The Catholic Hospital Association of India

C. B. C. I. Centre, Goldakkhana, New Delhi - 110001

Tel. 310694, 322064

CHOMAN'S STORY

Choman, a tribal, had been working as a bonded labourer with Mathan, a big landlord in Kerala. Being a bonded labourer he was getting very low wages. His family had been working with Mathan for generations. With the low income, he was experiencing real pain in meeting even the bare minimum requirements of his six member family.

Once Choman hinted to Mathan the wages that were in practice in that area and pleaded with the landlord that unless he increases the wages he cannot pull along at a time when the prices of essential goods are very high. Mathan was surprised to hear this. Such a response from a tribal, and moreover his slave! He became furious. He did not listen to Choman. Upon this Choman revealed that in this circumstances he cannot continue to work there.

Choman should be taught a lesson, he decided. The famous festival of the local temple was during that time. Mathan was sure that Choman and his family would go for the festival. At night Mathan's son, with some 'goondas', set fire to Choman's house. From the temple Choman could see fire rising from that part of the area where his house was situated. He ran to the spot. From distance he could see his house being reduced to ashes. He rushed madly towards that. But before he could approach he was cought hold of. He was beaten up very badly. Hearing the noise neighbours came to the spot. They were given a different version by Mathan's son and his goondas. Deliberately they had brought a sack full of coffee. The new story was that Choman had stolen this and when they came to ask about this he resisted and to make his position clear and to defame Mathan he himself set fire to his own house. None from the crowd spoke for Choman. By this time Choman's wife and children came back from the temple. They could only cry aloud in utter helplessness and agony.

Choman had heard about Fr. Samson working among tribals. The next day itself he went to Fr. Samson and shared with him all that happened. Fr. Samson gave some money to support the family that was starving and he filed a case in the court. The case was taken up by the advocate appointed by the Government for free legal aid to the Poor.

Some other developments were going on on the other side. The local politicians were close aides of Mathan. With their initiative a public meeting was held. In addition to this, a case was filed alleging stealing charges against Choman. This case was also taken up by the same advocate.

Mathan got the cooperation of Fr. William, the local Parish Priest. Choman should withdraw the case. Mathan's eldest son was studying in the seminary. Hence a pending

They suggested that they would give some money to settle the issue. But the loss was no little for Choman. He lost his house and all that were kept inside that -- all the earnings of a life-time. And more than everything else he was offended and thoroughly put down. He was beaten up and made a thief before the public. So, if it is a question of giving compensation, Choman should be given an amount sufficient to construct a rather convenient house and an adequate amount to make up for the other looses. In addition to that, Mathan should apologise before Choman. They disagreed and went out. On their way back they approached the Bishop to influence him to compel Fr. Samson to withdraw the case. All these were explained to the Bishop to save the good name of the Seminarian.

After few months Mathan faced some other problems too. His younger son had got a job abroad for which he had to be free of any criminal case. Again he approached Fr. Samson. But Fr. Samson repeated his previous demands. Mathan could not agree with that. Especially the part asking him to apologise. He was very furious at Fr. Samson. He came out of the room. Continue with the case, he decided.

THIRUNELLY - CASE STUDY

Thirunelly is situated in Wynad District of Kerala State, adjacent to Karnataka boundry, with thick reserve forests around and it has a population of 2000 people. 90% of the inhabitants are Adivasis who once enjoyed the ownership of the entire land. But later, with the invasion of migrants from other places, the illiterate and simple Tribals lost all their land and today they own only 10 to 15 cents of land and a few people have 2 to 3 acres. About 95% of the people are agricultural labours. The nearest public health centre is 4 km. away from this village, and the lower primary school in the area has 86 students but only 8 are Adivasis. There is a temple in Thirunelly, which attracts pilgrims from all over the country.

Thirunelly comes to limelight and public attention every year because of mass deaths in the beginning of mansoon, when there is no work, People are affected by Diarrhoea vomiting and fever and quite a number of them succumb to it. Government named this phenomenon gastro-enterits. In 1977, 13 people died and many groups like Lions Club, Jeycees and other agencies including the Diocese brought in aid from outside. Later in 1978 Diocesan Social Service launched a conscientization programme in their village on a massive scale.In 1978, 8 people and in 1979, 7 died again.

Questions.

- Why mass death in Thirunelly?
- If you are in this situation what programmes would you undertake?

COMMUNITY HEALTH DEPARTMENT
C H A I.

The Catholic Hospital Association of India

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STORY OF VASU

Vasu, an eight year old boy was the only child of his parents, who were very poor. They worked as bonded laborers under the landlord who had very little concern for his workers. The family found it very difficult to meet their dialy needs. Vasu used to help his parents by cutting grass from the forest for the animals.

There was a Government subcentre about 2 K.M. away from Vasu's house. The ANMs used to visit the village but since the villagers were not co-operating with them, they stoped their work in that village.

As usual, one day Vasu went to the forest to cut the grass and he had a thorn prick on his foot, since he had no chappals. The parents treated him with country medicine, and applying cow dung on the wound. As the days went Vasu's condition become very serious and they thought of taking him to the hospital. Since they had no money his father borrowed Rs. 100/- from the landlord, and took him to the P H C. Since Vasu had developed signs of tetanus by this time, P H C. was not able to treat and adviced the parent to take Vasu to the District Hospital; which was situated very far.

Since the money they had with them was not enough, the parents decided to return home. On the following day Vasu died.

- Why did Vasu Die?

CHD Department.

VALUES & VALUES (F)

Miss Sumati was from a very poor family. She lived in a hut near the bank of a river. She was in love with Mr. Sunil, who lived on the other side of the river, and was also from a poor family. This love affair was known to both the families.

One day Sumati heard that Sunil is seriously ill. It was monsoon time and the river was overflowing. She had to cross the river by a country boat. But she had no money to pay the boat man. She approached Suresh, her neighbour to borrow some money, but he refused to give. She then met Shankar, the boat man and explained to him the situation, and assured him that she will pay him the boat fare later. Shankar insisted that only if she pays the boat fare (Rs. 2/-) he will take her to the other side of the river. She pleaded with him and told that her lover is seriously ill, and that she must meet him immediately. Shankar told her that if the matter is so urgent he will take her to the other side on the following day provided she is prepared to sleep with him that night. When Sumati realized that arguments were of no use she agreed to the condition.

On the following morning Sumati reached Sunil's house, and in the course of their heart to heart talks, she narrated the hardships she had to go through inorder to meet him. Sunil got a shock of his life when he realized that Sumati is no more a Virgin, and in his anger he beat her and chased her out of the house. Sumati returned home very sad and frustrated.

When Sathish, her brother asked Sumati the reason for her sadness she told that Sunil rejected her and she was ill treated and beaten by him when she visited him at his sick bed. Infuriated by this Sathish rushed to Sunil's house, pulled him out of his bed and killed him.

Who is the most virtuous character in this story? Why?

Who is the worst character in this story? Why?

Community Health Department
Catholic Hospital Association
of India, P.B.2126,
Secunderabad - 500 003.

17/11/1987.

t.j./l.k.

200.C.

WRITTEN INSTRUCTIONS

Name: .....

1. Read everything before doing anything, but work as rapidly as you can
2. Put your name in the upper right-hand corner
3. Did you want to come to this course? .....
4. Draw a circle round the title of this paper.
5. Put your initials below your name.
6. Are you happy with your work? Underline: Yes or No.
7. Slap your neighbour on the back.
8. Do you like your post? Underline: Yes or No.
9. Are you satisfied with the health system in the country? Circle: Yes or No.
10. Write the name of your occupation .....
11. Write the name of your superior .....
12. Would you like to have more freedom in your work?

    Write your answer.....
13. Are you happy with your friends? Circle: Yes or No.
14. If you have come so far, speak out loudly your first name.
15. Raise your hands
16. If you have followed the instructions so far, please go to the blackboard and say, "I have".
17. Say loudly, "A.B.C.D.E.F.G.".
18. Please do not utter a word till the whole group has finished this exercise.
19. Now that you have read the instructions carefully, do only what the sentence No.1, 2 and 4 tell you to do
20. Please do not give away this exercise by way of comment or explanation. If you have come so far, go on writing something on this paper. Let us see how many persons followed these instructions correctly.

I M A G E S

Lazy	Conservative	Impersonal
Dependable	Emotional	Progressive
Mature	Restless	Helpful
Uncooperative	Frustrated	Concerned
Enthusiastic	Efficient	Immature
Money minded	Insincere	destructive
Loyal	Risk-taking	Grateful
Undependable	Oppressing	Honest
Encouraging	Supportive	Irresponsible
Ignorant	Obliging	Humble
Dishonest	Impartial	Prejudiced
Hard working	Exploiting	Stupid
Clever	Arrogant	Innocent
Fatalistic	Revengeful	Proud
Trustworthy	Adjusting	Kind
Educated	Submissive	Cunning
Greedy	Lovable	Far sighted
Cultured	Ungrateful	Superstitious.

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B

IMAGES

Lazy	Insecure	Impersonal
Dependable	Conservative	Progressive
Mature	Emotional	Uncommunicative
Uncooperative	Restless	Helpful
Professional	Frustrated	Concerned
Irresponsible	Confused	Backward
Enthusiastic	Dogmatic	Hard-working
Money-minded	Efficient	Immature
Loyal	Insincere	Idealistic
Undependable	Over-productive	Apathetic
Encouraging	Risk-taking	Responsible
Supportive	Self-controlled	Unprofessional
Over-sensitive	Impulsive	Appreciative
Superficial	Naive	Exploited

1. From the list of adjectives given above, which seem to you best to describe the urban worker? Select as many words as you wish. If you wish to add one of your own, feel free to do so.

2. From the same list, which adjectives seem best to you to describe the unemployed?

3. From the same list, which adjectives seem best to you to describe the villager?

4. From the same list, which adjectives seem best to you to describe the average student?

5. From the same list, which adjectives seem best to you to describe your parents?

6. From the same list, which adjectives seem best to you to describe yourselves?

RAMAKK'S STORY

Ramakka, wife of Veerabadrappa has two children. She goes to work in Periaswamy's field for the wage of 1 rupee a day. Her younger son, Linga, only 11 months old, got diarrhoea which is a common problem leading to death in the village. With one rupee which she got as that day's wage, she bought 50 paise worth of powder medicine from the nearby petty shop. 50 paise worth of flowers she offered in the temple for the cure of her son. As the diarrhoea continued she approached the local Dai Yellamma for help. She gave her some herbal medicines. But the situation became worse and so Ramakka, with the money her husband borrowed, took the child to the local doctor, who has no training but some knowledge received by watching his uncle who was a compounder. He gave an injection worth Rs. 7/-. The child got temporary relief. When the sedation power of the injection got over, the diarrhoea started again. The local Dia, advised Ramakka to take the child to the district hospital 20 Kms away. She borrowed Rs. 20/- from the money lender on the condition that the amount with the one third of it as interest will be paid pack in paddy, during the harvest season.

Thus they reached the hospital. She was ignorant of the proceedures of the government hospital. She had to give Rs. 2/- to the gate keeper for entry. The hospital personnel were so busy that they could attend to the child only very late. They scolded Ramakka for the delay in bringing the child for medical care. She could not tell the doctor that their trip cost her three week's pay which she should pay back with interest. The doctor also scolded Ramakka for not bringing the child early, and furiously wrote a long prescription including four I.V. fluids. The pharmacist billed her Rs. 60/-. But Ramakka did not have that much money. She bought few tablets and returned home. While on her way back home, the child breathed it's last on Ramakka's shoulder.

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LINKAGES IN PUBLIC HEALTH ACTION

R. SRINIVASAN

MADRAS
25TH FEBRUARY, 1989

I deem it a privilege to be invited by the Voluntary Health Services, Madras, to present my views on linkages in public health action. VHS as an institution is a tribute to the vision, leadership and sense of purpose shown by Dr. Sanjivi, happily with us, in exploring the scope for practical action for rural health care. For any voluntary organisation, to define for itself a clear role and to sustain that note for over three decades is a notable event signifying the prescience and mututally reinforcing vigour shown at all levels within the team. In a vast country like ours, such examples, even if successful, may not immediately become fully replicable elsewhere but the spirit and idealism that pervade such an experiment often finds echoes and fructifies elsewhere. May I start by wishing the dedicated team at VHS continued success and more meaning and purpose in the years ahead? Again, I am sure all of you will join me in wishing that Dr. Sanjivi's continued leadership should be available to the VHS for several years to come.

I have chosen to share my thoughts on linkages in public health action. By public health action I mean the entire gamut of preventive promotinal curative

and rehabilitative tasks to ensure good health in the community, with such changes in emphasis between the various tasks as needed by local circumstances. For this purpose I shall rapidly review the status of our emerging primary health care system, the major disease prevention programmes and present level of health personnel and their adequacy. I see the more useful linkages that should assist public health action to be connected with medical education and leadership; the role of women, voluntary agencies and hope for community participation; and the linkages to health related sectors espcially water supply, hygiene and nutrition.

Let me start with the rural health infrastructure. Today, some 40 years after Independence, India has achieved some measure of success in setting up a rural health infrastructure first envisioned by the Bhore Committee. Based on the precepts of community health care with particular emphasis on preventive and promotive measures, the rural health system in India has sought to answer a comprehensive need starting from the community level and working upwards towards a system of referral hospitals at district and state levels. In spite of tremendous efforts and numerous commissions through the years, it would not be untrue to conclude

that the functioning of this system is yet to reach the expectations set out by that visionary Committee. Again there have been resolute attempts in the last four decades to combat major communicable diseases. small pox in particular. How do we stand in regard to vector borne diseases ,especially those afecting the young? What are the prospects ahead and how integrated are these programmes with the primary health care system? Furthermore, we have developed substantial health manpower: are their roles clear and mutually supportive? Are their training and orientation capable of making them relevant and functionally adequate to their tasks ahead? In particular, considering the large areas of ignorance about health issues in our population, is the manpower aware of the role they have to play in health education and public information? What sort of reinforcing linkages should they look for if the health system were to seek also to realise the potential for self help within the community? For it is only by activating such linkages that it will be possible for the nation to shoulder the enormous burden of ensuring health (and not merely health care) to the community.

Primary Health Care approach which supplanted the

earlier basic health services approach, seeks to provide universal comprehensive health care services relevant to the actual needs and priorities of the community at costs which people can afford. Even though ambitious, it remains a justifiably normative aim.Our national health policy too seeks to bring this about by a conscious shift in emphasis from hospital-based urban medical care to field -oriented rural health care.The creation of primary health infrastructure is, therefore, an important instrument to reach the goald of Health for All by the year 2000 AD ie to provide curative and preventive health services, including specially mother and child services, within easy access to people living in villages.

For this purpose we had planned to provide a community-based village Health Guide (average of 1000 rural population): a trained birth attendant at each village through training indigenous practising dais; a sub-centre with a male and female multipurpose worker (for every 5,000 rural population): a primary health centre either by conversion of existing rural dispensaries or by establishing new units (for every 30,000 ruralpopulation) and a Community Health Centre for every one lakh population by providing additional

inputs to one of the existing primary health centre or by conversion of district/tehsil/taluk referral hospital already functioning below the district level.

As we end the Seventh Plan, say by 1990, we seem close to establishing the targeted net work of 1.40 lakh sub-centres, 23,095 phcs and may roughtly set up half the targeted 2312 CommunityHealth Centres. In order to reach curative, preventive and promotional health care services to groups (at bottom) consisting of not more than 1000 families each - in difficult areas even less number, we envisaged that lowermost reach would cover a contiguous set of half a dozen to 10 villages lying within an area of 5 to 6 sq. miles; and the farthest village may be as far as 15 kms. Inspite of liberal Central funding, the expected manpower availability at the rate of one female and one male Multi Purpose Worker for each SubCentre has been only partially fulfilled; by 1990 wile female workers would be more or less fully in position,, roughly between 30% to 50% of male worders would not be in position in different states. As may be expected the results reflect to some extent the funding arrangements under which female workers are recruited and trained at full Central cost, while male workers are meant to be posi-

tioned and trained as part of the State's bugdet. It has been noticed often that in the priorities set within the States own outlay, social services in particular rural health do not rank high, especially when resources are short. The position then is that more ANMS would be available than male workers as we end this plan (paradoxically more male supervisors propotionately than male workers). The predictable result would be that the load of work on primary health care will fall largely on the female worker, which may affect her ability to perform intensive mother and child health and family welfare conselling work. The plan also intended to provide a kit of simple medicines at each Sub-Centre and PHC and also enable some laboratory testing facilities: even though these have encountered poor management, the administrative and logistic hurdles are largely sorted out. In most States, a doctor (often more than one) is now available at each PHC engaged largely on curative work and family welfare work. Withal, some emphasis on health care of mother and child as as adjuct to population planning is visible at PHC level. There are even now some States - and some areas in most States - where the PHC set up is incomplete or incoherent; the availability of the doctor (doctors), in particular, presents

a problem for a myriad of reasons, some to do with infrastructure and others to difficult living conditions and yet others due to poor supervision and management - wherever availability and regularity of personnel, medicines etc. has improved, patient attendance at PHCs has been better reflectingn undoubted demand for such facilities over time. It is clear though that idle capacity persists, especially in States where health care responsibilities are not subject to any check by effective organs of the local community. It has also been brought out by various studies that the subcentre village and villages falling within a limited radius receive the bulk of the attention and the quality of service deteriorates as we move to remote villages. Community Health Centres, which had replaced the earlier adhoc system of referal to PHCs have now brought the establishment of 30 bedded hospital nearer to the block and with the provision of specialists at each CHC, the coverage of hospital care at CD block level will be complete early in the next plan.

A significant innovation in the PHC System was the Village Health Guide Scheme, which was re-launched as a fully Centrally funded scheme from 1980. There can be no two opinions about the validity of the VHG approach at

the same time; such a scheme will materially turn on the selection of proper persons - an experience that varies among States. After a review of its working in 1985, Government decided to replace the Male VHG, by women guides, but this was found to be difficult and could not be implemented in many States due to various stay orders obtained by male incumbents. As such the scheme stands frozen to an extent with only continuing liabilities are being met while awaiting disposal of cases before the Court. Nearly 4 lakh Village Health Guides (largely men) have been trained since inception to date and each guide gets an honorarium of Rs.50/- p.m. for a growingly shrinking role in community health work.

What does all this imply in sum to the current status of PHC System? There are differences between States in performance. But, broadly speaking, in almost all States the physical framework of Sub Centres/PHCs and about half of the Community Health Centres would have been set up and be reasonably operational by the end of the Seventh Plan; the first stage of a somewhat coherent referral system would emerge by the middle of the 8th Plan, both no mean achievement in themselves. Through the decade of the eighties, we would have spent

a total of Rs.1600 crores over the setting up, provisioning and manning rural health care to serve 75% of India's population. Clearly, in the remaining years upto 2000, there will certainly be not much leeway for any massive additional capital outlay into infrastructure. Priority in funding must go instead to the onerous task of consolidating the framework by making it operational, responsive and cost-effective.

Let me now turn to the major natioal programmes to control or eradicate diseases leading to large number of deaths. We have a splended success story in small pox eradication as part of a global effort at cost effective pratical action; the success owes a good deal to a monitoring system capable of quick response that helped containment and effective eradication. We have also been reasonably successful in regard to leprosy control, which has been a particularly good joint effort between State and about 150 voluntary agencies . Consider the fact taht every third leprosy patient in the world is an Indian and there is a child among every five Indian patients. There exists an even chance now of eradicating leprosy by 2000 AD by operating intensively our established system of detection, treatment and rehabilitation. For the first time in 1987/88 new cases

detected are less than old cases discharged : the balance seems at last to have swung in favour. Our network is large : over 700 leprosy control units, a thousand urban centres, 275 hospital wards and 45 training establishments. There are of course continuing operational problems :case holding is becoming more difficult and there is not enough replacement for the older committed leprosy worker. But, there are two major signs of hope too : the multi drug therapy is effective - in several cases over a 3 year dosage and secondly we are slowly but steadily moving towards an antileprosy vaccine, as field trials are getting into later stages.

The experience with neither tuberculosis nor vector borne diseases especially Malaria has been equally heartening. The earlier ICMR estimate put 1.5% of the population as suffering from active T.B.; a more recent estimate ever puts 40% of the population infected with tuberculosis bacilli even though remaining apparently healthy. What is clear is that every year there are two to three millilion new cases; typically in an average district with 1.5 million population, the chances are that 20 thousand active cases may exist of whom 5000 cases may be infectious. The programme for control of TB is run by 371 district TB Centres (and

backed by over 300 clinics), each TB centre connecting with the PHC for case finding and domiciliary treatment. In complete treatment remains a major problem, which emphasises the cardinal point that in case of diseases requiring sustained treatment for effective cure, the availability of health personnel in sufficient numbers is a prerequisite. The answer does not of course lie in reverting to a vertical system but would lie in augmenting community based health personnel as a supplement to health staff at health centres.

As for Malaria, our early successes were reversed by the re-emergence of the disease due to both technological (resistant vectors)and operational (vertical programme merged into PHC) reasons. Our present modified plan of action has met with a number of constraints : absence of any new operational strategy, ineffectiveness of spray, inadequate funds and lack of accountability for grass roots performance. With better and more powerful drugs, fatalities have come down but incompletely cured cases vulnerable to replace have incrased. Active surveillance as a system has not stabilised, a major reason for which is the feeling that denial of vertical status to the programme has made it less effective. This

argument should not be given much credence, as the substance of the Kartar Singh Committee recommendations in favour of the multi purpose worker at PHC level is basically sound and should not be retracted from. The vectorborne diseases programme may get a new emphasis if the present experiements at bio environmental control in Gujarat and UP succeed and are proved to be cost effective. The time has come to recognise that spraying responsibilities should be fully accountable to the local community, at which level alone supervision at that degree of the smalls seems possible routine but vital preventive tasks.

Inspite of the great importance attached in the last two plans to safe drinking water supply, both the rural and urban community continues to be at risk from water borne diseases. Apart from disturbing instances of gastroenteritis and even cholera in major urban centrs, hepatitis has become a major hazard. Rainy season illnesses such as these are still being countered by traditional public health measures : only a major breakthrough in rural water supply in rural areas at the end of the current technology mission and a much larger effort at urban sanitation, especially excretal pollution, are required. While the former seems achievable,

the latter will most certainly meet with finacial constraints, in spite of various low cost sanitation experiments. It might be better to await action of the National Urban Commission's Report. What cannot wait too long is prevention of death from the oral dehydration during infantile diarrhoea episodes at present asssessed at over 200,000 per year. A feasible method may well lie in localised frontal attacks on combating infant deaths and attempted in specific regional pockets with high IMR.

Four conclusions that seem to emerge from detailed review of the selected programs appear to be : the magnitude and scale of the effort required to mount these national disease control programmes would demand greater epidemiological data for selective action and determination to reallocate resources in favour of the rural PHCs; two : the entrustment of public health action tasks to the MPW is sound policy and, notwithstanding teething problems should not be abandoned and three : constant efforts should be made to look for community based resources to handle separable tasks in programmes so that they can be community managed ; four : the integrated responsibility at PHC level would get

fulfilled only with far greater and continous training of personnel and leadership of the doctor.

I now turn to issues connected with functional adequacy of different levels of health personnel. First, some facts may be set out. The Bhore Committee set out for 1971 (at an estimated population of 370 million) 18500 doctors (1 : 6300), 75000 nurses (1 : 43000), 75000 Health Visitors (somewhat like a public health nurse) and 92500 dentists and midwives each. By the middle of the eighties with a population of close to 800 million we had a health manpower stock of 2.97 lakhs allopaths, 2.83 lakhs ISM practitioners, 1.23 lakhs Homeopaths and less than 10000 dentists. As for nurses, we had a little less than 2 lakhs. In addition the Primary Health Care system had been able to put in position a little over 1.00 lakh SNMs and a little over 80000 male workers. If one were to apply any appropriate standards, the shortage of nurses would run into nearly a million and the ANMs would atleat have to be doubled . Consider again the bed strength in hospitals. There were a total bed strength of 5.87 lakhs in Jan 1988 of which one lakh were in rural areas. The skewed character of health personnel availability is further illustrated by the fact that in Soviet Russia for a population of about

200 million, there are 2.8 million health workers, of which about 40% were doctors.

Apart from the manpower being out of balance what are the other implications? Firstly, there is for the first time the beginning of female of health personnel availability in mid areas capable of responding to mother and child needs, even if family planning remains the main preoccupation. This is a gain not to be underestimated. In fact, had the male workers' strength been increased equally, the gain would be even more visible, especially in family planning counselling to men as well as in disease control programme activities. Secondly, there is a gross underestimation and undermanning at levels of nurses and paramedicos,a critical prerequisite for any quality improvement in health care services. Thirdly, the available ISM/Homeopaths contribute a sizeable form whose optimal utilisation deserves attention, especially as they in effect contribute a second line of health care - often on a paying basis. Finally, there is considerably large availability of allopathic doctors with a substantial number of them either urban based or attached to the hospitals system which is again most urban.

The medical education and training structure erected in the last four decades has been substantial and there are many medical colleges which have striven to maintain standards though there is criticism about the degree of rigour in practical training . Medical education remains expensive but fulfills a real demand both on economic consideration as well as for reasons of esteem in the community. However, the proportion of doctors that serves PHCs and newer CHCs remains less than 15 to 20% of the total stock in a country with a prepondermantly large rural population. There are very good reasons why doctors (endowed with as much concern for national needs or any of us) are not interested in taking a more active part in the emerging rural health structure. Apart from lack of minimum living conditions in some areas, they are frustrated by the absence of minimum preconditions that makes professional practice enjoyable - lack of medicines, books, poor review and senior guidance. A steady negative public image about their reluctance does not help in reducing the sense of frustration. It seems also true that they have not always been taken into confidence sufficiently to explore feasible solution that might work better. The most spectacular result in my view, has been a steady

decline in the leadership role of the medical doctor in rural areas.

The overriding importance given to population control activities, even if justified, has led to target oriented and mechanical attitudes in a context that in fact calls for an extraordinary degree of innovation and daring. In fact, a whole range of public health action stands at risk due to the absence of a team buildup with the doctor in total command - similar to teams that have emerged in agriculture and rural development. It is indeed interesting to note that wherever health has been viewed in terms broader than mere treatment of disease and as part of a larger developmental effort the results have been rewarding even in the present constraints. The place to start is to restate, restore and promote the concept of the natural leadership role of the doctor in whole the realm of public health action. The coherence of his team should no doubt match his leadership responsibilities. But it would be a waste of national resources to look elsewhere for leadership consider the social costs in making him a doctor and more importantly, his direct relevance to the public health scene. For it is well known that health as such

is not a priority for the majority of the poor. The true priority for them is sickness, especially that sickness that denies them the day's wage. To get cured early, even half cured may be, he is willing to incur large costs. To such a clientele, nothing but curative intervention would carry credibility; all persuasive health messages can only follow; and none else than the doctor can make that curative intervention. But, soon enough, he has to have the sensitivity to go beyond cure to "overcome" as it were, and to go into larger health issues of hygiene, sanitation or nutrition or indeed self help for good health.

The linkage to education, training and orientation of all levels of medical and para-medical personnel stands self-evident. Sadly, schools of public health (or as renamed departments of community medicine - the name tends to diffuse the focus if you are off-guard) have become a declining class, leaving indeed few institutions with holistic concerns. Latterday attempts to reconvey the community character of the health system still present a poor career choice to the medical student - surely he will not be attracted by that which is so non-clinical and also so non-remunerative; not so surprising either. We can restart the tradition of

holistic concern with a few prestigious schools of public health set up with trans-disciplinary focus to which the young PHC doctor can carry his first few year's understanding of perceived public health tasks and acquire 'problem solving skills.' How relevant would such an orientation be to our social (not merely clinical) epidemiological may will be clear from the fact that the diploma in public health of the A.I. Institute of Public Health and Hygiene , Calcutta carrying such prestige over decades is not yet recognised by MCI. Infact the critique on the ROME Scheme has brought forth repeatedly the point that it is the context as well as the content of the orientation that requires change. What was understressed is the perception that only after some exposure to ground conditions does even a sensitive doctor become ready to grow beyond his discipline. Refresher course could be meaningful and indeed mandatory for certain levels of responsibility in the public health system; indeed a conscious status restoration for selected public health positions within government is a priority need. In this context, the large resource of qualified indigenous system practitioner should not be forgotten : we need all health personnel with competence. They should be given

the relevant roles in public health, wherever they carry credibility, but this step should neither stray from, nor confuse the basic position that each recognised system of medicine offers curative care within its own ground rules.

The role of other para-health personnel may well be covered in the next essential linkage viz. women's status vis a vis public health action. Not only in population planning context but in the entire range of issues on the costs and benefits in health-giving goods and services, women and children have remained mute, availed consistently less than their entitlement and this distributive inequality stands sanctified by custom and social codes. Thus the most needy do not ever become (or allowed to become) a community conscious of and articulating their right to health-giving goods e.g. - no "effective demand" has emerged in spite of universally noticed prevalence of anaemia in women and malnutrition in children. Redressal of this situation is often sought in female literarcy, access to income, share to assets etc. and the so-called "political will" established as the deus ex machina. Such policies may have their own justification but, taking the short run and realm of practical action, greater face-to-face

contact with female health workers may send up signals, of health needs effectively. To expect revolutionary changes in women's status to improve their health shares would only postpone any immediate succour. Two segments in greatest need are already clear : adolescent girls and those critical 30 months of a mother and child starting with Third trimester of pregnancy. We are really looking at the need to reach to about 200 to 250 million women (about a third in our cities and towns), generate and reconvey upwards their demand for health services. Paramedical female field personnel, including community volunteers, must match this demamd in quality and quantity, which will call for ten times the number currently deployed. Further, unlike what has started happening to VHGs, the force should remain proactive and not be merely the lowest rung of the bureaucracy. How can such an augmentation take place soon enough?

One possible way would be to consider linking up existing proto-health functionaries at the grassroots namely the woman teacher at primary school and the anganwadi worker - together adding upto at least ten more women in an ANM's jurisdiction. Indeed, the skills of a village health guide or an anganwadi worker can be

imparted in the school curriculam. Or, indeed the training can be available through a mobile system for all women falling within laid down criteria, thus augmenting the reach of health information channels at least cost. The school, the anganwadi and the subcentre should together grow into a defence system for women articulating their health entitlement and getting their due shares, which will bring in immeasureably liberating social gains. The decisive element is to empower the woman to make her own decisions, (howsoever subrosa) and create effective demands on the health system for her and the child.

Voluntary sector linkages to health action have a venerable and proud history in this country. In fact, the load on the public system would have been intolerable otherwise. The range and points of concern in the linkage with the voluntary sector are too diverse to comment briefly : but it has remained a constructive linkage sometimes in quiet experimental action, often in dispensing services alongwith the public system, and more often in public interest articulation and advocacy. May I explore quickly two specific aspects, the first concerns the arrangements for flow of government financial assistance to voluntary agencies : the record

is mixed - marked by poverty of imagination in aid schemes as by unreasomable interpretations of voluntarist autonomy. Nor has inter voluntarist networking been a signal success, and the record in availing foreign assistance is enveloped in bouts of mistrust. What emerges clearly is the absence of a mediating mechanism carrying trust from both sides, the devolution of hard headed criteria to assess agencies and projects complemented by fending government off from intrusive curiosity. Neither the UGC nor social welfare boards nor the statutory boards to support small capital activities inspire much hope with their track records. Perhaps like CAPART (in its relatively new areas of operation) an institution can be founded as a non-profit totally professionally staffed and managed body to assess apprise, fund, monitor and where necessary, penalise or encourage voluntarist activity in the health sector. A public debate on developing such a body would be timely and may help clarify several aspects because the voluntarist sector in health has acquired enough maturity and self confidence to play a larger role.

The second aspect concerns the issue of community participation in both global and voluntary systems.

There is merit in the criticism of lip service being paid but bureaucracy managing to prevail : at one end it concerns the larger issue of the quality of democracy - but at the other end, it is necessary to see if the "cultural gap that exists between the people and personnel providing health care" has enlarged. Present evidence is not encouraging but dramatic changes cammot be expected either. But no satisfactory health status for all people can be achieved without the community identifying their own health needs and then allowed to oversee, if not managed their health programmes. The community, which means the individuals thereof - especially the weaker ones - has to be helped to do so : and a community can be empowered only when the individuals do get so empowered; and that is a function of practical access to knowledge and information. There is talk of a recovenanting of the constitutional arrangements in the near future. Such a denouenment would be fruitful only if the local community is seen to "own" the health personnel empowered to decide on priority needs and enable to oversee implementation. No doubt, the structures may reflect current socio-political realities and deny equity and access to those who do not count in the decision making process. To them indeed, we should erect supplementary face to face

informal channels of contact for their needs to emerge and prevail. That provides the best rationale for augmenting female health personnel full time and part time, wage employed and community derived, formally trained and informally skilled.

In a country with vast disparities and criss-crossing levels of deprivation, questions of equity of access to health care tend to get lost in more urgent arguments about coverage and expansion. That is why developing effective likages in several dimenssions becomes critical to the health system. Side by side, there has to be a relentless thrust in two directions: push down resources to reach the community and empower them to the utmost extent to decide for themselves in their own interest. This demands faith and optimism too.

COM H-12.

VISIT TO AGRICULTURE DEVELOPMENT AND TRAINING SOCIETY (ADATS) ON 29th AUGUST AND 13TH SEPTEMBER 2002

by S J Chander & Dr Rajan Patil.

Agriculture Development and Training Society a non-governmental development organization works towards improving the socio, economic and health status of the land less laborers in 800 villages in the following 5 taluks of Kolar districts, viz Bagepalli, Chikbalapur, chintamani Sidhalaghatta and Gudibanda. ADATS started work in ———

Give broad objectives of ADATS + no. of staff

In each of the village where ADATS is working, they have started a Coolie Sangha Unit (CSU); each CSU consists of 20 – 30 families. One member from each of these families is represented in the CSU. One field worker (ADATS staff) for every 30 villages functions as a link between CSUs and ADATS. Every village has trained health worker.

1. PROBLEMS AND HEALH NEEDS OF THE PEOPLE ACCORDING TO ADATS STAFF.

There was a discussion with the project assistant and 5 field workers. The problems and needs as perceived by them are furnished below.

Specific health problems

Poor environmental and food hygiene is due lack of health awareness. Gynaecological problems of women particularly white discharge are common among women. They said recently they had conducted a health camp through which they had screened about 250 – 300 women with the problem of white discharge. This is identified in the local dialect as *(Chelkahattai)*.

General Health Problems

The following problems were told as the other common health problems prevailing in the villages; fever, cold, lack of awareness on nutrition and headache were told as common problem among the people.

Problems of women

- Problems related to menstruation.
- There could be women with HIV possibilities (This they said the doctors from St. Johns Medical college who conducted the camp for the cancer of cervix told them)
- There are other gynecological problems including infertility.
- They said they also found out a few women with childlessness

SJC
This is a useful report to plan an intervention as you suggest for one year – basing on the "women's health empowerment" – eg, JAA, forming of women's groups, + life skills education for children, Perhaps first one taluk may be selected for some of the inputs. Please discuss to develop a detailed plan. We can have an MoU with ADATS.
[initials] 19/11

[initials] 7/11/02

Problems of Children

They said that they conducted a health camp for children. 9 children identified with some problem were referred to hospitals in Chickakbalapur and Bangalore. They said they also identified 4 children with impaired vision and referred them to hospitals nearby.

Tobacco & Alcohol abuse

They said that use of tobacco and alcohol is common among both men and women. It was reported that elderly women use tobacco to avoid thirst while working in the field. There is a practice of giving tobacco to lactating mothers before they first begin lactation. They said people start with chewing beetle leaves and areca nut and later switch to tobacco. It was reported that alcohol consumption is common among both men and women. They said more people among the scheduled caste group consume alcohol.

2. CLSUTER MEETING HELD AT WARVUNSHATTIHALLI

There was meeting held with the people in the village mentioned above to discuss their health problems and needs. About 20 men and women came for the meeting. Representative from 5 villages attended the meeting. From each village 2 male members, 2 female members and the VHW attended the cluster meeting. Following information was provided about the health problems and needs.

Tuberculosis

The people said that Tuberculosis is prevalent among both men and women but women are more affected.

Epilepsy

4 children were reported to be suffering from epilepsy. (*Local treatment for this was reported as giving a bunch of keys in the hands of the person suffering from epilepsy)* They also said that there are traditional healers who give some herb for treatment of epilepsy. In one village it was reported that one child, and two adults, a man and a woman in their thirties are suffering from fits. The child is being consulted at NIMHANS and the lady who got fits soon after childbirth went to a traditional healer and she is reported to be improving. They said the person who practices mantra is taking advantage of some of the problems of people by promising to cure them. They shared the experience of the VHWs. Once when she was suffering from stomach pain she went to this healer. He tied a chicken to her stomach, the chicken died after few minutes and her pain subsided. They said though they have questions about its reliability, they are helpless but to seek the help of such people when some problem arises at midnight. They said they take them in the morning to a hospital. One child was identified with water collection at his side, wheezing is also reported to be common among the population.

Problems of Women

The women said that white discharge is common among them and when they have this they are unable to work. They said that the treatment provided at the recent camp conducted by ADATS has helped in improving this situation. Two women said they always feel tired and they are not interested doing any work. One woman said whenever she eats she would have diarrhoea and vomiting. When she went to the doctor, he told her that she has no blood in her body (*may be anemia*). When she went to traditional healer, he gave her some medicine, there was a relief for a short while and the problem started again. Three more women said that they also are interested in doing any work and they always feel tired.

Problems of Men

It was reported that a few men suffer from Pain while urinating, emission of blood was also noticed and they are unable to work when this happens.

Mental Illness

They said that there were two men suffering from mental illness (*mental, thikkulu*) One man suffering from this illness says that he wants three wives. People said it is a problem known as mohini (female evil spirit); they said if such people were married they would be all right. They said that the son of the VHW who is suffering from mental illness always experiences mood swing. He experiences more particularly during full moon day.

Govt. Health Services

About Govt. Health services, they said; *"The sister comes to the village once a month to give immunization, she visits houses and asks if anybody is ill. If people said yes she would collect the blood and go away"*

Anganwadi

There is a centre with a teacher. The center is open between 10 am and 3 pm. There are 30 children in the centre. They said food given there is nice. They said the teacher weighs the children. The people said anganwadi is helpful in getting the habit of going to school for small children. They said the purpose of giving food to children in the centre is to improve their health status.

School

There is a middle school in which 90 children are studying. They said the school has improved during the last 3 years. The teacher teaches well. Previously it was not good so the children went to other schools. The people said in one village the teacher was not teaching properly. She would come at any time she liked and go away as she wished. The villagers said, *" we would gently ask the teacher to improve and he/she improves fine, if they don't, if necessary we would give them a slap".*

3. INTERVEIW WITH THE BLOCK HEALTH EDUCATOR

The following information was elicited from the interview held with block health educator. There are 9 Primary Health Centres (PHC) in Sidhalaghatta taluk, under each PHC there are 2 – 3 sub centers. He said asthma and TB are common among half of the population who are predominantly SC ST with whom ADATS works. He said the position of taluk medical officer was filled and the positions for physician and pediatrician are still vacant for many years. There are other specialists like orthopedician, gynecologist, medical officer, general surgeon's posts are filled and they are functioning. He said earlier it was a 30-bedded hospital, later it was upgraded to 50 beds.

The block health educator said, "People do not understand the problems of staff. *"When we say no medicine, people still demand, they don't understand that the government doesn't supply us, sometimes they even beat the staff. That is why some of the positions are vacant and staff does not want to be posted here. "* He said that the hospital gets only 40% of drug supply. *"We get the paracetamol and a few other drugs, no antibiotics and the doctor has to prescribe. People don't understand this; they question him."*

He said patients registered on a normal day with the outpatient unit are about 300. There are 50 beds, 20 for females, 20 for male and 10 for children. There is a special room for which the patients have to pay Rs .15.00 per day.

He said they see more people with TB and malaria recently. Every month 5 to 6 new case of TB is reported. 500 people were treated for leprosy during 2000- 2002 and at present there are 43 patients under treatment. He said malaria cases are increasing and there are no malaria workers. Of the 20 positions only six are filled, of the 3 senior health inspectors positions only one is filled.

4. VISIT TO PRIMARY HEALTH CENTER

We visited the PHC at Bussetty halli. Doctor had gone to Bangalore. We met the ANM and the male health assistant; they said TB and malaria cases have increased. At present there are 11 TB patients under treatment and no new cases reported during the past 3 months. 4 leprosy patients are under treatment.

Problem of women

The ANM said that the white discharge problem that is common is due to poor personal hygiene and poor nutrition intake. She said people perceive the problem is due to tubectomy. They said they give health education on importance of hygiene during menstruation.

Problem of Children

They said diarrhoea, cough, fever and worm infestation are common among children and about 30% children suffer from anemia. They said school children are given TT at schools.

5. DISCUSSION HELD AT AMMAGHARAHALLI ON 13.9. 2002.

Members of the CSU participated in the meeting; there were about 15 women and 5 men present for the meeting. Mr.S.J.Chander and Dr.Rajan Patil facilitated the discussion. The health problems perceived by them are furnished below.

Health problems of women

The women said the following problems are common among them cold, fever, cough, white discharge and backache. One woman said she has body pain and back ache. She said when she takes an injection she would feel all right for a week and the problem would start again. There were two women reported to be affected by goiter. Another woman said she is suffering from piles, body pain and indigestion. Another woman said she is suffering from TB and she is taking treatment from Bangalore. Another woman said she feels tired and body pain. She said she took an injection and the doctor told her that she had no blood; another woman said she has backache, fatigue and white discharge. Two of the women present complained of burning sensation in their stomach. Another woman said she has backache, feels fatigue and unable to walk. One woman was suffering from leucoderma (white patches).

One needs to get a broader picture of health problems at the village & taluk level - from records, talking to govt & private health providers

Problem of Children

Following are the problems reported to be common among children: fever, cold, cough, fits. Three children are suffering from epilepsy and they are under treatment from a pvt. doctor at Chinthamani. One girl was reported to be suffering from diplopia. Ten children with ear discharge and one child was suffering from umbilical hernia. They do go to both the private doctor and government doctors. The private doctor charges 10 –1 5 rupees and gives injection and tablets. The government doctor takes 5 rupees for each consultation.

6. ACTION INITIATED BY ADATS

Village Health Worker (VHW)

Every village has a women health worker identified among the CSU members. These health workers were trained by CSI (Church of South India) hospital at Chickabalapur. They have undergone a 4 days training programs for 2 or 3 times. They are taught about treatment of minor ailments, like fever, cough, cold and body ache. It was reported that they spend more time in empowering women and address non-health related issues.

A copy of the training schedules will be useful & a visit to the Chickballapur hospital

Treatment of minor ailment

Monthly each of the VHW are given 100 – 200 rupees worth of medicines (the staff said providing medicines for common ailment help them as a strategy in promoting CSU membership and participation.)

Do they maintain records with - six monthly or annual reports

Ambulance Service

ADATS provides their Jeep for CSU members particularly during any emergencies to take the person to a hospital either at Chickbalapur or Bangalore.

Mahila meeting

Mahila meeting is held once a week in every village for the women of CSU. It was reported that socio, economic and political issues are discussed in the meeting. There is a mahila fund created by CSU members and ADATS contributes Rs 30,000 for the entire taluk. It is a revolving credit fund. Very poor and destitute women are provided with loans up to 12000 to 14000 rupees to start income generation activities. 25 to 50% of the amount is given as subsidy.

The VHW present said she attends Mahila meeting. She said she conducts deliveries and gives medicines for fever, cold, headache, injuries, stomachache and diarrhea. She also takes the sick people to hospitals whom she is unable to manage.

Recommendations

1. It was observed that most of the health problems prevailing are preventable. People needing curative care could avail the services of the existing public health delivery system. It was observed, the health care facilities are fairly equipped to handle the prevailing health problems.

2. It was also observed that the people are empowered enough to demand health as their right. If there are gaps with the public health care delivery system it needs to be bridged with the support of the local NGO.

3. Anemia and white discharge were frequently reported. A prevalence study may be helpful in understanding the magnitude of the problem. There may be a need to address specifically these problems. Community Health Cell and ADATS could agree upon a feasible programme/strategy for addressing these problems after discussion.

4. The present strategy adopted by ADATS by introducing village health worker is found to be more effective by many projects in the country. It was observed the roles currently played by the VHWs are limited to treatment of a few minor ailments and credit management only. Knowledge and skills of the existing Village Health Workers (VHW) needs to be enhanced through regular training programmes for a year or so to address the health problems and needs of the community effectively. Community Health Cell would be interested in taking up the task.

5. The Proposed training programme would enable the VHWs to identity any other health problems of concern to people and to seek support for equipping themselves to address these problems/ needs effectively.

Report prepared by

S.J.Chander
7th November 2002

COMH-12.

Report on training programme at St . Joseph's Health Center Doddaballapur
Date ; 7th September 2002

As a part of regular training programme to the community health volunteers of the center session on few major community health issues was conducted in month of September . Topic for September session was on " Communicable Diseases" .

Objective of this training programme was to introduce few common communicable diseases to the volunteers. Three major topics identified were, Malaria, Tuberculosis and HIV/AIDS.

Malaria : under this topic major points covered were- causes(parasite called plasmodium), Carrier-Vector(Female anopheles mosquito) signs and symptoms(Chills, Fever and Sweating-in this order only) test done- Blood smear(thick and thin) prevention(controlling water logging, chemical spraying esp. just before monsoon, using bed nets, mosquito repellent methods etc.) treatment(10 Choloroquin tablets only for 3 days and its given free at PHC or any other Government Hospitals) and management of these diseases at community level. Apart from discussing these information few common question regarding malaria were clarified and few of the misconceptions were rectified. Some common misconceptions were - mosquito in the gutter & unclean water spreads malaria, malaria is a water borne disease etc.

Tuberculosis: Under this topic also major points covered were as above in the case of Malaria Causes
(bacteria called Micro bacterium tubercle) carrier(air) signs and symptoms(fever for more than 14 days , cough more than 14 days, loss of appetite, loss of weight , blood in the sputum), test done- (sputum, and x-ray prevention- maintenance of cleanliness in and around the house, BCG vaccination, proper nutrition , and follow healthy and hygienic practices) , treatment(long term , but it is free in government hospital, but they were told that apart from taking medicine patients should also take very nutritious food)
and how to manage these diseases at the community level was also told to them. Apart from discussing these few major misconceptions were also clarifies. Few misconceptions were- TB spreads if healthy person stamp on the sputum of the patient etc.

HIV/AIDS: Under this topic also major points covered include causes(human immune virus), carrier
(person's body fluid like semen, blood, vaginal discharge) ways of spreading - sexual contact, blood transfusion, mother to child, and through usage of pricking instrument) ,signs and symptoms - fever more than for a month, diarrhea for more than a month ,loss of body weight to the extent of 10% of body weight. test done- blood, vaginal discharge and semen analysis. prevention- abstinence(if not yet married) being faithful to partner(if married) , get blood checked if anyone is taking blood from unknown source etc. treatment- as of now there is no drug for the cure of the disease therefore prevention is the only option to keep away from this dreaded disease. Apart from these discussions few major misconceptions were also clarified. few major misconceptions were - AIDS can spread though saliva and urine of the infected person, can it spread though usage of same plate, sharing the food with infected person **etc.**

In the post lunch session participated saw the cassette on these three problems and was summoned back to discuss about the issues highlighted in the cassette. This procedure helped in addressing the various important questions they had and there fore could clarify the queries they had and endorsed the views expressed by the trainers.

COM H-12.

Report on visit to Hakki Pikki Colony and Iruliga camp

Date: 16th September 2002

Visit to Hakki Pikki and Iruliga colony was made with Vimochana team on the basis of their request. Team consisted of 3 members from Vimochana (Ms. Madhu, Mr. Amararesh, and Mr. Shivamurthy), a member from FRLHT (Ms. Shree) and Mr. Prahlad from CHC. This colony is located 7 kms beyond Bannerughatta National Park on kaggalipura main road. This is approximately 30 kms away from Bangalore city. Hakki Pikki is the tribe originally from Gujarat and Iruliga from Karnataka. They have rehabilitated in this area in 1962 during Jawaharlal Nehru government. Even now administratively this area comes under Tribal Development Board, but geographically belonging to Anekal taluk, Bannerughatta panchayat.

Objectives of the visit was:

- To get first hand information on health and social conditions prevailing in the camp.
- To understand local health practice, services available to the residents of the colony.

This camp consists of approximately 120 households with more than 800 persons. Female outnumber male numerically (is this because male members usually migrate in search of jobs). These hundred and twenty households are almost equally divided among Hakki Pikki and Iruliga tribes.

Basic facilities:

Water: One hand pump and bore well is serving the population for their need of water. Bore well is connected to Mini Water Tank through which they have to collect water.

Drainage and toilets: Though open gutters have been constructed, they have not been maintained properly leading to stagnation of water and cesspools could be seen all over the living area. This is very unhygienic and can also lead to mosquito breeding

School: primary school up to 5th standard is available in the camp itself. For further studies they have to go to Bannerughatta or Kaggalipura. Right now 30 children from different age groups go this school, while two are pursuing higher studies in Bannerughatta. There is no gender discrimination in sending children to school.

Anganawadi/Balawadi: there is balawadi run by panchayat. 30 children avail the services of Balawadi here. However for; last few months they do not have any teacher. Only helper is managing the center by giving the supplementary food.

Social situation: Iruliga (literally meaning - night beings) tribe feels they are socially superior to Hakki Pikki tribe. Iruliga are the priest community, therefore they enjoy better status in tribal community. Hakki Pikki is lower in the tribal hierarchy. Socially women are more vocal in the both tribes. They still have the practice of groom's family giving money to girl 's family during the marriage (Rs. 5,500- Rs. 6,000 is given or it may any amount fixed by priest depending on the economic condition of groom's family. Four deities are worshipped among these two tribes. Two deities are said to be superior-clan to which Iruliga belong while two other deities are said to be inferior-tribe to which Hakki Pikki belongs. But what was very sad was concept of caste; superior-inferior is slowly but, steadily creeping into their lives. Women enjoy equal status with men.

Occupation and Economic Condition: Both the tribes living are given 3 acres of land per household by Govt of Karnataka. But the area around is rocky therefore land

available for cultivation for each of the family is very less. Iruligas follow cultivation and grow Ragi, vegetables and depending on the rains they grow little paddy also. Hakki Pikki tribes mostly go for agriculture and construction labour. Hakki Pikkis live very easygoing type of life. They would sometimes even carryout begging for their livelihood. But staff from Vimochana said that they never carry out flesh trade for the sake of livelihood in spite of their difficult living conditions. They have peculiar way of protecting themselves. (Women when they come out from their camp, maintain themselves very shabbily so that they wont attract men around.). Economic condition is very pathetic for both the tribes, as they both do not have sustained livelihood.

Health problems: Major health problem in the area is Water borne diseases such as (Vomiting, Diarrhea, jaundice is common among general population. Apart from these they even complain mostly of joint pains, Chest pain, Body ache (they complain of pains and orthopedic problems only from last 3-4 year. This is period during which community has started using hand pump water) while women complain mostly about missed periods, white discharge, and other gynecological problems. Respiratory problems and Diarrhea is the most common among the children. Alcohol and Tobacco abuse is rampant in the area. There is no gender difference in this, as both men and women were found extreme alcoholics.

Health facilities / practices: As this is located in center of Kaggalipura and Bannerughatta they usually approach both the areas for medical help. While Bannerughatta (7 kms from camp) has a Primary Health Center, FOSA (Friends of Sick Association) Humanitarian hospital - initiated and managed by Kempfort and two private clinicians, Kaggalipura - (8 kms from camp) has a Primary Health Center, and few private clinicians. Apart from these, Mr. Sakayya from community is traditional healer. He is more known as massage expert and bonesetter. There are no traditional birth attendants.

General Observations:

1. Sanitation awareness among the community is very low.
2. Community started complaining of orthopedic problems, since they started drinking water from hand pump.
3. Caste discrimination has started creeping in their lives.
4. Community is willing to have their own kitchen gardens.
5. Many youngsters were found wasting their time just hanging around in the area.

Suggestions:

1. As awareness is low among the community approach should be to create awareness. Though community looking forward for medical support, through the awareness and training programmes their problems could be reduced. (CHC could help in this process)
2. Community Volunteers could be identified from the community (preferably group of women) and they can be trained as a health volunteers. Training programme could be planned on above-mentioned problems. This needs to be continued for at least six months. This will reduce their problems of approaching various hospitals and reduce the danger of getting exploited. (CHC with support of few other groups SJMC etc could help in this process)
3. As the community is eager to have kitchen gardens, it should be initiated first to increase the involvement of community.
4. For treatment purposes, Government Hospitals and Medical college hospitals could be involved. KIMS, St. John's and M.S.Ramaiah Medical Colleges and institutions like Indira Gandhi Institute of Child Health etc could be approached

for this purpose.(CHC could help in introducing Vimochana to these institutions- if necessary)

5. As many youngsters were found to have free time due to unemployment and underemployment - they could be trained in community based and relevant job oriented programmes. For this purpose SKIP house could be involved- CHC could help to create the linkage between Vimochana and SKIP.
6. As the water source is suspected to have chemical contamination, water sample could be taken to State water laboratory, Public Health instute, Sheshadri road and tested. Vimochana could write to Dr. Kamat, State laboratory directly or can ask Bannerughatta PHC Medical Officer to write. This helps in involving the local governance in the Vimochana's intervention in the camp area.
7. Discussions could be held with Tribal Welfare Board and Department of Women and Child development regarding improving the Balawadi. Number of Under 5 children will indicate whether there is a need for additional balawadi. Steps to appoint the teacher are also needed. If identified, Karnataka State Council for Child Welfare, nandidurga Road, can train a person from the community itself.
8. It is important for the community leaders along with Vimochana and CHC (Through Mr. Prahlad) to meet the doctors and staff of the two PHCs and discuss public health progrfasmmers and referral systems. If it falls under the PHC zone then ANM should visit this area.
9. A community exercise will need to be done to assess age, gender profile, immunization status of children, Mother and Child health care, any public health problems like TB, Malaria, STDs etc in addition to whatever expressed by **community.**

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C -14

HEALTH STRATEGY AND DEVELOPMENT PLANNING

Lessons from the People's Republic of China

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In Section I of this paper we present an analytical paradigm by which to evaluate health and medical care services in under developed countries. In Section II, we apply this framework to an analysis of the health policies of one developing country, China. In Section III, we evaluate the Chinese health and medical care policies within the framework of a cost-benefit analysis and argue that these policies are appropriate to China's factor proportions and health needs. Finally, in Section IV, we raise a number of questions to be considered in any more detailed studies on the transferring of the Chinese services to other developing countries.

I

ANALYSIS OF DELIVERY OF HEALTH SERVICES

Only recently have developmental economists begun to consider health services as an important area of overall development strategy. Despite Myrdal's emphasis (Myrdal, 1968, pp. 1533-1619), the literature on the relationship of health policy to economic development is still sparse, and few development plans explicitly recognise the need for integrating the health system into the strategies for development. Some professional health administrators and doctors continue to argue the need for integrated health and economic policies (Bryant, 1969; King, 1966; Worth and Shah, 1969; Gish, 1971), but few have heeded the call. This study, by focussing on Chinese health and medical care services, will emphasis the need for such integration.

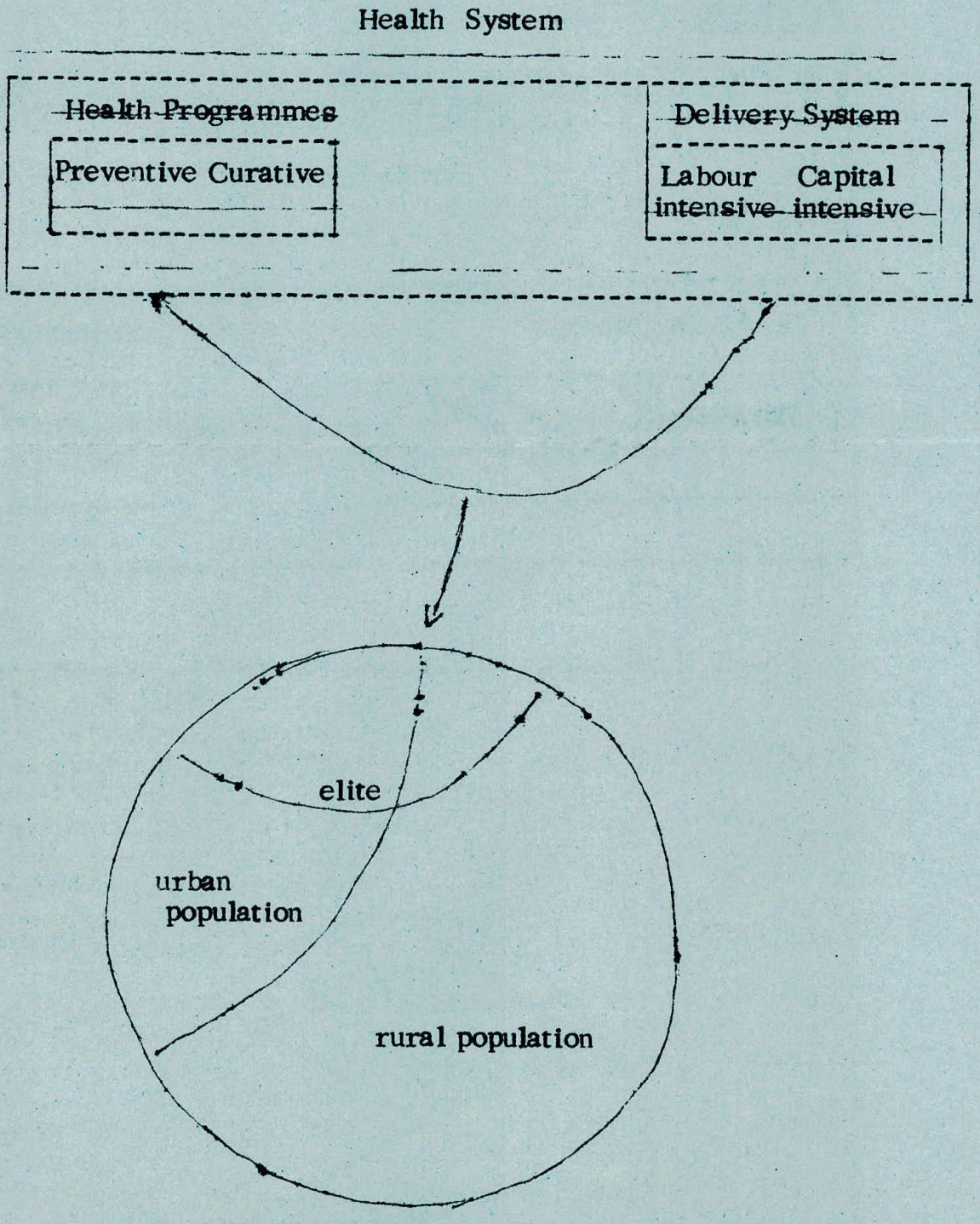
Figure I presents our basic paradigm of the relationship of health and medical care services in the socio-political-economic system. Three factors affect the provision of these services to the consumers. The major factor is the structure of Effective Demand, which reflects the ability of the powerful groups in society to affect the allocation of resources to produce certain types of goods and services to meet their needs. The second factor is the nature of these services, that is the Health Programme, which is composed of a mix of preventive and curative techniques. The third factor is the technique of distributing the goods and services of the Health Programme, that is the Delivery System, this is determined by the capital: labour mix in three spheres - construction techniques in public health, the type and level of training of manpower (medical auxiliaries or doctors) and the manpower and equipment used in providing traditional and / or "Western" medical services. The Health Programme and the Delivery System together comprise what we have called the Health System.

The primary factors conditioning the nature of the Health System are the structure of effective demand (which is conditioned both by the level of per capita income and by the interplay of socio-political forces) and the endowment of factors of production. The highly curative and capital intensive Health System which exist at present in the developed countries generally were predated by more preventive, labour intensive systems. As their GNPs grew (with a consequent increase in the capital: labour ratio), and as preventive infrastructures were developed, new resources were channelled into more curative programmes distributed by more capital intensive Delivery Systems.

Underdeveloped countries with low levels of per capita income generally do not possess these well-developed preventive infrastructures, and labour is plentiful relative to capital. It is to be expected (given that there is a limit to investment in the Health System and assuming that health and medical care services are to be widespread) that their Health Systems would stress prevention rather than cure and would use labour rather than capital-intensive techniques. However, this is not the case.

FIGURE I

PARADIGM OF HEALTH AND MEDICAL CARE SERVICES

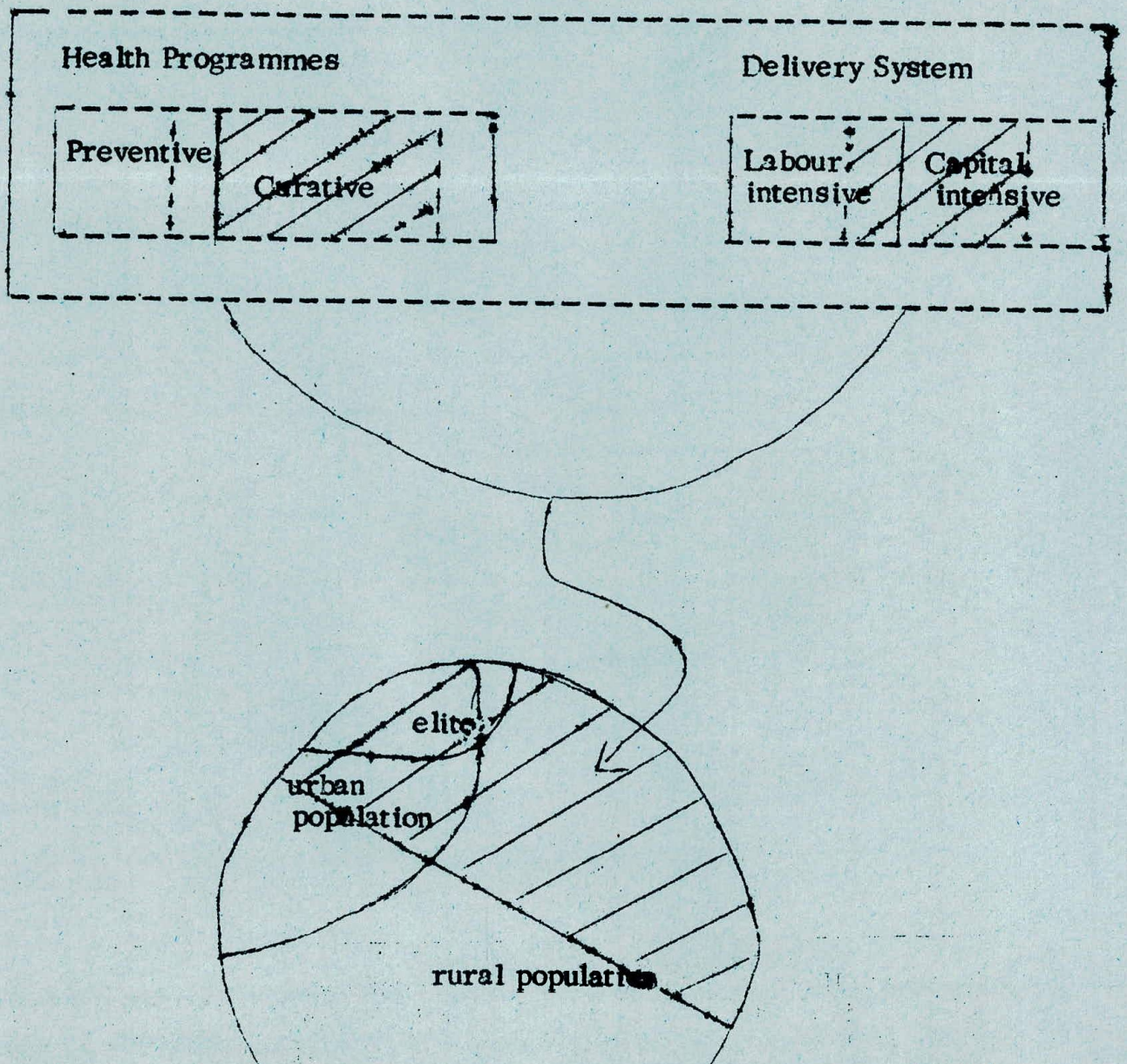


In Figure II we use the paradigm to elucidate what we believe to be the

It represents the situation in countries where the distribution of goods and services favours the relatively rich and relatively skilled urban minority at the expense of the relatively poor and unskilled rural majority.[2] Their Health Programmes have stressed cure rather than prevention, and the Delivery Systems have been of such a type that construction techniques have been capital-intensive and highly skilled doctors have been trained rather than medical auxiliaries. In addition, "Western" medicine (dispensed by doctors in private practice-rather than public services) has been stressed to the exclusion of traditional medicine.[3]

FIGURE II

PARADIGM OF HEALTH AND MEDICAL CARE SERVICES IN A TYPICAL UNDERDEVELOPED COUNTRY

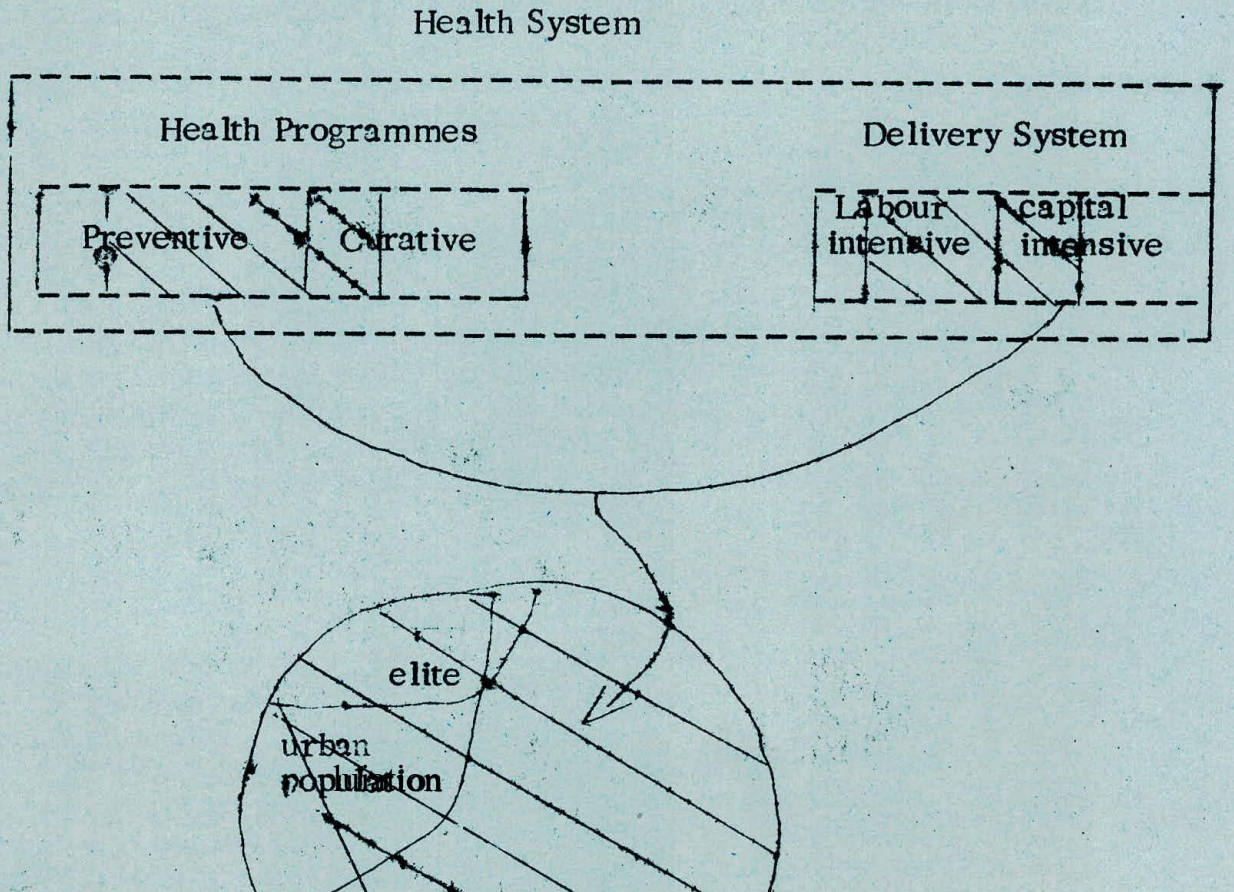


The reasons why these countries developed these largely inappropriate Health Programmes and Delivery Systems are varied and complex. As has been previously mentioned, the system has partially been a consequence of the structure of effective demand and its related factors. Where policies have been made and implemented, these decisions have been a result of both the nexus of decision-making commonly referred to as the "demonstration-effect" and the historical ties of ex-colonies to the mother country. In addition, the elites, because of their high incomes and general good health, have had a lesser demand for the basic preventive services than the low income masses.

The Chinese Health System (see Figure III) on the other hand differs from the paradigm in Figure II. This is largely related to a socio-political structure which affects the allocation of resources to provide a more preventive programme to a larger part of the population with a more labour intensive (and less import-intensive), Delivery System.[4] This market structure, combined with a high level of political consciousness of (appropriately trained) manpower, has led to the development of a unique Health System. Thus publicly supported medical programmes have been largely preventive, public works construction techniques have been labour intensive, medical auxiliaries have partly been substituted for highly skilled doctors, and use has been made of traditional medicine as a complement to "Western" medicine.

FIGURE III

PARADIGM OF HEALTH AND MEDICAL CARE SERVICES IN THE PEOPLE'S REPUBLIC OF CHINA



II

DELIVERY OF HEALTH SERVICES IN CHINA

In this section we argue that the Chinese health and medical services are not only a reflection of a restructuring of the pattern of effective demand but also of the development strategy. Before describing the Chinese health services, it is necessary further to define and qualify the nature of our case study. It must be noted that we are confined in our analysis by the necessity to limit our evaluation to ex post reports by the Chinese and to data provided by the occasional visitor. We base our study on what the Chinese have stated as their goals and the limited information available on how these objectives have been pursued. We believe enough data and analytical statistical information is available to present a broad description of the development of health and medical services and to indicate certain areas of policy decisions which have aided in the creation of the Chinese Health System.

For background information we present in this paragraph a synopsis of the growth of health and medical services in China. In the first three years after the founding of the People's Republic in 1949, the Health System, in support of policies of economic reconstruction, focused on the re-establishment of basic health organizations, the creation of health teams (which depended upon auxiliary workers) and on the development of mass mobilization for both disease eradication and political ends. During the following period of the First Five Year Plan (1953-57), programmes emphasised benefits for the urban, industrial workers, which reflected the development strategy of rapid industrialization. Policies of 1956 and the subsequent period of the Great Leap (1958) stressed a return to "taking agriculture as the base" and the rapid development of extensive rural health services, through the establishment of rural health centres and the incorporation of traditional practitioners, the transfer of urban personnel to the countryside and the training of part-time auxiliary workers. The withdrawal of Soviet aid in 1960 marked the beginning of the strategy of "self-reliance" which stressed agriculture and decentralization and culminated in the period known as the Cultural Revolution. In the areas of health services, this era was marked by an assault on health problems in the rural areas manifested in increased transfer of urban medical teams to the countryside, the emergence of the "barefoot doctors" and the widespread formation of cooperative medical systems for the countryside. The present-day medical system continues to stress rural medical programmes but with heavy reliance on the People's Liberation Army (PLA) for the direction of these services.

Effective Demand

With the rise to power of the Chinese Communists on the Mainland, the patterns of resources allocations were radically altered (Donnithorne, 1967). As the revolution was based on the support of the small and middle-peasants, one small way of maintaining this support was to alter the distribution of welfare benefits so that the majority of people, 85% of whom lived in the country side, had an opportunity to share in the fruits of production. To spread the limited resources in the health

The growth and distribution of health and medical care services in China have followed the various stages of economic development (Sakka, JPRS 4485). The period from 1950-52 was one of economic rehabilitation which was reflected in the health sphere by the concern of the leadership in providing the basic organisation for health and medical care and in the rapid eradication of epidemic diseases. The government established the Ministry of Public Health in 1949, strengthened the already existing hospitals and research centres and also took measures to utilize trained medical personnel. Private practice was strongly discouraged and medical schools expanded to train more personnel for public service (Cheng, C.Y 1965, pp 50-52).

To disperse medical care from its heavily concentrated urban bais and to get the Health System to China's rural population (Sze, 1944), other measures were taken. Most important was the establishment of health teams. The early work of the teams focused on anti-epidemic activities which included staffing and multiplying anti-epidemic stations, establishing maternal and child care services, training locals to carry out preventive work, including health education and vaccination inoculations, and establishing health services in the isolated rural districts (Wei-Sheng Hsuan-Chuan Kung Tsu, JPRS 96).

The period of the First Five Year Plan, 1953-57, emphasised the development of heavy industry rather than agriculture and accordingly health policies focused on programmes to benefit urban workers (NCNA 1954). Preventive Programmes continued to hold an important place in health plans as did the training of new personnel, but little concern focused on rural health organizations. Then by 1956, economic planners realized the necessity of placing more emphasis on agriculture and the development of the rural areas and began to formulate plans which have marked the direction of both economic development and health care services until the present time.

By 1958, the communes[6] had emerged as the cornerstone for the implementation of the economic infrastructure of the Great Leap Forward. The decentralisation which permeated organizations throughout the country resulted in the field of health work in the formation of the rural health centre or hsien hospital[7] (see Figure IV), which became responsible for all health activities of the commune and adjacent areas which were unable to support their own centre. Their major tasks included responsibility for outpatient and regional health work; the direction of mass campaigns; the investigation and control of contagious diseases; the inspection of public mess halls, nurseries, kindergartens and maternity hospitals; the delivery of medical care; and the responsibility for all preventive work (Jen Min Pao Chien (People's Health) December 1959). By 1965 all of China's 2000 counties had at lease one health centre or hospital (CMJ, June 1965).

The economic decentralization which began in 1965 and accelerated in the Great Leap period met with obstacles in 1959. Due to, among other things, a much too rapid attempt to develop the institutional structure to carry out these policies, a series of natural disasters in the years 1959-61 and the withdrawal of Societ technical assistance and technicians in 1960, the years immediately following the Great Leap were ones of economic retrenchment and consolidation. "Self-reliance" began to emerge as a major

(1960-65) has been characterized as that of dominance by the technocrats and bureaucrats and development of urban areas rather than the countryside. In the field of health and medical care, it is an era described as one in which the drive for excellence in medical research and training diverted scarce resources from the establishment of health services for the masses[8].

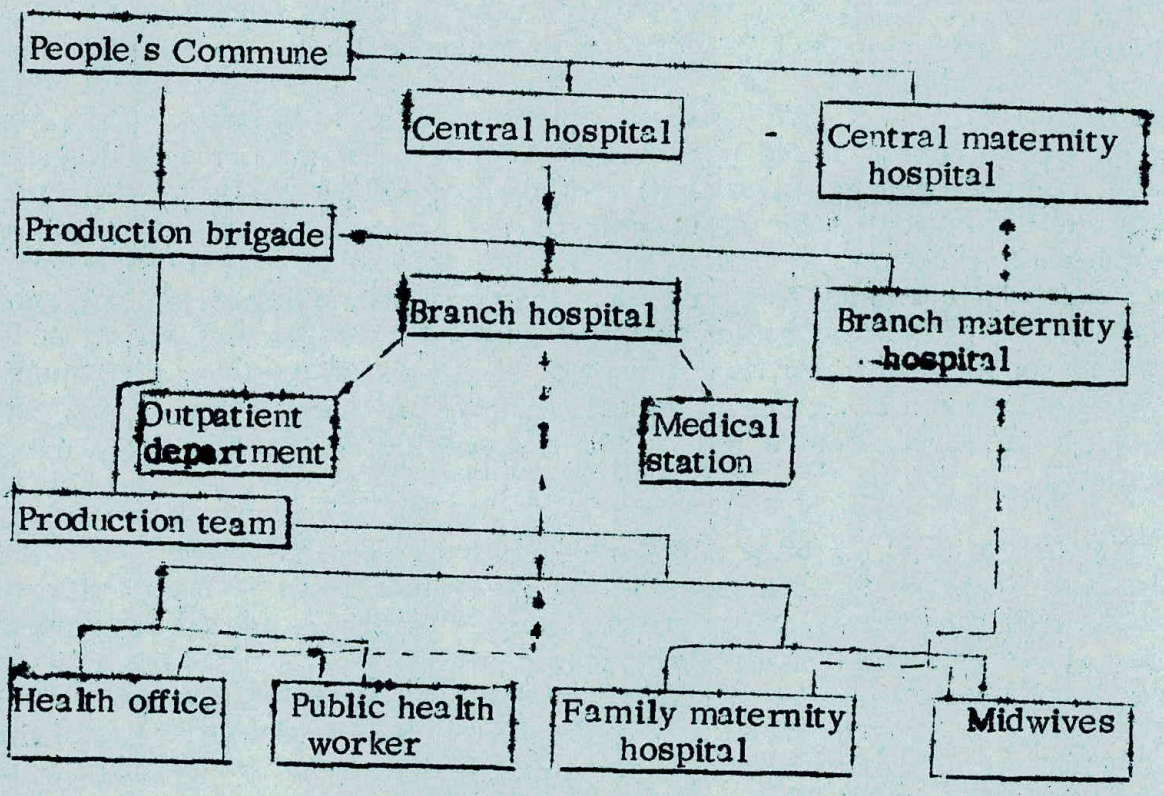
Although the policies of this period await clarification, it appears that the leadership continued to advance agriculture as the basis of economic growth and took steps to protect the health of the rural agrarian manpower. Facilities were greatly expanded but at a reduced rate.[9] Training of medical auxiliaries and diffusion of skilled medical doctors to rural areas remained policy goals. Medical colleges were established in many of the provinces and students were taught to combine scientific research with production objectives (Kuang Min Jih Pao (Enlightenment Daily) May 21, 1965, JPRS 30758).

In the months immediately prior to the onset of the Cultural Revolution in 1966, concern for rural health services reached a new high. In 1965 Mao issued his famous "June 26" directive stating "In health work put stress on the rural areas (Chen, J., 1970). In response to this appeal, the number of urban personnel travelling to the countryside rapidly increased. In the five months following issuance of this command, over 1,600 additional mobile medical teams comprising 20,000 urban medical professionals were sent to the rural areas. Led by prominent figures such as Dr Huang Chia-ssu, President of the Chinese Academy of Medicine, these teams were organised on a large scale involving large numbers of health and medical people on all levels (CMJ, March 1966).

The transfer of personnel through mobile medical teams has become a permanent long-range goal, and one-third of all urban doctors have been transferred to the rural areas since 1965.

FIGURE IV

SYSTEM OF BASIC-LEVEL HEALTH ORGANISATIONS AT THE YUNG-LO PEOPLE'S COMMUNE



Source: Jen Min Pao Chien (People's Health) Vol. 1, No.6. 1959.

The Cultural Revolution and its aftermath has seen a more explicit development of the policy of "self-reliance". In the health field these policies concentrate on the expansion and diffusion in the rural areas of the mobile medical teams. Another development has been the growth of a cooperative medical system at the commune level. Although such a plan had first appeared in 1958, because of the chaos and centralised trends which followed the Great Leap, it was not until this era that it made a widespread appearance. Basically, the system calls for both the production brigade and individual commune members to contribute a fixed amount per annum. In return, the patient pays only a minimal amount of money for treatment and medicines he receives.

While all these measures expanded rural health medical services, the confusion of the Cultural Revolution made the firm establishment of the newly expanded services difficult. By 1968 it was apparent that the professional medical people could not carry out their tasks as members of the mobile medical teams and undergo political "rectification" simultaneously. In order to prevent a breakdown of the Health System the political leadership turned to the one group that had remained relatively cohesive during this intense period of struggle - the army. By June of 1969, the People's Liberation Army (PLA) had sent more than 4,000 medical teams and 30,000 men into the countryside (NCNA, June 25, 1969). In the following year period ending July 1970 they had sent 6,700 teams with 80,000 members for rural health work (NCNA, July 31, 1970). The PLA has become the model for emulation for all medical

Health Programmes:

When the First National Health Congress met in 1950 one of the principles to emerge from the conference was that of creating services to meet the need of the people. To translate this dictum into practice the Chinese placed priorities on preventive activities. As a first measure, four basic health units were reconstituted (Li, T.C. 1950): 1) the epidemic prevention station had responsibility for the reporting of and inoculations against all communicable diseases. Under the control of local authorities, they carried out public health work and dealt with sanitation problems in their region - this provided the basis for the early health structure. 2) Affiliated clinics were established in areas where no other health unit existed to carry out preventive programmes. 3) The Red Cross and Red Crescent societies which had been present in China since 1904 now had responsibility for sanitation work through the use of environmental inspection teams and for health education. 4) Spare time clinics were established in factories, mines, etc, to be responsible for disease detection and inoculation.

To support the work of these units and further to promote health education and sanitation work (the cornerstone for any preventive activities), the Chinese relied on the mass campaign. Mass campaigns for health purposes were called "Patriotic Health Campaigns" and were first initiated in 1952 to urge the people to improve village water sanitation and to eradicate the four pests (rats, flies, mosquitoes and bedbugs) which were the carriers of infections whose widespread presence was allegedly due to the use of germ warfare by the Americans in the Korean War [10]. Poorly organized, these initial campaigns were soon reconstituted as "Shock Attacks", which proved effective for an intensive effort for a short period of time, reached their zenith in the Great Leap period of 1957-58 at a time when agriculture became increasingly important in the economic development of China.

Thereafter, campaigns were institutionalized as seasonal affairs aimed at the eradication of all major communicable diseases as well as the four pests. These campaigns had a low resource cost because they were focused on diseases whose control could be effected by changing the ways of village life, rather than by the provision of services of skilled people and because they were a vehicle for health education and for the dissemination of health propaganda in both urban and rural areas. In addition campaigns mobilized people for constructing rural public works projects. This had two functions: it aided agricultural output through, for example, controlling the supply of water; and it was instrumental in preventive activities, as for example in the eradication of schistosomiasis by destroying the disease-carrying snail.

Over the last twenty-two years, the Chinese have consistently stressed the need to place prevention first. Although there is no consistent time series data on monetary allocation[11] to preventive activities and it is, in any case, difficult to distinguish strictly between programmes for prevention or cure, one indication that this policy has been implemented is the rapid decline in incidence and mortality rate of some of the most contagious diseases. For instance, tuberculosis in the pre-1949 period infected 3-9- percent of China's urban population. In 1956 the rate had dropped to less than 1 percent (Sakka, JPRS, 4435). In the marshy Yunnan province, the incidence rate of malaria was 71 percent in 1950; in 1953 it had dropped to less than 3 per cent (CMJ December, 1953). Other figures for the reduction of communicable diseases

TABLE I

Disease (per 1000)	Mortality rate 1950	Mortality rate 1956
Measles	86.0	16.5
Dysentery	38.0	4.7
Scarlet Fever	78.0	16.8
Infant mortality—	117	34
Overall mortality	17	11.4

Source: Measles, Dysentry and Scarlet Fever from T'ung Chi Yen Chiu (Statistical Research), May 1958, cited in Union Research Service, vol 11; no 25; p. 360

Infant Mortality, from Journal of Medical Education, July, 1958, p. 521; overall mortality from: Salaff, J.W., "Mortality decline in Mainland China and the United States", to be published in Davis, K., ed. Essays in Comparative Demography.

Delivery Systems:

Having placed priorities on a Preventive Programme, the Chinese sought a Delivery System to support this Programme. The key to this System was the utilization of manpower. At its inception, the Chinese Health System rejected the traditional orientation of a capital-consuming one to one 'doctor-patient' relationship which stressed large investments in training facilities and hospital-based services. Instead plans focused on providing medical and health care for the greatest number of people at the least resource cost; through: 1. labour intensive construction techniques in public health through the use of campaigns; 2. the training and use of medical auxiliaries; and 3. the incorporation of traditional medical practitioners into the Health System.

We have already described the mass campaigns in the section on Preventive Programmes. It need only be explicitly stated here that one of the values of mass campaigns is the mobilization of manpower for labour intensive construction at low opportunity cost. In activities for health education and disease eradication as well as support for agriculture through irrigation projects linked with health, mass campaigns provided the manpower to carry out widespread health projects.

Auxiliary workers appeared in health work shortly after the founding of the People's Republic. Organized into health teams, these workers, under the direction of the mere 13,000 - 20,000 Western trained medical doctors in China in 1950 (Li, T.C., 1950 p. 9), carried out a number of health and medical measures and released the precious time and skills of the prefessional physician. The auxiliary workers were divided into four groups: 1. the specialist, educated for two years in one field of

who in a one-day to three-month training period learned how to give vaccinations and to recognise and report endemic diseases. Auxiliaries were taught both curative and preventive techniques, a policy which continues today.

In the growth of the Chinese health service, a policy of massive recruitment of medical auxiliaries has occurred on two occasions. During the Great Leap, the leadership launched a drive to disperse welfare services to the countryside and created a new type of auxiliary who was educated in the training centres that proliferated during this period. Studying medicine in part-time or spare-time schools, these workers were trained to carry out rudimentary treatment, and preventive and sanitation work[12]. This type of training was designed to enable the employment of these people in health work during slack seasons and provided means of on-the-spot treatment. It was also to create a corps of concerned local people who had a stake in the good health of their community.

At the beginning of the Cultural Revolution, with a renewed emphasis on rural health, the "barefoot doctor"[13] appeared. These auxiliaries, like their Great Leap predecessors, are local people trained (in both Western and Traditional methods) during agricultural slack seasons to serve the community in which they live. Depending on a system of referral to more highly trained personnel, on the periodic visits from the physicians of the mobile medical teams, on preventive medical techniques and on the high morale of and acceptance by the people whom they treat, these medical workers augment the ranks of available medical manpower. Their duties include, in addition to treatment for minor ailments, the responsibility for the organization of health programmes, patriotic health campaigns and general sanitation work in their locale[14]. The work of the "barefoot doctor" is not only supported by the traditional medical assistants, nurses, midwives, laboratory technicians, and the like, but also by thousands of public health workers who participate in the implementation of the Preventive Programme. In late 1969, the family health worker, a member of each commune household equipped with first aid techniques to treat minor problems and to aid actively in sanitation work and health campaigns, first appeared (Hung Chi (Red Flag) 1970).

Another major policy for manpower mobilization focused on the incorporation of the Traditional doctors into the health services. These 5,00,000 practitioners of Chinese medicine (Jen Min Shou T'se People's Handbook; 1951) formed a resource pool which the Chinese leadership decided to tap. As early as 1954, the Chinese Academy of Traditional Medicine was established and in the 1956-58 period a concentrated effort was begun to introduce both traditional doctors and medical theory into the university classroom[15]. A search for a synthesis between these two systems ensued and students were encouraged to study both systems - this has been re-emphasised since the Cultural Revolution. In addition, Western-trained doctors were urged to study Chinese medicine, in special courses devised for this purpose. By 1958, there were reportedly over 13 colleges and several hundred secondary schools of traditional medicine, which were training 70,000 apprentices (Peking Review, 1958). Under this new official attitude traditional doctors in increasing numbers joined the national and municipal public health services. They were assigned to hospitals and clinics of various types and were integrated into the existing organizational system

increased presence provided an alternative type of treatment to "Western" medicine - where, as the Chinese indicate, "the traditional methods are preferred because they are simple and effective and appropriate to the constitution and habits of the Chinese people" (CMJ, February, 1959). The traditional doctors staffed rural health centres, trained auxiliaries and carried out health team work. By 1956, 30,000 traditional practitioners had been incorporated into government public health organs (Jen Min Jih Pao (People's Daily) 1957).

In summary, the change of effective demand and the creation of policies to meet this demand through preventive, labour-intensive, rural-based health and medical services, relying on medical auxiliaries and mass mobilization techniques, are the chief characteristics of the Chinese health system.

III

EVALUATION OF THE CHINESE HEALTH SYSTEM

As we have seen, the health and medical care services developed by the Chinese are particularly interesting for two reasons. Firstly, they are a function of a radically altered distribution of social and political-economic power (if the demand structure had not been altered, health technologies could have been readily imported from the other developed countries), and secondly, their health policies were closely allied to their general development strategy.

In this section we will evaluage their health and medical care services in terms of the familiar cost-benefit framework. Before we embark on this, however, it is necessary to be aware of two problems which are common to cost-benefit studies in general. Firstly, it is difficult to identify all the costs and benefits of health services, and secondly, even if all these elements could be identified, it is difficult to impute their value.

Cost-benefit analysis frequently ignore the problem of distribution and argue that it is mainly a normative problem concerning consumer welfare and that it has little effect on production. However, we believe that the distribution of health services affects not only the distribution of welfare, but also the production of goods and services over time. With regard to welfare (that is, the consumption element in health expenditure), the Chinese health and medical care service improves conditions for the many instead of (and sometimes at the expense of) the few - that is although it may now be more difficult to receive attention for care-intensive illness (e.g. brain tumours), the majority of the population receives greater protection from chronic diseases such as schistosomiasis and malaria.[18]

With regard to production (that is, the investment element in health expenditure), the Chinese rural-oriented services act to increase output in the agricultural sector. Since one of the major bottlenecks to economic development has been especially in the early 1960's, the availability of a marketed agricultural surplus [17] this is where increased production is most necessary. By establishing services able to remove or mitigate the

The increased output resulting from a healthier labour force can be related to an increase in the productivity of capital and land (the scarce factors) in the following ways:

(a) The productivity of capital and land will increase due to lower absenteeism, greater effort, longer working days and better morale of the labour force.[18]

(b) New lands can be opened up, partly as a result of the elimination of diseases in particular areas (e.g. malarial and schistosomiasis land in China) and, where the man:land ratio is low, partly as a result of the increased efficiency of the labour force (Cheng, T.H., 1971).

(c) Increased health has a complementary effect with other inputs such as education and training, making investment in education and training that much more productive by enabling a more efficient absorption of training.

(d) There are externalities in preventive health activities. For example, the digging of ditches in the elimination of schistosomiasis (to bury the disease-carrying snail) produces the external economy of added irrigated lands (Cheng, T.H., 1971)

(e) Increased health can be used as a propaganda weapon to increase the morale and effort of the working population - particularly in the Chinese case, where the rapid increase of health services provides a concrete example of the interest of the leadership in the welfare of the people.

(f) A final advantage is the establishment of an auxiliary corps from the local population, creating a body of locals who are loth to leave their homes. Together with the low pay differentials between town and country, this policy acts to stem the urban-rural migration which is characteristic of most other underdeveloped countries.

The choice of an alternative health and medical service is not only a consideration of the benefits - these benefits must be related to the costs which are entailed. We believe that the Chinese Health System has a lower resource cost than a more capital-intensive, curative urban-based system. This is for a number of reasons:

(a) "An ounce of prevention is worth a pound of cure" is a statement not only about welfare but also about total costs. A system which prevents problems seems intuitively (and is, if it is not absurdly costly) preferable to that which has repeatedly to treat a chronic ailment[20]. Preventive health services as a good example of this maxim is well-illustrated in the case of malaria tablets, are much less costly than the repeated curing of the disease in the majority of the population[21].

(b) There is comparative evidence that the costs (both capital and recurrent) of rural health centres are much lower than those of complexes and hospital-based services. In Kenya, Jolly and King estimate the costs of treatment per illness per person to be as follows:

	Shillings
Health Centre	4
District Hospital	84

With regard to capital costs, a Health Centre is estimated to cost £ 10,000, whereas the construction of a minimum size district hospital (with 60-100 beds) costs between £ 250,000 and £ 500,000 (King, 1966). An additional advantage of this system is that the relatively small sum of capital required to establish a Health Centre is well within the reach of small, poor communities. A hospital, on the other hand, is not, because it requires large and lumpy sums of capital and thus necessitats finance from hard-pressed central development funds (Gish, 1971).

(c) The Chinese Delivery System is more labour-intensive than any existing alternative curative system [22]. In China the opportunity cost of this labour is low, mass mobilization techniques have been used, and the period used for training and for public works construction has been predominantly in the agricultural off-season (Orleans, 1969, p.33)

(d) The import cost of the Chinese Health System has been much lower than that of a capital-intensive curative system. Partly it is because of the closed nature of the economy (which has been a result of both relatively autarchic development policy and the size of the market) and partly because of the labour-intensive nature of preventive services. It has also been related to the frequent use of local herbs and medicines as a substitute for "Western" treatment [23].

(e) With regard to manpower a preventive rural-based Health System of the sort used by the Chinese requires a lower level of skills than that demanded by the established curative system [24]. This is important because for a given health expenditure, more manpower can be trained. An additional advantage of this policy of intermediate level manpower is that the wastage resulting from this system has been lower than that which would arise from a curative one. Firstly, in an open economic system where labour is mobile, emigration from underdeveloped to developed countries and regions is likely to be lower, as the health service is comprised basically of medical auxiliaries who will not be able to practise as doctors in the developed countries. Secondly, an understaffed curative system is likely to waste the scarce skills of its highly trained manpower due to "excess demand" [25].

(f)Another cost advantage in the manpower sphere arises from the use of traditional medical practitioners. While it is unclear what the precise value of traditional cures (e.g. acupuncture) is, there is no doubt that some are relatively effective and relatively uncostly.[26] In addition, a large element of medical help is of the emotional-support type and the relatively long time spent with patients by traditional doctors, together with the confidence with which they are viewed by the population, make them an important, effective and relatively cheap supplement to modern practices[27].

(g) It has been argued that there are additional costs which are involved in the Chinese Health System. Specifically, these are that:

(i) the Chinese Health System requires a high degree of political commitment and makes arbitrary demands for the re. location of the urban doctors to the rural areas, running the risk of

(ii) the stress on rural health has removed the highly skilled doctor from his urban research facilities to the primitive rural health centre where his talents are wasted.

(iii) the sacrifice of high medical standards in urban areas due to the reformed education system and the transfer of urban personnel to rural areas have failed to raise rural medical standards.

(iv) the incorporation of traditional medicine and practitioners and the growth of the medical auxiliary corps have been at the cost of quality.

(v) the elimination of the division of labour between agriculture and health work has led to a decline in productivity in both sectors[28].

It is our general feeling that the lack of hard information makes meaningful comment difficult. However, it is our impression (which we believe is substantiated by much of the developmental literature on China) that these criticisms, although not devoid of validity, are not of an order of significance which negates the positive aspects of Chinese health and medical care policies. Perhaps future studies in China (which have access to detailed information) will show the opposite - if so, we shall stand corrected.

IV

PROBLEMS IN TRANSFERRING THE CHINESE HEALTH SYSTEM TO OTHER DEVELOPING COUNTRIES

We have argued in this paper that, as a result both of the changed structure of effective demand and a health policy which was integrated into the general development strategy, the Chinese produced a unique Health System which was well-suited to its factor endowment and supply bottlenecks. This Health System contrasts strongly with the more inappropriate systems which exist in most other underdeveloped countries.

As these underdeveloped countries face similar supply bottlenecks and have similar factor endowments, it would seem a priori that elements of the Chinese Health System could usefully be transferred to these countries. However, there are a number of reasons which suggest that this transfer might not be as easy or appropriate as it seems. Detailed consideration of these problems is not possible at this stage, due to our relative ignorance of the Chinese Health System and because much of the basic theoretical and empirical work in the transfer of technology field is yet to be done. However, at a more general level these considerations are:

(a) Development does not occur in a vacuum. It acts in favour of some groups in society and at the expense of others. The predominantly urban-based, curative and capital-intensive systems which exist in many underdeveloped countries largely act to consolidate and reflect the power of the ruling classes. The room to manoeuvre with regard to the implementation of a radically new Health System which reflects and consolidates the power of different groups in society is therefore limited. We hesitate to take an a priori stand in this matter - undoubtedly some aspects of the Chinese

(b) As we have seen the Chinese Health System is largely dependant upon the ability to mobilise labour at low opportunity cost. This mobilization rests heavily on the political interaction between the leaders and the population and in few countries is the leadership in a position to make these demands upon the population - a fact which must inevitably have a large bearing on the transferability of the Chinese Health System to other underdeveloped countries.

(c) The Chinese Health System is only operable in a labour-surplus economy with the utilization of the whole labour-force [29]. It is thus neither suitable for a labour-scarce economy nor for a labour-surplus economy where the political-economic structure does not allow for the full participation of the labour force (i.e. the position in most underdeveloped countries today).

(d) The fact that China is not an open economy obviously affects the structure and functioning of the Health System. Not only does it affect the internal and external migration of health personnel, and the costs and import content of investment in health, but also the structure of demand for health services.

(e) Related to the closed nature of the Chinese economy is the problem of scale. The generation of new technologies, with the attendant problems of lumpy cost and external economies, is partly a function of the size of the market. Therefore the alternatives open to a country with 800 million people are obviously not the same as those open to a country with 5 million people (or even 50 million). The problem for future research therefore lies in illuminating the precise effect of this scale problem on the Health System.

(f) Historical factors also inevitably affect the composition of the health services. A long history of relatively "scientific" traditional medicine has made the integration of old and new much easier in China than in most other underdeveloped countries. Cultural factors also have a significant effect on the possibilities of transfer - for instance, mass mobilization has been effective partly due to its roots in the clan system of social organisation in the dynastic period of China (Levy, 1949; Yang, 1945).

Conclusion:

Our study suggests a mode of analysis for evaluating health and medical care services in underdeveloped countries. We have supported our hypothesis, that the Health System primarily reflects the structure of demand and factor endowments, by analysing Chinese health and medical care services in these terms, and evaluating them within a cost-benefit framework. Although it would a priori appear that the Chinese Health System could profitably be transferred to underdeveloped countries, we have suggested a number of factors which must be considered in this transfer. Of those policies that lie within the compass of existing political structures, the most important is the argument for integrating these policies into the overall development plans. Specific aspects of the Chinese policies might then be considered, e.g. great stress on prevention, the use of health teams and auxiliaries, the decentralization of services. However, a more specific statement of the suitability of the Chinese health and medical care

Notes:

1. By this we mean the relative labour intensity of techniques of (physical) construction used in the digging of sanitation ditches, the building of hospitals, etc.

2. It is necessary to note that while curative health services need not necessarily be urban-oriented, this is almost invariably the case. For example, in India 80 percent of the doctors practise in urban areas where only 20 percent of the population reside (Lipton, M. 1968). While "in Kenya in 1963, the population:doctor ratio was 10,000 for the country as a whole, 672 for the capital city of Nairobi and 20,000 for the country outside of Nairobi. But 93 percent of the population lives in truly rural areas where the ratio was 50,000" (Bryant, J.H., 1969b).

3. For more details concerning the consequences of this pattern, see Takulia, 1967, Gish, 1971.

4. The reasons why this political structure has provided a Health Programme for a greater proportion of the population than in other underdeveloped countries are open to dispute and are not the subject of this paper.

5. These policies were promulgated at the First National Health Congress (Li Te-chuan, 1950).

6. The average size of a commune in 1959 was 24,000 households.

7. In China, the difference between these two institutions is mainly in size and not in function.

8. This period has been discussed in the Red Guard literature and has been a subject for ongoing research. For a description of the politics of health at this period see Current Scene, May 1, 1968; June 15, 1969; and Dec. 15, 1969.

9. In 1940, there were 1,775 rural county health centres; in 1957 there were 60,000; in 1962, there were 210,000.

10. For a report of the International Commission which investigated these charges, see CMJ, September-December, 1952. Robert Worth points out that "these 'Patriotic Health Campaigns' represent a masterful utilization of war psychology to effect basic cultural changes with regard to environmental sanitation. The specific charges of 'germ warfare' levelled against the Americans were focused very skilfully on certain diseases most likely to spread through water supplies (cholera), to be carried by flies from exposed faeces (cholera) or to be carried by rats (plague."(Personal correspondence, 20 Sept 1971).

11. One estimate of expenditure on health and welfare activities is as follows: (billion yuan in current prices - 1 yuan = 4/-)

1952	1953	1954	1955	1956	1957
0.06	0.15	0.15	0.11	0.11	0.13

This shows that expenditure on health and welfare increased by 250 percent

12. For a description of all levels of medical education and an indication of the relative numbers of people involved, see Leo Orleans, 1969.

13. An estimated total number of barefoot doctors to date is 750,000. This figure has been supplied by Leo Orleans in personal correspondence, 15 September, 1971.

14. For details of training of these auxiliaries see Horn, 1960. Horn is a British surgeon who spent fifteen years in the Chinese medical service.

15. Traditional medicine includes the practices of acupuncture (treatment by inserting long silver needles into the body at specified points); moxibustion (treatment by applying a heated container with the moxi herb – inside to the body); and herbal remedies based on medicines from indigenous Chinese plants. A complete history of this subject has been written by Huard and Ming Wong, 1968. For a discussion of the politics of integrating the western and traditional medical systems, see Crozier, 1968.

16. For instance the imperative rural service for urban doctors not only gives increased health care to rural residents, but also exposes city doctors to disease problems in the countryside in order to focus future research on these issues. For a detailed account of the change in Chinese health services due to a transfer of urban medical personnel to the rural areas, see Horn, 1969.

17. It is increasingly recognised that a major element in low agricultural productivity can be attributed to the prevalence of debilitating diseases in the rural population. Of course improved health will only increase agricultural production if the rural population is actually employed (Ovens, D., "Investment in Human Capital", in Streeten and Lipton, op.cit p. 240). However, for a dissenting minority viewpoint see the results of the Universities of Nottingham and Zambia Agricultural Labour Productivity Investigation, Some Determinants of Agricultural Labour Productivity in Zambia, Report No. 3.

18. That the Chinese have recognised this fact can be seen from reports in Hunan Hsin Pao (Hunan News) 1975 in SCMP 1639, p.32. It is also valuable to note in this context the study of Richman, Industrial Society in Communist China 1969 p. 554, which compares Chinese labour productivity with that of India.

19. The concept of 'investment in human capital" stems from this point (Myrdal, G. 1968, Chapter 29).

20. Thus Ovens (op. cit. p. 237) argues ... " The cost per person prevented from contracting any disease is likely to be much less than the cost per person cured of that disease after he has caught it".

21. However, malaria control is also a good example of the need to look at secondary costs and benefits, for it is increasingly argued (although wrongly, we believe) that the environmental costs of using DDT in

22. Although it is possible to develop a more labour-intensive curative technology than that which exists, it would have to be done ab initio, and the nature of the process of cure will always make it a more skill - and capital-intensive activity than that of prevention. However, health expenditure in general is neither capital-nor import-intensive. In India for example, less than 40 per cent of health costs are capital costs and the foreign exchange content is less than 7 percent, whereas in the Fourth Five Year Plan the coefficient was 36 percent, v. Ovens, op. cit p. 93. This extimate of import cost is probably too low though, as it only takes into account the import cost of rural consumption.

23. Faced by severe balance of payments constraints, this aspect of the Chinese system is of obvious interest to many developing countries. For a discussion of the difficulties entailed in the adoption of this process, see Section IV.

24. A U.N. report thus argues "With today's drugs, an intelligent villager, trained to recognise the two or three ailments most commonly found in a given area, may be able to do more to save lives and end sickness than the best doctor in the world could have done 25 years ago". See Science and Technology for Development, U.N. New York 1963 (Wilenski, 1971).

25. In one Indian Health Centre, for example, highly trained doctors spent between 1 and 3 minutes with a third of their patients, and between 30 and 60 seconds with another third (ibid, p. 61)

26. The Chinese support for this statement might have been seen in such articles as the on by Li, T.Y. 1969. However, recent visitors have also been impressed by their experiences with traditional practitioners and the plying of this trade. Notably, one such person was James Reston of the New New York Times, who discussed his appendectomy operation with the use of acupuncture needles in a Times article of 27 August, 1971.

27. For an excellent discussion of the role of the traditional doctor as a link in the transfer of a modern science to rural areas, see Worth, 1962.

28. These criticisms have been documented in the work of Allen, 1965.

29. i.e. "the walking on two legs policy" existing in China, which means the simultaneous utilization of traditional techniques and modern capital and skill-intensive methods.

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