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WE LEARN THROUGH OUR FAILURE THE EVOLUTION OF A COMMUNITY-BASED PROGRAMME IN DEENABANDU



Also in this issue: Immunization Update

Editorial Note:

The programme described in our article "We Learn Through Our Failures" relates the experiences of Drs. Hari and Prem Chandran John in moving toward community-based health care in a project started by Prem John's father in a remote area of southern India on the border of Tamil Nadu and Andhra Pradesh.

When discussing the writing of this article for CONTACT, Hari John said, "We wanted to tell people about our mistakes. Everyone likes to talk about the success of programmes, but it is important for workers in community health to know that other programmes have also had failures, become discouraged, made mistakes. We feel the important thing is to ask why things are going wrong, to learn from one's mistakes."

The work Hari and Prem are now doing in community-based service touches a population of around 18,000, spread over 67 hamlets. The hamlets are located in a valley surrounded by steep hills; five kilometres of mud road offer the only access to this valley. Of the population, 40% are harijans (low caste); 40-45% are landless or work only eroded land on the steep hillsides surrounding the valley, which is practically worthless for farming. Because the area lies across the border of two states and is so remote, state governments have provided few services to the people. The village health workers are chosen by the communities they serve. Often they have been village midwives before they became health workers. In all cases they are known and respected by the people in the village. Usually a village will have two women health workers.

Initial training takes place in the village health centre. After the first training (which has varied in length as the programme progressed), health workers are given weekly classes to provide further training and upgrading. At the present time the Johns are also involved in training middle-level workers, partly as Hari explains, to help others avoid their mistakes, and partly to ensure that programmes at Deenabandu can run without their constant presence.

Deenabandu is situated 120 kilometres west of the city of Madras in Southern India. The address is: R.K. PET, 631 303, Tamil Nadu, India.

We feel that the Johns' article not only speaks frankly about mistakes, but shows how they evidenced a real willingness to move away from their backgrounds and assumptions to help form a programme which is of real service to the poorest of the poor. In doing this, they have had to make hard choices, and in many ways, act as pioneers without the support of others' experiences. We hope that their article will inspire others in primary health care to evaluate what they are doing and perhaps to follow the process of self-education which helped Hari and Prem Chandran John to arrive at a programme which is now truly community-based.

Our second article by Dr. R.H. Henderson, Director of the Expanded Immunization Programme of the World Health Organization, provides a valuable update on the current thinking in immunization. We sincerely thank Dr. Henderson for sharing his expertise with our CONTACT readers.

WE LEARN THROUGH OUR FAILURES

THE EVOLUTION OF A COMMUNITY-BASED PROGRAMME IN DEENABANDU

By Drs. Hari and Prem Chandran John*

It was 1946. The British star in India was waning. Successful negotiations for transfer of power were going on. Gandhi was marching triumphantly all over India and had just delivered an impassioned plea for peace, communal harmony and development of villages.

The young pastor was stirred. He and two of his friends met the Mahatma after his talk, offering themselves to follow him. Gandhi, in his inimitable style, which was a mixture of gentle humour and earthy wisdom, paraphrased Matthew 25, verse 40: "I tell you, whenever you did this for one of the least important of these brothers of mine, you did it for me."

He told the young men that this was the very essence of Christianity for him and it acquired urgent significance in the context of nation building, which was essentially community building, for India exists in her villages. Gandhi called upon the young pastor, as a Christian, to start a venture as a memorial to the Anglican priest, C.F. Andrews, known as Deenabandu, "friend of the poor", one of Gandhi's closest followers.

The young pastor returned from this encounter with Gandhi. He resigned his comfortable and non-controversial job, as did his doctor wife. Together they moved to a remote corner on the border of Andhra and Tamil Nadu states to start Deenabandupuram, "Village of the friend of the Poor", nurturing the seed planted by Gandhi.

The Christian Church did not look upon this action with favour for it believed that a pastor should be "behind the pulpit and not behind a plough". The upper caste landlords took his work as a personal affront as any work among the poor was wont to remove the hold the landlords had over them.

Therefore opponents of the programme burnt the pastor's house, filled a newly-dug well with rubble and made serious attempts on the life of

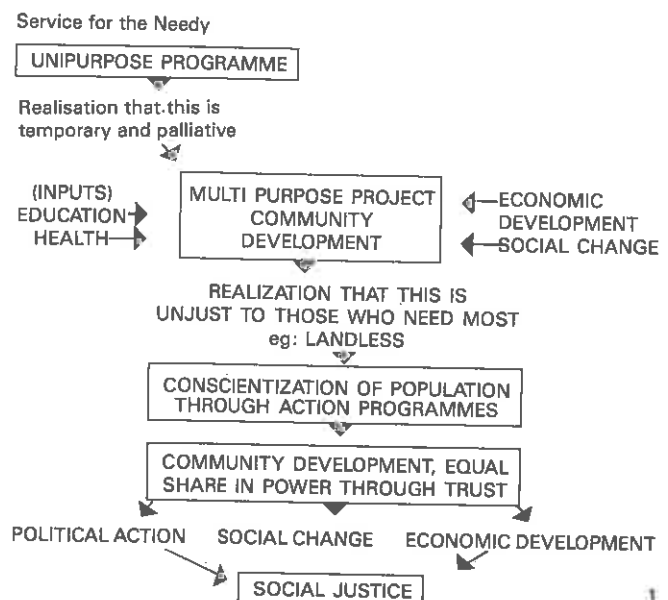
this young couple, till the leader of the opposing group fell grievously ill and was treated at the Centre. After that, things became relatively easier.

This young pastor was the father of Prem John. The work we describe in Deenabandu is our continuation of the pioneering steps he took in 1946-47. Early accomplishments at Deenabandu were medical work, especially among the large number of leprosy patients; a school and an orphanage; and also a small agricultural programme based on improved seeds and on practices which were just then coming into vogue. From these small beginnings has grown a large multi-sectoral programme covering 100,000 population today.

Evolution

The health programme has grown along classic lines. It started as a "service for the needy", health-delivery type of unipurpose programme, and through many stages it has finally evolved into a programme that aims at structural changes in the society that will bring about social justice.

This can be graphically pictured thus:



* Drs. Hari and Prem Chandran John are graduates of the Christian Medical College in Vellore, India. For the past 16 years they have been involved in the Community-Based Health Care Programme in Deenabandu. They are now active in training others to set up community-based programmes.



P. & H. John

A multi-purpose programme includes new ways of farming

The period 1969-73 saw extensive curative services offered at the Centre coupled with a mobile clinic that took "modern medicine into the villages". This was also a period when many assumptions were made that were to have considerable influence, both negative and positive, on the programme that followed. This was the time when we arrived to work in Deenabandu.

Having just graduated from a prestigious medical school, we assumed that we knew better than the community what their needs were. Therefore, planning of programmes was based on our own perceptions. Our sophisticated medical education also taught us to look down upon anything indigenous, and an over-reliance on technology handicapped us in village conditions.

A total lack of training in social sciences kept us in ignorance of the complex interactions between various forces within and without the community. We were totally unaware of the true socio-political situation in the country, and we were unable to see the true cause of ill health in communities, which is poverty. Our education had not prepared us to face realities in rural India.

We thought that outside inputs based on technology, packaged as a time-bound and measurable programme and manned by professionals, could change the ill health patterns in communities. We thought that health programmes per se could bring about health, forgetting the crucial role that economics play in the everyday life of the poor.

We assumed that the lack of schooling also meant that no native knowledge or skills existed in the community; thus we sidelined valuable indigenous help in building the pro-

gramme. We assumed that most of the problems of the poor were due to over-population and therefore implemented an extensive family planning programme, forgetting that over population was only a symptom of a deeper social malady.



P. & H. John

Village health worker starting her rounds

We assumed that tackling these complex problems required well-trained professionals and that auxiliaries were not capable of doing meaningful work. The shift from our initial "service delivery", high technology, professional, scientifically planned type of programme to a point where we considered ours to be an "enabling role"—enabling the community to live in health, using appropriate technology and appropriate level of workers, and enabling true participation of the community in all levels of programme implementation—was long. It was made arduous by the deficiencies in our training and our initial inability to transcend class values.

The credit for seeing us through the hesitant and insecure initial period when we were constantly learning, goes entirely to the community around us. They put up with us when we insisted that every pregnant woman should have ante-natal care in the hospital (including a urine examination every month) and that deliveries should take place in the sterile atmosphere of the delivery room with the aid of a doctor. They also put up with us, when after several years of living in the community and developing basic approaches, we told them that VHWs (village health workers) can provide all the care that a pregnant woman needs and that the traditional birth attendants retrained by us can provide delivery services. They put up with us when we wrote long and expensive prescriptions and also when we, after several years of practice with herbs, recommended herbs for all first-line care, even at the health centre.

This growing together in understanding involved a great deal of patience on the part of the community, as well as on our part, and required enormous inputs of time and motivation. In retrospect, this might perhaps hinder replication of programmes such as this. Every problem is different. So are the complex realities within communities and the time and dedication required to tackle those problems, and they cannot be replicated easily. The answers are always different; there are similar processes perhaps, but there is no direct transfer of experiences.

Our Present Workers

Village health workers, mostly married women in the age group of 35-40 and often traditional birth attendants chosen by the community, are now trained once a week. Emphasis in training is placed on the community-based approach, on community health, inter-sectoral integration and community participation. The VHWs use little "Western" medicine other than aspirin, but with great flair they use tested herbal remedies and practices like acupressure and massage in tackling illnesses identified as being diseases of poverty. A comprehensive account of the nature of poverty and its relationship to ill health, the unjust distribution of land, oppression in the name of religion and other factors is given in an effort to instill in these women's minds the class nature of ill health.

They learn personal and environmental hygiene, appropriate nutrition including applied nutrition; they learn mother and child care, about common communicable diseases,

disease prevention and herbal remedies. They also learn simple agricultural practices, common cattle illnesses and income-generating schemes. Each of these women becomes a catalyst in the community and is the focus of building community capability in health care.

It is interesting and gratifying to note the change that has come over these women personally. They are well-groomed, poised and confident. This has enabled us to develop their potential as trainers. They go to other programmes in several southern states of India to train village health workers.

The Results

Vital statistics like the infant mortality rate (IMR), birth rate, death rate, maternal mortality rate (MMR), and malnutrition rates have all

THE NEW PUMPS

The monthly meeting of the Women's Club finished the raffle business and Jayalakshmi, the village health worker and secretary of the club, asked the members if there was any other business. Several of the women stood up to complain about water. Their village of Palasamudram had a population of 1400 but they had only one hand pump. It was the dry season and as harijans (low castes), they were not allowed to draw water from the village well situated in the upper caste village, half a kilometre away. The field wells were too far away for them to use. Every day they had fights near the hand pump in an effort to get to the head of the line, and when they returned home, they were beaten by their husbands for being so late. They wanted to find a solution to this problem. Jayalakshmi assured them that she would discuss this at the weekly training session at the health centre and try to find a solution.

The next week the Panchayat union (village council) President was visiting the health centre and the doctor suggested that the Women's Club members meet him with their request. On that day, all the members, dressed in their finery, surrounded the President and told him their problems in getting water and also that the children needed a school building. The President was sympathetic and sanctioned immediate installation of one pump, explaining that the government had ruled that each 250 population should have a pump, and therefore, four more pumps were actually due to the village. He also said money had been given to complete the school, and he began to investigate to see what had happened to it.

By the next meeting of the Women's Club, the second of the four promised new pumps had been installed and relative peace reigned over the village. The School was also nearing completion. The women had achieved collectively what several individuals had been working on for over a year.



WHO Photo/A.S. Kochar

Village health worker visits in a home

shown steady and sometimes spectacular decline from the base of 1973. The IMR has declined from 127/1000 live births to well below 50. Birth rate is 24. Acceptance rate of permanent family planning methods is 26% of all eligible couples. Second and third degree malnutrition are not seen any more and first degree malnutrition has shown a healthy decline.

Women's clubs have been formed and savings and raffles have increased their disposable income. A new militancy among women has crept in, changing their dealings with their menfolk and with officials. Several of the Panchayat (village councils) have elected landless harijans (low castes) as their heads. The fact that many of them in due course will become part of the ruling classes is another matter. People no longer let themselves be pushed around as in the past. On the economic front, several activities involving hybrid goats, tree planting, dry farming technology, contour bunding and farming have increased income levels. The primary income through wages has also risen to the recommended national levels through awareness building and collective bargaining.

The Rationale

Right from the beginning, the primary consideration has been *cost*. What sort of health programme does one plan for a population, a large part of which lives on less than US cents 7 a day? Obviously we could not include use of

doctors in service delivery because many studies have shown that the use of doctors pushes up costs by two-thirds. When Western-style doctors are involved, the brand-name drugs they often use, the sophisticated equipment that they favour, the support staff they need, the physical facilities they require—lodging, running water, electricity, perhaps even a jeep—contribute to this cost.

Out of the 34 illnesses most common in our communities, 30 are preventable with health education alone or in combination with simple technology like vaccinations or early diagnosis and treatment with appropriate remedies. Therefore auxiliaries are used to good effect at this level to provide what we have termed as "pre-primary care" (as opposed to the comprehensive primary care approach of WHO). This idea aims at bringing health care not only back to non-professionals like VHWs but back to individual families where it originally rested before the advent of Western medicine in our country.

The second consideration for use of auxiliaries was the lack of health professionals. In the system as it exists, professionals are not going to be available in the rural areas in the foreseeable future. This is worthy of examination in depth as a separate paper, but suffice it to say that: i) the present medical education does not prepare doctors for rural India. Almost no emphasis is laid on diseases of poverty, much less on the causes of poverty and the

HEKS Fotoarchiv

Community action can bring pumps



relationship between poverty and ill-health. ii) Doctors often come from a class whose values and aspirations are not compatible with those of the poor. iii) We face a present health delivery system aimed at the powerful, the urban, the educated, the rich—to the detriment of the powerless, the landless, the outcaste, the illiterate, the poor.

Several reports (Bhore Committee, Mudaliar Committee, Srivatsava Committee) and well thought out and centrally planned health systems have scarcely made a dent in the existing health structure in the country. Therefore, we must have alternatives to provide for the basic health of the poor. We don't, of course, condone the wrong allocation of resources for health care which is not based on the priorities of the poor, nor do we advocate a "second-rate" system for the poor. Community-based health care is scarcely less effective than sophisticated hospital care, and often more so.



P. & H. John

Distributing herbal remedies

Accessibility

Accessibility of health care to the poor in the present system is limited by some of the factors mentioned above and also by factors like inadequate public transport, loss of wages in sickness, lack of social security, etc.

This is particularly true of rural areas: The powerless are unable to motivate the system to provide even basic amenities. This situation is unlikely to show major changes in the near future, and hence we turned to training of community-level health workers, who provide the first line of care at their doorsteps. *Acceptability* and *relevance* are other major factors that operate in the use of auxiliaries. We found at the beginning that over 75% of those who came to the Health Centre for primary care had

already been to a magician/herbalist. This was true as long as doctors continued to provide first-line care. Once VHWs were trained, the community gradually started using them first. Relevant and appropriate skills at the community levels are used and appreciated, more so when they are provided by someone from the community as opposed to an outsider.

LAKSHMI

Lakshmi had been in labour for over 24 hours. She was exhausted in body and spirit. She just wanted to lie quietly. The village midwife urged her to make a final effort. Her frail body gathered the last of her strength and with a mighty heave, she expelled the baby and fell worn out to the mud floor of the hut, thanking her family deity that her ordeal was over. But it was not to be. The midwife took one look at the small hand dangling from the womb and knew that Lakshmi needed expert attention to deliver the second twin.

They carried Lakshmi in a cot to the health centre. The doctor, after examining her, knew that the text books gave only two options: either do a mutilating operation or an internal version under anaesthesia, both beyond the simple equipment at the centre. She spoke to the husband about taking Lakshmi to the nearest hospital 30 kilometres away. Ramu, the husband, hesitated. On the one hand he needed Lakshmi to look after their four children and to work in the fields; on the other hand, he would need at least Rs. 300 (about \$30) for transport and other expenses. He was already indebted to the landlord, and in any case, the family's total annual income was only Rs. 1800.

Chinta, a traditional midwife and a village health worker was in the next room for the weekly VHW training session. She heard about Lakshmi and begged the doctor to allow her to try something. The doctor after some hesitation allowed Chinta to try. Inserting two fingers into the rectum of Lakshmi and pushing down the buttocks of the baby, she slowly manoeuvred the hand of the baby back into the uterus with her left hand, later delivering the by-now dead baby as a breech. The second baby was dead, but Lakshmi survived to care for her other children, and the family's debt was not increased.

Problems and Challenges

Community health, as it is known today, started in the early seventies. International organizations and resource agencies from the West latched on to this new concept and touted it as being a panacea for all ills in the community. In the early stages there was a tendency on the part of practitioners as well as promoters, to give less publicity to problems and failures and to uphold "successes". This

resulted in: i) a number of well motivated people going into community programmes without learning from the failures of others and thus having to reinvent the wheel, thereby wasting a lot of time and money, and ii) community health being practised in a haphazard and "non-scientific" way. In fairness we should mention here that there were very few models to go by and learn from. But the lack of basic knowledge of social sciences was a great handicap and retarded our progress; often a trial and error method had to be adopted. Apart from the attitudinal problems born out of established values reinforced by sophisticated education, we faced some early problems.

We were well received by the better-off, and it was they who offered houses in villages free of cost for establishing clinics. This fulfilled our requirement of "community participation". Only later we realised that all our clinics were established in upper caste villages and to a large extent the poor were excluded from the services provided by us. It took us two years before we realized the implications and moved away.

At the beginning we spent many months explaining our objectives to "leaders" in the community and asked them to select village health workers. We found that though our stated target group was the landless poor, the majority of those sent to us by the communities were from the land-holding classes. It took time to remedy this situation. Mobile clinics were held on a scheduled basis and it was several years before we learned enough to see only those patients who were referred to us by the VHW. The village clinics, though used as an "entry point", tended to slow the process of acceptance of the VHW by the community and we stopped doing them entirely after four years.



P. & H. John

Health workers learn to grow herbal medicines

Village health committees were formed with much fanfare but after some time became inoperative when the committee members found that apart from "prestige", there was no monetary benefit to be had. Some of the committees also used the VHW to run errands, etc. and had to be cautioned. Once the VHWs established their credibility, we found that the committee was not really necessary. We now operate on the basis of trust between us and the VHW, and between her and the community. Of course, two independent control mechanisms do exist in the programme, more to see the effectiveness of the VHW than to "supervise".

Use of sophisticated drugs and diagnostic tests were a legacy of our expensive medical education, and we inflicted them on the community for a long time before really understanding the people's economic deprivation. The emphasis we now lay on herbal remedies is a response to this. We have seen the proven efficacy of several herbs commonly used at the community level.

We started with a base hospital providing secondary care. The hospital had a very busy and often lucrative practice. We found that we

SAMPATH

The wound on Sampath's leg had been festering for seven months now. He had gone to numerous private doctors, government hospitals and even mission hospitals, but the wound did not show any improvement. He had lost his job at the local cycle shop when the owner decided not to put up with his irregularities any more. He was deeply in debt to the landlord.

One day, on his way to the town, he met Meera, the village health worker, coming back after her training sessions. To her he told his tale of woe. Meera listened patiently, asked a few questions about the wound and suggested a herbal remedy that she had learnt recently. She asked him to scrape out the pulp of a raw papaya in a clean manner, tie it on the wound with a soft cloth one night and after it presented a clean surface, usually by the next morning, apply a ground-up berry (*Terminalia Chebula*—black myrobalan) during a week.

Sceptically Sampath agreed to do this. The very next morning the wound looked cleaner than in months: all the slough had gone. He diligently applied the berry and within 10 days the wound had healed completely.

Later that month a man from the next village with a long-standing ulcer came to Meera asking to be treated. She was already known as the "ulcer doctor" for suggesting the remedy for Sampath's leg.

tended to spend more time "curing" people and slowly started de-emphasising this aspect. The effective service carried out by the VHW's also diminished the number of people who needed secondary care. We now believe that if enough preparation of the community is done, it should be possible to start programmes without base clinics, which are often a hindrance. We also believe strongly that existing government facilities should be used, and if they are inadequate, people should be organised to demand better services rather than duplicating services.



P. & H. John

Goats thrive on high-protein fodder

We started this as a total community programme, for the rich and the poor alike, for the upper caste and the lower caste, for we believed that we had a duty to all. During the initial stages, we found that the services offered by us were being extensively used by those who "have" land money, education and who are often from the upper castes. This resulted in one of our primary objectives being fulfilled—to double income levels. A mid-programme assessment revealed that though we had largely achieved this objective, it was at the cost of the poor, who showed only marginal growth while the "haves" showed spectacular growth. This was evident in a dairy programme we initiated. This package programme involved bank loans for cows and feeds, fodder development, milk co-operatives and transport of milk to the dairy. Not taken into consideration was the fact that the landless harijans were not used to cows, had no place to grow green fodder, and if they had any milk, sold even the last drop to the dairy, while their children were malnourished. The land-owning classes, on the other hand, increased income levels significantly through the dairy programme. Also, we believed that the transfer of milk from impoverished areas to the cities to be made into

cheese, chocolate and condensed milk was not socially just.

This and other lessons made us resolve to work only with the target group i.e. the powerless: the landless and the harijan. All programmes—health, agricultural, animal husbandry, etc.—were offered exclusively to this group. The VHWs, too, served only them. thus our focus became defined and we were able to serve the target group better.

PANDU'S GOAT

Pandu was one of the least and lowliest in the village. His hut was dilapidated, his children were malnourished, he had no regular work and could not practise his profession as a cobbler for lack of customers in the village, apart from an occasional odd job. Siromani, the new VHW was appalled at his poverty, even though she herself was one of the poor. Pandu had no land and no other assets. Siromani discussed his problem at the weekly training session in the health centre. Collectively they agreed to make him a member of the Goat Association and give him an improved variety of dairy goat provided he planted the high protein fodder tree *Leucaena* around his house.

In due course, with proper feeding and attention and with technical assistance from the health centre, his female goat gave birth to three kids. As per agreement, he gave back one female kid to the Goat Association. After it was weaned, the Association sold one of Pandu's male kids to another organization at a handsome profit, for there was a premium on hybrid goats. Pandu was left with one female kid and the mother who continued to give 1½ litres of milk a day, more than a country cow would. Moreover, goat milk, equally valuable nutritionally as cow's milk, was not easily marketable. Therefore Pandu's children were forced to consume it. Their family income doubled within the first year. They became a happier, healthier family.

Community participation

Expectations of community participation started coming into vogue in the early '70s. We, too, started with a lot of assumptions: that communities are homogeneous and therefore able to take collective decisions based on common good; that communities consider health as a priority and that they will identify and act upon their "felt needs"; that 25% contribution by way of labour was participation; that food-for-work programmes were community participation, etc. Only later did we realise that widespread acceptance of our project did not mean community participation. We had, in fact, imposed a programme on the community and had clearly defined areas in which they

should participate, thus acting contrary to our aim of enabling them to make decisions affecting their lives.

We believed that the "leaders" expressed the collective need of the people and many of our earlier schemes were based on this assumption. After several years of our education by the community, we were able to see the folly of this and involve the entire community and not just "leaders" at all levels of programme implementation, right from identification of priorities and planning, to evaluation. To claim that we have been entirely successful in this would be untenable, but serious efforts have been made over the years. Since we were unable to make defined parameters, evaluation of this aspect is difficult. It is also hard, because the programme, as we said earlier, has evolved through many stages and has undergone changes in its objectives.

Self-sufficiency

As a corollary of community participation, self-sufficiency has been a goal in itself as well as a process. Several ways of seeking this goal were experimented with, particularly with regard to the support of VHWs. One way was to provide services to the rich to raise

DHANARUBY

Dhanaruby was late for the VHW weekly training session. On arrival, when asked the reason for her lateness, she burst out crying, saying how she had been delayed by the money lender. The previous year, her husband had borrowed 420 rupees to purchase three bags of super-phosphate to fertilize their rain-fed groundnut crop. The crop started out beautifully but the rains were erratic. The value of the harvest would not even cover the cost of the seed, let alone the loan for the fertilizer. High interest rates had already inflated the debt to over Rs. 1600 in just five months.

The class discussed this problem and the foolishness of using expensive superphosphate for peanuts. They also discussed inter-cropping of Tur dhal (lentils) after each five rows of peanuts, contour planting, life-saving irrigation and a combination of fertilizers using inexpensive ingredients. They agreed to stand collective security at the bank for a loan to Dhanaruby and told her to try these new methods.

Dhanaruby's husband, a progressive farmer though with only an acre of dry land, readily tried these methods with occasional help from the agricultural worker from the health centre. The whole village watched in amazement when at harvest time these new methods, coupled with good rains, gave a ten-fold increase over the previous year.

resources. There was an inherent danger in this, for we spent far too much of our time serving the rich and this was contrary to our ideology, too. Another alternative was to ask the VHWs to charge for their services, even a very small amount. The question remained, however: why should the already marginalised and oppressed people be made to pay for their health services while a lot of resources all over the country were being allocated to serve the "haves" and the urban elite?

We had this problem until we realized that "self-sufficiency" referred to the project, while what we were aiming to build at the community level was "self-reliance". We were working towards building community capability in health care and, hence, self-reliance. Using a community-based approach, (appropriate personnel and technology) we learned that it is possible to make communities self-reliant.

Community-Based Health Care

We believe that for a programme to be called "community-based" (CBHP) it should fulfill certain criteria. This can be schematically presented thus:

TASK	PROCESS	GOAL
1. Community Health Approach	3. Community Participation	4. Self-Reliance
2. Inter-Sectoral Integration		5. Social Justice
		6. Human Development.
		↓ Leading to Better Health
		↓ "Healthy" Communities.

A 'CBHP' must have 1, 2, and 3 to be called "community-based".

By "Community Health Approach" we mean: care of populations and not individuals, preventive emphasis, decentralised care, appropriate technology (including management of drugs and equipment), use of auxiliaries and health education aimed at behavioral changes.

"Inter-sectoral integration" means not only integration of various programmes like agriculture, animal husbandry, etc. but also linkages with government agencies and other voluntary agencies.

By "community participation" we mean: decision-making by and with the community; participation processes in planning, manage-



WHO Photo/A.S. Kochar

A traditional midwife can give confidence.

ment and evaluation; mobilisation/organization of poorer sections in terms of funds, labour and management for improved service delivery and utilisation; and mobilising resources for self-reliance.

"Self-reliance" means capability building in communities, including technical, managerial, financial and organizational skills to deal with health problems. It also means emphasis on indigenous resources. "Social justice" to us means 'empowerment of the powerless': a focus on the poor; equitable access of the poor to health services and resources; and mobilisation of the poor for building awareness and eventual confrontation with the system.

THE PRESENT

After thirteen years, in an effort to spread the more positive aspects of our experience, we are now engaged in offering training facilities, not because of our "successes" but mainly because of the failures we have had, so that others can learn from our mistakes and perhaps not repeat them, thus saving time and effort. Training is offered to various categories, usually to middle-level health workers, who, we believe, are the mainstay of CBHPs. It is not possible to directly transfer experiences but certain attitudinal changes coupled with specialised skills will make these workers more effective at the community level. Our trainees come from all over India and also Nepal and Bangladesh.

Acknowledgements

Our grateful thanks are due to World Neighbors whose willingness to be flexible in their approach contributed mightily to our efforts, to our community who let us evolve at our own pace, to countless friends around the world who have supported our efforts and have acted as a sounding board for our ideas, especially friends in Voluntary Health Association of India, and also ACHAN (Asian Community Health Action Network) who contributed to our thinking.

Suggested Further Reading:

1. Back issues of CONTACT and especially CONTACT "Special Series" 2 & 3
2. LINK, Newsletter of ACHAN
Vol. I, No. 2 Sept. 1981
Vol. II, No. 1 Feb. 1982
Vol. III, No. 3 Sept. 1983
3. "Health Care in India", Center for Social Action, Bangalore. 1984.

CMC News

Dr. (Mrs.) Helen Gideon
(1918-1984)



It is with great sorrow that we wish to inform our readers of the death of Dr. Helen Gideon on September 12, 1984 in Simla, India, following a long illness. Helen had long been a friend of CMC and had served on our staff as Secretary for Population Studies and Programmes from 1973 to 1974. She did her medical training at Lady Hardinge Medical College in Delhi and her post-graduate studies at Harvard University, USA.

She served the cause of health in numerous capacities: as a member of the faculty of the Christian Medical College, Ludhiana, Narangwal and Khan projects; with the Synodical Board of the Church of North India, and the All India Institute of Medical Sciences; the Voluntary Health Association of India, and as consultant and adviser to many international donors.

Helen was a person with great charm and warmth who influenced the decision makers or communicated with village people with equal ease. She was a great pioneer in developing community health and promoted community participation until the end of her life through her work and writings. She followed the call of Jesus Christ to serve the poorest of the poor with total commitment. We praise God for her life and contribution to health and family planning, in India and around the world. Her work will remain a lasting memorial to a life filled with love, devotion and service.

IMMUNIZATION UPDATE: RECENT RECOMMENDATIONS FROM THE WHO EXPANDED PROGRAMME ON IMMUNIZATION

By Dr. R.H. Henderson *, Director, EPI

1. Introduction

The World Health Organization established the Expanded Programme on Immunization (EPI) in 1974. The EPI goal is to reduce morbidity and mortality by making immunization services available for all children of the world by 1990. The initial focus of the programme has been on six diseases which as of 1983 were killing some five million children per year in developing countries – 10 per minute – and disabling an equal number: diphtheria, pertussis, tetanus, measles, poliomyelitis and tuberculosis. As additional vaccines become available which are appropriate for widespread public health use in the world, consideration will be given to adding them to the programme. Immunization services are an essential element of primary health care, as defined in the Declaration of Alma Ata, and because the management skills required to provide effective immunization services are also helpful in managing more comprehensive health programmes, the EPI is itself a building block for primary health care.

In the years since its inception, the EPI has made considerable progress. In particular, training materials have been developed which place an emphasis on the practical management of immunization programmes and research and development activities have been pursued to identify the most simple and effective methods and materials. Many thousands of health workers have now participated in EPI training courses and virtually all developing countries are working to expand the coverage of their immunization services.

Yet much remains to be done, as in 1983, WHO estimated that only some 30% of children in developing countries were receiving a third dose of DPT. Acceleration of activities will be required if the 1990 goal is to be reached.

Some of the problems facing the EPI are difficult to solve. These include generating the needed political will and financial resources and strengthening the management capacities within developing countries to permit the available resources to be translated into effective programmes. But some are quite simple, requiring only that health workers who are already motivated and are providing immunizations be acquainted with some of the developments in recent years which make their tasks easier. This article is intended to highlight a few of the latter points. We hope readers will be able to profit from those, while at the same time helping us to find solutions to the more difficult issues.

2. When to Begin: Recommended Ages for Immunization

Health workers should realize that, at least with current vaccines, there is no ideal immunization schedule. From the point of view of disease risk, it would be ideal to protect the baby at birth, or even before birth, particularly in developing countries where infections are passed easily and the EPI target diseases strike early in life. But the body's immune system is not fully mature at birth, and, at least for some vaccines, we are forced to wait.

We can protect the baby for the first few weeks of life from tetanus by providing two doses of tetanus toxoid to pregnant women (or a single booster dose to a woman immunized more than three years previously) and we recommend providing her the first dose on first contact, and the second four weeks later. If the mother comes late for the second dose, does that matter? Not so far as her immune response is concerned. She will actually have a better response with a longer interval, and a second dose given even several years after a first will still provide a very good "booster" response. *But the second dose should be given*

* Dr Henderson is Director of the Expanded Immunization Programme of the World Health Organization.

sufficiently before delivery to permit the mother to develop and transfer protective levels of antibody to her child. We recommend giving the second dose a month after the first, since the immune response is good, even if not optimal, and we would like to use a relatively short and easily remembered interval to encourage the return visit, and to permit time for followup if the return visit is missed.

We recommend beginning BCG vaccine (against tuberculosis) at birth. Even though the response is not quite as good as it would be if delayed for a few months, this is balanced by the protection provided, as tuberculous meningitis and miliary TB are particular threats to the young infant, and by the fact that many babies are accessible to health workers at birth. Delaying BCG until a later time may result in the child remaining unimmunized. A few countries also give a single dose of monovalent (type 1) or trivalent oral polio vaccine at birth, and we believe this deserves further trial. The vaccine is cheap and easy to administer, and poses no additional risk to the newborn. The vaccine is not quite as effective as in older ages, but if immunization at birth can be used to supplement the routine schedule any protection which does occur is a bonus.

As recently as November 1983, the EPI changed its recommendation for starting DPT and oral polio immunization from three months to six weeks. Three doses of each vaccine are needed, and we recommend that they be spaced at four-week intervals. Starting these vaccines at six weeks improves the chances of completing three doses before the child is exposed to one of these diseases. It may be that the visit for the first dose can be combined with a post-natal checkup visit for the mother. Using this earlier period also takes advantage of a time when parents may better heed health advice concerning their infant, and may help to improve immunization coverage. The spacing interval issue is very similar to that for tetanus toxoid: a somewhat better immunological result can be expected by having longer intervals, but longer intervals mean the child remains unprotected for longer, and may mean higher dropout rates. With oral polio vaccine, note that there is a substantial problem in using intervals shorter than four weeks. Many children will still have vaccine virus from the previous dose growing in their intestines, and this can block the effects of the additional dose. The effects may not simply be diminished, they may be totally negated!

New vaccine production techniques have renewed interest in the use of inactivated polio vaccine (IPV) either to supplement the oral vaccine (OPV) or as an alternative. IPV may be administered either as a separate subcutaneous injection or combined with DPT in a single injection. The new high-potency IPV is generally administered in two doses spaced at four to six month intervals, beginning at age three months. The various advantages and disadvantages of the two vaccines continue to be debated. The EPI encourages the continuation of applied research concerning the application of IPV while for the present recommending OPV for use in routine programmes.

And what about measles vaccine? Again, the solution is a compromise. At present, our general recommendation is to immunize as soon as possible after the age of nine months in countries where measles is a significant problem for children in their first year of life. Because children between six and nine months of age are susceptible to measles, health workers in some countries have begun measles immunization at six months. The problem here is that only about half the children who are immunized are protected, vaccine failure occurring in the others because of interference from antibodies passed from the mother. Recognizing this, some programmes adopted a policy of reimmunizing these children at 12 or 18 months. But it turned out in practice that only a small proportion of children ever received a second dose. In the meantime, measles which occurred in the unprotected vaccinees lowered confidence in the programme. Even those children who were reimmunized still had to wait for a period of 6 to 12 months during which half of them would remain susceptible to measles.

As a higher proportion of susceptible children are successfully immunized, the average age of infection for measles increases, as the remaining susceptible children are not as likely to come into contact with the disease. We recommend that countries who have not yet achieved measles control focus on obtaining as high an immunization coverage rate as possible in children attaining the age of nine months. Protected older siblings will not bring home the disease to younger siblings, and the problem of measles in the six to nine-month old children should soon vanish. When measles no longer remains a problem in the first year of life, consideration can be given to shifting the age from nine months to 12 or 15 months, when vaccine efficacy may be slightly better.

A new interest has developed in the use of measles vaccine given in the form of an aerosol which is breathed in by the child. Some observations suggest that it might be possible to successfully immunize children as early as four to six months of age, permitting measles to be given with the third dose of DPT and polio. As of this writing, it remains unclear whether it is the aerosol route which is the crucial factor or whether it is the type of vaccine virus administered or the dose of virus which is administered, and research studies are planned to clarify these factors.

3. Ill or malnourished children: priority groups for immunization

The vaccines used in the EPI have fewer risks than the diseases they are designed to prevent by factors of several hundredfold. Thus the decision to withhold an immunization should not be taken lightly. Children who are malnourished are particularly susceptible to having severe complications from diseases such as measles and whooping cough. Where access to health services is limited, mothers may bring a child to a health facility only because of illness. If the health worker systematically refuses to immunize anyone except healthy children, one can predict low coverage. In light of these considerations, the EPI Global Advisory Group meeting in November 1983 endorsed a set of recommendations concerning the administration of EPI vaccines. The following are among the highlights:

"... It does not seem feasible or desirable to formulate a universal set of recommendations for immunization of children. Each country should formulate its own recommendations, preferably based on the advice of a broadly constituted advisory group. The recommended national policy should reflect a practical appraisal of the risks of the disease as well as the benefits and potential risks of immunization. Important considerations include the availability and accessibility of health care services, utilization patterns of these services, the ability to identify and follow-up children who are not immunized, the likelihood that children will return for subsequent immunization, and sociocultural acceptability of specific procedures and recommendations. Principal recommendations which can serve as a general guide include:

- health workers should use every opportunity to immunize eligible children;
- no vaccine is totally without adverse reactions, but the risks of serious complications

from EPI vaccines are much lower than the risks from the natural diseases;

- the decision to withhold immunization should be taken only after serious consideration of the potential consequences for the individual child and the community;
- it is particularly important to immunize children with malnutrition. Low grade fever, mild respiratory infections or diarrhoea, and other minor illnesses should not be considered contra-indications to immunization;
- immunization of children so ill as to require hospitalization should be deferred for decision by the hospital authorities;
- the immunization status of hospitalized children should be evaluated, and they should receive appropriate immunization before discharge (in some cases they should be immunized on admission, because of the high risk of hospital-acquired measles);
- a subsequent DPT injection should not be given to a child who has suffered a severe adverse reaction to the previous dose. The pertussis component should be omitted and diphtheria and tetanus immunization completed;
- diarrhoea should not be considered a contra-indication to OPV, but to ensure full protection, doses given to children with diarrhoea should not be counted as part of the series and the child should be given another dose at the first available opportunity..."

4. Vaccine combinations

With respect to the vaccines used in the EPI, we are in the happy circumstance that any of them may be given at the same time. For example, the child not previously immunized who first is presented to a health facility at age nine months should receive a BCG, a first DPT and polio immunization and a measles immunization. This combination is safe and effective. This is not true for the simultaneous administration of all known vaccines, however, and specific technical advice should be sought about other combinations being considered, particularly combinations including cholera vaccine.

5. Booster doses

There is still much we do not know concerning the usefulness of booster doses. For example, it is probable that once oral polio vaccine (OPV) or a measles vaccine (both of which contain live viruses) have induced immunity, that immunity persists for life and does not require ad-

ditional vaccine doses. Yet such boosters are often recommended for adults in industrialized countries who are travelling to developing countries, and it is hard to recommend against taking such an extra precaution. This is not done for measles, however. The impact of a booster dose of BCG is not well understood. The need for occasional boosters of diphtheria and tetanus toxoids is recognized, although a total of five doses, particularly if the last three are spaced at intervals of several years, is likely to provide life-long immunity. Booster (fourth and fifth) doses for pertussis (as DPT vaccine) are often given at age 18 months, and at the age of 5 years may play a role in areas of low pertussis incidence in reducing the likelihood that older siblings will carry the organism to younger siblings. In most developing countries, contact with the organism itself may provide a natural booster.

In view of the various uncertainties concerning the issue of booster doses, the EPI has not emphasized them as a priority. Most developing countries have yet to achieve satisfactory coverage with the initial doses of vaccines required during the first year of life, and until this task has been accomplished it does not seem warranted to invest programme resources in following up children to receive boosters.

6. Vaccine stability

Table 1 summarizes some characteristics of the vaccines used in the EPI, including information on their stability. Kept at recommended refrigerator temperatures of 4-8°C, these vaccines remain potent for a year or more. The live virus vaccines (OPV, measles) and BCG may all be frozen, further prolonging their storage periods. DPT, tetanus toxoid and IPV should not be frozen. Because of potential confusion some programmes have simply recommended that at peripheral level, no vaccines be kept in the freezer.

In recent years, the stability of measles vaccine has been improved, and vaccines now being provided to the EPI by WHO and UNICEF meet the WHO standard of being able to withstand up to 1 week's exposure at 37°C in their freeze-dried state. After reconstitution, they should be kept cool and used within a working day. Measles is mentioned particularly, as some of the newer vaccines have been erroneously termed "heat stabile", and they are certainly not! Even the highly stable tetanus toxoid can be destroyed within minutes when exposed to temperatures of 60°C, easily obtained inside of a closed vehicle parked in the sun. So all vaccines should be handled with care.

Table 1
Characteristics of vaccines included in the Expanded Programme on Immunization

Vaccine	Number of doses	Timing of doses	Route of administration	Stability at 37°C
Measles	1	From 9 months where measles remains a problem for infants; from 12-15 months elsewhere.	Subcutaneous injection	Approximately 1 week
BCG	1	From birth.	Intradermal injection	Approximately 1 week
DPT	3	From 6 weeks of age, at intervals of 4 weeks. Two doses may suffice if a high potency vaccine is given at 4-6 month intervals. An additional dose is frequently given during the second year of life.	Intramuscular injection	Approximately 1 week
Oral polio	3	From 6 weeks of age, at intervals of 4 weeks. An additional dose is frequently given during the second year of life. The impact of immunization at birth needs further evaluation.	Oral	Approximately 1 day
Inactivated polio	2	From 3 months of age, at intervals of 4-6 months. The effects of a single dose, an earlier starting age and shorter intervals between doses are being evaluated.	Subcutaneous injection. May be combined with DPT	Approximately 1 week
Tetanus toxoid	2	For use in prevention of neonatal tetanus, first dose at first contact with susceptible woman, second dose 4 weeks later. In previously immunized women, 1 additional dose during pregnancy is sufficient.	Intramuscular injection	Approximately 2 months

WHO and UNICEF have recently introduced time/temperature vaccine cold chain monitors with shipments of every 5000 doses of DPT, OPV and BCG vaccines. These consist of a yellow card which has two indicators. One changes progressively from white to blue over the course of several days when temperatures exceed 10°C, and the second changes only when temperatures exceed 38°C. The person receiving a vaccine shipment can easily confirm whether the cold chain has been broken. If only the 10°C indicator shows a blue colour, the extent of the problem may need to be further evaluated. If both indicators have changed, a major problem has occurred. A different type of indicator is being included with shipments of tetanus toxoid which simply turns rapidly from light to dark when the temperature exceeds 48°C. At present, many peripheral health

workers (and even some central level store-keepers) understand the use of these monitors poorly, indicating the continuing need for training and supervision in this field.

7. The future

For vaccines, this can be predicted with certainty. It will be very exciting indeed, with a myriad of new vaccines and new formulations of old vaccines on the horizon. The major constraint is likely to continue to be our capacity to deliver them to the persons who will most benefit from them. And that is one of many reasons for accelerating efforts to expand the coverage with the existing array of vaccines, formidable public health tools in their own right.

NEW PUBLICATIONS

Human Numbers, Human Needs, Paul Harrison and John Rowley. International Planned Parenthood Federation, 1984. 64 pages.

This handbook is based on the work of *People* magazine over the past decade. It serves as a primer for all concerned about the projected doubling of humankind within the next decades. It looks first at the 'how' and 'why' of growing numbers and at the extraordinary movement of people into human settlements of a type never before experienced. It then relates this process to each of the basic needs without which life cannot be lived in dignity.

Price: \$5 or £ 3.50 in the U.K. French and Spanish editions are also available.

Available from:

International Planned Parenthood Federation
18-20 Lower Regent Street,
London SW1Y 4PW

Personal Transport for Disabled People—Design and Manufacture. Appropriate Health Resources and Technologies Action Group, Ltd. 90 pages.

Efficient, hand-propelled wheelchairs and tricycles can be made locally and cheaply in developing countries. Local manufacture also tends to solve problems of servicing and spare parts. Readers of this manual are given a range of options in choosing designs which were originally developed in countries around the world and which have been tested by individual disabled people.

Price: £ 4 plus 30% surface mail or 50% for air mail. Overseas payment by International Money Order, National Giro. U.K. Postal Order, Sterling (£) cheque on UK bank.

Available from:

Teaching Aids at Low Cost (TALC)
PO Box 49
St. Albans, Herts AL1 4AX, U.K.

The State of the World's Children, 1984. United Nations Children's Fund.

Part I of this exciting report draws together the mounting evidence from all over the world which shows that the relatively simple and inexpensive methods now available do indeed add up to the potential for a child-care revolution. At the same time it makes a compelling case for the social and political priorities which are needed to fulfill the promise of a better life for the world's children. Part II of the report brings together six essays which describe in more detail main breakthroughs of recent years. The hard-cover edition also contains two extra chapters: "The Recession and Children" and "Third World Novelists".

Price: Hard-cover £ 9.95 or \$ 19.95

Papercover: £ 3.50 or \$ 6.95

Orders from:

Oxford University Press Showroom
116 High Street, Oxford OX1 4BZ, U.K.
(with sterling payment in full)

Innovative Models of Healing and Health Ministry, Suzanne Mary Ahern. Center for Applied Research in the Apostolate, 1984. 193 pages.

This study describes 14 ministries in the United States which have involved the Roman Catholic Church there in innovative ways of providing health care. It seeks to provide church decision-makers with information to help them shape future work in health care in accordance with the Gospel. Ministries described encompass acute (hospital) and long-term (nursing home) care; counselling for the chemically dependent; congregate housing for the mentally handicapped and chronically mentally ill; and hospice care, among others.

Price: \$ 10 plus \$ 1.50 U.S. postage (make cheque payable to CARA)

Available from:

CARA Publications-HMP
3700 Oakview Terrace, NE
Washington, DC 20017-2591 U.S.A.

Medical Laboratory Manual for Tropical Countries, Volume II (Microbiology), Monica Cheesbrough FIMLS. Tropical Health Technology, 1984. 479 pages.

This companion to Volume I (which contained parasitology, clinical chemistry, anatomy and physiology plus laboratory planning and equipment) deals with bacteriology, virology and mycology. It emphasizes major communicable diseases and is illustrated with more than 50 colour plates. Volume II contains a free kit to make condenser stops to examine specimens by dark-field microscopy, e.g. chancre fluid for spirochaetes.

Price: £ 8.20; special subsidized price for developing countries, £ 4.90. (plus £ 1.50 surface mail or £ 7.20 airmail)

Available from:

Tropical Health Technology
14 Bevills Close, Doddington
Cambridgeshire, PE15 OTT, UK

Natural Family Planning, Development of National Programs. International Federation for Family Life Promotion, 1984.

Designed for those involved in family planning and community programmes recommending natural methods of family planning, this book gives an update on the current issues and practices important for natural family planning and gives guidelines for establishing and expanding local services and national programmes.

Price: \$ 10 for single copies, \$ 6 for five or more copies.

Available from:

International Federation
or Family Life Promotion
1511 K St. NW, no. 333
Washington D.C. 20005
USA

Namibia: Reclaiming the People's Health, Edited by Tim Lobstein and the Namibia Support Committee Health Collective, 1984. 151 pages.

An examination of the health situation in Namibia which includes recommendations and examples from other countries for ways of setting up a primary health care programme.

Price: £ 3.95 papercover; £ 12.95 hard-cover

Available from:

Third World Publications
151 Stratford Road
Birmingham B11 1RD, U.K.

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Merry Christmas

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The commissioners and staff of the Christian Medical Commission extend to you, our friends and readers of CONTACT, best wishes for the holiday season and our thanks for the interest and support which you have expressed to us in different ways during the past year.

We hope and pray that the New Year will bring us closer to one another—and to a more peaceful world, nourished by a spirit of understanding and forgiveness and love.

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CMC NOTES

The 1985 Programme for the Ecumenical Institute, Bossey, Switzerland, features seminars and courses on subjects of ecumenical interest:

21-28 March: The Other Side of 1984 – Towards a New Christian Approach to Modern Culture. A seminar for philosophers, scientists and theologians.

1-14 April: Orthodox Theology and Spirituality. A seminar for students, theologians and lay people.

14-24 May: Convergence in Theology and Congregations Renewal. A seminar for pastors, church leaders and teachers of theology.

2-12 July: Justice, Peace and the Integrity of the Creation – the Role of Young People. A seminar for young people.

6-18 August: The Ecumenical Dimension of Theology Today. A course for theological students.

15 October-28 February, 1985: 34th session of the Graduate School of Ecumenical Studies: Gospel and Culture. Ask for information for admission to the Graduate School of Ecumenical Studies.

Information from:

Programme Secretariat
Ecumenical Institute
Château de Bossey
CH-1298 Céligny (Vaud)
Switzerland

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Papers presented in CONTACT deal with varied aspects of the Christian community's involvement in health and seek to report topical, innovative and courageous approaches to the promotion of health and integrated development. A complete list of back issues is published in the first issue of each year in each language version. Articles may be freely reproduced, providing acknowledgement is made to: CONTACT, the bimonthly bulletin of the Christian Medical Commission of the World Council of Churches.

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