

# SEVAGRAM TO SHODHGRAM

*Journey in search of health for the people*

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## Preface

People, now-a days are talking on cell phones all the time or are busy on the computer, Their minds may collect lots of information, but their hearts start losing sensitivity. They become self-centered. They confine themselves to the narrow world of information and people that can help add up to their prosperity. They isolate themselves from the people who live in constant shortages.

Dr. Abhay Bang, in his speech has called American culture a huge School, an industry that propagate `Iism. "What will I gain from This?" This `Iism is fast spreading in our cities too.

Self-centeredness can be understood but there are some people who are averse to the very people whose labour and exploitation make their living comfortable and luxurious."They don't study; they get drunk, then they have to suffer, "that is what they say about the poor and the have-nots.

If we try to understand why these people's children do not study we will realise that they do not have an atmosphere conducive to education. There is no role-model around them. They suffer from mal-nutrition even while in their mother's womb. As a result, quite often they are uneducable or slow learners. They have health problems that remain untreated.

Abhay Bang and his wife Rani, both doctors, after studying in America's John Hopkins University decided to work among some of the poorest people in remote village of Gadchiroli in Maharashtra. Through their research they have reached the root-cause of rural ailments in general and infant mortality in particular. Their organisation is called `SEARCH' an acronym for Society of Education, Action and Research in Community Health.

Social work means working with the people and not for the people. When you are working for the people, you are doing charity, giving donations from a higher platform to people with outstretched hands. Bang couple are true social workers. From the limited local resources, they have

designed simple tools like 'breath-counter' for detecting pneumonia, and from among the local illiterate mid-wives and youth who barely have elementary education, they have created teams of health-workers for 'Home-based Neonatal Care'. There are many amazing feats they have done, which are narrated in Dr. Abhay Bang's speech he made at Bruhad Maharashtra conference in Canada in 2001. The original speech was in Marathi. With a view to reach it to a larger readership, I have translated it in English.

I am thankful to Shri Deepak Doshi, editor of Gujarati Magazine `Navneet-Samarpan' and Shri Tulsidas Somaiya of Sarvodaya Mandal for their co-operation in publishing this booklet.

- Usha Sheth



## Publisher's Note

The doctor couple Abhay and Rani Bang are known to me for many years. I am aware of the wonderful work they do. Dr. Abhay Bang's speech regarding their work was published in the December 2005 and January 2006 issues of the Gujarati magazine `Navneet Samarpan'. The well-known Gujarati writer Smt. Ushaben Sheth approached me with a proposal to publish it in a booklet form. Gandhiji had said that the worth of a person's work has to be gauged from who are its beneficiaries. Bang couple works for the most deprived people. It is a Gandhian task. Without any hesitation, I decided to publish the booklet. This revised edition is translated by Shri Arvind Gupta

With his research and social service Dr. Abhay Bang has been able to understand and solve many problems of rural health and bring these to light not only before the Indian elite, but the whole world.

I am confident that this publication will inspire many young people.

**Somaiya T.R.K.**

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## **Sevagram to Shodhgram**

### **Background**

Dr Abhay Bang is a well known name in Maharashtra. His work on child mortality or his autobiographical story of struggle with his own heart disease has shaken Maharashtra and thousands have been inspired to change their lives. Here Dr. Bang is narrating his life story, his journey from Mahatma Gandhi's Sevagram ashram to his current abode – Shodhagram in tribal Gadchiroli. The occasion was the convention of Marathi people in North America who had assembled in Calgary, Canada in 2001.

Writing later on about Dr. Bang's this speech, one of the participants Dr. Prakash Lothe, a paediatrician in the US, wrote, "At the end of the address, there was no one in the twelve hundred strong audiences whose eyes were not moist and whose throat didn't have a lump. The convention gave a standing ovation to Dr. Bang for the fifteen minutes. If the organisers of the convention had not planned any other program, still the convention was worth for Dr. Bang's speech alone!"

Let us listen to his story from his own lips.



## SEVAGRAM TO SHODHGRAM

□ Dr. Abhay Bang

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Let me begin with a story by Mulkraj Anand. A little boy is off to a village fair holding his mother's hand. The fair is full of captivating shops. The boy sees colourful balloons in a shop and wants one. But the mother has no money. So they move on. In another shop he sees embroidered red, green and yellow caps. The boy wants a cap. But the mother says "No". As they pass a sweetmeat vendor the boy smells mouth watering *barfis* and *jalebis*. He craves to taste them. The mother again says a "No". By now the boy is furious at his mother. "You're a bad mother," he says. Just then the boy loses his mother's grip and is lost in the milling crowd. Suddenly he feels afraid and lonely. He starts crying and

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desperately searches for his mother. The balloon seller appeases him saying, "Come boy, take a balloon, don't cry." The boy replies, "I don't want the balloon. I want my mother." The cap seller tries to gift him a cap. But the boy says, "No cap, I want my mother." The sweet seller says, "Eat this candy." "No, I want my mother," the boy insists. When his mother was around he wanted every single goody but now he wanted none of them. He only pined for his mother.

America offered you all the luxuries and comforts; but somewhere the mother has been lost! Today we gather here in search of our lost mother and to rediscover our common roots.

## Everybody's Story

What prompted me to choose today's topic '*Sevagram to Shodhgram*'? While thinking about what I should speak, I chanced upon a quote which said: "I hate quotations, tell me what you know!" That jolted me. It cautioned me "Don't try to show off your scholarship. Speak only what you know."

I haven't anything to flaunt – no status, no power or no wealth. So, coming here, what could I possibly bring? I am like poor Sudama entering the golden Dwarka of Lord Krishna. What gift could I possibly carry? I have brought you just a story - my own story. Ignore the "me" in the story and look at the journey. The heroes in the story are ordinary people – simple folks who make our society. I am only a narrator. Though it's my own story it could be yours too, or anybody's. The famous psychologist Carl Rogers never tired of saying, "Things we consider most personal are the most general." An experience we consider exclusively ours is often felt by all human beings. In essence human beings are the same everywhere - whether in California, Calgary or Gadchiroli.

So, this story could be anybody's and everybody's story.

**Mahatma's Magic**

I spent my childhood in Gandhi's 'Sevagram' Ashram in Wardha. The place where I now live in Gadchiroli is called 'Shodhgram'. Today, I'll recount my journey from Sevagram to Shodhgram.

Gandhi's influence on my life began even before my birth. Under Gandhiji's guidance the first college was started in Wardha where students were taught in their own mother tongue. My father was a scholar who majored in economics winning five gold medals and was invited to teach economics at the Wardha College. In 1942, during the Quit India Movement my father went underground. He was imprisoned by the British for 2-3 years and was released only in 1945. By then, British rule was on its last leg and freedom was very much in the air. My father thought of studying advanced economics in an American University. This way he would serve his country better. He got admission in Ohio, also got a scholarship and visa too. He bought a ticket for the journey by ship.

In 1945, going to America for higher studies was a singular achievement for any Indian. Before proceeding my father went to the Sevagram ashram to seek Gandhiji's blessings. Gandhiji was seated cross-legged on a mat in his hut - Babu Kutu and bending forward he was writing. After salutations my father went and sat next to him. The Mahatma looked up - his bushy moustache, round glasses and piercing gaze gave him an aura of a historic figure. My father said, "Babu, I have just been released from jail. I am leaving for America to study economics and have come to seek your blessings."

Gandhiji looked at my father for a moment and then uttered just one sentence, "If you want to study real economics then instead of America, go to the villages of India." He resumed his writing.

My father quietly came out of Babu Kutu and right there tore up his admission letter and travel documents. Within a month of this he went to live in a village near Wardha with a group of 10-12 students. There he tried to understand the basics of rural economics by living and working like a farmer.

Fifty five years have passed since then. At 83 my father still travels to all corners of India, spreading Gandhi's message with the same missionary zeal.

In what lay Mahatma's magic? His one sentence was enough to change the course of my father's life. Practise what you preach, was the Mahatma's mantra. When he came to Wardha from Ahmedabad, Gandhi went to live in an ordinary village named Shegaon - which later was named as Sevagram. So when sitting in a hut on a bamboo mat Gandhi gave the call, "Go to India's villages," his words and deeds were unified which gave his words the power of mantra and millions followed. His strength lay in his actual living!

It is in this haven that I spent my childhood.

While I was growing up in Sevagram Gandhi was no more. But still his presence was palpable everywhere - in his hut made of bamboo and mud; in the ashram's prayer ground and in the fields. You felt him in the cow shed; in 'Kabir Bhavan' where *khadi* was woven; in the hut where Gandhi massaged a lapper - Parchure Shastri; and certainly in my own school! My school was started by Gandhi and Rabindranath Tagore. My mother was its principal. This *Nai Talim* (New Education) school was the most amazing school - almost magical. The education was imparted not mainly in classroom and through books but by actual living and doing. The life was spent in rhythm with the nature and culture during which the science and arts were taught. The school remained shut on the days of the Bhoodan March (movement for land donation to the poor) to enable children to participate in social movement. As a child I took part in it too.

Once walking alongside Vinoba, Gandhi's spiritual heir, holding his hand I mulled for long time about social problems and then abruptly asked him a serious question: "You urge people to donate land and develop village granaries. That's fine. But won't the rats feast on those grains? What about that?"

Vinoba was amused and had a hearty laugh.

### Tryst with Destiny

One day my elder brother and I were riding bicycle on a road along a village. He said, "Abhay, now we are grownup." I said, "Yes." I was thirteen and he sixteen. We thought it was a time we should decide the purpose of our life. Standing on that road we thought for five minutes. Villages were poor and sick. They needed food and medicine. My brother said he would improve agriculture. I had no choice left but to accept the remaining challenge. I said, "I'll become a doctor."

On that fateful day, we had a tryst with destiny. We both stuck to our promises. Thus, at the age of 17 years, I entered medical college where I studied medicine for nine years.

It was in medical college that I met my future life partner - Rani. On the very first day in college a friend drew my attention to a girl standing besides a dissection table deeply absorbed in the dissection of human body. He said: "Here, look at Rani Chari from Chandrapur. She topped the entrance test last year but being under age she could join only this year. As you are this year's topper so, from now on, you'll be directly competing with her. She is very brilliant, be careful!" But as my friendship with Rani grew, I found a very transparent compassionate human being eager to serve people. Despite coming from a wealthy family she still preferred to wear ordinary cotton sari, no jewellery and stay in a hut. Our life's dreams and aspirations were quite similar.

### Kanhapur

After completing M.D., Rani in obstetrics & gynaecology and I in internal medicine, we got married and started medical work in a few villages near Gandhi's and Vinoba's ashrams in Wardha. Our choice was in tune with the political climate of that time. The emergency imposed upon the nation by Mrs. Indira Gandhi had just been lifted. In 1978, Jaiprakash Narain beckoned India's youth to go to the

villages for developmental work and social change. Many people like me enthusiastically responded to this call. Our dream was simple. The majority of our people suffered ill-health in far flung villages with no access to modern medicine. We wanted to bring them medical aid and simultaneously transform the villages! '*Social change through service*' was the simple motto with which we commenced medical work in Kanhapur – a village near Wardha. During our three years stay we perhaps examined and treated every single villager! The farmers of Kanhapur liked us personally and tolerated our efforts to improve them.

Then suddenly a terrible mishap occurred. A labourer by the name of Ajabrao Evante was working on a threshing machine on his master's farm. Accidentally his hand got completely crushed in the thresher. We went immediately for rescue but there was not much we could do. His hand was amputated in the hospital. He recovered in a few months but having lost one hand he became a beggar. We believed not just in dispensing medicines but also in social justice. So we pleaded with the employer to compensate Ajabrao with three acres of land. The majority of farmers in Kanhapur disliked our suggestion. They feared it would set a wrong precedence and all future accident victims would demand compensation! We still persisted. A village assembly was called at night to debate the issue. Normally hundreds of people would attend our meetings but only three turned up that night! When we picked the microphone to address the invisible audience who, we thought, were listening from their homes. As we spoke, people pelted stones at us. The village where we treated patients with medicines was ironically returning the favour with bricks and stones!

That was a chilly, winter night in December. Our limbs were cold and our hearts frozen. The dream lay shattered! Shell-shocked we somehow managed in the dark night to return home from Kanhapur.

This taught us our first lesson – village problems cannot be solved by merely providing medicines!

Where did we go wrong in Kanhapur? After a few days, we summoned courage to go back to the village and ask. Villagers in a matter of the fact manner, said – “You came here to serve us as doctors. But while our health problems remain unsolved, you want to act like political leaders. So we were angry.” They had a point. We realised that our approach – running a clinic – was too inadequate and our goal – to change the entire society – too lofty. We decided to become more grounded in reality. If we could improve health of the people in villages – that would be sufficient goal in itself. We started searching for methods to assess and improve health of the population. This is called public health.

During this search we discovered that most of the research on diseases affecting our people had been done by foreigners. Malaria - a disease transmitted via mosquitoes is widely prevalent in India. But the basic research on this Indian disease was done by a British doctor - Ronald Ross. He researched in India and unravelled the mystery of malaria transmission to the world. Cholera is another epidemic Indian disease. Its cause - the *Vibrio cholerae* germ - was discovered by Robert Koch – a European, who did his research in India. A pattern seemed to emerge. Whereas foreign scientists had shown vision and courage to do research on Indian diseases, Indian doctor-scientists usually stayed away from their own villages.

The question of how to do relevant public health research in Indian villages finally led us to the Johns Hopkins University, Baltimore, USA. Our aim was to learn the science of public health research. America is a dollar intoxicated country; but it is also a knowledge intoxicated country. The Johns Hopkins University was a rich repository of knowledge on medical research in Indian villages. Here we learnt the fine art of research and ways to generate new knowledge. After finishing our Masters in Public Health we decided to return to India. Before our departure our teacher Prof Carl Taylor asked us, “You are returning to India for good, what gadgets and equipments are you carrying back?”

We had cartons of books, loads of papers and only one gadget - a slide projector as an educational aid! With this cargo we returned to India in 1984.

We wanted to find ways to reduce diseases and death in India’s half a million villages. We started searching for an appropriate work place. We had already received invitations from several big institutions based in Mumbai, Delhi and Pune. They provided good research and residential facilities. But there was a problem – all these places were far removed from the villages. We were still grappling with the question - where to start work. That’s when a comic book provided a clear answer. We had bought this collection of Akbar-Birbal stories for our four year old son Anand. One story went like this - King Akbar once asked his vizier Birbal, “Go and bring the ten greatest fools from my kingdom!” The first nine idiots were easy to round up. But, the tenth fool eluded Birbal. As the time allocated by the emperor was running out so Birbal was anxious. In the pitch of dark he went up and down the streets of Delhi looking for a fool. Around midnight he spotted a man searching for something in a shaft of light. The man searched for long time without any apparent success. Birbal inched closer and asked him, “What are you searching?”

“I lost my diamond ring. I’m searching for it but just can’t find it.”

“I can see that you are not able to find it. But, tell me where did you loose it?”

“I lost the ring in the far away jungle, on the other bank of river Yamuna.”

“Then go search there. What on earth are you doing here?”

“It’s dark where I lost my ring. So I’m searching it in the light here.”

The ring was lost in the dark jungle far beyond, but the fool was searching it on the road of Delhi, simply because it was lighted. Birbal found the tenth fool.

Birbal found his fool and we found ours. This is how most medical research is conducted in India. Our villages are plagued with health problems, but most of the research institutions are located in the cities – where electricity,

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air-conditioned offices and facilities abound. Only thing missing is the problem to be solved! We got the message. “We will go where the problems are.” Years ago, the Mahatma had said the same thing – Go to the villages of India. That was our tryst with destiny.

### Gadchiroli

This was why we chose to work in Gadchiroli. In 1982, the district of Chandrapur was divided. Gadchiroli, a very backward area was declared a separate district. It was mainly inhabited by the indigenous tribal people (the *Adivasis*). Situated at the Eastern end of Maharashtra, 1000 km from Mumbai, Gadchiroli is located 200 km south of the city of Nagpur. Almost 60% of its land is covered by forests where teak, *mahua* and bamboo grow in abundance. This is the same Dandakaranya forest described in Ramayan and Mahabharat. The district is flanked with rivers on three sides. The large Vainganga River flows on the West front. When this river is in spate it causes all small rivers and rivulets to flood and cut off roads. Farming is the main source of livelihood and paddy is the staple crop. People spend four months in the monsoons cultivating rice. The other eight months are tough when people live off the forest by collecting wood, *mahua*, *tendu* leaves, seeds and fodder. This in essence is the rhythm of life in Gadchiroli.

Poverty abounds. According to government estimates 80% of the people live below the poverty line. In the third month of our stay there, one day I saw a woman collecting something in the grass. This quizzed me, so I went close by and asked her, “What are you doing?” She was collecting grass flowers and seeds in her basket. “What will you do with them?” I again asked. She told me that there was not a grain to eat in the house. She would cook the grass flowers and seeds and feed them to the children. Even in this 21<sup>st</sup> century the people of Gadchiroli are doomed to eat grass! During lean months when food becomes scarce people have to starve and their bones begin to show. This month of

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scarcity is termed “*Haduk*” (meaning bone).

The indigenous people constitute almost 40 % of the district’s population. The *Madia Gonds* primarily live in the forests. Tribal



art forms and icons adorn many houses. Superstition and blind faith abounds. Many still firmly believe that all diseases are cured by goddesses ‘*Marai*’ and ‘*Gadadevta*’. To ward off diseases people place wooden idols under the *mahua* tree on the outskirts of the village. People resort to witch-craft and charms to rid them of diseases. On the outskirts of every tribal village is a hut. During menstruation women cannot stay with their families and are supposed to stay in this hut called *Korma*. Menstruating women are not supposed to touch anyone, so some of them even spend up to ten days every month isolated in this dismal hut! Primitive beliefs and age old traditions seem to govern every aspect of the people’s lives.

In 1986 bullock carts were the mainstay of transport in Gadchiroli. But at times, especially in rainy season even they



The secluded hut where women had to stay during menstruation

failed. One of the rivers is *Kathani*. The government decided to construct a bridge across the river. But because the contractor mixed too much sand in the concrete, the central pillar of the bridge sank bringing all work to a complete halt. The bridge was left incomplete. Today this unfinished bridge



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stands testimony to corrupt government schemes and has become a symbol of stalled progress in Gadchiroli. During monsoons the overflowing rivers wash away roads and cut villages from the rest of the world.

In 1986, Rani and I reached Gadchiroli. I am able to address you here today because Rani is ably managing the work in Gadchiroli. I may appear alone here, but she is very much with me in spirit. On our arrival the people of Gadchiroli affectionately offered us a run-down warehouse where they stored *tendu* leaves. “Do whatever you want in this,” they told us. So, we started our research and training there, even housing the computer centre in the warehouse. We placed a board with the word SEARCH on the warehouse. To find relevant solutions to rural health problems – this was our SEARCH!

A month after we arrived there were massive floods. Gadchiroli was submerged and our rented house was inundated with water on all sides. We were cooped inside the house for full seven days! There was no electricity, drinking water, vegetables, telephone, post, nothing whatsoever. This was our first experience of life in Gadchiroli. This is how our real search started!

## Sevagram to Shodhgram Learning from the People

Our earlier experience in Kanhapur had taught us that problems cannot be solved by foisting our “ideas” on people. So this time we decided to let people articulate their own needs and priorities. We met lots of tribal people and asked them “What are your main health problems?” “What can we do?” We soon realised that only the village leaders spoke in formal meetings, but ordinary people kept mum. So, we gave up that format and instead met people informally at night by a small bonfire. In such a congenial atmosphere the tribal people poured out their hearts. We held such meetings in forty villages asking people questions like, “Even when seriously ill, why don’t you go to the government hospital? Why don’t you avail the existing facilities?”

The tribal people replied, “We dread going to a hospital.”

“Why are you so scared?”

“We are afraid of the huge hospital. We get lost in multi-storeyed buildings. We are terribly afraid of the doctors and nurses dressed in pristine white.”

“Why does their white uniform trouble you?”

“We wrap our dead bodies in white before we bury them.



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So, how can people wrapped in white, save our lives?”

They had other problems too.

“In the hospital people speak a strange language which we do not understand. After our patient is admitted the hospital asks us to leave. We are told that we can visit our patient only between 3 to 6. We don’t have watches. Our homes are far away – sometimes over a 100 km away from the hospital. There is no place for us to stay. Often when the patient sees his relatives leaving, he also wants to return home. Sometimes he runs away from the hospital. He would rather die at home in the company of near and dear ones than be left alone in the hospital.”

Their final problem was: “There is no ‘god’ in the hospital. How can a patient get cured in a place where there is no god?”

So we decided to have a hospital which would respect the fears and feelings of the people - a place where they would feel loved and cared; a place where the tribal people would feel at home.

We started constructing hospital which resembled a tribal hamlet. It had a waiting room for the incoming patients.



**Ghotul : Community house of the Gond tribal**

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Traditionally, the *Gond* tribal villages have such a hut - the ‘*Ghotul*’. It is a guesthouse for outsiders and also a place where young boys and girls come to sing and dance in the evening. The hospital’s waiting room was designed after a ‘*Ghotul*’.

Hospitals have no place for the patient’s relatives to stay. How to solve this problem? A modern hospital ward with 40 patients in a hall is tailor made for the convenience of doctors and nurses. They can see many patients in one glance. But such wards are awful from the point of view of the patients! They have no privacy in wards. How about a hospital made up of several huts – each patient staying with his own relatives in a hut! In turn the relatives take care of their patient. The tribal people simply loved this idea. Before we could get into the act the people from Udegaon came and started erecting huts for the patients of their village. Other villages followed suit. Within a year our hospital – an ‘assembly of huts’ was ready.

The hospital was being built. What should be the name of the hospital? The people suggested “Ma Danteshwari Hospital.” Danteshwari was the supreme goddess in the tribal pantheon. Hence the name. I had returned from the USA just a few years ago. I did not quite relish the name and suggested, “Let’s give a more modern name.” Just then one tribal woman got up and said, “Doctor, this is not your hospital. It is ours.” What more could we ask for?

This is how the name “Ma Danteshwari Hospital” was sealed.

### Tribal Health Assembly

Danteshwari is the supreme goddess of the *Gonds*. Faith in their goddess inspires the people to go to the hospital to get cured. So, the tribal people wanted a temple of the goddess in the hospital. Why shouldn’t we leverage people’s faith for a good end? So, we built a temple dedicated to Ma Danteshwari right at the entrance of the hospital. On arrival, the patient first prays at the temple and then enters the

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hospital. We tried to reach health care messages to far flung villages through the medium of goddess Danteshwari. If we told the people that germs caused diseases they would have disbelieved us. However, if people were told that Ma Danteshwari wanted them to stay clean and get vaccinated then they would be convinced.

An annual fair has been started in the name of goddess Danteshwari which attracts people from 50-60 tribal villages. This fair is a song-dance extravaganza interspersed with sessions on health care. In this 'tribal health assembly' people discuss health issues threadbare and chalk strategies to tackle them. These become people's own initiatives. They are not dictated by us or by someone from faraway Mumbai. After returning home the committees further discuss and refine these proposals with the whole village. This is how the final action plan evolves.

In the first tribal health assembly people were unanimous that Malaria was their number one health problem. Often half the villagers were down with fever, so they were unable to work in the fields or do other chores. How to combat this dreadful scourge? We suggested a few alternatives from which the people were free to pick and choose the ones which suited them best. Three point program of insecticide

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spraying, using bed-nets and treating cases of fever with anti-malarials was adopted by the Assembly.

In every village we trained a health volunteer to take blood smear to test for malaria and treat. The priest "*Pujari*" who dispensed medicinal herbs and performed religious ceremonies was also trained. SEARCH members went with their medical kits to areas where malaria had taken a huge toll and trained people in combating it. The programme began with the active participation of the local tribal population. We proposed bed-nets treated with insecticides. The tribals accepted these and started using them. Three years later an evaluation was done to assess the effect. Malaria was 60% less in these villages compared to the neighbouring villages not part of the initiative.

*Shodhgram* (Search Village) is the name of the campus from where we conduct our work. It has been designed to represent Gandhi's ashram and a tribal village. Situated inside the forest among tribal villages it is here that we live with colleagues and their families. It is from here that we treat, train, research and seek solutions to people's health issues with their active participation.



Entrance to Shodhgram

### Women's Woes

Everyday Rani examined patients' in the clinic. She was a competent gynaecologist so village women came to her in large numbers. Rani observed that majority of the local women suffered from gynaecological problems. It was a general belief at that time among the public health experts that women in underdeveloped countries suffered only due to pregnancy, delivery and needed family planning. But here the women had many other gynaecological problems too. However, the health situation in the community could not be assessed by studying only those women who came to the hospital - they were ill anyway. Study of hospital patients alone could not give an estimate of the overall prevalence of disease in the villages. We needed accurate data to ascertain the extent and types of gynaecological problems in the villages. Were the problems really as highly prevalent as we thought them to be?

We tried to dig out data from the National Library of Medicine in Washington - the largest medical database in the world. We searched for statistics on gynaecological problems in developing countries but found none. There were large databases and hospital statistics on developed countries but they were irrelevant for our situation. So, we planned a research to estimate the prevalence of gynaecological problems in rural women in Gadchiroli. For this purpose all women in the community - ailing or otherwise, had to undergo a medical check-up. This was the only scientific way to establish the real magnitude of women's diseases. Village people are quite secretive about the gynaecological issues of their women. Who would be willing for this kind of research? - we wondered.

We were quite stumped when two villages Wasa and Amirza actually invited us to conduct this research. The day of inauguration was celebrated like a festival in both villages. In a culture where even speaking about women's gynaecological problems was a taboo, the people of this very backward region not just welcomed research on women's

sufferance but celebrated it too! This surprised us no end.

Within six months we examined majority of women in those two villages. The findings shocked us - 92% of the women were found to suffer from gynaecological problems. Women working at home or in the fields suffered ailments of the uterus and vagina - infection, swelling and menstrual problems. Out of these only 8% women had received any treatment whatsoever.

### From the Grassroots to Global Impact

In 1989, this study was published in the world renowned medical journal *Lancet*. The title was: "*High prevalence of gynaecological diseases in rural Indian women.*" This research, it turned out, was the first of its kind. It created a worldwide splash and forced health policy makers to take a fresh look at women's health needs in poor countries. The impact it created prompted top American scientist to term it as, "The study of the decade in women's health in developing countries."

Our research led to a global discussion on women's health. Health policies and experts have all along goaded women to adopt family planning measures. But if they suffer such gynaecological disorders would they accept family planning? Would gynaecological infections not predispose to the proliferation of AIDS? These issues were discussed threadbare in many seminars. This was also the period when the women's health movement was gaining ascendancy and our research strengthened its stand. There was a perceptible shift in the World Population Policy declared in the Cairo Summit of 1994. Instead of emphasising only "birth control" the policy changed and started stressing on "Women's Reproductive Health". It gave us enormous satisfaction that the research done in two remote villages could contribute to a major shift in the World Health Policy.

**Sevagram to Shodhgram**  
**Reaching out to Women**

Our research did make some difference to the world. But did it bring about any change in Gadchiroli? When 'local' research gets published 'globally' it does not necessarily change the situation at the grassroots. We decided that the women of Gadchiroli had the first right to this information! This knowledge had to reach every village of Gadchiroli. In 1988, we drew up a blueprint for – '*Women's Awareness and Health Fair.*' It was an eight hour cultural programme – with a skit, dance, drama all pieced together. It travelled from village to village. Village women, normally tight-lipped about their gynaecological and sexual problems, enthusiastically came in huge hordes to see the exhibition.

A play titled '*When a Husband Gets Pregnant*' was the highlight of the health fair. The story was simple. By some freak accident a husband gets pregnant. He undergoes all discomforts of pregnancy - vomiting, swelling on feet and pain in belly. But despite great suffering he is unable to deliver the natural way and has to undergo a caesarean operation where a daughter is born! This play was a runaway success. People turned up in large numbers to see the play.

We however, noticed something unusual. As we went from one village to the next, men from the previous village came to see the play in the next village. When asked, "Why have you come here?" they replied, "We were in the fields when the show was held. When we returned home our wives insisted that we must go and see the play." When the local MLA (politician) found women thronging the play he put forth a proposal, "Doctor Sahib, please change the title of the play to '*When an MLA Gets Pregnant*'. Then I will myself enact the role of the husband."

This cultural programme helped in reaching relevant health information to women. The women had a lot of problems but nowhere to go for advice or treatment. If the problem became very severe they would simply ask some old woman, "I have a white discharge or a belly ache, what should I do?" They couldn't discuss their problems openly

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and there was no place to get treatment.

Where would these women get treatment? There were virtually no doctors in villages. How about using the village mid-wives? Every village had one or two elderly, experienced traditional mid-wives who helped with child-births. So we invited mid-wives from over 50 villages and trained them in treating women's ailments. As the classroom instructions would be boring and ineffective, so dance, drama and mime were abundantly used for training. It wasn't a cakewalk for the trainees. They took months to even learn to wear gloves properly. After getting trained the mid-wives could give relevant medical information to village women, observe cleanliness during delivery, use antiseptics and medicines for common ailments. Finally the first batch of mid-wives finished their training. The day was celebrated like a graduation ceremony. When they left for their villages with their kits slung on their shoulders, there was a gleam in their eyes.

Our collaboration with the mid-wives continued for over 12 years, but one question always perplexed us. What motivated the mid-wives to associate with us? We did not pay them. Their clients paid them for what they 'delivered' but that wouldn't have been much. Guests visiting SEARCH



**Illiterate mid-wives gather to receive certificates as health workers**

## Sevagram to Shodhgram

often ask the mid-wives, “Why do you come here? Why do you work with SEARCH?” The mid-wives replied, “Coming here enhances our prestige.”

Once a guest doctor, wanting to probe deeper, repeatedly asked them, “You certainly must be getting some money from SEARCH. Otherwise why would you come here again and again?”

One elderly mid-wife couldn't stomach it anymore. She aggressively asked the guest, “Doctor, do you have a wife at home?”

“Yes,” replied the guest.

“Does she ever visit her parent's house?”

“Yes, she does,” replied the doctor sheepishly.

“Why does she go to her parent's house? Does she get paid? We come here for the same reason. This place is like our parental home.”

The wizened mid-wives learnt a great deal from Rani for which they were profusely thankful. They felt deeply indebted to her and in return wanted to give her something. One of them took Rani aside and said, “You have taught us a lot. Now can I teach you something?”

“What will you teach me?” asked Rani.

“I know a thing or two about how to kill a husband. I'll be happy to teach you this art!”

Surprised, Rani asked, “Why should a woman kill her husband?”

“At times the situation demands that husbands be killed – especially if he is a habitual drunkard. Sometimes a woman can get attracted to another man and that's when she doesn't want her husband. This is a traditional skill which I will be delighted to teach you.”

It was my supreme fortune that Rani did not learn this art!

## Women's Wisdom Bank

The women were repositories of traditional wisdom and had so much to teach. What could we learn from them? As we came closer to them and explored their world view we discovered two rich treasure troves of wisdom.

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These women were walking-talking “botanical” encyclopaedias. They knew the names and uses of over 300 varieties of local plants and trees. Seen through the eyes of women,



these plants looked very different. Women had songs, stories, legends which described trees as blood relatives. The plants provided them with food, medicines, wood, fodder, rope and scores of other things. All that we learnt from these women, their traditional wisdom, has been collated and published in a volume titled ‘*Goen*’ – which means in the local language ‘a female friend’. For the women, trees were their true friends.

We also discovered that the local women in villages had a rich vocabulary of words describing their sexuality and reproductive processes. These words were in Marathi the language they normally spoke. Since these words were seldom spoken in public, they remained obscure. Rani after hours of chats with hundreds of women gleaned those special ‘key words’ which so aptly describe their sexuality. She also collected information on their sexual and reproductive thought processes and behaviours. All this information has been published in a book titled ‘*Kanosa*’ which means listening to whisperings. I feel ‘*Kanosa*’ is a milestone book. For the first time in Marathi we have a collation of the key words used by rural women to express their own sexuality and reproductive life.

## Death of a Child from Khursa

One evening in Shodhgram I returned home at around 7 PM. It was raining heavily and was dark outside. Suddenly, two women rushed into my house through the door - a young mother accompanied by her mother. The young mother held a

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weak infant in her hands. The child's skin was wrinkled and it was all bones. It looked like a live "mummy" and was gasping.

I immediately got up and placed the child on my bed for examination. It was very seriously malnourished ill. The stethoscope revealed bubbly sounds in the chest. He had with pneumonia as well. And before I could do anything it stopped breathing. It died on my bed while I helplessly watched.

"What had happened to the child? Why didn't you come a little early?" I asked.

Between sobs they recounted their story. They came from a nearby village Khursa. The young mother lost her first son so she was happy when she became pregnant again. The family was miserably poor. Her husband was a drunkard while she worked as a labourer. Food was scarce. On the top of it she suffered from malaria during pregnancy. Thus foetus didn't grow well and was born weak. It was not breast-fed for the first three days - this being the local custom. Later as the breast milk failed the child was bottle-fed on ordinary milk diluted with three parts of water. The child remained hungry and cried continuously which made its voice hoarse. The unclean, contaminated feeding bottle gave him diarrhoea. The mother tried magic cures and charms but that



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didn't help. Someone advised her to stop milk. Then on they fed the child on a dilute gruel made of sago which made the child weaker still. There was no local medical help available and they had no means to travel. The husband being a drunkard didn't care. The young mother herself suffered from malaria and the child from pneumonia. When the child became critically ill they went to the witch-doctor; who sacrificed a fowl but to no avail. Finally they walked and came to our hospital. Though their village was just four kilometres, travelling even this short distance during the monsoons was an ordeal. The river was in spate. The proposed bridge stood unfinished. They waited. With every passing moment the child's condition deteriorated but the river swelled. They could cross it only in the evening when the flood receded. By then, it was too late.

From a purely medical point of view it is easy to list the causes. The child was born low birth weight, contracted diarrhoea, got malnourished, developed pneumonia and finally died. But the story is not so simple; it has many tragic layers and is intricately linked to an unjust social system. For instance, why was the child born weak? Because the mother did not have enough to eat so the child's malnourishment began in the womb itself. Pregnant mothers often ate less because of fear that a heavy child could create complications during delivery. So, the foetus is deliberately starved to ensure an easy delivery. According to local custom the baby was not breast-fed for three days after birth. A contaminated bottle gave him diarrhoea. No local medical help was available. The family resorted to a witch-doctor due to superstitions. In the end the child was fed sago gruel which increased malnourishment and made him vulnerable to pneumonia. Still no medical treatment was available. The distance from the village to the hospital, the river in spate, the unfinished bridge - if we count them all, we can list eighteen causes for the child's death.

Eighteen causes for the death of a child is depressing. How and when will we eliminate them? When will our women become literate? When will they get enough to eat? When will

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we win the fight against malaria? When will malnutrition be banished? When will the bridges be completed and when will the corruption eradicated? All this may not be possible.

But perhaps we need not wait to solve all the eighteen problems. In this chain of the causes of death, if we can break just one single link, then the whole chain will automatically snap. If the woman was educated; if the husband abandoned the bottle; if superstitions were eradicated - if health services reached the home; if the bridge was constructed; if the pneumonia was treated in time - if any of these things had happened, the child might have survived.

This problem challenged us. We started research to reduce child mortality. The hundred odd villages in Gadchiroli became our laboratory. We carefully recorded every child birth and death in these villages. In the first year we estimated that out of 1000 infants born, 121 died within one year. Terrible! What caused the most deaths? It turned out that pneumonia in children caused 40 % of the infant deaths. The researchers from other countries also gradually found similar figures. The dreaded pneumonia was the number one killer of infants throughout the world.

### Pneumonia

What could be done? Pneumonia can be treated with antibiotics. However, to diagnose pneumonia expensive X-ray machines are needed. They are unlikely to reach villages, where even a stethoscope or a doctor is difficult to find. What could one possibly do? Children frequently develop ordinary cough, cold and phlegm. Was there a simple and sure way of diagnosing pneumonia in a child with cough? Was there an effective way of delivering the necessary antibiotics?

Dr. Frank Shan in Papua New Guinea found a simple and effective way to diagnose pneumonia. If the child's breath rate was over 50 per minute then it was most likely to be pneumonia. This diagnosis could be done without the help of a stethoscope or X-ray. It was a superb, low-cost technique and we decided to adopt it. There were still other issues to

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contend with. Will the parents of the sick child come to get medicines? Cough is a common malady. How will they distinguish between ordinary cough and pneumonia? Will the medicines reduce the death rate? A field trial was necessary.

We chose 104 villages for our field trial. It was a controlled experiment where we provided treatment in only half of the villages. In the remaining villages we just observed the results of the ongoing government health programmes and private practitioners. The net difference in two areas could be attributed to our treatment.

We started educating the parents. How do people suspect that their child has contracted pneumonia? Using locally prevalent words for describing pneumonia would certainly make communication more effective. The local words for breathlessness were '*lahak*' and '*dhapa*' and pneumonia was '*dabba*'. So if a child with cough had '*lahak*' and '*dhapa*' he may have '*dabba*' and should be immediately treated. This was easily understood by the village folks. We also printed all this information in posters to aid communication.

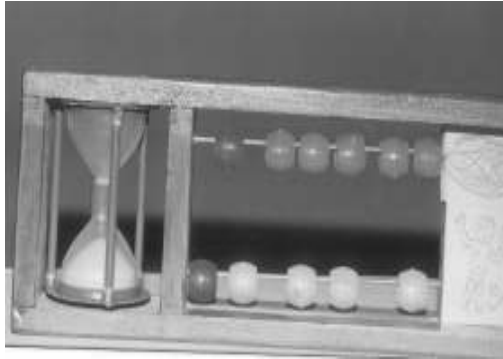
A fifth or eight class pass youth in each village was selected as the '*Arogyadoot*' or messenger of health from each village. He was trained to examine children suffering from cough and to count their breath rate. If an infant two months or less, had a breath count of more than 60 per minute then he was likely to have pneumonia. Similarly, an older infant with a breath rate of more than 50 per minute was likely to be suffering from pneumonia. The educated boys could do this quite easily. The challenge was to teach the illiterate mid-wives to count breaths.

### Breath-counter

The mid-wives could not count up to 50 but they were adept at counting up to 12 because that made a dozen. For their benefit we designed a simple breath counting instrument which consisted of a one-minute sand timer along with two horizontal rows of beads. The upper row had 5 beads: four green and one red; while the lower had 6 beads: five green and one red.



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**Breath-counter for the illiterate mid-wives**

The mid-wives had to sit in front of the child sick with cough and simply upturn the breath counter. This started the clock. For every ten breaths they had to shift one bead to the right. For an infant above two

months, if they shifted all the five beads on the “upper” row to the right with the sand clock still running (i.e. less than a minute) then it meant the child had pneumonia. For diagnosing infants below two months the lower row with six beads had to be used. The traditional midwives did not know whether the breathing rate was 40 or 50 or 60. They only knew that if the last (red) bead was moved before the entire sand passed, it was pneumonia. So simple!

After training the midwives in this technique we tested their abilities. They had to test 50 infants with cough using the breath counter. Later I tested the same infants using a stethoscope. We independently diagnosed pneumonia. It was surprising to find that 82% of the results tallied! As if the mid-wives had become 82% doctors of pneumonia!

The low-cost breath counter proved a boon in diagnosing pneumonia. The *Arogyadoots* and mid-wives started treating the children with pneumonia by using antibiotics. We kept a meticulous record of treatments and of births / deaths and watched the results of the experiment with bated breath. Children receiving antibiotics had a mortality rate of just 0.8% as compared to 13% in children who got no treatment.

In the last 12 years the *Arogyadoots* have treated over 6,000 children for pneumonia. We have fed all this data in our computer. The death rate has plummeted to a mere 0.5% which means that 99.5% of children with pneumonia have been treated successfully. It proved that unschooled

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midwives and semi-literate village youth could be trained to successfully treat pneumonia. The Infant Mortality Rate (IMR) due to pneumonia was brought down by 74% leading to a decline in the overall IMR by 25%. In 1990, this research was published in the *Lancet*.

Did the research have any wider ramifications? According to the WHO, every year 4 million children die of pneumonia all over the world. India alone accounts for a million deaths. Can these deaths be prevented? By using simple techniques demonstrated by us mortality could certainly be brought down. A global conference on Acute Respiratory Infections held in Washington in 1991, passed the following resolution: ‘Train millions of community health workers to diagnose and treat pneumonia in children, ensure antibiotic supply and educate mothers about pneumonia.’ This resolution was based on the work done by SEARCH and other researchers. Today this method of pneumonia control is being used in over 77 countries.

## Newborns in Unlit Rooms

We were able to bring down the Infant mortality rate in Gadchiroli from 121 but then it got stuck around 75 to 80 for the next five years. The reason was easy to understand. Remaining deaths occurred largely in newborn infants within the first four weeks of birth. Majority of infant deaths were occurring in newborn babies.

Now, it is generally believed that an ill newborn infant can only be treated in a hospital having a Neonatal Intensive Care Unit. Expensive equipments and hospitals seem to have become essential for the health care of newborn infants. The WHO seems to concur with it. WHO had even issued a warning – don’t try to treat an ill newborn infant, immediately rush her/him to the hospital. But the difficulty is there are no specialised hospitals in the villages. The ones which exist in cities are exorbitantly expensive and totally unaffordable. So parents of suffering newborns prefer not to go anywhere. Wait at home helplessly with a sick newborn!

**Where are these babies born? Where do they die?**

Every year 26 million babies are born in India – 75% in villages. Of these 84% are born at home, not in a hospital. The conditions in which most children are born in Gadchiroli can only be described as pathetic. This photograph was taken in a village Mudza. Two days earlier a cow delivered outside and a woman delivered inside. If you enter in this house from this door, the dark and dingy room on the left is the home delivery room. Every year in India 20 million children take birth in the darkest and most suffocating room at home. They are born, cared for and they live or die there. More than a million new born infants die each year in India in such places.



These dark, dingy rooms became our next battleground – *Kurukshetra*. How to take health care there? We chose 39 villages in Gadchiroli for active intervention in this new field trial. Another 47 villages were selected where we did not intervene. At the end of the experiment we

wanted to rigorously assess the success / failure of our intervention. Will our work cause any difference between two areas? For the first two years we simply collected data of births / deaths in both areas. The baseline birth rate, infant mortality rate, and new-born death rate were almost same in both areas. Then our health programme commenced in 39 villages. Meanwhile the government health schemes in the other 47 villages continued as before. We continued to collect and record data. Thus, started a real life field experiment.

Before intervening we first tried to understand the prevailing reality. What was happening? Pregnant women seldom eat well, and the delivery room was usually dark, dingy and dirty. After delivery all attention was focussed on the mother. The baby was totally neglected; left uncovered;

subsequently it was bathed twice a day with cold water. The infants head was not covered with a headwear. Even if the newborn became seriously ill it was not taken to a hospital but treated at home with magic charms! “Newborn survives or dies – depends on God’s wish.”

To change the existing reality we must first collect data about the existing reality. Rural newborns suffer from which diseases? How many? But the only statistics available were from hospitals. Researchers had hardly ever visited the dingy homes in villages where majority of the births took place. How could they? A baby can be born anytime without doctors or nurses. Who will visit them to observe? Who will keep a record of their illness? In order to collect data on newborns in villages we decided to train barefoot rural researchers.

Kajubai – educated till class seven - of the village Ambeshivani is one such rural researcher called Arogyadoot. We selected 39 such Arogya-doots, one woman from each village, and trained them as Village Health Workers. They would be present at the time of delivery. Their duties involved examining the infant, weighing it, recording the body temperature, checking for normal breathing and keeping a detailed record. They also would keep a record of the infants who fell ill. They had to visit homes regularly for a month and keep a record of the breath count, weight, temperature and any other problems.



In the first year, the Arogyadoots collected detailed data on the health of 763 infants. Twice a month doctors from SEARCH met the women workers and went through their records to ascertain if they were correct. The Arogyadoots at this stage were not trained to treat neonates. Attempts were made to admit ill infants to the hospital but most often were resisted by the parents. All these data were fed into the

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computer. 42% of the newborns were malnourished at birth and were easy prey to diseases. 54% of the newborns suffered from diseases which required medical treatment. We were surprised by this burden of disease suffered by newborns. But, how many of them got treatment? Just 2.5%! The tiny newborn babies required urgent medical aid; but their parents didn't want to, and most often couldn't take them to the hospital. What could be done in such circumstances? We scratched our heads.

### How far a mother can walk with a sick baby?

The first People's Health Congress was held in China in 1951. It discussed issues like: How to design the country's health services? Where to locate hospitals? After a lot of debate a wonderful rule of thumb was adopted as a national guideline. 'How far a mother on foot can walk with a sick baby? Health care must be available within that distance.' How much distance was this for the sick babies in Gadchiroli? They couldn't be taken out of the delivery room. In our villages there was a traditional taboo on the newborn and the mother leaving the house. So, health care to new-born babies had to be provided right in their homes.

We drew a blueprint for 'home-based newborn care.' There are four pillars of this. The mother is the first pillar in this plan. Observe any mother how she adores her child and looks after it with utmost care. The mother has the greatest stake in the child's well being. She is a born neonatologist – an expert in infant care. Our first endeavour was to educate the mother in newborn care – what will enhance her child's survival and what practices might cause illness and death. All this information was put in a familiar "snake-ladder" game. Using this and many other games the SEARCH team periodically conducted group education programme for women in all the 39 villages. After two years we took a test to check the results of the 20 health messages we tried to impart. There was nearly 80% change in knowledge or behaviour on at least 18 counts out of 20! To bring about a

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change in behaviour and attitudes is a tough task. The old habits die hard. We all know it from our own experience. But surprisingly there was marked positive change in the behaviour of these village women. Grand-mother is the second pillar.

The Third pillar of newborn care is the village midwife. She is certainly the first person who comes into contact with the infant after birth. The fourth pillar was the barefoot health worker or the Arogyadoot who had been exclusively trained to examine neonates. Now they were trained to treat sick newborns. Before

they graduated to infants these barefoot workers first practised their new skills on dolls. If the baby does not breathe at birth it has to be restored within five minutes



otherwise it will be dead. The health workers have been taught to give artificial respiration using simple equipments called bag-and-mask.

In villages infants are often left naked and uncovered. This makes their whole body cold. The Arogyadoots were trained that the child needs to be kept warm. A weak infant has to be wrapped in a tiny sleeping bag and then placed in his mother's lap. In modern hospitals weak infants are kept in an incubator, but for our neonates the home made sleeping bag and the mother's body is the incubator!

Thirty to fifty percent of the deaths in new-born babies are caused by infection. Some of these can be avoided by maintaining hygiene. But if infection does occur then antibiotics have to be given within hours. When to administer antibiotics? The *Arogya-doots* were trained to diagnose the conditions when antibiotics had to be given. Sometimes injections of gentamicin would be necessary and those too

## Sevagram to Shodhgram

the health workers learnt to administer. The Arogyadoots were trained for all eventualities. We were all set.

### Can they?

At this stage we invited ten leading paediatricians from all over the country to Shodhgram. We wanted them to examine the Arogyadoots and certify whether they were competent to dispense treatment or not. These specialists included Dr. Meharban Singh of the All India Institute of Medical Sciences, New Delhi the doyen of neonatology in India; Dr. Ramesh Potdar, a leading paediatrician from Mumbai and the President of the Asian Congress of Paediatrics. These ten specialists grilled and examined all 39 Arogyadoots for three full days. In the end Dr. Meharban Singh gave a certificate with these words: "These ordinary looking women of Gadchiroli – these village health workers – know more about neo-natal care than the medical graduates of the All India Institute of Medical Science."

The expert committee gave us their blessings and a green signal to embark upon this bold experiment. After this the Arogyadoots started providing 'home based neonatal care'.

What were the results? Earlier 17% of the infants with infections died because of lack of cure. The Arogyadoots used their training well and administered medicines when necessary and brought down the death rate to just 2.8%. They did not misuse their training. They gave injections and antibiotics only when required. Some comparisons might well be in place. In Boston's neonatal nurseries some 6% of the newborn babies were given antibiotics – which was almost the same proportion in which the Arogyadoots administered antibiotics in Gadchiroli. Did the injections cause complications? The Arogyadoots have administered over 8,000 injections to infants. Every baby was later on visited by a supervisor to record any complications. So far none has been recorded. The neonates were safe in the hands of Arogyadoots.

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### Saving Lives, at Lower Cost

How did this programme affect the Newborn Mortality Rate (NMR) in the area? In the comparison area where we did nothing the NMR remained at 60, but in the area where home based neonatal care was provided the NMR drastically dropped from 60 to 26! This meant that the neonatal care brought down the newborn mortality by 62%. In America if the NMR drops even by 10% it is considered as a major achievement. Even the World Health Organisation dreads to treat a new-born at home. Its advice is loud and clear: "A sick newborn must be hospitalised." But given the dearth of special hospitals it was impossible to get an infant to the hospital. This fear had become an impediment in providing care to sick neonates. Gadchiroli showed the way.

How much did the 'home-based neonatal care' cost? The costs were Rs 350 for each new-born, Rs 8,000/- for the whole village. The costs of preventing one death, or saving one life came to Rs 7,000/- If this saved child lived for 60 years then the survival cost would come to just Rs 115 per year. You could give one year of life at the cost of Rs 115! If out of these 60 years of life, economically productive years are 23 (as the WHO assumes for India) one economically productive year can be gifted to India at the average cost of Rs 350!

The World Bank and the WHO have worked out the cost to save human life for one year by various health programmes. Under most of the mother and child health programmes the cost to save human life for one productive year has been worked out between Rs 5,000 to Rs 10,000. In the Gadchiroli model of 'home-based neonatal care' this cost is a mere Rs 350/-. This shows that good results need not cost the sky.

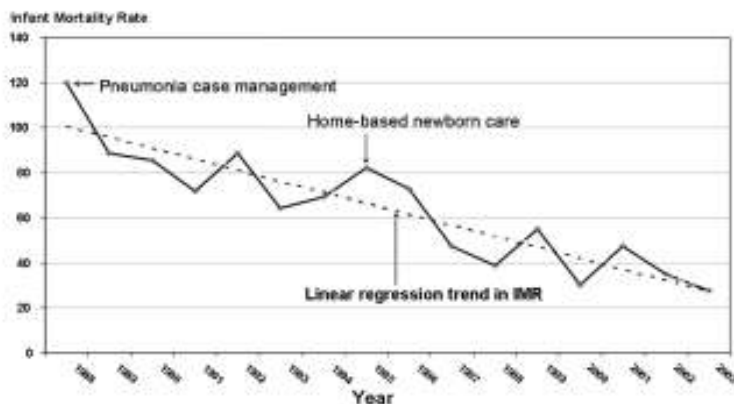
A detailed research paper on this experiment was published in the December 1999 issue of the *Lancet*. It caught global attention, and over the years, it has begun a new paradigm in newborn health in developing countries. Recently the *Lancet* editor and historian have identified the

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selected best papers published in 180 years in Lancet. This paper - the only one from India - was included in this special volume, 'The Vintage Papers in Lancet'. To explore possibilities of replicating this approach in other parts of the world the WHO recently organised a meeting. The Indian Council for Medical Research (ICMR) drew up a plan to introduce Gadchiroli's health model in five states. The Bill Gates Foundation has just made a grant to 'Save the Children' for replicating this health model in other developing countries. Governments, voluntary organisations or researchers in India, Nepal, Bangladesh, Pakistan, and four countries in Africa have introduced this approach in their countries.

This local research had a global impact. Who did this miracle? Ordinary rural women - mothers, grandmothers, village midwives and the Arogyadoots - using simple messages and tools did this miracle. Here is a sample of the equipments - weighing scale, bag and mask, thermometer, mucus aspirator, syringe and needles. All these equipments can be carried in a shoulder bag. With these basic tools and with new knowledge in their head, skills in their hands and love and compassion in their heart, these ordinary looking

**The Infant Mortality Rate in Gadchiroli (1988 - 2003)  
39 intervention villages**



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women could turn every home and hut into a virtual newborn intensive care unit!

Look at this graph of the infant mortality rate (IMR) in the 39 intervention villages in Gadchiroli. In 1988, when our work started, the IMR was 121 per thousand births. Within two years of starting the pneumonia treatment this came down to 75-80. For the next 5 years it remained stationary. Later, with the introduction of the 'home-based neonatal care' programme the IMR got drastically slashed. Within three years it reduced to 39; in the year 2000 it was just 30. Thus, the IMR plummeted from its peak of 121 to just 30!

The majority - close to 80% of the people in Gadchiroli live in villages below the poverty line. 60% of the women are illiterate. The hospitals if they do exist are bereft of doctors. Social change occurs at a snail's pace. But even under such conditions of poverty much could be done. The unschooled rural women could become agents of change and bring down infant deaths in Gadchiroli.

The problem of high IMR is not limited to Gadchiroli or for that matter to India. In most underdeveloped countries the IMR is above 50-60. In Canada it is just 6. We have to go a long way to reduce the IMR in India. How much needs to be done? According to the WHO figures, in 1996 a total of 5 million new-born infants died throughout the world and a total of 11 million children died that year. By using the Gadchiroli health care model these deaths could be curtailed by 60% and annually 6 million children could be saved from death.



(36)

## Sevagram to Shodhgram Research with the People

There is enormous power in research. Archimedes once said, “Give me a long enough lever and I will move the earth!” People in his days laughed at him. But now we know that he was right. Today, knowledge is that lever. The power of knowledge is extraordinary and it can change the world. According to Alvin Toffler, capital and industries are symbols of wealth of the past. Information and knowledge are the new forms of power in the 21<sup>st</sup> century. People who create and control knowledge will be powerful. These changing power equations are impacting the nature of social service too. Today instead of only treating patients individually, thousands of patients can be treated through a community health programme. Quality research in community health can go even further; help thousands of communities and save millions of lives.

However, there are two prerequisites to such research. First, it’s crucial to select the problem in consultation with the people and also develop its solution with their participation. Second, the research should not be used for getting patents or for personal aggrandisement. Instead, the benefits of research must reach those who need it most. It must better the lives of the poorest. This kind of research could become the new paradigm for the social sector.

Who taught us this? Gandhi taught us to go to the villages of India. America taught us how to do rigorous research. The people of Gadchiroli suggested their burning problems as the research topics and also gave us the strength to solve them. The essence of our journey is summed aptly in this Chinese couplet:

Go to the people  
Live among them  
Love them,  
Learn from them  
Begin with what they know  
Build up on what they have

We have followed the above dictum to the dot!

## Sevagram to Shodhgram Child Deaths and You

The audience assembled here is Marathi. You may ask me, “How does your research affect the people of Maharashtra?” The high rate of infant mortality is not confined to Gadchiroli alone. Every year children die in different parts of Maharashtra. In Nandurbar district alone 500 children died because of malnutrition. Last year lots of children died in the Aheri taluka of Gadchiroli. The year before that in the Melghat area of Amravati district, and prior to that in the Dhule district hundreds of children died. Year after year children die for the same reasons– hunger, malnutrition and absence of medical facilities.

Solving a problem begins with the measurement of its magnitude. “Nothing exists until it is measured” said Niels Bohr. To estimate the number of child deaths in Maharashtra we formed a group of 13 voluntary organisations. In the last two years the members of this group have meticulously studied 231 villages in 10 different districts, along with six slums in the cities. Altogether, we were able to survey and collate information from over 2, 00,000 people. Based on this study, titled ‘Kowali Pangal’ (shedding of the tender leaves), it can be estimated that the number of children who die every year in Maharashtra range between one to two hundred thousands. The number of deaths in the Latur or Kutch earthquake was just ten thousand. The number of children’s death in Maharashtra far exceeds. Ten to twenty earthquakes every year!

Friends, why this neglect of our little ones? Children are helpless human beings. They can’t vote, they wield no political clout or money power. They can’t protest, go on strikes or write letters of condemnation. They can at best cry, then their bodies become cold and they quietly die. And we have been letting them die. We could easily prevent 60% of these deaths but still we let them die. Khalil Gibran had said: “Without the tacit consent of the entire tree, not a single leaf can fall.” In Maharashtra, the death of between 1, 00,000 to 2, 00,000 children every year has our consent. It’s our

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responsibility to stop this genocide. We can't say, "These children are weak and poor; and according to the law of survival of the fittest, they will not be able to compete and must die." We can't say this and shrug our responsibility.

Wendell Berry put this in perspective: "Cockroaches and rats struggle to remain alive and survive on the basis of the nature's law of survival of the fittest. But human beings have the honour to live by the rule of justice and compassion." How can we provide this human dignity to these helpless infants?

### Liberate Yourself

You are all Non-Resident Indians (NRIs). The views of NRIs hold a powerful influence in India. Their collective strength can do a lot. However, there are some problems. America and Canada are rich countries almost like paradise wallowing in luxuries and comforts. This gives them a detached, insular and narrow outlook. "Why should we bother about the problems of others?" aptly describes their attitude. The people living in these countries gradually internalise the same attitude and become apathetic. The TV programmes here seldom highlight serious problems afflicting India.

Recently, I read a joke. An international organisation conducted a global opinion poll and asked people from various countries: "What do you think about food scarcity in the rest of the world?" The poll was a complete disaster. The Russians did not understand the word "think"; the Canadians didn't know what "scarcity" meant. The Africans did not understand "food" and Americans didn't know what "the rest of the world" was.

The other problem is with the American culture. This culture is a mega-industry of rabid individualism. People here are trained to see things through the prism of their own narrow self-interest. Same is happening now in India too. "What's in there for me? How will I benefit?" This kind of "Me-ism" can never be satiated. It is a bottomless pit. This insular, self-seeking attitude slowly alienates and atomizes

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people living here. They are bothered about their own prosperity alone, and ignore the rest of the world. But alas! Soon, trapped in their prison, they feel alienated and yearn for liberation. The way to liberation is by being connected to the whole, to others.

Gandhi once said: "There is enough on this earth for everybody's need, but not for everybody's greed." Avarice can never be satiated. Bill Gates is the richest person in the world today. But is he satisfied with his wealth? Doesn't seem so. That is why he is seeking liberation in the humanitarian work by way of the Gates Foundation. To limit ones desires; to empathise with others sorrow and to remain connected to others is only human. This is the path of liberation. We need to build a bridge of love, compassion and action so that people can walk this bridge to reach out to peasants struggling in the fields, and to sick children. This way you can save humanity and liberate your self.

This is my humble plea. Take up a cause not with a view to oblige others, but for your own self-liberation. When greed clouds our vision what should we do? A troubled soul once asked Gandhi a similar question to which he replied:

*"I shall give you a talisman. Whenever you are in doubt, or when the self becomes too much with you, apply the following test. Recall the face of the poorest and the weakest man whom you may have seen, and ask yourself, if the step you contemplate is going to be of any use to him. Will he gain anything by it? Will it restore him to a control over his own life and destiny? In other words, will it lead to swaraj for the hungry and spiritually starving millions?"*

*Then you will find your doubts and your self melt away."*

While staying in America or Canada what can you do for the people in India? There are many sterling examples among you – despite living here they have contributed substantially to India. Think, "What can I give? What's the most valuable thing I have?" It's my life. I can devote part of my life for a noble cause. What else do I own? I have access to knowledge and I can give that. But that knowledge should be appropriate and relevant for the Indian situation. America

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has many Indian researchers but for whom do they work? Most of them work for some American corporation and their research might only make the company richer.

When will you take up causes like - can the wheel of the bullock-cart be made lighter? How to raise the water level in wells? How to wipe a runny nose without hurting the child's delicate skin? These are small big problems. If we research on such small but relevant problems we can certainly help our villagers and make their lives more bearable. Do you want to do it?

You have another task – to caution the people of India. Today the NRIs' voice is important and powerful. The NRIs have become the darling of the Maharashtrian middle class. Living abroad has both its advantages and disadvantages. This we all know. But many in India are foolishly aping the West. They need to be told that this is not the right path. If people with material depravity say this, then it carries little weight. But when prosperous people like you tell them, "This is not the path to happiness," then your words carry great import. Caution the Indian middle class that the road to happiness and contentment does not necessarily go via America.

Our celebrated cartoonist R. K. Laxman drew a discerning cartoon. It showed an ascetic with a long beard meditating on a peak of Himalayas. A helicopter lands there, a Western clad man alights from the helicopter and asks the ascetic, "Where can I find peace and contentment?" The ascetic, a little perplexed, replies, "How would I know? I am myself an American!"

And lastly - reduce your consumption. It is killing the Earth. "Live simply so that others may simply live." Maybe, you could start an organisation in the USA and Canada named, "Friends of Children of Maharashtra". Wherever there are Indians they could form small groups and collect money for a good cause. Or else, they could devote 2 weeks or 2 months in a year to work in the villages in India. Or else, it needs only 150 US\$ to save one life. You can collect and send that amount to India.

A sceptic can legitimately question: "The task is

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enormous, how will saving one life help? How will working in one village help?"

Once during a storm in the sea, millions of fishes were tossed on to the beach. The fishes struggled to get back into the water. Some lay gasping for breath in a heap. A man walking on the beach saw a monk picking up the fish and tossing them one-by-one in the water. On landing in water the fish would swim away and disappear. The man walked to the monk and asked, "What difference will you make by throwing a few fishes in the water?" The monk kept mum. He picked up another fish and chucked it in the water. As the fish swam away he said, "It certainly made a difference to this fish!"

Friends, you can make a difference!

The poet Dushyant Kumar wrote –

"Who says that the sky can not be penetrated?

Just pick up a stone throw upwards with all your might  
and see."

Just do and see.

