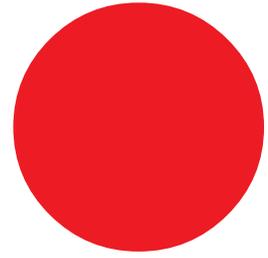


medico 351 friend circle bulletin



February 2012 - June 2012

Unacceptable Health Risks of Low Dose Nuclear Radiation

Submission to Justice A. P. Shah and Justice S. D. Pandit, Citizen's Commission on the Proposed Jaitpur Nuclear Power Plant. May 18, 2011.

I, the undersigned, Dr. Anant R. Phadke, would like to make the following submission about the health-hazards of nuclear power plant in the context of the proposed nuclear power plant in Jaitapur.

By training I am a medical doctor. Medical textbooks which form the basis of our training, hardly contain anything on low level ionizing radiation from nuclear plants and I had not received any training on this issue during my graduation. However in the early eighties, as a volunteer of the People's Science Movement, when I read the various debates about the safety aspects nuclear power plants, I was amazed to go through a range of scientific material on the health impact of low level ionizing radiation. In 1985, Medico Friend Circle (the nationwide platform of health activists and experts) to which I belong, had organised its Annual National Meet on the health implications of nuclear power plants and there was in depth discussion on this issue in this National Meet. The facts brought forward by the pioneering publication by the Centre for Study of Environment (CSE) - 'State of India's Environment' was discussed in depth in this meeting. In 1988 when I had the opportunity to introduce to the readers of Economic and Political Weekly, Dr. Rosalie Bertell's seminal book, 'No Immediate Danger', I studied the issue again in some depth. The debate about the health damage due to the Chernobyl disaster deepened my conviction based on scientific evidence, that nuclear plants are inherently unsafe.

Given my background in medicine and Public Health I would limit myself to the health-risks of nuclear plants though health-risk is just one of the reasons for rejecting

nuclear power. The gravest health risk is of course a major nuclear accident. Unlike any other industrial accident, major nuclear accident becomes a threat to the health of hundreds of thousands of people in one go; to people hundreds of miles away and the pathogenic processes continue for decades and even across the generations. Secondly in case of each major accident - Kyshtym, Three Miles Island, Windscale, Chernobyl, Fukushima the type of accident that occurred was considered to be an impossibility or not even thought of (nobody imagined that Tsunami and earthquake would occur together) and yet it occurred!

The moral of the story is clear - it is impossible to say that major nuclear accident will never occur henceforth since the behaviour of nature, equipments and human beings can not be completely predicted or controlled. Hence from the grounds of health-risk alone due to major accidents, nuclear option needs to be rejected. Secondly there is no guarantee the nuclear waste can be stored safely for thousand of years.

Even if major accident does not occur, the 'normal' functioning of the nuclear power plants imply unacceptable health-risk. ***My submission henceforth would focus on this issue of health hazards of 'normally functioning' nuclear fuel cycle', of 'low level ionizing nuclear radiation, from these nuclear enterprises.***

In this connection I would make three points -

1) I would very briefly summarise in the lay language, the mechanism of cellular damage due to ***low level ionizing nuclear radiation*** and point out that it causes not only accelerated and additional cancers and foetal damages but ***also causes additional and premature burden of***

degenerative ailments which generally occur in old age.

2) The '*safe level*' of nuclear radiation as propounded by official agencies is in fact politically, socially acceptable, '*permissible level*' and that the way it is defined, conceptualized by official agencies is deeply problematic.

3) The *track record of the nuclear power plants in India* and of the official nuclear agencies in India about maintaining nuclear radiation below 'acceptable' limits is deeply problematic.

1) Low level ionizing nuclear radiation causes additional and premature burden of degenerative ailments also

When living cells are exposed to ionizing radiation, this radiation which is a form of sudden influx of random energy, leads to various damages to the cell through a process called *linear energy transfer* whose consequences are -

- There can be *cell death*.
- Cell alteration can lead to *inability of the cell to reproduce* itself.
- Radiation damage can cause the cell to produce a slightly different hormone or enzyme than it was originally designed to produce. This results in other cells generating this same altered hormone or enzyme. Over a period there may be millions of such altered cells. This latter mechanism of *biological magnification*, can cause -

a. Some of the *chronic diseases and changes we usually associate with old age*. The mechanism for this is - Living cells are composed of complex molecules of long strands of atoms forming proteins, carbohydrates and fats. They are held together by chemical bonds involving shared electrons. If the ionising radiation displaces one of the electrons in a chemical bond, it can cause an 'ungluing' of these complex chemical bonds. The gradual breakdown of these molecular bonds destroys the templates used by the body to make DNA and RNA (the information-carrying molecules in the cell). The gradual natural *breakdown of DNA-and-RNA* is the cellular mechanism of 'ageing'. It occurs naturally gradually over the years with exposure to natural background radiation from the radioactive substances in nature. Nuclear radiation from nuclear power plants accelerates this process.

In 1943, Hermann Muller who received the Nobel Prize for his work on the genetic effects of radiation predicted the gradual reduction of the survival ability of the human species as several generations were damaged through exposure to ionising radiation. This problem of genetic damage is mentioned in official radiation-health documents as 'mild mutations' and these mutations are not 'counted' as health effects when standards are set or predictions of health effects of exposure to radiation are made. However, Dr. Rosalie Bertell's book, 'No Immediate Danger' points out that '*mild mutation may express itself as an allergy, asthma, juvenile diabetes, high blood pressure, arthritis, high blood cholesterol level, slight muscular or bone defects, or other genetic 'mistakes'*'.

The gradual breakdown of bio-regulatory mechanism through ionising and *breakage of the DNA and RNA molecules gradually also reduces a person's capacity* to cope up with environmental changes, less able to recover from diseases or illness and generally less able to cope physically with habitat variations.

- b. One specific mutation can be the destruction of the cell's mechanism for resting which normally causes it to cease reproductive activities after cell division. This will form *a tumour, either benign or malignant*.
- c. When the DNA of germ plasm is affected by radiation it can result in *chromosomal diseases*, such as trisomy 21, (Down's Syndrome)

The recommendations of the International Commission on Radiological Protection (ICRP) have been the basis of the monitoring of impact of low level nuclear radiation. *ICRP has focused almost entirely only on* radiation induced fatal cancers and serious genetic diseases in live born offspring as the only indicators of damage due to low level nuclear radiation. Hence there are very few studies from official agencies about other ill-effects of nuclear radiation. Yet research by other scientists has created evidence to show that low level ionizing nuclear radiation causes additional and premature burden of degenerative ailments also. Just to give *a few examples-*

- The prevalence of *diabetes* was found to be extremely high in the nuclear fall out areas of the Pacific, downwind of the *Nevada Test Site*, and in areas of heavy fallout in the Arctic
- It is well known that high rate of *cardiovascular disease* deaths was reported amongst radiologists;

- *In Germany* there was higher *mortality amongst infants* in the higher fallout areas after the Chernobyl disaster;
- A study undertaken in 1994 of 1,233 *atomic bomb survivors* showed that than 90% of the survivors were under medical service and more than 50% experienced *frequent hospitalizations*, about 2.5 time higher than in their unexposed peer group.
- The *Kalpakkam* Thyroid Study found that compared to a village 400 km away from the MAPS (Madras Atomic Power Station), in both the coastal villages under study, situated 6 and 40 Kms away from the MAPS, there was a statistically significantly higher prevalence of Grade II to Grade IV goiter in women in the 20 to 49 year age group and *Auto Immune Thyroiditis* (AIDT) in the age group 30 to 39 years.

More research should be sponsored to assess these risks due to low level ionizing nuclear radiation.

2) 'Safe limits' of nuclear radiation are actually politically acceptable limits

The recommendations of the International Commission on Radiological Protection (ICRP) have been the basis of the 'safe limits' of nuclear radiation that various countries have adopted. But these limits are highly questionable.

Firstly ICRP's recommendations are not based on public health criteria. Rather, it offers its own risk/benefit trade-off suggestion, containing value judgments. The criterion is what level of damage to certain individuals in the society is considered acceptable to the individual and to the society, in exchange of what are seen as the "benefits" of the nuclear energy option.

Secondly ICRP dose limits are based on the radiation at the skin surface level. But some of the radioactive material reaches internal organs like liver, bones, lungs and the ionizing radiation released from these fission products like radon gas or Strontium, Cesium cause much more damage at much lower dosage. This 'internal dose' has not been taken into account while determining the 'permissible' limit.

Some governments have decided 'permissible levels' which are much lower than what ICRP has recommended. For example:¹

¹ *Limitations of the ICRP Recommendations for Worker and Public Protection from Ionizing Radiation, http://www.ccnr.org/radiation_standards.html*

The State of Minnesota, in the USA, decided that the standard which the State used for chemical pollutants should be used for nuclear reactor also. This meant that more than one cancer (fatal or non-fatal) over the life-time (70 years) of an exposed person from a nuclear waste dump would be unacceptable.

Based on this, the permissible limit worked out to be - no exposure of the public above 0.0005 mili-Sievert (mSv) per year. This is ten thousand times lower than ICRP's current permissible limit of 5 mSv per year!

The European Committee for Radiation Research recommends that the total maximum permissible annual dose limit to members of the public through the nuclear plants should be kept below 0.1 mSv (ICRP's recommendation is 5 mSv) and for nuclear workers should this limit should be 2 mSv (ICRP's recommendation is 20 mSv).²

ICRP itself decreased the recommended limit for workers in a nuclear power plants time and again from 300 mSv in 1934 to 20 mSv in 1990. In India however, the authorities, are following the ICRP guidelines for deciding 'acceptable limit' for Indian nuclear power plants!

3) The track record of the Indian nuclear establishment about maintaining 'safe' level of nuclear radiation

I would just present a glimpse of this record to illustrate the point that the performance of Indian nuclear establishment on this front has been quite bad. Since the Atomic Energy Commission in India is exceptionally secretive, (it reports only to the Prime Minister and not to the parliament) it is extremely difficult to elicit any critical information about the functioning of the Indian nuclear power plants. Yet investigators have come up with some very revealing facts -

As reported in the Citizen's Report of the State of India's Environment, published by the Centre for Science and Environment, the average dose of nuclear radiation to the employees of the *Tarapur Atomic Power Station* (TAPS) increased from 117 mili rems per employee in 1969 to 4069 mili rems in 1982. The nuclear radiation in terms of rems per megawatt per year increased from 21.5 in 1969 to 2125 in 1980! This stupendous increase has been due to frequent release of radio-activity because of a series of minor accidents in this plant. In the TAPS, "unusual occurrences" (euphemism for minor accidents) increased from 38 in 1969 to 344 in 1980.

² *ECRR, 2010 Recommendations of the European Committee on Radiation Risk, <http://www.euradcom.org/2011/ecrr2010.pdf>*

Table No.1: Jadugoda Uranium Mines Survey

	Congenital deformities (%)	Premature deaths due to malformations (%)	Infertility (%)	Cancer deaths (%)	Death below 62 years (%)
Nearby villages	4.49	9.25	9.6	2.87	68.33
Distant villages	2.49	1.7	6.27	1.89	53.94

In the uranium mines in Jadugoda district in Jarkhand in 1986 42% of the mine workers received nuclear radiation above the upper limit of 20 mSv. 6% of these miners received a dose more than 35 mSv. This track record has continued in the same vein till today.

In the villages around the Rawatbhata Nuclear power plant in Rajasthan, a health survey was conducted in 1991 by a team led by Dr. Sanghamitra and Dr. Surendra Gadekar.

The prevalence of abortions, still births, congenital deformities, tumors, cataract were compared between population living in 5 villages within 10 kms of the mines with those living 50 kms from the power plant in 4 villages. It was found that in the first set of villages near the plant, the values for all these parameters were much higher.

Thus the salient findings were³

- o An extraordinary rise in congenital deformities
- o Spontaneous abortions, still births and one day deaths of new born babies significantly higher
- o Significant increase in chronic diseases especially amongst the young,
- o Solid tumours significantly higher
- o A difference of more than 11 years in the average age of people who had died in the previous two years.
- o More cancer patients and cancer deaths in villages near the plant.

In the villages around Jadugoda uranium mines, a health survey was conducted in May-July 2007 by 'Indian Doctors for Peace and Development', Ludhiana.

The prevalence of congenital malformation, premature

deaths due to various malformation, infertility, deaths due to cancer, deaths below 62 years of age were compared between population living within 2.5 kms of the mines and in 14 villages situated 30 to 35 kms from the mines. It was found that the values for all these parameters were much higher in the first set of villages.⁴ The details are in Table No.1.

This illustrative information points out that the track record of the Indian nuclear establishment about maintaining 'safe' level of nuclear radiation is abysmal. Even if no accidents occur in these nuclear stations, the 'normal' functioning of these plants is hazardous to the employees and to the citizens.

This is one of the reasons that India needs to abandon the 'nuclear option' to solve its needs for energy, development.

To summarise, given the grave and unavoidable nature of major nuclear accidents, the health hazards of the 'normally functioning nuclear fuel cycle' and the track record of the Indian nuclear establishment, nuclear enterprises are inherently too dangerous to the health of the Indian people.

Hence all plans to build new nuclear power plants in India should be abandoned and the existing plants should be closed down as early as possible.

Priority to energy saving mechanisms, Demand Side Management of energy planning, and progressively increasing the role of renewable energy sources to meet demands of sensible developmental padigm is the only safe option. Evidence is increasing every day that this alternative path is quite achievable.

Dr. Anant Phadke

³ Anumukti, A Special Issue on Rawatbhata, Vol. 6, No.5, April/May 1993, pp. 7-8, 17-20.

⁴ Black Magic of Uranium at Jadugoda. Study on Health Status of Indigenous people Around Jadugoda Uranium Mines in India. IDPD publication, Ludhiana, 2001, pp 7-14.

Linear No Threshold Model*

The **linear no-threshold model (LNT)** is a model used in radiation protection to estimate the long term, biological damage caused by ionizing radiation. It assumes that this damage is directly proportional to the dose at all dose levels.^[1] In other words, radiation is always considered harmful with no safety threshold, and the sum of several very small exposures are considered to have the same effect as one larger exposure (response linearity).

It opposes two competing schools of thought: the threshold model, which assumes that very small exposures are harmless, and the radiation hormesis model, which claims that radiation at very small doses can be beneficial. Because the current data are inconclusive, scientists disagree on which model should be used. Pending any definitive answer to these questions, the linear no-threshold model is used worldwide as a basis for defining radiation protection regulations.

The LNT model is sometimes applied to other cancer hazards such as polychlorinated biphenyls in drinking water.^[2]

History

The linear-no-threshold model was first expressed by John Gofman, and rejected by the Department of Energy, according to Gofman, because it was "inconvenient".^[3]

The National Academy of Sciences (NAS) Biological Effects of Ionizing Radiation (BEIR) report, NAS BEIR VII was an expert panel who reviewed available peer reviewed literature and writes, "the committee concludes that the preponderance of information indicates that there will be some risk, even at low doses".^[4]

Radiation precautions and public policy

If a particular dose of radiation is found to produce one extra case of a type of cancer in every thousand people exposed, LNT projects that one thousandth of this dose will produce one extra case in every million people so exposed, and that one millionth of this dose will produce one extra case in every billion people exposed. The conclusion is that any given quantity of radiation will produce the same number of cancers, no matter how thinly it is spread.

The model is simple to apply: a quantity of radiation can be translated into a number of deaths without any adjustment for the distribution of exposure, including the distribution of exposure within a single exposed individual. For example, a hot particle embedded in an organ (such as lung) results in a very high dose in the cells directly adjacent to the hot particle, but a much lower whole-organ and whole-body dose. Thus, even if a safe

* Source: http://en.wikipedia.org/wiki/Linear_no-threshold_model

low dose threshold was found to exist at cellular level for radiation induced mutagenesis, the threshold would not exist for environmental pollution with hot particles, and could not be safely assumed to exist when the distribution of dose is unknown.

The linear no-threshold model is used to extrapolate the expected number of extra deaths caused by exposure to environmental radiation, and it therefore has a great impact on public policy. The model is used to translate any radiation release, like that from a "dirty bomb", into a number of lives lost, while any reduction in radiation exposure, for example as a consequence of radon detection, is translated into a number of lives saved. When the doses are very low, at natural background levels, in the absence of evidence, the model predicts via extrapolation, new cancers only in a very small fraction of the population, but for a large population, the number of lives is extrapolated into hundreds or thousands, and this can sway public policy.

A linear model has long been used in health physics to set maximum acceptable radiation exposures.

The United States based National Council on Radiation Protection and Measurements (NCRP), a body commissioned by the United States Congress, recently released a report written by the national experts in the field which states that, radiation's effects should be considered to be proportional to the dose an individual receives, regardless of how small the dose is.

Ramsar, located in Iran, is often quoted as being a counter example to LNT. Based on preliminary results, it was considered as having the highest natural background radiation levels on Earth, several times higher than the ICRP-recommended radiation dose limits for radiation workers, whilst the local population did not seem to suffer any ill effects.^[5] Actually, the population of the high-radiation districts is small (about 1800 inhabitants) and only receive an average of 10 millisieverts per year,^[6] so that cancer epidemiology data are too imprecise to draw any conclusions.^[7] On the other hand, there may be non-cancer effects of the background radiation such as chromosomal aberrations^[8] or female infertility.^[9]

Fieldwork

The LNT model and the alternatives to it each have plausible mechanisms that could bring them about, but definitive conclusions are hard to make given the difficulty of doing longitudinal studies involving large cohorts over long periods.

A 2003 review of the various studies published in the authoritative Proceedings of the National Academy of Sciences concludes that "given our current state of knowledge, the most reasonable assumption is that the

cancer risks from low doses of x- or gamma-rays decrease linearly with decreasing dose."^[10]

A 2005 study^[11] of Ramsar, Iran (a region with very high levels of natural background radiation) showed that lung cancer incidence was lower in the high-radiation area than in seven surrounding regions with lower levels of natural background radiation. A fuller epidemiological study^[12] of the same region showed no difference in mortality for males, and a statistically insignificant increase for females.

A 2007 study of Swedish children exposed to fallout from Chernobyl while they were fetuses between 8 and 25 weeks gestation has found that the reduction in IQ at very low doses was greater than expected, given a simple LNT model for radiation damage, indicating that the LNT model may be too conservative when it comes to neurological damage.^[13] Neurological damage has a different biology than cancer, and for cancer rates there are conflicting studies.

In 2011 an in vitro time-lapse study of the cellular response to low doses of radiation showed a strongly non-linear response of certain cellular repair mechanisms called radiation-induced foci (RIF). The study found that low doses of radiation prompted higher rates of RIF formation than high doses, and that after low-dose exposure RIF continued to form after the radiation had ended.^[14]

Controversy

In recent years, the accuracy of the LNT model at low dosage has been questioned. Some believe that if radiation is distributed evenly enough, so that the levels are comparable to the natural levels, it has no harmful health effects.

Several expert scientific panels have been convened on the topic of the **Linear no-threshold model**.

- In 2004 the United States National Research Council (part of the National Academy of Sciences) supported the linear no threshold model and stated regarding Radiation hormesis:^{[15][16][17]}
- The assumption that any stimulatory hormetic effects from low doses of ionizing radiation will have a significant health benefit to humans that exceeds potential detrimental effects from the radiation exposure is unwarranted at this time.
- the National Council on Radiation Protection and Measurements (a body commissioned by the United States Congress).^[18] endorsed the LNT model in a 2001 report that attempted to survey existing literature critical of the model.
- the United Nations Scientific Committee on the Effects of Atomic Radiation (UNSCEAR) wrote in its 2000 report^[19]

Until the [...] uncertainties on low-dose response are resolved, the Committee believes that an increase in the risk of tumour induction proportionate to the radiation dose is consistent with developing knowledge and that it remains, accordingly, the most scientifically defensible approximation of low-dose response. However, a strictly linear dose response should not be expected in all circumstances.

- the United States Environmental Protection Agency also endorses the LNT model in its 2011 report on radiogenic cancer risk:^[20]

"Underlying the risk models is a large body of epidemiological and radiobiological data. In general, results from both lines of research are consistent with a linear, no-threshold dose (LNT) response model in which the risk of inducing a cancer in an irradiated tissue by low doses of radiation is proportional to the dose to that tissue."

However, other organisations disagree with using the Linear no-threshold model to estimate risk from environmental and occupational low-level radiation exposure. The French Academy of Sciences (*Académie des Sciences*) and the National Academy of Medicine (*Académie nationale de Médecine*) published a report in 2005 (at the same time as BEIR VII report in the United States) that rejected the Linear no-threshold model in favor of a threshold dose response and a significantly reduced risk at low radiation exposure:^{[21][22]}

In conclusion, this report raises doubts on the validity of using LNT for evaluating the carcinogenic risk of low doses (< 100 mSv) and even more for very low doses (< 10 mSv). The LNT concept can be a useful pragmatic tool for assessing rules in radioprotection for doses above 10 mSv; however since it is not based on biological concepts of our current knowledge, it should not be used without precaution for assessing by extrapolation the risks associated with low and even more so, with very low doses (< 10 mSv), especially for benefit-risk assessments imposed on radiologists by the European directive 97-43.

The Health Physics Society's position statement first adopted in January 1996, as revised in July 2010, states:^[23]

In accordance with current knowledge of radiation health risks, the Health Physics Society recommends against quantitative estimation of health risks below an individual dose of 5 rem in one year or a lifetime dose of 10 rem above that received from natural sources. Doses from natural background radiation in the United States average about 0.3 rem per year. A dose of 5 rem will be accumulated in the first 17 years of life and about 25 rem in a lifetime of 80 years. Estimation of health risk associated with

radiation doses that are of similar magnitude as those received from natural sources should be strictly qualitative and encompass a range of hypothetical health outcomes, including the possibility of no adverse health effects at such low levels.

The American Nuclear Society recommended further research on the Linear No Threshold Hypothesis before making adjustments to current radiation protection guidelines, concurring with the Health Physics Society's position that:^[24]

There is substantial and convincing scientific evidence for health risks at high dose. Below 10 rem (which includes occupational and environmental exposures) risks of health effects are either too small to be observed or are non-existent.

Historical documents suggest that an early study invalidating the LNT model was intentionally ignored by Hermann Joseph Muller when he gave his 1946 Nobel Prize address.^[25]

Recent fundamental research of the cellular repair mechanisms support the evidence against the linear no-threshold model.^[26] According to its authors, this 2011 study published in the Proceedings of the National Academy of Sciences of the United States "casts considerable doubt on the general assumption that risk to ionizing radiation is proportional to dose".

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'Physicians, heal thy system!'

(Text of open letter written to IMA office bearers on June 13, 2012)

We are writing this letter in context of the apology recently demanded by IMA from actor Aamir Khan, regarding the episode on 27 May 2012 of his show 'Satyamev Jayate' (SJ) dealing with certain practices of the medical profession. We write to you as members of Medico Friend Circle (MFC, www.mfcindia.org) and Forum for Medical Ethics Society (FMES). MFC is a nationwide, 39 year old platform of pro-people doctors and health professionals, scientists and social activists, involved in improving health care, especially for the deprived sections of people. FMES is an association of doctors and health professionals which has been actively campaigning for reform in the healthcare system and medical education, and has been publishing the Indian Journal of Medical Ethics since 1995.

We very much appreciate that you want to uphold the dignity of the medical profession. However we feel that denying or minimising the importance of the issues raised by this show and demanding an apology from Aamir Khan is definitely not the most appropriate way of upholding the dignity of doctors. Instead, IMA should seriously try to reverse the current widespread unregulated commercialisation of health care in India, and should contribute to the process of health system reforms for eliminating the distortions in medical practice. This would be immensely beneficial to patients and would also raise the dignity of the medical profession manifold. Instead of 'silencing the messenger', we need to listen to the main message of this show and take steps to address problems which are very real.

We would not go into the details of the content and form of this show. We would rather point out that the critical issues raised regarding cut practice and commissions, irrationality in investigations and surgical practices, distorting influence of pharma industry on prescribing by doctors, and inflation of patient bills consequent to all of these, are extremely widespread. This has resulted in massive problems related to both cost and quality of medical care for the people. There is no point

in dismissing these issues as just being related to a few 'black sheep' in the profession. Besides the evidence from various studies on cesarean section rates, injection practices, prevalence of hysterectomies and sex selective abortions etc., most practising doctors admit in private that malpractices are a pervasive trend and not limited to a few isolated individuals. ***In fact distortions in medical practice induced by unregulated commercialisation have become systemic problems.***

Given this reality, let us move beyond the 'few rotten eggs' type of defensive arguments focused on individuals, and look at the systemic problems which include-

- Astronomically high 'donations' charged by mushrooming capitation fee medical colleges is a major influence which is pushing crass commercialisation of medical practice, besides placing medical education beyond the reach of many deserving poor and middle class students.
- Widespread cut practice, intense competition and defensive medicine are causing dissatisfaction among many doctors, not only their patients.
- Pressures are imposed on doctors by hospitals, inducing them to advise more than necessary investigations, procedures, intensive care admissions, hospital stays.
- There are continuous tensions between doctors and patients over payment issues, and even occasional outbreaks of violence against hospitals.

These are serious problems going beyond just a few individuals, which are a product of the increasingly commercialised, market oriented nature of medical care in India today.

As good physicians, if we go beyond just addressing the 'symptoms' and make a 'comprehensive diagnosis', it will be obvious that

all these disturbing features are due to a system of unregulated commercialisation of medical care, which has emerged over the last few decades. Instead of being foremost healers and protectors of their patients' health, doctors are increasingly forced to become hard-nosed businessmen, often in order to repay large scale loans, to ensure their practice, and to remain 'in the system' despite the fact that many would not have liked to depart from their principles. In this situation, the increasing numbers of 'black sheep' - and much larger numbers of 'grey sheep'- are the inevitable products of this system. Of course there is a role for individual responsibility, but such an entrenched system cannot be changed just by giving moral lectures to individual doctors, by asking them to follow rational principles in isolation. Instead of this, large numbers of discontented individuals, *doctors as well as ordinary citizens, need to come together and start changing this system through a large scale social process.*

Of course, commercialisation and linked distortions are seen in all professions. But doctors' organizations are best placed to reform the medical profession and health care sector, thereby contributing to wider social reform. In fact IMA's stated objectives include "improvement of Public Health and Medical Education in India". Hence we would suggest that instead of rubbishing the SJ episode and ignoring its main message, IMA should treat this as a 'wake-up call' for the medical profession as well as for wider society, and we should all start a process at two levels. We need to initiate *social regulation of medical practice* (which would include elements of self-regulation by the profession and active involvement of citizens, not just bureaucratic regulation) to ensure rational care and patients rights. Further linked to this, we need to move from a market-centred model of health care, towards a *socialised system of universal health care.*

This letter will not go into details of how such social regulation of medical practice and further, a system for universal health care (UHC) might be developed in India, which could ensure decent and secure

livelihood for all doctors (though not super-profits for any!) and access to good quality, free health care for all residents of the country. IMA office bearers would be aware of UHC systems which are successfully working in a wide diversity of contexts: developed countries like Canada, Australia and Scandinavian countries, as well as developing countries like Brazil and Thailand. Of course we will need to evolve a UHC model that is appropriate to Indian conditions which will require broad based debate and inputs from all stakeholders, especially from the medical profession. This process has already been initiated by the High Level Expert Group on Universal Health Coverage (HLEG-UHC) appointed by the Planning Commission, which has published a detailed report which would be taken into account while developing the upcoming 12th Five year plan. We may differ of the details and specifics of the model, but we need to accept that Universal Health Care is now emerging on the national agenda, and we should all start engaging with this process.

Such a UHC system would eliminate widespread commercialisation, cut-throat competition and insecurity among the majority of doctors, while ensuring them a decent income and basic security. The price of not moving towards such a system is colossal, not only for patients from all classes of society, but also for the vast majority of doctors who would like to practice their profession nobly and rationally, but are being sucked into a money-centred system which trumps humane principles and rational practices. The potential rewards of such an alternative health care system would be similarly enormous for our entire country of

1.2 billion people, including our doctors who could once again become respected and honored professionals, instead of presently being often viewed by people with suspicion and even resentment.

In short, the time has come to do some genuine introspection and alternative thinking, and to address the widespread problems instead of denying them. On the lines of the call for 'Physician, heal thyself!', the time has come to say - 'Physicians, heal thy system!'

*

Lack of Convergence:

Universal Health Care Goals and the Planning Commission's Steering Committee Report

Text of letter to PM

May 24, 2012

Dear Dr. Manmohan Singh,

We are public health professionals, health activists and concerned citizens from various parts of the country. Several of us have met recently on May 10-11, 2012 in Mumbai for a consultation on Universal Health Care and subsequently many others have added their names to this letter. This letter has been endorsed by the national campaign coalition - Jan Swasthya Abhiyan. We are writing to you regarding certain issues of concern related to Universal Health Care and the recent report of the Planning Commission's Steering Committee on Health (PC-SCH) for the 12th FYP.

We appreciate many of the recommendations of the High Level Expert Group (HLEG) on Universal Health Coverage (UHC). We especially commend the HLEG advice against using commercial insurance for organising universal healthcare, in favour of abolition of user fees in public health facilities, provision of free essential medicines for all, and the UHC system being primarily funded through tax based financing.

However, we are distressed to note that certain aspects of PC-SCH report appear to be significantly different from the overall approach of the HLEG report, and raise questions about the form and content of UHC being contemplated by the Planning Commission. Our major concerns are as follows:

1 Package of Health Services: Section 2.3.2 of the PC-SCH Report states that an Essential Health Package (EHP) should be provided as an entitlement, and the core components of the package would be services supposed to be already available under the RCH and National health programmes. While of course necessary, these programmes do not cover the vast range of common and significant illnesses and conditions for which people access health care at primary, secondary and tertiary levels. We fear that, many of the leading causes of morbidity, hospitalisation and death, would not be covered by such a limited package. The result would be continuing high out of pocket expenditure and impoverishment related to health care. It is essential for all illnesses and conditions (with minimal exclusions) to be comprehensively covered by the UHC system, for it to be a genuine Universal Health Care system.

2. Financing for UHC and Centre-State contribution: We would like to seek clarification on the scale and source of financing for the UHC system. The HLEG report has recommended provision of at least 2.5% of GDP by 2017 and 3% of GDP by 2022 to support the UHC system. However, we understand that certain proposals are being

discussed in the Planning Commission which envisage a goal of only 2.1% of GDP for the conventionally understood health care sector (which does not include water supply and sanitation) by the end of the 12th FYP. While this is not mentioned in the PC-SCH report, there is some indication that only one third of this increase might be provided by the central government (an increase of 0.4% of GDP), and two-thirds of this increase (an increase of 0.7% of GDP) might be expected to be made by state governments. If there is such a proposal, we feel that such a plan of financing would be grossly inadequate to meet the requirements of comprehensive UHC for all Indians, and may make the entire plan for UHC unviable. This is because of the relative inelasticity of state finances, and the overall trend over the last two decades of progressively declining state public health expenditure as a proportion of SDP. While it is definitely desirable that State governments increase their investment in Public Health, any realistic financial plan for UHC must take account of the overall existing situation of state health finances. Hence, we would like to have clarification about the projected scale and sources (Centre and State government's relative contributions) for the UHC system being planned.

3. Role of Public and Private Providers: The PC-SCH report talks of making public health facilities compete with private providers while providing them financial and operational autonomy (page 14). It is mentioned that each family would opt for their ambulatory provider of choice. This would result in making public health facilities compete with private providers for a common pool of patients and related financial incentives (page 25). It is also mentioned that tertiary public facilities would be encouraged to partly finance their recurring cost by mobilising contributions and self generation of revenues (page 46). This formulation points in the direction of inducing public health facilities to generate revenues, presumably through levying user charges from a section of better off patients. All these provisions appear to be pushing public health facilities in the direction of semi-privatisation, and also run against the principle of universal health care being accessible to all free of cost. Hence we strongly urge reconsideration of these formulations in the PC-SCH report.

While examining the roles of various providers, we also strongly critique the present RSBY type of model which involves public and private providers 'competing' for public funds. This model is leading to further strengthening of the private sector using public money. The notion of competition suggested in the PC-SCH

report seems to imply that private providers can substitute care being provided by public facilities, and further that where public health care facilities are unable to compete they might be allowed to shut down or would be scaled down, ignoring the wider important public health functions being performed by these facilities. Such an idea of competition as applied to public health facilities is therefore misconceived and must be withdrawn. Engagement with the private sector must be on the condition that it definitely does not substitute or weaken public system provisioning in any form.

In short, the UHC system must be based on substantial strengthening and expansion of public health provisioning, rather than semi-privatisation of public health facilities or substitution of public by private, which would result in further privatisation of health care provisioning.

4. Regulation of Private Sector: The PC-SCH report repeatedly mentions the need for regulation of healthcare providers including private healthcare providers - we feel that this is a positive intention. However, the specifics and actual mechanisms for regulation of the private healthcare sector are absent. Without concrete and effective regulatory mechanisms (which do not exist today and would need to be consciously set up), mere expression of intention of regulation will not be sufficient. The PC-SCH report mentions the need for protection of rights of patients, and medical audits to ensure compliance with standard treatment guidelines which are commendable objectives. However, the mechanism for this is stated as "need to revise and strengthen the existing regulatory mechanism for medical practice". To our understanding, no such functional mechanism for standardisation of care and protection of patients' rights presently exists. Similarly, the report recommends that four states should implement, and remaining states should be encouraged to adopt, the Clinical Establishments (registration and regulation) Act 2010. While this would be a step in the right direction, this is still a far cry from effective regulation and rationalisation of care by the private medical sector in India. Keeping in view that these seem to be the only concrete, functional recommendations for regulation of content of medical practice in the PC-SCH report, we urge the government to set up dedicated Regulatory Authorities at national and state levels on the lines recommended by the HLEG, which would regulate the cost and quality of health care, monitor adherence to standard treatment protocols and ensure observance of patients' rights.

5. District-wise Piloting of UHC: The PC-SCH report suggests that UHC pilots may be implemented in one district of each State and UT as an initial step. It must be pointed out that any effective UHC system would require key state level policies and structures to be put in place

as a pre-requisite to implementing UHC. For example, a system (on lines of TNMSC) for procurement and distribution of essential medicines must be developed at the state level, and cannot be put in place in one or two districts. Similarly the legal and operational framework for regulation and standardization of private sector would need to be implemented at the state level; particularly legal regulation cannot be implemented in only a few districts. The same holds true for expanded regular recruitments, rational and fair placement and transfer policies for doctors and staff in the public health system. Hence, it would be logical to encourage states to implement a set of state level policy measures and operational mechanisms related to UHC in the near future, in a time bound framework (many of these measures are already on the anvil) - these would form the essential building blocks for further operationalisation of UHC in districts. In absence of ensuring key enabling policy measures and operational provisions at state level, district pilots of UHC are likely to flounder and discredit the entire concept of Universal Health Care.

Given these concerns about the manner in which certain sections of the PC-SCH report seem to be interpreting Universal Health Care, we have questions about whether adequate finances will be made available, a comprehensive set of services will be provided, the public health system will be adequately strengthened and expanded, the private sector will be effectively regulated, and the necessary framework for UHC will actually be developed. We would like to reiterate that substantial strengthening and expansion of public health services combined with effective community accountability mechanisms, should be at the core of any UHC model in India.

Finally, keeping these concerns in mind, we would urge yourself as Prime Minister, to organise through your office discussion with the Planning Commission, Union Health Ministry and civil society organizations to rework the provisions for UHC in the 12th FYP. It would be appropriate for the Planning Commission and Union Health Ministry to organise a dialogue with civil society representatives around these issues of concern, before finalising the health component of 12th FYP. We look forward to your timely intervention.

Your commitment to making the 12th Plan a Health Plan is welcome. We hope that the design of a genuinely comprehensive Universal Health Care system, followed by its effective implementation would help India to move towards genuine realization of Health for All.

Yours sincerely,

(Signed by 73 concerned public health persons)

Copy to: Mr. Ghulam Nabi Azad, Minister of Health and Family Welfare; Mr. Montek Singh Ahluwalia, Deputy Chairman, Planning Commission, GoI; Dr. Syeda Hameed, Member, Planning Commission; and Mr. P.K. Pradhan, Union Health Secretary.

New Draft National Vaccine Policy

Comments by the All India Drug Action Network (AIDAN)

The new Draft National Vaccine Policy (formerly the Vaccine Policy now designated as draft policy) has been prepared in the backdrop of a PIL in the Delhi High Court by civil society members and public health academicians. This PIL launched in Dec 2009, questioned the introduction of the pentavalent vaccine in the Indian National Immunization Programme by the Union Health Ministry. It argued that the pentavalent vaccine is sought to be introduced the National Immunization Programme in India under pressure from WHO, GAVI and the pharma industry interests without proper studies to assess its safety and cost-efficacy in India. As a result of this PIL, an interim order of Delhi High court in April 2010 directed that the respondents may examine the policy draft prepared by some experts (referring to policy draft prepared during the workshop co-organised by NISTADS and ICMR). This policy draft which was subsequently published¹ in the Indian Journal of Medical Research (IJMR), argued for an evidence-based national vaccine policy, especially for decisions regarding introduction of new vaccines in NIP. However, the current new Draft National Vaccine Policy is quite at variance with the scientific approach adopted in this paper. In fact there is not even a mention of this policy paper! This interdisciplinary policy paper which evolved over weeks of brainstorming among all major stakeholders and which stood public scrutiny for 2 years, has advised a more nationalist, public-health driven and evidence-based approach, contrary to the present government policy and practice. We would like to point out that it is never too late to examine this scientific paper and reconsider the national vaccine policy in the best interest of the Indian people.

Overall, this Draft National Vaccine Policy mixes some well-known elements of vaccine policy with an emphasis and trend of introducing more and more vaccines into the National Immunization Programme irrespective of their safety and cost-effectiveness and irrespective of other priorities of public health in India. This Draft talks only about 'vaccine security' without mentioning 'self-reliance' in production of vaccines. It thus abandons 'Self-reliance' which should be a cornerstone for vaccine-policy in India, has been abandoned. This is happening in the context of closure of the three vaccine producing public sector units, acquisition & mergers of private vaccine units, increasingly corporate protective IPR Regime etc. It appears that the overall purpose of this

¹ Y. Madhavi, Jacob M. Puliyel¹, Joseph L. Mathew², N. Raghuram et al. "Evidence-based National Vaccine Policy." *Indian J Med Res.* 131, May 2010, pp 617-628.

Draft is to rationalise and promote the current trend of introducing newer vaccines into NIP, irrespective of other considerations mentioned above. A couple of example will illustrate this point -

Thus for example, Section 3.1 noted that:- "One of the major hurdle in the decision making process for the introduction of new vaccine has been the lack of indigenous surveillance data to assess the disease burden."

But section 3.2 says that "Lack of data on disease burden in India and resulting perception that the disease is not important public health problem;"

Thus MOHF has already convinced itself that the disease burden is large enough to introduce the newer vaccines in India and it's merely a question of correcting the perception that this is not so. With this kind of perspective, it is quite likely that the surveillance will be designed and the data will be analysed, presented to create an impression that the disease burden is large enough to introduce the newer vaccine in question. We have the example of the estimation of prevalence of Hib meningitis in Indian children. The research design and interpretation of research data about prevalence of Hib meningitis in Indian children has been vitiated by the attempt to inflate this prevalence.² The point is - the scientificity of disease surveillance or other epidemiological research can get compromised by the purpose for which it is set up. And the purpose as seen in section 3.2 is problematic.

All this is happening when we are having difficulty in addressing common causes of mortality & morbidity citing inadequate health budget. With this background, using scarce resources for vaccines which have unfavourable cost-efficacy and about which safety questions have not been resolved, (especially in view of different ethnic, nutritional reality of India) would be quite problematic.

In section 6.7 we read, "There are several models for the impoverished other than government funds, e.g., Typhoid vaccines in Pakistan, where the rich kids pay a price for the vaccine that allows it to be subsidized to the poor kids. In Bangladesh, the fishery industry finances the cholera vaccine for the poor. Such models need to be studied and similar ones to be developed for India at least for some vaccines such as pneumococcal conjugate vaccine, rotavirus vaccine and HPV vaccine."

² Misrepresenting data : Deception or dogma? *Indian J Med Res.* 132, October 2010, pp 463-465

Here again, it seems that already a conclusion has been drawn that these three vaccines need to be introduced in the NIP in India and that the question is only to develop 'innovative' method of financing vaccination programme.

Section 5.1.2 formulates criteria for selection of vaccines for introduction into the NIP -

- "Disease burden (Incidence/prevalence, absolute number of morbidity/mortality, epidemic/pandemic potential);
- Safety and efficacy of the vaccine under consideration;
- Affordability and financial sustainability of the vaccination program, even if the initial introduction is supported by the external funding agency;
- Program capacity to introduce a new antigen, including cold chain capacity;
- Availability of a domestic or external vaccine production capacity;
- The cost effectiveness of the vaccination program and also of the alternatives other than vaccination.

The Grades of Recommendation Assessment, Development and Evaluation (GRADE) system is one such followed, which allows a systemic and transparent grading of evidence with deliberate separation of quality of evidence and strength of recommendation."

However it does not clarify that for none of the newer vaccines any exercise has been conducted to assess their cost-effectiveness compared to that of the current vaccines in NIP. This exercise is crucial because the newer vaccines are comparatively much costlier and the prevalence of the concerned diseases is apparently much lower or has not been scientifically studied.

Further, about disease surveillance this Draft has specified that -

"The decision to include a new vaccine should be guided by the disease burden in the country. This information, ideally, be derived through strong surveillance system within country. Furthermore, the data from the investigator initiated researches, from modeling studies and the data from countries with either geographical proximity or similar demography may also be used for these decision making."

Does this mean that epidemiological data from say Bangladesh would be used for taking decisions in India? This would be problematic as in a country like Bangladesh these processes of generation and interpretation of epidemiological data can be more easily manipulated, influenced by interests of pharma companies and results

favourable to the pharma companies can be extra-polated to India. It should be noted that susceptibility and response of the population to various pathogens may not be the same merely because of geographical proximity. Moreover, suitability of a vaccine should be considered based on strains prevalent in India rather than on importing vaccines or using imported strains to make vaccines for the Indian people.

If the scope for manipulations or unscientific decisions is to be reduced, the NTAGI should be broad-based and its functioning should be systematic and transparent. About the members of the NTAGI, Section 5.3 says - "The NTAGI should have wider representation to include experts from the areas of Public health, Paediatrics, Epidemiology, Infectious Disease (ID), Clinicians other than ID, Immunologists, Medical Microbiologists, Cold chain experts/logisticians, Statistic modelers, Social scientists, and Drug regulators. It is also important to have experts in ethics, health economics, and nursing/pharmacy from the field, immunization program managers and representatives of the civil society etc. Other members should be ex-officio members from the Ministry of Health and Family Welfare. There may be also representation from the Ministry of Health.

It must be mandatory for the members to declare conflicts of interest to ensure an unbiased decision making process. The members should be allowed a minimum of 2 years term (which could be extended)".

This provision should be retained, followed in letter and spirit. A representative of AIDAN should rightfully be included in NTAGI since AIDAN has been involved in fostering rational, pro-people pharma policy including rational vaccine policy in India.

The Draft Policy has suggested capacity building and improving reporting of Adverse Events Following Immunization (AEFI) surveillance system. This is welcome but there is no mention of any vaccine injury compensation to the affected nor does it makes principal investigators responsible, if there are any ethical violations during the clinical trials or post-vaccine surveillance.

To summarise,

The draft of the new National Vaccine Policy promotes the current trend of introducing newer vaccines into NIP, irrespective of their need, safety and cost-efficacy in Indian conditions. Secondly it has abandoned the goal of self-reliance in the production of essential vaccines. Hence overall it would not serve the interest of the ordinary Indian people and needs to be reformulated to overcome these lacunae.

GOM on Pricing of Medicines

May 18, 2012, New Delhi: All-India Drug Action Network (AIDAN), a national network that has been engaged with the issue of Rational Drug Policy for over 3 decades, made a presentation today to the Group of Ministers (GOM) on Pharma Pricing. AIDAN's views reflected public health concerns and of civil society in general. The GOM headed by Mr. Sharad Pawar heard a range of stakeholders from industry & trade on Monday, May 14, 2012. Today the GOM heard stakeholders from civil society groups.

The GOM was convened for receiving feedback on the National Pharmaceutical Policy 2011 and to receive suggestions as to what could be an acceptable program to control the spiraling prices of medicines in the country. AIDAN while welcoming the inclusion of all essential drugs in the price control basket, suggested that the formula for fixing ceiling price by the Weighted Average Price (WAP) of top 3 brands be discarded. In its place the old cost plus formula may be used with suitable changes for inflation. The formula suggested by the PM's Economic Advisory Council (PMEAC) is illogical and unscientific. It is illogical because there is nothing like consumer price (PMEAC suggested 80th percentile of consumer price) in the pharmaceutical industry but prescribers' price. It is unscientific because the median price in several therapeutic formulations tends towards top price (brand leaders are price leaders). And therefore, any price policy and the associated price control formula must be as affordable as possible and not the opposite. AIDAN also felt no exemptions be given from price control of essential drugs even as it advocated fiscal and tax concessions to those making essential drugs under price control and in generic names.

A list of its suggestions for price regulation reform is given below and that includes removal of non-essential, harmful drugs and combinations, revival of pharma and vaccine

Public Sector Units (PSUs) and using Trade Related Intellectual Property Rights TRIPS flexibilities and Compulsory Licensing to the maximum so as to increase affordability and access.

- Price control on all essential drugs;
- Price controlled drug list needs to go beyond 348 essential drugs of the NLEM as the list of useful drugs to avoid shifting to non-NLEM drugs;

- Mode of price regulation: cost plus and/or reference/procurement prices and multiple thereof;
- Measures to discourage production of irrational drugs, and combinations and diversion from price controlled drugs;
- Periodic (every 2 years) revision of the NLEM and thereby of the list of medicines under price control, as well as an expiry date of the pharmaceutical policy;
- Initially we need to address rational and irrational combinations outside the list and which are frequently prescribed. For this purpose, the top selling 300 drugs accounting for more than 80% of the retail sale may be used.
- Phasing out of all irrational combinations and non-essential drugs within 2 years.
- As suggested by the Proneb Sen Committee (2005) that all medicines be **debranded** and only medicines in generic names be sold in the market - **that will promote true competition**;
- A grievance redressal mechanism in NPPA for overpricing must be open to civil society to address overpricing and unfair trade practices and unethical promotion. If a company can give 2 strips free with every 5, the National Pharmaceutical Pricing Authority (NPPA) should act and also bring the medicine under price regulation;
- Use of TRIPS flexibilities to move useful drugs out of patent and immediately bring in all patented medicines under price control;
- Revival of vaccine PSUs and put all vaccine production for Universal Immunization Program (UIP) in public sector;
- Revival of the ailing pharma PSUs so that government can produce at least some of the key essential drugs;
- Move away from utilizing proprietary IMS/AWACS data to make public policy and the government has the responsibility to collect and disseminate data for public scrutiny and use.

Editor's note: This GOM is a sequel to the Supreme Court Directive in the drug pricing case in which AIDAN, mfc, LOCOST, JSS are petitioners.

Fact Sheet on Soni Sori

Who is Soni Sori?

Soni Sori is an adivasi school teacher and the warden of a government-run school for tribal children in Jabeli, Dantewada. In this war-torn district of Chhattisgarh, this was one of the few schools still operational in the countryside, till the Chhattisgarh police forced her to flee from Dantewada in early September 2011.

Why is the Chhattisgarh Police hounding her?

Soni Sori is being harassed by the Dantewada police for nearly two years now. She has consistently refused to be an informer for the Chhattisgarh Police. She is also an aunt of Lingaram Kodopi, a young outspoken journalist who was being hounded by the Chhattisgarh Police since mid-2009 after he resisted their efforts to enroll him as an SPO. Lingaram was arrested on September 9 2011 and has been charged under the dreaded Unlawful Activities Prevention Act (UAPA) among others. He is now accused of being a go-between for bribe being paid by Essar to the Maoists. The police allege that Soni Sori is involved in the same case, and have also charged her in several other cases. Publicly available material clearly shows that the charges against both of them are false and politically motivated. If anything, it is a well-known fact that as a journalist, Lingaram had acquired evidence of police atrocities which the Chhattisgarh police wish to suppress/discredit by filing false cases against him.

Why did Soni Sori flee to Delhi?

After Soni Sori's nephew, Lingaram Kodopi, was arrested by the Chhattisgarh police in the Essar case, the Chhattisgarh police tried to extra-judicially execute her, apprehensive that she possessed evidence to prove that false cases have deliberately been lodged against her and her nephew. Fearing for her life, she fled to Delhi to seek legal help and expose the police atrocities.

How is Soni Sori's life threatened by the Chhattisgarh police?

Soni Sori was arrested in Delhi on October 4th 2011, before she could initiate legal action. Fearing vengeance from the police, whose workings she had exposed before the media in Delhi, she pleaded with the Additional Chief Metropolitan Magistrate, Saket District Court, and the Delhi High Court for permission to stay in Delhi for an additional few days till she could file her petition in the Supreme Court. (The delay was due to the court holidays on account of Dussehra). However, she was remanded to the custody of Chhattisgarh Police by the courts, albeit with explicit directions to the Police to ensure her safety and an order that a report be filed before the Delhi High Court, outlining steps taken to keep her safe.

However, in what can only be termed to be an act of flagrant contempt of court, the Chhattisgarh police brutally tortured her for the two days she was in their custody. As physical evidence about her torture is mounting, she is being continuously pressured to withdraw her allegations, and her entire family is now being harassed by the Chhattisgarh police, and being prevented from accessing her. Additional cases have been heaped on her nephew Lingaram Kodopi, her brother is also facing arrest and the compensation money due to her father is being withheld.

Considering the impunity with which the Chhattisgarh police has behaved so far, Soni Sori is in an extremely precarious situation as long as she is in proximity of this police force. If anything, the police have even more reason to wreak vengeance against her now. It is imperative that Soni Sori be immediately removed from their territory of power as early as possible, and her family be given protection from any retribution meted out by the police.

What is the evidence of her custodial torture?

Evidence in cases of custodial torture is extremely rare to come by, since torture is usually inflicted in circumstances fully controlled by the perpetrator, i.e. the police. However, this is one of the rare cases, where there is incontrovertible proof that the victim was subjected to the most inhuman forms of torture.

- Custodial torture first came to light when Soni Sori had to be produced in front of the Dantewada Magistrate the end of two days of police custody. Soni, who had been in perfect health on the 8th of October, when she was remanded to police custody, was in such a bad condition on the 10th of October, that she could not get down from the police van and go to the courtroom; her statement was taken by a court babu, and the Magistrate, in a clear travesty of justice, passed an order without even seeing her. The police claimed 'she slipped in the bathroom and had hurt her head'. The examining doctor at the District Hospital said 'she was brought in unconscious, the X-ray showed injuries on her head and back, and black marks were observed on her fingertips' - indicating she had received electric shocks. A video clipping of her, writhing in pain in the hospital, confirmed fears of custodial torture.
- Initially Soni herself said that she had fallen in the bathroom. Later, it emerged that she said so as she had been threatened by the police that her brother, the sole caretaker of her three children, would be arrested if she spoke of her torture.

- Subsequently, in her statements to relatives and in a letter addressed to the Supreme Court, Soni Sori has clearly stated that she was 'pulled out of her cell at the Dantewada Police Station at midnight of 8th/9th October and taken to SP Ankit Garg's room.' There she was stripped and given electric shocks. When she woke the next morning she had severe aches and pains all over her body, injuries to her neck and spine and acute pain in her lower abdomen.
- In response to a petition filed on her behalf in the Supreme Court, a three-Judge Bench observed that the injuries against her person did not appear to be as simple as the State was making them out to be, and ordered an independent medical examination in NRS Medical College Hospital in Kolkata. The report, presented in court on the 25th Nov, 2011 states that three stones had been found inserted deep inside her private parts, which were the primary cause of her abdominal pain. The MRI scan also shows that she has annular tears on her spine.
- Despite Ms. Sori's complaints of severe lower back pain, her inability to stand, tenderness in the lower back and difficulty in walking, none of the three hospitals in Chhattisgarh which 'examined her' found inflammation in her private parts, the stones lodged in her vagina and rectum or the injuries to her spine. In fact, Dr. Vivek Choudhary, Medical Superintendent of the Ambedkar Hospital in Raipur, was quoted in the Hindustan Times as saying: "Medical tests reveal Sori is a malinger." This denial extended to the highest levels of the Chhattisgarh government. At a meeting with Principal Secretary, N. Bajendra Kumar in Delhi on 14th October 2011, concerned women's groups were assured that she was 'safe in jail and that her wounds were not serious.' He also said that the Health Secretary had 'confirmed the fact' so there was no need for concern about her safety; that he had been told by Dantewada Superintendent of Police Ankit Garg and state DGP Anil M Nawaney that Ms. Sori had not been ill-treated!

What are the charges against Soni Sori?

Soni Sori has multiple false cases lodged against her—from being a participant in a Naxalite raid at a Congress worker's house, to acting as an intermediary for the Maoists. All these cases were lodged by the police during 2010, with each of the charge sheets showing her as an "absconder", and containing statements by the police saying that all efforts were made to locate her, but in vain. Not only was Soni Sori regularly attending to her duties as a hostel warden all this time (as evidenced by the school attendance register), but she had also met with police authorities to complain about her own harassment, had come to Delhi seeking legal advice and had attended court hearings in the trial against her husband, who too has been falsely implicated in a case.

Even a cursory examination of the charge sheets against her shows that these are crude fabrications of the Chhattisgarh police. Different charge sheets for crimes committed on different dates have the identical testimonies by different witnesses. It is also difficult to fathom that if she were a real Naxalite, then why would her father's and uncle's house be burnt and looted by the Naxalites, and her father shot in the foot by them, at the same time during which she is allegedly supporting the Naxalites.

What has been the Chhattisgarh Government's response to this?

In face of undeniable evidence of custodial torture, the Chhattisgarh government, instead of trying to take action against the perpetrators, has been actively shielding them.

- When Chief Minister of Chhattisgarh, Raman Singh, arrived in Delhi on 1st December 2011, several Delhi-based women's groups, democratic rights groups, and progressive individuals staged a protest at the Chhattisgarh Sadan, comprising of around 40 representatives from various organizations demanding justice for Soni Sori, Lingaram Kodopi and various tribal activists in the state. Instead of meeting the protestors, the Chief Minister instead ordered the Delhi Police to forcibly remove them from the premises and had them dragged out of the way so that he could proceed to 'his next meeting'!
- So far, no step seems to have been taken against any of the errant police officers. **On the contrary, the government has deemed it fit to confer him with President's Police Medal for Gallantry.**
- **It is also a matter of great concern that the hospitals in Chhattisgarh did not find the stones lodged in her body; further Soni Sori has not received proper medical examination and treatment in the hospital in Raipur, which is in violation of ethical medical practice. Citizens' groups have had to repeatedly approach and petition authorities in Delhi, and finally it is only with the intervention of the Supreme Court once again that she has obtained some relief.**

In view of the deteriorating health status of Soni Sori, on 2nd May the Supreme Court ordered that Soni Sori be brought to AIIMS for medical examination and treatment. Soni was brought to Delhi on 9th May and admitted in AIIMS on the 10th, where she currently continues to be.

14.05.2012

Letter to President Pratibha Patil on Violation of Rights of Soni Sori

May 14, 2012

Violation of rights of tribal woman Soni Sori; conferment of President's Gallantry Award on S.P. Ankit Garg facing allegations of custodial sexual torture

Honourable President,

We thank you for giving us an audience to personally convey to you our concerns, regarding the sexual torture, persecution and violation of the rights of Ms Soni Sori, on behalf of many individuals, women's groups and other democratic organisations.

Ms. Soni Sori has been working as an adivasi teacher at the government-run Jabeli ashram school, in Dantewada, Chhattisgarh. Ms. Sori was subjected to brutal custodial torture, including sexual violence, by several policemen inside the Dantewada Police Station in October 2011.

The facts regarding her persecution by the local police for more than a year preceding her arrest, the charges filed against her, the heinousness of her torture, and the subsequent events are all appended, for your kind consideration, in the form of a FACTSHEET (Annexure I).

Ms. Sori has filed a petition before the Supreme Court under Article 32 of the Constitution of India seeking a direction for the setting up of a Special Investigation Team (SIT) of police officers from outside the state of Chhattisgarh, to investigate the criminal prosecutions against her, as well as her allegation regarding the attempt by the Chhattisgarh police to murder her on 11th September 2011 (WRIT PETITION (CRL) NO. 206 OF 2011).

Briefly stated the facts are as follows. Ms Sori was arrested in Delhi on October 4th 2011 and remanded to the custody of Chhattisgarh Police by the Delhi High Court on October 7th. Taking cognizance of the grave apprehension and well-grounded fears expressed by Ms Sori, about her safety in hands of the Chhattisgarh police, the Delhi High Court issued directions to the Chhattisgarh police to ensure her safety while in their custody and had specifically ordered the Commissioner of Police in Chhattisgarh to file an affidavit in the Delhi High Court outlining steps taken to keep Ms Sori safe.

But, in what can only be termed to be an act of flagrant contempt of court and of all constitutional safeguards, the Chhattisgarh police brutally tortured her on the night of October 8th/9th, when she was in their custody. Ms. Sori has written to the Supreme Court that while she was in police custody, she was stripped before the Superintendent of Police, Ankit Garg, and given electric

shocks under his directions. Furthermore, not only did he use abusive language against her, he ordered three police personnel to "punish her" by sexually torturing her for disobeying his command to name well-known social activists, such as Swami Agnivesh and Medha Patkar, as Naxal supporters (Copy of Ms Soni's letter enclosed as Annexure II).

The brutal torture went to the extent of inserting stones and batons into her private parts. An independent medical examination carried out by the NRS government hospital in Kolkata, under the direction of the Supreme Court, has confirmed her sexual torture by recovering stones embedded in her vagina and rectum. (Medical Report of NRS Hospital Kolkata enclosed as Annexure III).

Ms Sori was fearful of torture by the Chhattisgarh police, as she was being severely harassed by them since mid-2010, to reveal the whereabouts of her nephew Mr Lingaram Kodopi, who in turn was also being framed by the Chhattisgarh Police after he refused to comply with their directive to enrol as a Special Police Officer (SPO).

Ms Sori too had resisted pressure from the Chhattisgarh police to give false evidence implicating her fellow villagers as Maoists. In order to compel and coerce Ms Soni, the local police implicated her in several false criminal cases of naxalite violence, and even arrested her husband in one such fabricated case.

In December 2010 the Chhattisgarh police declared Ms Sori an "absconder", even though throughout this time the police continued to meet her frequently to know the whereabouts of Mr Lingaram. Further, official records show that Ms Sori was present in her school regularly and attending to all her duties, during the same period. Ironically while the police were harassing and intimidating her on the trumped up charge of supporting Naxalites, Naxalites attacked her father and uncle's houses, looted them, and grievously wounded her father in the attack.

Following the arrest of her nephew Mr Lingaram on September 9 2011, Ms Sori came to Delhi to seek legal help, and fearing for her life, particularly because the Chhattisgarh police had tried to eliminate her on 11th September 2011. Mr. Lingaram is now accused of being a conduit for bribe allegedly being paid by the company

Essar to the Maoists. The police claim that Ms Sori is also involved in this case, and have also framed her in other false cases. But Ms Sori has evidence to expose that false cases have been registered against her and Mr. Lingaram.

Her case is of national importance and urgency for several reasons. Firstly, such unlawful and barbaric conduct by Chhattisgarh police had been foreseen and feared by Ms. Sori before she was handed over to their custody, and had been explicitly stated before the Sessions Court and High Court in Delhi. By itself such custodial sexual torture is a matter of great concern - the fact that it can happen despite judicial scrutiny and monitoring is deeply disturbing and worrisome. This raises serious concerns about the condition of other women prisoners in police or judicial custody whose cases have not received attention, a matter highlighted by Ms Sori in one of her letters (Annexure IV).

Secondly, there is incontrovertible evidence of inhuman custodial torture and sexual violence by the police, in the form of the independent medical report of the NRS Medical College and Hospital, Kolkata (Annexure III).

Such intimidation of ordinary citizens who are only exercising their guaranteed rights, and such custodial violence and brazen disregard of the constitutional safeguards is of grave concern, especially when meted out by the protectors of the law. If ignored and left unpunished, it sets dangerous precedents for the subversion of rule of law and human rights of disadvantaged and marginalized citizens.

In a civilized, constitutional democracy there is no place and there can be no excuse, whatsoever, for torture including sexual violence under any circumstances. It raises serious concerns about the security and dignity of women.

We are approaching you with deep dismay at Ms Soni Sori's continued vulnerability despite her repeated pleas for protection from various courts, and the grave violation of her rights as an under-trial. Despite repeated petitioning, other statutory national human rights institutions for protection of citizens' rights have been indifferent towards these violations and the contempt for court orders by the police (Letters to NHRC, NCW, CM, and SC in Annexures V, VI, VII).

This raises grave concerns regarding impunity and lack of accountability of police and other public servants.

Not only has no action or inquiry been initiated against the S.P. Ankit Garg, who has been named by Ms Sori as as being responsible for the torture, **it is deeply shocking that on this 26th January 2012 he has been conferred**

with the President's Police Medal for Gallantry. It is disturbing to note that in spite of a large number of citizens' groups, nationally and internationally, protesting against SP Ankit Garg's unlawful and criminal conduct, the government has deemed it fit to confer him with a gallantry award, especially while the Honourable Supreme Court is still examining her complaints.

Conferring an award in the face of these complaints, which have not even received a cursory investigation, amounts to condoning the sexual torture inflicted on Ms Sori and the violence which is being perpetrated on tribal population of this country, in the name of anti-Naxal operations.

As the constitutional head of this country, we approach you with deep regard and faith that you shall ensure that the rights and dignity of the most vulnerable and marginalized will be upheld and the fundamental guarantees promised by the Indian Constitution, of justice, equality and right to life enforced.

We seek your urgent intervention to:-

- i) Initiate a credible inquiry into the custodial violence suffered by Soni Sori
- ii) Promptly recall the President's Gallantry award bestowed on S.P. Ankit Garg, facing serious allegations of custodial torture and sexual violence
- iii) Constitute a comprehensive and credible inquiry to ensure protection of rights and dignity of the large number of tribal women, like Ms Sori, languishing in jails in Chhattisgarh
- iv) Ensure an immediate halt and initiate exemplary punitive action against police and other security forces indulging in widespread and systematic violation of rights of tribal women, in the name of anti Maoist operations.

Sd/- Annie Raja, National Federation of Indian Women; Brinda Karat, ex-MP, Rajya Sabha and All India Democratic Women's Association; Uma Chakravarti, Retired Professor, Delhi University; Aruna Roy, Member National Advisory Council and member MKSS; Advocate Vrinda Grover; Kavita Srivastava, General Secretary, PUCL; and Vani Subramanian SAHELI, Delhi.

(On behalf of concerned women's organisations, democratic rights, students and other peoples' organisations and individuals of the country)

ANNEXURES: Seven Attached

Minutes of the MFC AGBM

January 7, 2012, Yatri Nivas, Wardha

Agenda of Meeting

1. Financial matters - including passing of Audit and appointment of auditor
2. Bulletin matters
3. Change of EC members and Choosing New Convenors
4. Celebrating 40 years of MFC
5. Date and Venue of Mid-Annual Meet
6. Miscellaneous

1. Financial matters

The audit report was first read out and discussed. It was explained that there was 33% surplus because we got a donation of Rs. 50,000.00 from Ashok Bhargav and Lata which was put into bulletin as it was meant for that. We discussed that we may need to be increase the contribution during the annual meet or else we keep needing contributions for subsidizing the bulletin. It was suggested an after discussion the house agreed that we should keep two types of registration fees for the annual meet:

- a. Normal registration fee of Rs.300 for non-students.
- b. Subsidized meeting registration fee of Rs.100 for students

The rest of the charges would continue as earlier.

The audited accounts were passed after discussion by the house.

2. Change of Executive Committee

E. Premdas, S.Sridhar, Padmini S, Manisha Gupte and Chinu Srinivasan are to be changed this time but Chinu and Manisha are ex-officio members and are hence re-elected. This was seconded by Sunil Nandraj. Abhay, Binu, Prabir, Shyam and Sunil Kaul are continuing till 2013. Raju, Jenny, Shelley and Amulya are in the new EC. Maybe need to look at new people who attended past few meetings. The EC has to give advice and opinion - at least through email - when the convening team asks for help, support and advice. Also helps to have a quorum for passing a decision. The EC members have to respond within 10 days of being asked for an opinion/decision, else their approval is taken for granted. Sangeeta will pass on the names and addresses of the EC members to the others.

3. Discussion about the Next Annual Meet

There was a long discussion about the theme for the next Annual Meeting. Firstly, the 12 suggestions that had been proposed the previous year were read out. It was felt that we needed to look at new topics and it was felt that a special paper must be especially on the gender dimensions of any of the topic chosen as someone pointed out that discussions the past few days was not as gender sensitive as was expected. The following were the topics read out and discussed:

- i. Medical Dominance
 - ii. Mental Health
 - iii. Food and Nutrition Security
 - iv. Livelihoods and health - occupational health, NRLM, health of unorganized workers
 - v. Health research/clinical trials
 - vi. Private Practice
 - vii. Paramedics and Nursing
 - viii. Malaria and TB
 - ix. Work and Health - trade unions, cooperatives, occupational health, unorganized sectors, gender, farmers health,
- Discussions were held regarding choosing the topics and it was felt that a lot of work was already being done in nutrition and some felt that nothing really new will be discussed; many are also members of the other food security networks. Then, 4 years ago MFC had had a full theme meeting on this. Others felt that the medical community is ignorant and messing up things but we need to put in our inputs in those networks.
 - A suggestion was that we should have a sectoral and also health system focus in whatever topic we choose.
 - There was discussion again that we could add on to the topic of this time i.e. Universal Health Care and take it to another level of health systems etc. But many did not agree as it was felt we had discussed quite a bit on it already and now it was up to individuals to take it to the action level and use points which have emerged from our discussions for advocacy.
 - There was some discussion about if we should look

at mental health as it was a totally uncharted area and there are people within MFC working on it too. Or if we should take up things related to occupational health. After much deliberation, it was decided that we focus on the topic "work and health". MFC has quite a number of members working in the area of occupational health of various unorganized sectors, farmer suicides, sex work etc.

- Finally, the topic chosen for next year's annual meeting was "work and health". A group volunteered to do some work on this before the Mid-Annual Meet (MAM) - Amulya and Dhruv will prepare a draft concept paper and will coordinate the group and others who will contribute are Jashodhara, Dhruv Mankad and Mira Shiva. Some other names are Jagdish Patel, etc.
- 21st and 22nd July are chosen dates for the MFC Mid-Annual Meeting and there was a lot of discussion about changing the venue from Wardha. The suggestions are Lucknow or Bhimtal with Wardha as back up. Jashodhara would get back regarding the rates of the places and then a decision would be taken. The Convenor would inform and be in touch.

4. Change of Convenors

We thanked the previous convenors in absentia and wished their parents good health. New convenor is Sunil Kaul and will be assisted by Raju, Shelley and Jenny.

5. Bulletin

There was discussion if MFC was ready to change the bulletin to a PDF form. But after discussion it was felt that we are not yet ready to let go of the print version and it was decided that we continue for one more year. It was also clarified that "Life membership" for bulletin meant 7 years and not a life time. Some new volunteers for the editorial bulletin are Devaki, Raman, Mira Shiva and Shelley Saha. The editor has been empowered to thank and do whatever he decides is right with the present editorial committee.

6. MFC 40th year celebrations

There was a long discussion and debate about MFC's 40th year and how one can celebrate it or mark it. Discussions were held regarding:

- a. **Older members:** Making special efforts to invite senior/founder members to the 2013 annual meet. There could also be one session in annual meet for 'walking down memory lane'. Some also felt that

another way would be also to honour older members of MFC by writing about them instead of calling them here e.g. Abhay Bhang, Anil and Ashwin Patel; Kamalaben, et al. Sunil Nandraj and Shelley Saha will follow up with some of the older group and try to get their reminiscences, views, experiences and what they think MFC should be doing. Anant Phadke will write the first draft.

- b. **Special publication** - '4 decades of MFC' or Review some of the earlier publications and come up with new editions. Pick up selected readings of the earlier bulletins like an anthology; write to authors of the earlier papers and ask them to write a half page on the new idea now. But then the MFC bulletins are already archived on the website and so this does not make sense. The idea was dropped.
- c. **Website:** Update the MFC website and add more interesting parts of the MFC history to it; we could have old photographs gallery put up on website. All MFC older members need to contribute towards this. Can send scanned photos.
- d. **Documenting History of MFC:** It was strongly felt that the history of MFC needs to be written properly. Some felt that MFC was a landmark in Community Health Movement in India and one needed to record this properly for the future. If we can get a student who will be able to travel around and record the oral histories of the older people or have a video done on it. Kabir of PHFI took up the responsibility of seeing if there was possibility of getting someone to do this.
- e. **Bigger Annual Meet/Seminar:** There was also discussion about if MFC should go "big" and become more visible. If we should have our annual meeting in Delhi and make a bigger noise for public health. Or if MFC could organize some seminar. This was something to explore and no decisions could be taken regarding this.

7. MFC Annual Meet:

Due to fog and cold in January, travelling was something of a pain for many as trains and flights get delayed/cancelled. It was proposed that we delay the meeting a bit to starting of February. After discussion, it was decided that the MFC 2012 Annual meeting will be held on 8, 9, 10 February 2013 either in Wardha or in Hyderabad. The venue will be decided at the Mid-Annual Meet.

The new convenor Sunil Kaul thanked the MFC members and the AGBM was thus declared closed.

* * *

Flawed Medicine Procurement and Distribution System for Public Health Facilities: The Case of Maharashtra

- *Shweta Marathe**

Despite, huge developments in the field of production of medicines in India, essential medicines are still out of reach of millions of people in India; one important reason being shortage of essential medicines in Public Health Facilities (PHF). These shortages have been occasionally documented. For example, a survey published in 2007 of PHFs in six states revealed that the median availability of a core list of 30 essential medicines in these PHFs was 0% to 30%.¹ Recent surveys (see an example below) indicate that even after four years of NRHM, government has failed to keep its promise of ensuring availability of essential medicines in the rural PHFs.

Unavailability of medical officer or other staff, callous attitude of staff, lack of cleanliness, non-availability of basic diagnostic tests in the facility, etc have led to reduced utilization of PHF. Shortage of essential medicines has become an additional cause for people's reluctance to seek treatment from the PHF. There are many implications of this shortage of medicines. For example, people are forced into unwarranted out of pocket expenditure and consequent indebtedness. This tragedy of medicine-shortage is due to inadequate budgetary allocation towards medicines and inappropriate procedures for medicine procurement and distribution system etc. Like other states, Maharashtra also suffers from this problem. Several instances of corruption in tendering, delayed payments to suppliers, delayed distribution are directly linked with loopholes in the medicine purchase and distribution system. Hence, to understand this issue in depth, SATHI conducted an in depth study of Maharashtra's medicine procurement and distribution system. The present piece summarises the findings of this study and suggests possible solutions.

Shortage of Essential Medicines in Rural PHFs in Maharashtra

Shortage of essential medicines has been reported from different parts of Maharashtra. Findings from the data collected in 2009 during the 4th phase of the Community Based Monitoring (CBM) project from 72 PHCs in five districts of Maharashtra showed that, out of the 28 essential medicines that were studied, 15 had zero stock in 25% of these 72 PHCs (Primary Health Centre). In 40% of these PHCs, 18 medicines were deficient in stock. It was also found that in case of some medicines, which

were deficient or completely out of stock in some PHCs, were present in excessive quantities in other PHCs in the same district!² A similar smaller study conducted by Jan Arogya Abhiyaan in November 2010, in five districts of Maharashtra showed similar findings.³ When medicines are not available in the facility, medical officer either prescribe medicines from outside or purchases from discretionary funds available with PHF. In tribal, hilly areas where pharmacy shops are not available, people remain deprived of medicines even if they are ready to buy medicines. Moreover, as seen in a study done by Jan Arogya Abhiyaan, the prices of local purchase of medicines by the Rural Hospital were 3 to 10 times higher than the prices under rate contract made by government.⁴

Inadequate Budgetary Allocations

In Maharashtra, medicine shortage is partly due to inadequate budget. Maharashtra spends 11% of the total health expenditure on medicines, while in Tamil Nadu and Kerala, this proportion is 15% and 17% respectively. As per NRHM guidelines, every PHC should have supply of medicines worth Rs. 3 lakhs. Other states including even a small state like Div Daman have budget allocation of Rs. 3 lakhs towards medicines for PHC. However, Maharashtra govt. has not done this even after NRHM. At present, Maharashtra spends only Rs. 1.2 lakhs per PHC per annum towards medicines.

Health expenditure as a percentage of NSDP (Net State Domestic Product) at current prices has declined from 1% in the 1980s to 0.7 per cent in 2001-2002, and as a proportion to total government spending from over 6% in the 1980s to 4.6% in 2001-2002.⁵ Out of this low health expenditure, expenditure towards medicines is even low. Hence, there is definite need to increase the budget and expenditure.

However, low budget is not solely responsible for medicine shortage. The issue is compounded with several missing linkages in present medicine procurement and distribution system in Maharashtra. We now turn to this problem.

Inefficient Medicine Procurement and Distribution System

The annual per capita government expenditure on

* The author is with SATHI (Support for Advocacy and Training into Health Initiatives), Pune. Valuable inputs from Anant Phadke and Nilangi Sardeshpande are gratefully acknowledged. Email: shweta51084@gmail.com, cehatpun@vsnl.com, website: www.sathicehat.org

medicines in Maharashtra and Tamil Nadu is almost same, i.e. about Rs. 28.⁶ Within the same budget, Tamil Nadu provides all medicines free to outdoor patients in government health facilities and hence now 40% of patients seek care in these centers. Maharashtra's performance about supply of medicines to patients is not even one third of Tamil Nadu!! This arises from the following lacunae in the system -

- Most problematic aspect of the system in Maharashtra is that purchase of medicine is done at different levels by different agencies. Multiplicity of sources and level of purchase causes delays and makes it difficult to monitor the procurement process. For example, medicines are supplied to PHCs from three different routes - from Central govt. for national programmes, from Zilla Parishad and from DHS (Directorate of Health Services). This makes it difficult to track the flow of medicines. There is no provision for ensuring transparency or monitoring. Basic information such as name of medicine, its rate and name of selected manufacturer is not available on the website. Obtaining data regarding procurement process was quite difficult as there is no standard manual available describing the process. Lack of monitoring encourages malpractices, delays in payment, bogus payments, fake bills, short expiry stock etc. and leads to poor control on bidding process. Further, there is no provision for quality check and pre or post dispatch inspection of stock. The health department does not have single manual to define the process of procurement. There is no computerized linkage among PHCs, between PHCs and DHOs office, between DHOs office and state level and further between PHCs and State level.
- In addition to the problem of general understaffing, there is also lack of trained, professional cadre for the procurement work. For the health officers involved in procurement of medicines procurement related activities become an additional. Secondly, they are not trained about procurement.
- Currently Rate Contract is done for around 1800 products whereas there are only 350 medicines in Ministry of Health's National List of Essential Medicines (NLEM). The Tamil Nadu Medical Service Corporation (TNMSC) renowned for its procurement work, has a list of 260 medicines for procurement.
- Finally the supply of medicines to PHFs is not demand responsive (i.e. not need based) partly because there is no provision for tracking stock of medicines in PHC. All PHCs get a standard quota of

medicines irrespective of their needs. The indent sent by Medical Officers is more often ignored.

In view of these lacunae, Maharashtra's Medicine procurement and distribution requires complete overhaul. Today Tamil Nadu (TN) procurement model, operative since 1995 is the model in India for medicine procurement for PHFs. Kerala has adopted it and has improved the medicine availability in their state. TN model has been appreciated internationally also. The Jan Aarogya Abhiyaan has been demanding adoption of the TN model in Maharashtra. After the decision of employing e-tendering system in July 2011, now the Maharashtra Government declared that from 1st December 2011, Directorate of Health Services and Directorate of Medical Education and Research (DMER) would procure medicines separately for the facilities under their control. Along with e-tendering, now other improvements like computerization of the distribution system, formation of eight district warehouses, quality testing after delivery of medicines in the warehouses will be done. Though welcome, these changes would not be sufficient to overcome the gross shortage of medicines and solve the other issues. Maharashtra needs to adopt wholly the TN model, with minor modifications if necessary.

The Tamil Nadu Model

A fully autonomous and transparent TNMSC (Tamil Nadu Medical Services Corporation) was established in 1995. Its main features are -

- **Full autonomy** - Once broader policy has been decided, no reference is made to the government; all decisions are taken by the board.
- **Transparency** - Name of medicine, price of purchase, name of manufacturer and report of quality testing etc. are posted on website to bring transparency in the system.
- **Demand responsive system** - Each PHC can choose the medicines and their quantity as per need within the budget of Rs. 1.2 lakhs by using a 'passbook' (instead of conventional indenting).
- **Updated and limited list of essential medicines** - TNMSC procures medicines from a limited list of medicines (260 Essential Medicines and 200 other 'Speciality Medicine' (compared to a big list of 1800 medicines in Maharashtra).
- **'Tamil Nadu Transparency in Tenders Act 1998' and Rules 2000** - It is one of crucial component of TNMSC which has promoted lot of transparency in system.

Comparison of Medicines Procurement Prices in Maharashtra and Tamil Nadu (2008-09)

Medicine name	TNMSC rate, per 100 tablets (Rs)	Maharashtra RC rate, per 100 tablets (Rs)	Difference in Rs. per 100 tabs (Rs)	Maharashtra RC prices higher by (%)
Aluminium Hydroxide	5.85	13.4	7.5	128
Amoxycillin	93.96	123.5	29.5	31
Amylodipine	5.1	13.5	8.4	165
Calcium Lactate	6.3	11.5	5.2	83
Enalapril	6.15	12.0	5.9	95
Glybenclamide	3.9	8.0	4.1	105
Metformin	12.16	18.0	5.8	48
Metronidazole	14.72	19.0	4.3	29
Ranitidine	18.19	30.0	11.8	65
Salbutamol	4.45	7.0	2.6	57

It should be noted that success of TNMSC model is due to not only e-tendering, computerization or only quality checking but also due to other crucial features mentioned above. The Tamil Nadu model is advantageous in terms of systemic development and is also a cost effective. Out of 21 high expenditure drugs (volume wise) which account for 79% of the procurement of Essential Medicines in Tamil Nadu's government health facilities, SATHI compared procurement prices in Maharashtra and TN for the most commonly used 10 essential medicines.⁸ It was found that for 2008-09, Maharashtra's Rate Contract prices were 29% to 57% higher.

The TNMSC model has resulted in 36% savings in the outlay on drugs. As per National Sample Survey Organization's survey in 2004, (NSSO 2004) in rural Maharashtra, for admitted patients in a PHF, out of pocket expenditure was Rs. 2243 per patient compared to only Rs. 667 in TN. It should be noted that more than 50% of these out of pocket expenses are on medicines. NSSO 2006 shows that the proportion of patients not receiving medicines from public health facilities is 12 times (12.2%) in Maharashtra compared to Tamil Nadu (1%).

It is clear from the above that to change the current dismal scenario in Maharashtra of gross shortage of essential medicines in PHFs, the Maharashtra government, instead of indulging in experiments, should adopt the well-established, renowned TNMSC model of medicine procurement and distribution.

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- ² Findings from the report on 'Availability of essential medicines in PHCs of 5 districts of Maharashtra', a study conducted by SATHI, Pune during the 4th phase of Community based monitoring (CBM) in Maharashtra (data collected during Sept. 2010 to March 2011) for more details: <http://www.sathicehat.org/uploads/ReportsOfCBMData/CBM%20Maharashtra%20phase%20IV%20PHCs%20availability%20of%20medicine%20report.pdf>
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Hadapsar, Pune - 411028. (Please add Rs. 15/- for outstation cheques). email: masum@vsnl.com

MFC Convener

Convener: Sunil Kaul, Jennifer Liang, Raju Narzary and Shelley Dhar. Address for contact : the ant, Udangshri Dera, Rowmari, P O Khagrabari, via Bongaigaon Dist Chirang (BTAD), Assam 783380

Email: sunil@theant.org

Ph: 094351 22042 (m) 03664 293803 (r)

the ant Office: 03664 293802

MFC Website: <<http://www.mfcindia.org>>

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Editorial Office: c/o. LOCOST, 1st Floor, Premananda Sahitya Bhavan, Dandia Bazar, Vadodara 390 001.

Email: sahajbr@gmail.com. Ph: 0265 234 0223 / 233 3438.

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