Using the World Wide Web to deliver 21st Century Medical Care to the World’s Poorest People
SAVING LIVES THROUGH TECHNOLOGY
Many children in the third world have no access to healthcare or medicines - for these children the only way out from a painful illness is death. Help us change that forever.

The Virtual Hospital seeks to ensure that the benefits of modern medicine are available to all people and that the poor and disadvantaged are not deprived of medical treatment for want of money, or a lack of access to effective healthcare.

The Virtual Hospital represents a significant opportunity to change the way that medical care is delivered to over 1 billion of the world’s poorest people.

The Virtual Hospital believes that through the implementation of an online virtual Hospital which can offer some of the same consultation services as a conventional bricks and mortar hospital, villagers in the third world will be able to get diagnosed and treated by doctors hundreds of miles away using online and offline Telemedicine video conferencing services.

The Virtual Hospital is revolutionary in its concept, approach and simplicity - it is a game changer and has the potential of changing Healthcare delivery to the third world, forever.

The key objectives of the Virtual Hospital are:

* To provide access for the poor to doctors and healthcare professionals through a simple technician operated telemedicine clinic (Spoke) based in rural & semi rural areas in the third world.

* To set up and manage a virtual healthcare referral system with Hubs based in large city hospitals in the third world that enable patient consultations through video conferencing with village based Spokes.

* To engage European and USA based hospitals and Doctors to offer their expertise to Virtual Hospital free thereby enabling the set up of a Specialist Super Hub allowing for the referral of complex cases.

* To treat preventable and infectious diseases in third world rural communities, thus reducing congestion in the healthcare system so that scarce resources can be applied to others not so easily treated.

* To improve community health through educational and prevention activities thus encouraging family planning, family healthcare and lower population growth rates.

* To ensure Virtual Hospital becomes a world-class online teaching hospital and centre for knowledge exchange between specialists based in Europe and the USA and Doctors based in the third world.
SAVING LIVES THROUGH KNOWLEDGE
The healthcare Challenge

More than 10 million children die each year, most from preventable causes and almost all in poor countries. Six countries account for 50% of worldwide deaths in children younger than 5 years, these include India, Pakistan and Bangladesh. These deaths are preventable, but in many poor countries basic healthcare remains financially and often physically out of reach for millions of people.

A short list of infectious diseases treatable with inexpensive generic drugs accounts for 70-90% of all childhood illness and deaths in the developing world. Existing access to essential medicines for much of the poor is woefully inadequate. A frightening percentage of the most vulnerable populations live hours, if not days, from the nearest doctor, or hospital.

The health situation of the third world poor is characterised by a high incidence of communicable diseases. The majority of deaths still occur largely due to conditions that are preventable, or are amenable to early intervention. In the poorest parts of the world, illnesses associated with poverty remain major contributors to the burden of disease. The most common illnesses causing death include neonatal disorders, respiratory infections, diarrheal diseases and nutritional deficiency disorders.

Diarrhea kills more children than HIV/AIDS, Malaria and TB combined, yet compared to these diseases receives little financing and is not prioritized by governments in donor countries. A report by WaterAid shows that between 2004 and 2006 only $1.5 billion was spent globally on improving sanitation. In the same period, $10.8 billion was spent on interventions for HIV/AIDS - responsible for 315,000 child deaths in that period, and $3.5 billion on interventions for malaria - responsible for 840,000 child deaths.

Surveys have found that the average villager earns $90 a year and spends 80% of that income on subsistence items like healthcare, housing, and food. Health is a particular challenge and becoming ill often destroys the limited welfare and dignity the poor have. More than 25% of those hospitalized fall below the poverty line in order to pay for care.

Loss of eyesight also has a tremendously negative economic and social impact on low-income families, often reducing or eliminating the ability of at least one family member to earn an income. The prevalence of blindness is partly a symptom of pervasive lack of access to health care, over 400 million people across the developing world suffer from presbyopia the natural deterioration of up-close vision - many have no access to a simple sight-saving pair of glasses which could easily resolve the problem.

In South Asia and Africa the population is predominantly rural and distributed in distant geographical locations rather than the high-density urban areas. This is compounded by an overall shortage of skilled medical professionals and by the gross distortion and unequal distribution of doctors. A survey by the Indian Medical Society found that 75% of qualified consulting doctors practiced in the large cities, 23% in semi urban areas and only 2% in rural areas.

The majority of the rural masses and those living in the squalor of urban poverty rely on a network of informally trained private practitioners and untrained pharmacists who do not possess a recognized qualification or registration. These non-formal providers are popular due to their availability, accessibility and lower costs. The result of this is that many of the poor are misdiagnosed, incorrectly treated and provided with the wrong medicines.
Telemedicine represents a significant opportunity to change the way that medical care is delivered to over 1 billion of the world’s poorest people. Poor people within each village will be able to get diagnosed and treated by doctors sitting in GP surgeries, or hospitals across the world using Telemedicine video conferencing services.

Virtual Hospital seeks to ensure that the benefits of modern medicine are available to all people and that the poor and disadvantaged are not deprived of effective and quality healthcare for want of money, or a lack of access to doctors.

Virtual Hospital identifies and develops healthcare business models which are capable of bringing affordable, life-changing products and services to the parts of the world where they are most needed. Our hospital-based hubs focus on delivering accessible and essential medical care, through innovative, market-oriented approaches involving telemedicine.

Virtual Hospital operates on a ‘Hub and Spoke’ model. The idea is to develop a Hub in a Hospital, where technology and medical experts are based. While Spokes are set up in district health centres in rural areas where the poor are treated, the Hub and Spokes are connected to each other using video conferencing. Virtual Hospital seeks to prove that small amounts of philanthropic capital combined with strong public and private sector partnerships and the effective use of information technology, can build thriving telemedicine health centres in existing hospitals and villages that serve vast numbers of the poor irrespective of their location, or inability to pay. As a result Virtual Hospital has developed a scalable telemedicine project which will allow the poor to access essential free healthcare services in rural and semi rural areas within the third world.

Virtual Hospital has all the usual hospital departments found in a conventional hospital, but exists on the world wide web rather than as a traditional brick building. The Virtual Hospital will link patients in rural poor areas of the third world, to the leading doctors and consultants in the developed world through on-line and off-line telemedicine services.

A world class Virtual Teaching Hospital. It is also envisioned that Virtual Hospital will become a world-class online teaching hospital and centre for knowledge exchange between specialists based in Europe and the USA and Doctors based in the third world.
How does Virtual Hospital work

Recognizing that the global community has the resources and knowledge to address key healthcare problems affecting the poor. Virtual Hospital has developed an innovative method of delivering healthcare to the rural poor through a Hub and Spoke model with each Hub and Spoke being set up within existing public healthcare infrastructures thereby increasing the opportunity to scale up the project across a much larger area.

The Hub
Through our Virtual Hospital Hubs, villagers in the third world will be able to get diagnosed by doctors sitting in their own GP surgeries, or hospitals thousands of miles away using video conferencing services.

The Hub is the centre where the medical experts and doctors are based allowing them to undertake patient consultations using video conferencing. Virtual Hospital sets up an agreement with an existing conventional third world hospital to provide the required office space for the Hub, the hospital also agrees to provide the services of its doctors and consultants, free of cost, to undertake the required patient consultations at agreed appointment times. On the agreed date of a consultation the hospital doctor attends the Hub and is connected to patients through either online consultations using video conferencing, or through off-line store and forward of patient details using email. The doctor is able to review the patient records and/or see the patient online thereby providing a diagnosis and the treatment required.

The Spoke
The Spokes are based in rural and semi-rural areas and will enable multiple remote villages to be connected to doctors anywhere in the world using the Internet at low bit-rates. Each Spoke will have a Multimedia PC with an attached Medical assessment Unit (MAU). The MAU diagnostic device consists of 12 Channel ECG, Temperature Probe, Non-Invasive Blood Pressure Probe, Stethoscope Probe, a Pulse Oximeter and an Ultrasound scanner. The MAU, diagnostic kit and PC applications are designed for easy handling by local staff with basic IT training.

The patient readings from the MAU are directly recorded into the electronic patient record which then lets the doctors at the Hub see the patients readings on their computer screen whilst undertaking a face to face video consultation with the patient. For example, it will also be possible for UK based eye specialists to examine the eyes of village based patients over Internet video and suggest appropriate remedies, or prescribe the required spectacles.

Specialist Super Hub
In addition to the Hub and Spoke principal, the Virtual Hospital has developed a ‘Specialist Super Hub’ where leading Consultants and Specialists across the world have registered to offer their time and expertise for free. Each Specialist becomes part of the Virtual Hospital Specialist network. The Super Hub will have all the departments of a normal hospital and each specialist will be available for a consultation within their specialist department.

Patients are refered to a Specialist Super Hub Consultant for more complex medical cases. An offline procedure is adopted in which the patient’s x-rays, scans and medical reports are collated and emailed to the Specialist Super Hub team who then allocate the case to a Consultant. The Consultant undertakes an assessment of the patient and then provides a response for treatment. Consultants may also request a video conference with patient.
Virtual Hospital believes that talent and partnerships are the key requirements in the social enterprise sector and as a result we welcome individuals and companies with the skill and will to effect change and who will work with us to provide quality healthcare to the poor. If you are interested in working with us as a Corporate Partner, NGO, Charitable Foundation, or are a Hospital, Medical Practice, Doctor, or a Consultant, then please get in touch.

Charities and NGO’s get involved
We work closely with charities and NGO’s to help them provide effective medical care to the poor. The process is simple, you agree to fund the cost of a Spoke, we set up the Spoke within the village you have selected and train the staff. We then run the Spoke on your behalf. The Spoke is connected to our Hubs in city based hospitals to provide free medical consultations to the poor through each Spoke.

Companies and Individuals get involved
Our corporate partners and individuals are making a lasting difference to the lives of millions of people in the third world. Virtual Hospital is a unique partner with a business-like approach. We know that every company is distinctive, so we work closely with you to create lasting partnerships that deliver results. A corporate or charitable partnership with Virtual Hospital brings genuine and lasting business benefits: effective CSR, excellent public perception, employee motivation and lasting charitable benefits to the lives of the people it aims to serve. If you are an individual then you can also get involved by fundraising for our Hubs and Spokes.

Doctors & Medical Volunteers
Become a Medical volunteer. Virtual Hospital medical volunteers give life-saving medical assistance to people who would otherwise be denied access to basic healthcare services. Volunteers are an essential part of the Virtual Hospital teledicine program and we are building a strong team of reliable volunteer Consultants, Doctors and Nurses to provide Internet based medical consultations to the poor.

As a Doctor, or Specialist Consultant we are keen to ensure that the time you volunteer is used in the most efficient way and as such we arrange your tele-consultations so that you are able to help as many sick people as possible for the time you have allocated to us. In all cases the consultations are undertaken from your own GP surgery, hospital, or private practice using PC based video conferencing sitting at your computer in your own office or home.

Work with Us
Virtual Hospital is a not for profit organisation and is funded purely by donations. If you would like to work with Virtual Hospital to help provide medical assistance to the poor then simply email us and we will be delighted to discuss this further and answer any questions.

Help us to ensure that the benefits of modern medicine are available to all people and that the poor and disadvantaged are not deprived of basic medical assistance for want of money, or a lack of access to effective healthcare.

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