FRCH NEWSLETTER

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Health for All: Concept and Reality

Dr. N. H. Antia

CAN health be attained by all our people by 2000 A.D., was the question addressed in the seminar arranged by the Foundation for Research in Community Health (FRCH) at the Kalina Campus of Bombay University on November 15-16, 1986.

The Seminar, co-sponsored by the Indian Council of Social Science Research (ICSSR), and also supported by the Indian Council of Medical Research (ICMR), was a follow-up of a previous study jointly undertaken by the ICSSR/ICMR on Health for All: An Alternative Strategy, for which FRCH had provided the research input and secretariat. The study made a detailed analysis of the health status of the people and of the existing medical services, and recommended an alternative strategy for achieving health for all within the existing social and political system. At about the same time came the World Health Organisation's (WHO) Alma Ata Declaration on Health for All by 2000 A.D., to which India is a signatory.

The Seminar was an attempt not only to review the achievement and failures, but also to reassess the policy and strategies which would ultimately determine the success or failure in achieving the goal of HFA. Several background papers provided useful data, and served as the basis for discussion.

There was general agreement that the achievements in improving the health of our people had fallen far short of expectations. Statistics reveal a continuing high rate of infant mortality at about 114, and a death rate at 11.7 for every 1000 live births, and maternal mortality of 5 per thousand. The major causes of mortality and morbidity continue to be a communicable diseases like tuberculosis, gastroenteritis, measles, respiratory infections, leprosy, filariasis and poliomyelitis, for which there exist relatively simple, cheap and effective measures of prevention, cure and control. However, instead of providing basic primary health care for the rural masses, the emphasis has been on tertiary care for the urban rich. The only targets achieved and exceeded have been in the production of doctors and drugs, which nevertheless only reach the upper two deciles who have the monetary resources to purchase the available curative services.

The question was naturally asked whether it will be at all possible to attain the health targets set for 2000 A.D. within the present socio-economic system and health infrastructure. Several delegates felt that this should be possible because the targets that have been proposed are very modest in themselves; and that we already have examples in several parts of the country, albeit on a microscale, which have demonstrated the feasibility of meeting these targets with modest inputs.

Doubts were expressed that even if the national targets could be achieved, aggregate figures may not reveal the true situation. There exist great disparities not only between States like Kerala and Bihar but also between rural and urban areas and even within the cities and villages. The achieving of targets through a selective approach would negate the concept of Health for All.

It was stressed that health, which is chiefly a problem of women and children, can only be achieved by improving the status of women. The low female literacy rate, the low status of our women, the excessive burden they bear in repeated child-birth and in supporting the family,—they get the lowest calories in the family while expending the largest amount—and the indignities to which they are subjected, virtually ensure that Health for All will remain a pipe dream of the planners and politicians.

The reasons for our failure to improve the quality of life of the masses, to achieve universal literacy, to provide gainful employment and improve the appalling state of nutrition despite accumulating vast stocks of food grain, lie in the skewed political and economic priorities which have created wide disparities despite increase in the national wealth. The solution for this lies in the realm of political action.

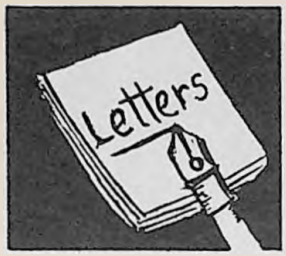
The message that has emerged from this seminar is clear. Health for All cannot be achieved without the concomitant transformation of the overall social structure and political economy. It cannot be achieved under a social order which favours a few at the expense of the rest.

The role of the professionals should therefore be t· demystify health which will also act as an important means of developing confidence among the poor. It can help them to question the causes of their poverty and initiate action in fields other than health.

The seminar concluded on a positive note that the future focus should be on developing and liberating the innate energy of the people through a wide ranging approach to health and through a meaningful form of health education which will create the necessary awareness for their own action.

We wish our readers a very happy, fulfilling and healthy New Year.

FOR PRIVATE CIRCULATION ONLY



To

The FRCH collective,

WE read your first Newsletter and found it very informative and useful. We have a suggestion to make about the future issues. Could you also cover the topic of occupational health in your newsletter? Though this is a vast topic, you may cover it to the extent it relates to the doctors. Apart from the social responsibility of the doctors, the law also clearly states that any practitioner treating a notifiable disease should inform the inspector of factories. The penalty for not doing this is only Rs 50. The problem is that due to non-reportage, there is no change in the working atmosphere and working conditions in the factories. Workers in India do need to become aware of the health issues and their own rights regarding these; but the doctors too need to be educated.

Workers in Alembic glass works at Baroda came to know that their lung problem is known as Silicosis. They had to literally teach the doctor about Silicosis and how they should be checked properly. The Factories Act asks the doctors to notify any worker-patient of Silicosis. The doctor who is unaware firstly, of the occupational disease, and secondly that he can contribute to its prevention by notifying the chief inspector, would inadvertently continue to perpetuate the damage to workers' health.

Take the example of dermatitis. Dermatitis due to mineral oils, paints and other chemicals is listed. The general practitioners around industrial areas treat many patients for dermatitis, but do not enquire about chemicals used at the work place nor to they inform the authorities.

It is necessary that the doctors should be educated by institutions like the FRCH. A campaign needs to be organised/initiated in order to include occupational health as a part of the curriculum for the doctors. There are 22 diseases listed in the Factories Act, which are 'compensable'. If doctors are informed and the informed doctors in turn decide to record the conditions of work in their observations, educate the workers, and inform the authorities, it will be a great contribution towards a healthier India.

VIJAY KANHERE, BOMBAY.
LOY REGO, BOMBAY.
J. B. PATEL, BARODA.

Pages from a Diary

Amirbanu Sumnani

AT last my long cherished dream came true! I was relieved from my monotonous stenographer's duties and was assigned a new job as a health educator.

With great enthusiasm, I went for 15-day's training—learning different media of disseminating health education. The training was excellent. After the training, I was all set to shoulder this new responsibility.

I resumed my duty and reported to my superiors about my training. I started telling them about my future plans, as to how I was going to launch my ideas into practical experiment. But I was cut mid-way and was told to keep aside the new ideas and start with the typing work.

I had no alternative but to do as I was told. I simmered and started banging at the typewriter keys angrily. Yet I kept hoping that sometime I would be able to carry out my plans.

Finally after many arguments with my superiors, I was allowed to go to a nearby school once a week for just one hour. Even this one hour came as a bliss.

After a couple of lessons, however, I felt I was not achieving my goal. The time I was given was too short, nor was there any time to collect the relevant material and make things to give health education. Besides, my work as a health worker as well as, as a stenographer was criticised. I felt weak and lost.

After this bitter experience, I didn't feel like taking any initiative in doing anything creative. Today I am back to where I was. But today I also wonder, was the training really as excellent as I had felt earlier?

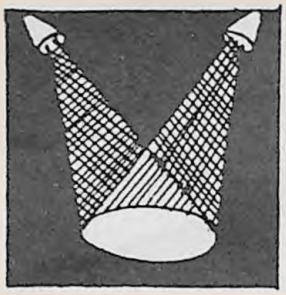
Despite the lack of encouragement from the Organisation, I did not give up hope. I decided to venture into this new field on my own. With the help of a friend, I set out with whatever health education material I had. We went to a nearby slum area.

After much coaxing we managed to collect a crowd. I started displaying the material and explained the importance of cleanliness—which ultimately would keep them healthy.

Although I realised that not many women were really listening, I continued preaching. After some time one or two women got up and walked away. My heart sank. What if the whole crowd walked away?

But nothing of that sort happened. Instead, questions from different directions were shot at me. "Oh! Bai from where to get water to keep ourselves and our clothes clean?" "Where can we find a clean and healthy environment?" "Where to get money to buy soap and detergents?" etc., etc. I was totally taken aback. I was not at all prepared for such questions. I stood there gaping. When they realised that I had no ready answers, they got up murmuring, "We know all about cleanliness and other things. You people can only preach. Just put yourself in our place and then see what difficulties we go through".

As I packed my things, I thought 'Yes! in a way they were right'.



The New Drug Policy

What does it have in Store for the People

Dr. Anil Pilgaonkar

EVER since the 1978 Drug Policy was announced, both the consumer forums and the drug industry have been seeking changes in that policy, albeit for diametrically opposite reasons. The drug industry had consistently put pressure on the government for allowing, a) greater mark-up on the formulations and b) greater freedom from controls. The people-i.e. consumer groups, health groups and science groups had, on the other hand, sought for i) availability of essential drugs (as drawn by the World Health Organisation), at very reasonable prices, ii) restricting the drug list to include only the rational drugs and exclude all irrational and harmful drugs and iii) the marketing of drugs and formulations under generic names only. Further, they had also pressed for people's participation in the formulation of the drug policy. In fact, many of the proposals of the Hathi Committee, 1975, were in consonance with these very demands.

The present New Drug Policy pretends to make an attempt at pacifying both the groups, though even the most naive would be able to see through this move and make out that the policy is very much against the interests of the consumers and is heavily tilted in favour of the industry. Virtually all the demands of the people—drawing out of the essential drugs list, weeding out and banning irrational and harmful drugs—have been placed in the hands of the as yet to be constituted National Drugs and Pharmaceutical Authority (NDPA). This inevitably means delays and perhaps distortions, depending on the composition of the NDPA. Secondly, everything that the drug industry has been pressing for, has been conceded in ample measure—higher mark-ups and greater freedom from controls. It is therefore necessary to look into each of the proposals available from the summary (which is all that is available at the moment) and see how they would affect the people on the one hand and the drug industry on the other.

1) A National Drugs and Pharmaceutical Authority (NDPA) will be created. This will have representatives from all concerned agencies, *including those from the industry* (emphasis added). While the question of who these 'all concerned agencies' are, is left open, the summary of the text makes it amply clear that 'those from the Industry' will be represented.

This authority would function as an advisory body on the development of the pharmaceutical industry. Among other things, it would go into the question of rationalisation of the existing formulations in the market, including the banning of harmful formulations and better control over the introduction of new drugs. While representation of the industry in NDPA in some matters is understandable, that in respect of the question of rationalisation of the formulations in the market, including banning of irrational and harmful drugs is both surprising and unwarranted as they would have vested interest in this issue, and this is more than likely to defeat the aim. It is as ill-conceived as making a quality control manager report to the production manager, and is therefore unacceptable to the people.

2) Quality control: It is proposed to give statutory effect to good manufacturing practices and also to introduce a certification system under which, recognised institutions with proven expertise and testing facilities would certify the adoption by formulators of good manufacturing practices and the quality of the formulations manufactured. It is common knowledge that these have been the responsibilities of the Food and Drug Administration. The questions that therefore arise are: What would be the role of the FDA vis-a-vis that of this new certification system? and (b) if these responsibilities are *not* clearly demarcated, wouldn't that allow room for manipulation and the playing of one authority against the other?

3) Pricing: As against the existing three categories (viz. category I—40 per cent mark-up, category II—55 per cent mark-up and category III—100 per cent mark-up) of drugs and pharmaceuticals, hereafter there would be only two categories. The first category will consist of drugs necessary for the national health programme (some 40 drugs) and the second category, of essential drugs. Formulations of the first category would have a MAPE (maximum allowable post-manufacturing expense, virtually the same as 'mark-up' used earlier) of 75 per cent, and those of the second category of 100 per cent. This implies that the rest of the formulations (and very likely a very large number of them) would be out of the purview of price control.

A High-level committee would draw up the list of drugs to be included in the second category. Who would be in this high-level committee? What would be the criteria for deciding the essential drugs? There has been no attempt to answer these questions—another area of studied ambiguity.

It will be recalled that after the last (1978) drug policy, the formulations of the I and II categories were scarcely available whereas those of the III category and those out of the purview of price control were in abundance. The reason forwarded for this situation was that, because the last two categories were the ones that were profitable, they were the ones that were manufactured. If this is the case, and if the intentions of those in authority were to reduce the drug list to conform with rational drugs only, then one would expect that the MAPE on formulations *not included* in categories I and II should have been even lower than 75 per cent; but instead, the authorities have left them out of the purview of price control (which would mean high margin and high profits). The outcome of this

(continued on page 8)

AIDS: If Slogans were Vaccines...

Dr. Nerges Mistry

THE dramatic advent of the acquired immunodeficiency syndrome (AIDS) since 1978, may well have provided to religious fundamentalists another clue of approaching Armageddon; however it has had a remarkable effect on the mobilisation of medical resources and scientific acumen hitherto unknown.

The vast pool of information gathered on the somewhat unique tissue tropism of the virus, its molecular structure, and facets of the immune response towards it, has paradoxically been instrumental in creating a fear psychosis, since despite the considerable inroads made in the understanding of the disease, full blown AIDS remains a 100 per cent fatal condition. The treatment is either symptomatic or hypothetical. The course of events after exposure to the virus begin with extremely innocuous symptoms such as fever, anorexia, weight loss, which, in the absence of a diagnostic test, would abet the evasion of a correct diagnosis. Indeed the pattern of immunodeficiency in AIDS resembles, to varied degrees, patterns noted in different diseases such as viral infections, malignancies, Burkitt's lymphomas, infectious mononucleosis, tropical splenomegaly, nutritional immunodeficiencies (IDS) and leprosy. In third world countries therefore, acquired immunodeficiency syndromes probably exist in vast numbers but remain unlabelled in the right context.

Little information exists towards the recognition or measurement of a protective immune response (ImR). Epidemiological observations bear out that only 10 per cent of those infected with the virus progress to active disease, a positive indication that a protective ImR against the virus exists. Investigators were also elated when it was computed that homosexual men exhibiting both antibody positivity (an indication of Human Immunodeficiency Virus infection) and abnormalities in blood cell numbers for a prolonged period, reverted to antibody negativity without exhibiting signs of AIDS related disease. This disappearance of the virus coincided significantly with a measurable increase in a critical sub-population of blood cells termed as suppresser lymphocytes.

In our "vacciphilic" era, it is inconceivable that any control measures against AIDS would exclude the development of a viral vaccine to AIDS. At this juncture, only optimism abounds. Attenuated or live vaccines are considered too risky for any proposed trial. The favoured approach lies in isolation and cloning of a viral structure that may induce the formation of a protective ImR. Variation in viral structure either through environmental pressures or genetic mutation provides another obstacle to the development of a homogenous vaccine. The natural history of Human Immunodeficiency Virus (HIV) infections in Africa, where the virus is believed to originate, must necessarily be different from that of other groups. Adjustment to the virus over generations must play a role in natural immunity/tolerance to the virus. This introduces the question of the differential response to the vaccine in various ethnic groups.

With AIDS claiming its first victim in India in 1986, public fear over the disease has descended on this country as well. This has been compounded by unprecedented announcements in Parliament, intensive media coverage and the setting up of an elaborate surveillance network practicable principally on paper. Nevertheless, because of the very nature of the superefficient pattern of global travel and communication prevalent, and the existence of high risk groups in every society, control of the spread of infection remains an urgent priority.

IN a special article in a recent issue of the New England Journal of Medicine, it was reported that a million new cases of gonorrhoea are reported in the United States of America every year, despite the fact that penicillin has been available as a single—shot treatment for several decades. Since there is now an emergence of resistance to antibiotics, they have recommended research in recombinant DNA techniques for developing a vaccine.

China has successfully eradicated sexually transmitted diseases including gonorrhoea and syphylis.

This is the result of the revolution which has changed the social and sexual mores. Penicillin was only an additional tool to deliver the coup de grace. The eradication of STD therefore lies more in social change than in mere medical technology.

Epidemiologists feverishly grapple with "transients" (anomalies due to the rate of spread of virus and the long incubation period) to predict estimates for new AIDS cases in the subsequent years. Even with a minimum of pessimism and with a hope that new infections may be eventually preventable, it is estimated that the epidemic in countries such as the USA will be five times larger than the number of cases observed so far.

Because of the identification of HIV as the causative agent in AIDS and the consequent development of culture techniques and serologic methods for detecting antibody to the virus, it is possible to identify both, symptomatic and asymptomatic infected persons. Paradoxically again, this very widespread availability of simple, inexpensive and sensitive screening tests for antibody to HIV has further complicated the development and implementation of infection control procedures. The question becomes.. who to screen. This is a particularly important issue in health care facilities where frequent and intensive exposure to infected patients may occur. Protection to health personnel would also have serious repercussions in clinical management of AIDS' patients as well as in early reporting of AIDS cases.

It is not feasible to identify all infected patients even with the availability of screening tests. The risk of

nosocomial (relating to a hospital) transmission of HIV is extremely low even after accidental parenteral innoculations. Again, special infection control precautions for patients known to be infected are not necessary in most health care settings at least in the developed countries. The existing guidelines for reducing exposure to blood and other body fluids will protect workers who care for AIDS afflicted patients. The procedures recommended to prevent contact with body fluids would reduce exposure not only to HIV but also to other sexually transmitted pathogens.

This is also the general tack of Prof. V. Ramalingaswami, the former Director General of the Indian Council of Medical Research, who claims that though sexually transmitted disease (STD) is widely prevalent, its prevention and control have been largely neglected: "The opportunity of AIDS should be used to monitor and prevent STD in general".

The remarkable mobilisation of scientific resources in the US towards development of quick and relatively inexpensive screening procedures was largely due to the transmission of AIDS through Blood Bank transfusions to hemophiliacs or to the users of blood products. Even though they constituted about two per cent of the total AIDS patient population, their impact on the control measures was very significant. By a massive screening programme, where within 3 years, 20 million units of blood were screened, not only for antibody but also for viral particles themselves, the risk of contracting AIDS through transfusions in the US was reduced to a minimum −1.77/1000 units of blood.

Given the prevalent condition of blood banking in this country, screening for AIDS samples would appear meaningless when screening for Hepatitis−B or VDRL for syphilis is still not carried out routinely in a majority of institutions despite being made mandatory since 1976.

The highest incidence of AIDS is reported to have occured in homosexual men, subversion of immune system probably occuring through the introduction of sperm through an abnormal route. The recognition of the heterosexual mode of contraction of AIDS has been identified as an important way of introducing the virus into populations not generally considered at risk. This single fact may play a key role in the final containment of the disease. Slogans such as "Give a Gift—Not Aids", "Stick to your partner" are common sights in Western cities where generally the level of sexual promiscuity is said to be high and indiscriminate sexual practices, socially condoned or even legalised. Given the relatively conservative sexual mores and practices in societies like ours, the likelihood of the problem acquiring similar dimensions everywhere is remote; AIDS cannot be caught easily from a dirty toilet!

If the trend of incidence continues, a study proclaims, over 50 per cent of all populations at risk will have contracted AIDS by the year 1990. However, persuasive induction of behavioural change, and accurate public information have already begun to have an important impact in markedly reducing the incidence of AIDS long before a vaccine is available. Far from any sense of helplessness that may arise from scientific means to control this affliction, there are a multitude of alternative levels on which things can be done and multiple cultural factors that will directly affect the progress of technological advances in hand.

Amniocentesis Update

Dr. Sanjeev Kulkarni

A Committee to study the problem of sex determination and female foeticide was formed by the government of Maharashtra, under the chairmanship of Mr. Bhai Sawant, the Minister for Public Health and Family Welfare in September 1986. The Committee was formed as a response to the raging public debate, due to the consistent campaign by the Forum against sex-determination and sex pre-selection, and also because of the private members' bill presented in the legislative assembly. The Secretary to the government of Maharashtra, department of public health and family welfare, commissioned Dr. Sanjeev Kulkarni of the Foundation for Research in Community Health to conduct a short study of prenatal sex determination tests and female foeticide in Bombay city.

Some of the important findings of this study are:—

* About 84 per cent of the gynaecologists interviewed for the study are performing amniocentesis for sex-determination tests. These doctors together perform on an average 270 amniocentesis tests per month.
* According to this study, some doctors have been performing amniocentesis for 10-12 years. But a majority of the doctors (over 85 per cent) have started performing these tests in the last 5 years.
* About 74 per cent of the doctors said that over *50 per cent* of the women who come for the tests are from the "*middle class*". More than 85 per cent of the doctors said that *no lower class women* had come to them for sex-determination tests, though the areas selected had a substantial lower class representation.
* A *majority* of the women have *2 or 3 daughters* when they come for sex determination tests and the percentage of women coming for sex-determination tests when they have 4 or more daughters is relatively small. Significantly enough, about 24 per cent doctors said that in *20 per cent* of the cases, the women had *only one daughter*, when they came for the sex determination tests.
* About 29 per cent of the doctors said that upto *10 per cent* of the women who come for s.d. tests *already have* one or more *sons*.
* A majority of the doctors see the s.d. tests as a humane service to the women who do not want any more daughters. Some doctors also feel that s.d. tests are an important family planning method in our country.

The study also reveals some other interesting features. For example, one doctor advocates *pre-planning* of sex by a method based on the characteristics of the x and y-bearing sperms. Another doctor performs s.d. by a non-allopathic, non-ayurvedic, spiritual method.

This report is now ready and is available at the FRCH.

Overpopulation and Poverty

Dr. Ramesh Awasthi

That overpopulation is the root cause of India's poverty is an absolute myth. What is the meaning of overpopulation? Is it the staggering total figure (1000 million by 2000 AD) that raises a spectre of despair? In that case, will our reaction be different if India is divided into 25 independent states each having a population of only about 30 million, even less than that of UK or France?

That India supports 15 per cent of the world's population with only 2.4 per cent of the world's total land area is often cited as a major handicap in solving the problem of poverty. If population-land ratio is the criteria for overpopulation, let's have a look: some of the most *overpopulated countries* are also among the *richest*.

Country	Population (Mid 1984) Million per 100 sq. km land area
South Korea	4.09
Holland	3.51
Japan	3.23
Belgium	3.19
West Germany	2.46
U.K.	2.30
India	2.28
China	0.01

All these countries have a population-land ratio which is larger than that of India. On the other hand a large number of countries with a favourable population-land ratio are among the poorest in the world.

Ethiopia	0.345
Zaire	0.127
Thailand	0.973
Indonesia	0.828
Uganda	0.636
Pakistan	1.15

(Source: World Development Report 1986, pp 180-181)

Is poverty a question of there not being enough for so many people? Let us consider the consumption of resources or the expenditure on food, health, education, clothing and housing of the poor *vis-a-vis* that of the rich. From the consumption expenditure data we know that the top 10 per cent consume 7-8 times as much as consumed by the lowest 10 per cent. Hence averting a birth in the rich families will save 7-8 times the resources that would be saved by a poor family having 1 child less. Extending the same logic, if it was a question of limited world resources, all population control effort should be aimed at the industrial market economies where, considering only in terms of energy consumption per capita (in kilograms of equivalent oil) the consumption level in 1984 was 26 times that of India and 13.5 times that of India and China together.

Another myth harboured by most educated elites is that the poor remain poor because they have more children. Without going into the rationale why the poor need to have more children (high infant mortality, more hands to earn the family's food, lack of illness/oldage security etc), let us put the question a bit differently—If the poor start having lesser children, will they be better fed and clothed, will they have access to good education, better health care and adequate housing? The honest answer is 'NO'.

How much the poor will get is determined not by the number of children they have but by the level of distributive justice in society. The poor can get more if they consciously use the power of their numbers to enforce distributive justice.

We are not disputing the need to control the high rate of population growth in India and in other developing countries. What we have tried here is to put the relation between poverty and population straight. We cannot find excuses for the persistent poverty in high population growth rate; rather the socio-economic factors have a stronger bearing on the persisting high rate of population growth.

Practice of Medicine

Dr. Mukund Uplekar

TOXICITY of vitamin overdose

OUR every day diet contains most of the vitamins that our body requires. Additional vitamin intake is only necessary in a very few specific conditions. For these, single vitamin preparations are necessary—B-1 in case of beri-beri, B-12 for pernicious anaemia. The habit of indiscriminate prescription of multivitamins is unnecessary and expensive. This habit is based on the *false* presumption that vitamin can only do good but no harm.

However, excessive intake of vitamins can be harmful and often produces toxic effects.

Vitamin	Average Daily Requirement	Toxic Effects of Overdoses
A	750 micro grams.	cerebral edema resulting in headache, nausea and vomiting. Chronic liver disease. Skin changes including dryness, eruption and rash; fissures, depigmentation, itching, loss of hair. Ingrowing toenails resistant to treatment. Tenderness of bones. Psychiatric symptoms.
B 3	9-20 mgm.	Peptic ulcer, loss of hair; itching; liver toxicity, abnormal heart beats, hypotension.
B 6	2-3 mgm.	Dependency, peripheral sensory neuropathy and failure of muscular coordination.
C	35-60 mgm.	Oxalate stones, possible teratogenesis and carcinogenesis in very high doses, multiplicity of minor idiosyncratic symptoms.
D	400 I.U.	Possible mental deterioration due to excess of calcium, hypertension, hardening of organic tissues due to deposition of calcium salts.
E	5-15 mgm.	Increased anticoagulant action of Warferin (an oral anticoagulant drug).
K	100 mgm.	Hemolytic anemia, neonatal jaundice.

A Workshop Report

Manish Mankad

A three days meet on documentation was organised at Bombay from 12th December to 14th December, 1986 by The Centre for Education and Documentation and Bombay Urban Industrial League Development (CED and BUILD).

33 participants attended this meet. Some of the participants had come from great distances-Calcutta and Hongkong. A total of 7 papers were presented.

The emphasis was on the need, role and relevance of documentation centres; sources of information; various classification schemes, dissemination systems like bibilographies, indexes, and publications; compatibility between documentation centres in indexing, thesaurus and filer codes and lastly automated systems.

A concensus was reached on the following points:

a. Keeping in mind the limited resources available to the documentation centres, duplication should be avoided as far as possible.

b. For this, a joint indexing of journals which are subscribed by most of the centres, should be carried out.

c. The joint indexing will result in a cumulative six monthly index.

d. To facilitate the exchange of materials, a common thesaurus was worked out. Each center will have the freedom to add its new keywords or go in depth into those topics which are not covered adequately.

e. To organise a training workshop for the automation of documentation centres.

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* UNESCO, "Health education intervention: an annotated bibliography", 1986, p. 103.
* VHAI, "Banned and bannable drugs", 1986 (2nd ed.), p. 68.
* FRCH, "NGO's in rural health care", Vol 1, 1986, p. 176.

Books in Brief

Mankad Manish

1. *Ritchi, Lewis D., 'Computers in primary health care, practicalities and prospects'.* London: William Heinemann medical books, 1984, p. 162.

The purpose of this book is to explore the implications of using computers in primary care.
—current issues and new developments in primary care,
—traditional manual records,
—previous experience of computers in National Health Services,
—technical aspects of computers used in medicine,
—computer assisted medical records,
—interaction between man and machine and
—access and security of information contained in a micro computer.

A glossary and an appendix provide valuable definitions of computer terminology, details of costs, and sources of future information. The latter, however, provides information only on UK based sources. There is an extensive bibliography at the end, in addition to good references at the end of each chapter. There are 10 chapters in all.

2. *Hoinville, Gerald and Jowell, Roger, 'Survey research practice'.* Hants: Gower publishing, 1985, p. 228.

As a companion volume to the more theoretical treatment of survey research, this book deals with the formidable organisational problems of conducting sample surveys. All the stages of a survey are dealt with, from the initial planning to the production of 'clean' data.

Each chapter takes the reader through the intricacies of survey implementation, from the first principles to more detailed advice, basing itself on the wide experience of conducting social surveys acquired by the authors in their work at their research institute.

Throughout, the authors systematically reveal the 'tricks of their trade' by exposing and clarifying the methods by which the underlying principles of survey research use are put into practice.

It has a good bibliography and an appendix containing examples of questionnaires. The book has 10 chapters.

3. *Iyer, K. V. and Kumar L. R., 'Pollution control in industry'.* New Delhi: K. V. Iyer associates, 1986, p. 481.

The book covers in detail the evolution of the environmental policy from the commencement of the five year plans and the perspective for the year 2000. It also contains the declarations by the United Nations and other international and national agencies, the administrative setups and the role of the department of environment at the centre and the state authorities. It includes the environment guidelines for the siting of industries, location of industries and the various legislative enactments from the middle of the last century till date.

The contents are organised in 6 sections. Each section has its own page sequence.

This book can serve as an excellent reference source on Environment, especially for its legal aspects in India.

(continued from page 3)

is plain to see—a self-defeatist measure which will further fatten the industry at the expense of the consumer. We are informed that a "very strong monitoring system will be evolved to keep an eye on the prices of drugs and formulations", but then which government monitoring system has ever been effective?

4) Licensing: The system of delicensing would be progressively extended, subject to the following criteria: (a) Bulk drugs whose imports are under OGL (open general license); (b) Bulk drugs whose production is limited to three producers or less; (c) bulk drugs whose formulations are of essential and mass consumption nature and (d) formulations and drug intermediates related to bulk drugs which are delicensed. Though one can appreciate the spirit behind this, it is also plain that delicensing is likely to be misused and at any rate the monitoring of drug production would be drastically affected. On the other hand, if the licensing procedures are made easy, that would serve the purpose better.

Broad-banding is also extended to 31 groups of products. (Which these are, is still not known). This would mean that if one has a license to manufacture one product in the group, it would automatically license one to manufacture other products in that group. The experience of earlier broad-banding exercises is not well known. But the repercussions are likely to be similar to delicensing.

The ratio of bulk drug production to formulation production has been fixed (1:4 for FERA companies; 1:5 for companies whose turnover is in excess of 25 crores; 1:7 for companies whose turnover is between 10 and 25 crores; 1:10 for companies with a turnover upto 10 crores). This would seem to be relevant if effectively enforced but a more pertinent and meaningful measure would be to make the drug industry utilise 80 per cent of its capacity to produce essential drugs. Particularly since the MAPE is now substantially increased.

Generic vs brand names: The summary of the text of the New Drug Policy does not make any mention of 'marketing under generic names'—a recommendation made after careful consideration by the Hathi Committee, and one which the people have been pressing for a long time and one which only the industry has been resisting all along. Why?

In the final analysis, one fears that the new drug policy would facilitate abundant production of non-essential, irrational and perhaps harmful drugs which are profit-centered, at the expense of essential drugs. There would be increased profits for the industry and as a corollary increased tax revenue (hopefully) for the government, and increased profits for the traders; an abundance of 'gifts', 'incentives', and 'lures' for the medical profession (thanks to the absence of medical ethics) for the over-abundance of non-essential but profit-centered formulations. And who pays for all this?... You guessed it, the consumer!

It is a tragedy that the government of the people, by the people is so very much against the people!

Edited by Sujata Gothoskar with the co-operation of Manish Mankad and secretarial assistance from Sunita Vichare and Amirbanu Sumnani. Art work by Madhu Rokle and Vineeta. Produced by The Foundation for Research in Community Health, 84-A, R. G. Thadani Marg, Worli, Bombay - 400 018. Printed by Modern Arts and Industries, A-Z Industrial Estate, Lower Parel, Bombay.

FRCH NEWSLETTER

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Action on the Drug Front

Padma Prakash

THE drug consumer movement in India is less than half a decade old. And yet it has acquired a voice which is both loud and deep, though not perhaps always strong enough to be heard and recognised in high places against the din of the drug industry and its supporters. What is surprising is that this clear and coherent voice has emerged out of a fluid agglomeration of myriads of groups and individuals. And this perhaps is the basis for its potential strength—that it draws its inspiration not from one mainstream current of opinion or political perspective, but several.

The drug consumer movement as we know it today, took formal shape in 1982. The Voluntary Health Association of India (VHAI) called a meeting at Pune, to discuss the issue of rational therapy. This was the genesis of the movement. It was here that health professionals, journalists, academics and church workers came together and found that their experiences in the field were similar. It was here in fact that most of the issues which were to come up over and over again in the following three years were first raised: the necessity of forming an essential drug list; the non-availability and high cost of these drugs; low-cost formulations to be produced as a group programme for the voluntary sector to bring down costs; the need to set up information cells and data centres on drug information; rational drug therapy; misuse and overuse of drugs; etc. Among the important action plans taken up, was the decision to launch a campaign against EP drugs on March 8th, International Women's Day; and a campaign against the Depo provera trials. But significantly, the meeting's most important long term plan was the collation and collection of information in specific areas, such as antidiarrhoeals, tonics, antibiotics, analgesics, misbranded drugs, drug industry advertising campaigns and the preparation of material for the proper dissemination of this data.

Briefly then, the focus of the discussion was determined by the prescriber and was mainly concerned with the problems felt at that level. Although the nature of the drug industry was referred to, it was not the major concern. The major participation of the meeting was from professionals, health workers, of the VHAI and the CMAI, and members of the Medico Friend Circle.

So great was the momentum generated by the first workshop in some areas that a second meeting was held in August the same year. The amount of groundwork put in by the VHAI in this intervening period was quite amazing and the second workshop in Jaipur discussed more specific issues—misuse of drugs especially amidopyrines, anabolic steroids, clioquinol, paediatric tetracyclines; banning of drugs, ethical marketing code for drug companies, support for the Bangladesh drug policy. The discussions this time were much more technical and in fact, a major debate was about the basis for seeking a ban on certain drugs.

It was in the period between these two meetings that the first campaign was launched seeking a ban on EP drugs. Although many women's groups included it in their set of demands on March 8th, very few made efforts to pursue the demand.

The main result of the campaign as it turned out, was in the production of literature, poster etc. in collaboration with one women's group in Delhi, articles and letters to the editor etc. It would be a little unrealistic to conclude that the government's order of March 18 that year, making it mandatory for manufacturers to introduce a warning against its use in pregnancy was due to the campaign. Nevertheless, the EP campaign succeeded in generating an awareness of the possibilities of such action, especially among professionals who had until then looked askance at such moves.

By 1984, many independent groups of doctors, consumers, health workes, People's Science groups etc. had become aware of the need for co-ordinating activities. In July that year at a meeting at Wardha, the All India Drug Action Network was born. AIDAN has been a loose network of a dozen organisations/groups, with each of them actively involved in related activities in their particular area.

It is perhaps too early to attempt to evaluate the drug consumer movement. But it would be useful to look to some of the macro and micro factors which possibly contributed to the genesis of the movement. We enumerate some of the developments not necessarily in order of their significance:

1. In the late 70s there was a lot of interest in and debate on the drug industry and its functioning, especially in third world countries which revealed the kind of control the multinational companies had over not only the

(. . . .*continued on page 12*)

SPECIAL ISSUE ON DRUGS AND DRUG POLICY

FOR PRIVATE CIRCULATION ONLY

Drugs in Pregnancy

Dr. Mukund Uplekar

Before the Thalidomide tragedy, it had often been thought that the pregnant woman and the fetus acted as a single entity and that drugs given safely to the mother should not adversely affect her developing child. It is now thought that almost all drugs taken by the pregnant woman are transferred across the placenta to the fetus. More importantly, the growing fetus is adversely affected by drugs that are harmless to the mother.

In UK, where the standards of medical practice are relatively high and where the medical practitioners practice what they are trained in, a retrospective study of about 1000 mothers showed that excluding iron, drugs were prescribed for 82 per cent during pregnancy and each woman received an average of four drugs. In another survey, all the pregnant women were given at least two different drugs, 93 per cent received five or more and one patient admitted to taking 32 different products. The major classes of drugs prescribed were analgesics, vitamins, antacids and antiematics.

With little epidemiological data at hand, the use and abuse of drugs in pregnancy in our situation can only be left to imagination. If our own sample survey of prescribing practices in Bombay is any indication, overdrugging and indiscriminate and irrational use of drugs seems to be rampant here.

Thus, drugs are used on a large scale by pregnant women and despite a greater awareness of their potential hazards, their usage has in fact increased. This is not simply the result of changing obstetric practice, since drug consumption has increased in general in all sectors of the community. The growth of the pharmaceutical industry and the changing attitude regarding the need for drugs as a form of treatment on the part of the patient have also played their part.

Effects of drugs on the fetus:

Day 0 to 17	Exposure to foreign compounds during this period probably results in an all or none response. The pregnancy will either progress or be aborted.
Day 18 to 55	This is the time when organs develop. Teratogenic effects occur in this period resulting in malformations.
Day 56 to term	In this period, the main abnormalities resulting, are due to a reduction in size and the number of developing cells. It is important to note that the brain, unlike most organs, continues to develop actively throughout the whole of pregnancy. This explains the abundance of Central Nervous System effects like microcephaly, mental retardation, etc.

Drugs used for treatment of minor ailments in pregnancy

Ailment	Drug(s)	Comments
Pain (Body ache, backache, etc.)	Aspirin	—Commonest drug taken in pregnancy often self-administered. —Said to cause reduction in birth weight, increase in still birth rate and affects the bleeding mechanism of the body. —Should be avoided in pregnancy, particularly in the treatment of minor disorders.
	Paracetamol	—Not as extensively studied as Aspirin —Generally safe —Recommended as a mild pain killer of choice.
Nausea and Vomitting	Anti Emetics (Numerous preparation available like stemetil, siquil, marzine, Avomine, Pregnidoxine etc.)	—linked to a number of congenital defects. —Drug treatment necessary only if symptoms are severe and prolonged. —Reassurance, small frequent meals and avoiding large amount of fluids often helps to control symptoms. —Drugs containing meclozine or cyclazine are widely used but are best avoided.
Heart-burn and Dyspepsia	Antacids	—Non absorbable antacids such as aluminium hydroxide and magnesium trisillicate may be used —When taken in early pregnancy, they have been associated with an increased rate of congenital defects.
Constipation	Laxatives	—Stimulant laxatives contraindicated (eg.Purgolax, Dulcolax etc.) —Diet, high in cereal fibre and fresh fruits useful —Bulk purgative like Bran, Isapghula and methylcelluloze may be used safely.

As far as possible no drugs should be used in pregnancy, but some common ailments often require treatment for the comfort of the mother. If pregnant women are to continue to use drugs, certain recommendations have been suggested:

a) drugs should only be prescribed when *absolutely* necessary, and only if the benefits to be gained clearly outweigh the risks involved to the mother and the fetus.

b) public awareness of the potentially harmful effects of drugs on the fetus has resulted in 'intelligent non compliance' to some extent. It is important to educate mothers about *home remedies* for minor disorders and judicious use of drugs as also the potential hazards of self medication.

c) Doctors continue to prescribe drugs in pregnancy despite the knowledge of their hazards. If doctors spend more time in reassuring and explaining to the pregnant woman rather than prescribing drugs, a lot of misuse could be prevented.

The sedative 'Thalidomide', prescribed to pregnant women for giving relief from morning sickness was found to produce various developmental anomalies in the new born. The commonest anomalies are 'amelia', total absence of limbs and 'phacomelia', absence of one or more limbs. The thalidomide tragedy has prompted various nations to impose strict teratogenicity tests on new drugs before their introduction into therapeutics.

Analgesic and Essential Drug Production in India

Dr Y K Amdekar
Dr Arun Bal

The plethora of analgesic drugs and formulation is truly astonishing and shocking. Many of these drugs are sold as OTC (Over The Counter) drugs. Most of these are 'Me-Too' formulations and are *useless*. In most of the trials, relief of pain by an analgesic mixture has not been found to be superior to that of single drugs. Analgesics are very commonly used and over prescribed.

Use of analgesics in clinical practice requires an understanding of the basic physiology of pain. Every analgesic drug relieves a specific type of pain. Random and overuse of different combinations of analgesics may not bring about the desired effect. Use of preparations with fixed dose combinations containing different drugs have very dubious pharmacological value. Relief of pain can be best achieved by judicious use of correct drug in proper doses administered separately. Besides, the majority of the fixed dose combinations are exorbitant and have no advantage. These exorbitant prices are the result of the undue emphasis on the brand names and advertising, and have nothing at all to do with the quality of the products. *LOCOST* manufactures drugs of the same quality much more cheaply.

Besides, these nonessential and hazardous drugs are marketed in India and not in the developed countries.

For this study 66 companies, 35 multinational and 31 national, were surveyed. These produced 2164 drugs of which *716* were *essential* drugs and *1448* were non-*essential*; *23* were *banned*.

The drugs included 1536 analgesics, of these 865 were single ingradient formulations and 671 had multiple ingradients.

Table 1: Comparison of prices* of some *essential drugs* produced by some pharmaceutical companies and by *LOCOST*

Name	*LOCOST Price*	*Price* of Commonly Available Popular Products	
Amoxycillin 250 m.gms cap	763/1000 cap	Mox (Gufic) 1660/1000 cap	Wymox (Wyeth) 1900/1000 cap
Ampicillin 250 m.gms cap	620/1000 cap	Ampillin (Lyka) 1318/1000 cap	Ampipen (Wyeth) 1600/1000 cap
Ampicillin Syrup 125 m.gms	410/40 ml	Ampillin (Lyka) 731/40ml.	
Chlorphenramine Mal. 40 m.gms.tab	660/1000 tab	Cadila 1584/1000 tabs	IDPL 1517/1000 tabs
Chloramphenicol 250 mgms cap	290/1000 caps	Chloromycetin (Parke Davis) 445/1000 caps	
Chlor/rpmazine 250 gms	36/1000 tab	Chlorpromazine 141/1000 tab	(May & Baker)
Calcium Lactate 300 gms	14/1000 tab	Bombay Drug 23/1000 tab	
Co-trimexazole 80 + 400 mgms	285/1000 tab	Ciplin (Cipla) 648/1000 tab	
Co-trimexazole Syrup 50 ml	290/50 ml	Oriprim (Cadila) 1326/50 ml	

* These are 1985 prices.

DRUG POLICY INTERNATIONALLY

compiled by Sujata Gothoskar

The Case of Nicaragua

The health policy adopted by Nicaragua after the Sandinista revolution which overthrew the 40-year-old Somoza dictatorship is a vivid example of the political will and commitment towards the health of the people.

Some achievements of the Nicaraguan Unified National Health System (SNUS)*:-

- The percentage of the working population covered by social security has doubled, from 16 per cent to 32 per cent. Most of the newly covered groups work in the formerly neglected agricultural sectors in outlying parts of the country.
- More than 80 per cent of the population now has some regular access to medical care.
- Since 1977, hospitalisations and surgical procedures have risen more than 50 per cent, outpatient medical visits have nearly tripled, and the number of vaccinations administered has more than quadrupled.
- There are two and a half times more primary health units, while the number of hospital beds has risen only slightly.
- Equitable distribution: in 1980 there was a 4:1 ratio between areas with the highest and lowest rates of outpatients visits per capita; by 1982 this was reduced to a 3:1 spread. In the same period, the variation in hospitalisation rates was reduced from 2.5:1 to 2:1. In 1980 the variation in doctors per capita between the best and worst served areas was 16:1, while for nurses it was 5:1; by 1982 these had been reduced to 3:1 and 2.5:1 respectively.
- Health campaigns: immunisation, malaria prophylaxis and sanitation campaigns. Upto 10 per cent of the people in the country were mobilised as health volunteers ('brigadistas') there are now 25,000 permanent 'brigadistas'.
- It is estimated that between 1978 and 1983 infant mortality decreased from 121 to 80.2 per 1000 live births; life expectancy at birth rose from 52 to 59 years.
- The number of reported malaria cases has decreased by 50 per cent; polio cases have not been reported for two years; no measles cases were reported in the first half of 1984.
- Diarrhoea has fallen from the first to the fourth most common cause of hospital mortality.

* Data from Garfield, R.M., and Taboada, E., American Journal of Public Health, 1984, 1138-1144.

The criteria for including drugs in the National Formulary were those of the WHO report on essential drugs, i.e. proven efficacy, acceptable risks associated with their use, favourable cost, and need. Drugs were classified in therapeutic groups following the general classification of the WHO Technical Report, and they were divided according to certain criteria into three priority groups:

1. Sixty-five priority drugs, of general use, which can be used by physicians and nurses, since they are associated with small risks. They are used at all levels of health care, and they can help to solve almost all pathology not needing the support of special diagnostic techniques.
2. Three hundred and forty-five drugs whose use requires clinical pharmacological knowledge, the support of diagnostic tools or, in the absence of these, the clinical skill of a consultant. With these, and those in group 1, 100 per cent of primary health care and almost all secondary health care can be guaranteed. The supply of some of them has top priority.
3. Seventy six drugs whose use is associated with substantial risks, and therefore require the keeping of adequate records. It is considered top priority to have certain but not all of these drugs available.

Drugs were also classified according to the level of the health systen where they are to be used, with the aim of better planning their supply and distribution.

The achievements of Nicaragua are all the more impressive as these are being maintained against highly unfavourable 'external' conditions, its initial underdevelopment on the the one hand and continued economic blockade and external aggression against the revolution on the other.

Source: "Drug Policy in Nicaragua—between need-oriented activities and aggression" by Joan Ramon—Laporte and Gianni Tognoni in Development dialogue, 1985:2.

The case of Sri Lanka

Although a comprehensive drug policy has not been formulated in Sri Lanka, some important components of such a policy have been in force for many years now. Some of these include the appointment of a national formulary committee (NFC) by the Minister of Health. This NFC decides and exercises a tight control on the drugs for use in the state medical institutions as well as the drugs allowed to be imported or manufactured locally. This has prevented the marketing of drugs of little or no therapeutic value as well as irrational combinations and drugs with a low benefit-risk ratio, for which a demand could be created by heavy promotional activities of the manufacturers of these drugs.

Drugs required for the *proper implementation* of a national health policy have been identified by the NFC, particularly for use in medical institutions. Important *selection criteria* have been: proof of clinical efficacy and safety on the basis of controlled clinical trials, and cost, particularly where several therapeutically equivalent drugs are available. This list of drugs is constantly reviewed and new drugs introduced if they offer distinct advantages over the drugs previously selected.

Essential drugs: with the aim of meeting the rational needs of the people for drugs in the public sector, the NFC which meets once a month examines applications for inclusion of drugs in the state medical institutions. The applicant, usually a consultant in a state hospital, has to give reasons why the particular drug is necessary. The committee takes into account the comparative efficiency and safety of the preparation as well as the cost, in making

a decision. Unbiased information regarding newly approved drugs is circulated by means of the quarterly journal,The Prescriber, published by the NFC.

In this way a list of essential drugs has been in existence for the public sector since 1959. No drug outside this list can be purchased for use in state medical institutions.

Rationalising the supply of drugs

A State Pharmaceuticals Corporation (SPC) has been set up for the purpose of procuring drugs from various sources for the state medical institutions. The needs of the private sector are met both by the SPC and private importers who have been allowed to import drugs. A fixed sum is allocated for this purpose. One of the ways adopted by Sri Lanka to reduce the drug budget, while at the same time increasing the availability of useful drugs to the community, was the devising of a sound system of procurement in the international market. An outstanding example of this is the procurement of Diazepam, which could be obtained at one-fiftieth (2%) of its previous cost.

Control on drug prices, which had been in force for several years, was abolished in the 1970s. The private importer can sell drugs at any price, but is prevented to some extent from doing so because of the low prices fixed by the SPC for the wide range of drugs imported by it. This policy of the SPC has helped a great deal in keeping the prices of drugs sold to the public in check. If the prices of drugs are high, the drugs that could be procured within the limited budget are bound to be severely restricted. The SPC in its report for 1976, reveals foreign exchange savings to the tune of over $ 112,000 on the purchase of just ten items of drugs, as a result of careful "world-wide-shopping" as against the old practice of purchasing it from the local market".

In Sri Lanka, most drugs are generically named while in the case of a few, the brand names are permitted to be printed in half the size of generic names.

A great deal still needs to be done in Sri Lanka. Some of the problems-areas are:

* *Quality Control*: one of the serious problems associated with the procurement of drugs for use in the country is the need for quality assurance of the products imported.
* There is no legislation which provides for the inspection of pharmaceutical manufacturing firms and random checking of the pharmaceutical products.
* There is no legislation regarding the sale of drugs and any drug can be sold without a prescription except those which come under the Poisons, Opium and Dangerous Drugs Act.

Even so, Sri Lanka has been able to achieve a great deal with respect to the rational use of drugs. In developing countries, the most important determinants of health are availability of adequate and nutritious food, drinking water, sanitation and decent housing. Yet in many of these countries, the drug budget still represents a sizeable proportion of the total health expenditure, 30 to 50 per cent or more of the total cost of health care, particularly on account of the promotional activities of the manufacturing concerns which create a demand greater than the actual needs.

The expenditure on drugs as a percentage of total health expenditure in some countries of the South-East Asia region in 1979 was:

Bangladesh (before the radical Drug Policy of 1982) 63.8%;

Nepal	44.3%
Thailand	30.5%
Burma	24.5%
India	18.8%
Sri Lanka	7.5%

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1 Drug Policies including traditional medicines in the context of primary health care W.H.O., 1979.

2 Dr V.T.H. Gunaratne, "Pharmaceuticals, drug policies and health care", 1979.

The information about Sri Lanka only covers the period upto 1979. Since then, there seems to be no information in any of the medical or other journals on the issue. If any of our readers have any access to such information, please do write to us.

The Bangladesh drug policy is another important and successful policy. It has however been covered and discussed in many forums and journals. Some of the important sources are:-

- Rolt, Francis, "Pills, Policies and Profits".—London: War on Want, 1985.
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- Tiranti, D.J., "Essential drugs: the Bangladesh example—for years on, 1982-86: — Oxford: IOCU, 1986.

Mozambique established its own essential drugs list in 1977, nearly a year before the WHO list was published. Today, the country limits its drug imports to the 350 or so products listed in its national formulary. Cost-effectiveness is the main criterion for inclusion: each year the Mozambican Pharmaceuticals Commission can spend only one US dollar per head of the Mozambique population. There is no money to waste on medicines that are of poor value. To reduce costs further, MEDIMOC—a state purchasing agency—was established to bulk-buy the most convenient and economical dosage forms of essential generic drugs by competitive tender. Today Mozambique spends no more on drugs than it did before independence in 1975, despite world price inflation during the intervening eight years, and an overall improvement in health care.

Hanlon, J: "Essential drugs for Mozambique" in World Health, June 1983, Quoted in Beardshaw, Virginia, 'Prescription for Change', 1983.

Misinformation—at what cost?

Sujata Gothoskar

In the month of November 1986, just before the New Drug Policy was to be introduced, the Organisation of Pharmaceutical Producers of India (OPPI) spent lakhs of rupees and issued three advertisements in the leading national dailies. These advertisements were presumably issued "in the public interest" and contained misleading and dangerous mis-information. The following is an attempt to answer to this tirade of mis-information based on a systematic appraisal of the drug situation in India by **Dr. K. Balasubramaniam**, of the *International Organisation of Consumers Unions.*

1. *They say....*

We do not have too many drugs... Much smaller but developed countries, whose population is a fraction of ours, market a far greater number of formulations than India, as the following table shows:

Country	Number of Formulations Marketed	Number/ Million Population
West Germany	70,000	1,139
USA	45,000	191
Japan	39,000	331
Switzerlandi	35,000	5,380
Italy	12,000	213
India (estimate)	45,000	60

We Say...

This indeed is a ridiculous "number game". No, it is more. A deliberate attempt at fooling the people. There is absolutely no valid correlation between the *number of type of formulations* a country needs and the size of its population. It is not the *total quantity of drugs* that is being referred to; but the number or type of formulations. Their argument is equivalent to saying "how can 1.5 million infants die of diarrhoea every year, when the *type* of germs per million population are so few".

Secondly, "what is not evident in the given table is that, whereas, in all the five advanced countries listed, the thousands of formualtions are marketed *over and above* the list of essential drugs which are available to every one, in India, there is an *acute shortage* of the *basic life-saving* essential drugs because the limited national budget for pharmaceuticals is allocated for the manufacture and distribution of thousands of irrational formulations.

Besides, the OPPI refuses to quote the number of formulations in other countries, where the health care system is better, where the drug policy is rational, the availability of essential drugs far better and the number of formulations are far less.

Country	Number of Formulations Marketed
Norway	1,906
Mexico	450
Mozambique	2,600
Bangladesh	2,258
Sri Lanka	900
Sweden	2,432

2. *They say...*

The WHO has recommended a "model" list of essential drugs which now contains 258 bulk drugs (active ingredients in medicines). What is not realised as widely as it should be, is that these 258 bulk drugs can be manufactured into thousands of formulations or dosage forms.

We say...

This is a sleight of hand. The second sentence above is the OPPI's mis-interpretation of the WHO statement. People who have not seen the WHO document referred to, may perhaps accept the OPPI statement. But the WHO Expert Committee took particular care not only to list the essential drugs, but also listed the various dosage forms (eg. tablets, capsules, ampoules and powder for injections, suppositories, creams, ointments, inhalation, etc.), the routes of administration and the strengths of each of the various dosage forms that would have to be made available in any country. The fact that an advanced developing country with a strong private pharmaceutical sector can formulate and implement a national drug policy based on the WHO's concept of essential drugs is shown by the example of *Mexico*, which is already implementing the exclusive use of generic names not only in the public sector, but also in the private sector. The national drug formulary now contains 330 drugs in about 450 dosage formulations. Currently Mexico is producing 45 per cent of its bulk drugs for the manufacture of about 77 per cent of the essential drugs in the national formulary.

3. *They say...*

There are reasons why it is not in the public interest to arbitrarily restrict the number of medicines available in the market. The nature of the disease and the physiology of the human body dictate the need for a wide range of dosage forms, and modes of administration... Syrups or oral drops are more acceptable and safer for children...

We say...

It is in fact in the public interest to reveal that a vast majority of the 45,000 formulations are all either identical or highly similar dosage forms, but merely sold under different names and many of them incorporating a wide variety of active ingredients often in irrational combinations. The WHO model list of essential drugs and dosage forms together with the experiences of countries like Mexico, Sri Lanka, Bangladesh... clearly demonstrate that a limited number of dosage formulations would adequately serve the health needs of India.

4. *They say...*

Drug prices in our country are among the lowest in the world see table.

We say...

The OPPI has quoted but *not compared* drug prices. In the Asian countries mentioned in the table, there is an extremely *wide variation in the prices* of each of the eight drugs, depending on the *manufacturers.* For example, the price of metronidazole 200mg × 100 tablets in Malaysia

Table (Price to the consumer in Rs)

Name of the Drug	Unit	India	Pakistan	Sri Lanka	Indonesia	U.K.
Chloramphenicol (antibiotic)	250 mg/12 caps.	6.87	8.32	18.89	18.43	21.30
Metronidazole (anti-diarrhoeal)	200 mg/10 tabs.	2.76	5.74	6.74	43.52	25.54
Ferrous Sulphate (anti-anaemic)	150 mg/15 caps.	8.46	9.36	13.15	—	12.03
Ibuprofen (analgesic)	200 mg/10 tabs.	6.13	4.68	10.34	12.80	7.67
Propranolol Hcl (anti-hypertensive)	10 mg/250 tabs.	48.78	116.50	112.42	—	70.95
Salbutamol (anti-asthmatic)	2 mg/10 tabs.	1.11	3.40	2.97	10.24	4.57
Nifedipine (cardiac drug)	10 mg/10 caps.	6.00	31.65	5.49	20.48	29.59
Cimetidine	200 mg/10 tabs.	7.96	36.41	17.54	49.92	35.59

varies from 30 to 108 Malaysian dollars; in neighbouring Thailand the price for the same varies from the equivalent of M $ 50 to 200. How does one compare the prices of metronidazole in these two countries?

Secondly, the drugs chosen for quoting are *essential* drugs. In India, a *selective pricing mechanism* is in operation. The profit mark up for 43 essential drugs is kept at comparatively low levels of 40 to 45 per cent. The other countries in the tables do not have such selective price mechanism. And in India, the drugs which are not in the "essential" list *do not* have the low levels of profit mark up. The prices of these eight essential drugs, therefore, cannot be used to draw valid conclusions for the whole of the drug market. Thirdly, analysis of international drug policies indicates how erratic drug prices are. Whereas some drugs are low priced in a country, certain others are high priced in the same country. It is therefore possible to select groups of drugs and countries to draw valid conclusions to suit diametrically opposite hypothesis. The OPPI table with no details as to source, data or manufacturer, therefore, tells us nothing.

Fourthly, straightforward currency conversion can never be used to compare drug prices between India and a developed country. By such comparison Indian drug prices will be much lower. Such direct price comparison is misleading because it ignores vast differences in the gross national product of the two countries and the purchasing power of the people. Not only drugs but several other basic needs including food, beverages and transport are several times cheaper in India than in UK on a straightforward currency conversion. But this does not mean that an average Indian will have easier access to drugs and other basic needs compared to the average person in UK.

5. *They say...*

No drug can be imported, manufactured or marketed in India unless it is approved by the Central Drug Controller.

We say...

Several *drugs banned* by the Central Drug Controller *years ago continue to be manufactured*, prescribed and distributed widely. Some of these are the fixed dose combinations of Ergot, of vitamins with analgesics and tranquilisers, of cortisone with analgesics, of atropine with analgesics, those containing amidopyrine as well as phenacetin, e.g. dolagin, antalgin, A.P.C., dristan, codopyrin, spasmindon and many others.

6. *They say...*

There is no unanimity in the action taken by different countries for the withdrawal of drugs. A drug banned in one country may continue to be marketed in another. This is because each country has its own needs and arrangements. There are genetic, dietary, climatic and other differences.

We say...

Poison will kill whether consumed in the US or in India! Drugs or combinations of drugs that are banned in other countries including oxyphenbutazone, amidopyrine, phenacetin, penicillin-streptomycin, and chloramphencicol—streptomycin combinations, anabolic steroids as growth promoters, DES and other harmonal preparations for pregnancy testing and tetracycline syrup for young children are dangerous in every country and this has absolutely no relation to genetic, dietary, climatic and other differences.

In fact, dietary conditions will always operate against Indians compared to our western counterparts, making us more susceptible to the harmful effects of drugs. Climatic conditions too would operate more against Indians than those living in temperate climates.



Dangerous Drugs:
Supreme Court ruling a setback

Vimal Balsubrahmanyan

The Supreme Court's ruling on March 4, 1987, that judicial proceedings are not the appropriate method for solving the problem of the continued sale of harmful drugs comes as a disappointment. Although the Court did acknowledge that hazardous drugs should be eliminated from the market and called on the Central government to take appropriate steps, the stand taken by the Court on the role of the judiciary is undoubtedly a major setback to the movement by activists for a rational drug policy.

For over four years now, the All India Drug Action Network has been campaigning hard for a ban on irrational, harmful and unnecessary drugs, but with little impact on the government authorities. The new drug policy announced in December 1986 has totally ignored this basic demand and contains only a vague, and far from reassuring, proposal to set up an 'advisory' body to go into this matter. Keeping in mind the judiciary's so-called inability to do anything more than to direct the government to fulfil its responsibility, people's action against harmful drugs becomes imperative.

An informed public can refuse to consume harmful drugs. But how is this informed public to be created? In recent months a number of booklets have been brought out by health action groups, in India and abroad, on harmful drugs which should be avoided. For various reasons, these sources of information tend to remain circulating within the activist network, and unless the mass media takes the initiative to pick up this information, it is unlikely to reach the general public. Not only can the general media help spread information about harmful drugs, but also create awareness on the rational use of drugs. Informed patients will then begin to ask their doctors appropriate questions about side-effects, contraindications, how long to take the drug, what foods and drinks are to be avoided while on the drug etc.

The media clearly has a potential to fulfil, particularly in the light of the lukewarm stand taken by the Supreme Court. Health activitsts lobbying for a rational policy need to think of adequate strategies for empowering the public with knowledge. For example, it seems worthwhile to demand the inclusion of patient-oriented package inserts giving the kind of information about drugs which doctors ought to be giving to patients but rarely do. All this, however, will only help to some extent, with the small section of literate and conscious consumers, while the illiterate remain the victims of an unscrupulous drug industry, a callous medical profession and an irresponsible drug policy.

Consumer representation in the formulation of drug policy

—Dr. N.H. Antia

There are primarily six agencies concerned with drugs and drug policy.

1. The government.
2. The drug controller.
3. The organisations representing the producers—The Organisation of Pharmaceutical Producers in India (OPPI), The Indian Drug's Manufacturers Association (IDMA), The Indian Drugs And Pharmaceutical Limited (IDPL) and those representing the producers in the small-scale pharmaceutical industry.
4. The distributors of pharmaceutical products—the pharmacists,
5. The doctors
6. Consumers and their organisations.

The interest of the producers and distributors of the pharmaceutical products is in maximising profits, i.e., the production and distribution of the largest quantities of drugs at highest prices.

The changing prescription habits of the doctors which have resulted in gross overprescribing of drugs is the result of the combined influence of self interest in an increasingly materialistic society and the pressure salesmanship of the pharmaceutical industry.

The interest of the consumers (without who there would be no doctors or drug industry) is in the availability of essential drugs at the lowest cost. As a result of mystification and misinformation by the medical profession and the pharmaceutical industry, even they have been hooked on to unnecessary and often dangerous drugs and injections which they now themselves demand.

In this scenario of opposing interests, the role of the government and the drug controller should be to protect the interests of the people—the consumers, and ensure that they get an adequate supply of essential drugs at reasonable cost: that drugs which pose a danger to the health of the people be banned and inessential drugs like tonics, vitamins, digestives, be prevented. This is important as they divert money from food to medicines, thus producing further malnutrition and ill-health among the poor, who have to spend almost 90 per cent of their total expenditure on food.

Unfortunately, the nodal ministry for drugs is the Ministry of Chemicals and not that of health, with the result that drug production is perceived more as a chemical industry, rather than as a health issue.

With the monetary power at their disposal, the pharmaceutical industry has been able to secure strong representation in government decision-making and in the type and quantity of drug production. The consumers and their representative organisations, who are chiefly voluntary workers' organisations, and who work on a shoestring budget are virtually ignored in this decision-making process which is vital to the interests of the people.

This is reflected in the perfunctory manner in which the consumer organisations are treated during consultations, which are supposed to be in the public interest.

If the government is truly interested in protecting the interest and health of the people, it will have to

demonstrate its sincerity by ensuring that the consumer interest is given as much, if not more representation in decision-making bodies, like the proposed National Drugs and Pharmaceutical Authoriy (NDPA).

It is not good enough for the government to have separate discussions with the consumers, producers and distributors. What is necessary is for all those representing varied interests to meet together, so that the government may hear all the opposing view-points before any decisions on such crucial issues are taken.

If this is not undertaken, it will erode the credibility of the government in the eyes of the public, who are the consumers of these drugs.

In view of the paucity of the funds available to the consumer organisations, as opposed to the almost unlimited funds at the disposal of the industry, it is necessary that the government provides support to the consumer organisations for participating in these discussions and also for informing the public about the mis-information provided to them by those interested in profits rather than in people's health.

"Physician, Heal Thyself"

Dr. A.S. Deshpande

A new group of diseases 'Iatrogenic diseases', literally meaning "doctor caused diseases" but now commonly indicating "drug induced diseases" has become an enormous and growing medical problem. Nearly as many as 28 per cent of the patients under specialised care hospitals in developed countries suffer from adverse reaction to their medication. It has been calculated that in US and Britain, more people are killed by prescribed drugs than by road accidents. The picture in this country and in other third world countries may only be guessed.

There are two parties variously responsible for this systematic and slow genocide-the medical profession and the drug producing & pushing pharaceutical companies.

My twenty years experience in the medical profession had convinced me that this medical profession, which should be proud of its past notable contribution towards the welfare of human society, has become a robot in the hands of drug manufacturing industries and has become 'an honourbale money-spinning business'. And this has taken place even though every medical practitioner is and should be aware of the fact that "All drugs, whatever their virtues, are inherently dangerous". In actual practice however, physicians are grossly undereducated in areas associated with drugs and are not given the scientific background necessary to evaluate the claims made for them. This is one aspect of their heavy dependence on the biased and totally subjective information supplied to them by the profit-seeking drug manufactures.

Today the complete medical profession is captured, ruled, moulded and guided by the giants managing the pharmaceutical industry. Though a majority of the physicians prescribe from a range of only forty to fifty drugs, there is a litter of more than 25,000 therapeutic substances in the market. These have been the main sources of drug-induced diseases.

Each antibiotic is capable of making a valuable contribution to human welfare provided it is correctly used and not treated as a universal medicament. When the wonder drug penicillin was introduced, almost all staphylococcal infections (like abscesses) responded favourably. But due to its low toxicity, doctors indulged in casual prescribing resulting in overuse and misuse. This naturally led to the development of resistant strains of bacteria. Now 90 per cent of staphylococcal infections acquired in hospital have become resistant to penicillin. The sole responsibility for this, lies on the shoulders of the medical profession which has tried to find shortcuts for its survival by resorting to unscientific overprescribing and misusing this wonderful antibiotic.

Everybody is too scared of the anaphyllactic shock due to penicillin injection which leads to instantaneous death of the patient right on the examination table of the doctor. For this it is necessary to give a test dose of penicillin intradermally and wait for about fifteen minutes to look for any adverse but local reaction which could appear. But a busy practitioner does not want to waste his time in this procedure as it is not going to pay him extra. Naturally this leads the doctor to switch to higher antibiotics like Chloromycetin, terramycin, garamycin etc. etc. These antibiotics are thereby used in conditions where they are not indicated and also they are not given for sufficient period of time required. This results in the development of resistant strains of bacteria.

This has happened in Latin America in 1970, when more than 20,000 people died by dysentry and typhoid bacteria which had developed resistance to chloramphenical the drug of choice in this case just because of its indiscriminate use in the past.

These higher antibiotics are known to produce adverse reactions like fatal aplastic anaemia. But since this development does not take place immediately and not on the examination table of the doctor and that it gives immediate relief from the fever, infection, septicaemia with which the patient is suffering, there is all the praise for the doctor and only the patients fate is blamed for the subsequent fatal toxic effects.

According to Dr. Dalé Console, "The pharmaceutical industry is unique in that it can make exploitation seem a noble purpose". According to Dr. Robat Arics, the multinationals spend more money on publicity and information as compared with that on research and development.

If health of our millions is really our concern, the following points need to be focused on:-

a. The precondition for better health is *absolute minimal medication.*

b. More than eighty per cent of the diseases can be prevented by making clean, potable water available for drinking, together with cheap but well balanced diet and an unpolluted atmosphere. All our resources should be channelised in this direction for the betterment of humanity.

Lastly I would like to say that eighty per cent of the ailments do not require interference by a physician and eighty per cent of the ailments in which physician interferes are aggravated by his interference.

Drugs which boomrang

Dr. Anil Pilgaonkar

Drugs are double-edged weapons. They can 'heal' and if unwisely used, they can harm. Funnily, a drug *may not* have a 'potential for cure', but it *always* has a 'potential for harm'. Important drugs in this category, are the Fixed Drug Combinations (FDCs).

Most FDCs are irrational, because:

i) They increase the *cost* of the drug unnecessarily.

ii) They increase the chances of drug *interactions* considerably.

iii) They make the *monitoring* of *adverse* interactions difficult.

iv) They *confuse* the consumers and the medical profession.

The only rational FDCs are the ones listed in the WHO list of essential drugs and these are just seven in number.: 1) Co-trimaxazole (sulfmethoxazole + trimethoprim), an anti-infective drug; 2) Sulfadoxine + pyreimethine, an anti-infective; 3) Levodipa + carbidopa, and anti-parkinsonism; 4) benzoic acid + salicylic acid, anti-fungal drug; 5) neomycin + bacitracin, an anti-infective; 6) ethinylestradiol + levonorgestrel, an anti-infective; 7) ethinylestradiol orethisterone, a contraceptive. In addition, only aluminium hydroxide + magnesium hydroxide may be considered as rational.

Here, we look into three groups of FDCs which take the major chunk of the consumer's money. These are A) Combination cough preparations; B) Digestive tonics; and C) Vitamin tonics.

	Combined Cough Preparations	Vitamin Combination Preparation	Digestive Enzyme Tonics
DRUGS, USELESS AND HAZARDOUS BECAUSE	a) Combined cough preparations have no place in the treatment of respiratory diseases.	a) In almost all the cases that these are prescribed, they are not required and merely pass through the body without playing any positive role, because there is in fact no deficiency of these vitamins.	a) Digestive enzymes which the digestive tonics contain are pepsin/ papain, pancreatin, diastase/ fungal diastese etc. Under known conditions, these enzymes are never deficient in the system except in a condition called achlorhydria when pepsin alone in the presence of hydrochloric acid is required.
	b) Many of these contain LARGE number of ingredients in sub-therapeutic doses.	b) B_1, B_6, B_{12}, combinations are marketed as nerve tonics. There is no evidence at all in any of the textbooks for this claim.	b) In infants who suffer from milk intolerence, there is a deficiency of an enzyme called disaccharidase (which none of these formulations provide). Therefore the use of these formulations is UNWARRANTED.
	c) Most of these also contain ingredients with opposing effects, in particular, the inclusion of expectorants (agents to facilitate cough production), along with anti-histamines, sedatives. and cough suppressants.		
SOME BRAND NAMES	1) Benadryl expectorant, Parke Davis; 2) Avil exp., Hoechst; 3) Cadistin exp, Cadila; 4) Cheston, Cipla; 5) Cinaryl, Themis; 6) Clistin DMR, Ethnor; 7) Contac-cc, Eskaef; 8) Corex, Pflizer; 9) Dilosyn exps, and MANY other products.	*B-Complex Formulations*: Becousules, Pfizer; Cobadex forte, Glaxo; Bividox, Abbot; Bivinal Forte, Alembic etc; *Multivitamins*: Multivitaplex, Pfizer; Becadexamin, Glaxo; etc. B_1, B_6, B_{12}: Neurobion, Merck; Trika/ Trinergic, Unichem; Neuroxin Forte, Cadilla, and many others.	Bestozyme, Biological Evans; Digiplex, Rallis; Dispeptal, Boehringer Knoll; Dizytone, Unichem; Lypzyme, Lupin; Molzyme, Fair Deal; Unienzyme, Unichem; Vitazyme, East India; Papyta Forte, Anglo French; Vizylac, Unichem; Taka-Combex, Parke Davis; Taka Diastase, Parke Davis; Orizyme, Kopran and many others.
SOME ALTERNATIVES	a) If a demulcent (throat soothing) action in required, simple lump sugar is adequate as well as safe. b) If cough needs to be suppressed, co-diene phosphate is recommended. Co-diene phosphate as such is not in the market. The nearest brand is MIT's Linc-tus codeine co. (Astra-IDL). However, even this preparation has unnecessary in-gredients like citric acid and syrup tolu.	a) Wholesome food provides all these vitamins. b) In case of need, preparations of single vitamins may be taken	"Indigestion" is a loosely used term which really implies distress associated with intake of food; and is manifested in one of the following ways: i) heaviness, bloating and gas formation. *remedies*. restricting food intake/moderation in eating habits. ii) Irregular bowel movements. *remedy*: requiste alterations in food intake.

AFTER the Second World War, the Allies broke up I.G. Farben into effectively three companies: Hoechst, BASF and Bayer. Twelve top I.G. Farben executives were sentenced to terms of imprisonment for slavery and mistreatment offences at the Nuremberg war crimes trials. I.G. built and operated a massive chemical plant at Auschwitz with slave labour; the I.G. facilities at Auschwitz were so enormous that they used more electricity than the entire city of Berlin. Approximately 3,00,000 concentration-camp workers passed through I.G. Auschwitz. At lest 25,000 of them were worked to death (Borkin, 1978: 127). Others died in I.G's drug testing programme. The following passage in a letter from the company to the camp at Auschwitz demonstrates the attitude of I.G. Farben to the subjects of its drug testing:

In contemplation of experiments with a new soporific drug, we would appreciate your procuring for us a number of women... We received your answer but consider the price of 200 marks a woman excessive. We propose to pay not more than 170 marks a head. If agreeable, we will take possession of the women. We need approximately 150.... Received the order of 150 women. Despite their emaciated condition, they were found satisfactory. We shall keep you posted on developments concerning this experiment.... The tests were made. All subjects died. We shall contact you shortly on the subject of a new load (Glover, 1977-58).

After the war, the Allies insisted that none of the convicted war criminals be appointed to the boards of the new I.G. companies. Once Allied control loosened, however, Hoechst in June 1955 appointed Friedrich Jaehne, one of the twelve war criminals sentenced to imprisonment at Nuremberg, to its supervisory board. In September of that year he was elected Chairman. Bayer appointed Fitzter Meer, sentenced to seven years at Nuremberg, as Chairman of its board in 1956.

Source: John Braithwaite "Corporate Crime in the pharmaceutical industry". Routledge and Kegal Paul, London, 1984.

What is New?

Books

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Banerji, D., "Political economy of western medicine in third world countries" — New Delhi: Centre of social medicine & community healh, 1982, pp. 48.

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Purandare, Hema (Dr.), "Is sex selection ethical?" — 1986, pp. 6.

World Health Organisation, "Risk evaluation in chorionne villus sampling" — 1985, pp. 16.

Banerji, D., "The case of leprosy" — 1984, pp. 41.

Bangladesh, "Drug control ordinance — 1982", 1986, pp. 2.

AHRTAG, "AHRTAG resource list: Health education on diarrhoeal diseases" — 1987, pp. 6.

British Medical Journal, "Psychotropic drugs", 1986, pp. 3.

British Medical Journal, "Black & white health gap in the USA" — 1987, pp. 2.

New Scientist, "Drug firm pays price for deception" — 1987, pp. 1.

Byron, M.A., "Treatment of rheumatic diseases" — 1987, pp. 3.

Zhangfu, Yuan, "Family planning in a Siachen village" — 1987, pp. 87.

Jeffery, Roger., "Social sciences in health: An alternative paradigm" — 1987, pp. 1.

Ohrig, Jamie, "A rational study of analgesics & antipyretics" — 1985, pp. 24.

Lancet, "Withdrawal of three antibiotic combinations" — 1986, pp.1.

Apart from our foundation, information on the issue of drugs is available at:

All India Drug Action Network and Voluntary Health Association of India, (AIDAN & VHAI)
40 Industrial Area,
South of IIT (near Quatab Hotel),
New Delhi-110 016.

LOCOST
Ist Floor, Premanand Sahitya Sabha Hall,
Opp. Lakdi Pool
Dandia Bazar
Baroda-390 001.

Centre for Education & Documentation (C.E.D.)
3, Suleman Chambers,
4 Battery Street,
Bombay-400 038.

Association of Consumers Action on Safety and Health (ACASH)
Lawyers Chambers
Room No 21, R.S. Sapre Marg,
Bombay-400 002.

Books in Brief

Manish Mankad

1. Mead, Margaret, "Coming of age in Samoa" — England: Penguin books, 1981, pp. 240.

Margaret Mead an authority on education & upbringing. This book is a vivid account of the life of girls in a primitive society. Beautifully written, it brings the readers close to the daily lives of the Samoan village and describes their trials, their scandals and their triumphs, so that they seen like neighbours, just down the road. A good contribution in anthropology.

The book is in paperback edition and has 14 chapters and appendices.

2. Borkowski, Margaret et al., "Marital violence: community response" — London. Tavistock publications, 1983, pp. 230.

This book is based on research into the way practitioners in the medical, legal and social services view marriage and violence. Taking samples from groups of doctors, solicitors, social workers, health visitors and women's aid refuges, the authors have investigated the ways in which different agencies and practitioners respond to problems of marital violence. They have used combination of statistical information and interviews. According to the authors, marital violence is still widespread, they make recommendations about ways of improving the services available to help battered women.

3. Leontief Wassily and Duchin Faye, "The future impact of automation on workers"—New York: Oxford University Press, 1986, pp. 170.

Wassily Leontief, who is the author of this book was awarded the Nobel prize in 1973 for his input-output approach to economic analysis.

In this volume Leontief & Duchin use input-output model in an analysis of the complex issues surrounding the impact of computer driven automation on the labour force in the recent past through to the end of the century. Following a general discussion on the impact of automation on employment, the authors focus on four specific sectors within four areas of economy, manufacturing office work, education & health care.

Leontief & Duchin conclude that by the year 2000, automation will not cause dramatic unemployment if the economy is able to achieve a smooth transition from the old to the new technologies. The bok has 6 chapters and 2 appendices. One of them provides historical database from 1963 to 1980.

4. Carmi A. (ed.), "Disability". —Berlin: Springer Verlag, 1984, pp. 253.

Despite the great strides made by rehabilitation medicine in improving the physical wellbeing of disabled persons, there remain many barriers to their full participation and to equality in communities where they live.

The authors of this volume bring together legal, medical and psychological aspects of disability to allow those involved in the case integration of the disabled to benefit from the experience of others. Their contributions include such topics as problem with the implementaion of anti-discrimination laws, compensation for addicts and the medico-legal problems of sterilization of retarded persons.

(. . . *continued from page 1*)

drug market but on the drug policy as well.

2. The Hathi Committee's report and recommendations were widely debated among academics, and many in the government became sensitised to the issues.
3. The New Drug Policy, with its near complete rejection of the Hathi Committee recommendations, caused consternation and debate.
4. In the late 70s, the issue of drugs was a focus of new groups like the Medico Friend Circle (MFC), comprising largely of doctors and health workers. Although the MFC is numerically small, its influence on the movement has been significant. Many of the early discussions of the MFC have been on rationality of the use of particular drugs, (its campaign for proper treatment and management of diarrhoea, is a case in point) and of the drug industry's manipulations among medical professionals for obtaining support for particular medicines, etc.
5. Two other movements which gathered momentum in the early 80s have also played a significant role in getting the movement off the ground. —the people's science movements in Maharashtra, the Kerala Shastra Sahitya Parishad (KSSP), and the West Bengal Doctors' movement. The first (especially the KSSP) with its vast campaign against irrational science and its abuse exposed the nature of scientific enterprise and also prepared the ground for questioning the 'scientific' myths being perpetrated by the drug companies. The latter, generated an organised forum which concerned itself with all aspects of health care including drugs, its testing etc.
6. Drug costs had risen steeply and many, especially the large number of voluntary health groups which had also became more numerous in this period, had become very conscious of the need to reduce drug costs. This was perhaps one of the first motivations for the VHAI to become interested in the issue.

Thus, the drug consumer movement has emerged out of a long period of debate and discussions. And like the people's science movement, it has been able to bring together those who have traditionally controlled the production of knowledge and those who consume it. And this is also why it is unlikely to fizzle out in the near future although it might well change its character and re-examine its strategies.

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Health Personnel in India

Ravi Duggal

	Sex		Area		Total Number	Ratio Per 100,000 Population
	Female (in percentages)	Male	Urban (in percentages)	Rural		
1. Allopathic physicians and surgeons	15	85	72	28	202636	29.57
2. Ayurvedic, Unani and Homeopathic doctors	5	95	44	56	120054	17.52
3. Pharmacists	6	94	52	48	176029	25.69
4. Dental surgeons	9	91	83	17	8367	1.22
5. Public Health physicians, dieticians and nutritionists	13	87	54	46	21013	3.07
6. Unclassified physicians & surgeons	6	94	44	56	45982	6.71
7. Nurses, midwives and health visitors	89	11	61	39	221963	32.39
8. Para-medical technicans (dental & pharmaceutical assistants, X-ray technicians, Optometrists & opticians).	10	90	66	34	22912	3.34
9. Vaccinators, innoculators and medical assistants	7	93	38	62	47914	6.99
10. Unclassified health technicians	24	76	53	47	225340	32.89
11. Other medical scientists and technical persons	10	90	83	17	22063	32.22
12. Veternerians and veternery assistants	1	99	36	64	6017	8.78
13. All health personnel	27	73	56	44	1174450	171.40

According to the 1981 Census (5 per cent sample estimate), there are 1174450 health, medical and nursing professionals and technicians in India. In addition, there are 267117 unclassified non-health workers in health institutions indicated.

Health professionals constitute 16.55 per cent of all professional and technical personnel. Of all the health and medical personnel (excluding nursing personnel), 91 per cent are males and 57 per cent are located in urban areas. If we include nursing professionals, male dominance gets reduced to 73 per cent but urban concentration remains almost unchanged at 56 per cent.

Further, if we look at all allopathic doctors separately, it is revealed that 72 per cent are located in urban areas; and among all these physicians and surgeons, only 15 per cent are women.

It must be noted that the data presented in the adjacent column refers to 'main workers'. Thus, if the doctor is a full time teacher or a researcher s/he will not be recorded as belonging to the cadre of health and medical personnel. For instance, in 1981, there were 268712 doctors registered with State Medical Councils.

With regard to the personnel working in primary health care in government's rural institutions the following data for the year 1982 has been culled from Health Statistics of India (CBHI):

a. Auxiliary nurse midwives	61504
b. Lady health visitors/female health assistants	10625
c. Male health workers	53096
d. Male health supervisors	14875
e. Doctors at PHCs, allopathic dispensaries & ISM dispensaries	16303
f. Pharmacists	12024
g. Nurse midwives	7006
h. Laboratory technicians	3667

(continued on page 8)

FOR PRIVATE CIRCULATION ONLY

AREN'T WE BEING DANGEROUSLY OVERDRUGGED?

Mukund Uplekar and Madhu Rokle

When thousands of pharmaceutical units producing tens of thousands of their formulations use their persuasive skills to make the doctors push these drugs down the throats of the people, is it incorrect to assume that we are being overdrugged?

In order to study the quality of overdrugging, we thought of a quick way of asking the general practitioners directly, the most common drugs they use in their practice, of both the injectable and oral drug preparations.

100 G.P.s practising in slums, middle and upper class localities in Bombay were requested to state the three most common injections and three most common oral drugs they use in their practice. Generally those busy practitioners who had about 10 patients waiting in their dispensary were included.

Here are some of our findings:

About half (46 per cent) of the doctors stated that the most common injections used by them are antibiotics. The antibiotics mentioned, in the order of frequency of use were:

1. Tetracycline
2. Ampicillin
3. Gentamycin
4. Chloramphenicol
5. Amoxycillin
6. Penicillin and Streptomycin

The commonest injection used by 24 per cent doctors was a vitamin preparation usually a B-Complex. About equal numbers used an injectable painkiller most frequently. Only 4 per cent mentioned 'vaccinations' like tetanus toxoid or triple antigen as the most frequently used injections.

Oral antibiotics are being used equally freely (30 per cent) next only to painkillers (68 per cent). The drugs included Co-trimoxazole, Tetracycline, Ampicillin, Chloramphenicol, Sulfonamides and Penicillin in order of frequency. Aspirin as a painkiller or antipyretic is used by very few doctors. Most prefer paracetamol while some prescribe analgin.

It may be worthwhile to mention a few good and not-so-good 'sample' replies:

Dr. X

A) The three most common injections I use in my practice are:
   1. Terramycin
   2. Chloramphenicol
   3. Ampicillin

B) The three most common oral drugs I use in my practice are:
   'As above'

Dr. Y

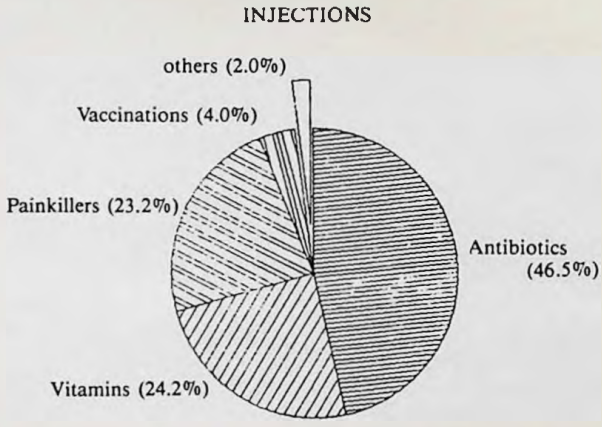
A) Injections
   1. Inj. Tetanus toxoid
   2. Inj. Triple antigen
   3. Inj. Streptomycin (for TB only)

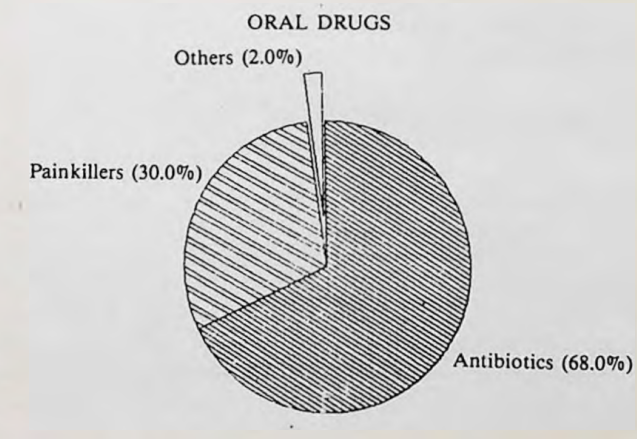
B) Oral drugs
   1. Paracetamol
   2. Multivitamin
   3. Sulfadiazine

Dr. Z

A) Injections:
   1. Ampicillin
   2. Dexamethasone
   3. Garamycin

B) Oral drugs
   1. Paracetamol
   2. Chloromyecetin
   3. Ampicillin





We assume that we have been able to get correct replies from the respondents. However one fact has left us wondering. When the first author personally met 10 drug distributors supplying drugs to G.P.s practising in the areas surveyed, all of them told him that 'Dexamethasone injection' is also one of three top-selling products. But it had failed to figure in our statistics. It is said that many doctors add a small amount of Dexamethasone to every injection they administer. Presumably, they say, it is advantageous in three ways. One, it minimizes the chances of a drug reaction, Two, it gives the patient a transient sense of well being. Three, it gives a quicker temporary relief. There is no evidence however to indicate whether this actually happens or should happen. And besides, is it ethical at all to pump cortico-steroids into unsuspecting people, who are told nothing whatsoever of the effects of such drugs?

Leprosy Control by a People's Programme

'A New Concept in technology transfer'

N H Antia

The most outstanding performance in the field of leprosy treatment is of China. China has demonstrated to the world how leprosy can be controlled in a population of such size and with limited financial but unlimited human resources. This has been achieved using only DDS therapy and with relatively simple facilities for microscopy and with few, if any, inputs into research. China has clearly demonstrated that we already possess adequate knowledge and tools and not only for the control of leprosy, but also for most communicable diseases. These diseases have continued to take their toll because of the absence of the delivery component which needs a strong political will to look after the welfare of the masses.

We have heard enough about the wonders of modern medical science, which, without the necessary political will have failed to solve the problem of diseases that are responsible for the majority of the morbidity and mortality that affect people of this world and for whose prevention and control we have the necessary knowledge and technology. Science without its application to the welfare of society is at best a sterile intellectual exercise and often diverts attention and money from simple and effective measures to expensive technology and managerial practices. The example of the USA demonstrates how health and medical research can become big business next only to armaments without commensurate improvement of the health of the people.

Having spoken to many people and having observed the general health and leprosy services, one is convinced about the statistics which indicates the remarkable achievements of China using predominantly simple 'barefoot' doctor approach. I am not at all surprised at these achievements because experience at our Mandwa project has shown that semiliterate village women, given simple available medical knowledge and technology could achieve in five years many of the targets set for the year 2000 AD. This under extremely difficult conditions, without any inputs in nutrition, water supply, sanitation, and opposition from the health personnel and the local political leadership. These women, by their constant presence ensured a high rate of compliance, with the result that there were no new deformities. Moreover, by spread of information by simple word of mouth, they overcame the fear of leprosy in 30 villages, so that people came voluntarily for early detection and were rehabilitated once again in their own family and community.

The medical profession has an unscientific fear of the disease and has failed to give the necessary leadership. Nor do they have any desire to involve others or let them undertake the work.

The leprosy services have therefore evolved as a vertical service, carrying its own stigma. The scientists see leprosy chiefly as a laboratory problem. There is hence an unfortunate lack of an objective approach to leprosy. Like most diseases, leprosy has been 'medicalised' and the socio-economic and cultural factors have been relegated to the background.

Our experience shows that the vast majority of the problems of health as well as diseases, including the prevention and control of the most major killing and maiming diseases can best be undertaken by the people themselves with support from the medical services.

China has also demonstrated that the control of communicable diseases including leprosy requires a low level of technology but a high level of cultural understanding of the people and respect for their intelligence and practical abilities. The present top-down approach of most countries only creates a sense of dependency without any solution to peoples' problems. Since this has continued over several decades it only indicates that those few who decide the fate of the majority are either ignorant of the problems and the abilities of the poor, or have vested interests in keeping them in this state.

As in the case of tetanus, the problem is not of drugs or vaccines but of their delivery. In countries with limited resources and large population, distributed in remote villages, there seems to be no alternative but to teach the people to look after themselves and provide the necessary supportive services. It also increases their self-confidence in fields other than medicine and reduces dependency.

The New Drug Policy in Nigeria

Amar Jesani

In March 1987, the Nigerian Government decided to adopt a National Drug formulary and to compile a list of 205 "essential" drugs. The Government will make central purchases of the rational, safe and cost effective generic drugs for all three levels of health care delivery. The list of such drugs will be reviewed every year.

This decision of the Nigerian government has come after a statement made by its enlightened Federal Minister of Health, Prof. Olikaye Ransome-Kuti, in February last year, that 60 per cent of drugs imported into Nigeria were unnecessary. Because of its size and influence in Africa, Nigeria has been over the last many years, an important centre for the pharmaceutical companies to push irrational and even hazardous drugs, through unscrupulous sales practices. An analysis of the drug order lists for one state done by a WHO team in 1986, showed that 25 per cent of all drug expenditure was *spent on three branded products* which are disapproved of by many medical authorities and no longer used in many countries (The Lancet, April 4, 1987).

This decision has already started a wave of protest, though it is still not heard very loudly. The low-keyed opposition is also due to the fact that this decision will affect government health services only. Further, the government has also sought co-operation from doctors and other health workers. Only time can show whether the government will be able to get positive cooperation or the industry and doctors will combine to thwart government efforts. In any case, it is certain that this decision will go a long way in initiating a debate as well as a change in the pharmaceutical scene and the prescribing practices in Nigeria.

Recent trends in the Family Planning Campaign

Manisha Gupte

The assessment of Ministry of health and family welfare states that the crude birth rate (CBR) at the end of 1984 should have been 32.6 per 1000 population, whereas actually it was slightly higher—33.6. Whereas 29.4 per cent of the couples were 'protected' by the end of 1984 (sterilisations accounted for 23.7 per cent of these), a CPR (Couple Protection Rate) of 60 per cent is desired by the turn of the century. To give the family planning programme a boost, especially in backward areas, partial assistance from DANIDA, ODA(UK), UNFPA, USAID and the World Bank has been received to cover 63 districts in 14 states as 'Area Projects' for intensive development of health and family welfare. 'The objectives are reduction of fertility and reduction of maternal and child mortality' (GOI, 1985).

The government has introduced the concept of Net Reproduction Rate Unity (NRR-1) in its family welfare programme... 'After considerable experience in this regard (need to control population growth), the country has set before itself the long term demographic goal of achieving NRR unity by 2000 AD, with a birth rate of 21.0, death rate of 9.0 (life expectancy at birth being 64.0 years) and infant mortality less than 60.0. In order to achieve this goal, the National family welfare programme has been and will be strengthened. It is a voluntary programme..." (GOI, 1985).

In the context of these new goals set by the Indian government, the stranglehold of family planning over the already small package of maternal and child health (MCH) services can be fully understood. In fact, the first UN Advisory Mission, as early as 1966, had gone as far as to insist that ANMs (Auxiliary Nurse Midwives) should be 'relieved from other responsibilities such as maternal and child health and nutrition' so as to concentrate efforts on family planning (UN Advisory Mission, 1966).

But what is more dangerous, because of its subtlety and cunning is the recent trend that the government has been following.

The first double edged tool within the family planning programme came in the form of the Medical Termination of Pregnancies (MTP) Act in the early seventies. Regarded by feminists as a much desired means to control one's fertility, the legalisation of abortions is in itself welcome. However, the government's interest in this legalisation becomes clear when one notes that by the end of March 1984, in all, 4,553 institutions were rendering MTP services as compared to 4,170 at the end of March 1983. In Bombay city alone, 50,000 MTPs are registered annually (Karkal, 1984). The immense potential of MTPs where avertion of births is considered, is self evident.

The official acceptance of NRR-1 by the government is especially sinister because in lay person's terms, it spells that only one daughter should replace her mother. Between the lines therefore, female foeticide through sex determination (amniocentesis, chronic villi biopsy) or through sex pre-selection (Ericsson, Japanese method) is inbuilt within the government's population control (PC) policy.

The government's emphasis on 'child survival' rings another ominous bell. Welcome in itself, the slogan is reduced to 'spacing methods'. The earlier mentioned report of the maternal health and family welfare states that, 'since child survival is amongst the foremost factors which induce the couple to adopt the two child norm, maternal and child health programme has been given due importance' (page 116). The strategy becomes clear when along with the slogan of 'child survival', the government has markedly increased its budget for family planning in the Seventh Five Year Plan period and the emphasis will now be on spacing methods for women. It is estimated that by 1990, spacing methods will account for 20.0 per cent of 'protected' couples against the present level 5.5 per cent. A contraceptive marketing organisation has been registered to promote spacing methods (GOI, 1985; p. 107).

The full and part time paid voluntary workers with the Intra Uterine Contraceptive Devices (IUCDs) had always regarded women as the major target group. But the government admits that one third of all IUCDs ever inserted are removed and one fifth are expelled. The officially accepted dropout rate for IUCDs therefore is 53.3 per cent (GOI, 1986). Naturally, the proponents of population control would be desperate to design a centralised and foolproof system that leaves little choice and control in the woman's hard to withdraw the contraceptive and it is in this context that the importance of injectable contraceptives (ICs) or implants should be understood.

Though ICs as yet do not form a part of the family planning programme, a pilot study on ICs (Net-En) at PHCs attached to 15 medical colleges is underway. Based on the results of this pilot project it is hoped to introduce this spacing method soon. Infact, according to official plans it was to be introduced in 1984-85. The ICMR is also conducting its studies with Norplant—an implant for women. An appropriate version of this contraceptive was to be available by the end of 1985 to start the programme introduction studies at the PHCs (GOI, 1985; p. 107).

The interests of the multinational drug companies in this becomes clear when one realises the tremendous potential market they have in healthy women all over the world. Three to five million women in seventy countries were on depo provera alone, in 1978 (Corfman, 1978). According to the 1981 Census of India, 43.4 per cent of all women are in the reproductive age group and of these 80.48 per cent are married. That makes for 11.6 crores of married women in the reproductive age group only on the Indian subcontinent. Since injectables are to be used as a spacing method, all of these women become potential targets at least once in their lifetime.

It is therefore easy to understand the direct and indirect involvement of drug manufacturers in research related to long acting contraceptives and the implicit bias underlying all these research studies. Even 'prestigious' international bodies such as the International Planned Parenthood Federation (IPPF) describes all injectable contraceptives as a 'most dependable and useful method of family planning (IPPF, 1978). Contraceptive technology is more under the control of multinationals than that of women.

It has also been decided to initiate two million corps of women trained to motivate for family planning. These corps will be nonpaid and interestingly, acceptors of family planning method themselves. Another significant move by the government in the near future is to disband all male community health volunteers. Through the IUCD programme, it has been learnt that male motivators cannot do the job where spacing methods are concerned. Male health workers have experienced embarassing consequences while having to explain Copper-T insertions to a woman or to her husband. To close all loopholes therefore women motivators exclusively would approach women targets, henceforth.

People's Perception

The tragedy is that so many ambitious programmes have been launched in the name of India's poor masses and when the programmes fail or falter, these poor masses are blamed. For example, it is generally believed in New Delhi that the Ministry of Health and Family Welfare has created a vast network of health infrastructure throughout the country whose *under-utilisation* is very high and health administrators are unable to explain this persistent phenomenon in the face of the high levels of mortality and morbidity, particularly in rural areas. It is also contended that the Ministry of Health and Family Welfare has created a vast network of personnel, right from medical officers at the block level, down to trained dais and Village Health Guides at the village level but this huge staff is not able to get the requisite sterilisation cases for fulfilling the family planning targets. This implies that the staff is not working efficiently. In short, it is contended that our health and family planning programmes are not working well because the infrastructure remains unutilised for some mysterious reason and the health personnel are not putting in their best, again for some mysterious reason.

Against this official perception of the administration of our health and family planning programmes, we have the other side of the story based on people's perception. The questions the masses would like to ask are as follows: Why are doctors not available at the Primary Health Centres and ANMs not available at the sub-centres? Why are medicines not available to the poor? Why is there no follow-up of acceptors of sterilisation? Why are women brought to the PHCs for laparoscopic operations in government vehicles but not taken back *after* the operation? Why are the X-ray machines not working in so many PHCs and hospitals? Why is there no facility for oxygen and blood transfusion even in upgraded PHCs? Why are the government doctors so indifferent to rural patients? Why do the PHC buildings have often no proper water and electricity facilities? Why are the new sub-centres and residential houses built for ANMs so sub-standard and located in such forlorn places? Why did the contractors get away with the sub-standard construction under the so-called foreign-aided Area Projects?

Ashish Bose, "For whom the target tolls? a critique of family planning incentives, cash awards and targets."

National Commission on Self-Employed Women

The Department of Women and Child Development, Government of India, has constituted The National Commission on Self-Employed Women, to conduct a comprehensive examination and study of self-employed women and the entire group of unprotected women workers. To assist its working, the Commission has constituted various Task Forces. One of the Task Force is on health aspects. The following members constitute the Task Force:-

1. Dr. A. S. Desai — Convenor
2. Dr. Saroj Jha — Co-Convenor
3. Dr. Kashyap — Member
4. Ms. Srilatha Batliwala — "
5. Dr. Rani Bang — "
6. Dr. Veena Shatrugna — "
7. Ms. Manisha Gupte — "

The scope of the women workers to be covered by the Task Force would include:

1. Home based workers e.g. garments, dyes, chemicals, and agarbattis.
2. Vendors.
3. Service workers—domestic help, washer women, scavengers, rag pickers and prostitutes.
4. Process workers—traditional and non-traditional.
5. Manual workers—agricultural, construction.

We would like to appeal to individuals/groups/organisations and all of those who either work on these issues or know about information on these, to contact us and make the entire exercise a useful one by helping in a fuller documentation of problems and strategies relating to the health aspects of the lives of women working in the unorganised sector.

Task Force on unprotected women workers

address:- c/o Tata Institute of Social Science
Sion-Trombay Road., Deonar,
Bombay - 400 088.

COMMUNITY HEALTH CELL
47/1, (First Floor), St. Mark's Road
Bangalore - 560 001.

FRCH News

In the last 6-8 months, four new projects took off nearly at the same time. These research projects deal with different aspects of the health needs of the people and health services offered and made available to them. Each of these research projects hopes to explore different methodologies in the field of health research.

These projects are:

* "Strengthening health education services—an action—research study". This is a four year project and is being carried out in Pune district, and will cover approximately 30,000 population.
* "A study of primary health centres in Maharashtra". The main aim of this research project is to study the problems faced by the health personnel in the primary health centres and family welfare programmes in the rural areas of Maharashtra. Secondly, to study people's knowledge and opinion about these programmes and the PHCs.
* "The awareness of the General Practitioners regarding the Health for all objectives and the major national programmes".

Inspite of government hospitals and PHCs, it has been estimated that the general practitioners cater to over seventy per cent of the people in both the rural and urban areas. The aim of the study thus, is to make the general practitioners aware of the real health needs of the people.

* "Health expenditure in India: case study of a district". This is a 4 year research project and the pilot study has just been completed. Some objectives of this study are:

a) to understand health expenditure both at the macro and micro level.
b) to document private health expenditure of households as a proportion of their consumption expenditure.
c) to disaggregate and critically analyse the various components of health expenditure.
d) to identify and document differentials of health expenditure based on seasonality, socio-economic strata and social geography and,
e) to evolve a methodology for the study of health expenditure.

These objectives are to be realised through:

a) a national data search of State (Central and State Governments) financed health expenditure, with case-studies,
b) a sample study of corporate sector health financing,
c) a sample study of private practitioners and hospitals,
d) and a comprehensive study of private household expenditre in a representative population.

In its review, the Project Advisory Committee recommended that a pilot study be carried out in a representative sample, initially for a period of one year highlighting methodological issues and disaggregating various components of medical expenditure and subsequently the study, after review, be extended for its full period of 4 years.

Therefore the study was commenced with a household-based field study in a representative district (Jalgaon in Maharashtra), ignoring the macro analysis for the time being. The study was designed and the methodology developed in consultation with Prof. K. Ramchandran of AIIMS, who is an informal advisor for the study.

The pilot study is a fairly detailed analysis of the findings. These include the analysis of agricultural landholdings, the income distribution, the food and consumption expenditure, (including expenditure by class), health care and expenditure and ultimately *raises* relevant methodological issues.

Here we very briefly note some of the findings on *health care and expenditure only.*

HEALTH CARE AND EXPENDITURE

For the reference month (January 1987) 459 illness episodes inflicting 455 persons have been reported in the sample population (3524). The number of illness episodes reported here exclude ongoing chronic ailments for which no cure was sought in the reference month. This works out to a monthly morbidity rate of 130.3 per 1000 population or 4.2 per 1000 population daily. This is a fairly low estimate. January is considered to be a "healthy" month and morbidity is expected to be the lowest at this time of the year (winter). Among all households only 50 per cent reported at least one illness episode.

In an earlier study "Critical study of health services in rural Maharashtra" which covered a population of 4567 persons, in 1984, in 4 different districts over a 5-month reference period (January to May) the morbidity rate recorded was 6.74 illness episodes daily per 1000 population. Therefore with the inclusion of chronic episodes the morbidity rate in the present study would be comparable.

The rural-urban differential with regard to morbidity indicates a higher morbidity rate of 4.65 illness episodes daily per 1000 population in rural areas as compared to 3.35 illness episodes daily per 1000 population in urban areas.

It is important to note that the definition of illness differs among classes not only for cultural reasons but also simply because of the availability of disposable income. Therefore reporting of illness is dependent largely on the respondents' perception. However, investigators were asked to specifically proble for illness episodes even where no treatment was sought.

As regards treatment, an overwhelming 75.85 per cent sought the aid of private practitioners and private hospitals. There is no significant variation between rural and urban areas with regard to the use of private practitioners. In the urban areas 79.88 per cent went to private practitioners and in the rural areas 78.21 per cent did so.

The total health expenditure in the sample population works out to Rs 18.88 per capita per month. This amount is 12.5 per cent of reported income and 10.5 per cent of total consumption expenditure (after including medical expenditure within it). Since the reference month is a healthy one this expenditure would consequently be on the lower side. As a percentage of expenditure on food health expenditure works out to 18.8 per cent.

Further, on an average, for every illness episode reported, Rs. 144.91 was spent on it. This means that each time a person falls ill, a phenomenal 95.5 per cent of his/her monthly per capita income or 80.6 per cent of per capita consumption expenditure or worse still 128 per cent of per capita food expenditure is spent on getting cured.

At the given morbidity rate (which is a low rate) every individual is expected to fall ill on an average 1.6 times

(continued on page 8)

Child Labour and Child Health

Sujata Gothoskar

The 1981 census estimated India's total population at 638.8 million, of which 42 per cent were children. The number of children has increased from 250 million to 264 million during the period 1971-81. Nearly 14 per cent of the children born in India die before their first birthday. Around 60 per cent of preschool children suffer from sever malnurition. It was estimated that "of the 23 million children expected to be born in 1983, only 3 million will be healthy and fully productive citizens. Of the rest, 4 million will die in childhood and 16 million will become adults with poor physical and mental abilities caused by malnutrition... An expert recently warned that about 65 per cent of India's children suffer from mild to modest malnutrition, whereas 30 per cent were victims of acute malnutrition". The mortality rate for children below 4 years is 4[illegible] per cent compared to 7 per cent in most developed countries.

In the context of this, the low literacy rate is not a shocking fact. Though, the enroll ment of children in the age group 11-14 years has increased from 12.7 per cent during the last 25 years, yet nearly 50 million children in the 6-14 age group are still out of school. Of these 71 per cent are girls. (The discrimination of girl children, which begins from before their birth through sex-determination tests, then greater undernourishment, is evident in their meagre access to primary education as well). Out of every 100 children, who enter the first grade, 64 per cent leave the school before completing their primary education upto class V and 77 per cent leave school before completing their education upto class VIII.

One of the causes as well as the consequences of this situation is child labour, though both these relate to another more basic situation—immediate survival. 90 per cent of the families of working children in Madras were found to have an income below Rs. 500/- per month. The figures for Bombay and Delh were 78 per cent and 88 per cent respectively.

Hence child labour is considered to be a problem mainly of poor and destitute families, where the parents can afford neither the education expences of the children, nor the minimal expenses of their lodging and boarding, without the children contributing to their own upkeep. And families who cannot "feed any extra mouth" constitute some 80 per cent of the population of this country. The result is obvious. Every 'mouth' also has 'two hands', and they have to be put to work. In the last 15 years, child labour population has increased from 10.7 million to an estimated 20 million and in states like Tamil Nadu, constitute almost 6 per cent of the total workforce.

In 1980, the ILO estimated that there were 50 million working children in the world. Of these 38 million in Asia alone. India constituted a third of Asia's child labour and a fourth of the world's working children. It employs the world's largest child labour force.

The Asia Labour Monitor, quoting a survey conducted by the Operation Research Group, writes that there are 44 million child labourers in India. "Every third household in India, has a working child and every fourth child in the age group 5-15, is employed. Approximately 83 per cent of tender age (sic) children in the urban areas work for 7 hours or more per day".

However, the Encyclopaedia of Social Sciences warns us, "long hours of work, late hours or night employment, continuous standing, sitting or use of single set of muscles, emphasis on the finer neuromuscular coordinations with attendant nervous strain,... carrying heavy lods... are unsuitable occupations and provide harmful conditions for the growing child particularly susceptible to certain deformations and diseases".

However, according to a report in the *Economic Times*, "Out of the 310 million children by the end of 1985, the number of working children will around 110 million and the number of child labourers in the total labour force has been increasing over the years".

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Tietze, Christopher, "A world review 1986: induced abortion" - New York: Allan Guttmacher institute, 1986, pp. 143.

Books in Brief

1. Seal S.C. "Plague: conquest and eradication in India" - New Delhi: ICMR, 1987.

   The author had an opportunity to study plague through field and experimental work covering all the epidemic phases, eg. pre-epidemic, post & inter epidemic, through follow up work for 28 years from 1948 to 1976.

   This compendium is an attempt to consolidate all his findings in the background of the chronological development of knowledge. In fact, it is only when the subject is viewed from the historical standpoint that we can realise the magnitude of debt to the pioneers of the past and the task which still remains to be accomplished.

2. Singh Andrea Menefee & Vittaner Anita Keller - (Ed), "Invisible hands: Women in home-based production" - New Delhi: Sage publications, 1987.

   This collection of original articles examines women's home-based production in diverse cultural, occupational and home-based production in India, in areas like beedi-rolling, electronics, crafts, garments, dairy production and petty trading.

   It takes up issues like visibility of home based work, its nature and context, the legal aspects, future strategies and ideology of this type of work.

3. Demonte, Darryl, "Industry versus environment, three controversies", New Delhi: Centre for science and environment, 1985, pp 285.

   This bok gives an account of three environmental controversies. They are: The Silent Valley Hydro-electric project which was stopped due to environmental reasons, the Mathura Oil Refinery, a subject of the most extensive studies in the world on the effects of pollutants on monuments, and the Thal-Vaishet fertiliser plant. The book examines various alternatives and concludes that development and environment, far from being in opposition to each other, infact, go hand in hand.

4. Mach, E.P. and World Health Organisation, "Planning the finances of the health sector: a manual for developing countries". Geneva: World Health Organisation, 1983. pp. 124.

   This book deals with a methodology for carrying out detailed analyses of the financing of health services. It suggests ways of collecting and organising data on the expenditure and sources of finance. It also suggests how this information might be utilised in the formulation of policies. Particular attention is paid to primary health care, in view of its high priority in terms of current health policies. A series of tables presents models that provide an analytical framework for national planning. Summary tables have been devised for the use of policy-makers.

(from page 1)

This means that only 15.25 per cent of all health personnel work in the rural primary health sector of the government (34.61 per cent of all rural health personnel). Further only 5.05 per cent of all doctors work in PHCs and government rural dispensaries (13.15 per cent of all rural doctors).

These are then some of the glaring inequalities in the distribution of health personnel in India.

(Sources : 1. Census of India, 1981, part II—special series 1—India, Report and Tables based on 5 per cent sample, Census Commissioner, New Delhi, 1984.
2. Health statistics of India, Central Bureau of Health Intelligence, Ministry of Health and Family Welfare, Government of India, New Delhi, 1983).

(from page 6)

in a year. This would mean about Rs. 231.86 per capita per annum or Rs. 17,389.50 crores for the whole country per year at current market prices. And this is not the total health expenditure in the country—it is only the portion borne by households out of their own income.

Disaggregating this private household health expenditure (medical expenditure to be more precise), we see that 42.7 per cent of this total is spent on doctors' fees and medicines (since in a large number of cases doctors' fees and medicines could not be separately accounted for, the two categories have been combined). Another 7.2 per cent is spent on transport costs to avail of medical care. These constitutes 50 per cent of the expenditure and of the remaining 50 per cent, 90 per cent is spent on surgery, diagnostics and hospital costs and the remaining 10 per cent on diet, rituals, baksheesh/bribes, etc... (please note that this breakup is tentative only).

It must be noted that this expenditure excludes loss of earnings as a result of illness. With regard to rural-urban differentiation in health expenditure, it is interesting to note that in rural areas the monthly per capita health expenditure is higher (Rs. 17.07) as compared to urban areas (Rs. 14.76). The variation needs to be looked into carefully to isolate the factors, besides the higher rural morbidity rate, determining it.

Copies of the following publications are available at the FRCH:

* Bhore Committee report, 4 Volumes, p. 1201.
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FRCH NEWSLETTER

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Occupational Health: Some Issues

Vijay Kanhere

"ALMOST all the agents that have been recognised as being carcinogenic in humans, have been identified as such in the occupational setting",—Encyclopaedia on occupational health and safety by the ILO.

The greater the number of chemicals used in industries, the greater are the number of affected persons. The effects of chemicals in their acute form are obvious. Thousands of persons affected due to MIC in Bhopal, posed a grave problem to community health. And what about the workers in the factory, who were slowly and regularly being affected not only by MIC, but also by other chemicals like phosgene? Are not the workers also a part of the community?

Let us take the example of silicosis. It is usually treated as tuberculosis. This has happened in Mandsaur in Madhya Pradesh and Baroda in Gujarat. Workers in Alembic Glass Works had to struggle for being treated as patients of silicosis. What is the effect of these patients on the community? Their lungs are affected, their resistance to disease goes down and they readily contract tuberculosis. This increases the occurrence of TB in their families and the community.

Noise pollution in the community has been widely discussed. It was a topic dealt with in a popular television serial as well. However, what is hardly ever mentioned is that workers are day after day, for years attacked by noise—in the textile mills, in engineering units, on boilers, compressors... As the hearing capacity of workers gets affected, apart from many serious possible accidents, their irritability increases. Within the family, it creates tensions. Everybody has to speak up so that the affected worker can understand. He/she too judges the capacity of others from his/her or own and so starts talking in a louder pitch, which irritates other family members in turn.

There are carry-home diseases such as asbestosis.

Chemicals reach homes through overalls, clothes, unwashed body parts and they affect family members. One ESIS doctor informed us that the majority of the cases he treats are those of dermatitis, induced by exposure to chemicals.

No longer can one think of occupational diseases as an exclusively urban problem. In Punjab and Maharashtra, there are areas where insecticides are sprayed aerially by helicopters. These insecticides affect agricultural workers and farmers. Chemicals used in agriculture are increasing at a fast rate. In rural areas, where residential areas and work-places are not sharply differentiated, the effect of these hazardous substances are going to be all the more.

The National Commission on Labour in its report in 1969 commented, "... the slow and agonising process of an occupational disease may not stir the community as much as it would in countries with chronic labour shortage, although to the near ones, it is a tragic occurrence. Relief gets organised soon after the event, but prevention gets side-tracked".

However, in countries like India, relief too takes a very long time. The Bhopal disaster made national and international news. However, almost 7 months after the gruesome event, conscious doctors had to move the Supreme Court merely to get the supply of the proper medicines. (Dr. Vohra Vs. the State, 1985). Even in a metropolitan city like Bombay, relief has not been effectively organised even in cases of chlorine leakages.

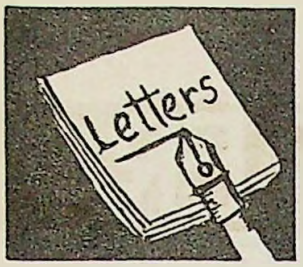
In fact very often it is even difficult to get diagnosed as a victim of an occupational disease. Workers suffering from asbestosis even in cities like Bombay, have to go through a tiresome process merely for being diagnosed properly as patients of asbestosis.

There are various reasons for this state of affairs. For one thing, any talk about health and safety at the workplace is seen as a direct threat to the profits as well as to the power of the management. This also relates to the lack of political will to take the health of the workers seriously. This reflects in the content and approach of the curriculum in medical colleges. Thus even the knowledge about 'notifiable diseases' is absent with most doctors, including those working in industrial areas.

This is glaringly brought forth in the fact that from the year 1960 to 1980, there was not a single case reported of 11 out of the 22 'notifiable diseases'. In this period only 30-32 cases of diseases have been reported per year, while, with a much better technological set-up in the factories, almost 20,000 cases of asbestosis are reported each year in the US despite better preventive measures.

From this it is obvious that the doctors can and must play greater role in learning about, diagnosing and reporting various industrial and occupational diseases. It is also necessary to make this information available not only to the industrialists and government agencies but more important to the workers themselves, their relatives and the public at large especially the poor who are most exposed to these hazards. This is one important weapon to stop the mindless and inhuman maiming of lives in this country.

FOR PRIVATE CIRCULATION ONLY



To

The FRCH collective,

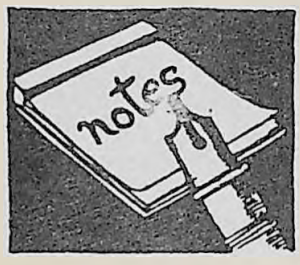
I acknowledge, with thanks, the receipt of the Bi-Annual Report of your Foundation and the latest issue of *FRCH newsletter.*

Both these publications bear your stamp and put forth loudly and clearly the messages that need constant re-emphasis in our country.

I must confess that I cannot agree with all that is said. Working, as I do, in a public hospital, full time, I see the need for such hospitals and for specialities such as mine. The poorest need excellent service no less than do the well-to-do and I feel that it is imperative that we keep our public teaching hospitals in the forefront of patient care. Unfortunately, these days it is the 5 star hospitals that are in the forefront, whilst the public hospitals are starved and downgraded.

Whilst there is no dispute regarding the need for efficient measures to improve public health, prevent disease, educate the population at large and generally do all that is possible to improve the economic status of the villagers in particular and labourers in general, I see the ill effects of these being pitted against development of the large teaching hospitals. I feel that this is wrong. BOTH NEED ATTENTION, DEVELOPMENT.

Sunil Pandya
Neurosurgeon
K.E.M. Hospital
Bombay



Notes from Medical Journals

Mukund Uplekar

Is our pursuit of a healthy body—a major threat to health?

Ivan Illich, a long time critic of the medical establishment no longer views doctors as the major threat to health. He has discovered a far more dangerous pathogen the pursuit of a healthy body. Once again we have found the enemy and once again he is us. Complacently we have stood by while a multimillion "health industry" has taken over, offering advice and handholding to the fibre eating health magazine readers whom the doctors are too busy to see. These new pseudoscientist healers diagnose yeast cells in the blood as a cause of your tiredness, and cure it with a garlicky remedy that only they sell. They analyse your hair to find out which mineral or vitamin you need to buy from them. They measure your body fat by pinching you with calipers; determine your skin's resistance and electro-magnetic balance with galvanometers; and perform stress tests, conveniently combined at health clubs with a massage, a sauna, or the whirlpool. Various "Cardiovascular" exercises are carried out perched on a stationary bicycle while hooked up to a pulse monitor that lights up as you reach the top of an imaginary hill.

How harmful are these practices other than wasting people's money? Illich rails against these "sundry holistic well-being programes" this "curious mixture of opinionated and detailed self care practices". He thinks this mumbo jumbo could cause even more harm than 100,000 patients being seriously injured each year by hospitalisation.

Antibiotics in Antidiarrhoeals

In 'Antibiotics: the wrong drugs for diarrhoea' Health Action International draws attention to the WHO statement that "antimicrobial drugs are not indicated for the routine of acute diarrhoea". Health Action International claims that spending on antidiarrhoeals (nearly $ 150 million a year) diverts attention and resources from oral rehydration which is a lifesaving treatment.

Products containing neomycin, streptomycin, chloramphenicol and sulfonamides are singled out as being the "worst of a bad lot". For example, widespread and irrational use of streptomycin has led to the development of bacterial resistance to the drugs for the treatment of tuberculosis. And despite the well recognised risk of bone marrow suppression, chloramphenical is present in 12 products.

Of the 12 regions surveyed, only Hong Kong has stringent regulations to prevent the registration of antidiarrhoeals containing an antimicrobial. The report will be sent to health ministries, drug regulatory agencies and medical schools around the world.

Interaction Between the Government, NGOs and the Private Sector in Implementation of HFA

Abhay Bang

1.**Ideological basis of cooperation**: The cooperation between the government and the NGOs in the health sector was always on the basis of common ideology and interests. Thus different categories of NGOs were collaborating at different times with the then ruling governments. Christian missions were actively cooperating with the British rulers with common imperial interests. The Gandhian constructive institutions were active in collaboration with the Congress government with their common roots in the freedom movement and 'Congress' ideology. The gates were opened for the voluntary agencies with closer links with the 'opposition' parties (when these came into power under the name of Janata Party) by allowing a major role to NGOs in the National Adult Education Programme. Now with the free market ideology of the Rajiv Gandhi government, the private sector shall have more role. The talk of social marketing, of delegating the responsibility of advertisement of the national programmes to private agencies are a few examples.

Where do the NGOs in the health sector ideologically stand today? Inspite of their tremendous diversity and different religious or economic roots, most of them explicitly or implicitly believe in the welfare state with a mixed economy. Obviously they do not find any major ideological problems in collaborating with the various governments in India. Even those who profess to have a radical ideology usually do not have problems in cooperating with the government as long as they can continue to attack the system while retaining their safe positions in the urban universities and institutions. Many other grass root workers or activists strive for limited reforms by opposing government policies; and yet in the long run they too work with the government as their reforms are accepted.

Thus most of the NGOs today have no major ideological barriers for cooperating with the governments in India.

2 *Role of the NGOs*: Inspite of hundreds of failures of implementation, the National Health Policy is more progressive than most of the NGOs. At least at the conceptual level, the Primary Health Care is oriented to prevention, outreach and use of paramedics, while most of the NGOs are still curative oriented, running charitable dispensaries or hospitals or diagnostic camps. Gone are the days of Albert Schweitzer or Father Demain when such individuals or NGOs outreached where no government care reached. The most important outreach agencies today are the government or the private practitioners. Thus in Gadchiroli district which is probably the most difficult district in Maharashtra, there are 3 NGOs in health, 34 PHCs, with 230 subcentres and 700 CHVs and about 300 General Practitioners (including Registered Medical Practitioners).

A recent study by FRCH on the NGOs in health in Maharashtra concluded that the NGOs are concentrated in the developed districts rather than the backward areas.

With the tremendous expansion of the government health sector or the private practitioners, what new role can the NGOs assume, especially if they want to increase their impact by interacting with the government which alone has the political responsibility and resources to provide HFA?

The following roles may be posible

1. Research and Innovation
2. Demonstration
3. Training
4. Evaluation
5. Building public opinion for changes in government policies.

While the last one is not cooperation with the government in the narrow sense, this role is extremely important. The history of public health is studded with examples as to how this role has greatly improved the government policies and programmes. The Sanitary Movement in Great Britain in the 19th century or the work of the environmentalists today are glaring examples. However, the rest of the discussion in this paper does not include this type of role.

3. *Issues in Government-NGO Interaction:* In any working together,compatibility on the following points is important, and hence needs attention.

1. Ideology and Goal
2. Objectives (specific)
3. Organisational structure and culture
4. Procedures and rules
5. Personalities
6. Finance

The *ideology and the goal* being similar, these don't pose much problems in the actual working together. But the different emphasis due to the different *objectives* may pose a problem. Down in the field, primary health care seems to be reduced to fulfilling targets of a few vertical programme objectives. Family planning (FP) tops the list with immunisation and blindness control coming next. Rest of the programmes or indicators like infant mortality count little. The NGOs may have different or broader objectives and hence a tussle for priority may ensue. A NGO may not be willing to go all out for the numerical targets of FP while for the government health officer, it is a sacred cow.

There is a contradiction in the *structure* and function of the Primary Health Care strategy. The National Health Policy has abandoned the unipurpose organisational structure. Now we have buildings and a large number of health workers so that an organisational basis is created for continuous and comprehensive health care. And yet, the health programmes are still conducted in the form of campaigns which need a mobile structure and large scale propoganda rather than buildings and accessible workers.

In its relationship with the government organisation a NGO is likely to face what may be called the *'middle level* constraint'. At the top, the officers can take a broader view about cooperation. The bottom level functionary may be happy to work with a.NGO because of more humane and

(continued on page 8)

Industrial Accidents: Whose Life, Whose Responsibility?

Sujata Gothoskar

EVERY five minutes, one of the world's workers is killed and fourteen permanently disabled as a result of accidents at work or occupational diseases, according to an estimate by the International Labour Organisation (ILO). In India, over the 30-year period from 1950-1980, 36,000 workers have been reported killed and 6.4 million injured in accidents at work in the factories in the organised sector, mines, ports, docks and railways *alone*. The number of workers killed or maimed in the unorganised industry can only be a guess. And over the years, statistics indicate that injuries due to industrial accidents continue to increase.

The number of fatal accidents has risen by 225 per cent in the last 30 years, from 248 in 1950 to 806 in 1980. Non-fatal injuries, equally dangerous *, have been rising even more rapidly, from 76,000 in 1951 to 355,000 in 1980—a 393 per cent increase.

Increase between the years 1950 and 1980

Increase in average daily employment	120 per cent
Increase in fatal injuries	225 per cent
Increase in non-fatal injuries	393 per cent

An international comparison also indicates that accident rates in India are exceptionally high. It is difficult to compare statistics for non-fatal accidents since criterion for reporting are different in different countries, but fatal accidents can more easily be compared.

The figures for India are based on accident reports received by the Factory Inspectorate, and therefore relate only to 'reportable' accidents, i.e. those which lead to an absence from work of two days or more.

Moreover, it is well known that even reportable accidents are very often not reported by employers, as they wish to avoid paying compensation or getting prosecuted for non-compliance with the law. And the law does not even cover construction workers or workplaces with power employing less than 10 workers and workplaces without power having less than 20 workers (and most contractors take care not to have more than 19 workers on any one site), so that some of the sections, which are subjected to most hazards—in small-scale industry, construction, contract workers, etc,—are not included in accident statistics at all.

Finally, these figures do not include the enormous number of people who are killed or disabled by occupational diseases. Taking this into account, it appears that a significant proportion of the total working population suffers from some form of injury, upto and including fatal injury, due to occupational hazards. In short, the situation is appalling, and it is getting even worse.

This points to the extreme urgency of monitoring accidents. This is of course not an easy task. Nevertheless most accidents cause immense misery to workers and their families and most accidents have a clear cause (i.e. they are not really 'accident'al at all) and this cause can be and has to be pinpointed and removed. This process of pinpointing and removing the cause of industrial accidents and occupational diseases has important implications.

Number of fatal injuries per million human hours worked

Countries	number in	
	1979	1980
U.S.A.	0.03	N.A.
U.K.	0.03	0.03
Japan	0.02	0.01
Yugoslavia	0.07	0.08
India	0.15	0.15

To begin with, it puts a halt to deaths and mutilations of more workers. Secondly, it asserts that workers have a right to work without their lives or well-being being jeopardised. Thirdly, it gives workers the right to know and act in favour of their own safety according to the knowledge they have gained about the work process. Fourthly, it makes a political statement about the primacy of workers' safety *vis-a-vis* either management prerogatives or the blind profit motive.

Theories of Accidents

The standard explanation for most accidents is that they are due to either unsafe mechanical or physical conditions, or unsafe actions, or both. However, the actual causes of accidents cannot be attributed simplistically, but are much more complex, especially, if 'unsafe actions' are attributed, as they usually are, to workers.

For example, one could consider the accident at Union Carbide, Bhopal, in which Ashraf Khan was fatally injured. He was splashed with phosgene while opening a pipe for maintenance work, panicked and removed his safety mask before decontaminating himself, inhaled a fatal quantity of the toxic chemical and collapsed. The management took the position that it was his unsafe action—removing his safety mask—which resulted in his death. Yet the fact is that the pipeline was supposed to have been properly evacuated and put under vacuum, according to the company's own laid-down procedures. The pipe-line should have been empty. Ashraf had no reason to think he would be splashed with phosgene, and in the circumstances, his panic was an entirely normal human reaction. Thus to say that this accident was due to both an unsafe action and an unsafe condition is really to misrepresent its cause. If the design and processes cannot pre-judge and plan according to entirely human responses of the moment, clearly such designs and processes are at fault? As the safety manager at Siemens put it, 'the work place and work processes have to be not only full-proof, but also fool-proof. Even 'deliberate accidents' should be planned against in the original scheme itself. One did not even ask for that much in the Bhopal case.

Again, take the finding that contract workers have a higher incidence of accidents, especially fatal accidents.

*Every non-fatal accident has the potential to become a fatal one the next time it occurs.

For example, in a petroleum plant in Bombay, a contract worker, working in a pool of liquid which he believed to be water, threw a lighted match into it, it turned out to be oil, however, and he was burnt to death. This would be considered a clear case of an unsafe action but the cause of the accident was ignorance on the part of the worker. Thus to say that the cause of this accident was an 'unsafe action' would be completely erroneous, because to use untrained and uninstructed workers for work with hazardous chemicals is to create an inherently unsafe situation.

There are unlimited instances, indicating the fact that it is absolutely necessary to go beyond the superficial category of 'unsafe action' and investigate why the unsafe action took place.

Another theory explaining the occurrence of accidents, attributes the majority to a few individuals who are predisposed to have a high rate of mishaps. At three places out of twenty where we obtained interviews, one worker was identified as a victim of repeated accidents, and in a tyre factory and in the docks, there were a few such workers. But in most places, there were no such 'repeaters', and even in cases, where a few workers repeatedly had accidents due to drunkenness and negligence, they were far from accounting for even a significant proportion of the accidents.

Our findings were confirmed by other studies:

> "Numerous studies carried out by research workers have failed to prove conclusively that any group of persons in a given sample can be separated as accident-prone. Dr. Schulzinger, after careful study of 35,000 injury cases,... suggests that most accidents are due to the relatively frequent solitary experience of a large numer of individuals. The total number of accidents suffered by those who injure themselves year after year... is relatively small... Professor Edwin E. Ghiselli... advises that the term accident proneness should never be used in studies of the causes of accidents and injuries, as it is according to him "dangerous and misleading and contributes nothing of practical value to our understanding of the causes of industrial accidents and injuries". ('Accident Prevention' Industrial Safety, Health and Welfare Centre, Central Labour Institute, Bombay)."

If the accident proneness of a few individuals is not responsible for most accidents, are there other factors which are within the control of workers? Could there be, for example, self-infliction of injuries in order to get time-off from work? Or could a large number of accidents be due to the carelessness of workers?

Of those interviewed, not even management representatives thought that such causes could account for a significant proportion of accidents. Nor does it seem likely that workers would court death or mutilation if they could avoid them. Most of the accidents are such that even if the actual injury is minor, it could easily have been much worse—and therefore to inflict it on oneself would involve incurring the risk of serious injury or disablement. Our investigation shows that where workers do take such risks, it is for reasons beyond their control—e.g., because the work-situation itself forces them to do so, because they are ignorant of the dangers, because they are asked to do jobs for which they are insufficiently trained, and so forth.

On the other hand, the conditions and actions which routinely lead to accidents are within the control of management; and it is in recognition of this that most modern health and safety legislation lays the responsibility for providing a safe and healthy workplace on the employer.

This article is based on discussion and research work done for the Accidents bulletin: No. 10, of the Union Research Group, Bombay and the several discussions with Rohini, Vijay, Ram and Jairus, and going through their notes and jottings.

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Ban EP Drugs: An Appeal to SC

Ravi Duggal

The hearing of the Public Enquiry commissioned by the Supreme Court (SC) regarding banning of the highdose Oestrogen Progesterone (HDEP) combination was held on 14th July in Bombay. Like the earlier three hearings in Madras, Delhi and Calcutta it was also a farce.

The very nature of the enquiry needs to be questioned. The SC must look into this matter seriously because this sort of an enquiry is the first of its kind and is going to form a precedent. And a bad precedent would be both unjust and dangerous.

First of all the Drug Controller (DC) cannot constitute the authority to sit over such a hearing because it is party to the decision-making process (in this case banning or continuing the production and sale of HDEP). Given the political economy of our country, aptly illustrated by the Justice Lentin Commission's exposure of the Drug Administration of Maharashtra, the impartiality of the DC office cannot be assumed. The pharmaceutical industry is too powerful a lobby and the DC authority is highly influenced by the former. This was too obviously apparent during the proceedings of the various hearings.

The SC should also question the manner in which the concerned drug companies have gathered evidence in support of HDEP, when internationally its hazards are well recognised. It was amply evident during the hearings that most gynaecologists and other medical and pharmacological experts who submitted in favour of the drug companies did so for reasons other than their own belief, practice and conviction. The written submissions given by many gynaecologists and doctors are mere signatures on standardised statements obviously circulated by the drug companies.

Further, the entire focus of the public enquiry has been on technical issues relating to HDEP and the clever use of legal loop-holes. The DC and the drug companies, as well as their supporters, have completely ignored social realities that are crucial in making decisions concerning human lives. The panel conducting the hearing comprised only of "technical" persons from the DC's office. No social scientist, lawyer, gynaecologist, or representative of consumer and civil right groups were there on the panel. Worse still no woman was represented on the panel. Isn't it ironical and unjust that the fate of a drug consumed only by women is being decided by men who'll never have to experience the hazards of the drug! Why does it always happen that any question that involves women's rights, security and health is treated with neglect, carelessness and apathy? These shortcomings in itself make the nature of the enquiry questionable.

The most important issue that should concern this enquiry and has totally been overlooked is the nature of medical practice in India. In general the type of private medical practice prevailing in the country is grossly unethical and irrational. The checks and control by the Medical Council of India and the Drug control Administrations is virtually non-existent. One doesn't have to hunt around to gather proof for this. It is well known and documented. The Lentin Commission has adequately exposed the misdeeds of both the drug companies and the Drug Administration. The dangerous and misleading practices indulged by the medical profession in India to make a fast buck are well known. General Practitioners will administer injections, tonics, steroids and antibiotics for ailments like headaches and colds or give an intravenous drip of calcium gluconate to a patient complaining of tiredness. Gynaecologists will reconstruct hymens to reassure virginity, conduct sex-determination tests, help preselect sex of foetuses and do ceaserians and hysterectomies even when not required.

The prescription practices of an overwhelming majority of doctors is largely unethical and irrational and this is the danger that concerned people supporting the ban of HDEP fear most because HDEP is being grossly misused by doctors, like many other harmful and also relatively harmless drugs. I will not go into the misuses and hazard of HDEP because a lot has already been written and documented about this.

What should the supreme court look into? First of all it must scrutinise the adequacy and fairness of the enquiry. The general experience of the hearings has been that the fundamental basis of the enquiry was faulty and therefore the enquiry invalid. More thought needs to go into formulating the structure and nature of the enquiry. The SC must review this seriously because we don't want a poor and unjust enquiry to become a historical precedent. The SC must assure impartiality and justice—a properly constituted unbiased enquiry commission, that seeks independent evidence and is not an interested party to the decision, somewhat similar to the Justice Lentin Commission, should do an adequate job.

The SC should also immediately put into effect the earlier ban of HDEP that was made by the government on the recommendation of the Indian Council of Medical Research, the premier medical research institution in India. When many developed countries after bitter experiences have already banned or withdrawn HDEP on grounds of well known health hazards, associated with the drug then why wait for further evidence to ban the drug. Do we want another thalidomide type disaster? How can the SC and the government permit a known hazardous drug to be produced, marketed and consumed freely in the country? Even an iota of doubt about the harmfulness of drug is sufficient reason to ban it, especially considering social realities of our country. It is indeed inhuman to let loose a harmful drug on an uninformed and oppressed people.

Therefore it is important that the SC in reviewing this public enquiry should reassess the basis of formulating terms of reference and assure that social aspects of the concerned issues are taken into account adequately. And it is our fervent appeal to the Chief Justice of India to ban HDEP with immediate effect in the larger public interest.

PESTICIDE POISONING

Amar Jesani

Pesticide poisoning, including attempted suicide by ingesting pesticide, is a significant health problem, particularly in the third world countries. In our country reliable statistics on pesticide poisoning are very difficult to obtain, although there are some estimates and these suggest an increase in the number of people suffering from this problem. Of the third world countries, some studies are available from Sri Lanka. A survey covering hospitalised patients between the years 1975 and 1980 revealed that 79,961 patients were admitted due to pesticide poisoning, 6083 of whom died. Organophosphate compounds accounted for 76 per cent of these poisonings. Further, on analysing data for the year 1979 in this survey, it was found that 73 per cent of these cases were due to attempted suicide.

From the data of this Sri Lankan survey and others, certain new and disturbing medical aspects of organophosphate pesticide poisoning are emerging. The most commonly seen, and known symptoms include cholinergic crisis, with miosis, sweating, salivation, etc. This is treated with high doses of the anticholinergic drug atropine, cholinesterase reactivators (oximes) and pyridine.

In addition to this acute cholinergic-toxicity phase, observed in all cases of organophosphorous pesticide poisonings, some people suffer after two to five weeks of exposure, from a delayed peripheral polyneuropathy involving the *distal* muscles of the extremities. This syndrome is also known, though not properly documented in our country.

Recently, in the March 26, 1987 - issue of the New England Journal of Medicine, Senanayake and Karalliedde have described another new syndrome of the neurotoxic manifestation of the organophosphate poisoning. They observed,in 10 out of 95 patients (in Sri Lanka), muscle weakness after 24 to 96 hours after the cholinergic illness, involving primarily the proximal limb muscles, neck flexors, certain cranial motor nerves and the muscles of respiration. The effect on respiratory muscles is indeed very serious. Seven of these ten patients had difficulty in breathing and three of them died of respiratory failure. The authors have called it "an intermediate syndrome" and the condition does not respond to atropine and oximes.

This expansion in the clinical profile of the organophosphorous poisoning has very serious medical as well as public health implication, especialy in the third world countries where these pesticides are liberally used, carelessly packaged and dispensed and are the favourite of those who want to commit suicide.

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Manish Mankad

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The need for a systematic compilation of data on medicinal plants in India has been felt by almost all research workers engaged in the study of medicinal plants. In 1976, Indian Council of Medical Research published a first volume comprising of information on nearly 350 species of plants presented in alphabetical order (A to G). The present 2nd volume extends the same (H to P). It provides in addition, separate indices for botanical names, chemical constituents as well as names of plants in English and regional languages of India. Further, classified lists of plants according to their pharmacological activities are furnished in one of the indices. This volume also contains coloured plates of plants.

World Health Organization, "Concepts of health behaviour research (Searo regional health papers no.13). New Delhi: WHO; 1986.

The global strategy for Health for All by 2000 recognised the need for health behaviour research (HBR). Despite this good start, research efforts in relation to national primary health care programmes were initially slow in recognising the need for and committing resources for social science research. HBR was needed to help reorient the planning and implementation of primary health care. This document defines the scope and future direction of HBR within WHO/SEARO. HBR is viewed as part of health systems research and an integral complement to all primary health care components.

Feminist review, "Sexuality: a reader".—London: Virago, 1987.

The book includes discussion of issues relating to sexual politics, the social construction of feminity and masculinity, psychoanalysis, lesbianism, pornography and representation, sexual violence and adolescence, with each article set in its time and context by a series of prefaces especially written for this volume.

Fukuoka Masanobu, "One straw revolution: an introduction to natural farming".—Rasulia: Friends rural centre, 1986, pp.181.

The author describes the events that led to the development of his natural farming methods and the impact that it has had on his land, himself, and the thousands of people he has taught. He feels that natural farming proceeds from the spiritual health of the individual. He considers the healing of the land and the purification of the human spirit to be the same process and proposes a way of life and a way of farming in which this process can take place. More than merely indicating methods, this book aims at changing attitudes: about nature, farming, food, human—physical and spiritual health.

(continued from page 3)

liberal treatment. It is at the middle level where the problem of rivalry and sharing of power arises and hence a great resistance or even hostility may start.

A maze of procedures and inscrutable *rules* which are characteristic of government functioning pose two types of problems. NGOs often understand the intricacies of these or can be easily trapped into immobility while working with these. On the other hand the NGOs have the advantage of autonomy and flexibility in their own structure and their partnership with a government institution or officer who is tied by the procedures may be like a pair of unequal bullocks resulting in strain and dissatisfaction to both.

Even in the seemingly faceless and impersonal government system, the success of cooperation may depend heavily on *personalities*. A single person with vision and openness for new things can make a world of difference. Whether NGOs find a cooperative government officer or an obstructive one in their path depends on their luck or on political manoeuvering. How to match compatible persons from two sides so that smooth working is possible is a major issue.

Government *money* should be available to NGOs in health if they too are working for HFA. And yet if NGOs take money from the government, they are either subordinated by political weapons or they are trapped and immobilised by the endless restrictions and procedures which necessarily accompany government grants. In both ways, the NGO looses its qualities or autonomy and speed.

How can government money be made available to NGOs and yet not have these side effects is an issue for discussion.

CHV Experiment: A Case of NGO-Government Interaction

When conceived, the CHV was to be a volunteer bringing with him/her the qualities of NGO, i.e. autonomy, motivation, community participation, etc. And yet during implementation he was converted into the lowest category of government worker with little financial remuneration. He was subordinated and internalised by the government health structure.

A fate similar to that of CHV must be avoided by giving attention to the various aspects of interaction discussed above. And yet, this is a new area of organisational research and innovation. Only through a process of trial and error, experimenting and learning that a feasible model will emerge. Respect for each other and openness is an essential prerequisite on either side.

Abbreviations

NGO : Non-government organisation
HFA : Health for All
FP : Family Planning
CHV : Community Health Volunteer

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Health of Half the Humanity Neglected

THE health of women is one of the most neglected areas in life and in research. This is because it is considered unimportant by the policy and decision-makers in society and in the household. This is especially true for the vast majority of labouring, poor women, those who are unorganised, unprotected, those who are self-employed or those who work for a wage or even without it. Though this situation exists not only in the area of health, it is all the more glaring in this area, because in more ways than one, the opportunities available to especially these sections of women to participate in other areas of life, depend crucially on their access to the opportunity to be healthy.

On the other hand, the obstacles to their achieving even the simple state of well-being are tremendous and emanate from almost every institution and structure they are remotely in relationship with. Poor women cannot be educated, leave alone be trained; and in order to make both ends meet, they have to work, most often in the unorganised industry, where working hours are long, and the pay meagre. They have little choice to deny jobs hazardous to their health. On the other hand they cannot take time off from their work, either for illness, or before and after their delivery. Their access to health care is reduced considerably due to the greater distances to health care facilities, the difficulty in 'choosing' from available health care facilities, the non-availability of enough time to go there, the problems in making the other members of the household interested in their health. These very factors make the women more vulnerable to various chronic and acute illnesses, most of which like anaemia, they carry and suffer along with them, till they become acute and fatal.[1]

The health status of women in India as indicated by demographics and statistics is a matter of serious concern. The higher mortality rate and lower life expectancy are only a few of the many grotesque indicators of their poor health status and poor access to health care facilities.

Statistics on health facilities and their use, indicate that women go to hospitals and contact medical functionaries less often than men. Women approach the health care system only for serious problems. Studies also indicate that the amount of money spent by individuals and families for medical treatment is greater for men.[2] This discrimination begins at a very early age—at childhood. This is all the more true for sections of people with limited resources. If there is money only for one person to have access to health care facilities, it is the man who gets it—the head of the household, the bread-winner. This is true also where women are the main supporters of the families. The preference for sons ensures that the health facilities will be used more by boys than by girls.

A detailed field study in a village of Western UP to identify the prevalence, if any, of discriminatory practices against girls and women, found indications of indirect discrimination against baby girls in breast-feeding. When the first child was a daughter, the mother tried to become pregnant immediately for a son.[3] Soon after they conceived, women stopped breast-feeding the baby daughters. In contrast, when the first child was a son, an attempt was made to postpone the next pregnancy through abstinence. In the distribution of more nutritious food like milk, butter and eggs, sons were shown preference. Even in the Morinda study in the state of Punjab, the most significant determinant of nutritional status was found to be sex.[4]

The low intake of food and nutrition by women results in their being "lighter than their desired weights". Women have no energy reserves for emergencies and hence fall ill or at least feel ill more often. Also their mortality rates are higher in the event of an epidemic. This could also result in early wearing out of cells, and hence early ageing.

Besides these, there are a considerable number of problems women, especially poor, labouring women suffer from. These are menstrual and menopausal problems, dysmenorrhoea, white discharge, uterine bleeding, back pain, migraines. . . .

Besides, these there are many health problems that women face related to the work place. These problems in turn affect women's general health problems and compound them. For example, the hazards of pollutants on women affect not only the women themselves, but could also be and often are dangerous to the foetus—especially during, but not necessarily only during pregnancy and lactation.

SPECIAL ISSUE ON THE HEALTH OF POOR, LABOURING WOMEN

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Women Workers in the Service Sector

THESE include women domestic workers, washerwomen, women rag-pickers, sweeper-women, prostitute women and many other sections of women workers. However, here we will discuss only the relationship between work and health of the *domestic workers*.

Housework has been considered, especially in today's society as an unskilled and not-so-strenous job; more so the work of domestic workers. Yet the personal experiences of domestic workers which have been documented indicate a number of fairly serious health hazards.

Though domestic workers exist also in rural areas, working in the homes of rich farmers, the majority of the domestic workers live in hutment colonies which have sprung up all over the cities and towns. Hence, problems like inadequate water supply, poor sanitary facilities, substandard housing and alcoholism which are the problems of most slums, are also the problems faced by the domestic workers.[1] It is generally difficult to guage the exact number of women in this occupation, as workers in this category are not surveyed as such by the census.

According to the Report on working conditions of domestic servants in Delhi by the Ministry of labour, Government of India, nearly 90 per cent of domestic servants are women. According to the national survey[2] conducted by the School of Social Work, Mangalore, women constituted 87.09 per cent of domestic workers in Karnataka, 82.38 per cent in Ranchi, 78 per cent in Kerala, 90.81 per cent in Trivandrum, 90.20 per cent in Bombay, 51.75 per cent in Andhra.

Problems faced by the women domestic workers are:

1. Deplorable wages.
2. High level of insecurity.
3. Illiteracy and lack of marketable skills.
4. Lack of confidence in securing other productive jobs.
5. Long and unregulated working hours.
6. No paid holidays.
7. No paid sick leave.
8. No maternity benefits.
9. Immense work load.
10. Health problems.

Wages: Despite the spiralling price-rise, year after year, wages have not kept pace. In fact, they have miserably lagged behind. The organised sector in many cases has won the dearness allowance, which at least to some extent, offsets the increase in price-rise. However, for the unorganised sector, which includes the domestic servants, every price-rise cuts into their wage, depressing their real wage even further, which, in the conditions in which they live, means a further nutritional deficiency for them. This is especially so, as many studies in Pune and Bombay indicate that women domestic workers are often the sole supporters of their families.

Wages are most often paid in cash. But sometimes in the agrarian economy, work is paid for in kind—foodgrains, household articles or cash crops. Payment is often irregular on the pretext that the domestic worker is "part of the family".

Housing: In the bigger towns and cities, government and municipal officers and authorities are allotted servant quarters. These officers employ domestic workers and in return for the quarters make them work for as low a wage as Rs. 20-30 a month or even free. The logic is that the woman provides the labour free and the husband is supposed to work outside and provide for her in return for accommodation which is possible due to her working gratis for these officers!

Connected to the problem of housing, is another problem that women in slums face—lack of toilet facilities. Lack of public latrines seems to have affected the health of these women. "Modesty allows them to attend the call of nature only after sunset. In some places in Pune they have to squat on Congres grass which causes skin disease".[1] Having to go after dark, also makes rural women more vulnerable to snake, scorpion and other bites.

Insecurity

According to the national survey, conducted by the school of social work, Mangalore, "In Calcutta only 6 per cent of the workers had made some contract with the employers, while in the other regions it is just 1 to 2 per cent. While the majority of the workers have no contracts made and their jobs are totally insecure".[2] For those who have contracts, the contract is made with a third party or agent or the parents of the workers. Hence, the exploitation runs beyond the employer-employee relationship and children from villages are sent by their parents to towns and cities to work as domestics, while the wages are paid directly to the parents of the child. They are often kept in bondage till the debt is cleared". By and large, the majority of domestic workers have no security of employment and their jobs can be terminated at a moment's notice.

Long working hours

The working hours of the women domestic workers are not fixed and hence they rarely get any free time for themselves. This increases the workload without any prospects for overtime payment.

According to the report of the national survey on domestic workers, "Rest is considered a necessity in industry and is required after every 4 hours of continuous work. In domestic service, it is usually considered a luxury by the employers. In Maharashtra and Ranchi, 40 per cent are not given any rest period. Part-timers have no time to relax at all".[3] Even according to the Warangal study, "extra payment is not made for working extra hours".[4]

A maidservant's day starts at 4.00 am. Often her day of paid labour begins at 7 am till 11 am. After this is her day of unpaid labour again. At about 2 pm she starts her afternoon round till 6 pm, returning home to start cooking, feeding, washing and taking battering and abuses from her husband and finally goes to bed some time after midnight.

Leave and Holidays

The women domestic workers have neither a regular weekly off, nor paid leave. According to a study of women domestic workers in Bombay, "most of the domestic workers work right through the week and through the year.[5] In the Warangal study. "Only in the case of three respondents, holidays upto 15 days were given with full payment. Generally, employers cut wages whenever the

domestic workers do not turn up for work, even when the reasons are genuine, such as sickness, some function in the house, etc. There is no pay for maternity absence. In a few cases the domestic workers have to send subsititute workers whenever they cannot go to work. In most cases children are sent. Conversely, some employers engage their own 'substitutes' and the wages of absentee domestic workers are cut accordingly".

The national survey comments, "Though the hours of work are regularised in Kerala, 76 per cent of its workers do not enjoy any holidays."

The domestic workers of Warrangal reported that medical aid from the employer's side was not available except for those who worked in houses in the medical college campus. On the other hand, in some cases the salary of the domestic workers was cut when they could not go to work due to illness.

The health problems the domestic workers face relate directly to the changes in the nature of housework and the tasks defined for domestic workers.

The new dimensions of housework which in turn have created the problem of increased workload and health are:

1. Queuing up for various essential commodities.
2. Fetching milk.
3. Taking small childrren to school and fetching them back home.
4. Looking after infants and young children.
5. Fetching water from public taps.
6. Due to the advent of mass consumption—clothing, many middle class families have stopped or reduced their outside laundry and prefer to give almost all the clothes to the domestic worker for washing.
7. The special washing powders are harmful to the skin: the incidence of skin diseases on the domestic workers' hand and feet has gone up following the advent of detergent powders.
8. Dusting furniture, cleaning glass panes, cleaning television sets, etc.
9. Often, the domestic workers are asked to wash basins and toilets with acid, causing severe burns on the hands.
10. Storing water, fetching flour from the mill, fetching bread, vegetables, groceries as required, extra washing when guests arrive, looking after a child, cleaning the employers's vehicle, drying vessels and crockery.

According to the Pune study, "working in water all the time, the women develop chronic body aches; chills and cold. When they scrub utensils, the salt and spices inflame these bruises". Constant exposure to dust is also a problem faced by the women domestic workers.[3] The other health problems faced by the women domestic workers were amenorrhea, postural problems and bursitis—housemaids' knee (see box).

According to a study of female Tamil domestic workers, who have migrated to Delhi, the extent of child mortality is very high. "On an average, the women have three children. On an average, they lose one child. When the number of children born is five, the death toll is three... Most children died between six months and two years of birth. A few died of chicken-pox. By and large, parents did not know what had caused the children's deaths. Pattu, says "I gave birth to nine children. All but three died".[6]

A study of women domestics in Delhi indicates that women do not go to the hospital due to fear of the hospital and the time delays which waste a lot of their time. Most of the women hold a number of jobs and time is of great value to them.[7]

According to the 1975 report on the status of women, "Domestic service, for cooking, cleaning, sweeping, washing and looking after children is a major avenue for wage employment of women, particularly in the urban areas. Considering the large numbers in this occupation, it is unfortunate that no effort has so far been made to collect data on their numbers, wages and conditions of work. They are not protected by any laws or regulations and even the modicum of protection that the Minimum Wages Act provides, is not applicable to this group".[8]

The Status of women committee report had as early as 1975, suggested, "A comprehensive investigation of this group of workers is an imperative necessity, with provision of at least the basic services for the protection and welfare of their children".

There has been no move in this direction for the last decade. Almost three decades ago in 1959, a bill called "Domestic Workers (conditions of employment) Bill "was introduced in the Indian Parliament. But it was allowed to lapse.

Even the recent attempts at introducing such a bill only cover full-time domestic workers and completely leave out the vast majority of "half-time" domestic workers, who though work half-time in a particular household, are full-time workers nevertheless.

It is now urgent that new thinking goes into framing some comprehensive legislative measures which take into account the conditions of women domestic workers outlined above and take concrete steps to change the situation.

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*BURSITIS** is usually caused by prolonged and repeated pressure or by repeated jolts to joints.

Symptoms: Pain and swelling in the knee or elbow with bursitis of the shoulder, the pain is usually widespread, but swelling may not be apparent. One of the classical types of bursitis is the "housemaids' knee".

* *Bursa*—a sac or a cavity especially one containing a fluid that reduces friction as in between a tendon and a bone.

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"Occupational health should aim at the promotion and maintenance of the highest degree of physical, mental and social well-being of workers in all occupations. . ."

—Definition of Occupational Health by the Joint ILO — WHO Committee[1].

An important aspect of a person's mental health is the feeling of security or insecurity vis-a-vis her own being. The very unorganised nature of the "informal sector" and the women working in it, exposes them to various forms of oppression, including sexual oppression. The forms of sexual oppression experienced by the women are numerous: they vary from rape, forced prostitution and sexual harassment to wife-beating, the sexual division of labour at home and at work and restrictions on the freedom to move around as they please. On the other hand, women face the cruel side of "freedom"— contraceptives, which are dangerous and to be experimented, repeated abortions, all dumped on them.

Rape and sexual harassment are almost universally feared, not only by those who have experienced them, but also by those who have not. It is a recurrent theme, and seems to determine many aspects of women's lives: the decision whether or not to take up a job; the kinds of jobs available, the kind of work they train for, the place of work, their participation in social activities, etc. Most importantly, it determines their self-perception, their feeling of ease, their feeling of security and general well-being.

The physiological effects of constant strain and tension due to sexual or other harassment on women have yet to be documented. But the personal experiences of women in the informal sector is a living document of the effects as they face them everyday.

Women workers suffer a peculiar form of oppression in the workplace, in the home and in society at large. At the workplace they often suffer sexual harassment.

The experiences of nurses, auxiliary nurse midwives (ANMs), community health volunteers (CHVs), and the female medical profession have been documented—the fear of sexual attacks from village politicians, doctors, wardboys and patients.

The death of Shobha Gonge at Risod village at Akola district in Maharashtra[2], the attempted rape and maiming for life of Aruna Shanbaug in KEM hospital, Bombay, are only a few glaring examples. The recent pressure to meet family planning targets, which led to the suicide by Manda Padwal[3], an ANM, only add to the hazardousness of the profession.

Various studies[4] have documented the constant threat of sexual harassment for women domestic workers, their vulnerability as their place of work is the place of residence of the master of the house, his home-ground and she is totally unprotected, in more ways than one. Also various incidents of false theft-charges[5] have been reported, which have caused immense tension[6] and feelings of worthlessness and humiliation.

Women sweepers in Patna city[7], women ragpickers in Bombay[8] have also reported sexual harassment.

Prostitution is one of the most sexually hazardous occupations[9]. Many have talked about being harassed—by non-customers, who know her profession and feel they can get away with anything; and by customers who often come to prostitutes to satisfy their "perverse sexual curiosities".[10]

A study of the prostitute women in Bombay[10] reveals that extremely cruel methods of torture are used in order to break the initial resistance of the girls and women. "They were beaten up and had go without food for days, but during that time, were forced to accept clients".

According to a case-study of a prostitute, "in order to prepare them to accept clients, they were kept hungry, locked in a room or even gang-raped. . . They were brainwashed and told that society would no longer accept them."[10]

All these pressures give rise to hypertension which is very common among many women. A feeling of depression and anger is constantly experienced due to both helplessness and resentment towards a situation which they have not caused, but have been trapped into.

If not sexually harassed, most women experience active or passive discrimination at the workplace. They are given the least skilled, the most monotonous and often the more hazardous jobs as well as often being paid less than men for the same or similar work. Certain operations in agriculture like weeding are "reserved" for women. This operation involves constantly bending for all the eight hours that women work. They are also paid less. In the beedi industry, men often work in factories and women at home, doing the same work and getting very different wages and benefits. In the electronics industry, women do the assembly work and men do the supervision.

At home, women are kept in a subordinate position, denied any decisive say in family matters, and often beaten or otherwise ill treated. Women are the last priority even in the family—the last to eat and the last to get medical treatment. Even when they work outside and are economically productive, the work at home is her responsibility alone—from getting water from long distances to fodder-gathering to household chores. Besides this social productivity, the entire responsibility of reproduction and child-bearing is on women. This is also true about contraception.

Another aspect of harassment that almost all women talk about is the harassment at home due to drunkard husbands. As one pheriwali in Bombay said "When my husband died, I felt I was better off. Even if I eat dry bread, at least I eat it in peace. What did I get from marriage but scoldings and beatings?"[11] Women vendors in Madras[12] had a similar experience. A fruit vendor in Madras says. "At night, I bear the brunt of a different harassment".

In personal interviews and conversations, women vendors as well as sweepers and domestics talked about how they have absolutely no control over what they earn. "After slogging for the whole month, my husband just snatches away forcibly whatever I earn".

And in society at large women are subjected to an oppression not suffered by men—for example, a male worker returning home late at night does not have to face the danger and the fear and tension of the possibility of being raped on the way.

There are other aspects to the oppression by society and by the state which affects the mental well-being of a large section of women—dalit or 'harijan' women. A large

number of the attacks and "atrocities against harijans" consists of rape and other forms of attacks on women.[13] A tradition which exists in the major part of the country gives upper caste men of rich farmer or landlord families the "right" to make use of lower caste .women. Poor women, working daily in the fields or in the forests are extremely vulnerable to the attacks from the police, the forest guards and the landed rich.

Besides, in most Indian villages, dalits have seperate wells from caste hindus. The problem of getting water, the availability of drinking water is particularly important for women because it is a crucial part of the daily labour of maintaining the household.[13] Caste oppression here implies that women have to walk great distances in search of drinking water, despite its availability in the village itself. This discrimination goes further in the lack of opportunities for dalit girls to be educated and then in the type of work available to them.

The Status of Women Committee Report showed that the majority of working women in India are in the unorganised rural and urban sectors (fifty per cent were agricultural labourers, thirty per cent peasant cultivators, fourteen per cent in unorganised sector jobs, including casual labour, contract work, domestic service, etc). This is even more true of dalit women. In 1961, the work participation rate for women in general was 27.95 per cent and for dalit women, it was 35.3 per cent. Dalits were 33 per cent of all agricultural labourers in that year, and adivasis 10.5 per cent. The percentage of agricultural labourers has grown since 1961; so has unemployment. Both factors affect women more severely, and dalit women most of all. Women are nearly 40 per cent of all agricultural labourers now, and a significant proportion of these are dalits. Dalit women who are not agricultural labourers usually work as casual daily labourers, as migrants on road building and other building projects, and in various petty, miserably paid jobs that are not even counted as "work" by census criteria.[13]

Another aspect of harassment and atrocities on women is the custom of female seclusion. Though avowedly practiced to "protect" women, it has extremely negative implications for women's self-image, women's ability to participate in the labour market and also directly on women's health.

The custom cuts across religious lines and is found among both hindus and muslims all over India. The manifestations of this custom differ from one region to another, ranging from women who are not allowed to leave the household and are often veiled, to women who work outside, but do their utmost to avoid contact with 'outsider' men.

The custom and ideology supporting female seclusion support also its reverse—the idea of exposing or punishing a woman if she has "crossed her limits". This punishment has often come in the form of systematic rapes of women.[14]

For women who have to work outside, the ideology of female seclusion is in direct conflict with daily reality. Often women's work outside is portrayed as sacrifice she has to make in order to fulfill her role in the family better, and hence any notion of self-fulfillment or self-advancement is not in keeping with the role. Hence involvement in the work, travelling often to sell wares in order to get a better price, trying to see what area of work or trade would render better prospects—all these concerns have to be foreign to women. The result simply is that women are not allowed to advance in their field.[14]

Yet the pressure is there for women to peform, to be good workers, to be efficient. If they don't, it is because "they are women". How women cope up with these myriad contradictory pressures and tensions and what toll in terms of their mental and physical health that takes, has not as yet been a subject of research. This dimension is not merely an "additional element" in the health and well-being of women workers, but the basis on which one can even begin to understand the "purely physiological" ailments and problems of the vast majority of labouring women in this country.

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Abrasive cleaners are also known as scouring powders and are widely used for the household cleaning of hard metal, porcelain or enamel surfaces.

Due to the abrasion of the horny layer and the alkali neutralization of the acid, the protective mantle of the skin may be damaged and in the long run, result in dermatitis with swelling and roughness of the skin and may contribute to the causation of *housewife's eczema.* Detergents, soaps, acids may cause contact dermatitis or eczema.

Thorough rinsing and drying of the hand and the application of an emollient after the use of an abrasive cleaner are to be recommended. The common occupational diseases noticed in domestic workers are skin diseases, chronic paronchia and rheumatic complaints, due to prolonged and repeated immersion of the hands in water while washing clothes or utensils or working in hot work places, causing perspiration.

Domestic workers are also prone to catch any contagious diseases which the employers may be affected by.

Compiled by Vijay Kanhere from the ILO Encyclopaedia on occupational health and safety, ILO, Geneva, 1983.

Home-Based Workers

Home-based workers include workers involved in a very wide range of activities and occupations *in their own homes*—house-wives, chikan workers, beedi workers, lace-makers, agarbatti workers, paper bag makers, zari and zardozi workers, garment workers and many other categories.

Homeworkers are one of the most exploited groups in the workforce. They receive low wages, work long hours, receive no protection against unfair conditions, dismissals or health hazards. They have to provide their own facilities for work—the space, the equipment and also meet costs such as oil for papads, electricity etc. At the same time they are at risk from a number of health and safety problems associated with their work. Their children too are exposed to these—either because the children too have to work or because of their mere presence in the 'work-area'.

Stress is a major cause of work-related illness, and is both biological and psychological. All aspects of homework—wages, monotonous and unrewarding work, lack of security and isolated or crowded working conditions,—combine to make homeworkers vulnerable to stress and stress-related diseases like ulcers, heart ailments, blood pressure. Job satisfaction, a feeling of self-esteem and a decent wage are some important protectors against stress.[1]

The major problems faced by homeworkers are:

1. Very low earnings.
2. No protection.
3. No benefits as workers.
4. Very bad working conditions.
5. Very long hours of work.
6. Problems of availability of raw materials at reasonable prices.
7. Competition for markets.
8. Lack of credit facilities.
9. Lack of space to work.
10. Limited or no access to new technology for facilitating work and improving productivity.
11. Lack of skills and training facilities.
12. Absence of protective legislation.
13. No social security e.g., insurance, health benefits, old age benefits.
14. Health problems like postural problems, problems due to lack of facilities, e.g., eye-strain due to the non-availability of electricity, etc.

One such occupation in the state of Uttar Pradesh is *Chikan-work*. Out of the 50,000—odd workers engaged in this industry in Uttar Pradesh, about 97 per cent are women[2]. As the workers are predominantly muslim women, who observe purdah, they have no direct links with the consumers. Work has to be obtained through middlemen. A majority of the workers live below the poverty line and according to the 1975 status of women committee report, earned less than Rs 40 per head per month.[2]

A large number of the women are widowed or deserted women who support the family by their own earnings. Since production and marketing are mostly in the hands of intermediaries who are traditional money-lenders, this results in a high degree of exploitation. Deductions are made from wages on various pretexts e.g. delay in completing work, bad craftsman-ship, damage to material etc. This was reported by 64% of the contract workers, 87.8% of the self-employed-cum-contract workers and all the wage employees. In all, 38% complained of deduction in wages and 38% reported disputes due to low wage rates.[2]

TENNOSYNOVITIS—The free movement of a tendon is restricted usually by a swelling of the tendon or its sheath. It is caused by very rapid, repetitive finger and hand movements like while manipulating small work-pieces.

Such movements are present in work which is put out, or in industries doing the assembling of small electrical parts as well as in large-scale cooking.

Compiled by Vijay Kanhere from the ILO Encyclopaedia on occupational health and safety, ILO, Geneva, 1983.

According to one study,[3] weak eyesight, spondylitis and TB were the major complaints. The first due to the extreme fine work they have to do, spondylitis because of their constant posture and TB because they live and work in extremely closed and congested surroundings and sit very close to each other while working.[3] There were no doctors around the area where the chikan workers live and also work. Hence they have often to go to quacks, who just give the women workers positive lenses, or whatever they have at that moment.[3]

The other health problems noted by a study conducted by the National Institute of Occupational Health (NIOH) were lung function disorders and various allergic effects.[4]

A recent study by the Self-Employed Women's Association states that besides postural problems and eye problems, women suffer from tiredness due to the very long hours of work, anaemia, goitre and vitamin-D-deficiency, due to being at home all the time and due to the fact that the women had to wear black robes.[5]

The rate of exploitation was extremely high and most women felt that they would like to be provided with alternative employment and training.

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Cooking Fuel

Latest evidence shows that air pollution within homes may be an acute problem, an underlying cause of millions of deaths every year. The burning of cooking fuel envelops the indoor environment with heavy smoke and women who have to do all the cooking may be daily exposed to more pollutants than even industrial workers in extremely polluted environments on extremely polluted days... As firewood becomes scarce, they have to put in more energy to collect fuel and then they have to face the dangers of wood smoke everday.

Over 90 per cent of households use wood, dung, crop residues as fuels. Especially during winter, but also at other times, when a temperature inversion prevents the smoke from rising, houses are filled with smoke.

Though biomass smoke is a complicated mixture of thousands of pollutants, and its impact may be more than the sum of the impact of individual pollutants, indirect evidence of the ill-effects of smoke can also be gathered from studies that have been done on individual pollutants. Other than particulates and compounds like Benzo(a) pyrene (BaP), two major pollutants in biomass smoke are carbon monoxide (CO) and formaldehyde.

There is a growing body of evidence that points to a stong *link* between *chronic CO exposures* and both heart disease and *impaired foetal development.* While CO has not itself been found to be carcinogenic, there is concern that it may act to increase the carcinogenic effects of other air pollutants by inhibiting the ability of the lungs to clear themselves.

Any condition which results in reducing the blood's capability to carry oxygen to the tissues, like anaemia, will also make a person more susceptible to carbon monoxide toxicity. This is particularly bad for Indian women who are anaemic in large numbers. It is estimated that in India 40 per cent to 60 per cent of preschool children, 25 per cent to 30 per cent of women in reproductive age and almost 50 per cent of pregnant women in third trimester (more than 24 weeks of pregnancy) are anaemic. Chronic lung diseases will further reduce the capability of the blood to rid itself of carbon monoxide during periods of low or no exposure.

Estimated annual doses of respirable suspended particulates (milligrammes per individual)

Gujarat villages	
Cooks	21,000
Non-cooks	3,700
Traffic-police in Ahmedabad	2,600
Ahmedabad city	2,100
Delhi	1,400
Bombay	1,100
WHO recommended level	210

Source: Kirk Smith. East West Centre.

There are several factors that make women particularly susceptible to CO exposure. Women generally have less haemoglobin reserves than men, which makes them more prone to anaemia, which also makes them more vulnerable to lower doses of CO than men. During pregnancy there is additional demand on haemoglobin, further lowering their reserves and making them more sensitive to CO. This exposure can also affect the unborn child leading to reduced birth weight and increased perinatal death rates. Respiratory diseases are a leading cause of death among girls and women over the age of five in India.

Compiled from: The State of India's Environment—a citizens' report by the Centre for Science and Environment, New Delhi, 1982

Agriculture

An unpublished study in Maharashtra revealed a pattern of seasonal mortality among children and infants. There was a very strong clustering of child deaths in the months of June to September. The trend was even stronger in the 0-1 age group. 75-80 per cent of the annual infant deaths had occured in these 3-4 months. However, no skewed distribution in the deliveries was found. A majority of these 0-1 year deaths were neo-natal deaths, between 0-4 weeks. An even larger number were between 0-7 days. 90 per cent of these were due to premature deliveries and still births.

An obvious reason for this intriguing pattern was the type of work women did during these specific months. This was a ricegrowing area and the months of July and August, which was where the cluster had occured, were the months of the transplanting operation. This is the time of the year when there is maximum employment in the villages, especially for women.

During transplanting operations, women have to work in the squatting position for 8-10 hours a day. There seems to be a close correlation between that position, the pressure on the uterus and early delivery. Most of the infants were not small in terms of the size, but were early, deliveries, between 6½ and 7 months. Thus these were women who were in the third trimester and had gone for transplanting work.

This unpublished study was conducted by Srilatha Batliwala and Mona Daswani for the FRCH in 1982 and 1983.

Some of the obvious implications of this small study are:

* It is necessary and urgent to tackle the isue of appropriate, effort-saving, but non—labour-displacing technology. e.g., developing devices whereby women can sit on low stools or stand and do the work or alternate between these, as is comfortable. This is absolutely essential, considering the vast numbers of women engaged in agriculture, season after season, for almost their entire working lives.
* It is necessary to extend and to make obligatory the granting of paid maternity leave to all women and to ensure that women are not discriminated against in employment.
* It is necessary to provide alternate employment to women, especially during pregnancy.
* Organisations of or self-organising by agricultural women workers is the most sustained way of achieving this.
* Further research will have to be taken up to establish the link between women's work and women's health in the agricultural sector.

Women Workers in Heavy, Manual Work

According to the Encyclopaedia of Occupational health and safety of the ILO, "the capacity of women for sustained heavy physical work is substantially lower than that of men.*

"If women carry excessive loads, their intra-abdominal pressure may rise suddenly and cause disturbances of the blood circulation in the pelvic organs and lower limbs, menstrual disorders, prolapse, miscarriage or still birth. These disorders are more common if a woman has been carrying heavy loads from an early age. Unfavourable effects on the normal formation of the pelvic bones, resulting in a flat and narrow pelvis, have also been observed".

Besides, careless manual load handling is not only the biggest single cause of industrial accidents, but there is also a considerable risk of injury to the spinal column and adjacent muscles, particularly in the lumbar region. The circulatory organs may also be affected, the pulse rate and blood pressure may rise and brain haemorrhage has also been reported.

The constant strain and stress on muscles, joints, ligaments and bones also cause deformities. Constant pressure on the skin, muscles or nerves leads to callosities, neuritic pains and paralysis.

In children and adolescents, strenuous work may affect bodily growth, especially skeletal growth. Deformities of the spinal column, pelvis and thorax may occur. As the growth of the musculatory and circulatory systems is often unequal, stress on these systems during childhood and adolescence may have permanent sequelae.[1]

Many countries have introduced legislation covering the manual lifting and carrying of heavy loads by at least certain categories of workers, in particular women and young persons. There are often special provisions for pregnant women.

In Madras e.g. the maximum limit for *men* is 75. kg. Maharashtra has prescribed a limit of 55 kg. in accordance with the ILO's Maximum Weight Recommendation, 1967 (No. 128). This recommendation does not lay down a maximum weight for *women*, but suggests that it should be substantially less than that permitted for adult male workers (about 50 per cent less), that women should not be assigned to regular transport of loads etc. In principle it also prohibits the employment of women on load transport during pregnancy and for the 10 weeks following confinement.

However as with most "well-meaning" legislation in our country, this piece has also remained on paper and is violated with impunity. In fact, for more than 96 per cent of the women in this country there is only a choice between death or morbidity due to heavy work or the same due to starvation. The provision for paid maternity leave for *every* woman is an absolute must if even some of the precautions for women's health have to be taken seriously. As most women doing hard labour said "we have to work till the last day of pregnancy in order to be able to eat to live".

Women and children however, continue to do extremely heavy and strenous work, without any precautions to offset the bad effect on their health and general well-being. Women are employed as head-loaders, as workers in brick-kilns, in the construction industry and as hand-cart pullers... Women have to walk long distances carrying loads of wood-fuel and water.

Here we will look at one industry in some detail—*the construction industry.*

The 1981 census recorded a substantial increase in employment in this sector—a 60 per cent increase over 1971. The share of women workers rose from 9 to 11.16 per cent. According to a comparative study of women construction workers in Patna and Delhi,[2] women were employed mostly as unskilled labourers for carrying earth, mortar or bricks, crushing bricks and working hand-pumps. Recruitment was mostly done either directly by the contractor or the sub-contractor (jamadar). Wage payment was on a daily or weekly basis. The Bihar study reported that the sub-contractors obtain a contract for the job on a piece rate basis but paid their workers on a daily basis, ensuring a higher margin of profit for themselves. Workers complained of short payment and unexplained deductions. The system of deferred wage payment and unjustified fines and deductions were reported in both the studies. The Bihar study reported that in the case of tribal women, part of their wages were kept back to be paid at the time of termination of their employment. The Delhi group reported that apart from fines, the jamadar deducted 25-50 paise per day from their wages without giving any reasons. The existence of these intermediaries invariably depressed the wage rates. Women from all the three Bihar projects reported wage differentials between men and women.

Another important factor experienced by women construction workers all over, but verbalised by the women workers from Madras is that not only were women made to do work which was considered "unskilled", but they were given no opportunities to learn any skill like masonry or carpentry and hence had to continue to remain in the same "unskilled" work till the end of their working lives. As one of them put it, "we have no raises or dearness allowance. At least the men can hope to become masons or supervisors. But we women remain as sitthals ('sitthals' implies small people or people who do the "little" work).[7]

The household incomes of nearly 80 per cent of the workers interviewed in Delhi was between Rs 200 and Rs 300. The per capita monthly income was below Rs 75 for 45 per cent and below Rs 50 for a little over 20 per cent. For the Bihar group, the average household income ranged from Rs 194.4 to Rs 334.45, the per capita monthly income ranged from Rs 38.88 to Rs 66.6. For all the families covered by these two studies, the earnings of the women constituted the major share of the families' income.

According to a study of work hazards in the construction industry in India,[4] "a high degree of risk and danger is involved in this work. The work proceeds in the most dangerous situations under sun, cold, heat, rain, dust. The magnitude of accidents and occupational diseases associated with this work is appallingly high and complex. It is because most of the operations are labour in-

* The discrimination against women for centuries in terms of nutrition, opportunities, health care etc., seems to have resulted in a lowering for their capacity for heavy work.

tensive with inadequate safety measures, low quality of materials used, non-identification and non-recognition of risky actions, non-analysis of accidents and lack of training of workers on safety.'

The causes of accidents were identified as:[4]

* failure or collapse of scaffolding, centering and shuttering.
* improper guards.
* night work with improper lighting.
* fire and electrolocution.
* excessive noise.
* handling of heavy finished and semifinished materials, like metals.
* blasting.
* underground work.

The cause of other health hazards were identified as:—

Cause	Effect
Cement Dust	— Irritation to lungs, cancer and skin disease.
Plaster	— Irritation to lungs, eyes, and skin lung cancer.
Wood burning	— Asthma and nasal cancer.
Sand	— Silicosis.
Asbestos	— Asbestosis.
Work at high places	— Blood pressure.
Sound	— Loss of hearing, stress, blood pressure.
Heat	— Heat cramps and sun burns.
Vibration	— Numbness of hands and fingers.
Repetitive work	— Sprain, rheumatism.

In the Warangal study,[5] it was found that canal workers had one day off for every fifteen days of work. Paid holidays were not given during the festivals. Most of the workers complained that they were entrusted with some work even on holidays. The labour welfare officers and public works engineers seldom took interest in ensuring facilities like first aid, drinking water, washing and bathing places, latrines, urinals and other sanitary arrangements. Shelters, creches, canteens, sheds, etc. as mentioned in the contract regulations were never provided by the contractor. The material provided by the contractor for the construction of huts was sufficient to construct only a 4′ wide 5′ long and 5′ high hut, with no ventilation. Due to the lack of accommodation in the hut, the parents slept outside. Their huts were ill-suited for rainy seasons. With regard to the women workers, no single additional amenity was provided despite the fact that in several cases their workspots came under the public works rules and other regulations.

'*Health*'

Of the Delhi group, 30 who had suffered from some illness lasting more than 1 week, had received treatment in government dispensaries and hospitals and 22 had been compelled to discontinue work for periods ranging from 4 days to 6 months. They did not receive any wages during such absence. The other 8 continued to work during illness.

In the Warangal study, it was also found that most of the women workers were in poor health. Around 40 per cent were sick during the last two years and were in bed for more than a week each time. Only two per cent of them had gone to private hospitals; but even in a government hospital, they had to pay for medicine. Some could not get admission in a government hospital because they could not pay bribes. The canal workers[5] complained that due to excessive use of tamarind water supplied along with rice. they had diarrhoea, muscular pain, intestinal troubles and gastro-enterities amongst other illnesses. Since the contractor gave only tamarind water along with the rice they could not escape from such diseases.

Medical facilities at the construction sites were minimal. No trained doctor was available and no medicine was supplied. Patients were asked to go to government hospitals and their wages were invariably cut during their absence from work. Many among the workers, who had reported long illnesses, said that they had to stop working for periods ranging from three days to two and half months. They felt that visiting a doctor was a luxury which they could not afford.

More than half of the women workers worked till the last day of their delivery and resumed work after three or four weeks. Just as in the case of sickness, there was no paid leave during pregnancy. Contract labour regulation and other relevant laws are conspicuously silent about maternity leave for women in the construction industry. This has an adverse effect on their health and on the health of the new-born infants. Almost all the women had delivered their children at home with the assistance of elders or neighbours.

Absence of minimum health protection during pregnancy as well as continuous malnutrition has resulted in high infant mortality. In the Delhi study it was found that 645 children has been born to the women but at the time of the survey only 389 of them were alive. For the Bihar group out of 233 children born to the women 67 were dead; 29 of them had died before reaching the age of 1 year.

A recent report of the NIOSH (USA) an institute with authority in this field states that women in the construction industry are fairly susceptible to occupational stress. In India, women in the construction industry have a highly strenous job of rock and brick crushing and transporting head-loads up improvised ladders. Apart from postural defects and backache and muscular pains due to physical factors and fatigue, the tropical heat could also lead to trauma, cramps, exhaustion and stroke.

The paper by the National Institute of Occupational Health[6] also outlines some of the health problems of the construction women workers as: Physical stress and strain, skeletal defects, dust effects on lung function, postural defects and muscular fatigue.

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Some Directions. . .

Very simply put, any rational health system aims at making all the people it is responsible for, healthy—providing the minimum health care as well as the other conditions for a healthy life. A look at the chaos in the health system in our own country as well as in the more "prosperous" countries of the West, indicates that there are certain serious obstacles in attaining this seemingly simple goal. These obstacles are even greater where the health of poor, labouring women is concerned.

It has been observed and studies of hospital records show that the medical profession is both, occupation-blind as well as women-blind. Both these blindnesses affect the vast section of poor women adversely and grind them down even further.

The situation is not only complex, but has been perpetuated over decades, if not centuries. Hence a multi-faceted approach is necessary to radically change it, in order to respond to the health needs of this disadvantaged section:

A. An important underlying thrust of any approach has to be the *re-ordering of our national priorities.*

The decisions of what our national priorities are, are not based on the *needs* of the vast numbers of the labouring poor, especially women, but on considerations alien to and usually opposed to these. Basic, essential drugs are not available in dispensaries and PHCs, but IUDs and condoms flood them. On the one hand are sophisticated hospitals over-drugging certain sections of people, while basic health care is not available to the vast majority.

The same situation rules in terms of housing, in terms of the industries put up, in terms of the basic commodities in the market. These are important, as the socio-economic situation very much determines the choices open for women, including the work available and the health care facilities available, especially nutrition.

B. It is also *necessary to ensure that the health system responds to the health needs of women directly and immediately.*

It is first necessary to provide alternatives and choices for women to choose from, rather than some system of health care, or lack of it, being imposed on them. It is necessary to critically evaluate the present health care system and pin-point the anti-women, anti-poor bias in it.

While demanding better choices for women, including women's access to safe delivery, safe and free abortions, it is necessary to stress the immediate abolition of the oppression that comes directly from the government—enforced sterilisation, injectable contraceptives. . . In fact, the entire emphasis on "family planning" to the detriment of access to other health care facilities needs to be strongly opposed.

Some of the specific needs of *women* in this sector are:-

a Nutritious and sufficient food. Specific nutritional programmes which include calcium, proteins, and iron, need to be initiated through the government health care system.
b Regular work and livable wages.
c Day-to-day health care facilities.
d Insurance benefits.
e Maternity benefits.
f Sick and other leave facilities, including a weekly off.
g Regulation of working hours.
h Old-age benefits/pension schemes.
i Health education—general and occupational.
j Provision of safety equipment.

At the level of the medical profession, some concrete changes can be worked out. In the formal sector, some industries appoint doctors trained in occupational medicine. Here, workers have also won certain benefits. However, poor women have no access to these. A beginning may be made by developing courses for doctors about the occupational health problems of these sections of women. These courses could be made a regular part of the curriculum and the degree course. It is also necessary to sensitise the doctors to the multi-faceted problems that the poor labouring women face, which cannot be looked at in isolation from their life situation as a whole. In countries like England and America, doctors were in the forefront of the movement for occupational health and played a crucial role in the area of campaigning for the recognition of pneumoconosis as an occupational disease of the coal-miners.

Developing and campaigning for special health schemes for poor, labouring women may be another area that the medical profession can address itself to.

C. It needs to *be ensured that the introduction or use of technology is geared to the needs of women.* This itself has various aspects to it.

a More research and development needs to go into devicing effort-saving but non-labour displacing technologies. For example, the broom-stick transplanting as opposed to the present-day squatting and transplanting operation or the handcart study of the NIOH. Simple devices using pulleys and levers have to be deviced.

In fact, a whole range of occupations engaging women have not been looked at at all. These need to be recognised and made hazard-free.

b It is also necessary to device technology which reduces the health hazards due to occupations such as postural problems.

c It is necessary however to involve women in devicing these at the earliest level of conceptualisation or the new methods would create additional problems.

d It is necessary however to ban all technology which directly or indirectly harms women. e.g. Sex-determination tests, injectable contraceptives, E.P. drugs, etc.

e Often the choice that women are given is jobs versus health. This is a false and heartless choice, especially in a situation where there are such few options open.

Also when jobs are made less strenous or back-breaking, as by introducing mechanisation, women tend to lose out and tend to be thrown in other jobs which are as strenous and hazardous, while men take over the better-protected jobs. This has to stop and mechanisms have to be created to retain women in their jobs.

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Bang, Abhay and Patel Ashwin (Eds.), "Health care: which way to go, examination of issues and alternatives"—Medico Friend Circle; p 256, Rs. 15.00.

Jayarao, Kamala S and Patel, Ashwin (Eds.), "Under the lens: health and medicine"—Medico Friend Circle; p 326, Rs. 15.00.

Voluntary Health Association of India, "Banned and bannable drugs" — VHAI; p 67, Rs. 15.00.

Balasubramanyan Vimal, "Contraception: as if women mattered"— CED; p 94, Rs. 20.00.

Radical Journal of Health; Rs. 8.00 per copy; Rs. 30.00 (Individual) and Rs. 45.00 (Institution) - yearly subscription.

Books in Brief

Manish Mankad

1. Vickery, D.M. and Fries, J.F., "Take care of yourself: consumers guide to medical care" Massachussets: Addison-Wesley; 1986, p 400.

For those who believe in self care in health, this book will be a useful addition. This is the third edition of the book, the first being brought out almost a decade ago.

The book is divided into 3 sections viz. skills for the medical consumer, the patient and the common complaints and family records. The first and the last sections are descriptive in nature. However, the strong point of this book is the 2nd section, which contains diagnostic charts and helps the readers to decide when to use home treatment and when to call or see a doctor.

2. Treichel, Joan Arehart, "Biotypes" — London: W.H. Allen and Co: 1984, p 245.

The book tries to explore a link between one's personality and health. Medical and behavioural studies reveal that there are particular personality types—biotypes—which in times of stress breakdown in specifies predictable ways.

The author has explained major diseases' biotypes and some preventive measures. The only drawback is that the socio-economic background against which disease biotypes are explained in the book is largely from the west.

Dear readers,

With this issue, we will be completing one year of our association with you. Hope you have enjoyed reading our newsletter and have found it useful in your work.

We would like to continue this effort, and have felt encouraged by the response we have received from you all. However, we do expect more participation from you in terms of:

* Sending us more material/articles about your work, about events and happening relating to health...
* Suggestions about how the newsletter could change or respond better to the needs of groups and individuals in their work.
* By contributing monetarily to the newsletter.

Hope to hear from you soon.

Yours

The FRCH collective.

Firewood Collection

The collection of firewood and fodder are some other areas of womens' work. These are extremely difficult and back-breaking tasks, especially for those women who live far away from forests and forests are getting scarcer by the day.

In a study of women's work in the Garhwal hills, it was revealed than in 86.3 per cent of the households, only the women went out to collect firewood. On an average, the load of wood carried per trip was 24.5 kilos with a range from 18 to 40 kilos. Women had to begin heavy work 15 to 20 days after childbirth and continue to carry loads even when they grew old. In 51 per cent of the households, the women had to spend three to four hours in collection and travel a distance of 3 kilometres; 27.5 per cent had to spend five to six hours, travelling a distance of four kilometres. In more than 50 per cent of the households, a daily trip was made to collect the wood.

Besides, in this area, most of the men go out to work as migrant labour and the predominantly agricultural economy is seen mainly on the strength of the women.

Another severe problem faced by women all over the country, especially in the drought-affected areas, is the necessity to walk for as long as 6 to 7 hours to get fodder for the animals. The trip to fetch water is a different story. In parts of Gujarat, women are up at 2.30 am to begin this search and as fodder gets scarcer day by day, the women sleep lesser hours each day. The effect this hard labour has on already mal-nourished bodies is a matter of grave concern.

References

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