Cini-Child in Need Institute

(MFC Bulletin No. 49, Jan. 1980) carried an account of the Comprehensive Rural Health Project situated at Jamkhed, Maharashtra. Now we are giving you an account of the Child In Need Institute (CINI) Daulatpur, Bengal. This will appear in two Parts. Please send us reports of such projects. We hope that these will be helpful to our readers.

The two basic objectives of CINI-Child In Need Institute are:

1. To provide integrated health and nutrition services to the child in need, and
2. To act as a catalyst in promoting socio-economic development of the poor and needy.

HEALTH SERVICES:

Nutrition supplementation, Primary Health Care for mothers and children and Nutrition Education Programme are the three important activities of this cell. The overall objective of this cell is to improve the health and nutritional status of children in the project area.

NUTRITION SUPPLEMENTATION PROGRAMME

Nutrition supplementation for children is a major area of activity at CINI since malnutrition in children below six years is one of the crucial problems in our slums and villages. Pregnant and lactating mothers are also provided with supplementary foods with the basic objective of improving the birth weight of children: and of enhancing lactation.

CINI runs two separate programmes in nutrition supplementation.

CINI NUTRIMIX Programme: This is a programme emphasizing the use of locally available foods to improve nutritional status. 350 gms of wheat, 50 gms of moong dal and 150 gms of milk powder blended together provides about 70 per cent protein in addition to other essential nutrition's. Mothers are first given the raw wheat and dal which they roast and crush in their homes. They, then, bring it back to the centre where milk powder is added. This food is for seven days for a child.

The Nutrimix programme was tied up with functional literacy classes. Mothers who came to these classes twice a week were provided with the raw ingredients and the milk powder. The demand for the Nutrimix started dropping when the functional literacy course had come to an end and mothers found it difficult to come to the centre twice a week just for the food alone. As a result, the Nutrimix programme was stopped, but the mothers who still felt the need are allowed to collect this from the CINI clinic held every Thursday.

The composition of the Nutrimix has also since been changed, because milk powder, is not a locally produced commodity and it is too costly. The mothers attached greater importance to milk than to wheat or dal and believed that Nutrimix is effective because of its milk content. Bengal gram is now being used in place of moong dal since it is much cheaper. The revised Nutrimix contains 400 gms. of wheat and 150 gms. of Bengal gram and provides about 16% protein.

NUTRITION SUPPLEMENTATION USING BLENDED FOODS

Three thousand children under six years of age and fifty three pregnant and lactating mothers are provided with a fortnightly ration of nutritious foods. The food items are soya fortified bulgur and blended foods such as wheat soya blend, corn soya milk, corn soya blend etc. Soyabean oil or peanut oil and skimmed milk powder are also distributed. Trained MCH workers visit the families at regular intervals to advise the mothers on proper child care and on low cost nutritious diets as well as to monitor health, and nutritional status of the beneficiary children on health cards.

The emphasis is to involve the community has been able to build up very good relationships with the local bodies like youth clubs who come forward to take up some of the activities of the centres.
In some areas mothers among the beneficiaries have taken an active role in the unloading and the distribution of the foodstuffs.

HEALTH CARE PROGRAMME:

The CINI health care programme is designed to provide low cost health care to children with emphasis on preventive services and using trained paramedical workers. The children in the programme visit the clinics or are visited in the homes by the MCH workers at least once a month and their weight is systematically recorded on health cards. Children are immunised against diphtheria, whooping cough, tetanus, small pox, polio and tuberculosis. Routine childhood ailments are treated with simple low cost medicines and the parents are exposed to nutrition and health education. Trained MCH workers diagnose, treat and give health education under supervision of a doctor. Mobile clinics are held at food distribution points once a month and 'static clinics are held at fixed places in slums and village areas on fixed days of every week. The patients pay a registration fee of 30 paisa each time they come to the clinic for the services they avail.

ANTENATAL AND POSTNATAL CARE:

CINI started antenatal and postnatal care from May 1978 with the following main objectives:

i) To promote good health of the mothers by regular check-ups.

ii) To find out complicated cases and refer them to the nearby well equipped hospitals.

iii) To educate pregnant mothers on the importance of nutrition.

iv) To train village "dais" in hygienic methods of delivery and to encourage home deliveries.

v) To advise and guide parents interested in family welfare planning.

To encourage home delivery one dai from each of the three local villages have been trained. They visit cases from house to house with the ANMs of CINJ and also help at the clinics. Mothers are also provided with delivery kits to enable safe home delivery.

INTENSIVE CARE WARD:

To fulfill the local need for a referral medical centre for children, CINI has been running an intensive care ward. All kinds of medical paediatric emergencies are treated here. Cases treated are Kwashiorkor, Marasmus and Vitamin ‘A’ deficiency with eye changes, often complicated with severe intestinal and chest infections. ‘The mothers are made to stay along with the child at the ward so that they could be taught how these cases could be prevented.

NUTRITION REHABILITATION CENTRE:

Severe cases of protein calorie malnutrition and other deficiency disease need to be rehabilitated over a few weeks to ensure survival. The children released from the emergency ward after their critical phase, resent to the rehabilitation centre where they stay for about 6 to 12 weeks. Mothers, while at the centre are given nutrition and health education and are trained in low cost nutritious diets. Mothers also help in cooking food and in house keeping which cuts down the administrative cost.

NUTRITION AND HEALTH EDUCATION AT THE COMMUNITY LEVEL:

In the programme of food distribution using imported Coop stuffs, trained MCH Workers visit village and slum centres and conduct classes and spot demonstrations. They discuss current health problems and demonstrate the cooking of low cost nutritious foods, as-well as the distributed foods. Visual aids like posters, flannelographs are used.

MOBILE NUTRITION TEAM (MNT):

A mobile nutrition team consisting of six village mothers started work in the middle of 1978 with the following two basic objectives:

i) To train and develop competent village mothers as child health workers to work within their communities.

ii) To discuss and convey fundamental "do's and don'ts" with other village mothers in a house to house programme.

The mothers worked under the guidance and support of nutritionists, child health workers and development agents. These mothers were regularly exposed to twenty selected topics in child health and nutrition and they in turn discuss these topics with the village mothers at the home level. Each mother was allotted fifty families for a period of six months each.

They were also exposed to other activities at the under fives' clinics as part of their training. These mothers act as links between CINI Projects and the Community. They refer cases for ante and postnatal care, refer children to the clinics and maintain close links with both CINI and the community members. The MNT mothers also conduct classes for mothers who stay at the Nutrition Rehabilitation Centre. They have already taken over many of the functions of the CINI mother and child health workers and it is hoped that they will completely replace our health workers.

Will you help US?

We have sent three sample-issues of the Bulletin to the Secretaries of Students' Associations of Medical Colleges all over India and have requested them to subscribe to the Bulletin. All MFC members, sympathisers are requested to meet the person concerned in the nearest Medical College and persuade him to send subscription on behalf of their Association.
ORAL REHYDRATION THERAPY: DO YOU BELIEVE IN IT?

Scientists and doctors too, like the laity, have their, new found religions; their 'Superstitions' and their gurus. A new theory is propounded and accepted whole-sale. The past is rejected as folly and ignorance and this alone IS. Then comes a new wave, a fresh enthusiasm and a whole set of followers.

Oral rehydration therapy (ORT) for diarrhoeas is the in thing. There is so much talk' about it, so much written, that some like me are left wondering whether antibiotics never have any role at all and whether all that we did before the ORT era was a ‘placebo’ therapy-placebo to the patient as well as to the physician. ORT is an important issue. It has revolutionised the treatment of diarrhoeas which are so common in all developing countries and which contribute heavily to childhood mortality. It is so important an issue that in November 1979, more than half of the Bulletin (No. 47/48) was devoted to ORT. Yet, there was so much more left unsaid that we are reproducing some more write ups on it, in this issue. If this is repetition, it is well worth it. ORT is said to prevent many diarrhoea deaths, the treatment is said to be easier and hopefully, less expensive and hence more accessible to more people. ORT also prevents the deterioration of the child's nutritional status.

An important question in this context is, how well and to what extent has the medical profession come to accept ORT? ORT and the concept of CHWs have sort of come up simultaneously. Do the doctors feel that ORT is only for those children who have no readily accessible medical care, who cannot afford antibiotics; for those who are to be contacted by CHWs, who should not be given powerful drugs to handle, Or, have they accepted it as the treatment for diarrhoeas? I raise the question because I find elite paediatricians in cities still prescribing 'cyelins' and cillins ' binding agents and antimotility drugs to children for diarrhoeas. If ORT is prescribed, it is only as adjuvant therapy. The chota paediatricians, those who treat the not so poor but not so rich either, still advise dilution of milk feeds, feeding whey and stopping all solid foods. I would be glad to hear from under graduate and post graduate medical students, what they are being taught about management of diarrhoeas.

The Second important issue is the preparation and distribution of the glucose electrolyte mixture. These issues are raised in the note by Hirschhorn which we will publish in the next issue. If ORT becomes popular the whole manufacture might be taken up by commercial companies. And then, once again diarrhoea therapy will be too expensive to: those who need it most. Already some preparations are in the market.

There is a need to be very alert on this matter. The preparation is so simple, that the government, if it has the will, can see that technology remains simple, packaging too simple and the price not high. But all past experience shows, this will not be. I feel that MFC can play a useful role in seeing that ORT mixtures do not go into the hands of commercial houses at all.

If you are using ORT for diarrhoeas always try to find out the source from which you got the packet" If you are not using it, would you like to think about it and give us your reasons?

Kamala Jaya Rao

VIIth ANNUAL MFC' MEET

The annual general meet of MFC will be held at RUHSA, near Vellore from 30th January 1981 to 2nd February 1981.

We will discuss the topic Health care of children under five and study the Ruhsa health project from 30th January to 1st February. The Annual general body meeting of the MFC members' will be held on, 2nd February. All participants should reach Vellore by 29th January, evening.

It is expected that a non-academic but serious discussion will take place on the theoretical and practical problems faced by those workers who are working towards a correct, appropriate model of health-care for the under fives. All those who are seriously interested in this work, whether or not they are members of MFC, can participate in this meet. To enable the meet to become fruitful, each participant should send the points he / she wants to discuss to me, A back-ground note would be circulated in advance (to focus the issues to be discussed) after taking into consideration the notes, views sent by prospective participants.

Annual General Body meeting of the MFC would be restricted only to the members of the MFC.

All those who wish to attend the meet should write to me before 20th December for further details-

Binayak Sen, Convenor,
MFC Friends Rural Centre,
Rasulia, Hoshangabad – 461001
Madhya Pradesh.

Do you know this?

Lomotil, the powerful anti motility drug used in diarrhea is sold only by prescription in the US as it is fatal in amounts slightly over the recommended doses. But it is sold across the counter by the company in Sudan by advertising that it was “used by the astronauts during Gemini and Apollo spaceflights.”
Issues in oral rehydration

In an engineer’s jargon, an answer to a problem is called "robust" if it can be applied in several variations or adapted to several contingencies; be secure from-total failure because of failure at a single point; and show cost-effectiveness.

Glucose-electrolyte fluid, with a universal composition to be taken by mouth, has proved a far more robust product for rehydration in diarrhoea than intravenous fluids of varying compositions tailored by age, diagnosis, biochemical status of the blood, etc. But the development of an oral rehydration therapy (ORT) delivery programme requires considerable thought and research to discover the most robust methods.

I can tentatively identify the various components of a delivery system and suggest some areas where known opportunities and constraints make a potential delivery system more or less robust or indicate our lack of knowledge. Six components come to mind: selection, production, distribution preparation, use and evaluation.

**SELECTION**

**SUCROSE OR GLUCOSE?**

Sucrose is cheaper but is somewhat less effective than glucose, especially at higher concentrations. Sucrose 'absorbs less moisture, perhaps allowing use of non-foil' packaging, but at humidity over 85% and in warm climate moisture absorption is substantial. Bazaar-bought sucrose is sometimes adulterated; with water to 'increase' selling weight, and during recent years sucrose prices have fluctuated dramatically.

**HOW DO GLUCOSE OR SUCROSE AND SALTS INTERACT WHEN STORED AS A POWDER TOGETHER?**

If the extra cost of glucose (plus foil package) is the limiting factor to a delivery system, then sucrose is a more robust product.

**POTASSIUM OR ON POTASSIUM?**

No potassium would be cheaper, but the cumulative effect of unreplaced potassium loss is known to be detrimental to appetite, behaviour, muscle and renal physiology. This is no longer a researchable issue, but much data can be obtained from earlier studies.

**BICARBONATE OR NO BICARBONATE?**

If renal function is quickly restored, perhaps there is no need for, bicarbonate, yielding a cheaper, product; but a number of cases will be detrimentally affected by prolonged, albeit mild, acidosis.

**HOW MUCH SODIUM?**

We now know that a single concentration: of sodium - 90 meq/L - is, suitable for all ages and most degrees of severity (except high output cholera in adults). This is the most robust level.

**PRODUCTION**

**SALTS AND SUGAR COMBINED IN, PACKETS AT SOME CENTRAL POINTS, OR PROCURED INDIVIDUALLY AT LOCAL BAZAARS?**

Packet combined chemicals allow for greater safety, as bazaar salt is likely to be coarse and sucrose may be adulterated. Bazaar-bought chemicals may be more often available (not always: shortages of salt and sugar occur in the poorest countries), or perhaps cheaper. Picketed chemicals are regarded more, highly as "medicine" while salt and sugar are: regarded-vas food. The quantity of "energy" required to teach procure and use either set of chemicals and the quantity of "entropy" (loss of -the message and: actions) are not yet known.

**PACKETS PRODUCED CENTRALLY REGIONALLY, OR ASSEMBLED AT-EACH HEALTH CENTRE?**

A more robust answer has production decentralised, and not dependent on a single source, but then some quality control is necessary.

**HIGH TECHNOLOGY OR SIMPLE TECHNOLOGY OF PACKAGING?**

One person can manually measures out salts, and sugar by spoon measure to make up 100-300 packets per day. A $ 5,000 - $ 10,000 mixing machine can dispense thousands of packets per day automatically.

**Distribution**

**HOSPITAL OR HEALTH POST?**

It can be argued that most of the deaths and cases of prolonged diarrhoeal illness are seen in hospital, that oral rehydration therapy will have the larger impact, and that illness presenting to health posts is generally mild and self-limited. However, oral rehydration therapy may have a longer-term preventive impact when given to milder cases. The greater cost-of distributing through health posts can be offset by not using non-specific drugs' and unnecessary antibiotics, but considerable retraining of staff and families is required.

**VILLAGE HEALTH WORKER DELIVERY SCHEME (GOVERNMENT-EMPLOYED), OR VILLAGE RESIDENT?**

Mothers tend first to go to neighbours for help. If one of them is a supply point for, oral rehydration, therapy the trip to the health post may be averted, but if other things occur at a health post (education, weighing; immunizations) this short-circuit may, be undesirable.
COMMERCIAL CHANNELS AND OVER-THE-COUNTER-SALES?

The private sector is brilliant at distribution promotion and sales of drugs, but, can the price be low enough to prevent the "two penicillin tablet" syndrome? The occasional packet bought over the counter is unlikely to cure and will bring the method into disrepute.

PREPARATION
MEASURING SPOONS OR PINCH-METHOD FOR BAZAAR-BOUGHT CHEMICALS?

Marked variations exist in different parts of the world in the quantity of a "pinch" of salt. Cheap (plastic) measuring spoons are readily broken or lost. English mothers often used heaped spoonfuls of milk powder in making up bottle feeds, even when instructed to use level spoonfuls.

MANUFACTURED STANDARD CONTAINER, OR LOCALLY USED CONTAINER FOR DISSOLUTION OF CHEMICALS?

Marked variations in local containers exist and larger measures (litre) are generally less available or reliable than smaller measures. Cheap standard containers are easily available in some places or can be cheaply made.

QUARTER LITRE SOLUTIONS?

One litre packets are cheaper, but more waste and bacterial overgrowth of standing solutions may occur. Quarter litre packets may be hoarded as readily as half litre packets by health workers, or fewer may be bought by the mother than needed (so treatment would be inadequate). A robust answer might be the manufacture of a sturdy plastic bag, containing the salts and sugar, which can then be filled to stretching paint by an appropriate volume of water.

USE
WHO SHOULD GET ORT?

If every child with diarrhoea got oral rehydration therapy, the costs (either in packets or in interaction with the mother) would be astronomical (one thousand million children under five, one episode each annually, SO. to/packet, three packets per episode: $300 million).

Alternatively, should only those coming to a health post or health worker-10-50 % of total episodes get oral rehydration therapy? Or, only those under three years of age? Who makes the choices? It seems a difficult area of design, the decisions being not entirely medical, or even controllable.

HOW MUCH IS GIVEN ON THE FIRST VISIT?

If packets are used, should mothers be required to return daily? If not, how many packets should be given at a time? Bazaar-bought chemicals overcome this problem. However, will the mother need daily reminders, especially when by day three, the salts have not "cured" her child?

WHAT WATER IS USED TO MIX THE CHEMICALS BOILED? BUT WHAT IF FUEL IS PITIFULLY SCARCE? IN TEA, PERHAPS? OR IN JUST WHATEVER IS AVAILABLE?

Some useful description of what does happen is needed. What is the effect on a child with diarrhoea getting more contaminated water? The wider the use of oral, rehydration therapy the more this will occur.

WHAT ABOUT THE NUTRITIVE MESSAGE?

The message may be weakened or lost as delivery moves closer to the village level. Food may be seasonally scarce in any case. The salt-sugar solution may be viewed magically and the food message overlooked. If the child is on cow's milk, should cow's milk be stopped? Or only in those over one year old?

THERE IS NO EXCUSE TO STOP BREAST FEEDING? Glucose and electrolytes neutralise the bad effects of lactose.

HOW ARE CULTURAL BLOCKS OVERCOME?

In many cultures, sugar and salt are, thought to be bad for diarrhoea; packets of sugar and salt, however, gain remarkably rapid acceptance even in highly traditional societies.

The major cultural block impeding use of oral sugar-electrolyte fluids and: feeding in diarrhoea is from the Western based training of paediatricians. "Health education" of government decision-makers may be as necessary as "education" of mothers.

EVALUATION
SHOULD IT BE DONE?

It may be necessary that at least bedside demonstration of ORT takes place at teaching hospitals to convince professors. Evaluation of impact at a community level is difficult, costly and confounded by numerous selections, diagnostic and seasonal variables. A double blind control study is impossible and a closely surveyed control group (getting no therapy) may be unethical.

Evaluation should be based on certain operational indicators. Remember that there are two parameters of a delivery system; one, the system is rational, and two, it is being properly executed. Five rational indicators may be listed as follows:

- **Access**-Can children in need get to where the therapy is? Excessive cost is considered a block to access.
- **Availability**-Are the ingredients' and means of mixing them properly available (and not rationed)?
- **Acceptability**-Do mothers and children accept oral rehydration therapy? (Good data for standards are now available.)
The Child in India

Dr. C. Gopalan

[The first part of this article appeared in the November issue. This is the concluding part.]

Major elements of the Strategy

A comprehensive programme for the improvement of the state of health and nutrition of our children must be based on a few important approaches, which we may briefly consider.

1. **ENSURING A BASIC MINIMUM WAGS FOR THE FAMILY**

The maintenance of optimal health and nutrition of their children must be considered as the moral and legal obligation of all parents. On the other hand, it must be considered the right of all parents to expect the State to provide them full employment which will at least guarantee them minimum wages to satisfy the basic needs of the family, including, particularly, the

- **Awareness-** Do mothers need to know scientific medical physiology to use oral rehydration therapy effectively? (Data from the Philippines suggest not)
- **Adequacy-Spot** checks of how preparations are taught, how made up and how given and whether children are being fed will be good indications of how the delivery system is working.

2. **PROVISION OF SAFE WATER SUPPLY**

Only 10% of our rural population is at present served with piped water supply system and hand-pump fitted tube wells. Probably, another 10% may also have reasonably safe water supply from protected wells. This still means that at least 150 million children in our rural areas do not have access to reasonably safe water supply. The position with regard to sewage disposal is even worse. It is no wonder under the circumstances that diarrhoeas and dysenteries contribute so heavily to mortality, and malnutrition among our children. Intestinal parasites-hookworm and round worm, etc, also make their own significant contribution to the picture of malnutrition.

3. **PRIMARY HEALTH CARE**

It is now widely recognised that our present health services do not reach 80% of our population living ill rural areas. Nearly 200 million children in rural areas do not have access to basic minimum health care. From this point of view, one may welcome the concept underlying the CHW scheme recently initiated by our Government, as an attempt to link the community with the organized health services. However, there are still many operational problems to be solved. The referral system must be strengthened; the current deficiencies in the Primary Health Centres and subcentres need to be remedied. A system which can ensure basic minimal health facilities to the bulk of our rural population is an essential ingredient of any problem which seeks to improve the lot of our children.
4. ADULT EDUCATION AND REMOVAL OF ILLITERACY

Low infant mortality and better child care in Kerala 'as compared to some other states of the Indian Union has been attributed, among other factors, to the high level of literacy, especially female literacy, in that State. Programmes' of adult education can make an important contribution to the improvement of health and nutrition of children, and deserve much greater attention than at present.

We have a vast chain of rural schools numbering over 2 million. On an earlier occasion, I had spoken of the need to harness this vast resource, which offers a readily available infrastructure of great potential value for the promotion of programmes of health and nutrition among rural communities.

5. MATERNAL HEALTH

In earlier years, we always considered maternal and child health programmes together as a unified operation. In recent years, with increasing consciousness of the problems of children, the mothers seem to have receded to the background. We know now that the nutritional status of the mother during pregnancy has an important influence on the condition of her offspring. In fact the critical phase of the development of the child occurs in the womb of the mother; and the nutrition of the mother can influence this process considerably.

The low birth weight and the high neonatal mortality of infants in poor communities can be partly attributed to the poor nutritional state of the mothers.

Furthermore, the infant depends on mother's milk for many months afterbirth. The quality and the quantity of breast milk can be improved through improvement of the nutritional status of the mother.

Quite apart from these considerations a healthy mother alone can provide the type of emotional environment which a child needs for its proper development.

6. FAMILY PLANNING PROGRAMME

Our family planning programme has suffered some vicissitudes. But there can be no doubt those resolute and vigorous implementations of the Family Planning drive is a must for any programme of national development. If family planning programmes are implemented, not in isolation, but as part of a programme of all-round socio-economic uplift, they are bound to succeed. The family planning programme must be looked upon as a major health and nutrition programme directed towards the uplift of children, mothers and the families as a Whole.

7. SPECIAL NUTRITION PROGRAMMES

Special nutrition programmes like those directed towards the prevention of nutritional blindness, goiter and anaemia, have an important role, but I have placed them last in-the list, because I wish to emphasise that these programmes must be looked upon, not as isolated exercises, but as part of the totality of efforts needed to 'bring about' improvement in the health and nutritional status of our children.

CONCLUSION

In conclusion, I must point out that, perhaps, the most essential requirement for the ultimate success of any programme for the improvement of the lot of our underprivileged children is a deep political and social commitment. Malnutrition is a disease of the very poor; it is not contagious and so poses no threat to the rich. It is, therefore, very much their problem, not ours. Agriculture labour, unlike labour in other industries, is not well organised and its voice is also not heard.

The only two outstanding success stories with regard to the promotion of health and nutrition of children, from the developing counties, are those from China and Cuba. One hopes that India will still be able to demonstrate that success in the matter of improvement of the lot of poor children in a developing country, can also be achieved within a democratic frame-work. Such a demonstration would be the greatest tribute we can pay to Jawaharlal Nehru who combined his deep compassion for children and the poor, with a passionate faith in democracy.

[Extracted from the text of the 13th Jawaharlal Nehru memorial lecture.]

ATTENTION PLEASE!

"Ours is a Tibetan Settlement Colony with a population of 900 approximately. The climate is unsuited to Tibetans and they are susceptible to many diseases. The nearest dispensary is 12 Km away. The' people do not like to go there till they are serious. Many minor cases do not get attention at the preliminary stage.

We have constructed 3 rooms for a clinic. We have persons who can assist in the clinic. We need' medical personnel (experienced nurse) who can staff this clinic on a short or long term basis. Please write to

Tibetan Settlement officer
Norgyeling Tibetan Settement
P. O. Cothangaon 441702 Dist
Bhandara, Maharashtra.

* *
A NEW STRATEGY FOR DRUGS

Four UN agencies are working together to break what the WHQ Director General has called 'drug colonialism', the powerful the multinational pharmaceutical corporations. The strategy is part of a new approach to development within some UN agencies aimed at increasing production in developing countries through a process of self-reliance.

Basic drugs lists should be given top priority says WHO. The size of each national list would depend on the financial resources a nation was able to allocate for drugs, with cost, for the first time, being recognised as an important consideration in the selection of drugs, in addition to safety efficacy and quality. WHO has already prepared a model list of 190 essential drugs to help developing countries in drawing up their own lists. Countries that have tried to identify essential drugs have found that only a very small number is required, often 1-2% of those on the market.

The drug companies also come under criticism for their pricing policies, their marketing priorities and the thrust of their research. The companies often sell drugs to developing countries at prices higher than those of the larger home market. In 1973, when Britain was paying US firms $2.40 per Kg of vitamin C, India had to pay $10. It is also claimed that many drug firms in the Third World concentrate on lucrative, non-essential medicines at the expense of vital drugs. UNCTAD found that over half the production of the drug companies in Sri Lanka, almost all subsidiaries of Western multinationals or manufacturing under license from them, consisted of vitamin preparations, soluble aspirin and cough remedies. The two largest firms made 18 different combinations of vitamins, elegantly presented and heavily promoted. "They were swallowed by the well-nourished who did not need them," reported UNCTAD. "The undernourished could not afford them."

The drug companies that if their profits are reduced, the amount of research and development they carry out would be curtailed. But very few new drugs or vaccines against the tropical diseases which affect the one billion people in developing countries have been de/veloped in recent years, because the global demand for tropical disease drugs is not thought sufficiently large to make their production and research economic. Those who suffer from tropical diseases are poor, and drug companies say they find it hard to market tropical drugs profitably. The research that is taking place is mainly being done in the developed countries, and pharmaceutical firms in developing countries do practically no research.

(Courtesy - People, 6, No. I, 1979)

A WORKER'S SPEECH TO A DOCTOR

We know what makes us ill
When we are ill we are told
That it's you who will heal us.
For ten years, we are told
You learned healing in fine schools
Built at the people's expense
And to get your knowledge" Spent a fortune.
So you must be able to heal.
Are you able to heal?
When we come to you
Our rags are torn off us
And you listen all over our naked body.
As to the cause of our illness
One glance at our rags would
Tell you more. It is the same cause that wears out
Our bodies and our clothes.
The pain in our shoulder comes,
You, say, from the damp; and this is also the reason
So tell us;
Where does the' damp come from?
Too much work and too little food
Make us feeble and thin.
Your prescription says;
Put on more weight.
You might as well tell a bulrush
Not to get wet.
How much time can you give us?
We see one carpet in your flat costs
The fees you earn from
Five thousand consultations.
You'll no doubt say
You are innocent. The damp patch
On the wall of our flats
Tells the same story.

Bertolt Brecht

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