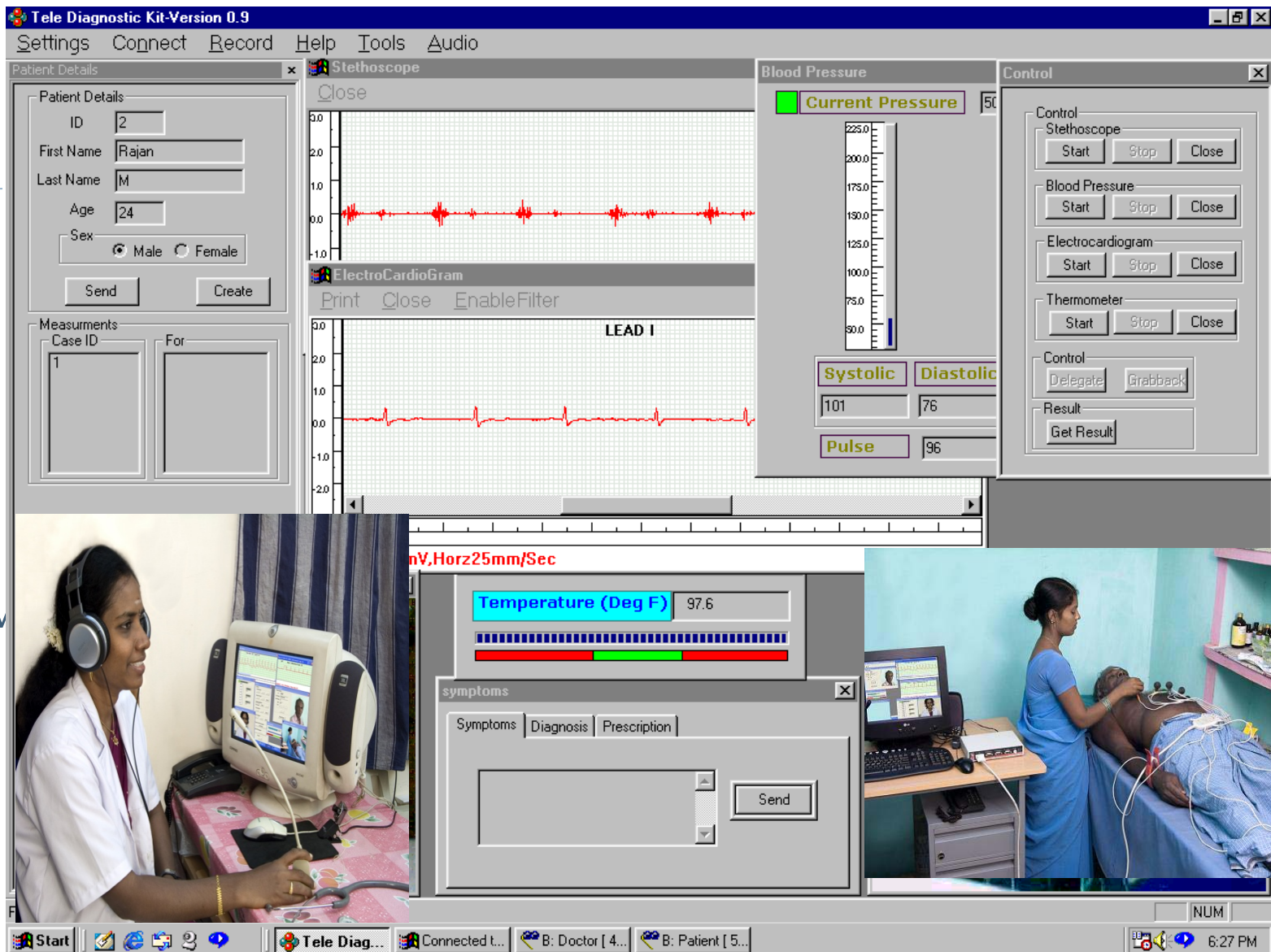
- ▶ but now with Veterinary doctors
- ▶ and then moved on
 - ▶ to video-consulting for GP, gynecology and pediatrician problems





**A Heart patient from Melur
(about 600kms From
Chennai) being counsulted
by Cardiac surgeon.**

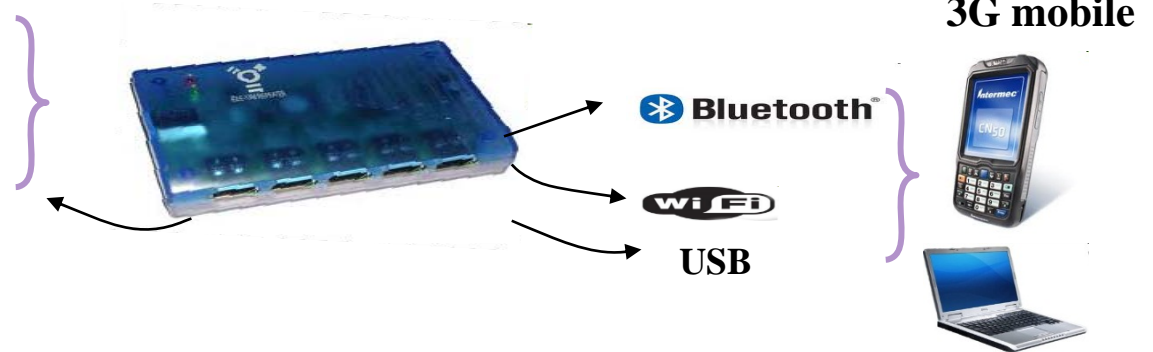




**Remote Medical diagnostic kit (ReMeDi) consisting of
BP, temperature, ECG measurement & stethoscope at
just Rs15000**

Now a New ReMeDi Telemedicine Kit

- ▶ BP, Temperature,
- ▶ Stethoscope, ECG
- ▶ Digital microscope
- ▶ Spiro meter
- ▶ EYE-Slit Lamp



- ▶ DSP platform for efficient data and image processing
- ▶ Data from Rural Patient transmitted to Doctor using 3G mobile / Bluetooth
- ▶ **Yet, the progress has been Slow**
 - ▶ **Business model still fragile**

First Care Health: leveraging RHP

- ▶ Attempt to Leverage potential of existing RHPs through ICT to improve rural health outcomes
- ▶ Rural Healthcare Providers
 - ▶ Diverse paramedical and alternate healthcare backgrounds
 - ▶ Diploma/ cert in an alternate system (Sidha, homeopathy, naturopathy) , lab technology, pharmacy, Vocational nursing
- ▶ Why them?
 - ▶ Primary Contact: Acquired trust of local people
 - ▶ Consistent Presence and Availability
 - ▶ Understands the cultural and economic dynamics of people
- ▶ What do they need?
 - ▶ Training (do's and don't)
 - ▶ Linkages to doctors for consultation
 - ▶ Linkage to Labs for testing
 - ▶ Medicine Basket
 - ▶ Patient health record on cloud using mobile



First-care: Village Health Practitioners

Pilot in 35 villages in a district

RHPs chosen by polling villagers

High enthusiasm to learn and comply

clear benefit in practice

Discontinued as RHPs are not recognised



basic Lab tests training

[illegible]

Online Modules



Online Supply Chain

Home | Products | Transactions | Orders | Mail Box

Download

Go Back

These are the details of the transaction no. [Transactions](#)

| Order No | | A 1001 | | Christine Deraniwala, | | | | | |
|------------------|-------------------------------|----------------------|------------|------------------------------|-------------|--------------|--------------|---------|------------|
| Order Date | | 15-JUL-2008 10:28:00 | | 1001@alliancepharm.com | | | | | |
| Transport Mode | | Transport | | 1001@alliancepharm.com | | | | | |
| Transaction Mode | | Transaction | | 1001@alliancepharm.com | | | | | |
| Transaction No | | 1 | | Contact Number : 14992212446 | | | | | |
| Sl.No | Product Name | Formate | Unit Price | Qty | Ordered Qty | Procured Qty | Batch Number | Remarks | Cost (INR) |
| 1 | Asul | | 1.50 | 500 | 50 | 50.00 | | | 22.50 |
| 2 | Baby Scale | | 3775.00 | 0.50 | 1 | 1.00 | | | 3775.00 |
| 3 | Cetaphil | | 2.00 | 50.00 | 50 | 50.00 | | | 23.50 |
| 4 | Comprimed 250 mg | | 9.40 | 5.00 | 50 | 50.00 | | | 94.00 |
| 5 | Cortison 4 mg | | 64.00 | 5.00 | 50 | 50.00 | | | 640.00 |
| 6 | Dantrugene 100 mg | | 2.35 | 5.00 | 50 | 50.00 | | | 85.25 |
| 7 | Dominol | | 4.40 | 50.00 | 50 | 50.00 | | | 44.00 |
| 8 | Draining Goutie | | 9.50 | 5.00 | 50 | 50.00 | | | 475.50 |
| 9 | Ear Buds | | 5.00 | 5.00 | 50 | 50.00 | | | 50.00 |
| 10 | Glucosin - D 100 mg | | 8.00 | 5.00 | 50 | 50.00 | | | 80.00 |
| 11 | Isolin-Calcium salt | | 9.50 | 5.00 | 50 | 50.00 | | | 95.00 |
| 12 | Hydro 100 mg | | 6.00 | 5.00 | 50 | 50.00 | | | 30.00 |
| 13 | Mixol | | 22.00 | 5.00 | 50 | 50.00 | | | 220.00 |
| 14 | Salixone | | 29.00 | 5.00 | 50 | 50.00 | | | 290.00 |
| 15 | Oral Penetration Salt 27.5 gm | | 4.50 | 5.00 | 50 | 50.00 | | | 75.00 |
| 16 | Phenacetone 100 mg | | 2.50 | 5.00 | 50 | 50.00 | | | 25.00 |
| 17 | Subcutaneous (Intraderm) 4 mg | | 3.50 | 5.00 | 50 | 50.00 | | | 17.50 |
| 18 | Santaryo (Santaryo) 100 mg | | 33.00 | 5.00 | 50 | 50.00 | | | 1320.00 |
| 19 | Santaryo (Santaryo) 100 mg | | 33.00 | 5.00 | 50 | 50.00 | | | 1320.00 |
| 20 | Vaseline | | 19.00 | 5.00 | 50 | 50.00 | | | 190.00 |
| 21 | Vaseline Vaseline | | 25.00 | 5.00 | 50 | 50.00 | | | 125.00 |
| 22 | Vaseline Vaseline | | 9.00 | 5.00 | 50 | 50.00 | | | 90.00 |
| 23 | Weighting machine | | 675.00 | 5.00 | 5 | 5.00 | | | 475.00 |
| Sub Total | | | | 5775.50 | | | | | |
| Total | | | | 5775.50 | | | | | |
| Total | | | | 5775.50 | | | | | |

Medicine Supply

Print Care Health

Monitoring Mother and Child Care Programs

- ▶ **Integrated Child Development Scheme: nutrient-supplement to children based on weekly monitoring child's growth**
 - ▶ Program marred by absenteeism and corruption
 - ▶ Monitoring using a simple phone at health centers
 - ▶ Unique authentication of mother using voice-authentication
 - ▶ Using voice recognition to capture Child growth and supplement obtained using mother's voice
 - ▶ Piloted in Dhar and Gunawat districts of Madhya Pradesh

- ▶ **Digitizing Patient data through Voice**

a. Mother & Child visiting AWC (Health Center)



b. User entering and authenticating data using mobile phone



c. The data entered by the mother is available in a digitized format on ICDS web portal on real time basis

Thanks