

WORLD HEALTH PARTNERS Annual Activity Report 2008-2009

List of Acronyms

ANM Auxiliary Nurse Midwife

CMF Central Medical Facility

CMO Chief Medical Officer

DMPA Depot Medroxyprogesterone Acetate

EC Emergency Contraceptive

FC Franchisee Clinic

FCRA Foreign Contribution (Regulation) Act

IEC Information, Education and Communication

IUD Intra-uterine Device

LTPM Long Term and Permanent Methods

MA Medical Abortion

MTP Medical Termination of Pregnancy

NGO Non-Government Organization

OCP Oral Contraceptive Pills

PHS Population Health Services

RHP Rural Health Provider

RLA Regional Logistic Agency

TP Telemedicine Provider

TPC Telemedicine Provision Center

UP Uttar Pradesh

VS Venture Strategies Innovations

WHP World Health Partners

Definition of Terms

Auxiliary Nurse Midwife (ANM): A paramedical person who has undergone 18 to 24 months of training at a government recognized institution. Almost all ANMs are employed in the public sector where they are charged with delivering ante-natal, puerperal and paramedical care through sub-centers covering 5,000 population and referring to doctors at the primary health centers (one per 30,000 population) for medical care. They are allowed to insert IUDs and provide oral contraceptives and condoms. They can also provide injectables under the supervision of a doctor.

Regional Logistics Agency (RLA): Specialist agency which provides field workers to identify and recruit Telemedicine Providers, franchise clinics and shops, to organize training sessions, to replenish commodity supplies for some providers and at shops, and to collect fees and other charges. All work is related to outputs, and performance plays a major part in determining their earnings. The Regional Logistic Agency has an office with communication facilities in Meerut, an important and central city in the project area.

Transit Clinics: Periodic events organized near villages to provide sterilizations, IUDs and DMPA to the poorest clients. The services are either free or highly subsidized. Telemedicine Provision Center (TPCs) and Rural Health Provider (RHPs) are given the responsibility to inform the clients and help WHP in organizing these clinics. They are paid a commission. WHP will send doctors and paramedics from a central pool or use doctors and paramedics available at the franchisee clinics or borrowed from the public sector. For logistical and operational reasons, the transit clinics are organized for a cluster of TPCs and not exclusively for each TPC.

Executive Summary

In March 2008, WHP was formally registered as a charity in India. A "Think Tank" of expert advisors for WHP was established in the fall of 2007 in Venture Strategies for Health and Development (VS), based in Berkeley, California, USA by Gopi Gopalakrishnan, with the purpose of bringing to the new project world-class expertise to provide appropriate direction in medical training, branding and advertising, and analysis of data of complex projects, amongst other operational, technical, and strategic support for WHP.

In April 2008, WHP implemented a five-Telemedicine Provision Center (TPC) trial in the district of Meerut in UP, one of the project districts. The trial provided WHP a chance to learn and correct any technology issues, pricing structures, logistical challenges, and very importantly, villagers' acceptability of the new telemedicine technology. The project received very positive responses from villagers and entrepreneurs alike, and implementation plans were modified based on critical lessons learned from the trial.

To ensure wide support for the project in UP, WHP initiated contact and strengthened relationships with Indian government officials, both at the national, state and local levels. To date, feedback has been positive and there is great potential for collaboration with existing government rural programs.

A change in the project scope – from a large scale 18-district project to a 3-district 'pilot' - required some modifications to project implementation and management strategy. Work already completed, including branding and marketing strategy, and medical training and protocols, remains relevant to the scaled-down project.

This start-up phase has been productive despite changes to the project scope and strategy. Comprehensive preparation work completed in this phase allowed WHP to swiftly roll-out implementation on the ground on November 1 2008.

Implementation of WHP's pilot project in Uttar Pradesh began in November 2008. In this period, we successfully identified, trained and received down payments from 98 entrepreneurs for the Telemedicine Provision Centers (TPCs), of which nine are Auxiliary Nurse Midwives (ANMs); 1044 Rural Health Providers (RHPs); 12 Franchisee Clinic doctors; and recruited 1421 shops. As of March 31, 2009, 25 TPCs are connected to the Central Medical Facility (CMF), providing telemedicine consultations with five CMF doctors.

The demand for permanent and long term family planning services exceeded WHP's expectations. With the assistance of Telemedicine Providers and RHPs, and support from the Uttar Pradesh government clinics, which provided the space and doctors, WHP organized 322 sterilization & 51 IUD transit clinics. During the project's initial launch period, 4,440 sterilization procedures were performed. IUD services had a later start mainly due to non-availability of ANMs, with services beginning only in March. Until April 30th we have provided 805 IUD insertions. We will be training and deploying more ANMs in the coming months and anticipate that with we will reach our targets for the next period and likely make up for the shortfall from this period. The outreach, organization and coordination efforts by Telemedicine Providers, RHPs and the local Regional Logistic Agency (RLA) were crucial to the turnouts for both sterilization and IUD transit clinics —early evidence of an effective local village network built by WHP.

The Foreign Contribution Regulation Act (FCRA) clearance from the government of India for WHP to receive foreign funds was finally granted in mid-March, a process that took six months longer than expected. Many activities, including advertising and marketing, start of monitoring and evaluation, financial tracking and analysis systems, etc. were delayed because of the lack of funds. Another cause for the delay in launching our full provider network was our experimentation with more promising and lower cost internet connectivity. Despite these delays, WHP was able to begin distributing family planning products through readied providers and to provide Long Term and Permanent Methods (LTPM) family planning services through transit clinics. Organizing a great number of transit clinics at the TPCs has also allowed WHP to secure Telemedicine Providers' and RHPs' interests by keeping them involved and allowing them to earn commissions while the telemedicine and provider networks are being set up.

In this report we outline work completed by both WHP and the VS Think Tank during this start-up and initial project launch period.

Establishing WHP and the UP Project

The charitable organization, World Health Partners, was registered on March 5, 2008 with a board of directors composed of the following eminent Indians:

Dr. Shanti Ghosh, a maternal and child health expert;

Prof. Indrani Gupta, a health economist;

Mrs. Syeda Askari Imam, an advertising and communication expert;

Mr. Rajiv Lochan Misra, a health policy and systems expert;

Mr. Amulya Ratna Nanda, a population programme expert;

Mr. Gopi Gopalakrishnan, a programme implementation expert and president of WHP

An application was submitted to the Interior Ministry requesting permission for the newly established WHP to receive foreign funds.

Procedures and systems for office administration, human resources, finance and accounting were set up, and the WHP office in New Delhi became fully functional on February 5 2008.

The team, along with the assistance of the Think Tank, continued discussions with the organization's first donor (anonymous), to refine and finalize plans for a pilot program to establish a multi-tier rural health and family planning service delivery network in Uttar Pradesh.

Project infrastructure

Partners and Outsourced Agencies

One of the first steps taken in setting up the project in UP was identifying partners and specialist agencies for the project. The project operates on an innovative management structure with a small core team. Activities on

the ground, such as training and field sales, are outsourced to local specialist agencies. These agencies work as partners under a specific command structure. The compact core WHP management team allows for better coordination and efficient execution on the ground.

Neurosynaptic, a telemedicine technology company based in Bangalore, is the provider of telemedicine software and hardware for the project. The company is not only a vendor, but also a key partner in the implementation of our TPCs. Neurosynaptic interacts closely with the WHP team to customize their flagship product, ReMeDi, to suit WHP's large scale rural service delivery. Neurosynaptic also assisted WHP in identifying and determining the most appropriate technologies to use in our Telemedicine Provision Centers (TPCs), such as internet connectivity, power supply, energy saving computers and lamps.

Prism, a market research agency started by two former employees of Population Services International (PSI) experienced in social marketing and data analysis, was commissioned to work closely with WHP and the Think Tank in determining field research requirements and conducting all field surveys.

A field logistics agency and a training agency, both experienced in the Janani program, were recruited to undertake field level activities on an outsourced basis. Initially 3 regional logistics agencies were contracted, each to serve 6 of the 18 project districts. As the project downsized, only 1 agency, Purnima Enterprises Private Ltd., remains as the Regional Logistic Agency to serve the 3 project districts with their team of 7 field personnel. Ideas Foundation was contracted to provide all field training to rural franchise providers and assists WHP and Dr. Archana Dayal, WHP's medical director in training of medical doctors. Sai Achiever Trust was originally contracted to provide field and data validation services but their contract was terminated when the project area shrank. Instead, one field personnel from the Regional Logistic Agency will be charged with data verification activities.

To enhance the success of the pilot project, WHP reached out to potential partners and supporters both in the public and NGO sectors. Most important to note is the high level of interest exhibited by the Central, and UP state and district governments. These partnerships and relationships will allow WHP to participate in government output-based aid programs, ensure greater availability of ANMs to the WHP project, and create avenues for directing rural villagers to utilize WHP network services.

Field Requirements and Preparation

One of the first tasks in the field was to select the most appropriate project area and trial sites. Eighteen districts of western Uttar Pradesh were initially selected for their proximity to New Delhi. Five sites nearest Delhi were selected to test telemedicine technology. Other criteria for selection of trial sites include:

- Population large populated villages were preferred
- Geographical location centrally located among the catchment villages
- Infrastructure well connected to the road for accessibility to the franchisee clinic and availability of electrical supply
- Unavailability of MBBS doctor
- Unavailability of public health centre
- Presence of village market access to pharmacies/shops

A comprehensive set of selection criteria was also developed for network providers – Telemedicine providers (TPs), Rural health providers (RHPs), and Franchisee Clinic (FC) doctors. Contractual terms were also drafted for these providers.

Another critical task was to choose a communications system to connect TPCs in rural villages with doctors at the Central Medical Facility in New Delhi. Very small aperture terminal (VSAT) satellite communications system was chosen for its wide availability, despite its high costs. Other preparatory work included purchasing of computers, printers, generators, furniture (computer and exam table) for the trial TPCs. The project procured three GPS devices were procured to assist in the mapping of shops and tracking of rural project sites.

Purnima Enterprise Pvt. Ltd., the Regional Logistic Agency, started its operations on June 1. A regional office and warehouse was set up in Meerut for stocking equipment, medicines and products, devices, IEC materials etc. One project coordinator and 20 field personnel were recruited by the Regional Logistic Agency and trained by IDEAS foundation on 8th and 9th July at the WHP office in New Delhi. It was a two days training that covered roles and responsibilities of field personnel, which included how to pitch and identify network providers, effective communication, family planning products, sterilization camps, and WHP reporting system and reporting formats. It was also decided that handheld devices will be provided to these field personnel to ensure accurate and rapid inventory reporting. The number of field personnel was reduced to six consequent to the downsizing of the project. From there, field personnel started identification of network providers (as per the criterion given by WHP) except for RHPs, mapping of shops and distribution of family planning products. Other activities of the regional office include coordination of training of TPC, functioning as super stockist, etc.

Setting up the Central Medical Facility

Medical director Dr. Archana Dayal joined in April 2008. She immediately began initiating steps to set up the Central Medical Facility (CMF). The initial provision of telemedicine services for the 5 trial TPCs was done by the Dr. Dayal herself to gain experience. CMF assistants and other CMF doctors were recruited thereafter and trained by Dr. Dayal. Other activities in setting up a functional CMF included determining CMF doctor's commission, tying up with hospitals and boarding arrangements for inpatient cases, and development of medical ethics guidelines. A formulary and training curriculum was also developed in collaboration with the Think Tank (more details in the section Collaborative Activities with VS Think Tank: Medical Training Support). There are currently 4 CMF assistants and 3 CMF doctors on board, providing telemedicine consultations from WHP's Delhi headquarters.

Procurement and Commodity Management

Since WHP is not yet an established not-for-profit organization, we cannot participate in government subsidy programs for procurement of medicines and family planning products. For sterilization and IUD services, however, the government has initiated action on a concept note WHP submitted to extend financial support to WHP (Concept Note attached in Appendix 1). Procurement is therefore currently done through Janani and Population Health Services (PHS), MSI's Indian affiliate, who can participate in government subsidy programs. For products that do not benefit from government subsidies (DMPA, IUDs, MVA kits, emergency contraceptives), WHP can get discounts procuring from these agencies due to the large volumes.

In July 2008, a plan for drug distribution and licensing was prepared and submitted to the Drug Department. Products that do not require a drug license have been dispatched to the WHP warehouse. Detailed steps for commodity distribution were developed for transporting products to and from each point of the network. The drug license, valid for five years, was received in November 2008.

During this period, WHP started procuring products from Janani (Style condoms and Apsara OCPs) and PHS (EC, IUDs, MA and DMPA).

Data management planning

Proper data management and warehousing are critical to project success. WHP had discussions with various experts and software companies throughout the start-up period. Different systems and set-ups were considered, but it became apparent that the best option for seamless integration and easy access of WHP's project data - financial data, provider performance, telemedicine patient medical records, field sales data, and biometric data collected at transit clinics — is to implement an application based on a Customer Relations Management (CRM) format with special fields of analysis linked to the telemedicine data system and supply chain system. WHP has found such a customizable application and are currently in negotiations with the Mumbai-based software company, iWeb Technology Solutions.

Franchise Network and Initial Project Roll Out

The delay in starting up operational TPCs forced us to delay the recruitment of other providers, in fear of losing them due to lack of business. Identification of Franchisee Clinics (FCs) was not completed until the end of March, 2009 instead of end of January, 2009. The number of transit clinics held, and the family planning and abortion services provided were therefore lower than planned. But as the achievements in the above paragraph shows, our focus on organizing transit clinics and provision of family planning services at TPCs greatly made up for the underachievement of family planning service provision targets at FCs.

Similarly, although WHP has identified four Diagnostic Test Labs, none has formally joined the WHP network, as the current number of operational TPCs would not sustain interest from a contracted lab. Also, much of the logistics of transporting lab samples needs to be resolved.

Delayed arrival of DMPA and medication abortion (MA) products due to non-availability of stock at our provider, Population Health Services (PHS) explains lower achievement for the period than targeted. The unexpected popularity of IUDs in the project area also decreased the demand for DMPA injections at IUD/DMPA transit clinics, compared to our projections. DMPA are offered at IUD transit clinics due to high incidence of cervical erosion and reproductive tract infections which do not allow for immediate insertion of IUDs.

A full rollout of our advertising and information, education and communication (IEC) campaign, which includes film shows, audio advertisement, posters and handbills, etc. has also been put on hold until the project achieves roll out of 50% of our provider network.

Thirteen ANMs have been identified by the project, nine of these women have paid a down payment and have been trained to be Telemedicine Providers; the other four are private sector ANMs who will provide weekly or monthly services at TPCs and constitute a central pool of providers. Recruitment of ANMs, both as Telemedicine Providers and as visiting nurses at TPCs, proved to be difficult. Most are government employees who prefer a salary or stipend and have no incentive to leave their jobs, or to take risks on starting a new business. There also continues to be a shortage of ANMs, both from the government and private sectors. With the sterilization performance exceeding targets, new and enthusiastic partnerships with district Chief Medical Officers (CMOs), the project aims to train and recruit more ANMs to provide services at TPCs on a regular basis.

Systems and work plans for project implementation and management, documentation, monitoring and evaluation are in place, and are being deployed as the project continues to roll out on the ground.

Collaborative Activities with VS Think Tank

The Think Tank for WHP was established last fall in Venture Strategies for Health and Development (VS) by Gopi Gopalakrishnan, with the purpose of bringing to the new giant project world-class expertise to provide appropriate strategic direction in medical training, branding and advertising, and analysis of data of complex projects. The Think Tank provides operational support and acts as a sounding board for WHP project activities and issues.

Throughout the start-up period and the early implementation stages of the project, the Think Tank helped put things in perspective and connected the pieces - things that can easily be overlooked by the implementing agency. For example, our group suggested including qualitative surveys and interviews in the market research in Uttar Pradesh in order to design a high quality baseline survey and communication strategy. The Think Tank also worked together in collaboration with the team at the design consulting firm Cabra Diseno in providing a global perspective for branding and naming of the networks, to ensure that the identity of WHP and its networks remain both locally and globally appropriate.

The Think Tank provided technical advice on calculating targets for individual family planning methods in the early inception of the project. Our group also defined the operations and relationships among the various network entities through observations in the field.

It was through observations from Julia Walsh (MD, MSc) on her trip to Uttar Pradesh (UP) in January, 2008, that WHP was advised of the importance of auxiliary nurse-midwives at the Telemedicine Provision Centers (TPCs) to ensure effective interaction between the Central Medical Facility (CMF) doctors and the TPCs. On the same visit to UP, Dr. Walsh also provided recommendations on improving ReMeDi's user-friendliness, and observed that the ReMeDi software would require clear protocols and algorithms for the Telemedicine Providers (TPs).

Checkpoints and constant communication with contract agencies have ensured that WHP is receiving the highest quality products possible. For example, Raul Cabra and Dr. Walsh's specialized comments and detailed feedback on the Prism's qualitative research methodology and results have led to a more timely Phase II

qualitative research schedule with improved research outputs. A great deal of Think Tank work has gone into this particular component of the research.

In the following paragraphs we will describe briefly some of the activities of the Think Tank team from the beginning.

Medical Training and Protocol Development

Nap Hosang (MD, MPH, MBA, FRCOG) is the Medical Specialist in the Think Tank, and Raakhi Mohan, MD, MPH, is the Medical Researcher. They work in close coordination with the WHP India team led by Dr. Archana Dayal in clarifying network structure and training needs from a medical perspective. They are 1) ensuring the medical training materials are of high quality and the most up-to-date standards; 2) developing ways to ensure consistency of quality among the WHP network's service providers; 3) ensuring quality of interaction between provider and patient; and 4) providing expert advice on technical issues surrounding medical procedures and methodology.

- 1) Ensuring that training materials are up to date and relevant
 - a. Reviewed and updated training materials from Janani, WHO, USAID, JHPIEGO, FHI and Government of India regarding:
 - Contraception eligibility and use
 - IUD insertion
 - MVA
 - Male sterilization
 - Female sterilization
 - Medical abortion
 - Pain management
 - b. Consultation with WHO GIESEC representative regarding minor trauma training
 - c. Produced training materials for FC doctors on clinical family planning procedures, and abortion.
 - d. Assisted WHP medical team in developing training curriculum.
- 2) Ensuring consistency and quality of services provided by WHP network providers

To ensure consistency and streamlining of symptom management, Dr. Hosang and Dr. Mohan developed an idea to provide the doctors at the CMF and FCs a set of standard algorithms for symptom management, which will be incorporated into the telemedicine software, ReMeDi. The algorithms, focused on reproductive health, are constructed to enable the providers to promote family planning to the women who arrived at the site for another reason. The algorithms in health are designed to ensure that the advice the mothers receive is understandable and appropriate. Although medical diagnostic algorithms are available from other sources such as WHO, the medical team at both the Think Tank and WHP found that these algorithms have too many generations of questions to obtain an effective diagnosis. These were designed for individual physicians in

practice, to help them manage symptoms, in great detail, in a one on one doctor-patient relationship. In addition, in our case where we will be using a rural intermediary (TPs), we need algorithms that are simple enough to allow effective triaging. In addition, the WHO algorithms only lead providers through the diagnosis but not treatment.

WHP identified a flexible medical algorithm software developed by the biggest Indian software company, Tata Consulting Services (TCS), and was able to purchase at a highly discounted price. This customizable software allows WHP to integrate the reproductive health-focused algorithms being developed by the Think Tank into the software, as well as being integrated into the ReMeDi system. This tool will be available to CMF and franchisee clinic doctors and facilitate better diagnosis. A panel of specialists is also currently being formed to help the franchisee clinic doctors provide higher quality care to rural clients closer to their homes. Custom algorithms for vaginal bleeding, headache, vaginal itching and missed period (medical abortion) have been produced, and ready to be incorporated into TCS's software and ReMeDi.

- 3) Ensuring quality of interaction between service providers and patients
 - a. Created reference cards and guidelines for good patient interaction
 - b. Set up mechanisms for coordination of international standards with local practice
- 4) Providing expert advice on technical issues
 - a. Reviewed the record of complications of DMPA
 - b. Reviewed the latest information on managing medical problems that require immediate referral, such as major burns, strokes, asthma attacks, etc. A quick reference guide is being developed for use by the Telemedicine Providers (TPs) and the Rural Health Providers (RHPs) in the villages.
 - c. Researched and designed WHP policy regarding post abortion and post partum IUD insertion & sedation during sterilization
 - d. Designed a survey for Pilot TPC Entrepreneurs and RHPs to assess demand for medical training and collect information to streamline TPC design.

Documentation Support

Dr. Mohan was also responsible for documentation support for WHP for the first few months of the start-up phase. She designed a recruitment presentation to TPC entrepreneurs, created WHP website content and provided guidance on the website design for the webmaster in Delhi for a timely launch of the WHP preliminary website (www.worldhealthpartners.org). She also designed telemedicine center brochures and created a quick reference to project network entities and their roles. Malini Sood, based in New Delhi, was contracted thereafter on a part-time basis to provide further documentation support. She documented of all past and present project activities, drafted content for a WHP brochure, and updated website content.

Marketing, Communications & Advertising

Raul Cabra, the creative director of the design firm Cabra Diseno in San Francisco, and his teammates Sarah Wallace and Kim Duff have provided WHP with a set of guidelines upon which the global marketing, communications and advertising strategy for WHP will be implemented in India and future project sites. These highly experienced branding and marketing specialists have created a global branding strategy as a way to understand the project from the perspective of the public and also the many people involved in implementing the project in Delhi and UP. Using the market research data from the initial surveys by Prism (see below), this group has developed an appropriate underlying identity of WHP, to position WHP to achieve its mission. Based on the organization's positioning and branding, Cabra Diseno has designed logos and an identity system for WHP and its network affiliates. For communicating all this knowledge, Raul Cabra, who is also an experienced designer, administrator, and manager, has transferred this knowledge to the communications group at WHP. He also assisted WHP in the selection of a local advertising agency, and has created marketing, communications and advertising materials for the pilot and brochures for WHP. Cabra Diseno is currently in the process of completing the WHP website design.

Market Research, and Monitoring & Evaluation

Prism is the Delhi-based market research agency working with WHP in Uttar Pradesh. Prism conducted two rounds of qualitative research to provide the project insight on barriers to family planning in project area and assessing the current availability of family planning services and difficulties faced by these providers. Results from these surveys were applied towards the communications strategy and design of the baseline survey. Under the original project scope, Prism was also responsible for conducting the baseline household health and family planning survey and ongoing "dashboard" surveys. Julia Walsh, with much international experience in health data analysis, as well as field experience in low-resource settings in developing countries, was responsible for the monitoring and evaluation for the project. In the early stages of the project, Dr. Walsh has helped, with assistance from two graduate students and a biostatistician, to guide the baseline survey design, which included determining the sample size and sample frame. She has also helped define the scope for Phase II qualitative market research, which is focusing on the range of barriers to family planning.

Dr. Walsh also brought on a doctoral student, Terry Lo, to ensure that the huge amount of data that will be collected not only from the baseline survey, but also from TPCs, CMF, FCs and other sources will be organized in a manner that can be easily analyzed and utilized for decision making. Terry has extensive data analysis and database management experience. He spent 3 months from May – August 2008 in Delhi on a UC Berkeley Center for Global Public Health travel fellowship and partial support from the Think Tank to work closely with Prism and WHP in the baseline survey design and database design.

By September 2008, when the project scope was revised, three sets of baseline survey questionnaires – a women's questionnaire, a men's questionnaire and household questionnaire, had already been developed.

Operational Support

Karen Pak Oppenheimer, the Think Tank's Manager, has provided WHP and the Think Tank with project management support by recommending and developing a functional set of project management tools – web-

based sites, a project plan, and an internal communications plan. She maintains steady communication with the WHP staff, organizes meetings and conference calls of the Think Tank, has assisted Gopi in creating a WHP organizational chart. She ensures constant and timely communication and data exchange by being in close touch with Think Tank members and managers in WHP India. Karen and Think Tank Director, Martha Campbell, PhD, provided ongoing input and support for project proposal and budget revisions through this period, and assisted Gopi in making strategic decisions. Karen and Martha continue to provide high-level project support to WHP.

Policy

Malcolm Potts, obstetrician and professor at Berkeley, has a long history of playing a diplomatic role with government officials in many countries including India to make family planning easier for women to obtain. He introduced WHP to Shailaja Chandra, the head of India's National Population Stabilization Fund, which is supported by the government. This new relationship has potential in expediting project initiatives in the government that could help expedite the work of WHP.

As the WHP Uttar Pradesh project enters full-scale implementation, the group of specialists on the Think Tank will continue in its service capacity around technical advice and problem solving. From project start-up through implementation, the Think Tank has been tracking and will be documenting all project progress and lessons learned along the way.

Policy and Potential Partner Meetings

During this reporting period, WHP kept the state and federal governments fully informed about the project, including opportunities and hurdles related to such a comprehensive service delivery system. The federal government has already initiated internal plans for an output-based payment model based on a concept note submitted by WHP (see Appendix 1). Initially, the plan will be restricted to sterilization procedures but later to be expanded to all services. In Uttar Pradesh, the state government has expressed an interest to integrate elements from WHP's delivery model in order to leverage the resources already available in the public sector.

WHP also met with several projects and organizations trying to improve the lives of the rural poor. WHP has entered into a contract with VisionSpring India, formerly Scojo Foundation, for delivery of reading glasses to the rural clients. This also serves as a revenue stream for the rural providers. A tie-up with a mobile company is underway and would provide another revenue stream for TPs through the sale of SIM cards.

Five TPC Trial

In April 2008, the first of five trial TPCs was inaugurated in Jangethi, Meerut district. Four other TPCs were inaugurated over the following few weeks. The purpose of this trial was to test satellite technology, telemedicine technology, villagers' response to the new technologies and program, pricing structure, and logistics. Prior to start of business, each TPC had the following ready: payment deposited, electrical fixtures installed and necessary earthing completed, power backup available, furniture set up, telemedicine equipment installed and tested, promotional and advertising materials ready. Furthermore, daily caseload at TPCs was

determined, a patient appointment system was developed, cash flow projections were made, orders for medicines were made.

Pre-testing of communication concepts was carried out in June 2008. Exit interview with clients and community members were conducted at all 5 TPCs. Testimonial advertisements using satisfied clients created the greatest impact. The field research findings will be integrated into the new advertising plan by the Indian agency when the final campaign is launched in January.

In August 2008, the entire WHP team made field visits to the 5 TPCs for observation. Many insightful lessons were learned from the trial and field visits. These include realizing the need to set up a full network (TPC must be linked to RHPs and a FC) prior to TPC launch; arrangement of support services like diagnostic services and medicine supply need to be in place; clearer communication with TPs regarding internet usage, communication campaign rollout and their role in it; training needs to include more soft skills such as patient interaction and involvement of the woman entrepreneur; clearer RHP selection criteria, etc.

The project also tested different community activities that would attract villagers to the TPCs such as film shows with question and answer sessions – the first film show attracted 500 people, 100 of whom were women. The first Family Planning transit clinic was also organized where 10 procedures were performed. A total of 70 procedures have been performed out of which, 69 were female sterilization and 1 was a No Scalpel Vasectomy (NSV).

The project has also decided to move from the VSAT technology to radio frequency to establish connectivity between the telemedicine centres and the central medical facility. During the earlier discussions, the RF technology was not widely available and the rates quoted were also higher than VSAT. In the past six months, however, an Indian company has started providing RF services at a cheaper price. The bandwidth will also be higher than what is available through a VSAT system. The project has, therefore, decided to move to RF for all its TPCs.

WHP gained many crucial insights into specific pricing structures and personnel needs from the five-center trial implemented during the start-up phase of the project. One of the subsidiary objectives of the trial was also to understand the degree of comfort clients and providers have with the remote provision of health services. We were pleased to see a high level of interest and comfort with the technology and our project. We also learned the importance of easy, local availability of commonly prescribed medicines, laboratory services, spare parts and other maintenance facilities, and availability of power. The current implementation is applying these lessons to improve on our fee structure, criteria for provider selection, as well as making available the types of services that would create a service delivery structure that has the highest chance of success.

Uttar Pradesh Program Updates and Highlights

Improved recruitment strategy for Telemedicine Providers (TPs)

Providers for the five trial centers were chosen from the most literate segments in the village, who had the resources to make the initial 25% investment and the space available to establish the centers. The woman owners of these centers were



A telemedicine centre owner and her male partner outside their center.

academically well qualified. Though the five trial centers provided 895 consultations, we do not consider these to be adequate caseloads for the centers to be viable. The major hurdle was the absence of business skills among providers who, because of their educational levels and incomes, belonged to the highest castes in the village and expected the clients to come to them without any major initiative from their end. WHP has now restructured our criteria for selection of Telemedicine Providers - the woman Telemedicine Providers are now chosen from families who are already in the health care business. These consist of pharmacists, rural practitioners and practitioners of Indian systems of medicine. These are existing entrepreneurs with a keen sense for business, and an understanding of the healthcare needs of fellow villagers, and therefore are the most appropriate candidates for operating a telemedicine business, managing RHPs, and assisting WHP in holding family planning transit clinics. They believe in WHP's mission and are motivated by the potential high return on investment through operating the TPC and by being a part of the WHP network. This was demonstrated by the great turnout at initial and refresher trainings and the number of clients recruited for WHP-organized family planning transit clinics.

Increased number of providers for Village Health Network

Network Provider Targets and Achievements for 1st 6 Months		
	Targets for this period	Achievements this period
TPCs	100	98
RHPs	1000	1047
Franchisee Clinics	9	12
Diagnostic Test	9	0
Labs		
ANMs	100	13 (9 ANM TPCs, 5 part-time)
Shops	900	1421

A total of 103 TPCs, including the five trial centers, joined the WHP provider network this period. However, four of the initial five trial centers were removed from the network because they were found no longer fit to operate a viable business and for their lack of motivation in contributing to the network. One ANM previously identified to operate a TPC was also found not to be a good fit after initial training. Therefore, the total number of Telemedicine Providers remaining in the WHP network at the end of this period is 98. The number of RHPs, Franchisee Clinics and Shops recruited were higher than initially planned due to an identified need for greater coverage. Although a few Diagnostic Test Labs were identified during this period, none had officially joined the network. This holdup was caused by project implementation delays. As mentioned in the Executive Summary, only 13 ANMs were identified due to their shortage both in the private and public sectors. We expect that our partnership



A salesperson replenishes supplies at the telemedicine centers, franchisee clinics and shops at regular predetermined intervals.

with the public sector will allow us to increase the number of part-time ANMs available to provide monthly services at TPCs.

Communications Technology

Apart from the delayed FCRA clearance, full project implementation was also delayed due to changes made to our internet communications strategy. In November, the Think Tank and an information technology expert at UC Berkeley introduced WHP

to a wireless technology that would provide greater bandwidth at lower costs. However, the local vendor in India provided false promises: Towers up to 100 feet instead of the previously quoted 10 feet masts will have to be installed in villages, some on the roof of TPCs, which is infeasible for the project. This experimentation costs the project 3 months' time. In February, the Government of India contracted with Hughes Communications to provide broadband internet services in rural areas in multiple states, including parts of UP. Broadband connection will also provide greater bandwidth and lower costs for the project. And in late February, WHP contracted with Hughes to provide internet connectively for our TPCs. The set up process took a couple of months, but the first 25 TPCs are now successfully connected via broadband to the Central Medical Facility (CMF) in New Delhi.

Improved and Expanded Training Curriculum on Family Planning

The project brought on Dr. M.S. Jayalakshmi, who recently retired as Deputy Commissioner at the Ministry of Health and Family Welfare, as a short-term consultant to strengthen WHP's family planning strategy. Dr. Jayalakshmi is an avid promoter of long term family planning methods, particularly IUDs. Within one month of her arrival, she has expanded and strengthened the family

planning portion of the training curriculum for Telemedicine Providers. She utilized her connections to connect WHP with government clinics and ANMs. With support from government clinics and training curriculum she developed while still at the ministry, she trained ANMs in IUD insertions and gynecology, and improved the methods in training FC doctors in sterilization procedures, in particular, mini

laparotomy. Dr. Jayalakshmi will spend the rest



An ANM at a telemedicine center.

of her 2 months at WHP to streamline our strategy on family planning service provision, namely IUD and sterilization services.

Public-Private Partnerships

A partnership with district Chief Medical Officers of the public sector has been struck to allow WHP to utilize government ANMs. In return, WHP will provide advanced training and a way of enhancing the skills of the ANM. The availability of a government ANM at each TPC on a planned cycle will expand IUD provision sharply.

The project has forged an alliance with National Agriculture which administers over 600 self help groups (SHGs) of women through 3 local NGOs. Once the WHP network is fully established, these SHGs will be used to direct clients for family planning services at TPCs and FCs.



An ANM and her helper visit a TPC to provide IUD services periodically.



ANMs being trained in IUD insertions. The classroom training on mannequins precedes training at TPCs.

Appendix 1

Expanding CSMP beyond Non-clinical Methods: A NOTE FOR DISCUSSION (Submitted to the National Rural Health Mission on August 14, 2008)

Introduction

The Contraceptive Social Marketing Programme (CSMP), since its launch in the late 1960s, has played a stellar role in expanding the availability of condoms and oral contraceptives in India. The programme accounts for an estimated 50% of the use of these methods in the country.

It is perhaps time that the success of CSMP and insights available from four decades of programming in partnership with the private sector serve as the foundation to deliver other methods more widely and cost efficiently. There are vast medical and paramedical resources available in the private sector and they can be leveraged to address the demographic and development goals of the nation.

The suggestion to integrate clinical methods into CSMP is not new—it was considered numerous times in the past. However, for a variety of reasons, primarily inadequacy of monetary provisions, it could not be operationalised. With the advent of the National Rural Health Mission and the flexibility and professionalism which allow for innovations under public-private partnership, it is perhaps time to revisit the options. The easy availability of technological solutions and India's role as a software powerhouse are also factors which augur well for setting up foolproof systems that will validate outputs and prevent abuses.

This brief note is an attempt to consider the elements of this evolution.

Strategy for clinical methods: Strengthen sterilization, re-launch IUDs

Successful family planning programmes across the world show that each country, for a variety of cultural and promotional reasons, develops its own set of favoured methods—IUDs and female sterilizations in China, injectables in Indonesia, IUDs in Vietnam, oral contraceptives in the Philippines, just to name a few. In India, the mainstay of family planning is sterilizations and all states that have reached the couple protection level that will stabilise population have done so with sterilization as the main driver.

In view of the relatively young age of the population, however, the provision of sterilization needs to be supplemented by other long term methods. This note recommends a two pronged strategy viz.-a-viz. clinical methods:

- expanded provision of sterilization services specially in the EAG states and
- concerted efforts to re-launch IUDs whose potential has remained vastly untapped.

Private medical and paramedical providers: An untapped resource

There are an estimated 5.5 lakh registered providers of modern medicine in the private sector. A reputed Indian economist estimates the country's investment in creating this resource in the order of \$22 billion. Most of these providers are urban and their provision of clinical family planning is extremely limited though every single method of contraception is legally allowed to be provided by them. Some of them may need training and registration but that is only a short-term exercise.

The situation regarding paramedical providers is less uncertain. The country has a shortage of nurses and most private providers use local persons, often not formally qualified but are trained in situ to provide paramedical support. With the government reactivating nursing schools, the situation should improve in the foreseeable future.

Sterilizations: Some states are far behind

States running successful family planning programmes have demonstrated that the optimum level of sterilisations is over 8 per 1000 population. This means the potential across India for sterilisation is about 9 million procedures though only less than 50% are currently being achieved. In states like Uttar Pradesh, which in combination with Bihar will determine the demographic trajectory of India, the figure is less than 2.5. There is an urgent need to rectify the situation.

The Indian programme has come to depend on laproscopic sterilization in an unsustainable way. It indeed is a more sophisticated method to provide female tubal ligation but requires availability of specialists. With only about 30,000 ob-gyns in the whole of India, most of them in major metros, there is an urgent need to undermedicalise provision of sterilization procedures.

Techniques that have been available for over a decade enable MBBS doctors to be trained to provide minilaparatomy procedures without the need for general anesthesia. The doctor uses sedation and local anesthesia for pain management. In environments where infrastructural support is weak, provision of minilap procedures minimize the risk of anesthesia to clients.

Janani, which has been providing about 40,000 sterilisations a year, has till date provided only minilapratomy procedures despite working in some extremely low resource settings and has demonstrated that large scale provisioning is possible when creatively handled.

IUDs: Time to recognize potential

The thrust to improve IUD coverage in India will require two broad steps:

Availability of trained ANMs and doctors close to the clients, especially in rural areas

- An aggressive communication campaign to demystify the method
- IUDs require effective follow-up systems as the method does not suit everyone.

The discouraging experience with Lippes loop in the 1960s and 70s needs to be addressed. The availability of improved technologies like Copper-T, safeload and hormone-releasing devices provide us this opportunity.

Re-engineering CSMP

This note suggests a broad strategy under the public-private partnership articulated under NRHM to improve the availability of clinical family planning methods, especially in states that have fallen behind. To achieve this quickly, decisions need to be implemented at district, state and central levels. While this note touches upon the first two levels to give a holistic view, its focus is primarily with the steps that need to be taken at the central level.

This note recommends three-step system. Depending on the caseloads that an individual or institution is able to deliver, procedures need to be established to ensure oversight and streamlined financial transactions. Such an approach is premised on the fact that the private sector providers come with varied capabilities: ranging from individual providers who can deliver only small number of procedures, state organizations which may work in multiple districts and may do procedures in their hundreds, to national level organizations which work across states and can provide procedures in the thousands. A one size fit all approach will not help.

Up to 100 procedures a year -- Private providers or small organizations operating will deal directly with the district authorities as per the provisions already available with NRHM. The district administration will arrange in collaboration with state authorities to train the providers, if needed, before registering them for participation in the scheme. The providers will be entitled to a payment of Rs 1,500 as per the norms already prescribed in the project. The Chief Medical Officer will verify the provision on the basis of demographic profile and client information to redeem the claims.

Between 100 and 2,000 procedures a year: Institutions and organizations that cover more than one district will enter into a contract with the state government for training and registration as in the case of individuals mentioned above. Special biometric and visual identify of the beneficiaries will be a prerequisite attachment with the claims. A professional agency will be appointed by the state to verify the claims on a randomized sample basis. The agency will be paid Rs 1,450 and the Rs 50 will be used for meeting the expenses of the validating agency.

Above 2000 procedures: Institutions and organizations that can mount large scale sterilization programs will participate under the expanded CSMP. A contract on the lines of the current social marketing programme will be signed with all participating agencies with the state governments fully involved in all decisions. All agencies will file biometric and identity information to CSMP under copy to the state government and a professional agency, decided between the centre and states, will validate the claims. The service provided will be paid Rs 1,400 and the Rs 100 will be used to cover the expenses toward validation.

Conclusion

It is recommended that the expansion starts with sterilizations as they are easier to validate and within six months expanded to cover IUDs. Expanding CSMP is administratively easier than setting up a completely new system at the central level. In fact, when CSMP was expanded in the mid-1980s to include oral contraceptives, it was done through an internal administrative decision.

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