# World Health Partners: Leveraging Entrepreneurship for Health Care Delivery

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## Innovation

Over the past year, the number of patients visiting Sharwan Kumar, a 33-year-old rural health practitioner in village Neem Taal Khusrupur in the North Indian state of Bihar, has almost doubled. Kumar holds diplomas in acupressure, acupuncture and naturopathy. There is no qualified doctor in his village, and Patna Medical College, the nearest hospital, is almost 35 kilometers away. When Kumar got an opportunity to start a SkyHealth center as a franchisee of World Health Partners (WHP), a New Delhi-based non-profit, he decided to take it. “For a villager, however much he may want to, it is next-to-impossible to consult a doctor in the city. Technology has now made it possible. I took up the WHP franchisee because I was sure it would work,” says Kumar.

The SkyHealth center is equipped with a laptop, a webcam, Internet connection and a remote medical diagnostic kit to measure basic parameters such as blood pressure, heart rate, electrical activity of the heart, pulse rate and so on. Kumar has invested a total of US$2,000 in his center to date. He charges each patient around US$2 for a telemedicine consultation with qualified and experienced doctors in WHP’s central facilities in New Delhi and Patna. Kumar says his earnings have gone up by 40% since he joined the WHP network.

Entrepreneurs like Kumar who have some expertise and experience in health care are a core part of WHP, which provides basic health care and reproductive health services to India’s hinterland through its wide franchise-based network.

Launched in 2008, WHP currently has 599 SkyHealth centers in the states of Bihar and Uttar Pradesh and a marginal presence in Madhya Pradesh. Typically, each of these health centers caters to seven to 10 nearby villages. Most of these villages in turn have WHP-trained individuals called SkyCare providers who are equipped with low-cost mobile solutions to perform basic diagnostics and symptom-based treatments. When needed, they

offer telephone consultations with doctors at WHP's central medical facilities or refer the patients to the nearest SkyHealth center.

For patients who need specialized procedures that cannot be delivered via telemedicine, health center operators like Kumar refer them to the nearest franchised SkyHealth clinics. The WHP network also includes diagnostic centers, pharmacies, and "last mile outriders" (LM0s) who deliver medicines to the remotest parts of villages on bikes.

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At present, WHP has two central facilities – one each in New Delhi and Patna — 599 health centers, 4,727 care providers, 35 clinics, 21 diagnostic centers, 10,173 pharmacies and 50 LMOs. There are 13 doctors at the facility in Delhi, three doctors in the Patna facility and 18 doctors who connect from different cities. Since inception, the WHP network has covered around 3.6 million people in Uttar Pradesh alone, of which two million reside in rural and remote villages.

**Leveraging Existing Resources**

"One way of serving small pockets of scattered population that rural villages represent and still attain project viability is by creating volumes with the help of a range of products and services," says Gopi Gopalakrishnan, founder-director of WHP. Gopalakrishan believes that given India's dismal health care delivery "leveraging existing resources is the only way we can achieve scale, and franchising is the only practical solution to standardize at a minimum cost."

WHP started as a pilot project in the Meerut, Muzaffarnagar and Bijnour districts of Uttar Pradesh with a focus on providing family planning products and services to the rural poor. To date, it has delivered 797,538 couple years protection (CYP — this refers to the estimated protection provided by contraceptive methods during a one-year period). Pointing out that family planning is a sensitive issue in India due to religious sentiments and also lack of awareness, Gopalakrishnan says: "Our experience reveals that rural clients are willing to adopt family planning if services are provided close to home."

According to Gopalakrishnan, the training imparted by WHP to its partners depends on the specific service being provided by them. For instance, if a health center operator provides family planning services, he is given a three-day training. For diagnosing and treating infectious diseases, he is given six days of training. For the same services, a care provider is given a more basic training of one day and three days respectively. Where needed, WHP franchisees are also given technical and administrative training like basic computer skills, financial accounting, etc.

The health centers, care providers, clinics and diagnostic centers pay a franchisee fee of US$500, US$17, US$166 and US$83 respectively to WHP at the time of enrolment. The care providers also pay an additional 17 U.S. cents for every cellphone consultation given by the WHP doctors. The pharmacies and LMOs don't pay any franchisee fees.

Each health center costs approximately US$1,000 to set up. Initially, the cost was shared in the ratio of 25:75 between WHP and the franchisee. In 2010, WHP stopped investing money in the centers. The idea was to encourage the franchisee to seek a return on investment and to be more responsible about the project. According to estimates by WHP, a health center takes three to four years to break even.

Wouldn't a for-profit approach by WHP be more helpful in achieving viability? No, says Gopalakrishnan. "By working in a for-profit mode, WHP will face the danger of ignoring its core constituency of the poor. The poor need care, some of which is unaffordable. A for-profit [approach] will be conditioned solely by market factors and will always gravitate toward a segment of the population which will give it the ability to maximize its profits." Gopalakrishnan adds that the large subventions available from the government for providing health services to the

poor also need conduits of delivery. “As a non-profit, WHP is in a position to provide this,” he says.

Prachi Shukla, country director of WHP, elaborates on the organization’s business model. “There is a huge unmet demand for preventive services in India, yet the private provider’s interest in delivering such services is low [because] it is not very financially rewarding. Their interest lies mainly in curative services. Simultaneously, the client’s interest, especially of the women, in receiving preventive services is also pretty low…. They are not willing to travel long distances to seek care from a qualified provider.”

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Priya Anant, core team member of the Centre for Emerging Markets Solutions (CEMS) at the Indian School of Business in Hyderabad, who has over a decade’s experience in design, management and monitoring of health care service delivery programs in India, agrees. “Telemedicine could be a part of the solution to a lot of health care problems in India, not only because of the [poor state] of physical health care infrastructure, but also due to our population, the huge geographical spread, low per capita income, poor health seeking behaviors, and availability as well as willingness of trained medical care providers, including doctors, to go to areas where the burden of mortality and morbidity is the highest.”

In 2008, WHP received US$10 million funding from a businessman for its operations in Uttar Pradesh. For its work in Bihar which began last year, WHP has received a funding of US$23 million for five years from the Bill & Melinda Gates Foundation, primarily for the identification and treatment of four infectious diseases — tuberculosis, kala azar, childhood diarrhea and pneumonia.

Apart from franchisee fees, WHP’s revenues come from the sale of medicines and contraceptive products, and consultations. Patients from “below poverty line” families are provided free consultation by WHP. While it charges 50 U.S. cents for general pool consultation where patients are randomly assigned to the doctors, patients have to pay more if they prefer to consult a particular doctor from the WHP panel.

**The Learning Process**

It has been a constant process of learning and unlearning for WHP. For instance, to bring down the costs of telemedicine consultation, WHP shifted from the client server model to the Cloud. For better connectivity, it moved from VSAT to the local broadband. “We have tweaked our system to work on very low bandwidth. To overcome longer lag time, we have created a resumption module in our system. It helps resume consultation from where it dropped during the lag. Yet there are issues with the bandwidth … we’ll have to live with it until Internet services become robust and stable,” says Kamal Talreja, WHP’s technical manager.

Adaptability of technology is yet another challenge. Most care providers use basic cellphones in which installing health care applications is next to impossible. And often, patients are not very comfortable using the applications that do get installed. For instance, when WHP installed an application to measure breath speed, very few people were able to use it.

Maintaining quality standards across the entire chain is a key focus area at WHP. “In the [case of existing] medical clinics that can serve as a WHP franchisee [it is not always possible] to ensure that they adhere to a certain standardization of service and care …. [Therefore,] WHP has decided to facilitate establishment of new clinics where standards can be enforced from the start,” says Shukla.

Shane Walker, associate director, consumer medical devices & digital health at IHS, a global information company providing analysis and insights into industries such as health care, believes that WHP has devised a strong model for delivering health care to rural populations. Walker, who has been tracking the WHP model closely, says: “Broadband connectivity issues are being circumvented with cellphones; last-mile supply challenges are being addressed by LMOs; reinforcement of quality standards and monitoring patient adherence is being done through mobile phone apps. I find it really interesting that WHP’s model is harnessing indigenous informal health providers

as village-level franchisees. Fostering entrepreneurship is a good way to achieve sustainability without a reliance on public sector funds. Their approach of integrating preventive care with curative health care services is also forward-thinking."

**Telemedicine in India**

Despite the challenges, telemedicine in India has done progressively well according to Anurag Dubey, associate director, health care IT & health care delivery at business consulting firm Frost & Sullivan. Dubey notes that telemedicine has evolved into specific services like tele-ophthalmology, tele-radiology, tele-cardiology, tele-pathology, etc. "State governments of Punjab, Tamil Nadu, Gujarat, Kerala, etc. have implemented telemedicine programs to improve health care services for the rural population. The ministry of health & family welfare, too, has launched the integrated disease surveillance program network with help of the Indian Space Research Organization," he adds.

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ISB's Anant says that telemedicine can be used to tackle some of the problems created by a non-functional primary health care system. "In India, we have struggled with the three-tier system of health care. The primary tier of the system is crucially dependent on the availability of doctors and nurses at the villages in the sub-centers, and at the next level in the primary health care centers. We haven't been successful in ensuring this yet. As a result, in the backward states particularly, the first level of care for the poorest sections of the population comes from unqualified and untrained providers. This overburdens higher levels of care," says Anant.

According to a recent Healthcare Access Study conducted by IMS Health, a U.S.-headquartered consulting firm, 70% of the health care infrastructure in India (doctors, beds, nurses, etc.) is concentrated in urban areas where 30% of the population lives. Nearly 31% of the rural population has to travel over 30 km to access medical treatment. Neeraj Vashisht, senior principal consulting at IMS Health, suggests that telemedicine can play an important role in bridging this gap. Vashisht notes that premier medical institutions such as All India Institute of Medical Sciences in New Delhi have started curriculum and non-curriculum telemedicine training programs to increase the awareness levels and boost entrepreneurial activity in this space.

Ravi Anupindi, professor of business management and operations management at the Stephen Ross School of Business, University of Michigan, suggests that most of the innovation in telemedicine technology appropriate for developing countries will occur in low-cost digital diagnostics. "That is the discovery part," says Anupindi, adding: "Health care delivery using telemedicine also requires developing protocols for managing the myriad of services to be delivered. Training health workers in these protocols and deploying them in the field is a huge implementation challenge." According to Anupindi, depending on the nature of technology deployed, costs can also be a concern. "Diagnosis alone is insufficient; a patient needs a solution which includes diagnosis and treatment. So, availability and provision of appropriate treatment is also essential for success."

Anupindi notes that while in the tertiary care space, Narayana Hrudayalaya of Bangalore (for cardiac care) and Aravind Eye Hospitals of Madurai (for ophthalmology) "are in the forefront of the use of telemedicine," in primary care services use of telemedicine is still nascent. "Long term sustainability of [such] initiatives is still a big question," he says.